

**TABLES**

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number      | Short Hole ID | Company                        | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|------------------|---------------|--------------------------------|--------------------|---------------------|--------------------|
| 34       | 72    | 2       | 3372-2-1         | 2-1           | Nuclear Assurance Company      | 378400             | 827759              | 500                |
| 33       | 72    | 2       | 3372-2-2         | 2-2           | Nuclear Assurance Company      | 422338             | 797316              | 804                |
| 33       | 72    | 2       | 3372-2-3         | 2-3           | Nuclear Assurance Company      | 419824             | 797476              | 502                |
| 33       | 72    | 2       | 3372-2-4         | 2-4           | Nuclear Assurance Company      | 422257             | 802294              | 802                |
| 33       | 72    | 2       | 3372-2-5         | 2-5           | Nuclear Assurance Company      | 421552             | 801492              | 200                |
| 33       | 72    | 2       | 3372-2-6         | 2-6           | Nuclear Assurance Company      | 422342             | 801274              | 200                |
| 33       | 72    | 3       | 3372-3-1         | 3-1           | Nuclear Assurance Company      | 411909             | 798281              | 700                |
| 33       | 72    | 3       | 3372-3-2         | 3-2           | Nuclear Assurance Company      | 414501             | 797516              | 804                |
| 33       | 72    | 3       | 3372-3-OX-226-16 | OX-226-16     | Nuclear Assurance Company      | 414370             | 801391              | 499                |
| 33       | 72    | 4       | 3372-4-1         | 4-1           | Nuclear Assurance Company      | 410705             | 800430              | 499                |
| 33       | 72    | 35      | 3372-6-35-45     | 35-45         |                                | 398036.4           | 799718.1            |                    |
| 33       | 73    | 1       | 3373-1-1         | 1-1           | Nuclear Assurance Company      | 395316             | 799874              | 434                |
| 33       | 73    | 1       | 3373-1-10        | 1-10          | Nuclear Assurance Company      | 392548             | 800841              | 196                |
| 33       | 73    | 1       | 3373-1-11        | 1-11          | Nuclear Assurance Company      | 392464             | 800896              | 216                |
| 33       | 73    | 1       | 3373-1-12        | 1-12          | Nuclear Assurance Company      | 392472             | 801086              | 216                |
| 33       | 73    | 1       | 3373-1-13        | 1-13          | Nuclear Assurance Company      | 392622             | 800780              | 193                |
| 33       | 73    | 1       | 3373-1-14        | 1-14          | Nuclear Assurance Company      | 392703             | 801085              | 237                |
| 33       | 73    | 1       | 3373-1-15        | 1-15          | Nuclear Assurance Company      | 392821             | 801089              | 237                |
| 33       | 73    | 1       | 3373-1-2         | 1-2           | Nuclear Assurance Company      | 395576             | 798958              | 417                |
| 33       | 73    | 1       | 3373-1-3         | 1-3           | Nuclear Assurance Company      | 395932             | 799872              | 396                |
| 33       | 73    | 1       | 3373-1-4         | 1-4           | Nuclear Assurance Company      | 391642             | 800561              | 477                |
| 33       | 73    | 1       | 3373-1-5         | 1-5           | Nuclear Assurance Company      | 392708             | 800721              | 477                |
| 33       | 73    | 1       | 3373-1-6         | 1-6           | Nuclear Assurance Company      | 393230             | 801489              | 477                |
| 33       | 73    | 1       | 3373-1-7         | 1-7           | Nuclear Assurance Company      | 393186             | 799775              | 395                |
| 33       | 73    | 1       | 3373-1-8         | 1-8           | Nuclear Assurance Company      | 392036             | 799721              | 376                |
| 33       | 73    | 1       | 3373-1-9         | 1-9           | Nuclear Assurance Company      | 390904             | 799716              | 453                |
| 33       | 73    | 2       | 3373-2-1         | 2-1           | R.L. Peterson                  | 389933             | 801910              | 117                |
| 33       | 73    | 2       | 3373-2-10        | 2-10          | Nuclear Assurance Company      | 387612             | 801664              | 376                |
| 33       | 73    | 2       | 3373-2-11        | 2-11          | Nuclear Assurance Company      | 389209             | 801416              | 196                |
| 33       | 73    | 2       | 3373-2-12        | 2-12          | Nuclear Assurance Company      | 388861             | 801972              | 216                |
| 33       | 73    | 2       | 3373-2-13        | 2-13          | Nuclear Assurance Company      | 389111             | 801243              | 196                |
| 33       | 73    | 2       | 3373-2-14        | 2-14          | Nuclear Assurance Company      | 389556             | 801093              | 216                |
| 33       | 73    | 2       | 3373-2-15        | 2-15          | Nuclear Assurance Company      | 388612             | 801882              | 156                |
| 33       | 73    | 2       | 3373-2-16        | 2-16          | Nuclear Assurance Company      | 388986             | 801900              | 157                |
| 33       | 73    | 2       | 3373-2-17        | 2-17          | Nuclear Assurance Company      | 389089             | 801874              | 116                |
| 33       | 73    | 2       | 3373-2-18        | 2-18          | Nuclear Assurance Company      | 388938             | 801910              | 216                |
| 33       | 73    | 2       | 3373-2-19        | 2-19          | Nuclear Assurance Company      | 389570             | 801233              | 196                |
| 33       | 73    | 2       | 3373-2-1X        | 2-1X          | Nuclear Assurance Company      | 390671             | 800563              | 457                |
| 33       | 73    | 2       | 3373-2-2         | 2-2           | R.L. Peterson                  | 389030             | 801208              | 379                |
| 33       | 73    | 2       | 3373-2-20        | 2-20          | Nuclear Assurance Company      | 389843             | 800702              | 174                |
| 33       | 73    | 2       | 3373-2-21        | 2-21          | Arizona Public Service Company | 389050.7           | 801360              | 139                |
| 33       | 73    | 2       | 3373-2-2X        | 2-2X          | Nuclear Assurance Company      | 389661             | 800697              | 387                |
| 33       | 73    | 2       | 3373-2-3         | 2-3           | R.L. Peterson                  | 389935             | 801060              | 501                |
| 33       | 73    | 2       | 3373-2-3X        | 2-3X          | Nuclear Assurance Company      | 389912             | 799726              | 456                |
| 33       | 73    | 2       | 3373-2-4         | 2-4           | R.L. Peterson                  | 389935             | 801360              | 179                |
| 33       | 73    | 2       | 3373-2-4X        | 2-4X          | Nuclear Assurance Company      | 390596             | 798655              | 353                |
| 33       | 73    | 2       | 3373-2-5         | 2-5           | R.L. Peterson                  | 389935             | 801210              | 118                |
| 33       | 73    | 2       | 3373-2-5X        | 2-5X          | Nuclear Assurance Company      | 389590             | 798704              | 496                |
| 33       | 73    | 2       | 3373-2-6         | 2-6           | Nuclear Assurance Company      | 388560             | 798684              | 357                |
| 33       | 73    | 2       | 3373-2-7         | 2-7           | Nuclear Assurance Company      | 385578             | 799005              | 377                |
| 33       | 73    | 2       | 3373-2-8         | 2-8           | Nuclear Assurance Company      | 386475             | 799019              | 312                |
| 33       | 73    | 2       | 3373-2-9         | 2-9           | Nuclear Assurance Company      | 387177             | 801687              | 396                |
| 33       | 73    | 3       | 3373-3-1         | 3-1           | Nuclear Assurance Company      | 385104             | 801240              | 378                |
| 33       | 73    | 3       | 3373-3-2         | 3-2           | Nuclear Assurance Company      | 384013             | 801200              | 377                |
| 33       | 73    | 3       | 3373-3-3         | 3-3           | Nuclear Assurance Company      | 383127             | 801124              | 375                |
| 33       | 73    | 3       | 3373-3-4         | 3-4           | Nuclear Assurance Company      | 381603             | 801431              | 356                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 33       | 73    | 3       | 3373-3-5     | 3-5           | Nuclear Assurance Company | 380392             | 801815              | 797                |
| 33       | 73    | 3       | 3373-3-6     | 3-6           | Nuclear Assurance Company | 384524             | 800403              | 376                |
| 33       | 73    | 3       | 3373-3-7     | 3-7           | Nuclear Assurance Company | 383501             | 800116              | 376                |
| 33       | 73    | 3       | 3373-3-8     | 3-8           | Nuclear Assurance Company | 382318             | 800379              | 376                |
| 33       | 73    | 3       | 3373-3-9     | 3-9           | Nuclear Assurance Company | 380665             | 800785              | 375                |
| 34       | 72    | 19      | 3472-19-1    | 19-1          | R.L. Peterson             | 396191             | 815238              | 338                |
| 34       | 72    | 19      | 3472-19-10   | 19-10         | R.L. Peterson             | 396670             | 813867              | 216                |
| 34       | 72    | 19      | 3472-19-100  | 19-100        | Nuclear Assurance Company | 397874             | 815203              | 318                |
| 34       | 72    | 19      | 3472-19-101  | 19-101        | Nuclear Assurance Company | 397589             | 815208              | 318                |
| 34       | 72    | 19      | 3472-19-102  | 19-102        | Nuclear Assurance Company | 398272             | 813912              | 297                |
| 34       | 72    | 19      | 3472-19-103  | 19-103        | Nuclear Assurance Company | 397860             | 814881              | 319                |
| 34       | 72    | 19      | 3472-19-104  | 19-104        | Nuclear Assurance Company | 397793             | 814826              | 318                |
| 34       | 72    | 19      | 3472-19-105  | 19-105        | Nuclear Assurance Company | 398570             | 814510              | 318                |
| 34       | 72    | 19      | 3472-19-106  | 19-106        | Nuclear Assurance Company | 398512             | 814556              | 318                |
| 34       | 72    | 19      | 3472-19-107  | 19-107        | Nuclear Assurance Company | 398468             | 814503              | 318                |
| 34       | 72    | 19      | 3472-19-108  | 19-108        | Nuclear Assurance Company | 398517             | 814451              | 318                |
| 34       | 72    | 19      | 3472-19-109  | 19-109        | Nuclear Assurance Company | 398533             | 814287              | 319                |
| 34       | 72    | 19      | 3472-19-11   | 19-11         | R.L. Peterson             | 397578             | 813939              | 279                |
| 34       | 72    | 19      | 3472-19-110  | 19-110        | Nuclear Assurance Company | 397908             | 814875              | 315                |
| 34       | 72    | 19      | 3472-19-111  | 19-111        | Nuclear Assurance Company | 397922             | 815092              | 318                |
| 34       | 72    | 19      | 3472-19-112  | 19-112        | Nuclear Assurance Company | 397938             | 814999              | 318                |
| 34       | 72    | 19      | 3472-19-113  | 19-113        | Nuclear Assurance Company | 397728             | 815200              | 317                |
| 34       | 72    | 19      | 3472-19-114  | 19-114        | Nuclear Assurance Company | 397874             | 815151              | 317                |
| 34       | 72    | 19      | 3472-19-115  | 19-115        | Nuclear Assurance Company | 398054             | 814401              | 298                |
| 34       | 72    | 19      | 3472-19-116  | 19-116        | Nuclear Assurance Company | 379975             | 815094              | 317                |
| 34       | 72    | 19      | 3472-19-117  | 19-117        | Nuclear Assurance Company | 398612             | 814630              | 318                |
| 34       | 72    | 19      | 3472-19-118  | 19-118        | Nuclear Assurance Company | 398777             | 814534              | 317                |
| 34       | 72    | 19      | 3472-19-119  | 19-119        | Nuclear Assurance Company | 398647             | 814309              | 297                |
| 34       | 72    | 19      | 3472-19-12   | 19-12         | R.L. Peterson             | 396981             | 813945              | 298                |
| 34       | 72    | 19      | 3472-19-120  | 19-120        | Nuclear Assurance Company | 398084             | 815098              | 317                |
| 34       | 72    | 19      | 3472-19-121  | 19-121        | Nuclear Assurance Company | 397476             | 815711              | 316                |
| 34       | 72    | 19      | 3472-19-122  | 19-122        | Nuclear Assurance Company | 398018             | 814835              | 318                |
| 34       | 72    | 19      | 3472-19-122C | 19-122C       | Malapai                   | 398029.7           | 814825.5            | 317                |
| 34       | 72    | 19      | 3472-19-123  | 19-123        | Nuclear Assurance Company | 398818             | 814663              | 316                |
| 34       | 72    | 19      | 3472-19-124  | 19-124        | Nuclear Assurance Company | 398833             | 814382              | 317                |
| 34       | 72    | 19      | 3472-19-125  | 19-125        | Nuclear Assurance Company | 398066             | 814941              | 319                |
| 34       | 72    | 19      | 3472-19-126  | 19-126        | Nuclear Assurance Company | 397913             | 814785              | 319                |
| 34       | 72    | 19      | 3472-19-127  | 19-127        | Nuclear Assurance Company | 398832             | 814234              | 318                |
| 34       | 72    | 19      | 3472-19-128  | 19-128        | Nuclear Assurance Company | 398026             | 814945              | 319                |
| 34       | 72    | 19      | 3472-19-129  | 19-129        | Nuclear Assurance Company | 397928             | 814685              | 319                |
| 34       | 72    | 19      | 3472-19-13   | 19-13         | R.L. Peterson             | 396984             | 814039              | 298                |
| 34       | 72    | 19      | 3472-19-130  | 19-130        | Nuclear Assurance Company | 396957             | 813140              | 279                |
| 34       | 72    | 19      | 3472-19-131  | 19-131        | Nuclear Assurance Company | 396959             | 813094              | 278                |
| 34       | 72    | 19      | 3472-19-132  | 19-132        | Nuclear Assurance Company | 396794             | 813137              | 277                |
| 34       | 72    | 19      | 3472-19-133  | 19-133        | Nuclear Assurance Company | 396795             | 813092              | 277                |
| 34       | 72    | 19      | 3472-19-134  | 19-134        | Nuclear Assurance Company | 396648             | 813098              | 279                |
| 34       | 72    | 19      | 3472-19-134C | 19-134C       | Nuclear Assurance Company | 396644             | 813097              | 277                |
| 34       | 72    | 19      | 3472-19-135  | 19-135        | Nuclear Assurance Company | 396797             | 813191              | 279                |
| 34       | 72    | 19      | 3472-19-136  | 19-136        | Nuclear Assurance Company | 397314             | 813304              | 278                |
| 34       | 72    | 19      | 3472-19-137  | 19-137        | Nuclear Assurance Company | 396649             | 813145              | 278                |
| 34       | 72    | 19      | 3472-19-137C | 19-137C       | Nuclear Assurance Company | 396645             | 813144              | 280                |
| 34       | 72    | 19      | 3472-19-138  | 19-138        | Nuclear Assurance Company | 396480             | 813155              | 278                |
| 34       | 72    | 19      | 3472-19-139  | 19-139        | Nuclear Assurance Company | 396217             | 813774              | 199                |
| 34       | 72    | 19      | 3472-19-14   | 19-14         | R.L. Peterson             | 397582             | 813796              | 296                |
| 34       | 72    | 19      | 3472-19-140  | 19-140        | Nuclear Assurance Company | 396226             | 813860              | 198                |
| 34       | 72    | 19      | 3472-19-141  | 19-141        | Nuclear Assurance Company | 398832             | 814332              | 320                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 34       | 72    | 19      | 3472-19-142  | 19-142        | Nuclear Assurance Company | 398023             | 814734              | 320                |
| 34       | 72    | 19      | 3472-19-143  | 19-143        | Nuclear Assurance Company | 396484             | 813075              | 278                |
| 34       | 72    | 19      | 3472-19-144  | 19-144        | Nuclear Assurance Company | 396486             | 813029              | 278                |
| 34       | 72    | 19      | 3472-19-145  | 19-145        | Nuclear Assurance Company | 396310             | 814318              | 216                |
| 34       | 72    | 19      | 3472-19-146  | 19-146        | Nuclear Assurance Company | 396316             | 814214              | 217                |
| 34       | 72    | 19      | 3472-19-147  | 19-147        | Nuclear Assurance Company | 396219             | 813576              | 220                |
| 34       | 72    | 19      | 3472-19-148  | 19-148        | Nuclear Assurance Company | 396439             | 813724              | 237                |
| 34       | 72    | 19      | 3472-19-149  | 19-149        | Nuclear Assurance Company | 396317             | 814164              | 215                |
| 34       | 72    | 19      | 3472-19-15   | 19-15         | R.L. Peterson             | 397576             | 814080              | 298                |
| 34       | 72    | 19      | 3472-19-150  | 19-150        | Nuclear Assurance Company | 396429             | 813813              | 417                |
| 34       | 72    | 19      | 3472-19-151  | 19-151        | Nuclear Assurance Company | 396488             | 812976              | 317                |
| 34       | 72    | 19      | 3472-19-152  | 19-152        | Nuclear Assurance Company | 396289             | 812967              | 297                |
| 34       | 72    | 19      | 3472-19-152C | 19-152C       | Nuclear Assurance Company | 396288.5           | 812970.9            | 278                |
| 34       | 72    | 19      | 3472-19-153  | 19-153        | Nuclear Assurance Company | 396289             | 812915              | 297                |
| 34       | 72    | 19      | 3472-19-154  | 19-154        | Nuclear Assurance Company | 396293             | 813018              | 297                |
| 34       | 72    | 19      | 3472-19-155  | 19-155        | Nuclear Assurance Company | 396286             | 812865              | 297                |
| 34       | 72    | 19      | 3472-19-156  | 19-156        | Nuclear Assurance Company | 396650             | 813047              | 277                |
| 34       | 72    | 19      | 3472-19-156C | 19-156C       | Nuclear Assurance Company | 396646             | 813048              | 277                |
| 34       | 72    | 19      | 3472-19-157  | 19-157        | Nuclear Assurance Company | 396649             | 813194              | 277                |
| 34       | 72    | 19      | 3472-19-158  | 19-158        | Nuclear Assurance Company | 396796             | 813239              | 437                |
| 34       | 72    | 19      | 3472-19-159  | 19-159        | Nuclear Assurance Company | 397036             | 814133              | 197                |
| 34       | 72    | 19      | 3472-19-159C | 19-159C       | Nuclear Assurance Company | 397031             | 814133              | 217                |
| 34       | 72    | 19      | 3472-19-16   | 19-16         | R.L. Peterson             | 396985             | 814133              | 297                |
| 34       | 72    | 19      | 3472-19-160  | 19-160        | Nuclear Assurance Company | 396937             | 814130              | 216                |
| 34       | 72    | 19      | 3472-19-161  | 19-161        | Nuclear Assurance Company | 396957             | 813185              | 277                |
| 34       | 72    | 19      | 3472-19-162  | 19-162        | Nuclear Assurance Company | 396958             | 813236              | 276                |
| 34       | 72    | 19      | 3472-19-163  | 19-163        | Nuclear Assurance Company | 397285             | 813105              | 296                |
| 34       | 72    | 19      | 3472-19-164  | 19-164        | Nuclear Assurance Company | 396652             | 812998              | 276                |
| 34       | 72    | 19      | 3472-19-165  | 19-165        | Nuclear Assurance Company | 397850             | 813569              | 273                |
| 34       | 72    | 19      | 3472-19-166  | 19-166        | Nuclear Assurance Company | 397851             | 813368              | 275                |
| 34       | 72    | 19      | 3472-19-167  | 19-167        | Nuclear Assurance Company | 398045             | 813487              | 276                |
| 34       | 72    | 19      | 3472-19-168  | 19-168        | Nuclear Assurance Company | 397321             | 813349              | 276                |
| 34       | 72    | 19      | 3472-19-169  | 19-169        | Nuclear Assurance Company | 396959             | 813285              | 276                |
| 34       | 72    | 19      | 3472-19-16C  | 19-16C        | Nuclear Assurance Company | 396985             | 814129              | 217                |
| 34       | 72    | 19      | 3472-19-17   | 19-17         | R.L. Peterson             | 397582             | 813649              | 298                |
| 34       | 72    | 19      | 3472-19-170  | 19-170        | Nuclear Assurance Company | 396653             | 812948              | 275                |
| 34       | 72    | 19      | 3472-19-171  | 19-171        | Nuclear Assurance Company | 396796             | 813288              | 276                |
| 34       | 72    | 19      | 3472-19-172  | 19-172        | Nuclear Assurance Company | 396963             | 813330              | 275                |
| 34       | 72    | 19      | 3472-19-173  | 19-173        | Nuclear Assurance Company | 397317             | 813404              | 276                |
| 34       | 72    | 19      | 3472-19-174  | 19-174        | Nuclear Assurance Company | 397849             | 813316              | 275                |
| 34       | 72    | 19      | 3472-19-175  | 19-175        | Nuclear Assurance Company | 397115             | 813241              | 275                |
| 34       | 72    | 19      | 3472-19-176  | 19-176        | Nuclear Assurance Company | 398047             | 813436              | 295                |
| 34       | 72    | 19      | 3472-19-177  | 19-177        | Nuclear Assurance Company | 396797             | 813339              | 275                |
| 34       | 72    | 19      | 3472-19-178  | 19-178        | Nuclear Assurance Company | 396648             | 813244              | 275                |
| 34       | 72    | 19      | 3472-19-179  | 19-179        | Nuclear Assurance Company | 396656             | 812896              | 296                |
| 34       | 72    | 19      | 3472-19-18   | 19-18         | R.L. Peterson             | 397273             | 813946              | 297                |
| 34       | 72    | 19      | 3472-19-180  | 19-180        | Nuclear Assurance Company | 397109             | 813289              | 275                |
| 34       | 72    | 19      | 3472-19-181  | 19-181        | Nuclear Assurance Company | 396797             | 813390              | 276                |
| 34       | 72    | 19      | 3472-19-182  | 19-182        | Nuclear Assurance Company | 397088             | 814133              | 216                |
| 34       | 72    | 19      | 3472-19-183  | 19-183        | Nuclear Assurance Company | 397409             | 814202              | 296                |
| 34       | 72    | 19      | 3472-19-184  | 19-184        | Nuclear Assurance Company | 396886             | 814318              | 236                |
| 34       | 72    | 19      | 3472-19-185  | 19-185        | Nuclear Assurance Company | 396879             | 814514              | 216                |
| 34       | 72    | 19      | 3472-19-186  | 19-186        | Nuclear Assurance Company | 396928             | 814517              | 216                |
| 34       | 72    | 19      | 3472-19-187  | 19-187        | Nuclear Assurance Company | 397028             | 814515              | 216                |
| 34       | 72    | 19      | 3472-19-188  | 19-188        | Nuclear Assurance Company | 396669             | 814544              | 213                |
| 34       | 72    | 19      | 3472-19-189  | 19-189        | Nuclear Assurance Company | 396569             | 814544              | 234                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 34       | 72    | 19      | 3472-19-19   | 19-19         | R.L. Peterson             | 397609             | 813504              | 296                |
| 34       | 72    | 19      | 3472-19-190  | 19-190        | Nuclear Assurance Company | 397136             | 814134              | 215                |
| 34       | 72    | 19      | 3472-19-191  | 19-191        | Nuclear Assurance Company | 397412             | 814302              | 296                |
| 34       | 72    | 19      | 3472-19-192  | 19-192        | Nuclear Assurance Company | 396932             | 814321              | 236                |
| 34       | 72    | 19      | 3472-19-193  | 19-193        | Nuclear Assurance Company | 396828             | 814506              | 235                |
| 34       | 72    | 19      | 3472-19-194  | 19-194        | Nuclear Assurance Company | 396520             | 814540              | 234                |
| 34       | 72    | 19      | 3472-19-195  | 19-195        | Nuclear Assurance Company | 396826             | 814769              | 232                |
| 34       | 72    | 19      | 3472-19-195C | 19-195C       | Malapai                   | 396823.2           | 814775              | 239                |
| 34       | 72    | 19      | 3472-19-196  | 19-196        | Nuclear Assurance Company | 396558             | 814987              | 295                |
| 34       | 72    | 19      | 3472-19-197  | 19-197        | Nuclear Assurance Company | 396313             | 815016              | 296                |
| 34       | 72    | 19      | 3472-19-197C | 19-197C       | Malapai                   | 396318.3           | 815017.9            | 299                |
| 34       | 72    | 19      | 3472-19-198  | 19-198        | Nuclear Assurance Company | 396883             | 814035              | 235                |
| 34       | 72    | 19      | 3472-19-199  | 19-199        | Nuclear Assurance Company | 397317             | 814415              | 293                |
| 34       | 72    | 19      | 3472-19-1X   | 19-1X         | Nuclear Assurance Company | 396294             | 816081              | 497                |
| 34       | 72    | 19      | 3472-19-2    | 19-2          | R.L. Peterson             | 396678             | 813932              | 296                |
| 34       | 72    | 19      | 3472-19-20   | 19-20         | R.L. Peterson             | 396985             | 814322              | 303                |
| 34       | 72    | 19      | 3472-19-200  | 19-200        | Nuclear Assurance Company | 397188             | 814134              | 216                |
| 34       | 72    | 19      | 3472-19-201  | 19-201        | Nuclear Assurance Company | 396755             | 814501              | 227                |
| 34       | 72    | 19      | 3472-19-202  | 19-202        | Nuclear Assurance Company | 396258             | 814961              | 296                |
| 34       | 72    | 19      | 3472-19-203  | 19-203        | Nuclear Assurance Company | 396558             | 814935              | 297                |
| 34       | 72    | 19      | 3472-19-204  | 19-204        | Nuclear Assurance Company | 396880             | 813933              | 255                |
| 34       | 72    | 19      | 3472-19-205  | 19-205        | Nuclear Assurance Company | 396924             | 814777              | 234                |
| 34       | 72    | 19      | 3472-19-206  | 19-206        | Morrison Nuclear          | 396876             | 814771              | 237                |
| 34       | 72    | 19      | 3472-19-207  | 19-207        | Nuclear Assurance Company | 397366             | 814356              | 297                |
| 34       | 72    | 19      | 3472-19-208  | 19-208        | Nuclear Assurance Company | 396323             | 815071              | 295                |
| 34       | 72    | 19      | 3472-19-209  | 19-209        | Nuclear Assurance Company | 397410             | 814252              | 296                |
| 34       | 72    | 19      | 3472-19-209C | 19-209C       | Malapai                   | 397413.4           | 814246.9            | 279                |
| 34       | 72    | 19      | 3472-19-21   | 19-21         | R.L. Peterson             | 396977             | 814519              | 295                |
| 34       | 72    | 19      | 3472-19-210  | 19-210        | Nuclear Assurance Company | 397407             | 814149              | 295                |
| 34       | 72    | 19      | 3472-19-211  | 19-211        | Nuclear Assurance Company | 397314             | 814299              | 297                |
| 34       | 72    | 19      | 3472-19-212  | 19-212        | Nuclear Assurance Company | 397311             | 814348              | 295                |
| 34       | 72    | 19      | 3472-19-213  | 19-213        | Nuclear Assurance Company | 397315             | 814248              | 297                |
| 34       | 72    | 19      | 3472-19-214  | 19-214        | Nuclear Assurance Company | 396880             | 813980              | 216                |
| 34       | 72    | 19      | 3472-19-215  | 19-215        | Nuclear Assurance Company | 397215             | 814295              | 297                |
| 34       | 72    | 19      | 3472-19-216  | 19-216        | Nuclear Assurance Company | 397318             | 814193              | 297                |
| 34       | 72    | 19      | 3472-19-217  | 19-217        | Nuclear Assurance Company | 398077             | 814735              | 336                |
| 34       | 72    | 19      | 3472-19-218  | 19-218        | Nuclear Assurance Company | 398067             | 814841              | 315                |
| 34       | 72    | 19      | 3472-19-219  | 19-219        | Nuclear Assurance Company | 397986             | 815003              | 315                |
| 34       | 72    | 19      | 3472-19-22   | 19-22         | R.L. Peterson             | 396685             | 814778              | 297                |
| 34       | 72    | 19      | 3472-19-220  | 19-220        | Nuclear Assurance Company | 398036             | 815005              | 316                |
| 34       | 72    | 19      | 3472-19-221  | 19-221        | Nuclear Assurance Company | 397886             | 814999              | 313                |
| 34       | 72    | 19      | 3472-19-222  | 19-222        | Nuclear Assurance Company | 397871             | 815096              | 316                |
| 34       | 72    | 19      | 3472-19-223  | 19-223        | Nuclear Assurance Company | 397820             | 815097              | 316                |
| 34       | 72    | 19      | 3472-19-224  | 19-224        | Nuclear Assurance Company | 397924             | 815203              | 316                |
| 34       | 72    | 19      | 3472-19-225  | 19-225        | Nuclear Assurance Company | 398127             | 814732              | 316                |
| 34       | 72    | 19      | 3472-19-226  | 19-226        | Nuclear Assurance Company | 398116             | 814844              | 314                |
| 34       | 72    | 19      | 3472-19-227  | 19-227        | Nuclear Assurance Company | 397834             | 814996              | 316                |
| 34       | 72    | 19      | 3472-19-228  | 19-228        | Nuclear Assurance Company | 397762             | 815096              | 316                |
| 34       | 72    | 19      | 3472-19-229  | 19-229        | Nuclear Assurance Company | 398023             | 815097              | 313                |
| 34       | 72    | 19      | 3472-19-23   | 19-23         | R.L. Peterson             | 396387             | 814887              | 298                |
| 34       | 72    | 19      | 3472-19-230  | 19-230        | Nuclear Assurance Company | 398512             | 814608              | 316                |
| 34       | 72    | 19      | 3472-19-231  | 19-231        | Nuclear Assurance Company | 398402             | 814556              | 315                |
| 34       | 72    | 19      | 3472-19-232  | 19-232        | Nuclear Assurance Company | 397662             | 815094              | 314                |
| 34       | 72    | 19      | 3472-19-233  | 19-233        | Nuclear Assurance Company | 397778             | 814991              | 315                |
| 34       | 72    | 19      | 3472-19-234  | 19-234        | Nuclear Assurance Company | 398403             | 814605              | 315                |
| 34       | 72    | 19      | 3472-19-234C | 19-234C       | Malapai                   | 398409.1           | 814605.2            | 299                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number   | Short Hole ID | Company                        | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|---------------|---------------|--------------------------------|--------------------|---------------------|--------------------|
| 34       | 72    | 19      | 3472-19-235   | 19-235        | Nuclear Assurance Company      | 398510             | 814705              | 313                |
| 34       | 72    | 19      | 3472-19-236   | 19-236        | Nuclear Assurance Company      | 398274             | 813716              | 317                |
| 34       | 72    | 19      | 3472-19-237   | 19-237        | Nuclear Assurance Company      | 398208             | 813788              | 295                |
| 34       | 72    | 19      | 3472-19-238   | 19-238        | Nuclear Assurance Company      | 398202             | 814548              | 317                |
| 34       | 72    | 19      | 3472-19-239   | 19-239        | Nuclear Assurance Company      | 398404             | 814658              | 314                |
| 34       | 72    | 19      | 3472-19-24    | 19-24         | R.L. Peterson                  | 396776             | 814771              | 296                |
| 34       | 72    | 19      | 3472-19-240   | 19-240        | Nuclear Assurance Company      | 398510             | 814656              | 317                |
| 34       | 72    | 19      | 3472-19-241   | 19-241        | Nuclear Assurance Company      | 397546             | 814579              | 293                |
| 34       | 72    | 19      | 3472-19-242   | 19-242        | Nuclear Assurance Company      | 397785             | 814270              | 310                |
| 34       | 72    | 19      | 3472-19-243   | 19-243        | Nuclear Assurance Company      | 397964             | 814790              | 317                |
| 34       | 72    | 19      | 3472-19-244   | 19-244        | Nuclear Assurance Company      | 397564             | 815088              | 314                |
| 34       | 72    | 19      | 3472-19-245   | 19-245        | Nuclear Assurance Company      | 398143             | 813863              | 294                |
| 34       | 72    | 19      | 3472-19-246   | 19-246        | Nuclear Assurance Company      | 397580             | 814974              | 315                |
| 34       | 72    | 19      | 3472-19-247   | 19-247        | Nuclear Assurance Company      | 398107             | 813901              | 293                |
| 34       | 72    | 19      | 3472-19-248   | 19-248        | Nuclear Assurance Company      | 398172             | 813832              | 295                |
| 34       | 72    | 19      | 3472-19-248C  | 19-248C       | Malapai                        | 398177.3           | 813835.7            | 299                |
| 34       | 72    | 19      | 3472-19-249   | 19-249        | Nuclear Assurance Company      | 397682             | 814982              | 316                |
| 34       | 72    | 19      | 3472-19-25    | 19-25         | R.L. Peterson                  | 396980             | 814564              | 296                |
| 34       | 72    | 19      | 3472-19-250   | 19-250        | Nuclear Assurance Company      | 397530             | 814969              | 316                |
| 34       | 72    | 19      | 3472-19-251   | 19-251        | Nuclear Assurance Company      | 397596             | 814861              | 317                |
| 34       | 72    | 19      | 3472-19-252   | 19-252        | Arizona Public Service Company | 398726             | 814532.9            | 299                |
| 34       | 72    | 19      | 3472-19-253   | 19-253        | Arizona Public Service Company | 398780.7           | 814383.1            | 299                |
| 34       | 72    | 19      | 3472-19-254   | 19-254        | Arizona Public Service Company | 398606.2           | 814582.7            | 299                |
| 34       | 72    | 19      | 3472-19-255   | 19-255        | Arizona Public Service Company | 398539.6           | 814242              | 299                |
| 34       | 72    | 19      | 3472-19-256   | 19-256        | Arizona Public Service Company | 398316.1           | 814435.3            | 299                |
| 34       | 72    | 19      | 3472-19-257   | 19-257        | Arizona Public Service Company | 398056.5           | 814345.6            | 299                |
| 34       | 72    | 19      | 3472-19-258   | 19-258        | Arizona Public Service Company | 397899.8           | 814194.5            | 299                |
| 34       | 72    | 19      | 3472-19-259   | 19-259        | Arizona Public Service Company | 397594.7           | 814579.9            | 299                |
| 34       | 72    | 19      | 3472-19-26    | 19-26         | R.L. Peterson                  | 396797             | 814859              | 294                |
| 34       | 72    | 19      | 3472-19-260   | 19-260        | Arizona Public Service Company | 397925.5           | 814634.5            | 299                |
| 34       | 72    | 19      | 3472-19-261   | 19-261        | Arizona Public Service Company | 398665             | 814259.6            | 297                |
| 34       | 72    | 19      | 3472-19-262   | 19-262        | Arizona Public Service Company | 397137.6           | 815114.6            | 297                |
| 34       | 72    | 19      | 3472-19-263   | 19-263        | Arizona Public Service Company | 397490.9           | 815251.1            | 319                |
| 34       | 72    | 19      | 3472-19-264   | 19-264        | Arizona Public Service Company | 397127.3           | 813099.7            | 302                |
| 34       | 72    | 19      | 3472-19-265   | 19-265        | Arizona Public Service Company | 396559.3           | 814878.9            | 299                |
| 34       | 72    | 19      | 3472-19-266   | 19-266        | Arizona Public Service Company | 397897             | 814244.2            | 299                |
| 34       | 72    | 19      | 3472-19-267   | 19-267        | Arizona Public Service Company | 398778             | 814430.4            | 299                |
| 34       | 72    | 19      | 3472-19-268   | 19-268        | Arizona Public Service Company | 396539.7           | 814190.4            | 299                |
| 34       | 72    | 19      | 3472-19-269   | 19-269        | Arizona Public Service Company | 398541.9           | 814138.9            | 299                |
| 34       | 72    | 19      | 3472-19-269-C | 19-269-C      | Malapai                        | 398541.4           | 814142.4            | 299                |
| 34       | 72    | 19      | 3472-19-27    | 19-27         | R.L. Peterson                  | 396994             | 814653              | 292                |
| 34       | 72    | 19      | 3472-19-270   | 19-270        | Arizona Public Service Company | 397928.3           | 814584.8            | 297                |
| 34       | 72    | 19      | 3472-19-271   | 19-271        | Arizona Public Service Company | 398828.1           | 814482.1            | 299                |
| 34       | 72    | 19      | 3472-19-272   | 19-272        | Arizona Public Service Company | 397594.2           | 814529.5            | 299                |
| 34       | 72    | 19      | 3472-19-273   | 19-273        | Arizona Public Service Company | 397894.8           | 814292.1            | 299                |
| 34       | 72    | 19      | 3472-19-274   | 19-274        | Arizona Public Service Company | 397334.9           | 815109.6            | 319                |
| 34       | 72    | 19      | 3472-19-275   | 19-275        | Arizona Public Service Company | 397927.8           | 814533              | 299                |
| 34       | 72    | 19      | 3472-19-276   | 19-276        | Arizona Public Service Company | 398818.8           | 814612.2            | 298                |
| 34       | 72    | 19      | 3472-19-277   | 19-277        | Arizona Public Service Company | 397330.5           | 815158.8            | 319                |
| 34       | 72    | 19      | 3472-19-278   | 19-278        | Arizona Public Service Company | 396493.7           | 812927.3            | 279                |
| 34       | 72    | 19      | 3472-19-279   | 19-279        | Arizona Public Service Company | 396308.8           | 814752.8            | 299                |
| 34       | 72    | 19      | 3472-19-28    | 19-28         | R.L. Peterson                  | 397574             | 814129              | 296                |
| 34       | 72    | 19      | 3472-19-280   | 19-280        | Malapai                        | 398404.3           | 814056.7            | 297                |
| 34       | 72    | 19      | 3472-19-281   | 19-281        | Malapai                        | 398780.5           | 814334.4            | 297                |
| 34       | 72    | 19      | 3472-19-282   | 19-282        | Malapai                        | 397777.7           | 814524.7            | 298                |
| 34       | 72    | 19      | 3472-19-283   | 19-283        | Malapai                        | 397484.1           | 814914.9            | 317                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number   | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|---------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 34       | 72    | 19      | 3472-19-284   | 19-284        | Malapai                   | 397475.3           | 815063.7            | 317                |
| 34       | 72    | 19      | 3472-19-284-C | 19-284-C      | Malapai                   | 397477             | 815056.2            | 318                |
| 34       | 72    | 19      | 3472-19-285   | 19-285        | Malapai                   | 396287.9           | 812766.4            | 297                |
| 34       | 72    | 19      | 3472-19-286   | 19-286        | Malapai                   | 396489.4           | 812879.4            | 296                |
| 34       | 72    | 19      | 3472-19-287   | 19-287        | Malapai                   | 396318.9           | 814263.8            | 217                |
| 34       | 72    | 19      | 3472-19-288   | 19-288        | Malapai                   | 396573.5           | 814443.1            | 217                |
| 34       | 72    | 19      | 3472-19-289   | 19-289        | Malapai                   | 397989.3           | 813629              | 298                |
| 34       | 72    | 19      | 3472-19-29    | 19-29         | R.L. Peterson             | 397610             | 813454              | 292                |
| 34       | 72    | 19      | 3472-19-290   | 19-290        | Malapai                   | 397126.7           | 813047.1            | 296                |
| 34       | 72    | 19      | 3472-19-291   | 19-291        | Malapai                   | 396663.1           | 812848              | 297                |
| 34       | 72    | 19      | 3472-19-292   | 19-292        | Malapai                   | 396887.5           | 814082.2            | 317                |
| 34       | 72    | 19      | 3472-19-293   | 19-293        | Malapai                   | 396673.4           | 814652.5            | 237                |
| 34       | 72    | 19      | 3472-19-294   | 19-294        | Malapai                   | 396828.7           | 814645.4            | 237                |
| 34       | 72    | 19      | 3472-19-295   | 19-295        | Malapai                   | 396826.5           | 814810.9            | 237                |
| 34       | 72    | 19      | 3472-19-296   | 19-296        | Malapai                   | 397435             | 814911.4            | 317                |
| 34       | 72    | 19      | 3472-19-297   | 19-297        | Malapai                   | 397488.6           | 814860.8            | 317                |
| 34       | 72    | 19      | 3472-19-298   | 19-298        | Malapai                   | 397774.4           | 814577              | 297                |
| 34       | 72    | 19      | 3472-19-299   | 19-299        | Malapai                   | 398450.8           | 814058              | 297                |
| 34       | 72    | 19      | 3472-19-3     | 19-3          | R.L. Peterson             | 396099             | 814590              | 290                |
| 34       | 72    | 19      | 3472-19-30    | 19-30         | R.L. Peterson             | 397767             | 813911              | 295                |
| 34       | 72    | 19      | 3472-19-300   | 19-300        | Malapai                   | 397495.8           | 814758              | 317                |
| 34       | 72    | 19      | 3472-19-301   | 19-301        | Malapai                   | 396490.5           | 814388.9            | 237                |
| 34       | 72    | 19      | 3472-19-301-C | 19-301-C      | Malapai                   | 396488             | 814390.9            | 219                |
| 34       | 72    | 19      | 3472-19-302   | 19-302        | Malapai                   | 396426.1           | 813858.7            | 216                |
| 34       | 72    | 19      | 3472-19-303   | 19-303        | Malapai                   | 396829             | 814405.6            | 217                |
| 34       | 72    | 19      | 3472-19-304   | 19-304        | Malapai                   | 396790.2           | 814502.6            | 217                |
| 34       | 72    | 19      | 3472-19-305   | 19-305        | Malapai                   | 398457.1           | 814005.3            | 317                |
| 34       | 72    | 19      | 3472-19-306   | 19-306        | Malapai                   | 397930.9           | 814480              | 316                |
| 34       | 72    | 19      | 3472-19-307   | 19-307        | Malapai                   | 397394.1           | 814804.5            | 316                |
| 34       | 72    | 19      | 3472-19-308   | 19-308        | Malapai                   | 396293.3           | 812719.3            | 297                |
| 34       | 72    | 19      | 3472-19-309   | 19-309        | Malapai                   | 396675.3           | 812798.7            | 296                |
| 34       | 72    | 19      | 3472-19-31    | 19-31         | R.L. Peterson             | 397175             | 814576              | 290                |
| 34       | 72    | 19      | 3472-19-310   | 19-310        | Malapai                   | 396219.9           | 813673.3            | 216                |
| 34       | 72    | 19      | 3472-19-311   | 19-311        | Malapai                   | 396772.1           | 814397.9            | 217                |
| 34       | 72    | 19      | 3472-19-312   | 19-312        | Malapai                   | 396481.5           | 812838.1            | 297                |
| 34       | 72    | 19      | 3472-19-313   | 19-313        | Malapai                   | 396295.7           | 812671.4            | 296                |
| 34       | 72    | 19      | 3472-19-32    | 19-32         | R.L. Peterson             | 396817             | 814950              | 297                |
| 34       | 72    | 19      | 3472-19-33    | 19-33         | R.L. Peterson             | 396842             | 815039              | 296                |
| 34       | 72    | 19      | 3472-19-34    | 19-34         | R.L. Peterson             | 396396             | 814934              | 298                |
| 34       | 72    | 19      | 3472-19-35    | 19-35         | R.L. Peterson             | 396826             | 814997              | 297                |
| 34       | 72    | 19      | 3472-19-36    | 19-36         | R.L. Peterson             | 397014             | 814741              | 293                |
| 34       | 72    | 19      | 3472-19-37    | 19-37         | R.L. Peterson             | 397616             | 813362              | 296                |
| 34       | 72    | 19      | 3472-19-38    | 19-38         | R.L. Peterson             | 397803             | 813504              | 297                |
| 34       | 72    | 19      | 3472-19-39    | 19-39         | R.L. Peterson             | 397895             | 813542              | 298                |
| 34       | 72    | 19      | 3472-19-4     | 19-4          | R.L. Peterson             | 396231             | 813948              | 294                |
| 34       | 72    | 19      | 3472-19-40    | 19-40         | R.L. Peterson             | 397847             | 813521              | 297                |
| 34       | 72    | 19      | 3472-19-41    | 19-41         | Nuclear Assurance Company | 397992             | 813533              | 297                |
| 34       | 72    | 19      | 3472-19-42    | 19-42         | Nuclear Assurance Company | 397848             | 813419              | 297                |
| 34       | 72    | 19      | 3472-19-43    | 19-43         | Nuclear Assurance Company | 397618             | 813173              | 276                |
| 34       | 72    | 19      | 3472-19-44    | 19-44         | Nuclear Assurance Company | 397430             | 813344              | 299                |
| 34       | 72    | 19      | 3472-19-45    | 19-45         | Nuclear Assurance Company | 396403             | 815025              | 298                |
| 34       | 72    | 19      | 3472-19-46    | 19-46         | Nuclear Assurance Company | 397253             | 814905              | 300                |
| 34       | 72    | 19      | 3472-19-47    | 19-47         | Nuclear Assurance Company | 397491             | 814649              | 300                |
| 34       | 72    | 19      | 3472-19-48    | 19-48         | Nuclear Assurance Company | 397718             | 814356              | 320                |
| 34       | 72    | 19      | 3472-19-49    | 19-49         | Nuclear Assurance Company | 397974             | 814029              | 320                |
| 34       | 72    | 19      | 3472-19-5     | 19-5          | R.L. Peterson             | 397284             | 815206              | 313                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 34       | 72    | 19      | 3472-19-50  | 19-50         | Nuclear Assurance Company | 397617             | 813278              | 278                |
| 34       | 72    | 19      | 3472-19-51  | 19-51         | Nuclear Assurance Company | 397847             | 813473              | 278                |
| 34       | 72    | 19      | 3472-19-52  | 19-52         | Nuclear Assurance Company | 397614             | 813321              | 280                |
| 34       | 72    | 19      | 3472-19-53  | 19-53         | Nuclear Assurance Company | 397455             | 813085              | 278                |
| 34       | 72    | 19      | 3472-19-54  | 19-54         | Nuclear Assurance Company | 397611             | 813231              | 277                |
| 34       | 72    | 19      | 3472-19-54C | 19-54C        | Malapai                   | 397608             | 813232.2            | 259                |
| 34       | 72    | 19      | 3472-19-55  | 19-55         | Nuclear Assurance Company | 398043             | 813534              | 298                |
| 34       | 72    | 19      | 3472-19-56  | 19-56         | Nuclear Assurance Company | 397985             | 813578              | 297                |
| 34       | 72    | 19      | 3472-19-56C | 19-56C        | Malapai                   | 397989             | 813580.2            | 279                |
| 34       | 72    | 19      | 3472-19-57  | 19-57         | Nuclear Assurance Company | 397437             | 813162              | 278                |
| 34       | 72    | 19      | 3472-19-58  | 19-58         | Nuclear Assurance Company | 397434             | 813210              | 279                |
| 34       | 72    | 19      | 3472-19-59  | 19-59         | Nuclear Assurance Company | 397429             | 813256              | 277                |
| 34       | 72    | 19      | 3472-19-6   | 19-6          | R.L. Peterson             | 396383             | 814115              | 275                |
| 34       | 72    | 19      | 3472-19-60  | 19-60         | Nuclear Assurance Company | 398060             | 814091              | 300                |
| 34       | 72    | 19      | 3472-19-61  | 19-61         | Nuclear Assurance Company | 397846             | 814189              | 300                |
| 34       | 72    | 19      | 3472-19-62  | 19-62         | Nuclear Assurance Company | 397608             | 814503              | 300                |
| 34       | 72    | 19      | 3472-19-63  | 19-63         | Nuclear Assurance Company | 397143             | 815066              | 300                |
| 34       | 72    | 19      | 3472-19-64  | 19-64         | Nuclear Assurance Company | 396274             | 814083              | 298                |
| 34       | 72    | 19      | 3472-19-65  | 19-65         | Nuclear Assurance Company | 397648             | 814756              | 298                |
| 34       | 72    | 19      | 3472-19-66  | 19-66         | Nuclear Assurance Company | 397406             | 815009              | 305                |
| 34       | 72    | 19      | 3472-19-67  | 19-67         | Nuclear Assurance Company | 398054             | 814291              | 298                |
| 34       | 72    | 19      | 3472-19-68  | 19-68         | Nuclear Assurance Company | 398327             | 813910              | 298                |
| 34       | 72    | 19      | 3472-19-69  | 19-69         | Nuclear Assurance Company | 398326             | 814094              | 299                |
| 34       | 72    | 19      | 3472-19-7   | 19-7          | R.L. Peterson             | 396641             | 813731              | 276                |
| 34       | 72    | 19      | 3472-19-70  | 19-70         | Nuclear Assurance Company | 397282             | 813154              | 268                |
| 34       | 72    | 19      | 3472-19-71  | 19-71         | Nuclear Assurance Company | 397558             | 814211              | 297                |
| 34       | 72    | 19      | 3472-19-72  | 19-72         | Nuclear Assurance Company | 397506             | 814275              | 300                |
| 34       | 72    | 19      | 3472-19-73  | 19-73         | Nuclear Assurance Company | 397154             | 814351              | 240                |
| 34       | 72    | 19      | 3472-19-74  | 19-74         | Nuclear Assurance Company | 397023             | 814330              | 240                |
| 34       | 72    | 19      | 3472-19-75  | 19-75         | Nuclear Assurance Company | 396615             | 814616              | 239                |
| 34       | 72    | 19      | 3472-19-76  | 19-76         | Nuclear Assurance Company | 397506             | 814214              | 278                |
| 34       | 72    | 19      | 3472-19-77  | 19-77         | Nuclear Assurance Company | 396619             | 814544              | 237                |
| 34       | 72    | 19      | 3472-19-78  | 19-78         | Nuclear Assurance Company | 396402             | 814987              | 297                |
| 34       | 72    | 19      | 3472-19-79  | 19-79         | Nuclear Assurance Company | 396403             | 815074              | 297                |
| 34       | 72    | 19      | 3472-19-8   | 19-8          | R.L. Peterson             | 396659             | 813817              | 218                |
| 34       | 72    | 19      | 3472-19-80  | 19-80         | Nuclear Assurance Company | 401202             | 815072              | 800                |
| 34       | 72    | 19      | 3472-19-81  | 19-81         | Nuclear Assurance Company | 399374             | 813852              | 500                |
| 34       | 72    | 19      | 3472-19-82  | 19-82         | Nuclear Assurance Company | 397000             | 816510              | 500                |
| 34       | 72    | 19      | 3472-19-83  | 19-83         | Nuclear Assurance Company | 398321             | 814291              | 298                |
| 34       | 72    | 19      | 3472-19-84  | 19-84         | Nuclear Assurance Company | 398375             | 814100              | 298                |
| 34       | 72    | 19      | 3472-19-85  | 19-85         | Nuclear Assurance Company | 397799             | 814885              | 317                |
| 34       | 72    | 19      | 3472-19-86  | 19-86         | Nuclear Assurance Company | 398221             | 813915              | 297                |
| 34       | 72    | 19      | 3472-19-87  | 19-87         | Nuclear Assurance Company | 398436             | 814284              | 298                |
| 34       | 72    | 19      | 3472-19-88  | 19-88         | Nuclear Assurance Company | 398315             | 814484              | 297                |
| 34       | 72    | 19      | 3472-19-89  | 19-89         | Nuclear Assurance Company | 398516             | 814505              | 317                |
| 34       | 72    | 19      | 3472-19-89C | 19-89C        | Malapai                   | 398506.7           | 814512.3            | 300                |
| 34       | 72    | 19      | 3472-19-9   | 19-9          | R.L. Peterson             | 396653             | 813776              | 216                |
| 34       | 72    | 19      | 3472-19-90  | 19-90         | Nuclear Assurance Company | 396625             | 814498              | 236                |
| 34       | 72    | 19      | 3472-19-91  | 19-91         | Nuclear Assurance Company | 396557             | 815040              | 300                |
| 34       | 72    | 19      | 3472-19-92  | 19-92         | Nuclear Assurance Company | 396355             | 814977              | 300                |
| 34       | 72    | 19      | 3472-19-93  | 19-93         | Nuclear Assurance Company | 396908             | 814656              | 239                |
| 34       | 72    | 19      | 3472-19-94  | 19-94         | Nuclear Assurance Company | 396752             | 814652              | 240                |
| 34       | 72    | 19      | 3472-19-95  | 19-95         | Nuclear Assurance Company | 396308             | 814969              | 298                |
| 34       | 72    | 19      | 3472-19-96  | 19-96         | Nuclear Assurance Company | 397291             | 813204              | 280                |
| 34       | 72    | 19      | 3472-19-97  | 19-97         | Nuclear Assurance Company | 397123             | 813147              | 278                |
| 34       | 72    | 19      | 3472-19-98  | 19-98         | Nuclear Assurance Company | 397119             | 813192              | 280                |



Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number       | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 34       | 72    | 19      | 3472-19-99        | 19-99         | Nuclear Assurance Company | 397303             | 813243              | 279                |
| 34       | 34    | 72      | 3472-19-M23       | M-23          | Uranium One               | 398153             | 814735              | 400                |
| 34       | 72    | 19      | 3472-19-RM-01C    | RM-01C        |                           | 397316.7           | 814296.8            |                    |
| 34       | 72    | 20      | 3472-20-1         | 20-1          | Nuclear Assurance Company | 402748             | 813833              | 500                |
| 34       | 72    | 21      | 3472-21-1         | 21-1          | R.L. Peterson             | 407320             | 812700              | 600                |
| 34       | 72    | 21      | 3472-21-2         | 21-2          | R.L. Peterson             | 412000             | 812700              | 600                |
| 34       | 72    | 23      | 3472-23-1         | 23-1          | Nuclear Assurance Company | 422216             | 814490              | 803                |
| 34       | 72    | 23      | 3472-23-2         | 23-2          | Nuclear Assurance Company | 420193             | 816862              | 797                |
| 34       | 72    | 23      | 3472-23-3         | 23-3          | Nuclear Assurance Company | 421885             | 817772              | 497                |
| 34       | 72    | 23      | 3472-23-4         | 23-4          | Nuclear Assurance Company | 418331             | 813467              | 497                |
| 34       | 72    | 26      | 3472-26-1         | 26-1          | Nuclear Assurance Company | 421818             | 810439              | 803                |
| 34       | 72    | 27      | 3472-27-1         | 27-1          | Nuclear Assurance Company | 413637             | 812372              | 797                |
| 34       | 72    | 28      | 3472-28-1         | 28-1          | R.L. Peterson             | 406970             | 807720              | 600                |
| 34       | 72    | 28      | 3472-28-2         | 28-2          | R.L. Peterson             | 411790             | 807840              | 600                |
| 34       | 72    | 28      | 3472-28-3         | 28-3          | Nuclear Assurance Company | 410074             | 812128              | 497                |
| 34       | 72    | 29      | 3472-29-1         | 29-1          | R.L. Peterson             | 402200             | 807795              | 599                |
| 34       | 72    | 29      | 3472-29-4         | 29-4          | Nuclear Assurance Company | 404610             | 812502              | 500                |
| 34       | 72    | 29      | 3472-29-5         | 29-5          | Nuclear Assurance Company | 405998             | 811663              | 797                |
| 34       | 72    | 29      | 3472-29-OX-102-12 | OX-102-12     |                           | 404466             | 807413              |                    |
| 34       | 72    | 29      | 3472-29-OX-56-13  | OX-56-13      |                           | 401498             | 810309              |                    |
| 34       | 72    | 30      | 3472-30-1         | 30-1          | R.L. Peterson             | 396200             | 810120              | 600                |
| 34       | 72    | 30      | 3472-30-1X        | 30-1X         | Nuclear Assurance Company | 398427             | 812400              | 597                |
| 34       | 72    | 30      | 3472-30-2X        | 30-2X         | Nuclear Assurance Company | 397616             | 811686              | 437                |
| 34       | 72    | 30      | 3472-30-3X        | 30-3X         |                           | 396753             | 811285              | 620                |
| 34       | 72    | 30      | 3472-30-46-10     | 46-10         |                           | 398897             | 810292              |                    |
| 34       | 72    | 32      | 3472-32-OX-243-14 | OX-243-14     |                           | 405151             | 802909              |                    |
| 34       | 72    | 32      | 3472-32-QX-190-11 | QX-190-11     |                           | 405826             | 805553              |                    |
| 34       | 72    | 33      | 3472-33-1         | 33-1          | Nuclear Assurance Company | 410996             | 802829              | 802                |
| 34       | 72    | 33      | 3472-33-OX-253-15 | OX-253-15     |                           | 407748             | 802307              |                    |
| 34       | 72    | 34      | 3472-34-1         | 34-1          | R.L. Peterson             | 415500             | 806880              | 595                |
| 34       | 72    | 34      | 3472-34-2         | 34-2          | Nuclear Assurance Company | 415327             | 807108              | 797                |
| 34       | 72    | 35      | 3472-35-1         | 35-1          | Nuclear Assurance Company | 417075             | 802312              | 795                |
| 34       | 72    | 35      | 3472-35-2         | 35-2          | Nuclear Assurance Company | 422217             | 806713              | 802                |
| 34       | 72    | 35      | 3472-35-3         | 35-3          | Nuclear Assurance Company | 421128             | 802361              | 196                |
| 34       | 72    | 35      | 3472-35-4         | 35-4          | Nuclear Assurance Company | 421355             | 803192              | 196                |
| 34       | 72    | 35      | 3472-35-5         | 35-5          | Nuclear Assurance Company | 422100             | 803251              | 797                |
| 34       | 72    | 35      | 3472-35-6         | 35-6          | Nuclear Assurance Company | 419087             | 804972              | 496                |
| 34       | 73    | 10      | 3473-10-1         | 1             | Uranium One               | 380448.3573        | 823396.6972         | 802                |
| 34       | 73    | 10      | 3473-10-100       | 100           | Uranium One               | 380448.3573        | 824196.6972         | 801                |
| 34       | 73    | 10      | 3473-10-101       | 101           | Uranium One               | 380848             | 824196              | 792                |
| 34       | 73    | 10      | 3473-10-102       | 102           | Uranium One               | 381248.3573        | 824196.6972         | 803                |
| 34       | 73    | 10      | 3473-10-103       | 103           | Uranium One               | 381648.3573        | 824196.6972         | 797                |
| 34       | 73    | 10      | 3473-10-104       | 104           | Uranium One               | 382048.3573        | 824196.6972         | 800                |
| 34       | 73    | 10      | 3473-10-105       | 105           | Uranium One               | 382448.3573        | 824196.6972         | 803                |
| 34       | 73    | 10      | 3473-10-106       | 106           | Uranium One               | 382448.3573        | 823796.6972         | 795                |
| 34       | 73    | 10      | 3473-10-107       | 107           | Uranium One               | 382448.3573        | 823396.6972         | 703                |
| 34       | 73    | 10      | 3473-10-108       | 108           | Uranium One               | 380448.3573        | 825796.6972         | 907                |
| 34       | 73    | 10      | 3473-10-109       | 109           | Uranium One               | 380448.3573        | 827396.6972         | 904                |
| 34       | 73    | 10      | 3473-10-110       | 110           | Uranium One               | 382048.3573        | 827396.6972         | 819                |
| 34       | 73    | 10      | 3473-10-111       | 111           | Uranium One               | 382048.3573        | 825796.6972         | 897                |
| 34       | 73    | 10      | 3473-10-112       | 112           | Uranium One               | 383648.3573        | 825796.6972         | 900                |
| 34       | 73    | 10      | 3473-10-113       | 113           | Uranium One               | 383648.3573        | 827396.6972         | 900                |
| 34       | 73    | 10      | 3473-10-114       | 114           | Uranium One               | 385248.3573        | 827396.6972         | 900                |
| 34       | 73    | 10      | 3473-10-115       | 115           | Uranium One               | 385248.3573        | 825796.6972         | 900                |
| 34       | 73    | 10      | 3473-10-116       | 116           | Uranium One               | 383648.3573        | 824196.6972         | 900                |
| 34       | 73    | 10      | 3473-10-117       | 117           | Uranium One               | 385248.3573        | 824196.6972         | 906                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number         | Short Hole ID | Company                | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|---------------------|---------------|------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 10      | 3473-10-118         | 118           | Uranium One            | 385248.3573        | 828196.6972         | 902                |
| 34       | 73    | 10      | 3473-10-119         | 119           | Uranium One            | 383648.3573        | 828196.6972         | 901                |
| 34       | 73    | 10      | 3473-10-120         | 120           | Uranium One            | 382048.3573        | 828196.6972         | 900                |
| 34       | 73    | 10      | 3473-10-121         | 121           | Uranium One            | 380448.3573        | 828196.6972         | 900                |
| 34       | 73    | 10      | 3473-10-188         | 188           | UNC Teton              | 384773.3           | 826965              | 588                |
| 34       | 73    | 10      | 3473-10-2           | 2             | Uranium One            | 380448.3573        | 823796.6972         | 802                |
| 34       | 73    | 10      | 3473-10-3           | 3             | Uranium One            | 380848.3573        | 823796.6972         | 802                |
| 34       | 73    | 10      | 3473-10-334         | 334           |                        | 382142.3           | 823299.9            |                    |
| 34       | 73    | 10      | 3473-10-341         | 341           | Uranium Resources INC. | 383035.4           | 823376.9            | 646                |
| 34       | 73    | 10      | 3473-10-4           | 4             | Uranium One            | 380848.3573        | 823396.6972         | 807                |
| 34       | 73    | 10      | 3473-10-59          | 59            | UNC Teton              | 382992.4           | 823495              | 798                |
| 34       | 73    | 10      | 3473-10-Ace-12      | M-12          | Morrison Nuclear       | 384946             | 823574              | 503                |
| 34       | 73    | 10      | 3473-10-Ace-150     | M-150         | Morrison Nuclear       | 385673             | 827346              | 496                |
| 34       | 73    | 10      | 3473-10-Ace-27      | M-27          | Morrison Nuclear       | 380574             | 823332              | 498                |
| 34       | 73    | 10      | 3473-10-Ace-5A      | M-5A          | Morrison Nuclear       | 381877             | 825804              | 497                |
| 34       | 73    | 10      | 3473-10-LI-69-2     | LI-69-2       |                        | 384817             | 824117              |                    |
| 34       | 73    | 10      | 3473-10-LI-70-1     | LI-70-1       |                        | 384974             | 827431              |                    |
| 34       | 73    | 13      | 3473-13-SX-03       | SX-03         | UNC Teton              | 395520.1           | 822531.3            | 300                |
| 34       | 73    | 13      | 3473-13-SX-2A       | SX-2A         | UNC Teton              | 393993.7           | 818195.8            | 277                |
| 34       | 73    | 14      | 3473-14-?2          | ?2            |                        | 388712.1           | 818592.6            |                    |
| 34       | 73    | 14      | 3473-14-1           | 1             |                        | 388140.6           | 817919.6            |                    |
| 34       | 73    | 14      | 3473-14-10          | 10            |                        | 387912             | 819261.7            |                    |
| 34       | 73    | 14      | 3473-14-10 Dup ID   | 10            |                        | 389387.5           | 818700.6            |                    |
| 34       | 73    | 14      | 3473-14-100         | 100           |                        | 387176.9           | 818325.6            |                    |
| 34       | 73    | 14      | 3473-14-1001        | 1001          | Uranium One            | 389720             | 818490              | 791                |
| 34       | 73    | 14      | 3473-14-1002        | 1002          | Uranium One            | 389820             | 818490              | 799                |
| 34       | 73    | 14      | 3473-14-1003        | 1003          | Uranium One            | 389920             | 818490              | 794                |
| 34       | 73    | 14      | 3473-14-1004        | 1004          | Uranium One            | 390020             | 818490              | 499                |
| 34       | 73    | 14      | 3473-14-1005        | 1005          | Uranium One            | 390120             | 818490              | 789                |
| 34       | 73    | 14      | 3473-14-1006        | 1006          | Uranium One            | 390120             | 818590              | 797                |
| 34       | 73    | 14      | 3473-14-1007        | 1007          | Uranium One            | 389920             | 818590              | 499                |
| 34       | 73    | 14      | 3473-14-1008        | 1008          | Uranium One            | 390120             | 818890              | 498                |
| 34       | 73    | 14      | 3473-14-1009        | 1009          | Uranium One            | 389731.9734        | 818890.2347         | 497                |
| 34       | 73    | 14      | 3473-14-101         | 101           |                        | 388181             | 820576.6            |                    |
| 34       | 73    | 14      | 3473-14-101 Dup ID  | 101           |                        | 388872             | 819344              |                    |
| 34       | 73    | 14      | 3473-14-1010        | 1010          | Uranium One            | 389331.9976        | 818889.9989         | 500                |
| 34       | 73    | 14      | 3473-14-1011        | 1011          | Uranium One            | 390320             | 818590              | 496                |
| 34       | 73    | 14      | 3473-14-102         | 102           |                        | 387007.4           | 818325.7            |                    |
| 34       | 73    | 14      | 3473-14-102 Dup ID  | 102           |                        | 388285.3           | 819357              |                    |
| 34       | 73    | 14      | 3473-14-103         | 103           |                        | 388165.9           | 820768.5            |                    |
| 34       | 73    | 14      | 3473-14-103 Dup ID  | 103           |                        | 388470.1           | 819367.6            |                    |
| 34       | 73    | 14      | 3473-14-104         | 104           |                        | 387009.8           | 818042.9            |                    |
| 34       | 73    | 14      | 3473-14-104 Dup ID  | 104           |                        | 388662             | 819369.5            |                    |
| 34       | 73    | 14      | 3473-14-105         | 105           |                        | 388142.4           | 818617.8            |                    |
| 34       | 73    | 14      | 3473-14-105 Dup ID  | 105           |                        | 389300.1           | 818558.5            |                    |
| 34       | 73    | 14      | 3473-14-106         | 106           |                        | 386811.6           | 818036.4            |                    |
| 34       | 73    | 14      | 3473-14-106 Dup ID  | 106           |                        | 388292.8           | 819261              |                    |
| 34       | 73    | 14      | 3473-14-107         | 107           |                        | 388365.5           | 820579.6            |                    |
| 34       | 73    | 14      | 3473-14-107 Dup ID  | 107           |                        | 388975.3           | 819126.4            |                    |
| 34       | 73    | 14      | 3473-14-108         | 108           |                        | 387986.7           | 820579.1            |                    |
| 34       | 73    | 14      | 3473-14-108 Dup ID  | 108           |                        | 389298.4           | 818511.5            |                    |
| 34       | 73    | 14      | 3473-14-109         | 109           |                        | 388134.2           | 818890.5            |                    |
| 34       | 73    | 14      | 3473-14-11          | 11            |                        | 387919             | 819358.8            |                    |
| 34       | 73    | 14      | 3473-14-11 Dup ID-1 | 11            |                        | 389194.7           | 818661.1            |                    |
| 34       | 73    | 14      | 3473-14-11 Dup ID-2 | 11            |                        | 389547             | 818780.5            |                    |
| 34       | 73    | 14      | 3473-14-11?         | 11?           |                        | 388295.9           | 819305.5            |                    |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number         | Short Hole ID | Company | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|---------------------|---------------|---------|--------------------|---------------------|--------------------|
| 34       | 73    | 14      | 3473-14-110         | 110           |         | 387948.2           | 818880.9            |                    |
| 34       | 73    | 14      | 3473-14-111         | 111           |         | 388543.2           | 820586.1            |                    |
| 34       | 73    | 14      | 3473-14-111 Dup ID  | 111           |         | 389014             | 818580.7            |                    |
| 34       | 73    | 14      | 3473-14-112         | 112           |         | 388074             | 820577.5            |                    |
| 34       | 73    | 14      | 3473-14-112 Dup ID  | 112           |         | 388975.5           | 819029.6            |                    |
| 34       | 73    | 14      | 3473-14-113         | 113           |         | 387953.7           | 818601.3            |                    |
| 34       | 73    | 14      | 3473-14-114         | 114           |         | 388137.2           | 820608.3            |                    |
| 34       | 73    | 14      | 3473-14-114 Dup ID  | 114           |         | 388888.3           | 819031.9            |                    |
| 34       | 73    | 14      | 3473-14-115         | 115           |         | 387786.6           | 818591.3            |                    |
| 34       | 73    | 14      | 3473-14-115 Dup ID  | 115           |         | 388298.7           | 819280.9            |                    |
| 34       | 73    | 14      | 3473-14-116         | 116           |         | 387886.7           | 818585.3            |                    |
| 34       | 73    | 14      | 3473-14-116 Dup ID  | 116           |         | 388993.1           | 818632.7            |                    |
| 34       | 73    | 14      | 3473-14-117         | 117           |         | 387212.4           | 818592.9            |                    |
| 34       | 73    | 14      | 3473-14-117 Dup ID  | 117           |         | 388937.4           | 819032.4            |                    |
| 34       | 73    | 14      | 3473-14-118         | 118           |         | 387286.3           | 818703.4            |                    |
| 34       | 73    | 14      | 3473-14-118 Dup ID  | 118           |         | 388721.8           | 818500.1            |                    |
| 34       | 73    | 14      | 3473-14-119         | 119           |         | 388207.2           | 819653.3            |                    |
| 34       | 73    | 14      | 3473-14-119 Dup ID  | 119           |         | 388606.74          | 818380.3            |                    |
| 34       | 73    | 14      | 3473-14-12          | 12            |         | 387713             | 819258.7            |                    |
| 34       | 73    | 14      | 3473-14-12 Dup ID-1 | 12            |         | 389137.6           | 818955.6            |                    |
| 34       | 73    | 14      | 3473-14-12 Dup ID-2 | 12            |         | 389471.8           | 818665.3            |                    |
| 34       | 73    | 14      | 3473-14-120         | 120           |         | 388383.4           | 820227.1            |                    |
| 34       | 73    | 14      | 3473-14-121         | 121           |         | 387985.4           | 819559.6            |                    |
| 34       | 73    | 14      | 3473-14-121 Dup ID  | 121           |         | 388428.9           | 818374.1            |                    |
| 34       | 73    | 14      | 3473-14-122         | 122           |         | 387305.2           | 819262.9            |                    |
| 34       | 73    | 14      | 3473-14-122 Dup ID  | 122           |         | 388404.2           | 818166.4            |                    |
| 34       | 73    | 14      | 3473-14-123         | 123           |         | 387937.8           | 820312.4            |                    |
| 34       | 73    | 14      | 3473-14-123 Dup ID  | 123           |         | 388608.7           | 818575.4            |                    |
| 34       | 73    | 14      | 3473-14-124         | 124           |         | 387594.2           | 819811.9            |                    |
| 34       | 73    | 14      | 3473-14-124 Dup ID  | 124           |         | 388517.5           | 818376.3            |                    |
| 34       | 73    | 14      | 3473-14-125         | 125           |         | 388494.7           | 818168.6            |                    |
| 34       | 73    | 14      | 3473-14-126         | 126           |         | 389734.9           | 818787.2            |                    |
| 34       | 73    | 14      | 3473-14-128         | 128           |         | 388604.7           | 818476.5            |                    |
| 34       | 73    | 14      | 3473-14-128 Dup ID  | 128           |         | 389737.4           | 818719              |                    |
| 34       | 73    | 14      | 3473-14-129         | 129           |         | 389289             | 818656.8            |                    |
| 34       | 73    | 14      | 3473-14-13          | 13            |         | 389265.8           | 819041.6            |                    |
| 34       | 73    | 14      | 3473-14-130         | 130           |         | 389631.3           | 818634.1            |                    |
| 34       | 73    | 14      | 3473-14-14          | 14            |         | 387714.3           | 819454.3            |                    |
| 34       | 73    | 14      | 3473-14-14 Dup ID   | 14            |         | 389259.7           | 818922.4            |                    |
| 34       | 73    | 14      | 3473-14-15          | 15            |         | 387927.5           | 819454.7            |                    |
| 34       | 73    | 14      | 3473-14-15 Dup ID   | 15            |         | 389655.4           | 818787.6            |                    |
| 34       | 73    | 14      | 3473-14-16          | 16            |         | 387713.2           | 819652              |                    |
| 34       | 73    | 14      | 3473-14-17          | 17            |         | 387925.5           | 819668.9            |                    |
| 34       | 73    | 14      | 3473-14-17 Dup ID   | 17            |         | 389393.2           | 818603.8            |                    |
| 34       | 73    | 14      | 3473-14-18          | 18            |         | 388018.6           | 819359.4            |                    |
| 34       | 73    | 14      | 3473-14-18 Dup ID   | 18            |         | 389564.5           | 818586.1            |                    |
| 34       | 73    | 14      | 3473-14-19          | 19            |         | 386603             | 819266.1            |                    |
| 34       | 73    | 14      | 3473-14-19 Dup ID   | 19            |         | 389739.4           | 818579              |                    |
| 34       | 73    | 14      | 3473-14-2           | 2             |         | 388651.8           | 819559.2            |                    |
| 34       | 73    | 14      | 3473-14-20          | 20            |         | 387710.4           | 820059.7            |                    |
| 34       | 73    | 14      | 3473-14-20 Dup ID   | 20            |         | 389638.4           | 818593.2            |                    |
| 34       | 73    | 14      | 3473-14-21          | 21            |         | 387708.9           | 820149.7            |                    |
| 34       | 73    | 14      | 3473-14-21 Dup ID   | 21            |         | 389773.3           | 818392.6            |                    |
| 34       | 73    | 14      | 3473-14-22          | 22            |         | 387712             | 819969.6            |                    |
| 34       | 73    | 14      | 3473-14-22 Dup ID   | 22            |         | 389749.7           | 818492.9            |                    |
| 34       | 73    | 14      | 3473-14-23          | 23            |         | 387623.5           | 820060.9            |                    |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number       | Short Hole ID | Company | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------------|---------------|---------|--------------------|---------------------|--------------------|
| 34       | 73    | 14      | 3473-14-23 Dup ID | 23            |         | 389860.9           | 818590.9            |                    |
| 34       | 73    | 14      | 3473-14-24        | 24            |         | 388029.3           | 819455.9            |                    |
| 34       | 73    | 14      | 3473-14-24 Dup ID | 24            |         | 389837.1           | 818492.7            |                    |
| 34       | 73    | 14      | 3473-14-25        | 25            |         | 387050             | 819295.9            |                    |
| 34       | 73    | 14      | 3473-14-25 Dup ID | 25            |         | 389840.6           | 818443              |                    |
| 34       | 73    | 14      | 3473-14-26        | 26            |         | 387971.1           | 819364.4            |                    |
| 34       | 73    | 14      | 3473-14-26 Dup ID | 26            |         | 389854.6           | 818755.4            |                    |
| 34       | 73    | 14      | 3473-14-27        | 27            |         | 388073.4           | 819359.9            |                    |
| 34       | 73    | 14      | 3473-14-27 Dup ID | 27            |         | 389921             | 818434.7            |                    |
| 34       | 73    | 14      | 3473-14-28        | 28            |         | 387624.7           | 820241.2            |                    |
| 34       | 73    | 14      | 3473-14-28 Dup ID | 28            |         | 390100.5           | 818318.8            |                    |
| 34       | 73    | 14      | 3473-14-29        | 29            |         | 387270.8           | 819308.1            |                    |
| 34       | 73    | 14      | 3473-14-29 Dup ID | 29            |         | 389837             | 818848.2            |                    |
| 34       | 73    | 14      | 3473-14-3         | 3             |         | 388652.2           | 819383.4            |                    |
| 34       | 73    | 14      | 3473-14-30        | 30            |         | 387806.3           | 820062.6            |                    |
| 34       | 73    | 14      | 3473-14-30 Dup ID | 30            |         | 389858.3           | 818717.4            |                    |
| 34       | 73    | 14      | 3473-14-31        | 31            |         | 388127.1           | 819459.6            |                    |
| 34       | 73    | 14      | 3473-14-31 Dup ID | 31            |         | 389947.2           | 818748.7            |                    |
| 34       | 73    | 14      | 3473-14-32        | 32            |         | 387627.2           | 820150.3            |                    |
| 34       | 73    | 14      | 3473-14-32 Dup ID | 32            |         | 389918.2           | 818523.8            |                    |
| 34       | 73    | 14      | 3473-14-33        | 33            |         | 387539.9           | 820143.7            |                    |
| 34       | 73    | 14      | 3473-14-33 Dup ID | 33            |         | 389811.5           | 818938.7            |                    |
| 34       | 73    | 14      | 3473-14-34        | 34            |         | 387501.6           | 819383.4            |                    |
| 34       | 73    | 14      | 3473-14-34 Dup ID | 34            |         | 389945.4           | 818843.4            |                    |
| 34       | 73    | 14      | 3473-14-35        | 35            |         | 387385.6           | 819352.9            |                    |
| 34       | 73    | 14      | 3473-14-35 Dup ID | 35            |         | 390019.6           | 818471.3            |                    |
| 34       | 73    | 14      | 3473-14-36        | 36            |         | 387550.1           | 820057.3            |                    |
| 34       | 73    | 14      | 3473-14-37        | 37            |         | 387806.1           | 820158.6            |                    |
| 34       | 73    | 14      | 3473-14-37 Dup ID | 37            |         | 389945             | 818937              |                    |
| 34       | 73    | 14      | 3473-14-38        | 38            |         | 387904.8           | 820062.5            |                    |
| 34       | 73    | 14      | 3473-14-39        | 39            |         | 387445.9           | 819372.8            |                    |
| 34       | 73    | 14      | 3473-14-39 Dup ID | 39            |         | 389848.7           | 818803.9            |                    |
| 34       | 73    | 14      | 3473-14-4         | 4             |         | 388456.3           | 819378.4            |                    |
| 34       | 73    | 14      | 3473-14-4 Dup ID  | 4             |         | 388974.3           | 818698.6            |                    |
| 34       | 73    | 14      | 3473-14-40        | 40            |         | 387444.4           | 819456.2            |                    |
| 34       | 73    | 14      | 3473-14-40 Dup ID | 40            |         | 389918.8           | 818481.6            |                    |
| 34       | 73    | 14      | 3473-14-41        | 41            |         | 387445             | 819280.1            |                    |
| 34       | 73    | 14      | 3473-14-41 Dup ID | 41            |         | 390120.4           | 818476.5            |                    |
| 34       | 73    | 14      | 3473-14-42        | 42            |         | 387984.1           | 819457.8            |                    |
| 34       | 73    | 14      | 3473-14-42 Dup ID | 42            |         | 390143.7           | 818846.1            |                    |
| 34       | 73    | 14      | 3473-14-43        | 43            |         | 387592.5           | 820061.2            |                    |
| 34       | 73    | 14      | 3473-14-43 Dup ID | 43            |         | 390052.4           | 818698.3            |                    |
| 34       | 73    | 14      | 3473-14-44        | 44            |         | 387508.7           | 820054.5            |                    |
| 34       | 73    | 14      | 3473-14-44 Dup ID | 44            |         | 390216.7           | 818474.7            |                    |
| 34       | 73    | 14      | 3473-14-45        | 45            |         | 388076.6           | 819461.8            |                    |
| 34       | 73    | 14      | 3473-14-45 Dup ID | 45            |         | 390109.2           | 818576.8            |                    |
| 34       | 73    | 14      | 3473-14-46        | 46            |         | 387627.5           | 820195.7            |                    |
| 34       | 73    | 14      | 3473-14-46 Dup ID | 46            |         | 390244.4           | 818795              |                    |
| 34       | 73    | 14      | 3473-14-47        | 47            |         | 387633.3           | 820101.5            |                    |
| 34       | 73    | 14      | 3473-14-47 Dup ID | 47            |         | 390155.2           | 818751.6            |                    |
| 34       | 73    | 14      | 3473-14-48        | 48            |         | 387808.9           | 820242.8            |                    |
| 34       | 73    | 14      | 3473-14-48 Dup ID | 48            |         | 390056.1           | 818653.8            |                    |
| 34       | 73    | 14      | 3473-14-49        | 49            |         | 388032.5           | 819554              |                    |
| 34       | 73    | 14      | 3473-14-49 Dup ID | 49            |         | 389945             | 818890.6            |                    |
| 34       | 73    | 14      | 3473-14-5         | 5             |         | 388657.6           | 819438.8            |                    |
| 34       | 73    | 14      | 3473-14-5 Dup ID  | 5             |         | 389396             | 818907.6            |                    |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number         | Short Hole ID | Company | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|---------------------|---------------|---------|--------------------|---------------------|--------------------|
| 34       | 73    | 14      | 3473-14-50          | 50            |         | 387354.1           | 819271.4            |                    |
| 34       | 73    | 14      | 3473-14-50 Dup ID   | 50            |         | 389948.7           | 818802              |                    |
| 34       | 73    | 14      | 3473-14-51          | 51            |         | 387447.7           | 819547.7            |                    |
| 34       | 73    | 14      | 3473-14-51 Dup ID   | 51            |         | 390221.9           | 818568.8            |                    |
| 34       | 73    | 14      | 3473-14-52          | 52            |         | 387360.2           | 819457              |                    |
| 34       | 73    | 14      | 3473-14-52 Dup ID   | 52            |         | 390110.7           | 818533.9            |                    |
| 34       | 73    | 14      | 3473-14-53          | 53            |         | 387536.7           | 819459.1            |                    |
| 34       | 73    | 14      | 3473-14-53 Dup ID   | 53            |         | 390219             | 818661.2            |                    |
| 34       | 73    | 14      | 3473-14-54          | 54            |         | 387402.4           | 819276.1            |                    |
| 34       | 73    | 14      | 3473-14-54 Dup ID   | 54            |         | 390395.2           | 818665.6            |                    |
| 34       | 73    | 14      | 3473-14-55          | 55            |         | 387550.7           | 819963.7            |                    |
| 34       | 73    | 14      | 3473-14-55 Dup ID   | 55            |         | 390139.3           | 818938.8            |                    |
| 34       | 73    | 14      | 3473-14-56          | 56            |         | 388034             | 819644.5            |                    |
| 34       | 73    | 14      | 3473-14-56 Dup ID   | 56            |         | 390046.6           | 818741.2            |                    |
| 34       | 73    | 14      | 3473-14-57          | 57            |         | 388081.8           | 819550.4            |                    |
| 34       | 73    | 14      | 3473-14-57 Dup ID   | 57            |         | 389735.7           | 818844.6            |                    |
| 34       | 73    | 14      | 3473-14-58          | 58            |         | 387543.4           | 819549.8            |                    |
| 34       | 73    | 14      | 3473-14-58 Dup ID-1 | 58            |         | 389826.6           | 818894              |                    |
| 34       | 73    | 14      | 3473-14-58 Dup ID-2 | 58            |         | 390044.9           | 818843.6            |                    |
| 34       | 73    | 14      | 3473-14-58 Dup ID-3 | 58            |         | 390151.5           | 818657.5            |                    |
| 34       | 73    | 14      | 3473-14-59          | 59            |         | 387403             | 819179.5            |                    |
| 34       | 73    | 14      | 3473-14-6           | 6             |         | 388100             | 819186.2            |                    |
| 34       | 73    | 14      | 3473-14-6 Dup ID-1  | 6             |         | 389172.7           | 818802.6            |                    |
| 34       | 73    | 14      | 3473-14-6 Dup ID-2  | 6             |         | 389466.9           | 818848.8            |                    |
| 34       | 73    | 14      | 3473-14-60          | 60            |         | 387403.6           | 819459.8            |                    |
| 34       | 73    | 14      | 3473-14-60 Dup ID   | 60            |         | 389661.2           | 818489              |                    |
| 34       | 73    | 14      | 3473-14-61          | 61            |         | 388122.6           | 819649.2            |                    |
| 34       | 73    | 14      | 3473-14-61 Dup ID   | 61            |         | 389724.4           | 818944.5            |                    |
| 34       | 73    | 14      | 3473-14-62          | 62            |         | 387504.9           | 819966.8            |                    |
| 34       | 73    | 14      | 3473-14-62 Dup ID   | 62            |         | 389969.3           | 818654.2            |                    |
| 34       | 73    | 14      | 3473-14-63          | 63            |         | 387632.8           | 819961.7            |                    |
| 34       | 73    | 14      | 3473-14-63 Dup ID   | 63            |         | 389639.9           | 818877.1            |                    |
| 34       | 73    | 14      | 3473-14-64          | 64            |         | 387310.4           | 819183.9            |                    |
| 34       | 73    | 14      | 3473-14-64 Dup ID-1 | 64            |         | 387374.4           | 818971.1            |                    |
| 34       | 73    | 14      | 3473-14-64 Dup ID-2 | 64            |         | 390047.8           | 818800.4            |                    |
| 34       | 73    | 14      | 3473-14-65          | 65            |         | 387497.3           | 819553.5            |                    |
| 34       | 73    | 14      | 3473-14-65 Dup ID   | 65            |         | 389678.5           | 818558.8            |                    |
| 34       | 73    | 14      | 3473-14-66          | 66            |         | 387498.8           | 819643              |                    |
| 34       | 73    | 14      | 3473-14-66 Dup ID   | 66            |         | 389731.9           | 818890.2            |                    |
| 34       | 73    | 14      | 3473-14-67          | 67            |         | 387492             | 819459.4            |                    |
| 34       | 73    | 14      | 3473-14-67 Dup ID   | 67            |         | 390044             | 818887.8            |                    |
| 34       | 73    | 14      | 3473-14-68          | 68            |         | 388126.9           | 819838.3            |                    |
| 34       | 73    | 14      | 3473-14-68 Dup ID   | 68            |         | 389648.7           | 818831.5            |                    |
| 34       | 73    | 14      | 3473-14-69          | 69            |         | 388070.3           | 819647.9            |                    |
| 34       | 73    | 14      | 3473-14-69 Dup ID   | 69            |         | 389548.3           | 818826.9            |                    |
| 34       | 73    | 14      | 3473-14-7           | 7             |         | 388083.4           | 819273.9            |                    |
| 34       | 73    | 14      | 3473-14-7 Dup ID    | 7             |         | 389281.4           | 818858.7            |                    |
| 34       | 73    | 14      | 3473-14-70          | 70            |         | 388167.1           | 819651.3            |                    |
| 34       | 73    | 14      | 3473-14-70 Dup ID   | 70            |         | 390021.9           | 818653.8            |                    |
| 34       | 73    | 14      | 3473-14-71          | 71            |         | 387359.9           | 819180              |                    |
| 34       | 73    | 14      | 3473-14-71 Dup ID   | 71            |         | 389673.7           | 818530.3            |                    |
| 34       | 73    | 14      | 3473-14-72          | 72            |         | 387374.4           | 818971.1            |                    |
| 34       | 73    | 14      | 3473-14-72 Dup ID   | 72            |         | 389597.6           | 818528.4            |                    |
| 34       | 73    | 14      | 3473-14-73          | 73            |         | 388304             | 819850.1            |                    |
| 34       | 73    | 14      | 3473-14-73C         | 73C           |         | 389839.2           | 818892.7            |                    |
| 34       | 73    | 14      | 3473-14-74          | 74            |         | 387455.6           | 819644              |                    |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number        | Short Hole ID | Company | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------------|---------------|---------|--------------------|---------------------|--------------------|
| 34       | 73    | 14      | 3473-14-74 Dup ID  | 74            |         | 389156.1           | 818878.7            |                    |
| 34       | 73    | 14      | 3473-14-75         | 75            |         | 387551.4           | 819643.4            |                    |
| 34       | 73    | 14      | 3473-14-75 Dup ID  | 75            |         | 388960.9           | 818807.3            |                    |
| 34       | 73    | 14      | 3473-14-76         | 76            |         | 387331.8           | 818968.9            |                    |
| 34       | 73    | 14      | 3473-14-76 Dup ID  | 76            |         | 388692.6           | 818667.5            |                    |
| 34       | 73    | 14      | 3473-14-77         | 77            |         | 387802.3           | 820418.9            |                    |
| 34       | 73    | 14      | 3473-14-77 Dup ID  | 77            |         | 389549.1           | 818688.4            |                    |
| 34       | 73    | 14      | 3473-14-78         | 78            |         | 387726.6           | 820242.2            |                    |
| 34       | 73    | 14      | 3473-14-78 Dup ID  | 78            |         | 389555.8           | 818924.9            |                    |
| 34       | 73    | 14      | 3473-14-79         | 79            |         | 388216.4           | 819874.1            |                    |
| 34       | 73    | 14      | 3473-14-79 Dup ID  | 79            |         | 389153.3           | 818971.2            |                    |
| 34       | 73    | 14      | 3473-14-8          | 8             |         | 387910             | 819158.6            |                    |
| 34       | 73    | 14      | 3473-14-8 Dup ID   | 8             |         | 389337             | 818876              |                    |
| 34       | 73    | 14      | 3473-14-80         | 80            |         | 388201.3           | 820060.2            |                    |
| 34       | 73    | 14      | 3473-14-80 Dup ID  | 80            |         | 388683.5           | 818908.1            |                    |
| 34       | 73    | 14      | 3473-14-81         | 81            |         | 387347.4           | 818786.1            |                    |
| 34       | 73    | 14      | 3473-14-81 Dup ID  | 81            |         | 389477             | 818556.7            |                    |
| 34       | 73    | 14      | 3473-14-82         | 82            |         | 387801.6           | 820325.5            |                    |
| 34       | 73    | 14      | 3473-14-82 Dup ID  | 82            |         | 389577.5           | 818558.8            |                    |
| 34       | 73    | 14      | 3473-14-83         | 83            |         | 387679             | 820216.4            |                    |
| 34       | 73    | 14      | 3473-14-83 Dup ID  | 83            |         | 388680.5           | 819034.5            |                    |
| 34       | 73    | 14      | 3473-14-84         | 84            |         | 387411.8           | 819642.3            |                    |
| 34       | 73    | 14      | 3473-14-84 Dup ID  | 84            |         | 388719.6           | 817972.8            |                    |
| 34       | 73    | 14      | 3473-14-85         | 85            |         | 387254.5           | 818782.1            |                    |
| 34       | 73    | 14      | 3473-14-85 Dup ID  | 85            |         | 389800.2           | 818986.4            |                    |
| 34       | 73    | 14      | 3473-14-86         | 86            |         | 388373.8           | 820060.7            |                    |
| 34       | 73    | 14      | 3473-14-86 Dup ID  | 86            |         | 389558.7           | 818877.1            |                    |
| 34       | 73    | 14      | 3473-14-87         | 87            |         | 387804.8           | 820372.7            |                    |
| 34       | 73    | 14      | 3473-14-87 Dup ID  | 87            |         | 388676.5           | 819255.9            |                    |
| 34       | 73    | 14      | 3473-14-88         | 88            |         | 388292.5           | 820061.4            |                    |
| 34       | 73    | 14      | 3473-14-88 Dup ID  | 88            |         | 389483.1           | 818470              |                    |
| 34       | 73    | 14      | 3473-14-89         | 89            |         | 388288.3           | 820222.9            |                    |
| 34       | 73    | 14      | 3473-14-89 Dup ID  | 89            |         | 388461.8           | 817967.5            |                    |
| 34       | 73    | 14      | 3473-14-9          | 9             |         | 388089.6           | 819220.7            |                    |
| 34       | 73    | 14      | 3473-14-9 Dup ID-1 | 9             |         | 389363.5           | 818893.4            |                    |
| 34       | 73    | 14      | 3473-14-9 Dup ID-2 | 9             |         | 389369.4           | 818543.6            |                    |
| 34       | 73    | 14      | 3473-14-90         | 90            |         | 387806.9           | 820283.7            |                    |
| 34       | 73    | 14      | 3473-14-90 Dup ID  | 90            |         | 389486.2           | 818423.7            |                    |
| 34       | 73    | 14      | 3473-14-91         | 91            |         | 387990.7           | 820282.7            |                    |
| 34       | 73    | 14      | 3473-14-91 Dup ID  | 91            |         | 389402.8           | 818420.3            |                    |
| 34       | 73    | 14      | 3473-14-92         | 92            |         | 387307.1           | 818785.8            |                    |
| 34       | 73    | 14      | 3473-14-92 Dup ID  | 92            |         | 388316.2           | 817934              |                    |
| 34       | 73    | 14      | 3473-14-93         | 93            |         | 387311.8           | 818602              |                    |
| 34       | 73    | 14      | 3473-14-93 Dup ID  | 93            |         | 390027.7           | 818571.6            |                    |
| 34       | 73    | 14      | 3473-14-94         | 94            |         | 388385.9           | 817956.9            |                    |
| 34       | 73    | 14      | 3473-14-94 Dup ID  | 94            |         | 388461.2           | 820232.2            |                    |
| 34       | 73    | 14      | 3473-14-95         | 95            |         | 387987.6           | 820319              |                    |
| 34       | 73    | 14      | 3473-14-95 Dup ID  | 95            |         | 389398.9           | 818514.6            |                    |
| 34       | 73    | 14      | 3473-14-96         | 96            |         | 388179.2           | 820329.8            |                    |
| 34       | 73    | 14      | 3473-14-96 Dup ID  | 96            |         | 388668.1           | 819329              |                    |
| 34       | 73    | 14      | 3473-14-97         | 97            |         | 387499.9           | 819806.6            |                    |
| 34       | 73    | 14      | 3473-14-97 Dup ID  | 97            |         | 388879             | 819229.2            |                    |
| 34       | 73    | 14      | 3473-14-98         | 98            |         | 387267             | 818598              |                    |
| 34       | 73    | 14      | 3473-14-98 Dup ID  | 98            |         | 389309             | 818467.3            |                    |
| 34       | 73    | 14      | 3473-14-99         | 99            |         | 387270             | 818326              |                    |
| 34       | 73    | 14      | 3473-14-99 Dup ID  | 99            |         | 390083.7           | 818577.4            |                    |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company     | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|-------------|--------------------|---------------------|--------------------|
| 34       | 73    | 14      | 3473-14-M-12 | M-12          | Uranium One | 389889             | 818897              | 248                |
| 34       | 73    | 15      | 3473-15-100  | 100           | UNC Teton   | 382070.9474        | 821969.0592         | 597                |
| 34       | 73    | 15      | 3473-15-1001 | 1001          | Uranium One | 381647.5341        | 821946.8618         | 661                |
| 34       | 73    | 15      | 3473-15-1002 | 1002          | Uranium One | 382852.3           | 823039.3            | 657                |
| 34       | 73    | 15      | 3473-15-1003 | 1003          | Uranium One | 383278.1           | 823035              | 638                |
| 34       | 73    | 15      | 3473-15-1004 | 1004          | Uranium One | 381597.5341        | 821896.8618         | 637                |
| 34       | 73    | 15      | 3473-15-1005 | 1005          | Uranium One | 382062.7649        | 822618.1625         | 801                |
| 34       | 73    | 15      | 3473-15-1006 | 1006          | Uranium One | 382452             | 822602              | 795                |
| 34       | 73    | 15      | 3473-15-1007 | 1007          | Uranium One | 382861.873         | 822615.038          | 801                |
| 34       | 73    | 15      | 3473-15-1008 | 1008          | Uranium One | 383254.6           | 822621              | 680                |
| 34       | 73    | 15      | 3473-15-1009 | 1009          | Uranium One | 381647.5341        | 821746.8618         | 635                |
| 34       | 73    | 15      | 3473-15-101  | 101           | UNC Teton   | 381303.9075        | 823004.5732         | 699                |
| 34       | 73    | 15      | 3473-15-1010 | 1010          | Uranium One | 381664.3042        | 822613.4758         | 800                |
| 34       | 73    | 15      | 3473-15-1011 | 1011          | Uranium One | 382058.0781        | 822241.4487         | 796                |
| 34       | 73    | 15      | 3473-15-1012 | 1012          | Uranium One | 382418.0931        | 822233.9578         | 799                |
| 34       | 73    | 15      | 3473-15-1013 | 1013          | Uranium One | 381647.5341        | 821796.8618         | 801                |
| 34       | 73    | 15      | 3473-15-1014 | 1014          | Uranium One | 382001.8           | 821853.9            | 800                |
| 34       | 73    | 15      | 3473-15-1015 | 1015          | Uranium One | 382449.5           | 821854              | 797                |
| 34       | 73    | 15      | 3473-15-1016 | 1016          | Uranium One | 382858             | 821810              | 790                |
| 34       | 73    | 15      | 3473-15-1017 | 1017          | Uranium One | 381629.8038        | 822250.8022         | 798                |
| 34       | 73    | 15      | 3473-15-1018 | 1018          | Uranium One | 381747.5341        | 821796.8618         | 638                |
| 34       | 73    | 15      | 3473-15-1019 | 1019          | Uranium One | 381547.5341        | 821796.8618         | 638                |
| 34       | 73    | 15      | 3473-15-102  | 102           | UNC Teton   | 381867.2717        | 822465.6678         | 619                |
| 34       | 73    | 15      | 3473-15-1020 | 1020          | Uranium One | 381647.5341        | 821896.8618         | 640                |
| 34       | 73    | 15      | 3473-15-1021 | 1021          | Uranium One | 381647.5341        | 821696.8618         | 639                |
| 34       | 73    | 15      | 3473-15-1022 | 1022          | Uranium One | 381247.5341        | 821796.8618         | 658                |
| 34       | 73    | 15      | 3473-15-1023 | 1023          | Uranium One | 381247.5341        | 821396.8618         | 659                |
| 34       | 73    | 15      | 3473-15-1024 | 1024          | Uranium One | 380847.5341        | 821396.8618         | 656                |
| 34       | 73    | 15      | 3473-15-1025 | 1025          | Uranium One | 380849             | 821790              | 685                |
| 34       | 73    | 15      | 3473-15-1026 | 1026          | Uranium One | 380847.5341        | 822196.8618         | 681                |
| 34       | 73    | 15      | 3473-15-1027 | 1027          | Uranium One | 380847.5341        | 820996.8618         | 636                |
| 34       | 73    | 15      | 3473-15-1028 | 1028          | Uranium One | 381247             | 820996              | 633                |
| 34       | 73    | 15      | 3473-15-1029 | 1029          | Uranium One | 381647.5341        | 820996.8618         | 639                |
| 34       | 73    | 15      | 3473-15-103  | 103           | UNC Teton   | 382133.9           | 823378.5            | 716                |
| 34       | 73    | 15      | 3473-15-1030 | 1030          | Uranium One | 380847.534         | 820596.8618         | 653                |
| 34       | 73    | 15      | 3473-15-1031 | 1031          | Uranium One | 381247.5341        | 820596.8618         | 656                |
| 34       | 73    | 15      | 3473-15-1032 | 1032          | Uranium One | 381647.5341        | 820596.8618         | 251                |
| 34       | 73    | 15      | 3473-15-1033 | 1033          | Uranium One | 381597.5341        | 821796.8618         | 636                |
| 34       | 73    | 15      | 3473-15-1034 | 1034          | Uranium One | 381597.5341        | 821746.8618         | 641                |
| 34       | 73    | 15      | 3473-15-1035 | 1035          | Uranium One | 381697.5341        | 821796.8618         | 635                |
| 34       | 73    | 15      | 3473-15-1036 | 1036          | Uranium One | 381697.5341        | 821746.8618         | 640                |
| 34       | 73    | 15      | 3473-15-1037 | 1037          | Uranium One | 382858             | 821860              | 600                |
| 34       | 73    | 15      | 3473-15-1038 | 1038          | Uranium One | 382908             | 821860              | 654                |
| 34       | 73    | 15      | 3473-15-1039 | 1039          | Uranium One | 382908             | 821810              | 596                |
| 34       | 73    | 15      | 3473-15-104  | 104           | UNC Teton   | 382406.8316        | 822652.9695         | 638                |
| 34       | 73    | 15      | 3473-15-1040 | 1040          | Uranium One | 381597.5341        | 821846.8618         | 640                |
| 34       | 73    | 15      | 3473-15-1041 | 1041          | Uranium One | 381697.5341        | 821846.8618         | 633                |
| 34       | 73    | 15      | 3473-15-1042 | 1042          | Uranium One | 382502             | 822602              | 620                |
| 34       | 73    | 15      | 3473-15-1043 | 1043          | Uranium One | 382502             | 822652              | 619                |
| 34       | 73    | 15      | 3473-15-1044 | 1044          | Uranium One | 382452             | 822652              | 627                |
| 34       | 73    | 15      | 3473-15-1045 | 1045          | Uranium One | 382911.873         | 822615.038          | 615                |
| 34       | 73    | 15      | 3473-15-1046 | 1046          | Uranium One | 382911.873         | 822665.038          | 618                |
| 34       | 73    | 15      | 3473-15-1047 | 1047          | Uranium One | 382861.873         | 822665.038          | 615                |
| 34       | 73    | 15      | 3473-15-1048 | 1048          | Uranium One | 382858             | 821910              | 595                |
| 34       | 73    | 15      | 3473-15-1049 | 1049          | Uranium One | 382908             | 821910              | 599                |
| 34       | 73    | 15      | 3473-15-105  | 105           | UNC Teton   | 382753.5721        | 823124.078          | 638                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number     | Short Hole ID | Company                | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-----------------|---------------|------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 15      | 3473-15-1050    | 1050          | Uranium One            | 382958             | 821910              | 638                |
| 34       | 73    | 15      | 3473-15-1051    | 1051          | Uranium One            | 382958             | 821860              | 607                |
| 34       | 73    | 15      | 3473-15-1052    | 1052          | Uranium One            | 382958             | 821810              | 603                |
| 34       | 73    | 15      | 3473-15-1053    | 1053          | Uranium One            | 382958             | 821760              | 604                |
| 34       | 73    | 15      | 3473-15-1054    | 1054          | Uranium One            | 382908             | 821760              | 599                |
| 34       | 73    | 15      | 3473-15-1055    | 1055          | Uranium One            | 382858             | 821760              | 599                |
| 34       | 73    | 15      | 3473-15-1056C#2 | 1056C         | Uranium One            | 381656.4342        | 821911.3152         | 639                |
| 34       | 73    | 15      | 3473-15-1057    | 1057          | Uranium One            | 385566.41          | 823181.49           | 903                |
| 34       | 73    | 15      | 3473-15-1058    | 1058          | Uranium One            | 385566.41          | 821581.49           | 904                |
| 34       | 73    | 15      | 3473-15-1059    | 1059          | Uranium One            | 385566.41          | 819981.49           | 906                |
| 34       | 73    | 15      | 3473-15-106     | 106           | UNC Teton              | 382172.9268        | 823191.1785         | 678                |
| 34       | 73    | 15      | 3473-15-1060    | 1060          | Uranium One            | 385566.41          | 818381.49           | 895                |
| 34       | 73    | 15      | 3473-15-1061    | 1061          | Uranium One            | 383966.41          | 818381.49           | 903                |
| 34       | 73    | 15      | 3473-15-1062    | 1062          | Uranium One            | 383966             | 819981              | 902                |
| 34       | 73    | 15      | 3473-15-1063    | 1063          | Uranium One            | 382366.41          | 819981.49           | 900                |
| 34       | 73    | 15      | 3473-15-1064    | 1064          | Uranium One            | 382366.41          | 818381.49           | 899                |
| 34       | 73    | 15      | 3473-15-1065    | 1065          | Uranium One            | 380766.41          | 818381.49           | 899                |
| 34       | 73    | 15      | 3473-15-1066    | 1066          | Uranium One            | 381247.5341        | 821996.8618         | 639                |
| 34       | 73    | 15      | 3473-15-1067    | 1067          | Uranium One            | 381047.5           | 821796.8            | 643                |
| 34       | 73    | 15      | 3473-15-1068    | 1068          | Uranium One            | 380847.5341        | 821596.8618         | 640                |
| 34       | 73    | 15      | 3473-15-1069    | 1069          | Uranium One            | 380766.41          | 819181.49           | 701                |
| 34       | 73    | 15      | 3473-15-107     | 107           | UNC Teton              | 381822.2238        | 823054.1633         | 698                |
| 34       | 73    | 15      | 3473-15-1070    | 1070          | Uranium One            | 380766.41          | 819581.49           | 702                |
| 34       | 73    | 15      | 3473-15-108     | 108           | UNC Teton              | 380675.8426        | 823184.7871         | 799                |
| 34       | 73    | 15      | 3473-15-109     | 109           | UNC Teton              | 382174.0586        | 823092.6956         | 658                |
| 34       | 73    | 15      | 3473-15-110     | 110           | UNC Teton              | 382585.9376        | 822740.5108         | 639                |
| 34       | 73    | 15      | 3473-15-111     | 111           | UNC Teton              | 382632.2553        | 822237.4216         | 638                |
| 34       | 73    | 15      | 3473-15-112     | 112           | UNC Teton              | 381824.8523        | 822958.4891         | 659                |
| 34       | 73    | 15      | 3473-15-113     | 113           | UNC Teton              | 381262.0417        | 823025.8789         | 676                |
| 34       | 73    | 15      | 3473-15-114     | 114           | UNC Teton              | 382782.7202        | 822740.1329         | 638                |
| 34       | 73    | 15      | 3473-15-115     | 115           | UNC Teton              | 382813.5292        | 821741.1177         | 618                |
| 34       | 73    | 15      | 3473-15-116     | 116           | UNC Teton              | 382371.9679        | 822001.5846         | 598                |
| 34       | 73    | 15      | 3473-15-117     | 117           | UNC Teton              | 382979.248         | 822744.4373         | 638                |
| 34       | 73    | 15      | 3473-15-118     | 118           | UNC Teton              | 382376.9206        | 821700.777          | 596                |
| 34       | 73    | 15      | 3473-15-121     | 121           | UNC Teton              | 383151.9776        | 822738.4859         | 619                |
| 34       | 73    | 15      | 3473-15-122     | 122           |                        | 382382.8612        | 821500.3593         |                    |
| 34       | 73    | 15      | 3473-15-123     | 123           | UNC Teton              | 382221.9616        | 822571.9261         | 618                |
| 34       | 73    | 15      | 3473-15-124     | 124           | UNC Teton              | 382996.4096        | 822560.827          | 637                |
| 34       | 73    | 15      | 3473-15-125     | 125           | UNC Teton              | 382975.348         | 822930.973          | 638                |
| 34       | 73    | 15      | 3473-15-301C    | 301C          | Uranium Resources INC. | 382110.0073        | 821975.7008         | 571                |
| 34       | 73    | 15      | 3473-15-302     | 302           | Uranium Resources INC. | 381674.5938        | 822069.5608         | 627                |
| 34       | 73    | 15      | 3473-15-303     | 303           |                        | 381674.6237        | 821982.7132         |                    |
| 34       | 73    | 15      | 3473-15-304     | 304           | Uranium Resources INC. | 382024.2229        | 822462.926          | 625                |
| 34       | 73    | 15      | 3473-15-305     | 305           | Uranium Resources INC. | 381914.7959        | 822133.8691         | 613                |
| 34       | 73    | 15      | 3473-15-306     | 306           | Uranium Resources INC. | 381877.3363        | 821985.6634         | 628                |
| 34       | 73    | 15      | 3473-15-307     | 307           | Uranium Resources INC. | 382221.5723        | 821988.2344         | 608                |
| 34       | 73    | 15      | 3473-15-308     | 308           | Uranium Resources INC. | 382352.481         | 822146.4151         | 600                |
| 34       | 73    | 15      | 3473-15-309     | 309           | Uranium Resources INC. | 382574.5161        | 822071.8172         | 636                |
| 34       | 73    | 15      | 3473-15-310     | 310           | Uranium Resources INC. | 383272.5686        | 822884.3233         | 607                |
| 34       | 73    | 15      | 3473-15-311     | 311           | Uranium Resources INC. | 383245.4188        | 822728.9979         | 608                |
| 34       | 73    | 15      | 3473-15-312     | 312           |                        | 382006.4865        | 822107.7861         |                    |
| 34       | 73    | 15      | 3473-15-313     | 313           | Uranium Resources INC. | 382284.0384        | 822068.2381         | 607                |
| 34       | 73    | 15      | 3473-15-314     | 314           | Uranium Resources INC. | 382085.3585        | 822400.8937         | 618                |
| 34       | 73    | 15      | 3473-15-315     | 315           | Uranium Resources INC. | 380442.6224        | 822950.8632         | 772                |
| 34       | 73    | 15      | 3473-15-318     | 318           | Uranium Resources INC. | 380642.7171        | 822952.7728         | 753                |
| 34       | 73    | 15      | 3473-15-321     | 321           | Uranium Resources INC. | 380803.0542        | 822957.9502         | 744                |



Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number | Short Hole ID | Company                | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------|---------------|------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 15      | 3473-15-322 | 322           |                        | 380829.2488        | 822862.0484         |                    |
| 34       | 73    | 15      | 3473-15-324 | 324           | Uranium Resources INC. | 381489.1386        | 823042.3124         | 654                |
| 34       | 73    | 15      | 3473-15-325 | 325           | Uranium Resources INC. | 381484.9231        | 823003.3068         | 670                |
| 34       | 73    | 15      | 3473-15-326 | 326           | Uranium Resources INC. | 381700.7242        | 823053.207          | 672                |
| 34       | 73    | 15      | 3473-15-327 | 327           | Uranium Resources INC. | 381634.722         | 822965.3902         | 663                |
| 34       | 73    | 15      | 3473-15-328 | 328           | Uranium Resources INC. | 381625.2435        | 822864.0467         | 670                |
| 34       | 73    | 15      | 3473-15-330 | 330           | Uranium Resources INC. | 382007.774         | 823029.2408         | 641                |
| 34       | 73    | 15      | 3473-15-331 | 331           | Uranium Resources INC. | 382027.2582        | 822934.4044         | 652                |
| 34       | 73    | 15      | 3473-15-332 | 332           | Uranium Resources INC. | 382072.7551        | 822813.097          | 655                |
| 34       | 73    | 15      | 3473-15-333 | 333           | Uranium Resources INC. | 382174.5015        | 822805.0604         | 627                |
| 34       | 73    | 15      | 3473-15-335 | 335           | Uranium Resources INC. | 382224.1146        | 822953.2044         | 628                |
| 34       | 73    | 15      | 3473-15-336 | 336           | Uranium Resources INC. | 382386.451         | 823242.9262         | 635                |
| 34       | 73    | 15      | 3473-15-337 | 337           | Uranium Resources INC. | 382389.2297        | 823156.8744         | 625                |
| 34       | 73    | 15      | 3473-15-339 | 339           | Uranium Resources INC. | 382916.5315        | 823222.1648         | 627                |
| 34       | 73    | 15      | 3473-15-340 | 340           | Uranium Resources INC. | 382998.4431        | 823166.5762         | 630                |
| 34       | 73    | 15      | 3473-15-356 | 356           | Uranium Resources INC. | 383325.5799        | 823149.5568         | 649                |
| 34       | 73    | 15      | 3473-15-357 | 357           | Uranium Resources INC. | 383394.4742        | 823072.3516         | 642                |
| 34       | 73    | 15      | 3473-15-359 | 359           | Uranium Resources INC. | 383142.3146        | 822554.161          | 600                |
| 34       | 73    | 15      | 3473-15-360 | 360           | Uranium Resources INC. | 383016.1522        | 822455.7969         | 595                |
| 34       | 73    | 15      | 3473-15-361 | 361           | Uranium Resources INC. | 382897.1272        | 822565.2671         | 595                |
| 34       | 73    | 15      | 3473-15-362 | 362           | Uranium Resources INC. | 382586.8946        | 822665.0928         | 608                |
| 34       | 73    | 15      | 3473-15-363 | 363           | Uranium Resources INC. | 382395.4839        | 822590.7331         | 626                |
| 34       | 73    | 15      | 3473-15-364 | 364           | Uranium Resources INC. | 382209.2106        | 822529.5613         | 618                |
| 34       | 73    | 15      | 3473-15-365 | 365           | Uranium Resources INC. | 381987.215         | 822527.7045         | 613                |
| 34       | 73    | 15      | 3473-15-366 | 366           | Uranium Resources INC. | 381942.255         | 822474.6674         | 615                |
| 34       | 73    | 15      | 3473-15-367 | 367           | Uranium Resources INC. | 381808.5325        | 822178.1505         | 623                |
| 34       | 73    | 15      | 3473-15-368 | 368           | Uranium Resources INC. | 381776.7568        | 821893.9157         | 612                |
| 34       | 73    | 15      | 3473-15-369 | 369           | Uranium Resources INC. | 382153.6394        | 821930.4541         | 597                |
| 34       | 73    | 15      | 3473-15-370 | 370           | Uranium Resources INC. | 382237.3956        | 822157.1819         | 603                |
| 34       | 73    | 15      | 3473-15-371 | 371           | Uranium Resources INC. | 382368.1548        | 821925.4968         | 597                |
| 34       | 73    | 15      | 3473-15-372 | 372           | Uranium Resources INC. | 382479.8702        | 821999.384          | 596                |
| 34       | 73    | 15      | 3473-15-373 | 373           | Uranium Resources INC. | 382620.6703        | 821815.1829         | 594                |
| 34       | 73    | 15      | 3473-15-374 | 374           | Uranium Resources INC. | 382720.7392        | 821791.5546         | 600                |
| 34       | 73    | 15      | 3473-15-375 | 375           | Uranium Resources INC. | 382526.2001        | 821699.5998         | 595                |
| 34       | 73    | 15      | 3473-15-376 | 376           | Uranium Resources INC. | 382545.2019        | 821609.083          | 594                |
| 34       | 73    | 15      | 3473-15-377 | 377           | Uranium Resources INC. | 382574.2138        | 821504.0361         | 596                |
| 34       | 73    | 15      | 3473-15-378 | 378           | Uranium Resources INC. | 382386.7454        | 821616.0049         | 598                |
| 34       | 73    | 15      | 3473-15-379 | 379           | Uranium Resources INC. | 382164.2893        | 821729.4221         | 616                |
| 34       | 73    | 15      | 3473-15-380 | 380           | Uranium Resources INC. | 382155.4664        | 821620.493          | 608                |
| 34       | 73    | 15      | 3473-15-382 | 382           | Uranium Resources INC. | 381917.4463        | 821627.7379         | 607                |
| 34       | 73    | 15      | 3473-15-383 | 383           | Uranium Resources INC. | 381747.882         | 821621.7102         | 610                |
| 34       | 73    | 15      | 3473-15-385 | 385           | Uranium Resources INC. | 381361.6238        | 821530.5049         | 630                |
| 34       | 73    | 15      | 3473-15-391 | 391           | Uranium Resources INC. | 380577.0286        | 821431.5478         | 650                |
| 34       | 73    | 15      | 3473-15-393 | 393           | Uranium Resources INC. | 381029.289         | 822614.0442         | 670                |
| 34       | 73    | 15      | 3473-15-395 | 395           | Uranium Resources INC. | 381094.8045        | 822417.5091         | 690                |
| 34       | 73    | 15      | 3473-15-397 | 397           | Uranium Resources INC. | 381141.9833        | 822226.2564         | 654                |
| 34       | 73    | 15      | 3473-15-398 | 398           | Uranium Resources INC. | 382579.3222        | 822842.2194         | 609                |
| 34       | 73    | 15      | 3473-15-399 | 399           | Uranium Resources INC. | 382593.8773        | 822573.711          | 607                |
| 34       | 73    | 15      | 3473-15-400 | 400           | Uranium Resources INC. | 382963.1796        | 823038.959          | 629                |
| 34       | 73    | 15      | 3473-15-401 | 401           | Uranium Resources INC. | 383194.4999        | 822971.3186         | 630                |
| 34       | 73    | 15      | 3473-15-402 | 402           | Uranium Resources INC. | 381751.5571        | 821669.549          | 616                |
| 34       | 73    | 15      | 3473-15-403 | 403           | Uranium Resources INC. | 382695.6915        | 821941.2684         | 616                |
| 34       | 73    | 15      | 3473-15-404 | 404           | Uranium Resources INC. | 382418.8602        | 822511.912          | 644                |
| 34       | 73    | 15      | 3473-15-405 | 405           | Uranium Resources INC. | 382561.7967        | 823194.7808         | 640                |
| 34       | 73    | 15      | 3473-15-406 | 406           | Uranium Resources INC. | 382018.9107        | 822986.1095         | 650                |
| 34       | 73    | 15      | 3473-15-407 | 407           | Uranium Resources INC. | 383154.3784        | 823168.1079         | 616                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company                | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 15      | 3473-15-408  | 408           | Uranium Resources INC. | 382962.3113        | 823085.799          | 627                |
| 34       | 73    | 15      | 3473-15-409  | 409           | Uranium Resources INC. | 382899.6792        | 821889.0865         | 655                |
| 34       | 73    | 15      | 3473-15-410  | 410           | Uranium Resources INC. | 383250.9445        | 823051.1754         | 603                |
| 34       | 73    | 15      | 3473-15-411  | 411           | Uranium Resources INC. | 382379.9287        | 823095.1752         | 629                |
| 34       | 73    | 15      | 3473-15-412  | 412           | Uranium Resources INC. | 381883.5563        | 822240.948          | 630                |
| 34       | 73    | 15      | 3473-15-413  | 413           | Uranium Resources INC. | 382127.1777        | 822804.5875         | 655                |
| 34       | 73    | 15      | 3473-15-414  | 414           | Uranium Resources INC. | 382116.077         | 822368.3182         | 632                |
| 34       | 73    | 15      | 3473-15-415  | 415           | Uranium Resources INC. | 381779.4793        | 822477.5883         | 656                |
| 34       | 73    | 15      | 3473-15-416  | 416           | Uranium Resources INC. | 382517.8728        | 821749.2968         | 582                |
| 34       | 73    | 15      | 3473-15-417  | 417           | Uranium Resources INC. | 383003.2131        | 822507.8014         | 610                |
| 34       | 73    | 15      | 3473-15-418  | 418           | Uranium Resources INC. | 382305.9858        | 822617.3315         | 605                |
| 34       | 73    | 15      | 3473-15-419  | 419           | Uranium Resources INC. | 382379.1343        | 821658.8749         | 597                |
| 34       | 73    | 15      | 3473-15-42   | 42            |                        | 380447.8753        | 820221.4784         |                    |
| 34       | 73    | 15      | 3473-15-420  | 420           | Uranium Resources INC. | 382716.9983        | 823094.3306         | 614                |
| 34       | 73    | 15      | 3473-15-421C | 421C          | Uranium Resources INC. | 383150.5408        | 822711.2239         | 608                |
| 34       | 73    | 15      | 3473-15-422  | 422           | Uranium Resources INC. | 383217.5915        | 822923.8097         | 612                |
| 34       | 73    | 15      | 3473-15-423  | 423           | Uranium Resources INC. | 383320.5673        | 822891.8685         | 608                |
| 34       | 73    | 15      | 3473-15-424  | 424           |                        | 381718.552         | 822007.0379         |                    |
| 34       | 73    | 15      | 3473-15-425  | 425           | Uranium Resources INC. | 380638.8935        | 823055.8995         | 752                |
| 34       | 73    | 15      | 3473-15-426  | 426           | Uranium Resources INC. | 380448.3573        | 822996.6972         | 754                |
| 34       | 73    | 15      | 3473-15-427  | 427           | Uranium Resources INC. | 382203.6673        | 822477.5049         | 618                |
| 34       | 73    | 15      | 3473-15-428  | 428           | Uranium Resources INC. | 382201.0107        | 821854.4892         | 602                |
| 34       | 73    | 15      | 3473-15-429  | 429           | Uranium Resources INC. | 382561.592         | 823020.9282         | 614                |
| 34       | 73    | 15      | 3473-15-430  | 430           | Uranium Resources INC. | 380639.5307        | 823004.9729         | 750                |
| 34       | 73    | 15      | 3473-15-432  | 432           | Uranium Resources INC. | 381992.3778        | 822586.8971         | 644                |
| 34       | 73    | 15      | 3473-15-433  | 433           | Uranium Resources INC. | 383390.3668        | 821769.2913         | 654                |
| 34       | 73    | 15      | 3473-15-434  | 434           | Uranium Resources INC. | 381758.741         | 822167.8383         | 624                |
| 34       | 73    | 15      | 3473-15-441  | 441           | Uranium Resources INC. | 380546.289         | 821185.9039         | 642                |
| 34       | 73    | 15      | 3473-15-443  | 443           | Uranium Resources INC. | 381357.7211        | 820968.4028         | 595                |
| 34       | 73    | 15      | 3473-15-444  | 444           |                        | 380464.3673        | 820134.0947         |                    |
| 34       | 73    | 15      | 3473-15-445  | 445           | Uranium Resources INC. | 380536.3649        | 821056.3638         | 623                |
| 34       | 73    | 15      | 3473-15-446  | 446           | Uranium Resources INC. | 381363.2346        | 821265.3535         | 595                |
| 34       | 73    | 15      | 3473-15-447  | 447           |                        | 381129.6659        | 820128.5921         |                    |
| 34       | 73    | 15      | 3473-15-448  | 448           | Uranium Resources INC. | 381361.6238        | 821398.8503         | 593                |
| 34       | 73    | 15      | 3473-15-449  | 449           | Uranium Resources INC. | 381367.081         | 821334.526          | 575                |
| 34       | 73    | 15      | 3473-15-450  | 450           |                        | 380843.9611        | 820132.4487         |                    |
| 34       | 73    | 15      | 3473-15-451  | 451           | Uranium Resources INC. | 382750.564         | 822615.7493         | 625                |
| 34       | 73    | 15      | 3473-15-452  | 452           | Uranium Resources INC. | 380534.7392        | 821001.2316         | 595                |
| 34       | 73    | 15      | 3473-15-453  | 453           |                        | 380678.9176        | 820132.4487         |                    |
| 34       | 73    | 15      | 3473-15-454  | 454           | Uranium Resources INC. | 380546.9498        | 821128.404          | 575                |
| 34       | 73    | 15      | 3473-15-455  | 455           |                        | 380573.2885        | 820135.7408         |                    |
| 34       | 73    | 15      | 3473-15-456  | 456           |                        | 381491.7047        | 820955.1755         |                    |
| 34       | 73    | 15      | 3473-15-457  | 457           | Uranium Resources INC. | 380542.9804        | 821088.749          | 575                |
| 34       | 73    | 15      | 3473-15-47   | 47            | UNC Teton              | 380521.8968        | 820926.4054         | 1069               |
| 34       | 73    | 15      | 3473-15-60   | 60            | UNC Teton              | 382334.7684        | 820927.9432         |                    |
| 34       | 73    | 15      | 3473-15-61   | 61            | UNC Teton              | 380477.2344        | 820043.0255         |                    |
| 34       | 73    | 15      | 3473-15-62   | 62            | UNC Teton              | 381122.7697        | 820910.56           | 597                |
| 34       | 73    | 15      | 3473-15-63   | 63            | UNC Teton              | 380458.4236        | 820630.8927         |                    |
| 34       | 73    | 15      | 3473-15-64   | 64            | UNC Teton              | 380466.9724        | 822433.4932         | 654                |
| 34       | 73    | 15      | 3473-15-67   | 67            | UNC Teton              | 381734.7672        | 820954.3393         | 554                |
| 34       | 73    | 15      | 3473-15-69   | 69            |                        | 380436.8945        | 820360.1851         |                    |
| 34       | 73    | 15      | 3473-15-70   | 70            | UNC Teton              | 381618.2941        | 820946.8953         | 539                |
| 34       | 73    | 15      | 3473-15-71   | 71            | UNC Teton              | 381772.7066        | 822253.3676         | 636                |
| 34       | 73    | 15      | 3473-15-73   | 73            | UNC Teton              | 381959.6495        | 822293.8197         | 635                |
| 34       | 73    | 15      | 3473-15-74   | 74            | UNC Teton              | 381926.5812        | 821529.0695         | 619                |
| 34       | 73    | 15      | 3473-15-75   | 75            | UNC Teton              | 381333.5381        | 823178.208          | 679                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number    | Short Hole ID | Company                | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|----------------|---------------|------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 15      | 3473-15-78     | 78            | UNC Teton              | 381753.5132        | 821519.4125         | 595                |
| 34       | 73    | 15      | 3473-15-79     | 79            | UNC Teton              | 382057.5224        | 822311.0693         | 619                |
| 34       | 73    | 15      | 3473-15-80     | 80            | UNC Teton              | 381006.9998        | 822898.3371         | 717                |
| 34       | 73    | 15      | 3473-15-81     | 81            | UNC Teton              | 381849.0845        | 821855.1891         | 591                |
| 34       | 73    | 15      | 3473-15-82     | 82            | UNC Teton              | 382163.2225        | 822337.5431         | 614                |
| 34       | 73    | 15      | 3473-15-83     | 83            | UNC Teton              | 381861.9683        | 822272.172          | 618                |
| 34       | 73    | 15      | 3473-15-84     | 84            | UNC Teton              | 381510.2213        | 822669.5813         | 638                |
| 34       | 73    | 15      | 3473-15-85     | 85            | UNC Teton              | 382053.9097        | 821855.3196         | 590                |
| 34       | 73    | 15      | 3473-15-86     | 86            | UNC Teton              | 381057.1252        | 822801.3601         | 719                |
| 34       | 73    | 15      | 3473-15-87     | 87            | UNC Teton              | 381660.8445        | 822770.0434         | 659                |
| 34       | 73    | 15      | 3473-15-88     | 88            | UNC Teton              | 381748.7133        | 821841.1683         | 597                |
| 34       | 73    | 15      | 3473-15-89     | 89            | UNC Teton              | 382252.9525        | 821880.6409         | 597                |
| 34       | 73    | 15      | 3473-15-90     | 90            | UNC Teton              | 381199.5238        | 823057.0967         | 698                |
| 34       | 73    | 15      | 3473-15-91     | 91            | UNC Teton              | 381830.494         | 822854.1572         | 699                |
| 34       | 73    | 15      | 3473-15-92     | 92            | UNC Teton              | 382091.1057        | 822082.6781         | 619                |
| 34       | 73    | 15      | 3473-15-93     | 93            | UNC Teton              | 382511.0193        | 821895.3755         | 598                |
| 34       | 73    | 15      | 3473-15-94     | 94            | UNC Teton              | 382182.139         | 823001.9269         | 696                |
| 34       | 73    | 15      | 3473-15-95     | 95            | UNC Teton              | 381406.3623        | 822926.0342         | 677                |
| 34       | 73    | 15      | 3473-15-96     | 96            | UNC Teton              | 382390.8721        | 823047.5679         | 659                |
| 34       | 73    | 15      | 3473-15-97     | 97            | UNC Teton              | 381987.7923        | 822614.9957         | 637                |
| 34       | 73    | 15      | 3473-15-98     | 98            | UNC Teton              | 382392.9653        | 822845.1155         | 628                |
| 34       | 73    | 15      | 3473-15-99     | 99            | UNC Teton              | 382574.5671        | 823067.6914         | 658                |
| 34       | 73    | 15      | 3473-15-LMO-2  | LMO-2         | Uranium One            | 382846.4771        | 822715.4178         | 423                |
| 34       | 73    | 15      | 3473-15-LMO-2A | LMO-2A        | Uranium One            | 382848.4535        | 822564.7971         | 261                |
| 34       | 73    | 15      | 3473-15-LMP-5  | LMP-5         | Uranium One            | 382852.3756        | 823089.3006         | 601                |
| 34       | 73    | 15      | 3473-15-LMU-2  | LMU-2         | Uranium One            | 382876.4771        | 822715.4178         | 637                |
| 34       | 73    | 15      | 3473-15-LMU-2A | LMU-2A        | Uranium One            | 382878.4535        | 822564.7971         | 800                |
| 34       | 73    | 15      | 3473-15-LPW-3  | LPW-3         | Uranium One            | 382861.4771        | 822715.4178         | 601                |
| 34       | 73    | 15      | 3473-15-LPW-3A | LPW-3A        | Uranium One            | 382863.4535        | 822564.7971         | 595                |
| 34       | 73    | 15      | 3473-15-M-11   | M-11          | Uranium One            | 382850             | 821950              | 570                |
| 34       | 73    | 15      | 3473-15-M-18   | M-18          | Uranium One            | 384628.9147        | 822109.1079         | 518                |
| 34       | 73    | 15      | 3473-15-M-21   | M-21          | Uranium One            | 383286.9032        | 820371.1254         | 536                |
| 34       | 73    | 15      | 3473-15-M-44   | M-44          | Uranium One            | 382052.165         | 818477.9211         | 525                |
| 34       | 73    | 15      | 3473-15-NPMW1  | NPMW1         | Uranium Resources INC. | 383157.1132        | 822934.7943         | 627                |
| 34       | 73    | 15      | 3473-15-NPMW2  | NPMW2         | Uranium Resources INC. | 383331.2234        | 822841.004          | 579                |
| 34       | 73    | 15      | 3473-15-NPMW3  | NPMW3         | Uranium Resources INC. | 383332.5837        | 822637.6955         | 598                |
| 34       | 73    | 15      | 3473-15-NPMW4  | NPMW4         | Uranium Resources INC. | 383158.6344        | 822549.0284         | 576                |
| 34       | 73    | 15      | 3473-15-NPMW5  | NPMW5         | Uranium Resources INC. | 382987.6429        | 822627.9112         | 579                |
| 34       | 73    | 15      | 3473-15-NPMW6  | NPMW6         | Uranium Resources INC. | 382982.3843        | 822832.9789         | 580                |
| 34       | 73    | 15      | 3473-15-UID1   | UID1          |                        | 383135.6992        | 822762.8779         |                    |
| 34       | 73    | 15      | 3473-15-UID2   | UID2          |                        | 383161.0738        | 822765.2692         |                    |
| 34       | 73    | 15      | 3473-15-UID3   | UID3          |                        | 383184.5337        | 822762.8779         |                    |
| 34       | 73    | 15      | 3473-15-UID4   | UID4          |                        | 383168.7341        | 822736.5728         |                    |
| 34       | 73    | 15      | 3473-15-UID5   | UID5          |                        | 383179.2671        | 822722.7027         |                    |
| 34       | 73    | 15      | 3473-15-UID6   | UID6          |                        | 383190.758         | 822712.1807         |                    |
| 34       | 73    | 15      | 3473-15-UID7   | UID7          |                        | 383135.6992        | 822709.7894         |                    |
| 34       | 73    | 15      | 3473-15-UID8   | UID8          |                        | 383162.0317        | 822691.1363         |                    |
| 34       | 73    | 15      | 3473-15-UID9   | UID9          |                        | 383151.4987        | 822724.6158         |                    |
| 34       | 73    | 16      | 3473-16-1      | K1            | Kerr McGee             | 379677.4           | 818715.3            | 655                |
| 34       | 73    | 16      | 3473-16-1001   | 1001          | Uranium One            | 380048.3573        | 822996.6972         | 635                |
| 34       | 73    | 16      | 3473-16-1002   | 1002          | Uranium One            | 378448.3573        | 822996.6972         | 1001               |
| 34       | 73    | 16      | 3473-16-1003   | 1003          | Uranium One            | 376848.3573        | 822996.6972         | 1006               |
| 34       | 73    | 16      | 3473-16-1004   | 1004          | Uranium One            | 375248.3573        | 822996.6972         | 1000               |
| 34       | 73    | 16      | 3473-16-1005   | 1005          | Uranium One            | 375248.3573        | 821396.6972         | 1000               |
| 34       | 73    | 16      | 3473-16-1006   | 1006          | Uranium One            | 376848.3573        | 821396.6972         | 1000               |
| 34       | 73    | 16      | 3473-16-1007   | 1007          | Uranium One            | 378448.3573        | 821396.6972         | 848                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company     | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|-------------|--------------------|---------------------|--------------------|
| 34       | 73    | 16      | 3473-16-1008 | 1008          | Uranium One | 380048.3573        | 821396.6972         | 999                |
| 34       | 73    | 16      | 3473-16-1009 | 1009          | Uranium One | 380048.3573        | 819796.6972         | 998                |
| 34       | 73    | 16      | 3473-16-1010 | 1010          | Uranium One | 378448.3573        | 819796.6972         | 991                |
| 34       | 73    | 16      | 3473-16-1011 | 1011          | Uranium One | 376848.3573        | 819796.6972         | 955                |
| 34       | 73    | 16      | 3473-16-1012 | 1012          | Uranium One | 375248.3573        | 819796.6972         | 1000               |
| 34       | 73    | 16      | 3473-16-1013 | 1013          | Uranium One | 375248.3573        | 818196.6972         | 993                |
| 34       | 73    | 16      | 3473-16-1014 | 1014          | Uranium One | 376848.3573        | 818196.6972         | 999                |
| 34       | 73    | 16      | 3473-16-1015 | 1015          | Uranium One | 378448.3573        | 818196.6972         | 1000               |
| 34       | 73    | 16      | 3473-16-1016 | 1016          | Uranium One | 380048.3573        | 818196.6972         | 1001               |
| 34       | 73    | 16      | 3473-16-1017 | 1017          | Uranium One | 378448.3573        | 820996.6972         | 641                |
| 34       | 73    | 16      | 3473-16-1018 | 1018          | Uranium One | 378048.3573        | 821396.6972         | 626                |
| 34       | 73    | 16      | 3473-16-1019 | 1019          | Uranium One | 378448.3573        | 821796.6972         | 637                |
| 34       | 73    | 16      | 3473-16-1020 | 1020          | Uranium One | 378848.3573        | 821396.6972         | 637                |
| 34       | 73    | 16      | 3473-16-1021 | 1021          | Uranium One | 380048.3573        | 821196.6972         | 602                |
| 34       | 73    | 16      | 3473-16-1022 | 1022          | Uranium One | 380025             | 821592.9959         | 599                |
| 34       | 73    | 16      | 3473-16-1023 | 1023          | Uranium One | 379848.3573        | 821396.6972         | 597                |
| 34       | 73    | 16      | 3473-16-1024 | 1024          | Uranium One | 380248.3573        | 821396.6972         | 598                |
| 34       | 73    | 16      | 3473-16-1025 | 1025          | Uranium One | 380048.5684        | 823050.0445         | 797                |
| 34       | 73    | 16      | 3473-16-1026 | 1026          | Uranium One | 378448.3573        | 821996.6972         | 677                |
| 34       | 73    | 16      | 3473-16-1028 | 1028          | Uranium One | 379848.3573        | 817996.6972         | 600                |
| 34       | 73    | 16      | 3473-16-1029 | 1029          | Uranium One | 379648.3573        | 818191.6972         | 600                |
| 34       | 73    | 16      | 3473-16-1030 | 1030          | Uranium One | 379848.3573        | 818196.6972         | 599                |
| 34       | 73    | 16      | 3473-16-1031 | 1031          | Uranium One | 376058             | 818176              | 534                |
| 34       | 73    | 16      | 3473-16-1032 | 1032          | Uranium One | 376058             | 819776              | 679                |
| 34       | 73    | 16      | 3473-16-1033 | 1033          | Uranium One | 376058             | 818976              | 581                |
| 34       | 73    | 16      | 3473-16-1034 | 1034          | Uranium One | 377658             | 819776              | 700                |
| 34       | 73    | 16      | 3473-16-1035 | 1035          | Uranium One | 378548.3573        | 821996.6972         | 700                |
| 34       | 73    | 16      | 3473-16-1037 | 1037          | Uranium One | 378348.3573        | 821996.6972         | 699                |
| 34       | 73    | 16      | 3473-16-1038 | 1038          | Uranium One | 378348.3573        | 822096.6972         | 695                |
| 34       | 73    | 16      | 3473-16-1040 | 1040          | Uranium One | 378548.3573        | 822096.6972         | 701                |
| 34       | 73    | 16      | 3473-16-1041 | 1041          | Uranium One | 378348.3573        | 819696.6972         | 597                |
| 34       | 73    | 16      | 3473-16-1042 | 1042          | Uranium One | 378548.3573        | 819696.6972         | 595                |
| 34       | 73    | 16      | 3473-16-1043 | 1043          | Uranium One | 378548.3573        | 819896.6972         | 595                |
| 34       | 73    | 16      | 3473-16-1044 | 1044          | Uranium One | 378348.3573        | 819896.6972         | 596                |
| 34       | 73    | 16      | 3473-16-1045 | 1045          | Uranium One | 380048.3573        | 819996.6972         | 617                |
| 34       | 73    | 16      | 3473-16-1046 | 1046          | Uranium One | 380248.3573        | 819996.6972         | 616                |
| 34       | 73    | 16      | 3473-16-1047 | 1047          | Uranium One | 380248.3573        | 820196.6972         | 617                |
| 34       | 73    | 16      | 3473-16-1048 | 1048          | Uranium One | 380048.3573        | 820196.6972         | 641                |
| 34       | 73    | 16      | 3473-16-1049 | 1049          | Uranium One | 378848             | 822396              | 635                |
| 34       | 73    | 16      | 3473-16-1050 | 1050          | Uranium One | 379048             | 822396              | 599                |
| 34       | 73    | 16      | 3473-16-1051 | 1051          | Uranium One | 378848             | 822596              | 647                |
| 34       | 73    | 16      | 3473-16-1052 | 1052          | Uranium One | 379048             | 822596              | 637                |
| 34       | 73    | 16      | 3473-16-1053 | 1053          | Uranium One | 378398.3           | 822046.6            | 663                |
| 34       | 73    | 16      | 3473-16-1054 | 1054          | Uranium One | 378448.3           | 822046.6            | 622                |
| 34       | 73    | 16      | 3473-16-1055 | 1055          | Uranium One | 378498.3573        | 822046.6972         | 619                |
| 34       | 73    | 16      | 3473-16-1056 | 1056          | Uranium One | 378498.3573        | 821996.6972         | 640                |
| 34       | 73    | 16      | 3473-16-1057 | 1057          | Uranium One | 378498.3573        | 821946.6972         | 616                |
| 34       | 73    | 16      | 3473-16-1058 | 1058          | Uranium One | 378448.3573        | 821946.6972         | 617                |
| 34       | 73    | 16      | 3473-16-1059 | 1059          | Uranium One | 378398.3573        | 821946.6972         | 619                |
| 34       | 73    | 16      | 3473-16-1060 | 1060          | Uranium One | 378398             | 821996              | 623                |
| 34       | 73    | 16      | 3473-16-1061 | 1061          | Uranium One | 380366.41          | 819181.49           | 698                |
| 34       | 73    | 16      | 3473-16-1062 | 1062          | Uranium One | 378548.3573        | 822196.6972         | 704                |
| 34       | 73    | 16      | 3473-16-1063 | 1063          | Uranium One | 378648.3573        | 822196.6972         | 704                |
| 34       | 73    | 16      | 3473-16-1064 | 1064          | Uranium One | 378648.3573        | 822096.6972         | 702                |
| 34       | 73    | 16      | 3473-16-1065 | 1065          | Uranium One | 377639             | 821293              | 705                |
| 34       | 73    | 16      | 3473-16-1066 | 1066          | Uranium One | 379248.3573        | 821396.6972         | 744                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company     | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|-------------|--------------------|---------------------|--------------------|
| 34       | 73    | 16      | 3473-16-1067 | 1067          | Uranium One | 379448             | 822596              | 700                |
| 34       | 73    | 16      | 3473-16-1068 | 1068          | Uranium One | 379648             | 822596              | 700                |
| 34       | 73    | 16      | 3473-16-1069 | 1069          | Uranium One | 379648             | 822796              | 707                |
| 34       | 73    | 16      | 3473-16-1070 | 1070          | Uranium One | 379448             | 822796              | 705                |
| 34       | 73    | 16      | 3473-16-1071 | 1071          | Uranium One | 380048.3573        | 820996.6972         | 700                |
| 34       | 73    | 16      | 3473-16-1072 | 1072          | Uranium One | 380248.3573        | 820996.6972         | 702                |
| 34       | 73    | 16      | 3473-16-1073 | 1073          | Uranium One | 380248.3573        | 820796.6972         | 697                |
| 34       | 73    | 16      | 3473-16-1074 | 1074          | Uranium One | 380048.3573        | 820796.6972         | 702                |
| 34       | 73    | 16      | 3473-16-1075 | 1075          | Uranium One | 378848.3           | 818196.6            | 702                |
| 34       | 73    | 16      | 3473-16-1076 | 1076          | Uranium One | 379048.3           | 818196.6            | 702                |
| 34       | 73    | 16      | 3473-16-1077 | 1077          | Uranium One | 379048.3           | 818396.6            | 703                |
| 34       | 73    | 16      | 3473-16-1078 | 1078          | Uranium One | 378848.3           | 818396.6            | 703                |
| 34       | 73    | 16      | 3473-16-1079 | 1079          | Uranium One | 379448             | 822496              | 704                |
| 34       | 73    | 16      | 3473-16-1080 | 1080          | Uranium One | 379598             | 822496              | 705                |
| 34       | 73    | 16      | 3473-16-1081 | 1081          | Uranium One | 379648             | 822496              | 700                |
| 34       | 73    | 16      | 3473-16-1082 | 1082          | Uranium One | 379548             | 822596              | 700                |
| 34       | 73    | 16      | 3473-16-1083 | 1083          | Uranium One | 377539             | 821293              | 703                |
| 34       | 73    | 16      | 3473-16-1084 | 1084          | Uranium One | 377539             | 821193              | 703                |
| 34       | 73    | 16      | 3473-16-1085 | 1085          | Uranium One | 377639             | 821193              | 703                |
| 34       | 73    | 16      | 3473-16-1086 | 1086          | Uranium One | 379441             | 822962              | 706                |
| 34       | 73    | 16      | 3473-16-1087 | 1087          | Uranium One | 379641             | 822962              | 702                |
| 34       | 73    | 16      | 3473-16-1088 | 1088          | Uranium One | 377441             | 820598              | 702                |
| 34       | 73    | 16      | 3473-16-1089 | 1089          | Uranium One | 377641             | 820598              | 703                |
| 34       | 73    | 16      | 3473-16-1090 | 1090          | Uranium One | 377641             | 820798              | 702                |
| 34       | 73    | 16      | 3473-16-1091 | 1091          | Uranium One | 377441             | 820798              | 703                |
| 34       | 73    | 16      | 3473-16-1092 | 1092          | Uranium One | 379648             | 822396              | 705                |
| 34       | 73    | 16      | 3473-16-1093 | 1093          | Uranium One | 379748             | 822396              | 702                |
| 34       | 73    | 16      | 3473-16-1094 | 1094          | Uranium One | 379748             | 822496              | 703                |
| 34       | 73    | 16      | 3473-16-1095 | 1095          | Uranium One | 379748             | 822596              | 706                |
| 34       | 73    | 16      | 3473-16-1096 | 1096          | Uranium One | 377339             | 821193              | 702                |
| 34       | 73    | 16      | 3473-16-1097 | 1097          | Uranium One | 377339             | 821293              | 702                |
| 34       | 73    | 16      | 3473-16-1098 | 1098          | Uranium One | 377648.3573        | 821596.6972         | 702                |
| 34       | 73    | 16      | 3473-16-1099 | 1099          | Uranium One | 377848.3573        | 821596.6972         | 701                |
| 34       | 73    | 16      | 3473-16-1100 | 1100          | Uranium One | 378048.3573        | 821596.6972         | 702                |
| 34       | 73    | 16      | 3473-16-1102 | 1102          | Uranium One | 378248.3573        | 821796.6972         | 704                |
| 34       | 73    | 16      | 3473-16-1103 | 1103          | Uranium One | 377848.3           | 821796.6            | 701                |
| 34       | 73    | 16      | 3473-16-1104 | 1104          | Uranium One | 377648.3           | 821796.6            | 701                |
| 34       | 73    | 16      | 3473-16-1105 | 1105          | Uranium One | 377648.3573        | 820396.6972         | 705                |
| 34       | 73    | 16      | 3473-16-1106 | 1106          | Uranium One | 377648.3573        | 819996.6972         | 700                |
| 34       | 73    | 16      | 3473-16-1107 | 1107          | Uranium One | 377248.3573        | 819996.6972         | 1005               |
| 34       | 73    | 16      | 3473-16-1108 | 1108          | Uranium One | 377248             | 820350              | 701                |
| 34       | 73    | 16      | 3473-16-1109 | 1109          | Uranium One | 377539             | 821393              | 704                |
| 34       | 73    | 16      | 3473-16-1110 | 1110          | Uranium One | 377639             | 821393              | 701                |
| 34       | 73    | 16      | 3473-16-1111 | 1111          | Uranium One | 377539             | 821493              | 704                |
| 34       | 73    | 16      | 3473-16-1112 | 1112          | Uranium One | 377639             | 821493              | 702                |
| 34       | 73    | 16      | 3473-16-1113 | 1113          | Uranium One | 377739             | 821493              | 707                |
| 34       | 73    | 16      | 3473-16-1114 | 1114          | Uranium One | 377048.3573        | 819896.6972         | 708                |
| 34       | 73    | 16      | 3473-16-1115 | 1115          | Uranium One | 376948.3573        | 820196.6972         | 706                |
| 34       | 73    | 16      | 3473-16-1116 | 1116          | Uranium One | 377248.3573        | 820196.6972         | 704                |
| 34       | 73    | 16      | 3473-16-1117 | 1117          | Uranium One | 377048.3573        | 820396.6972         | 705                |
| 34       | 73    | 16      | 3473-16-1118 | 1118          | Uranium One | 378048.3573        | 821796.6972         | 705                |
| 34       | 73    | 16      | 3473-16-1119 | 1119          | Uranium One | 377339             | 821393              | 702                |
| 34       | 73    | 16      | 3473-16-1121 | 1121          | Uranium One | 377139             | 821293              | 702                |
| 34       | 73    | 16      | 3473-16-1122 | 1122          | Uranium One | 377139             | 821193              | 704                |
| 34       | 73    | 16      | 3473-16-1123 | 1123          | Uranium One | 377081             | 820798              | 706                |
| 34       | 73    | 16      | 3473-16-1124 | 1124          | Uranium One | 377241             | 820798              | 702                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number        | Short Hole ID | Company          | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------------|---------------|------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 16      | 3473-16-1125       | 1125          | Uranium One      | 377241             | 820598              | 705                |
| 34       | 73    | 16      | 3473-16-1126       | 1126          | Uranium One      | 377041             | 820598              | 702                |
| 34       | 73    | 16      | 3473-16-1127       | 1127          | Uranium One      | 376648.3573        | 819796.6972         | 706                |
| 34       | 73    | 16      | 3473-16-1128       | 1128          | Uranium One      | 377048.3573        | 819796.6972         | 707                |
| 34       | 73    | 16      | 3473-16-M-10       | M-10          | Uranium One      | 380050.1           | 820025              | 600                |
| 34       | 73    | 17      | 3473-17-1000       | 1000          | Uranium One      | 374315.2138        | 822850.5893         | 1005               |
| 34       | 73    | 17      | 3473-17-1001       | 1001          | Uranium One      | 374315.2138        | 821250.5893         | 781                |
| 34       | 73    | 17      | 3473-17-1002       | 1002          | Uranium One      | 374315.2138        | 819650.5893         | 725                |
| 34       | 73    | 17      | 3473-17-1003       | 1003          | Uranium One      | 374315.2138        | 818050.5893         | 1002               |
| 34       | 73    | 17      | 3473-17-1004       | 1004          | Uranium One      | 372715.2138        | 818050.5893         | 997                |
| 34       | 73    | 17      | 3473-17-1005       | 1005          | Uranium One      | 372715.2138        | 819650.5893         | 978                |
| 34       | 73    | 17      | 3473-17-1006       | 1006          | Uranium One      | 372715.2138        | 821250.5893         | 910                |
| 34       | 73    | 17      | 3473-17-1007       | 1007          | Uranium One      | 372715.2138        | 822850.5893         | 1005               |
| 34       | 73    | 17      | 3473-17-119        | 119           |                  | 375067.6           | 821975.9            |                    |
| 34       | 73    | 17      | 3473-17-120        | 120           | UNC Teton        | 375037.8           | 820592.3            | 997                |
| 34       | 73    | 17      | 3473-17-126        | 126           | UNC Teton        | 375044.1           | 819303.4            | 598                |
| 34       | 73    | 17      | 3473-17-71-1       | 71-1          | Cordero          | 370188.1           | 818052.9            | 615                |
| 34       | 73    | 17      | 3473-17-71-10      | 71-10         | Cordero          | 370140.4           | 818155              | 614                |
| 34       | 73    | 17      | 3473-17-71-11      | 71-11         | Cordero          | 370187             | 818206.7            | 616                |
| 34       | 73    | 17      | 3473-17-71-2       | 71-2          | Cordero          | 370286.1           | 818153.9            | 623                |
| 34       | 73    | 17      | 3473-17-71-3       | 71-3          | Cordero          | 370088.8           | 818155              | 617                |
| 34       | 73    | 17      | 3473-17-71-4       | 71-4          | Cordero          | 370189.2           | 818254.07           | 617                |
| 34       | 73    | 17      | 3473-17-71-5       | 71-5          | Cordero          | 371786.7           | 818153.8            | 596                |
| 34       | 73    | 17      | 3473-17-71-6       | 71-6          | Cordero          | 371785.6           | 818555.2            | 636                |
| 34       | 73    | 17      | 3473-17-71-7       | 71-7          | Cordero          | 371787.2           | 818353.5            | 598                |
| 34       | 73    | 17      | 3473-17-71-8       | 71-8          | Cordero          | 370188.1           | 818101.9            | 617                |
| 34       | 73    | 17      | 3473-17-71-9       | 71-9          | Cordero          | 370235.6           | 818154.6            | 616                |
| 34       | 73    | 17      | 3473-17-ACE-70-12C | M-120         | Morrison Nuclear | 374515.6           | 818180.3            | 615                |
| 34       | 73    | 17      | 3473-17-ACE-70-125 | M-125         | Morrison Nuclear | 372598.4           | 820032.4            | 612                |
| 34       | 73    | 17      | 3473-17-ACE-70-135 | M-135         | Morrison Nuclear | 373164.5           | 823039.2            | 457                |
| 34       | 73    | 17      | 3473-17-ACE-70-136 | M-136         | Morrison Nuclear | 374519.5           | 823037.9            | 523                |
| 34       | 73    | 17      | 3473-17-ACE-70-15  | N-15          | Cordero          | 374893.6           | 817964.5            | 1000               |
| 34       | 73    | 18      | 3473-18-1000       | 1000          | Uranium One      | 364700             | 822950              | 798                |
| 34       | 73    | 18      | 3473-18-1001       | 1001          | Uranium One      | 366300             | 822950              | 806                |
| 34       | 73    | 18      | 3473-18-1002       | 1002          | Uranium One      | 367900             | 822950              | 802                |
| 34       | 73    | 18      | 3473-18-1003       | 1003          | Uranium One      | 369500             | 822950              | 803                |
| 34       | 73    | 18      | 3473-18-1004       | 1004          | Uranium One      | 369500             | 821350              | 808                |
| 34       | 73    | 18      | 3473-18-1005       | 1005          | Uranium One      | 367900             | 821350              | 802                |
| 34       | 73    | 18      | 3473-18-1006       | 1006          | Uranium One      | 366300             | 821350              | 803                |
| 34       | 73    | 18      | 3473-18-1007       | 1007          | Uranium One      | 364700             | 821350              | 807                |
| 34       | 73    | 18      | 3473-18-1008       | 1008          | Uranium One      | 366700             | 819750              | 802                |
| 34       | 73    | 18      | 3473-18-1009       | 1009          | Uranium One      | 367900             | 819750              | 987                |
| 34       | 73    | 18      | 3473-18-1010       | 1010          | Uranium One      | 369500             | 819750              | 807                |
| 34       | 73    | 18      | 3473-18-1011       | 1011          | Uranium One      | 369500             | 818150              | 807                |
| 34       | 73    | 18      | 3473-18-1012       | 1012          | Uranium One      | 367900             | 818150              | 805                |
| 34       | 73    | 18      | 3473-18-1013       | 1013          | Uranium One      | 366700             | 818150              | 791                |
| 34       | 73    | 18      | 3473-18-1014       | 1014          | Uranium One      | 364700             | 823150              | 706                |
| 34       | 73    | 18      | 3473-18-1015       | 1015          | Uranium One      | 364944             | 823152              | 710                |
| 34       | 73    | 18      | 3473-18-1016       | 1016          | Uranium One      | 364950             | 822953              | 706                |
| 34       | 73    | 18      | 3473-18-1017       | 1017          | Uranium One      | 364900             | 822750              | 706                |
| 34       | 73    | 18      | 3473-18-1018       | 1018          | Uranium One      | 364715             | 822700              | 706                |
| 34       | 73    | 18      | 3473-18-1019       | 1019          | Uranium One      | 369300             | 818150              | 708                |
| 34       | 73    | 18      | 3473-18-1020       | 1020          | Uranium One      | 369300             | 818350              | 708                |
| 34       | 73    | 18      | 3473-18-1021       | 1021          | Uranium One      | 369500             | 818350              | 700                |
| 34       | 73    | 18      | 3473-18-1022       | 1022          | Uranium One      | 365150             | 822950              | 702                |
| 34       | 73    | 18      | 3473-18-1023       | 1023          | Uranium One      | 365366             | 822954              | 704                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number     | Short Hole ID | Company          | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-----------------|---------------|------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 18      | 3473-18-1024    | 1024          | Uranium One      | 365150             | 823150              | 620                |
| 34       | 73    | 18      | 3473-18-1025    | 1025          | Uranium One      | 365350             | 823150              | 702                |
| 34       | 73    | 18      | 3473-18-1026    | 1026          | Uranium One      | 365550             | 822750              | 703                |
| 34       | 73    | 18      | 3473-18-1027    | 1027          | Uranium One      | 365550             | 822950              | 701                |
| 34       | 73    | 18      | 3473-18-1028    | 1028          | Uranium One      | 365550             | 823150              | 704                |
| 34       | 73    | 18      | 3473-18-24      | 24            | UNC Teton        | 367716.7           | 818146.5            | 997                |
| 34       | 73    | 18      | 3473-18-34      | 34            | UNC Teton        | 369047.4           | 818710.9            | 637                |
| 34       | 73    | 18      | 3473-18-FU-70-4 | N-4           | Cordero          | 368273.2           | 818391.7            | 636                |
| 34       | 73    | 19      | 3473-19-1000    | 1000          | Uranium One      | 364700             | 817100              | 801                |
| 34       | 73    | 19      | 3473-19-1001    | 1001          | Uranium One      | 366300             | 817250              | 805                |
| 34       | 73    | 19      | 3473-19-1002    | 1002          | Uranium One      | 367900             | 817100              | 1002               |
| 34       | 73    | 19      | 3473-19-1003    | 1003          | Uranium One      | 369500             | 817100              | 803                |
| 34       | 73    | 19      | 3473-19-1004    | 1004          | Uranium One      | 369500             | 815500              | 799                |
| 34       | 73    | 19      | 3473-19-1005    | 1005          | Uranium One      | 367900             | 815500              | 800                |
| 34       | 73    | 19      | 3473-19-1006    | 1006          | Uranium One      | 366300             | 815500              | 803                |
| 34       | 73    | 19      | 3473-19-1008    | 1008          | Uranium One      | 367900             | 813900              | 802                |
| 34       | 73    | 19      | 3473-19-30      | 30            | UNC Teton        | 367303.5           | 816034.2            | 755                |
| 34       | 73    | 19      | 3473-19-33      | 33            |                  | 368343.3           | 815420.8            |                    |
| 34       | 73    | 19      | 3473-19-70-2    | 70-2          | Cordero          | 364690.4           | 816351.4            | 596                |
| 34       | 73    | 19      | 3473-19-FU-1    | M-1           | Morrison Nuclear | 369511.6           | 817678.1            | 613                |
| 34       | 73    | 19      | 3473-19-FU-70-1 | N-1           | Cordero          | 369224.1           | 814714.5            | 654                |
| 34       | 73    | 19      | 3473-19-FU-70-3 | N-3           | Cordero          | 368299.8           | 817734.6            | 598                |
| 34       | 73    | 19      | 3473-19-FU-71-1 | N-71-1        | Cordero          | 369704.5           | 817688.5            | 598                |
| 34       | 73    | 19      | 3473-19-FU-71-2 | N-71-2        | Cordero          | 369516             | 817476.7            | 598                |
| 34       | 73    | 19      | 3473-19-FU-71-3 | N-71-3        | Cordero          | 365715.3           | 812799.5            | 522                |
| 34       | 73    | 19      | 3473-19-FU-78-1 | M-78          | Morrison Nuclear | 365724.1           | 812697.3            | 798                |
| 34       | 73    | 19      | 3473-19-FU-8-1  | M-8           | Morrison Nuclear | 367660.6           | 815241.1            | 600                |
| 34       | 73    | 20      | 3473-20-1000    | 1000          | Uranium One      | 375000             | 817800              | 802                |
| 34       | 73    | 20      | 3473-20-1001    | 1001          | Uranium One      | 373443.93          | 817839.18           | 806                |
| 34       | 73    | 20      | 3473-20-1002    | 1002          | Uranium One      | 371843.93          | 817839.18           | 801                |
| 34       | 73    | 20      | 3473-20-1003    | 1003          | Uranium One      | 370243.93          | 817839.18           | 803                |
| 34       | 73    | 20      | 3473-20-1004    | 1004          | Uranium One      | 370243.93          | 816239.18           | 806                |
| 34       | 73    | 20      | 3473-20-1005    | 1005          | Uranium One      | 371843.93          | 816239.18           | 800                |
| 34       | 73    | 20      | 3473-20-1006    | 1006          | Uranium One      | 373443.93          | 816239.18           | 807                |
| 34       | 73    | 20      | 3473-20-1007    | 1007          | Uranium One      | 375045             | 816249              | 805                |
| 34       | 73    | 20      | 3473-20-1008    | 1008          | Uranium One      | 370000             | 815000              | 705                |
| 34       | 73    | 20      | 3473-20-1009    | 1009          | Uranium One      | 370400             | 815000              | 698                |
| 34       | 73    | 20      | 3473-20-1010    | 1010          | Uranium One      | 370400             | 814600              | 705                |
| 34       | 73    | 20      | 3473-20-1011    | 1011          | Uranium One      | 370000             | 814600              | 703                |
| 34       | 73    | 20      | 3473-20-1012    | 1012          | Uranium One      | 370000             | 814200              | 704                |
| 34       | 73    | 20      | 3473-20-1013    | 1013          | Uranium One      | 370402             | 814200              | 700                |
| 34       | 73    | 20      | 3473-20-1014    | 1014          | Uranium One      | 370400             | 813800              | 702                |
| 34       | 73    | 20      | 3473-20-1015    | 1015          | Uranium One      | 370800             | 813800              | 702                |
| 34       | 73    | 20      | 3473-20-1016    | 1016          | Uranium One      | 370800             | 813400              | 705                |
| 34       | 73    | 20      | 3473-20-1017    | 1017          | Uranium One      | 372850             | 814300              | 708                |
| 34       | 73    | 20      | 3473-20-1018    | 1018          | Uranium One      | 372850             | 814700              | 706                |
| 34       | 73    | 20      | 3473-20-1020    | 1020          | Uranium One      | 373250             | 814300              | 702                |
| 34       | 73    | 20      | 3473-20-1021    | 1021          | Uranium One      | 373650             | 814300              | 703                |
| 34       | 73    | 20      | 3473-20-1022    | 1022          | Uranium One      | 373650             | 813900              | 702                |
| 34       | 73    | 20      | 3473-20-1023    | 1023          | Uranium One      | 373250             | 813900              | 704                |
| 34       | 73    | 20      | 3473-20-1025    | 1025          | Uranium One      | 373250             | 813500              | 704                |
| 34       | 73    | 20      | 3473-20-1026    | 1026          | Uranium One      | 373650             | 814700              | 703                |
| 34       | 73    | 20      | 3473-20-1027    | 1027          | Uranium One      | 374050             | 814700              | 706                |
| 34       | 73    | 20      | 3473-20-1028    | 1028          | Uranium One      | 374050             | 815100              | 707                |
| 34       | 73    | 20      | 3473-20-1029    | 1029          | Uranium One      | 374450             | 815100              | 706                |
| 34       | 73    | 20      | 3473-20-1030    | 1030          | Uranium One      | 374450             | 814700              | 704                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company     | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|-------------|--------------------|---------------------|--------------------|
| 34       | 73    | 20      | 3473-20-1031 | 1031          | Uranium One | 374850             | 814700              | 703                |
| 34       | 73    | 20      | 3473-20-1032 | 1032          | Uranium One | 374850             | 815100              | 706                |
| 34       | 73    | 20      | 3473-20-1033 | 1033          | Uranium One | 372850             | 813500              | 703                |
| 34       | 73    | 20      | 3473-20-1034 | 1034          | Uranium One | 370202             | 814200              | 723                |
| 34       | 73    | 20      | 3473-20-1035 | 1035          | Uranium One | 370402             | 814400              | 722                |
| 34       | 73    | 20      | 3473-20-1036 | 1036          | Uranium One | 370602             | 814200              | 723                |
| 34       | 73    | 20      | 3473-20-1037 | 1037          | Uranium One | 370602             | 814400              | 723                |
| 34       | 73    | 20      | 3473-20-1038 | 1038          | Uranium One | 370202             | 814400              | 724                |
| 34       | 73    | 20      | 3473-20-1039 | 1039          | Uranium One | 375045             | 816449              | 701                |
| 34       | 73    | 20      | 3473-20-1040 | 1040          | Uranium One | 374845             | 816449              | 706                |
| 34       | 73    | 20      | 3473-20-1041 | 1041          | Uranium One | 374845             | 816249              | 706                |
| 34       | 73    | 20      | 3473-20-1042 | 1042          | Uranium One | 374845             | 816049              | 705                |
| 34       | 73    | 20      | 3473-20-1043 | 1043          | Uranium One | 375045             | 816049              | 703                |
| 34       | 73    | 20      | 3473-20-1044 | 1044          | Uranium One | 370400             | 815200              | 704                |
| 34       | 73    | 20      | 3473-20-1045 | 1045          | Uranium One | 370600             | 815200              | 704                |
| 34       | 73    | 20      | 3473-20-1046 | 1046          | Uranium One | 370200             | 815000              | 702                |
| 34       | 73    | 20      | 3473-20-1047 | 1047          | Uranium One | 370600             | 815000              | 706                |
| 34       | 73    | 20      | 3473-20-1048 | 1048          | Uranium One | 370600             | 814800              | 708                |
| 34       | 73    | 20      | 3473-20-1049 | 1049          | Uranium One | 370400             | 814800              | 706                |
| 34       | 73    | 20      | 3473-20-1050 | 1050          | Uranium One | 370200             | 814800              | 697                |
| 34       | 73    | 20      | 3473-20-1051 | 1051          | Uranium One | 370000             | 814800              | 704                |
| 34       | 73    | 20      | 3473-20-1052 | 1052          | Uranium One | 372000             | 813900              | 704                |
| 34       | 73    | 20      | 3473-20-1053 | 1053          | Uranium One | 372000             | 814085              | 703                |
| 34       | 73    | 20      | 3473-20-1054 | 1054          | Uranium One | 372000             | 814300              | 704                |
| 34       | 73    | 20      | 3473-20-1055 | 1055          | Uranium One | 372200             | 814300              | 701                |
| 34       | 73    | 20      | 3473-20-1056 | 1056          | Uranium One | 372400             | 814300              | 702                |
| 34       | 73    | 20      | 3473-20-1057 | 1057          | Uranium One | 372400             | 814100              | 701                |
| 34       | 73    | 20      | 3473-20-1058 | 1058          | Uranium One | 372400             | 813900              | 700                |
| 34       | 73    | 20      | 3473-20-1059 | 1059          | Uranium One | 374645             | 816049              | 700                |
| 34       | 73    | 20      | 3473-20-1060 | 1060          | Uranium One | 374645             | 815849              | 700                |
| 34       | 73    | 20      | 3473-20-1061 | 1061          | Uranium One | 374845             | 815849              | 700                |
| 34       | 73    | 20      | 3473-20-1062 | 1062          | Uranium One | 375045             | 815849              | 702                |
| 34       | 73    | 20      | 3473-20-1063 | 1063          | Uranium One | 374745             | 816449              | 701                |
| 34       | 73    | 20      | 3473-20-1064 | 1064          | Uranium One | 374845             | 816549              | 704                |
| 34       | 73    | 20      | 3473-20-1065 | 1065          | Uranium One | 374945             | 816449              | 703                |
| 34       | 73    | 20      | 3473-20-1066 | 1066          | Uranium One | 374845             | 816349              | 706                |
| 34       | 73    | 20      | 3473-20-1067 | 1067          | Uranium One | 370200             | 815200              | 704                |
| 34       | 73    | 20      | 3473-20-1068 | 1068          | Uranium One | 374650             | 815450              | 703                |
| 34       | 73    | 20      | 3473-20-1069 | 1069          | Uranium One | 374450             | 815450              | 704                |
| 34       | 73    | 20      | 3473-20-1070 | 1070          | Uranium One | 374250             | 815450              | 706                |
| 34       | 73    | 20      | 3473-20-1071 | 1071          | Uranium One | 374250             | 815650              | 706                |
| 34       | 73    | 20      | 3473-20-1072 | 1072          | Uranium One | 374450             | 815650              | 706                |
| 34       | 73    | 20      | 3473-20-1073 | 1073          | Uranium One | 374650             | 815650              | 706                |
| 34       | 73    | 20      | 3473-20-1074 | 1074          | Uranium One | 374250             | 815850              | 708                |
| 34       | 73    | 20      | 3473-20-1075 | 1075          | Uranium One | 374450             | 815850              | 708                |
| 34       | 73    | 20      | 3473-20-1076 | 1076          | Uranium One | 374250             | 816050              | 708                |
| 34       | 73    | 20      | 3473-20-1077 | 1077          | Uranium One | 374450             | 816050              | 709                |
| 34       | 73    | 20      | 3473-20-1078 | 1078          | Uranium One | 374250             | 816250              | 703                |
| 34       | 73    | 20      | 3473-20-1079 | 1079          | Uranium One | 374450             | 816250              | 704                |
| 34       | 73    | 20      | 3473-20-1080 | 1080          | Uranium One | 374650             | 816250              | 706                |
| 34       | 73    | 20      | 3473-20-1081 | 1081          | Uranium One | 374245             | 816449              | 703                |
| 34       | 73    | 20      | 3473-20-1082 | 1082          | Uranium One | 374445             | 816449              | 703                |
| 34       | 73    | 20      | 3473-20-1083 | 1083          | Uranium One | 374645             | 816449              | 708                |
| 34       | 73    | 20      | 3473-20-1084 | 1084          | Uranium One | 374450             | 816650              | 704                |
| 34       | 73    | 20      | 3473-20-1085 | 1085          | Uranium One | 374650             | 816650              | 703                |
| 34       | 73    | 20      | 3473-20-1086 | 1086          | Uranium One | 374850             | 816650              | 704                |



Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company     | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|-------------|--------------------|---------------------|--------------------|
| 34       | 73    | 20      | 3473-20-1088 | 1088          | Uranium One | 371600             | 813500              | 1000               |
| 34       | 73    | 20      | 3473-20-1089 | 1089          | Uranium One | 372000             | 813500              | 702                |
| 34       | 73    | 20      | 3473-20-1090 | 1090          | Uranium One | 372400             | 813500              | 700                |
| 34       | 73    | 20      | 3473-20-1091 | 1091          | Uranium One | 372400             | 813100              | 704                |
| 34       | 73    | 20      | 3473-20-1092 | 1092          | Uranium One | 372000             | 813100              | 704                |
| 34       | 73    | 20      | 3473-20-1093 | 1093          | Uranium One | 371600             | 813100              | 704                |
| 34       | 73    | 20      | 3473-20-1094 | 1094          | Uranium One | 374250             | 814300              | 707                |
| 34       | 73    | 20      | 3473-20-1095 | 1095          | Uranium One | 374650             | 814300              | 706                |
| 34       | 73    | 20      | 3473-20-1096 | 1096          | Uranium One | 371550             | 817850              | 706                |
| 34       | 73    | 20      | 3473-20-1097 | 1097          | Uranium One | 371650             | 817850              | 706                |
| 34       | 73    | 20      | 3473-20-1098 | 1098          | Uranium One | 371450             | 817450              | 705                |
| 34       | 73    | 20      | 3473-20-1099 | 1099          | Uranium One | 371850             | 817650              | 706                |
| 34       | 73    | 20      | 3473-20-1100 | 1100          | Uranium One | 371650             | 817650              | 706                |
| 34       | 73    | 20      | 3473-20-1101 | 1101          | Uranium One | 371450             | 817650              | 704                |
| 34       | 73    | 20      | 3473-20-1102 | 1102          | Uranium One | 371850             | 817450              | 706                |
| 34       | 73    | 20      | 3473-20-1103 | 1103          | Uranium One | 371650             | 817450              | 705                |
| 34       | 73    | 20      | 3473-20-1104 | 1104          | Uranium One | 370000             | 813400              | 706                |
| 34       | 73    | 20      | 3473-20-1105 | 1105          | Uranium One | 370000             | 813000              | 709                |
| 34       | 73    | 20      | 3473-20-1106 | 1106          | Uranium One | 370400             | 813000              | 704                |
| 34       | 73    | 20      | 3473-20-1107 | 1107          | Uranium One | 370800             | 813000              | 703                |
| 34       | 73    | 20      | 3473-20-1108 | 1108          | Uranium One | 371200             | 813000              | 704                |
| 34       | 73    | 20      | 3473-20-1109 | 1109          | Uranium One | 372000             | 813300              | 706                |
| 34       | 73    | 20      | 3473-20-1110 | 1110          | Uranium One | 371800             | 813500              | 704                |
| 34       | 73    | 20      | 3473-20-1111 | 1111          | Uranium One | 372000             | 813700              | 704                |
| 34       | 73    | 20      | 3473-20-1112 | 1112          | Uranium One | 372200             | 813500              | 705                |
| 34       | 73    | 20      | 3473-20-1113 | 1113          | Uranium One | 372200             | 814500              | 706                |
| 34       | 73    | 20      | 3473-20-1114 | 1114          | Uranium One | 372400             | 814500              | 706                |
| 34       | 73    | 20      | 3473-20-1115 | 1115          | Uranium One | 372600             | 814480              | 705                |
| 34       | 73    | 20      | 3473-20-1116 | 1116          | Uranium One | 370000             | 813800              | 700                |
| 34       | 73    | 20      | 3473-20-1117 | 1117          | Uranium One | 374250             | 816650              | 692                |
| 34       | 73    | 20      | 3473-20-1118 | 1118          | Uranium One | 374250             | 816850              | 706                |
| 34       | 73    | 20      | 3473-20-1119 | 1119          | Uranium One | 374450             | 816850              | 707                |
| 34       | 73    | 20      | 3473-20-1120 | 1120          | Uranium One | 374650             | 816850              | 707                |
| 34       | 73    | 20      | 3473-20-1121 | 1121          | Uranium One | 374850             | 816850              | 705                |
| 34       | 73    | 20      | 3473-20-1122 | 1122          | Uranium One | 375050             | 816850              | 705                |
| 34       | 73    | 20      | 3473-20-31   | 31            | UNC Teton   | 371189.2           | 812635.4            | 560                |
| 34       | 73    | 20      | 3473-20-8    | 8             |             | 371136.8           | 812675.1            |                    |
| 34       | 73    | 20      | 3473-20-M-14 | M-14          | Uranium One | 374849             | 816404              | 501                |
| 34       | 73    | 20      | 3473-20-M-18 | M-18          | Uranium One | 370000             | 813750              | 521                |
| 34       | 73    | 21      | 3473-21-127  | 127           | UNC Teton   | 378291.2           | 815329.2            | 498                |
| 34       | 73    | 21      | 3473-21-128  | 128           | UNC Teton   | 378045.5           | 816080.3            | 497                |
| 34       | 73    | 21      | 3473-21-129  | 129           | UNC Teton   | 380108.5           | 814807.6            | 499                |
| 34       | 73    | 21      | 3473-21-130  | 130           | UNC Teton   | 379155.1           | 815914              | 499                |
| 34       | 73    | 21      | 3473-21-131  | 131           | UNC Teton   | 379669.8           | 815608.7            | 498                |
| 34       | 73    | 21      | 3473-21-132  | 132           | UNC Teton   | 378310.3           | 815510              | 436                |
| 34       | 73    | 21      | 3473-21-133  | 133           | UNC Teton   | 378767             | 815703.3            | 458                |
| 34       | 73    | 21      | 3473-21-134  | 134           | UNC Teton   | 379131.2           | 816100.5            | 498                |
| 34       | 73    | 21      | 3473-21-135  | 135           | UNC Teton   | 379664.4           | 815871.4            | 499                |
| 34       | 73    | 21      | 3473-21-136  | 136           | UNC Teton   | 378313.7           | 815596.7            | 439                |
| 34       | 73    | 21      | 3473-21-137  | 137           | UNC Teton   | 378806.9           | 815916.1            | 458                |
| 34       | 73    | 21      | 3473-21-138  | 138           | UNC Teton   | 379974.2           | 815167.1            | 499                |
| 34       | 73    | 21      | 3473-21-139  | 139           | UNC Teton   | 379685.4           | 816207.4            | 459                |
| 34       | 73    | 21      | 3473-21-140  | 140           | UNC Teton   | 379118.2           | 816191.4            | 439                |
| 34       | 73    | 21      | 3473-21-141  | 141           | UNC Teton   | 379780.3           | 815166.4            | 498                |
| 34       | 73    | 21      | 3473-21-142  | 142           | UNC Teton   | 379969.1           | 815867.8            | 499                |
| 34       | 73    | 21      | 3473-21-143  | 143           | UNC Teton   | 378769.3           | 816283.3            | 459                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number | Short Hole ID | Company   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------|---------------|-----------|--------------------|---------------------|--------------------|
| 34       | 73    | 21      | 3473-21-144 | 144           | UNC Teton | 379687             | 816396.8            | 459                |
| 34       | 73    | 21      | 3473-21-145 | 145           | UNC Teton | 360031.5           | 815537.1            | 500                |
| 34       | 73    | 21      | 3473-21-146 | 146           | UNC Teton | 378814.3           | 816051.2            | 440                |
| 34       | 73    | 21      | 3473-21-147 | 147           | UNC Teton | 379909.5           | 815143.4            | 500                |
| 34       | 73    | 21      | 3473-21-148 | 148           | UNC Teton | 379051.8           | 815200.3            | 500                |
| 34       | 73    | 21      | 3473-21-149 | 149           | UNC Teton | 378284.4           | 814935.6            | 500                |
| 34       | 73    | 21      | 3473-21-150 | 150           | UNC Teton | 378291.4           | 815164.4            | 499                |
| 34       | 73    | 21      | 3473-21-151 | 151           | UNC Teton | 378019.6           | 815329              | 500                |
| 34       | 73    | 21      | 3473-21-152 | 152           | UNC Teton | 379053.4           | 814993.6            | 500                |
| 34       | 73    | 21      | 3473-21-153 | 153           | UNC Teton | 379366.7           | 814978.8            | 498                |
| 34       | 73    | 21      | 3473-21-154 | 154           | UNC Teton | 378293.1           | 815242.8            | 500                |
| 34       | 73    | 21      | 3473-21-155 | 155           | UNC Teton | 378691.3           | 815128              | 500                |
| 34       | 73    | 21      | 3473-21-156 | 156           | UNC Teton | 380001.5           | 814445.2            | 495                |
| 34       | 73    | 21      | 3473-21-157 | 157           | UNC Teton | 379079.4           | 814911.2            | 499                |
| 34       | 73    | 21      | 3473-21-158 | 158           | UNC Teton | 378165.6           | 815325.5            | 498                |
| 34       | 73    | 21      | 3473-21-159 | 159           | UNC Teton | 379088.7           | 814959.5            | 497                |
| 34       | 73    | 21      | 3473-21-160 | 160           | UNC Teton | 378297.4           | 815205.9            | 498                |
| 34       | 73    | 21      | 3473-21-161 | 161           | UNC Teton | 379677.4           | 814940.4            | 498                |
| 34       | 73    | 21      | 3473-21-162 | 162           | UNC Teton | 379758.8           | 814369              | 497                |
| 34       | 73    | 21      | 3473-21-163 | 163           | UNC Teton | 380189.1           | 814428.3            | 498                |
| 34       | 73    | 21      | 3473-21-164 | 164           | UNC Teton | 379749.3           | 813955.9            | 500                |
| 34       | 73    | 21      | 3473-21-165 | 165           | UNC Teton | 379643.8           | 815124              | 497                |
| 34       | 73    | 21      | 3473-21-166 | 166           | UNC Teton | 379467.2           | 814453.8            | 498                |
| 34       | 73    | 21      | 3473-21-167 | 167           | UNC Teton | 378942.8           | 813370.2            | 498                |
| 34       | 73    | 21      | 3473-21-168 | 168           | UNC Teton | 380007.5           | 814741.8            | 498                |
| 34       | 73    | 21      | 3473-21-169 | 169           | UNC Teton | 379568.4           | 814560.7            | 500                |
| 34       | 73    | 21      | 3473-21-170 | 170           | UNC Teton | 379276.3           | 814454.5            | 498                |
| 34       | 73    | 21      | 3473-21-171 | 171           | UNC Teton | 378093.6           | 815326.4            | 499                |
| 34       | 73    | 21      | 3473-21-172 | 172           | UNC Teton | 379084.4           | 814463.1            | 499                |
| 34       | 73    | 21      | 3473-21-173 | 173           | UNC Teton | 379462.7           | 814550.3            | 499                |
| 34       | 73    | 21      | 3473-21-174 | 174           | UNC Teton | 378128.6           | 815326              | 499                |
| 34       | 73    | 21      | 3473-21-175 | 175           | UNC Teton | 379995.9           | 814873.8            | 499                |
| 34       | 73    | 21      | 3473-21-176 | 176           | UNC Teton | 378711.4           | 814482.2            | 500                |
| 34       | 73    | 21      | 3473-21-177 | 177           | UNC Teton | 379468.1           | 814504.6            | 497                |
| 34       | 73    | 21      | 3473-21-178 | 178           | UNC Teton | 378963.8           | 814483.4            | 500                |
| 34       | 73    | 21      | 3473-21-179 | 179           | UNC Teton | 378551.9           | 814175.6            | 500                |
| 34       | 73    | 21      | 3473-21-180 | 180           | UNC Teton | 379645.9           | 814561.3            | 498                |
| 34       | 73    | 21      | 3473-21-181 | 181           | UNC Teton | 378566.8           | 814497              | 497                |
| 34       | 73    | 21      | 3473-21-182 | 182           | UNC Teton | 379047.3           | 814510.6            | 499                |
| 34       | 73    | 21      | 3473-21-183 | 183           | UNC Teton | 379640.8           | 814470.7            | 497                |
| 34       | 73    | 21      | 3473-21-184 | 184           | UNC Teton | 378142.8           | 814368.7            | 500                |
| 34       | 73    | 21      | 3473-21-186 | 186           | UNC Teton | 378698.1           | 814929.6            | 494                |
| 34       | 73    | 21      | 3473-21-37  | 37            | UNC Teton | 378228.8           | 816545              | 519                |
| 34       | 73    | 21      | 3473-21-38  | 38            | UNC Teton | 378036.4           | 816458.7            | 519                |
| 34       | 73    | 21      | 3473-21-40  | 40            | UNC Teton | 377844.8           | 816459.8            | 518                |
| 34       | 73    | 21      | 3473-21-41  | 41            | UNC Teton | 379797.5           | 817878.6            | 456                |
| 34       | 73    | 21      | 3473-21-42  | 42            | UNC Teton | 379368.9           | 817879.8            | 478                |
| 34       | 73    | 21      | 3473-21-43  | 43            | UNC Teton | 378111.9           | 814788.9            | 597                |
| 34       | 73    | 21      | 3473-21-45  | 45            | UNC Teton | 377896.5           | 816458.7            | 497                |
| 34       | 73    | 21      | 3473-21-48  | 48            | UNC Teton | 377893             | 816269.6            | 499                |
| 34       | 73    | 21      | 3473-21-50  | 50            | UNC Teton | 377953.4           | 816460.8            | 499                |
| 34       | 73    | 21      | 3473-21-51  | 51            | UNC Teton | 379079.8           | 814809.1            | 519                |
| 34       | 73    | 21      | 3473-21-52  | 52            | UNC Teton | 377848.6           | 816288.9            | 516                |
| 34       | 73    | 21      | 3473-21-53  | 53            | UNC Teton | 377898             | 816086.6            | 518                |
| 34       | 73    | 21      | 3473-21-54  | 54            | UNC Teton | 379129.1           | 816321.8            | 597                |
| 34       | 73    | 21      | 3473-21-55  | 55            | UNC Teton | 377993.8           | 816088.7            | 497                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number       | Short/Hole ID | Company          | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------------|---------------|------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 21      | 3473-21-58        | 58            | UNC Teton        | 379581.1           | 814768              | 496                |
| 34       | 73    | 21      | 3473-21-60        | 60            | UNC Teton        | 379109.1           | 816277.8            |                    |
| 34       | 73    | 21      | 3473-21-65        | 65            | UNC Teton        | 378092.3           | 816087.8            | 499                |
| 34       | 73    | 21      | 3473-21-66        | 66            | UNC Teton        | 378300.3           | 815934.7            | 500                |
| 34       | 73    | 21      | 3473-21-68        | 68            | UNC Teton        | 380282.7           | 816331.2            | 434                |
| 34       | 73    | 21      | 3473-21-72        | 72            | UNC Teton        | 380006.3           | 814834.5            | 497                |
| 34       | 73    | 21      | 3473-21-76        | 76            | UNC Teton        | 379093.2           | 815660.5            | 498                |
| 34       | 73    | 21      | 3473-21-77        | 77            | UNC Teton        | 378313.1           | 815695.9            | 499                |
| 34       | 73    | 21      | 3473-21-ACE-1-79  | M-79          | Morrison Nuclear | 379368.8           | 814132.9            | 495                |
| 34       | 73    | 21      | 3473-21-ACE-70-13 | N-13          | Cordero          | 380192.2           | 814628.7            | 996                |
| 34       | 73    | 21      | 3473-21-ACE-70-25 | N-25          | Cordero          | 380125.3           | 812814.8            | 600                |
| 34       | 73    | 21      | 3473-21-M-15      | M-15          | Uranium One      | 380000             | 814800              | 379                |
| 34       | 73    | 21      | 3473-21-UID15     | UID15         |                  | 378308.6           | 815777.2            |                    |
| 34       | 73    | 21      | 3473-21-UID29     | UID29         |                  | 378541.9           | 814386.1            |                    |
| 34       | 73    | 21      | 3473-21-UID41     | UID41         |                  | 380233.5           | 814769.4            |                    |
| 34       | 73    | 21      | 3473-21-UID45     | UID45         |                  | 379555.7           | 817878.6            |                    |
| 34       | 73    | 21      | 3473-21-UID46     | UID46         |                  | 379629             | 817879.8            |                    |
| 34       | 73    | 21      | 3473-21-UID47     | UID47         |                  | 379664.4           | 817878.6            |                    |
| 34       | 73    | 21      | 3473-21-UID48     | UID48         |                  | 379694.9           | 817875              |                    |
| 34       | 73    | 22      | 3473-22-1         | 1             |                  | 385495             | 816317.9            |                    |
| 34       | 73    | 22      | 3473-22-10        | 10            |                  | 385490             | 813858.9            |                    |
| 34       | 73    | 22      | 3473-22-11        | 11            |                  | 384475             | 812823.9            |                    |
| 34       | 73    | 22      | 3473-22-12        | 12            |                  | 385099             | 812833.9            |                    |
| 34       | 73    | 22      | 3473-22-13        | 13            |                  | 384437             | 813877.9            |                    |
| 34       | 73    | 22      | 3473-22-14        | 14            |                  | 383998             | 813879.9            |                    |
| 34       | 73    | 22      | 3473-22-15        | 15            |                  | 384757             | 812815.3            |                    |
| 34       | 73    | 22      | 3473-22-16        | 16            |                  | 385087             | 813117.9            |                    |
| 34       | 73    | 22      | 3473-22-17        | 17            |                  | 383573             | 813891.9            |                    |
| 34       | 73    | 22      | 3473-22-18        | 18            |                  | 384629             | 812819.9            |                    |
| 34       | 73    | 22      | 3473-22-19        | 19            |                  | 381805             | 814583.9            |                    |
| 34       | 73    | 22      | 3473-22-2         | 2             |                  | 385551             | 812799.2            |                    |
| 34       | 73    | 22      | 3473-22-20        | 20            |                  | 384857             | 813106.9            |                    |
| 34       | 73    | 22      | 3473-22-21        | 21            |                  | 380963             | 814584.9            |                    |
| 34       | 73    | 22      | 3473-22-22        | 22            |                  | 381976             | 815411.9            |                    |
| 34       | 73    | 22      | 3473-22-23        | 23            |                  | 383543             | 814892.9            |                    |
| 34       | 73    | 22      | 3473-22-25        | 25            |                  | 383527             | 814324.9            |                    |
| 34       | 73    | 22      | 3473-22-26        | 26            |                  | 383572             | 812752.9            |                    |
| 34       | 73    | 22      | 3473-22-27        | 27            |                  | 383541             | 814614.9            |                    |
| 34       | 73    | 22      | 3473-22-28        | 28            |                  | 382029             | 814866.9            |                    |
| 34       | 73    | 22      | 3473-22-29        | 29            |                  | 383542             | 814754.9            |                    |
| 34       | 73    | 22      | 3473-22-3         | 3             |                  | 385509.3           | 816136.9            |                    |
| 34       | 73    | 22      | 3473-22-31        | 31            |                  | 382642             | 815141.9            |                    |
| 34       | 73    | 22      | 3473-22-32        | 32            |                  | 383549             | 814819.9            |                    |
| 34       | 73    | 22      | 3473-22-33        | 33            |                  | 382001             | 815193.9            |                    |
| 34       | 73    | 22      | 3473-22-34        | 34            |                  | 382608             | 814993.9            |                    |
| 34       | 73    | 22      | 3473-22-35        | 35            |                  | 383540             | 814700.9            |                    |
| 34       | 73    | 22      | 3473-22-36        | 36            |                  | 383161             | 814869.9            |                    |
| 34       | 73    | 22      | 3473-22-37        | 37            |                  | 383156             | 814656.9            |                    |
| 34       | 73    | 22      | 3473-22-38        | 38            |                  | 384022             | 814823.9            |                    |
| 34       | 73    | 22      | 3473-22-39        | 39            |                  | 382618             | 814792.9            |                    |
| 34       | 73    | 22      | 3473-22-4         | 4             |                  | 385562             | 813489.9            |                    |
| 34       | 73    | 22      | 3473-22-40        | 40            |                  | 383999             | 815076.9            |                    |
| 34       | 73    | 22      | 3473-22-41        | 41            |                  | 383142             | 814460.9            |                    |
| 34       | 73    | 22      | 3473-22-42        | 42            |                  | 384012             | 814936.9            |                    |
| 34       | 73    | 22      | 3473-22-43        | 43            |                  | 383151             | 814560.9            |                    |
| 34       | 73    | 22      | 3473-22-44        | 44            |                  | 384007             | 815008.9            |                    |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number       | Short Hole ID | Company          | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------------|---------------|------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 22      | 3473-22-45        | 45            |                  | 382625             | 814578.9            |                    |
| 34       | 73    | 22      | 3473-22-46        | 46            |                  | 383148             | 814508.9            |                    |
| 34       | 73    | 22      | 3473-22-5         | 5             |                  | 385512             | 816235.9            |                    |
| 34       | 73    | 22      | 3473-22-6         | 6             |                  | 385273             | 816046.9            |                    |
| 34       | 73    | 22      | 3473-22-7         | 7             |                  | 385531             | 814895.9            |                    |
| 34       | 73    | 22      | 3473-22-8         | 8             |                  | 385418.5           | 814219.9            |                    |
| 34       | 73    | 22      | 3473-22-9         | 9             |                  | 385290             | 815865.9            |                    |
| 34       | 73    | 22      | 3473-22-ACE-1-47  | M-47          | Morrison Nuclear | 380713.3           | 816400              | 505                |
| 34       | 73    | 22      | 3473-22-ACE-70-20 | N-20          | Cordero          | 380534.8           | 817847.8            | 800                |
| 34       | 73    | 22      | 3473-22-M-16      | M-16          | Uranium One      | 382400             | 816700              | 497                |
| 34       | 73    | 23      | 3473-23-1         | 23-1          | R.L. Peterson    | 387680             | 813400              | 500                |
| 34       | 73    | 23      | 3473-23-10        | 10            |                  | 387681             | 816761.9            |                    |
| 34       | 73    | 23      | 3473-23-11        | 11            |                  | 387505.4           | 816752.9            |                    |
| 34       | 73    | 23      | 3473-23-13        | 13            |                  | 387040             | 816697.9            |                    |
| 34       | 73    | 23      | 3473-23-14        | 14            |                  | 387515             | 816552.9            |                    |
| 34       | 73    | 23      | 3473-23-15        | 15            |                  | 387056.6           | 816406.9            |                    |
| 34       | 73    | 23      | 3473-23-16        | 16            |                  | 387523             | 816355.3            |                    |
| 34       | 73    | 23      | 3473-23-17        | 17            |                  | 387708             | 816366.2            |                    |
| 34       | 73    | 23      | 3473-23-18        | 18            |                  | 387800             | 816368.3            |                    |
| 34       | 73    | 23      | 3473-23-19        | 19            |                  | 387767             | 816187.9            |                    |
| 34       | 73    | 23      | 3473-23-1Dup ID   | 1             | R.L. Peterson    | 388084             | 817346.1            | 500                |
| 34       | 73    | 23      | 3473-23-2         | 2             |                  | 388086.7           | 817175.9            |                    |
| 34       | 73    | 23      | 3473-23-20        | 20            |                  | 387869             | 816183.9            |                    |
| 34       | 73    | 23      | 3473-23-21        | 21            |                  | 387668             | 815977.9            |                    |
| 34       | 73    | 23      | 3473-23-22        | 22            |                  | 387623             | 815980.1            |                    |
| 34       | 73    | 23      | 3473-23-23        | 23            |                  | 387668             | 815977.9            |                    |
| 34       | 73    | 23      | 3473-23-24        | 24            |                  | 387634             | 815785.9            |                    |
| 34       | 73    | 23      | 3473-23-25        | 25            |                  | 387445             | 815779.1            |                    |
| 34       | 73    | 23      | 3473-23-26        | 26            |                  | 387554             | 815781.9            |                    |
| 34       | 73    | 23      | 3473-23-27        | 27            |                  | 387462             | 815584.9            |                    |
| 34       | 73    | 23      | 3473-23-28        | 28            |                  | 387287             | 815580.9            |                    |
| 34       | 73    | 23      | 3473-23-29        | 29            |                  | 387278             | 815770.9            |                    |
| 34       | 73    | 23      | 3473-23-3         | 3             |                  | 388084             | 816985.9            |                    |
| 34       | 73    | 23      | 3473-23-30        | 30            |                  | 385765.3           | 815611.6            |                    |
| 34       | 73    | 23      | 3473-23-32        | 32            |                  | 385738             | 817418.9            |                    |
| 34       | 73    | 23      | 3473-23-33        | 33            |                  | 387019             | 815741.9            |                    |
| 34       | 73    | 23      | 3473-23-34        | 34            |                  | 385775             | 816514.9            |                    |
| 34       | 73    | 23      | 3473-23-35        | 35            |                  | 386733             | 815635.9            |                    |
| 34       | 73    | 23      | 3473-23-36        | 36            |                  | 385767             | 816964.9            |                    |
| 34       | 73    | 23      | 3473-23-37        | 37            |                  | 388100             | 815647.9            |                    |
| 34       | 73    | 23      | 3473-23-38        | 38            |                  | 385774.4           | 816730.1            |                    |
| 34       | 73    | 23      | 3473-23-39        | 39            |                  | 387459             | 815676              |                    |
| 34       | 73    | 23      | 3473-23-4         | 4             |                  | 388083             | 816886.9            |                    |
| 34       | 73    | 23      | 3473-23-40        | 40            |                  | 386056             | 816718.9            |                    |
| 34       | 73    | 23      | 3473-23-41        | 41            |                  | 386857             | 817779.9            |                    |
| 34       | 73    | 23      | 3473-23-42        | 42            |                  | 386977             | 815961.9            |                    |
| 34       | 73    | 23      | 3473-23-43        | 43            |                  | 386054             | 816921.9            |                    |
| 34       | 73    | 23      | 3473-23-44        | 44            |                  | 385772             | 816617.9            |                    |
| 34       | 73    | 23      | 3473-23-45        | 45            |                  | 386680             | 817480.9            |                    |
| 34       | 73    | 23      | 3473-23-46        | 46            |                  | 386041             | 817108.9            |                    |
| 34       | 73    | 23      | 3473-23-47        | 47            |                  | 385916             | 817111.9            |                    |
| 34       | 73    | 23      | 3473-23-48        | 48            |                  | 386238             | 817369.9            |                    |
| 34       | 73    | 23      | 3473-23-49        | 49            |                  | 387145.1           | 815974.9            |                    |
| 34       | 73    | 23      | 3473-23-5         | 5             |                  | 388084             | 816938.8            |                    |
| 34       | 73    | 23      | 3473-23-50        | 50            |                  | 386147.4           | 817364.5            |                    |
| 34       | 73    | 23      | 3473-23-51        | 51            |                  | 386760             | 817793.8            |                    |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 23      | 3473-23-52   | 52            |                           | 387346.8           | 816418.2            |                    |
| 34       | 73    | 23      | 3473-23-53   | 53            |                           | 386503.3           | 817471.2            |                    |
| 34       | 73    | 23      | 3473-23-54   | 54            |                           | 387572.4           | 817708.8            |                    |
| 34       | 73    | 23      | 3473-23-55   | 55            |                           | 387161.3           | 816412.1            |                    |
| 34       | 73    | 23      | 3473-23-56   | 56            |                           | 386597.9           | 817473.6            |                    |
| 34       | 73    | 23      | 3473-23-57   | 57            |                           | 389437.7           | 812992.9            |                    |
| 34       | 73    | 23      | 3473-23-58   | 58            |                           | 386062.4           | 815143.7            |                    |
| 34       | 73    | 23      | 3473-23-59   | 59            |                           | 387328             | 817651.8            |                    |
| 34       | 73    | 23      | 3473-23-6    | 6             |                           | 387871             | 816877.9            |                    |
| 34       | 73    | 23      | 3473-23-60   | 60            |                           | 386694             | 816408.6            |                    |
| 34       | 73    | 23      | 3473-23-61   | 61            |                           | 386413.8           | 815145.9            |                    |
| 34       | 73    | 23      | 3473-23-62   | 62            |                           | 386870.8           | 816403.3            |                    |
| 34       | 73    | 23      | 3473-23-63   | 63            |                           | 387445.5           | 817674.9            |                    |
| 34       | 73    | 23      | 3473-23-64   | 64            |                           | 387223.4           | 817080.2            |                    |
| 34       | 73    | 23      | 3473-23-65   | 65            |                           | 386510.2           | 815157.5            |                    |
| 34       | 73    | 23      | 3473-23-7    | 7             |                           | 387880             | 816777.9            |                    |
| 34       | 73    | 23      | 3473-23-8    | 8             |                           | 387876.2           | 816826              |                    |
| 34       | 73    | 23      | 3473-23-9    | 9             |                           | 387683             | 816807.9            |                    |
| 34       | 73    | 23      | 3473-23-M-17 | M-17          | Uranium One               | 389000             | 817000              | 502                |
| 34       | 73    | 24      | 3473-24-1    | 24-1          | R.L. Peterson             | 395193             | 813982              | 600                |
| 34       | 73    | 24      | 3473-24-10   | 24-10         | R.L. Peterson             | 395774             | 814025              | 238                |
| 34       | 73    | 24      | 3473-24-11   | 24-11         | R.L. Peterson             | 396110             | 814873              | 298                |
| 34       | 73    | 24      | 3473-24-12   | 24-12         | R.L. Peterson             | 396100             | 814780              | 295                |
| 34       | 73    | 24      | 3473-24-13   | 24-13         | R.L. Peterson             | 396095             | 814729              | 298                |
| 34       | 73    | 24      | 3473-24-14   | 24-14         | R.L. Peterson             | 396106             | 814833              | 298                |
| 34       | 73    | 24      | 3473-24-15   | 24-15         | R.L. Peterson             | 395799             | 814578              | 296                |
| 34       | 73    | 24      | 3473-24-16   | 24-16         | R.L. Peterson             | 396102             | 814805              | 297                |
| 34       | 73    | 24      | 3473-24-17   | 24-17         | R.L. Peterson             | 395790             | 814477              | 295                |
| 34       | 73    | 24      | 3473-24-18   | 24-18         | R.L. Peterson             | 395793             | 814527              | 291                |
| 34       | 73    | 24      | 3473-24-19   | 24-19         | R.L. Peterson             | 395477             | 814401              | 297                |
| 34       | 73    | 24      | 3473-24-1X   | 24-1X         | Nuclear Assurance Company | 395859             | 815586              | 795                |
| 34       | 73    | 24      | 3473-24-2    | 24-2          | R.L. Peterson             | 395239             | 814178              | 297                |
| 34       | 73    | 24      | 3473-24-20   | 24-20         | R.L. Peterson             | 395481             | 814495              | 295                |
| 34       | 73    | 24      | 3473-24-21   | 24-21         | R.L. Peterson             | 395206             | 814386              | 292                |
| 34       | 73    | 24      | 3473-24-21C  | 24-21C        | Nuclear Assurance Company | 395201             | 814385              | 277                |
| 34       | 73    | 24      | 3473-24-22   | 24-22         | R.L. Peterson             | 395481             | 814539              | 294                |
| 34       | 73    | 24      | 3473-24-23   | 24-23         | R.L. Peterson             | 395195             | 814429              | 294                |
| 34       | 73    | 29      | 3473-24-239  | 239           |                           | 372148             | 812104              |                    |
| 34       | 73    | 24      | 3473-24-23C  | 24-23C        | Nuclear Assurance Company | 395189             | 814429              | 278                |
| 34       | 73    | 24      | 3473-24-24   | 24-24         | R.L. Peterson             | 394884             | 814282              | 298                |
| 34       | 73    | 24      | 3473-24-25   | 24-25         | R.L. Peterson             | 395182             | 814477              | 296                |
| 34       | 73    | 24      | 3473-24-25C  | 24-25C        | Nuclear Assurance Company | 395177             | 814476              | 262                |
| 34       | 73    | 24      | 3473-24-26   | 24-26         | R.L. Peterson             | 395481             | 814451              | 297                |
| 34       | 73    | 24      | 3473-24-27   | 24-27         | R.L. Peterson             | 395215             | 814342              | 293                |
| 34       | 73    | 24      | 3473-24-28   | 24-28         | R.L. Peterson             | 394884             | 814330              | 296                |
| 34       | 73    | 24      | 3473-24-29   | 24-29         | R.L. Peterson             | 395230             | 814299              | 296                |
| 34       | 73    | 24      | 3473-24-2X   | 24-2X         | Nuclear Assurance Company | 395225             | 815153              | 494                |
| 34       | 73    | 24      | 3473-24-3    | 24-3          | R.L. Peterson             | 395780             | 813951              | 295                |
| 34       | 73    | 24      | 3473-24-30   | 24-30         | R.L. Peterson             | 394884             | 814235              | 295                |
| 34       | 73    | 24      | 3473-24-31   | 24-31         | R.L. Peterson             | 394553             | 814118              | 299                |
| 34       | 73    | 24      | 3473-24-32   | 24-32         | R.L. Peterson             | 394883             | 814376              | 295                |
| 34       | 73    | 24      | 3473-24-33   | 24-33         | R.L. Peterson             | 394885             | 814183              | 295                |
| 34       | 73    | 24      | 3473-24-34   | 24-34         | R.L. Peterson             | 394564             | 814018              | 299                |
| 34       | 73    | 24      | 3473-24-35   | 24-35         | R.L. Peterson             | 394554             | 814069              | 299                |
| 34       | 73    | 24      | 3473-24-36   | 24-36         | R.L. Peterson             | 394284             | 813958              | 300                |
| 34       | 73    | 24      | 3473-24-37   | 24-37         | R.L. Peterson             | 394549             | 814166              | 296                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number | Short Hole ID | Company                        | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------|---------------|--------------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 24      | 3473-24-38  | 24-38         | R.L. Peterson                  | 394382             | 813957              | 298                |
| 34       | 73    | 24      | 3473-24-39  | 24-39         | R.L. Peterson                  | 394439             | 813958              | 298                |
| 34       | 73    | 24      | 3473-24-4   | 24-4          | R.L. Peterson                  | 393570             | 814008              | 291                |
| 34       | 73    | 24      | 3473-24-40  | 24-40         | Nuclear Assurance Company      | 395022             | 814263              | 300                |
| 34       | 73    | 24      | 3473-24-41  | 24-41         | Nuclear Assurance Company      | 395016             | 814316              | 300                |
| 34       | 73    | 24      | 3473-24-42  | 24-42         | Nuclear Assurance Company      | 395012             | 814366              | 300                |
| 34       | 73    | 24      | 3473-24-43  | 24-43         | Nuclear Assurance Company      | 395006             | 814419              | 300                |
| 34       | 73    | 24      | 3473-24-44  | 24-44         | Nuclear Assurance Company      | 395325             | 814381              | 301                |
| 34       | 73    | 24      | 3473-24-45  | 24-45         | Nuclear Assurance Company      | 395326             | 814429              | 300                |
| 34       | 73    | 24      | 3473-24-46  | 24-46         | Nuclear Assurance Company      | 394730             | 814331              | 300                |
| 34       | 73    | 24      | 3473-24-47  | 24-47         | Nuclear Assurance Company      | 394734             | 814290              | 300                |
| 34       | 73    | 24      | 3473-24-48  | 24-48         | Nuclear Assurance Company      | 394734             | 814232              | 340                |
| 34       | 73    | 24      | 3473-24-49  | 24-49         | Nuclear Assurance Company      | 394735             | 814183              | 300                |
| 34       | 73    | 24      | 3473-24-5   | 24-5          |                                | 393600             | 816560              |                    |
| 34       | 73    | 24      | 3473-24-50  | 24-50         | Nuclear Assurance Company      | 395739             | 814631              | 279                |
| 34       | 73    | 24      | 3473-24-51  | 24-51         | Nuclear Assurance Company      | 395323             | 814476              | 300                |
| 34       | 73    | 24      | 3473-24-52  | 24-52         | Nuclear Assurance Company      | 395020             | 814211              | 301                |
| 34       | 73    | 24      | 3473-24-53  | 24-53         | Nuclear Assurance Company      | 395324             | 814524              | 280                |
| 34       | 73    | 24      | 3473-24-54  | 24-54         | Nuclear Assurance Company      | 394732             | 814136              | 300                |
| 34       | 73    | 24      | 3473-24-55  | 24-55         | Nuclear Assurance Company      | 394730             | 814092              | 300                |
| 34       | 73    | 24      | 3473-24-56  | 24-56         | Nuclear Assurance Company      | 395224             | 817831              | 802                |
| 34       | 73    | 24      | 3473-24-57  | 24-57         | Nuclear Assurance Company      | 394884             | 814425              | 276                |
| 34       | 73    | 24      | 3473-24-58  | 24-58         | Nuclear Assurance Company      | 394884             | 814476              | 276                |
| 34       | 73    | 24      | 3473-24-59  | 24-59         | Nuclear Assurance Company      | 394386             | 814057              | 276                |
| 34       | 73    | 24      | 3473-24-6   | 24-6          | R.L. Peterson                  | 395483             | 813945              | 196                |
| 34       | 73    | 24      | 3473-24-60  | 24-60         | Nuclear Assurance Company      | 394337             | 813958              | 277                |
| 34       | 73    | 24      | 3473-24-61  | 24-61         | Nuclear Assurance Company      | 394386             | 814009              | 277                |
| 34       | 73    | 24      | 3473-24-62  | 24-62         | Nuclear Assurance Company      | 395628             | 814498              | 316                |
| 34       | 73    | 24      | 3473-24-63  | 24-63         | Nuclear Assurance Company      | 395951             | 814582              | 497                |
| 34       | 73    | 24      | 3473-24-64  | 24-64         | Nuclear Assurance Company      | 395923             | 814122              | 196                |
| 34       | 73    | 24      | 3473-24-65  | 24-65         | Nuclear Assurance Company      | 396110             | 814313              | 417                |
| 34       | 73    | 24      | 3473-24-66  | 24-66         | Nuclear Assurance Company      | 395630             | 814446              | 275                |
| 34       | 73    | 24      | 3473-24-67  | 24-67         | Nuclear Assurance Company      | 395951             | 814633              | 276                |
| 34       | 73    | 24      | 3473-24-68  | 24-68         | Nuclear Assurance Company      | 395956             | 814530              | 275                |
| 34       | 73    | 24      | 3473-24-69  | 24-69         | Nuclear Assurance Company      | 395928             | 814021              | 197                |
| 34       | 73    | 24      | 3473-24-7   | 24-7          | R.L. Peterson                  | 395773             | 814121              | 276                |
| 34       | 73    | 24      | 3473-24-70  | 24-70         | Nuclear Assurance Company      | 395632             | 814392              | 277                |
| 34       | 73    | 24      | 3473-24-71  | 24-71         | Nuclear Assurance Company      | 395630             | 814547              | 277                |
| 34       | 73    | 24      | 3473-24-72  | 24-72         | Nuclear Assurance Company      | 396113             | 814262              | 217                |
| 34       | 73    | 24      | 3473-24-73  | 24-73         | Nuclear Assurance Company      | 395929             | 814062              | 297                |
| 34       | 73    | 24      | 3473-24-74  | 24-74         | Nuclear Assurance Company      | 395950             | 814483              | 316                |
| 34       | 73    | 24      | 3473-24-75  | 24-75         | Nuclear Assurance Company      | 395953             | 814682              | 296                |
| 34       | 73    | 24      | 3473-24-76  | 24-76         | Nuclear Assurance Company      | 395799             | 814627              | 277                |
| 34       | 73    | 24      | 3473-24-76C | 24-76C        | Malapai                        | 395796.2           | 814636.7            | 279                |
| 34       | 73    | 24      | 3473-24-77  | 24-77         | Nuclear Assurance Company      | 395810             | 814676              | 277                |
| 34       | 73    | 24      | 3473-24-78  | 24-78         | Arizona Public Service Company | 396101.9           | 814681.3            | 279                |
| 34       | 73    | 24      | 3473-24-79  | 24-79         | Arizona Public Service Company | 394729.6           | 814041.4            | 279                |
| 34       | 73    | 24      | 3473-24-8   | 24-8          | R.L. Peterson                  | 396099             | 814118              | 272                |
| 34       | 73    | 24      | 3473-24-80  | 24-80         | Arizona Public Service Company | 394885.7           | 814130.5            | 299                |
| 34       | 73    | 24      | 3473-24-81  | 24-81         | Arizona Public Service Company | 396103.9           | 814632.3            | 279                |
| 34       | 73    | 24      | 3473-24-82  | 24-82         | Malapai                        | 396114             | 814164              | 216                |
| 34       | 73    | 24      | 3473-24-83  | 24-83         | Malapai                        | 395945             | 814789              | 297                |
| 34       | 73    | 24      | 3473-24-84  | 24-84         | Malapai                        | 396143             | 814955              | 297                |
| 34       | 73    | 24      | 3473-24-85  | 24-85         | Malapai                        | 396173             | 814986              | 297                |
| 34       | 73    | 24      | 3473-24-86  | 24-86         | Malapai                        | 395943             | 814734              | 297                |
| 34       | 73    | 24      | 3473-24-9   | 24-9          | R.L. Peterson                  | 396108             | 814216              | 212                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 25      | 3473-25-1    | 25-1          | R.L. Peterson             | 391586             | 807360              | 600                |
| 34       | 73    | 25      | 3473-25-10   | 25-10         | Nuclear Assurance Company | 391202             | 807733              | 316                |
| 34       | 73    | 25      | 3473-25-11   | 25-11         | Nuclear Assurance Company | 391981             | 808376              | 317                |
| 34       | 73    | 25      | 3473-25-12   | 25-12         | Nuclear Assurance Company | 392645             | 808632              | 317                |
| 34       | 73    | 25      | 3473-25-13   | 25-13         | Nuclear Assurance Company | 391970             | 807988              | 297                |
| 34       | 73    | 25      | 3473-25-14   | 25-14         | Nuclear Assurance Company | 391360             | 807462              | 313                |
| 34       | 73    | 25      | 3473-25-15   | 25-15         | Nuclear Assurance Company | 392642             | 808191              | 311                |
| 34       | 73    | 25      | 3473-25-16A  | 25-16A        | Nuclear Assurance Company | 391359             | 807354              | 316                |
| 34       | 73    | 25      | 3473-25-17   | 25-17         | Nuclear Assurance Company | 391993             | 807463              | 336                |
| 34       | 73    | 25      | 3473-25-18   | 25-18         | Nuclear Assurance Company | 392646             | 808406              | 309                |
| 34       | 73    | 25      | 3473-25-19   | 25-19         | Nuclear Assurance Company | 391993             | 807672              | 332                |
| 34       | 73    | 25      | 3473-25-2    | 25-2          | R.L. Peterson             | 391459             | 807354              | 350                |
| 34       | 73    | 25      | 3473-25-20   | 25-20         | Nuclear Assurance Company | 392649             | 808521              | 312                |
| 34       | 73    | 25      | 3473-25-21   | 25-21         | Nuclear Assurance Company | 391994             | 807619              | 335                |
| 34       | 73    | 25      | 3473-25-22   | 25-22         | Nuclear Assurance Company | 391154             | 807321              | 333                |
| 34       | 73    | 25      | 3473-25-23   | 25-23         | Nuclear Assurance Company | 391456             | 807244              | 412                |
| 34       | 73    | 25      | 3473-25-3    | 25-3          | R.L. Peterson             | 391686             | 807360              | 350                |
| 34       | 73    | 25      | 3473-25-4    | 25-4          | R.L. Peterson             | 393370             | 807185              | 477                |
| 34       | 73    | 25      | 3473-25-5    | 25-5          | R.L. Peterson             | 391539             | 807500              | 364                |
| 34       | 73    | 25      | 3473-25-6    | 25-6          | R.L. Peterson             | 391380             | 808593              | 330                |
| 34       | 73    | 25      | 3473-25-7    | 25-7          | Nuclear Assurance Company | 391193             | 807931              | 336                |
| 34       | 73    | 25      | 3473-25-8    | 25-8          | Nuclear Assurance Company | 391971             | 808577              | 296                |
| 34       | 73    | 25      | 3473-25-9    | 25-9          | Nuclear Assurance Company | 392690             | 809243              | 317                |
| 34       | 73    | 26      | 3473-26-1    | 26-1          | R.L. Peterson             | 390980             | 807400              | 600                |
| 34       | 73    | 26      | 3473-26-10   | 26-10         | R.L. Peterson             | 389730             | 809600              | 400                |
| 34       | 73    | 26      | 3473-26-11   | 26-11         | R.L. Peterson             | 387225             | 808370              | 400                |
| 34       | 73    | 26      | 3473-26-12   | 26-12         | R.L. Peterson             | 387225             | 808520              | 420                |
| 34       | 73    | 26      | 3473-26-13   | 26-13         | R.L. Peterson             | 387225             | 808445              | 378                |
| 34       | 73    | 26      | 3473-26-14   | 26-14         | R.L. Peterson             | 387225             | 808410              | 419                |
| 34       | 73    | 26      | 3473-26-15   | 26-15         | Nuclear Assurance Company | 385663             | 812626              | 803                |
| 34       | 73    | 26      | 3473-26-16   | 26-16         | Nuclear Assurance Company | 386075             | 809991              | 803                |
| 34       | 73    | 26      | 3473-26-17   | 26-17         | Nuclear Assurance Company | 386094             | 811322              | 500                |
| 34       | 73    | 26      | 3473-26-18   | 26-18         | Nuclear Assurance Company | 386075             | 808665              | 500                |
| 34       | 73    | 26      | 3473-26-19   | 26-19         | Nuclear Assurance Company | 388735             | 810892              | 497                |
| 34       | 73    | 26      | 3473-26-2    | 26-2          | R.L. Peterson             | 389053             | 810010              | 420                |
| 34       | 73    | 26      | 3473-26-20   | 26-20         | Nuclear Assurance Company | 388013             | 811909              | 797                |
| 34       | 73    | 26      | 3473-26-21   | 26-21         | Nuclear Assurance Company | 387566             | 812606              | 495                |
| 34       | 73    | 26      | 3473-26-2100 | 2100          | Uranium One               | 386060             | 807391              | 460.7              |
| 34       | 73    | 26      | 3473-26-22   | 26-22         | Nuclear Assurance Company | 385939             | 812044              | 497                |
| 34       | 73    | 26      | 3473-26-23   | 26-23         | Nuclear Assurance Company | 386167             | 810663              | 597                |
| 34       | 73    | 26      | 3473-26-24   | 26-24         | Nuclear Assurance Company | 386262             | 809314              | 497                |
| 34       | 73    | 26      | 3473-26-25   | 26-25         | Nuclear Assurance Company | 386252             | 808049              | 757                |
| 34       | 73    | 26      | 3473-26-26   | 26-26         | Nuclear Assurance Company | 388055             | 808887              | 393                |
| 34       | 73    | 26      | 3473-26-27   | 26-27         | Nuclear Assurance Company | 389048             | 809217              | 479                |
| 34       | 73    | 26      | 3473-26-28   | 26-28         | Nuclear Assurance Company | 386656             | 807310              | 481                |
| 34       | 73    | 26      | 3473-26-29   | 26-29         | Nuclear Assurance Company | 386650             | 807995              | 355                |
| 34       | 73    | 26      | 3473-26-3    | 26-3          | R.L. Peterson             | 387160             | 810010              | 457                |
| 34       | 73    | 26      | 3473-26-30   | 26-30         | Nuclear Assurance Company | 388050             | 808937              | 377                |
| 34       | 73    | 26      | 3473-26-31   | 26-31         | Nuclear Assurance Company | 389042             | 809443              | 376                |
| 34       | 73    | 26      | 3473-26-32   | 26-32         | Nuclear Assurance Company | 386655             | 807890              | 357                |
| 34       | 73    | 26      | 3473-26-33   | 26-33         | Nuclear Assurance Company | 389651             | 809838              | 336                |
| 34       | 73    | 26      | 3473-26-34   | 26-34         | Nuclear Assurance Company | 389041             | 809493              | 376                |
| 34       | 73    | 26      | 3473-26-35   | 26-35         | Nuclear Assurance Company | 389035             | 809544              | 375                |
| 34       | 73    | 26      | 3473-26-36   | 26-36         | Nuclear Assurance Company | 389241             | 809487              | 391                |
| 34       | 73    | 26      | 3473-26-37   | 26-37         | Nuclear Assurance Company | 388850             | 809208              | 373                |
| 34       | 73    | 26      | 3473-26-38   | 26-38         | Nuclear Assurance Company | 389238             | 809580              | 396                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 26      | 3473-26-39   | 26-39         | Nuclear Assurance Company | 389433             | 809581              | 375                |
| 34       | 73    | 26      | 3473-26-4    | 26-4          | R.L. Peterson             | 387170             | 807396              | 397                |
| 34       | 73    | 26      | 3473-26-40   | 26-40         | Nuclear Assurance Company | 388478             | 809082              | 377                |
| 34       | 73    | 26      | 3473-26-41   | 26-41         | Nuclear Assurance Company | 388846             | 809315              | 376                |
| 34       | 73    | 26      | 3473-26-42   | 26-42         | Nuclear Assurance Company | 389238             | 809533              | 375                |
| 34       | 73    | 26      | 3473-26-43   | 26-43         | Nuclear Assurance Company | 388482             | 808976              | 377                |
| 34       | 73    | 26      | 3473-26-44   | 26-44         | Nuclear Assurance Company | 388847             | 809261              | 374                |
| 34       | 73    | 26      | 3473-26-45   | 26-45         | Nuclear Assurance Company | 388681             | 809079              | 397                |
| 34       | 73    | 26      | 3473-26-46   | 26-46         | Nuclear Assurance Company | 388845             | 809361              | 376                |
| 34       | 73    | 26      | 3473-26-47   | 26-47         | Nuclear Assurance Company | 388683             | 809026              | 394                |
| 34       | 73    | 26      | 3473-26-48   | 26-48         | Nuclear Assurance Company | 388685             | 808978              | 393                |
| 34       | 73    | 26      | 3473-26-49   | 26-49         | Nuclear Assurance Company | 388482             | 809026              | 397                |
| 34       | 73    | 26      | 3473-26-5    | 26-5          | R.L. Peterson             | 387170             | 808697              | 392                |
| 34       | 73    | 26      | 3473-26-50   | 26-50         | Nuclear Assurance Company | 389029             | 809591              | 375                |
| 34       | 73    | 26      | 3473-26-51   | 26-51         | Nuclear Assurance Company | 389225             | 809646              | 376                |
| 34       | 73    | 26      | 3473-26-52   | 26-52         | Nuclear Assurance Company | 389406             | 809624              | 375                |
| 34       | 73    | 26      | 3473-26-53   | 26-53         | Nuclear Assurance Company | 389653             | 809777              | 375                |
| 34       | 73    | 26      | 3473-26-54   | 26-54         | Nuclear Assurance Company | 388290             | 808974              | 393                |
| 34       | 73    | 26      | 3473-26-55   | 26-55         | Nuclear Assurance Company | 388291             | 808923              | 397                |
| 34       | 73    | 26      | 3473-26-6    | 26-6          | R.L. Peterson             | 387170             | 808050              | 401                |
| 34       | 73    | 26      | 3473-26-7    | 26-7          | R.L. Peterson             | 390820             | 809920              | 350                |
| 34       | 73    | 26      | 3473-26-8    | 26-8          | R.L. Peterson             | 389951             | 809300              | 360                |
| 34       | 73    | 26      | 3473-26-9    | 26-9          | R.L. Peterson             | 389632             | 809702              | 380                |
| 34       | 73    | 26      | 3473-26-M-21 | M-21          | Uranium One               | 389487             | 809609              | 361                |
| 34       | 73    | 27      | 3473-27-205  | 205           | UNC Teton                 | 380457.4           | 808738.2            | 395                |
| 34       | 73    | 27      | 3473-27-206  | 206           | UNC Teton                 | 380444.5           | 809355              | 271                |
| 34       | 73    | 27      | 3473-27-207  | 207           | UNC Teton                 | 380446             | 809946.9            | 396                |
| 34       | 73    | 27      | 3473-27-208  | 208           | UNC Teton                 | 380454.6           | 810501.3            | 396                |
| 34       | 73    | 27      | 3473-27-209  | 209           | UNC Teton                 | 380476             | 811099.9            | 396                |
| 34       | 73    | 27      | 3473-27-210  | 210           | UNC Teton                 | 380454.1           | 808579              | 296                |
| 34       | 73    | 27      | 3473-27-3001 | 3001          | Uranium One               | 381449             | 808136              | 280                |
| 34       | 73    | 27      | 3473-27-3002 | 3002          | Uranium One               | 380849.425         | 808136.3387         | 800                |
| 34       | 73    | 27      | 3473-27-3003 | 3003          | Uranium One               | 381249.425         | 808136.3387         | 440                |
| 34       | 73    | 27      | 3473-27-3004 | 3004          | Uranium One               | 381649.425         | 808136.3387         | 440                |
| 34       | 73    | 27      | 3473-27-3005 | 3005          | Uranium One               | 382049.425         | 808136.3387         | 440                |
| 34       | 73    | 27      | 3473-27-3006 | 3006          | Uranium One               | 382449.425         | 808136.3387         | 440                |
| 34       | 73    | 27      | 3473-27-3007 | 3007          | Uranium One               | 381049             | 808136              | 260                |
| 34       | 73    | 27      | 3473-27-3008 | 3008          | Uranium One               | 380849.425         | 808536.3387         | 440                |
| 34       | 73    | 27      | 3473-27-3009 | 3009          | Uranium One               | 381249.425         | 808536.3387         | 440                |
| 34       | 73    | 27      | 3473-27-3010 | 3010          | Uranium One               | 381649.425         | 808536.3387         | 440                |
| 34       | 73    | 27      | 3473-27-3011 | 3011          | Uranium One               | 382049.425         | 808536.3387         | 440                |
| 34       | 73    | 27      | 3473-27-3012 | 3012          | Uranium One               | 382449.425         | 808536.3387         | 440                |
| 34       | 73    | 27      | 3473-27-3013 | 3013          | Uranium One               | 380449.425         | 808936.3387         | 380                |
| 34       | 73    | 27      | 3473-27-3014 | 3014          | Uranium One               | 380849.425         | 808936.3387         | 440                |
| 34       | 73    | 27      | 3473-27-3015 | 3015          | Uranium One               | 381249.425         | 808936.3387         | 440                |
| 34       | 73    | 27      | 3473-27-3016 | 3016          | Uranium One               | 381649.425         | 808936.3387         | 440                |
| 34       | 73    | 27      | 3473-27-3017 | 3017          | Uranium One               | 382049.425         | 808936.3387         | 440                |
| 34       | 73    | 27      | 3473-27-3018 | 3018          | Uranium One               | 382449.425         | 808936.3387         | 440                |
| 34       | 73    | 27      | 3473-27-3019 | 3019          | Uranium One               | 380449.425         | 809336.3387         | 380                |
| 34       | 73    | 27      | 3473-27-3020 | 3020          | Uranium One               | 380849.425         | 809336.3387         | 440                |
| 34       | 73    | 27      | 3473-27-3021 | 3021          | Uranium One               | 381249.425         | 809336.3387         | 440                |
| 34       | 73    | 27      | 3473-27-3022 | 3022          | Uranium One               | 381649.425         | 809336.3387         | 440                |
| 34       | 73    | 27      | 3473-27-3023 | 3023          | Uranium One               | 382049.425         | 809336.3387         | 440                |
| 34       | 73    | 27      | 3473-27-3024 | 3024          | Uranium One               | 382449.425         | 809336.3387         | 800                |
| 34       | 73    | 27      | 3473-27-3025 | 3025          | Uranium One               | 380449.425         | 809736.3387         | 400                |
| 34       | 73    | 27      | 3473-27-3026 | 3026          | Uranium One               | 380849.425         | 809736.3387         | 380                |



Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company     | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|-------------|--------------------|---------------------|--------------------|
| 34       | 73    | 27      | 3473-27-3027 | 3027          | Uranium One | 381249.425         | 809736.3387         | 380                |
| 34       | 73    | 27      | 3473-27-3028 | 3028          | Uranium One | 381649.425         | 809736.3387         | 380                |
| 34       | 73    | 27      | 3473-27-3029 | 3029          | Uranium One | 382049.425         | 809736.3387         | 440                |
| 34       | 73    | 27      | 3473-27-3030 | 3030          | Uranium One | 382449.425         | 809736.3387         | 440                |
| 34       | 73    | 27      | 3473-27-3031 | 3031          | Uranium One | 380849.425         | 810136.3387         | 400                |
| 34       | 73    | 27      | 3473-27-3032 | 3032          | Uranium One | 381249.425         | 810136.3387         | 400                |
| 34       | 73    | 27      | 3473-27-3033 | 3033          | Uranium One | 381849.425         | 808936.3387         | 360                |
| 34       | 73    | 27      | 3473-27-3034 | 3034          | Uranium One | 382249             | 808936              | 360                |
| 34       | 73    | 27      | 3473-27-3035 | 3035          | Uranium One | 382849.425         | 808536.3387         | 380                |
| 34       | 73    | 27      | 3473-27-3036 | 3036          | Uranium One | 383090             | 808536              | 380                |
| 34       | 73    | 27      | 3473-27-3037 | 3037          | Uranium One | 381849.425         | 809336.3387         | 380                |
| 34       | 73    | 27      | 3473-27-3038 | 3038          | Uranium One | 382249             | 809336              | 380                |
| 34       | 73    | 27      | 3473-27-3039 | 3039          | Uranium One | 382051.8363        | 808743.4133         | 380                |
| 34       | 73    | 27      | 3473-27-3040 | 3040          | Uranium One | 381469.425         | 809736.3387         | 400                |
| 34       | 73    | 27      | 3473-27-3041 | 3041          | Uranium One | 384049.425         | 808136.3387         | 800                |
| 34       | 73    | 27      | 3473-27-3042 | 3042          | Uranium One | 380850.3947        | 808754.5497         | 380                |
| 34       | 73    | 27      | 3473-27-3043 | 3043          | Uranium One | 381849.425         | 809736.3387         | 420                |
| 34       | 73    | 27      | 3473-27-3044 | 3044          | Uranium One | 382449.425         | 810536.3387         | 740                |
| 34       | 73    | 27      | 3473-27-3045 | 3045          | Uranium One | 385249.425         | 807736.3387         | 500                |
| 34       | 73    | 27      | 3473-27-3046 | 3046          | Uranium One | 380846.6752        | 808849.2949         | 340                |
| 34       | 73    | 27      | 3473-27-3047 | 3047          | Uranium One | 380446.5374        | 808754.4516         | 320                |
| 34       | 73    | 27      | 3473-27-3048 | 3048          | Uranium One | 381652.169         | 808747.1289         | 360                |
| 34       | 73    | 27      | 3473-27-3049 | 3049          | Uranium One | 381545.6682        | 808137.1685         | 280                |
| 34       | 73    | 27      | 3473-27-3054 | 3054          | Uranium One | 381648.2127        | 809135.4866         | 380                |
| 34       | 73    | 27      | 3473-27-3055 | 3055          | Uranium One | 381850.8472        | 809136.2125         | 380                |
| 34       | 73    | 27      | 3473-27-3056 | 3056          | Uranium One | 382047.2117        | 809136.8971         | 380                |
| 34       | 73    | 27      | 3473-27-3057 | 3057          | Uranium One | 382246.9419        | 809137.623          | 380                |
| 34       | 73    | 27      | 3473-27-3058 | 3058          | Uranium One | 382247.1994        | 809526.9844         | 400                |
| 34       | 73    | 27      | 3473-27-3059 | 3059          | Uranium One | 382050.3095        | 809529.9193         | 400                |
| 34       | 73    | 27      | 3473-27-3060 | 3060          | Uranium One | 381850.3095        | 809529.9193         | 400                |
| 34       | 73    | 27      | 3473-27-3061 | 3061          | Uranium One | 381650.3095        | 809529.9193         | 400                |
| 34       | 73    | 27      | 3473-27-3062 | 3062          | Uranium One | 385249             | 807536              | 400                |
| 34       | 73    | 27      | 3473-27-3064 | 3064          | Uranium One | 382449.425         | 810136.3387         | 320                |
| 34       | 73    | 27      | 3473-27-3065 | 3065          | Uranium One | 383148             | 810536              | 400                |
| 34       | 73    | 27      | 3473-27-3066 | 3066          | Uranium One | 381249.425         | 810536.3387         | 500                |
| 34       | 73    | 27      | 3473-27-3067 | 3067          | Uranium One | 381248.2708        | 808748.121          | 380                |
| 34       | 73    | 27      | 3473-27-3068 | 3068          | Uranium One | 382449.3335        | 808743.3638         | 380                |
| 34       | 73    | 27      | 3473-27-3069 | 3069          | Uranium One | 382849.425         | 810536.3387         | 360                |
| 34       | 73    | 27      | 3473-27-3070 | 3070          | Uranium One | 381249.083         | 810636.2134         | 400                |
| 34       | 73    | 27      | 3473-27-3071 | 3071          | Uranium One | 381051.9425        | 808536.9482         | 380                |
| 34       | 73    | 27      | 3473-27-3072 | 3072          | Uranium One | 385251.9125        | 807639.0971         | 400                |
| 34       | 73    | 27      | 3473-27-3073 | 3073          | Uranium One | 381050.1286        | 807735.2017         | 400                |
| 34       | 73    | 27      | 3473-27-3074 | 3074          | Uranium One | 381249.425         | 807736.3387         | 400                |
| 34       | 73    | 27      | 3473-27-3075 | 3075          | Uranium One | 381447.1169        | 807735.2017         | 400                |
| 34       | 73    | 27      | 3473-27-3076 | 3076          | Uranium One | 384849.425         | 807736.3387         | 800                |
| 34       | 73    | 27      | 3473-27-3077 | 3077          | Uranium One | 380847.7632        | 809532.3865         | 380                |
| 34       | 73    | 27      | 3473-27-3078 | 3078          | Uranium One | 380451.2081        | 809530.5944         | 340                |
| 34       | 73    | 27      | 3473-27-3081 | 3081          | Uranium One | 382153.0223        | 808935.9191         | 380                |
| 34       | 73    | 27      | 3473-27-3082 | 3082          | Uranium One | 382300.134         | 808936.9572         | 380                |
| 34       | 73    | 27      | 3473-27-3083 | 3083          | Uranium One | 380852.5249        | 809635.9231         | 400                |
| 34       | 73    | 27      | 3473-27-3084 | 3084          | Uranium One | 381047.6614        | 809735.9382         | 420                |
| 34       | 73    | 27      | 3473-27-3085 | 3085          | Uranium One | 380849.1231        | 808653.1787         | 320                |
| 34       | 73    | 27      | 3473-27-3086 | 3086          | Uranium One | 380847.0457        | 808805.4314         | 340                |
| 34       | 73    | 27      | 3473-27-3087 | 3087          | Uranium One | 382448.9588        | 809935.135          | 320                |
| 34       | 73    | 27      | 3473-27-3088 | 3088          | Uranium One | 382948.7305        | 810535.5992         | 340                |
| 34       | 73    | 27      | 3473-27-3089 | 3089          | Uranium One | 382449.425         | 810936.3387         | 400                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number        | Short Hole ID | Company          | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------------|---------------|------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 27      | 3473-27-3090       | 3090          | Uranium One      | 380450.6521        | 809576.8556         | 360                |
| 34       | 73    | 27      | 3473-27-3092       | 3092          | Uranium One      | 381948.29          | 809335.5765         | 380                |
| 34       | 73    | 27      | 3473-27-3093       | 3093          | Uranium One      | 382148.7525        | 809334.1955         | 380                |
| 34       | 73    | 27      | 3473-27-3094       | 3094          | Uranium One      | 380451.5397        | 809628.6178         | 340                |
| 34       | 73    | 27      | 3473-27-3095       | 3095          | Uranium One      | 380849.8524        | 809689.2741         | 380                |
| 34       | 73    | 27      | 3473-27-3096       | 3096          | Uranium One      | 380394.8821        | 810536.2359         | 340                |
| 34       | 73    | 27      | 3473-27-3098       | 3098          | Uranium One      | 380392.206         | 810137.6109         | 360                |
| 34       | 73    | 27      | 3473-27-3099       | 3099          | Uranium One      | 380394.1349        | 810933.9186         | 440                |
| 34       | 73    | 27      | 3473-27-3101       | 3101          | Uranium One      | 382049.9645        | 809386.4607         | 340                |
| 34       | 73    | 27      | 3473-27-3102       | 3102          | Uranium One      | 382249.7441        | 808887.5651         | 340                |
| 34       | 73    | 27      | 3473-27-3103       | 3103          | Uranium One      | 382249.6501        | 808986.937          | 340                |
| 34       | 73    | 27      | 3473-27-3104       | 3104          | Uranium One      | 381999.5069        | 809335.3287         | 380                |
| 34       | 73    | 27      | 3473-27-3105       | 3105          | Uranium One      | 382049.4617        | 809286.7237         | 380                |
| 34       | 73    | 27      | 3473-27-3106       | 3106          | Uranium One      | 381249.5971        | 809786.6753         | 400                |
| 34       | 73    | 27      | 3473-27-3107       | 3107          | Uranium One      | 382050.5645        | 808687.367          | 400                |
| 34       | 73    | 27      | 3473-27-3111       | 3111          | Uranium One      | 382248.8424        | 809036.9138         | 380                |
| 34       | 73    | 27      | 3473-27-3119       | 3119          | Uranium One      | 382249             | 809286              | 360                |
| 34       | 73    | 27      | 3473-27-3121       | 3121          | Uranium One      | 382249             | 809089              | 380                |
| 34       | 73    | 27      | 3473-27-3122       | 3122          | Uranium One      | 382450             | 809138              | 380                |
| 34       | 73    | 27      | 3473-27-3124       | 3124          | Uranium One      | 382250             | 809386              | 380                |
| 34       | 73    | 27      | 3473-27-3126       | 3126          | Uranium One      | 382249             | 809236              | 380                |
| 34       | 73    | 27      | 3473-27-3127       | 3127          | Uranium One      | 382299             | 809335              | 380                |
| 34       | 73    | 27      | 3473-27-3128       | 3128          | Uranium One      | 381649             | 809630              | 380                |
| 34       | 73    | 27      | 3473-27-3129       | 3129          | Uranium One      | 382050             | 808888              | 380                |
| 34       | 73    | 27      | 3473-27-3133       | 3133          | Uranium One      | 380395             | 810336              | 360                |
| 34       | 73    | 27      | 3473-27-3145       | 3145          | Uranium One      | 382050             | 808839              | 360                |
| 34       | 73    | 27      | 3473-27-3146       | 3146          | Uranium One      | 382047             | 808986              | 380                |
| 34       | 73    | 27      | 3473-27-3149       | 3149          | Uranium One      | 381052             | 810138              | 440                |
| 34       | 73    | 27      | 3473-27-3150       | 3150          | Uranium One      | 381251             | 810933              | 480                |
| 34       | 73    | 27      | 3473-27-3163       | 3163          | Uranium One      | 382052             | 808790              | 380                |
| 34       | 73    | 27      | 3473-27-3164       | 3164          | Uranium One      | 381651             | 808797              | 400                |
| 34       | 73    | 27      | 3473-27-3174       | 3174          | Uranium One      | 381649             | 807734              | 440                |
| 34       | 73    | 27      | 3473-27-3175       | 3175          | Uranium One      | 380948             | 808134              | 400                |
| 34       | 73    | 27      | 3473-27-3176       | 3176          | Uranium One      | 381498             | 808137              | 400                |
| 34       | 73    | 27      | 3473-27-ACE-1-114  | M-114         | Morrison Nuclear | 382220             | 811762.5            | 597                |
| 34       | 73    | 27      | 3473-27-ACE-1-117  | M-117         | Morrison Nuclear | 382260.6           | 809817.5            | 600                |
| 34       | 73    | 27      | 3473-27-ACE-1-125E | M-125B        | Morrison Nuclear | 382166.4           | 807669.5            | 610                |
| 34       | 73    | 27      | 3473-27-ACE-1-131E | M-131B        | Morrison Nuclear | 385054.5           | 809862.1            | 597                |
| 34       | 73    | 27      | 3473-27-ACE-1-139E | M-139B        | Morrison Nuclear | 385020.4           | 807611.7            | 610                |
| 34       | 73    | 27      | 3473-27-ACE-70-12  | N-12          | Cordero          | 381577.4           | 809059              | 456                |
| 34       | 73    | 27      | 3473-27-ACE-70-14  | N-14          | Cordero          | 381577.4           | 809059              | 597                |
| 34       | 73    | 27      | 3473-27-ACE-70-18  | N-18          | Cordero          | 381772.1           | 809808.4            | 410                |
| 34       | 73    | 27      | 3473-27-ACE-70-19  | N-19          | Cordero          | 382061.9           | 809049.7            | 398                |
| 34       | 73    | 27      | 3473-27-ACE-70-28  | N-28          | Cordero          | 382501             | 808856.1            | 460                |
| 34       | 73    | 27      | 3473-27-ACE-70-29  | N-29          | Cordero          | 381120.6           | 809192.4            | 420                |
| 34       | 73    | 27      | 3473-27-M-20       | M-20          | Uranium One      | 382104             | 808888              | 321                |
| 34       | 73    | 27      | 3473-27-N-14       | N-14          |                  | 381737.5           | 811036.3            |                    |
| 34       | 73    | 28      | 3473-28-194        | 194           | UNC Teton        | 375231             | 812406.4            | 591                |
| 34       | 73    | 28      | 3473-28-195        | 195           | UNC Teton        | 375842.6           | 812485.3            | 594                |
| 34       | 73    | 28      | 3473-28-196        | 196           | UNC Teton        | 376431.4           | 812431.2            | 594                |
| 34       | 73    | 28      | 3473-28-197        | 197           | UNC Teton        | 376987.5           | 812399.4            | 594                |
| 34       | 73    | 28      | 3473-28-200        | 200           | UNC Teton        | 377903.5           | 812184.3            | 590                |
| 34       | 73    | 28      | 3473-28-201        | 201           | UNC Teton        | 378314.9           | 812130.5            | 595                |
| 34       | 73    | 28      | 3473-28-202        | 202           | UNC Teton        | 378722.6           | 812091.4            | 593                |
| 34       | 73    | 28      | 3473-28-3050       | 3050          | Uranium One      | 380049.425         | 810536.3387         | 500                |
| 34       | 73    | 28      | 3473-28-3051       | 3051          | Uranium One      | 379249.425         | 810536.3387         | 500                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company     | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|-------------|--------------------|---------------------|--------------------|
| 34       | 73    | 28      | 3473-28-3052 | 3052          | Uranium One | 379249.425         | 811336.3387         | 600                |
| 34       | 73    | 28      | 3473-28-3053 | 3053          | Uranium One | 378449.425         | 811336.3387         | 600                |
| 34       | 73    | 28      | 3473-28-3063 | 3063          | Uranium One | 379688.803         | 808736              | 340                |
| 34       | 73    | 28      | 3473-28-3079 | 3079          | Uranium One | 380049.425         | 809736.3387         | 400                |
| 34       | 73    | 28      | 3473-28-3080 | 3080          | Uranium One | 380147.0237        | 810535.6774         | 340                |
| 34       | 73    | 28      | 3473-28-3091 | 3091          | Uranium One | 380196.9628        | 810536.2359         | 340                |
| 34       | 73    | 28      | 3473-28-3097 | 3097          | Uranium One | 380198.277         | 810637.2913         | 360                |
| 34       | 73    | 28      | 3473-28-3100 | 3100          | Uranium One | 379575.0243        | 809912.5112         | 340                |
| 34       | 73    | 28      | 3473-28-3108 | 3108          | Uranium One | 380199.4607        | 810589.6068         | 380                |
| 34       | 73    | 28      | 3473-28-3109 | 3109          | Uranium One | 380197.3718        | 810485.8353         | 360                |
| 34       | 73    | 28      | 3473-28-3110 | 3110          | Uranium One | 380049             | 811336              | 400                |
| 34       | 73    | 28      | 3473-28-3112 | 3112          | Uranium One | 378049             | 808936              | 800                |
| 34       | 73    | 28      | 3473-28-3113 | 3113          | Uranium One | 378849             | 808936              | 800                |
| 34       | 73    | 28      | 3473-28-3114 | 3114          | Uranium One | 378849             | 809736              | 800                |
| 34       | 73    | 28      | 3473-28-3115 | 3115          | Uranium One | 378049             | 809736              | 800                |
| 34       | 73    | 28      | 3473-28-3116 | 3116          | Uranium One | 378049             | 810536              | 800                |
| 34       | 73    | 28      | 3473-28-3117 | 3117          | Uranium One | 378916             | 812126              | 800                |
| 34       | 73    | 28      | 3473-28-3118 | 3118          | Uranium One | 379716             | 812126              | 800                |
| 34       | 73    | 28      | 3473-28-3120 | 3120          | Uranium One | 378116             | 812126              | 800                |
| 34       | 73    | 28      | 3473-28-3123 | 3123          | Uranium One | 378049             | 808136              | 800                |
| 34       | 73    | 28      | 3473-28-3125 | 3125          | Uranium One | 378849             | 808136              | 340                |
| 34       | 73    | 28      | 3473-28-3130 | 3130          | Uranium One | 379650             | 808149              | 360                |
| 34       | 73    | 28      | 3473-28-3131 | 3131          | Uranium One | 379049             | 808936              | 300                |
| 34       | 73    | 28      | 3473-28-3132 | 3132          | Uranium One | 380247             | 810538              | 360                |
| 34       | 73    | 28      | 3473-28-3134 | 3134          | Uranium One | 378649             | 808136              | 320                |
| 34       | 73    | 28      | 3473-28-3135 | 3135          | Uranium One | 379049             | 808136              | 320                |
| 34       | 73    | 28      | 3473-28-3136 | 3136          | Uranium One | 378753             | 808935              | 320                |
| 34       | 73    | 28      | 3473-28-3137 | 3137          | Uranium One | 379199             | 808134              | 300                |
| 34       | 73    | 28      | 3473-28-3138 | 3138          | Uranium One | 378599             | 808136              | 280                |
| 34       | 73    | 28      | 3473-28-3139 | 3139          | Uranium One | 378699             | 808136              | 280                |
| 34       | 73    | 28      | 3473-28-3140 | 3140          | Uranium One | 378249             | 808936              | 300                |
| 34       | 73    | 28      | 3473-28-3141 | 3141          | Uranium One | 378049             | 808536              | 300                |
| 34       | 73    | 28      | 3473-28-3142 | 3142          | Uranium One | 378849             | 808536              | 300                |
| 34       | 73    | 28      | 3473-28-3143 | 3143          | Uranium One | 379249             | 808536              | 300                |
| 34       | 73    | 28      | 3473-28-3144 | 3144          | Uranium One | 378850             | 809334              | 400                |
| 34       | 73    | 28      | 3473-28-3147 | 3147          | Uranium One | 379252             | 807736              | 340                |
| 34       | 73    | 28      | 3473-28-3148 | 3148          | Uranium One | 380065             | 808136              | 340                |
| 34       | 73    | 28      | 3473-28-3151 | 3151          | Uranium One | 380250             | 809735              | 380                |
| 34       | 73    | 28      | 3473-28-3152 | 3152          | Uranium One | 379400             | 808136              | 280                |
| 34       | 73    | 28      | 3473-28-3153 | 3153          | Uranium One | 379049             | 808536              | 280                |
| 34       | 73    | 28      | 3473-28-3154 | 3154          | Uranium One | 378450             | 808935              | 280                |
| 34       | 73    | 28      | 3473-28-3156 | 3156          | Uranium One | 380088             | 808735              | 400                |
| 34       | 73    | 28      | 3473-28-3157 | 3157          | Uranium One | 378850             | 809135              | 400                |
| 34       | 73    | 28      | 3473-28-3158 | 3158          | Uranium One | 379050             | 807736              | 340                |
| 34       | 73    | 28      | 3473-28-3159 | 3159          | Uranium One | 378949             | 808536              | 400                |
| 34       | 73    | 28      | 3473-28-3160 | 3160          | Uranium One | 379549             | 808136              | 400                |
| 34       | 73    | 28      | 3473-28-3161 | 3161          | Uranium One | 378698             | 808186              | 320                |
| 34       | 73    | 28      | 3473-28-3162 | 3162          | Uranium One | 378699             | 808085              | 300                |
| 34       | 73    | 28      | 3473-28-3165 | 3165          | Uranium One | 379500             | 808136              | 300                |
| 34       | 73    | 28      | 3473-28-3166 | 3166          | Uranium One | 379599             | 808142              | 300                |
| 34       | 73    | 28      | 3473-28-3167 | 3167          | Uranium One | 379890             | 808736              | 320                |
| 34       | 73    | 28      | 3473-28-3168 | 3168          | Uranium One | 378950             | 807735              | 340                |
| 34       | 73    | 28      | 3473-28-3169 | 3169          | Uranium One | 379150             | 807735              | 340                |
| 34       | 73    | 28      | 3473-28-3170 | 3170          | Uranium One | 378850             | 807834              | 440                |
| 34       | 73    | 28      | 3473-28-3171 | 3171          | Uranium One | 378948             | 808135              | 320                |
| 34       | 73    | 28      | 3473-28-3172 | 3172          | Uranium One | 378499             | 808137              | 320                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number         | Short Hole ID | Company          | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|---------------------|---------------|------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 28      | 3473-28-3173        | 3173          | Uranium One      | 379127             | 808137              | 320                |
| 34       | 73    | 28      | 3473-28-3177        | 3177          | Uranium One      | 379990             | 808734              | 340                |
| 34       | 73    | 28      | 3473-28-3178        | 3178          | Uranium One      | 378850             | 807734              | 300                |
| 34       | 73    | 28      | 3473-28-3179        | 3179          | Uranium One      | 378850             | 807635              | 300                |
| 34       | 73    | 28      | 3473-28-3180        | 3180          | Uranium One      | 380266             | 808136              | 340                |
| 34       | 73    | 28      | 3473-28-3182        | 3182          | Uranium One      | 380065             | 807936              | 340                |
| 34       | 73    | 28      | 3473-28-ACE-1-87    | M-87          | Morrison Nuclear | 379439.8           | 809912.8            | 598                |
| 34       | 73    | 28      | 3473-28-ACE-1-92    | M-92          | Morrison Nuclear | 377577.4           | 811371.3            | 610                |
| 34       | 73    | 28      | 3473-28-ACE-70-11   | N-11          | Cordero          | 377396.3           | 812449.9            | 496                |
| 34       | 73    | 28      | 3473-28-ACE-70-21   | N-21          | Cordero          | 377324.1           | 811614.8            | 500                |
| 34       | 73    | 28      | 3473-28-ACE-70-5    | N-5           | Cordero          | 376164.9           | 810763.6            | 594                |
| 34       | 73    | 28      | 3473-28-ACE-70-7    | N-7           | Cordero          | 378552.1           | 810753.9            | 597                |
| 34       | 73    | 28      | 3473-28-ACE-70-8    | N-8           | Cordero          | 379163.9           | 810710.6            | 595                |
| 34       | 73    | 28      | 3473-28-ACE-70-9    | N-9           | Cordero          | 379736.3           | 810716.4            | 595                |
| 34       | 73    | 28      | 3473-28-M-19        | M-19          | Uranium One      | 378950             | 807850              | 361                |
| 34       | 73    | 28      | 3473-28-UID1        | UID1          |                  | 377373.7           | 810778.5            |                    |
| 34       | 73    | 28      | 3473-28-UID2        | UID2          |                  | 376403             | 809834.4            |                    |
| 34       | 73    | 29      | 3473-29-1116        | 1116          |                  | 372542             | 811320              |                    |
| 34       | 73    | 29      | 3473-29-1116Dup ID  | 1116          |                  | 372548             | 811229              |                    |
| 34       | 73    | 29      | 3473-29-1116Dup ID: | 1116          |                  | 372557             | 811139              |                    |
| 34       | 73    | 29      | 3473-29-226         | 226           | UNC Teton        | 371975             | 809023              | 597                |
| 34       | 73    | 29      | 3473-29-228         | 228           | UNC Teton        | 372140             | 811441              | 797                |
| 34       | 73    | 29      | 3473-29-231         | 231           | UNC Teton        | 372135             | 811660              | 437                |
| 34       | 73    | 29      | 3473-29-232         | 232           | UNC Teton        | 372140             | 811251              | 437                |
| 34       | 73    | 29      | 3473-29-233         | 233           | UNC Teton        | 372140             | 811351              | 396                |
| 34       | 73    | 29      | 3473-29-234         | 234           | UNC Teton        | 372139             | 812610              | 595                |
| 34       | 73    | 29      | 3473-29-235         | 235           | UNC Teton        | 372143             | 811300              | 397                |
| 34       | 73    | 29      | 3473-29-236         | 236           | UNC Teton        | 372136             | 811402              | 394                |
| 34       | 73    | 29      | 3473-29-237         | 237           | UNC Teton        | 371728             | 811309              | 598                |
| 34       | 73    | 29      | 3473-29-238         | 238           | UNC Teton        | 372539             | 811422              | 596                |
| 34       | 73    | 29      | 3473-29-240         | 240           | UNC Teton        | 371721             | 811434              | 398                |
| 34       | 73    | 29      | 3473-29-241         | 241           | UNC Teton        | 372133             | 812383              | 495                |
| 34       | 73    | 29      | 3473-29-242         | 242           | UNC Teton        | 371724             | 811544              | 398                |
| 34       | 73    | 29      | 3473-29-245         | 245           | UNC Teton        | 373003             | 811537              | 496                |
| 34       | 73    | 29      | 3473-29-246         | 246           | UNC Teton        | 372528             | 811608              | 438                |
| 34       | 73    | 29      | 3473-29-247         | 247           | UNC Teton        | 372138             | 812482              | 499                |
| 34       | 73    | 29      | 3473-29-248         | 248           | UNC Teton        | 371182             | 811400              | 398                |
| 34       | 73    | 29      | 3473-29-250         | 250           | UNC Teton        | 372536             | 811512              | 377                |
| 34       | 73    | 29      | 3473-29-251         | 251           | UNC Teton        | 372962             | 812082              | 497                |
| 34       | 73    | 29      | 3473-29-252         | 252           | UNC Teton        | 370703             | 811396              | 399                |
| 34       | 73    | 29      | 3473-29-253         | 253           | UNC Teton        | 372728             | 811814              | 436                |
| 34       | 73    | 29      | 3473-29-255         | 255           | UNC Teton        | 372884             | 811659              | 416                |
| 34       | 73    | 29      | 3473-29-256         | 256           | UNC Teton        | 372138             | 812272              | 438                |
| 34       | 73    | 29      | 3473-29-260         | 260           | UNC Teton        | 372945             | 811585              | 419                |
| 34       | 73    | 29      | 3473-29-261         | 261           | UNC Teton        | 373420             | 811610              | 437                |
| 34       | 73    | 29      | 3473-29-265         | 265           | UNC Teton        | 371731             | 811256              | 397                |
| 34       | 73    | 29      | 3473-29-266         | 266           | UNC Teton        | 373167             | 811882              | 457                |
| 34       | 73    | 29      | 3473-29-267         | 267           | UNC Teton        | 372845             | 811949              | 452                |
| 34       | 73    | 29      | 3473-29-268         | 268           | UNC Teton        | 372703             | 811608              | 439                |
| 34       | 73    | 29      | 3473-29-271         | 271           | UNC Teton        | 373249             | 811773              | 438                |
| 34       | 73    | 29      | 3473-29-273         | 273           | UNC Teton        | 372614             | 811589              | 418                |
| 34       | 73    | 29      | 3473-29-274         | 274           | UNC Teton        | 373154             | 811823              | 428                |
| 34       | 73    | 29      | 3473-29-ACE-1-102   | M-102         | Morrison Nuclear | 374368.6           | 811907.8            | 597                |
| 34       | 73    | 29      | 3473-29-ACE-70-4    | N-4           | Cordero          | 374967.8           | 810732.2            | 497                |
| 34       | 73    | 29      | 3473-29-CRX-28      | CRX-28        | UNC Teton        | 370100             | 807400              | 602                |
| 34       | 73    | 2       | 3473-2-OW-1         | 2-OW-1        |                  | 389346             | 802662              |                    |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 2       | 3473-2-OW-2  | 2-OW-2        |                           | 389240             | 802627              |                    |
| 34       | 73    | 2       | 3473-2-OW-3  | 2-OW-3        |                           | 389281             | 802679              |                    |
| 34       | 73    | 2       | 3473-2-OW-4  | 2-OW-4        |                           | 389341             | 802681              |                    |
| 34       | 73    | 2       | 3473-2-OW-5  | 2-OW-5        |                           | 389254             | 802751              |                    |
| 34       | 73    | 2       | 3473-2-OW-6  | 2-OW-6        |                           | 389290             | 802740              |                    |
| 34       | 73    | 2       | 3473-2-PW2   | 2-PW2         |                           | 389311             | 802697              |                    |
| 34       | 73    | 2       | 3473-2-SX-01 | SX-01         | UNC Teton                 | 388102             | 829492              | 496                |
| 34       | 73    | 34      | 3473-34-1    | 34-1          | R.L. Peterson             | 384300             | 803550              | 500                |
| 34       | 73    | 34      | 3473-34-10   | 34-10         | R.L. Peterson             | 383164             | 807140              | 380                |
| 34       | 73    | 34      | 3473-34-11   | 34-11         | R.L. Peterson             | 383164             | 807190              | 379                |
| 34       | 73    | 34      | 3473-34-12   | 34-12         | R.L. Peterson             | 382370             | 806800              | 399                |
| 34       | 73    | 34      | 3473-34-13   | 34-13         | R.L. Peterson             | 382916             | 806290              | 294                |
| 34       | 73    | 34      | 3473-34-14   | 34-14         | R.L. Peterson             | 382370             | 806700              | 296                |
| 34       | 73    | 34      | 3473-34-15   | 34-15         | R.L. Peterson             | 384840             | 802500              | 299                |
| 34       | 73    | 34      | 3473-34-16   | 34-16         | R.L. Peterson             | 383784             | 802137              | 297                |
| 34       | 73    | 34      | 3473-34-17   | 34-17         | Nuclear Assurance Company | 384765             | 807268              | 801                |
| 34       | 73    | 34      | 3473-34-18   | 34-18         | Nuclear Assurance Company | 383112             | 804339              | 803                |
| 34       | 73    | 34      | 3473-34-19   | 34-19         | Nuclear Assurance Company | 381615             | 807922              | 803                |
| 34       | 73    | 34      | 3473-34-2    | 34-2          | R.L. Peterson             | 383370             | 807270              | 600                |
| 34       | 73    | 34      | 3473-34-20   | 34-20         | Nuclear Assurance Company | 384963             | 802073              | 803                |
| 34       | 73    | 34      | 3473-34-21   | 34-21         | Nuclear Assurance Company | 385278             | 807296              | 500                |
| 34       | 73    | 34      | 3473-34-3    | 34-3          | R.L. Peterson             | 382917             | 806330              | 333                |
| 34       | 73    | 34      | 3473-34-4    | 34-4          | R.L. Peterson             | 382318             | 806700              | 279                |
| 34       | 73    | 34      | 3473-34-5    | 34-5          | R.L. Peterson             | 381708             | 806698              | 195                |
| 34       | 73    | 34      | 3473-34-6    | 34-6          | R.L. Peterson             | 383165             | 806841              | 395                |
| 34       | 73    | 34      | 3473-34-7    | 34-7          | R.L. Peterson             | 382312             | 805945              | 495                |
| 34       | 73    | 34      | 3473-34-747  | 34-747        | Nuclear Assurance Company | 385311             | 806520              | 359                |
| 34       | 73    | 34      | 3473-34-748  | 34-748        | Nuclear Assurance Company | 385216             | 807051              | 300                |
| 34       | 73    | 34      | 3473-34-749  | 34-749        | Nuclear Assurance Company | 385240             | 806448              | 337                |
| 34       | 73    | 34      | 3473-34-750  | 34-750        | Nuclear Assurance Company | 385220             | 806959              | 378                |
| 34       | 73    | 34      | 3473-34-751  | 34-751        | Nuclear Assurance Company | 385171             | 806375              | 319                |
| 34       | 73    | 34      | 3473-34-752  | 34-752        | Nuclear Assurance Company | 382687             | 806013              | 358                |
| 34       | 73    | 34      | 3473-34-753  | 34-753        | Nuclear Assurance Company | 382607             | 806606              | 298                |
| 34       | 73    | 34      | 3473-34-754  | 34-754        | Nuclear Assurance Company | 382620             | 806085              | 298                |
| 34       | 73    | 34      | 3473-34-755  | 34-755        | Nuclear Assurance Company | 382622             | 806703              | 299                |
| 34       | 73    | 34      | 3473-34-756  | 34-756        | Nuclear Assurance Company | 382638             | 806801              | 298                |
| 34       | 73    | 34      | 3473-34-757  | 34-757        | Nuclear Assurance Company | 382131             | 806993              | 318                |
| 34       | 73    | 34      | 3473-34-758  | 34-758        | Nuclear Assurance Company | 381997             | 806862              | 338                |
| 34       | 73    | 34      | 3473-34-759  | 34-759        | Nuclear Assurance Company | 382064             | 806920              | 298                |
| 34       | 73    | 34      | 3473-34-760  | 34-760        | Nuclear Assurance Company | 382636             | 806992              | 298                |
| 34       | 73    | 34      | 3473-34-761  | 34-761        | Nuclear Assurance Company | 382640             | 806892              | 198                |
| 34       | 73    | 34      | 3473-34-762  | 34-762        | Nuclear Assurance Company | 382640             | 806939              | 199                |
| 34       | 73    | 34      | 3473-34-763  | 34-763        | Nuclear Assurance Company | 382641             | 806837              | 198                |
| 34       | 73    | 34      | 3473-34-764  | 34-764        | Nuclear Assurance Company | 382554             | 806152              | 298                |
| 34       | 73    | 34      | 3473-34-765  | 34-765        | Nuclear Assurance Company | 385026             | 806233              | 378                |
| 34       | 73    | 34      | 3473-34-766  | 34-766        | Nuclear Assurance Company | 385101             | 806299              | 348                |
| 34       | 73    | 34      | 3473-34-767  | 34-767        | Nuclear Assurance Company | 385224             | 806860              | 380                |
| 34       | 73    | 34      | 3473-34-768  | 34-768        | Nuclear Assurance Company | 384210             | 806868              | 255                |
| 34       | 73    | 34      | 3473-34-769  | 34-769        | Nuclear Assurance Company | 384212             | 806664              | 300                |
| 34       | 73    | 34      | 3473-34-770  | 34-770        | Nuclear Assurance Company | 384212             | 806458              | 256                |
| 34       | 73    | 34      | 3473-34-771  | 34-771        | Nuclear Assurance Company | 384220             | 806253              | 280                |
| 34       | 73    | 34      | 3473-34-772  | 34-772        | Nuclear Assurance Company | 382484             | 806226              | 383                |
| 34       | 73    | 34      | 3473-34-773  | 34-773        | Nuclear Assurance Company | 384223             | 806353              | 273                |
| 34       | 73    | 34      | 3473-34-8    | 34-8          | R.L. Peterson             | 383060             | 805850              | 298                |
| 34       | 73    | 34      | 3473-34-829  | 34-829        | Nuclear Assurance Company | 382586             | 806193              | 319                |
| 34       | 73    | 34      | 3473-34-830  | 34-830        | Nuclear Assurance Company | 382524             | 806114              | 319                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 34      | 3473-34-832  | 34-832        | Nuclear Assurance Company | 382521             | 806194              | 314                |
| 34       | 73    | 34      | 3473-34-833  | 34-833        | Nuclear Assurance Company | 382447             | 806260              | 317                |
| 34       | 73    | 34      | 3473-34-834  | 34-834        | Nuclear Assurance Company | 385004             | 806125              | 335                |
| 34       | 73    | 34      | 3473-34-835  | 34-835        | Nuclear Assurance Company | 383358             | 806325              | 386                |
| 34       | 73    | 34      | 3473-34-836  | 34-836        | Nuclear Assurance Company | 382896             | 806353              | 317                |
| 34       | 73    | 34      | 3473-34-837  | 34-837        | Nuclear Assurance Company | 382487             | 806080              | 294                |
| 34       | 73    | 34      | 3473-34-838  | 34-838        | Nuclear Assurance Company | 382620             | 806227              | 296                |
| 34       | 73    | 34      | 3473-34-839  | 34-839        | Nuclear Assurance Company | 382611             | 806423              | 297                |
| 34       | 73    | 34      | 3473-34-840  | 34-840        | Nuclear Assurance Company | 381742             | 806358              | 276                |
| 34       | 73    | 34      | 3473-34-841  | 34-841        | Nuclear Assurance Company | 382414             | 806292              | 296                |
| 34       | 73    | 34      | 3473-34-842  | 34-842        | Nuclear Assurance Company | 381717             | 806524              | 276                |
| 34       | 73    | 34      | 3473-34-843  | 34-843        | Nuclear Assurance Company | 381798             | 806173              | 276                |
| 34       | 73    | 34      | 3473-34-844  | 34-844        | Nuclear Assurance Company | 381735             | 806452              | 276                |
| 34       | 73    | 34      | 3473-34-845  | 34-845        | Nuclear Assurance Company | 383776             | 806384              | 274                |
| 34       | 73    | 34      | 3473-34-846  | 34-846        | Nuclear Assurance Company | 384596             | 806609              | 316                |
| 34       | 73    | 34      | 3473-34-847  | 34-847        | Nuclear Assurance Company | 381529             | 806370              | 296                |
| 34       | 73    | 34      | 3473-34-848  | 34-848        | Nuclear Assurance Company | 382613             | 806326              | 292                |
| 34       | 73    | 34      | 3473-34-849  | 34-849        | Nuclear Assurance Company | 384551             | 806387              | 296                |
| 34       | 73    | 34      | 3473-34-850  | 34-850        | Nuclear Assurance Company | 381526             | 806313              | 296                |
| 34       | 73    | 34      | 3473-34-851  | 34-851        | Nuclear Assurance Company | 381528             | 806420              | 279                |
| 34       | 73    | 34      | 3473-34-859  | 34-859        | Nuclear Assurance Company | 384583             | 806015              | 336                |
| 34       | 73    | 34      | 3473-34-860  | 34-860        | Nuclear Assurance Company | 383154             | 806328              | 316                |
| 34       | 73    | 34      | 3473-34-861  | 34-861        | Nuclear Assurance Company | 382918             | 806617              | 316                |
| 34       | 73    | 34      | 3473-34-862  | 34-862        | Nuclear Assurance Company | 383369             | 806014              | 312                |
| 34       | 73    | 34      | 3473-34-863  | 34-863        | Nuclear Assurance Company | 383377             | 805632              | 417                |
| 34       | 73    | 34      | 3473-34-864  | 34-864        | Nuclear Assurance Company | 384584             | 806708              | 376                |
| 34       | 73    | 34      | 3473-34-865  | 34-865        | Nuclear Assurance Company | 382914             | 806549              | 316                |
| 34       | 73    | 34      | 3473-34-866  | 34-866        | Nuclear Assurance Company | 383053             | 806380              | 331                |
| 34       | 73    | 34      | 3473-34-867  | 34-867        | Nuclear Assurance Company | 384207             | 806057              | 337                |
| 34       | 73    | 34      | 3473-34-9    | 34-9          | R.L. Peterson             | 382913             | 806240              | 298                |
| 34       | 73    | 35      | 3473-35-0W-6 | 1-0W-6        | Nuclear Assurance Company | 387480             | 806663              | 261                |
| 34       | 73    | 35      | 3473-35-0W-7 | 1-0W-7        |                           | 387498             | 806667              |                    |
| 34       | 73    | 35      | 3473-35-1    | 35-1          | R.L. Peterson             | 389917             | 807250              | 497                |
| 34       | 73    | 35      | 3473-35-10   | 35-10         | R.L. Peterson             | 390504             | 802667              | 179                |
| 34       | 73    | 35      | 3473-35-100  | 35-100        | R.L. Peterson             | 387440             | 806421              | 279                |
| 34       | 73    | 35      | 3473-35-101  | 35-101        | R.L. Peterson             | 387241             | 806484              | 259                |
| 34       | 73    | 35      | 3473-35-102  | 35-102        | R.L. Peterson             | 387343             | 806612              | 280                |
| 34       | 73    | 35      | 3473-35-103  | 35-103        | R.L. Peterson             | 387240             | 806583              | 259                |
| 34       | 73    | 35      | 3473-35-104  | 35-104        | R.L. Peterson             | 387535             | 806420              | 279                |
| 34       | 73    | 35      | 3473-35-105  | 35-105        | R.L. Peterson             | 387347             | 806789              | 260                |
| 34       | 73    | 35      | 3473-35-106  | 35-106        | R.L. Peterson             | 387553             | 806619              | 278                |
| 34       | 73    | 35      | 3473-35-107  | 35-107        | R.L. Peterson             | 387546             | 806817              | 279                |
| 34       | 73    | 35      | 3473-35-108  | 35-108        | R.L. Peterson             | 387446             | 806804              | 280                |
| 34       | 73    | 35      | 3473-35-109  | 35-109        | R.L. Peterson             | 387452             | 806712              | 280                |
| 34       | 73    | 35      | 3473-35-11   | 35-11         | R.L. Peterson             | 389314             | 802587              | 174                |
| 34       | 73    | 35      | 3473-35-110  | 35-110        | R.L. Peterson             | 387151             | 806196              | 232                |
| 34       | 73    | 35      | 3473-35-111  | 35-111        | R.L. Peterson             | 387177             | 806040              | 235                |
| 34       | 73    | 35      | 3473-35-112  | 35-112        | R.L. Peterson             | 386891             | 805807              | 216                |
| 34       | 73    | 35      | 3473-35-113  | 35-113        | R.L. Peterson             | 386790             | 805803              | 216                |
| 34       | 73    | 35      | 3473-35-114  | 35-114        | R.L. Peterson             | 386039             | 805800              | 199                |
| 34       | 73    | 35      | 3473-35-115  | 35-115        | R.L. Peterson             | 386340             | 805604              | 239                |
| 34       | 73    | 35      | 3473-35-116  | 35-116        | R.L. Peterson             | 386640             | 805593              | 179                |
| 34       | 73    | 35      | 3473-35-117  | 35-117        | R.L. Peterson             | 386746             | 805591              | 199                |
| 34       | 73    | 35      | 3473-35-118  | 35-118        | R.L. Peterson             | 386847             | 805599              | 198                |
| 34       | 73    | 35      | 3473-35-119  | 35-119        | R.L. Peterson             | 386846             | 805395              | 179                |
| 34       | 73    | 35      | 3473-35-12   | 35-12         | R.L. Peterson             | 389366             | 802843              | 216                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number       | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 35      | 3473-35-120       | 35-120        | R.L. Peterson             | 386744             | 805402              | 177                |
| 34       | 73    | 35      | 3473-35-121       | 35-121        | R.L. Peterson             | 386737             | 805203              | 179                |
| 34       | 73    | 35      | 3473-35-122       | 35-122        | R.L. Peterson             | 386831             | 805196              | 177                |
| 34       | 73    | 35      | 3473-35-123       | 35-123        | R.L. Peterson             | 386827             | 804998              | 178                |
| 34       | 73    | 35      | 3473-35-124       | 35-124        | R.L. Peterson             | 386921             | 805001              | 235                |
| 34       | 73    | 35      | 3473-35-125       | 35-125        | R.L. Peterson             | 386933             | 804598              | 212                |
| 34       | 73    | 35      | 3473-35-126       | 35-126        | R.L. Peterson             | 386732             | 804600              | 137                |
| 34       | 73    | 35      | 3473-35-127       | 35-127        | R.L. Peterson             | 386634             | 804603              | 138                |
| 34       | 73    | 35      | 3473-35-128       | 35-128        | R.L. Peterson             | 387883             | 803382              | 158                |
| 34       | 73    | 35      | 3473-35-129       | 35-129        | R.L. Peterson             | 387925             | 803272              | 136                |
| 34       | 73    | 35      | 3473-35-13        | 35-13         | R.L. Peterson             | 388724             | 802838              | 196                |
| 34       | 73    | 35      | 3473-35-130       | 35-130        | R.L. Peterson             | 387919             | 803076              | 119                |
| 34       | 73    | 35      | 3473-35-131       | 35-131        | R.L. Peterson             | 388010             | 803050              | 138                |
| 34       | 73    | 35      | 3473-35-132       | 35-132        | R.L. Peterson             | 388739             | 802639              | 179                |
| 34       | 73    | 35      | 3473-35-133       | 35-133        | R.L. Peterson             | 388731             | 802747              | 198                |
| 34       | 73    | 35      | 3473-35-134       | 35-134        | R.L. Peterson             | 388739             | 802594              | 178                |
| 34       | 73    | 35      | 3473-35-135       | 35-135        | R.L. Peterson             | 389003             | 802656              | 176                |
| 34       | 73    | 35      | 3473-35-136       | 35-136        | R.L. Peterson             | 389311             | 802723              | 200                |
| 34       | 73    | 35      | 3473-35-137       | 35-137        | R.L. Peterson             | 389313             | 802772              | 199                |
| 34       | 73    | 35      | 3473-35-138       | 35-138        | R.L. Peterson             | 389596             | 802651              | 198                |
| 34       | 73    | 35      | 3473-35-139       | 35-139        | R.L. Peterson             | 388998             | 802609              | 173                |
| 34       | 73    | 35      | 3473-35-14        | 35-14         | R.L. Peterson             | 388119             | 802839              |                    |
| 34       | 73    | 35      | 3473-35-140       | 35-140        | R.L. Peterson             | 388743             | 802544              | 179                |
| 34       | 73    | 35      | 3473-35-141       | 35-141        | R.L. Peterson             | 388412             | 802350              | 177                |
| 34       | 73    | 35      | 3473-35-142       | 35-142        | R.L. Peterson             | 388320             | 802436              | 177                |
| 34       | 73    | 35      | 3473-35-143       | 35-143        | R.L. Peterson             | 389599             | 802700              | 200                |
| 34       | 73    | 35      | 3473-35-144       | 35-144        | R.L. Peterson             | 389605             | 802455              | 174                |
| 34       | 73    | 35      | 3473-35-145       | 35-145        | R.L. Peterson             | 389316             | 802391              | 178                |
| 34       | 73    | 35      | 3473-35-146       | 35-146        | R.L. Peterson             | 389650             | 802702              | 198                |
| 34       | 73    | 35      | 3473-35-147       | 35-147        | R.L. Peterson             | 389600             | 802554              | 198                |
| 34       | 73    | 35      | 3473-35-148       | 35-148        | R.L. Peterson             | 389910             | 802642              | 199                |
| 34       | 73    | 35      | 3473-35-148Dup ID | 148           |                           | 389150.9           | 802604              |                    |
| 34       | 73    | 35      | 3473-35-149       | 35-149        | R.L. Peterson             | 389692             | 802649              | 198                |
| 34       | 73    | 35      | 3473-35-15        | 35-15         | R.L. Peterson             | 387811             | 802546              | 502                |
| 34       | 73    | 35      | 3473-35-150       | 35-150        | R.L. Peterson             | 389740             | 802773              | 199                |
| 34       | 73    | 35      | 3473-35-151       | 35-151        | R.L. Peterson             | 389816             | 802788              | 198                |
| 34       | 73    | 35      | 3473-35-152       | 35-152        | R.L. Peterson             | 388431             | 804256              | 239                |
| 34       | 73    | 35      | 3473-35-153       | 35-153        | R.L. Peterson             | 388611             | 804256              | 239                |
| 34       | 73    | 35      | 3473-35-154       | 35-154        | R.L. Peterson             | 388431             | 803893              | 238                |
| 34       | 73    | 35      | 3473-35-155       | 35-155        | R.L. Peterson             | 388610             | 804347              | 239                |
| 34       | 73    | 35      | 3473-35-156       | 35-156        | R.L. Peterson             | 388523             | 804259              | 239                |
| 34       | 73    | 35      | 3473-35-157       | 35-157        | R.L. Peterson             | 387733             | 804349              | 175                |
| 34       | 73    | 35      | 3473-35-158       | 35-158        | R.L. Peterson             | 387602             | 804350              | 178                |
| 34       | 73    | 35      | 3473-35-159       | 35-159        | R.L. Peterson             | 387696             | 804562              | 176                |
| 34       | 73    | 35      | 3473-35-16        | 35-16         | R.L. Peterson             | 385803             | 806066              | 358                |
| 34       | 73    | 35      | 3473-35-160       | 35-160        | R.L. Peterson             | 387659             | 804771              | 197                |
| 34       | 73    | 35      | 3473-35-161       | 35-161        | R.L. Peterson             | 387784             | 804351              | 178                |
| 34       | 73    | 35      | 3473-35-162       | 35-162        | R.L. Peterson             | 387685             | 804351              | 175                |
| 34       | 73    | 35      | 3473-35-163       | 35-163        | R.L. Peterson             | 387783             | 804566              | 194                |
| 34       | 73    | 35      | 3473-35-164       | 35-164        | R.L. Peterson             | 387741             | 804565              | 194                |
| 34       | 73    | 35      | 3473-35-165       | 35-165        | R.L. Peterson             | 387705             | 804773              | 195                |
| 34       | 73    | 35      | 3473-35-166       | 35-166        | R.L. Peterson             | 387613             | 804773              | 200                |
| 34       | 73    | 35      | 3473-35-167       | 35-167        | R.L. Peterson             | 387517             | 804770              | 259                |
| 34       | 73    | 35      | 3473-35-168       | 35-168        | R.L. Peterson             | 387707             | 804940              | 259                |
| 34       | 73    | 35      | 3473-35-168C      | 35-168C       | Nuclear Assurance Company | 387706             | 804934              | 183                |
| 34       | 73    | 35      | 3473-35-169       | 35-169        | R.L. Peterson             | 387570             | 804940              | 195                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number   | Short Hole ID | Company       | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|---------------|---------------|---------------|--------------------|---------------------|--------------------|
| 34       | 73    | 35      | 3473-35-17    | 35-17         | R.L. Peterson | 385853             | 806378              | 359                |
| 34       | 73    | 35      | 3473-35-170   | 35-170        | R.L. Peterson | 387661             | 804935              | 194                |
| 34       | 73    | 35      | 3473-35-171   | 35-171        | R.L. Peterson | 387541             | 805110              | 216                |
| 34       | 73    | 35      | 3473-35-172   | 35-172        | R.L. Peterson | 387416             | 805099              | 194                |
| 34       | 73    | 35      | 3473-35-173   | 35-173        | R.L. Peterson | 387501             | 805106              | 195                |
| 34       | 73    | 35      | 3473-35-174   | 35-174        | R.L. Peterson | 387483             | 804941              | 199                |
| 34       | 73    | 35      | 3473-35-175   | 35-175        | R.L. Peterson | 387541             | 805299              | 197                |
| 34       | 73    | 35      | 3473-35-176   | 35-176        | R.L. Peterson | 387492             | 805298              | 196                |
| 34       | 73    | 35      | 3473-35-177   | 35-177        | R.L. Peterson | 387398             | 805295              | 196                |
| 34       | 73    | 35      | 3473-35-178   | 35-178        | R.L. Peterson | 387291             | 805427              | 196                |
| 34       | 73    | 35      | 3473-35-179   | 35-179        | R.L. Peterson | 387192             | 805418              | 192                |
| 34       | 73    | 35      | 3473-35-18    | 35-18         | R.L. Peterson | 387804             | 802149              | 118                |
| 34       | 73    | 35      | 3473-35-180   | 35-180        | R.L. Peterson | 387398             | 805600              | 216                |
| 34       | 73    | 35      | 3473-35-181   | 35-181        | R.L. Peterson | 387298             | 805622              | 211                |
| 34       | 73    | 35      | 3473-35-182   | 35-182        | R.L. Peterson | 387399             | 805768              | 217                |
| 34       | 73    | 35      | 3473-35-183   | 35-183        | R.L. Peterson | 387294             | 805800              | 212                |
| 34       | 73    | 35      | 3473-35-184   | 35-184        | R.L. Peterson | 387188             | 805801              | 213                |
| 34       | 73    | 35      | 3473-35-185   | 35-185        | R.L. Peterson | 387300             | 805996              | 238                |
| 34       | 73    | 35      | 3473-35-186   | 35-186        | R.L. Peterson | 387398             | 805998              | 240                |
| 34       | 73    | 35      | 3473-35-187   | 35-187        | R.L. Peterson | 386740             | 805801              | 217                |
| 34       | 73    | 35      | 3473-35-188   | 35-188        | R.L. Peterson | 386698             | 805584              | 240                |
| 34       | 73    | 35      | 3473-35-189   | 35-189        | R.L. Peterson | 386842             | 805803              | 215                |
| 34       | 73    | 35      | 3473-35-19    | 35-19         | R.L. Peterson | 387757             | 802547              | 174                |
| 34       | 73    | 35      | 3473-35-190   | 35-190        | R.L. Peterson | 386941             | 805808              | 216                |
| 34       | 73    | 35      | 3473-35-191   | 35-191        | R.L. Peterson | 386796             | 805596              | 200                |
| 34       | 73    | 35      | 3473-35-192   | 35-192        | R.L. Peterson | 386694             | 805800              | 217                |
| 34       | 73    | 35      | 3473-35-193   | 35-193        | R.L. Peterson | 386776             | 805899              | 214                |
| 34       | 73    | 35      | 3473-35-194   | 35-194        | R.L. Peterson | 386900             | 805603              | 197                |
| 34       | 73    | 35      | 3473-35-195   | 35-195        | R.L. Peterson | 386803             | 805396              | 198                |
| 34       | 73    | 35      | 3473-35-196   | 35-196        | R.L. Peterson | 386996             | 805810              | 214                |
| 34       | 73    | 35      | 3473-35-197   | 35-197        | R.L. Peterson | 387253             | 805994              | 235                |
| 34       | 73    | 35      | 3473-35-198   | 35-198        | R.L. Peterson | 386777             | 805855              | 217                |
| 34       | 73    | 35      | 3473-35-199   | 35-199        | R.L. Peterson | 387129             | 806040              | 238                |
| 34       | 73    | 35      | 3473-351-OW-1 | 1-OW-1        |               | 387481             | 806776              |                    |
| 34       | 73    | 35      | 3473-35-2     | 35-2          | R.L. Peterson | 390678             | 804990              | 400                |
| 34       | 73    | 35      | 3473-35-20    | 35-20         | R.L. Peterson | 387863             | 802546              | 176                |
| 34       | 73    | 35      | 3473-35-200   | 35-200        | R.L. Peterson | 387200             | 806203              | 258                |
| 34       | 73    | 35      | 3473-35-2001  | 2001          | Uranium One   | 387347             | 805556              | 401.1              |
| 34       | 73    | 35      | 3473-35-2002  | 2002          | Uranium One   | 387545             | 805197              | 401.7              |
| 34       | 73    | 35      | 3473-35-2003  | 2003          | Uranium One   | 387653             | 804655              | 401.4              |
| 34       | 73    | 35      | 3473-35-2004  | 2004          | Uranium One   | 387753             | 804655              | 400.9              |
| 34       | 73    | 35      | 3473-35-2005  | 2005          | Uranium One   | 387686             | 804463              | 401.3              |
| 34       | 73    | 35      | 3473-35-2006  | 2006          | Uranium One   | 387786             | 804463              | 400.5              |
| 34       | 73    | 35      | 3473-35-2007  | 2007          | Uranium One   | 387637             | 804247              | 400.6              |
| 34       | 73    | 35      | 3473-35-2008  | 2008          | Uranium One   | 387737             | 804247              | 400.7              |
| 34       | 73    | 35      | 3473-35-2009  | 2009          | Uranium One   | 387887             | 804247              | 400.9              |
| 34       | 73    | 35      | 3473-35-201   | 35-201        | R.L. Peterson | 387288             | 806212              | 258                |
| 34       | 73    | 35      | 3473-35-2010  | 2010          | Uranium One   | 387851             | 804087              | 397.8              |
| 34       | 73    | 35      | 3473-35-2011  | 2011          | Uranium One   | 387781             | 803018              | 398                |
| 34       | 73    | 35      | 3473-35-2012  | 2012          | Uranium One   | 388422             | 802535              | 399.1              |
| 34       | 73    | 35      | 3473-35-2013  | 2013          | Uranium One   | 388422             | 802434              | 400                |
| 34       | 73    | 35      | 3473-35-2014  | 2014          | Uranium One   | 388617             | 802595              | 400.2              |
| 34       | 73    | 35      | 3473-35-2015  | 2015          | Uranium One   | 388617             | 802493              | 399.7              |
| 34       | 73    | 35      | 3473-35-2016  | 2016          | Uranium One   | 389078             | 802607              | 397.8              |
| 34       | 73    | 35      | 3473-35-2017  | 2017          | Uranium One   | 389757             | 802694              | 396.2              |
| 34       | 73    | 35      | 3473-35-2018  | 2018          | Uranium One   | 390432.8           | 802974              | 401.1              |



Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company       | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|---------------|--------------------|---------------------|--------------------|
| 34       | 73    | 35      | 3473-35-2019 | 2019          | Uranium One   | 389963             | 803774              | 400.6              |
| 34       | 73    | 35      | 3473-35-202  | 35-202        | R.L. Peterson | 387391             | 806224              | 255                |
| 34       | 73    | 35      | 3473-35-2020 | 2020          | Uranium One   | 390275             | 804121              | 399.9              |
| 34       | 73    | 35      | 3473-35-2021 | 2021          | Uranium One   | 390720             | 804204              | 397.5              |
| 34       | 73    | 35      | 3473-35-2022 | 2022          | Uranium One   | 390592             | 804273              | 400.6              |
| 34       | 73    | 35      | 3473-35-2023 | 2023          | Uranium One   | 390611             | 804587              | 399.3              |
| 34       | 73    | 35      | 3473-35-2024 | 2024          | Uranium One   | 389070             | 806460              | 400.8              |
| 34       | 73    | 35      | 3473-35-2025 | 2025          | Uranium One   | 388970             | 806558              | 400.2              |
| 34       | 73    | 35      | 3473-35-2026 | 2026          | Uranium One   | 387298             | 806864              | 400.2              |
| 34       | 73    | 35      | 3473-35-2027 | 2027          | Uranium One   | 387498             | 806561              | 401.4              |
| 34       | 73    | 35      | 3473-35-2028 | 2028          | Uranium One   | 387294             | 806545              | 401.7              |
| 34       | 73    | 35      | 3473-35-2029 | 2029          | Uranium One   | 387097             | 806306              | 401.2              |
| 34       | 73    | 35      | 3473-35-203  | 35-203        | R.L. Peterson | 387191             | 806383              | 260                |
| 34       | 73    | 35      | 3473-35-2030 | 2030          | Uranium One   | 387080             | 805974              | 401.5              |
| 34       | 73    | 35      | 3473-35-2031 | 2031          | Uranium One   | 387124             | 805715              | 396.6              |
| 34       | 73    | 35      | 3473-35-2032 | 2032          | Uranium One   | 387622             | 805696              | 401.1              |
| 34       | 73    | 35      | 3473-35-2033 | 2033          | Uranium One   | 387677             | 805598              | 401.1              |
| 34       | 73    | 35      | 3473-35-2034 | 2034          | Uranium One   | 386667             | 805524              | 402.7              |
| 34       | 73    | 35      | 3473-35-2035 | 2035          | Uranium One   | 387017             | 805194              | 401.9              |
| 34       | 73    | 35      | 3473-35-2036 | 2036          | Uranium One   | 387392             | 804018              | 401                |
| 34       | 73    | 35      | 3473-35-2037 | 2037          | Uranium One   | 387588             | 803917              | 400.7              |
| 34       | 73    | 35      | 3473-35-2038 | 2038          | Uranium One   | 387275             | 803412              | 400.6              |
| 34       | 73    | 35      | 3473-35-204  | 35-204        | R.L. Peterson | 387293             | 806402              | 255                |
| 34       | 73    | 35      | 3473-35-2040 | 2040          | Uranium One   | 386634             | 802558              | 424.4              |
| 34       | 73    | 35      | 3473-35-2041 | 2041          | Uranium One   | 388911             | 802237              | 399.9              |
| 34       | 73    | 35      | 3473-35-2042 | 2042          | Uranium One   | 389650             | 802746              | 240.3              |
| 34       | 73    | 35      | 3473-35-2043 | 2043          | Uranium One   | 389520.6           | 802751.6            | 240.1              |
| 34       | 73    | 35      | 3473-35-2044 | 2044          | Uranium One   | 389377.4           | 802763              | 239.1              |
| 34       | 73    | 35      | 3473-35-2045 | 2045          | Uranium One   | 389076             | 802702              | 218.5              |
| 34       | 73    | 35      | 3473-35-2046 | 2046          | Uranium One   | 388226             | 802324              | 218.3              |
| 34       | 73    | 35      | 3473-35-2047 | 2047          | Uranium One   | 388171             | 802499              | 221.6              |
| 34       | 73    | 35      | 3473-35-2048 | 2048          | Uranium One   | 387927             | 802304              | 219.5              |
| 34       | 73    | 35      | 3473-35-2049 | 2049          | Uranium One   | 388017             | 802646              | 400.7              |
| 34       | 73    | 35      | 3473-35-205  | 35-205        | R.L. Peterson | 387398             | 806419              | 273                |
| 34       | 73    | 35      | 3473-35-2050 | 2050          | Uranium One   | 387596             | 802549              | 218.7              |
| 34       | 73    | 35      | 3473-35-2051 | 2051          | Uranium One   | 387876             | 802955              | 220.7              |
| 34       | 73    | 35      | 3473-35-2052 | 2052          | Uranium One   | 387876             | 803205              | 220.3              |
| 34       | 73    | 35      | 3473-35-2053 | 2053          | Uranium One   | 387902             | 803534              | 400.2              |
| 34       | 73    | 35      | 3473-35-2054 | 2054          | Uranium One   | 387900             | 803699              | 220.3              |
| 34       | 73    | 35      | 3473-35-2055 | 2055          | Uranium One   | 388145             | 803757              | 218.2              |
| 34       | 73    | 35      | 3473-35-2056 | 2056          | Uranium One   | 387892             | 803871              | 218.6              |
| 34       | 73    | 35      | 3473-35-2057 | 2057          | Uranium One   | 387995             | 804290              | 221.2              |
| 34       | 73    | 35      | 3473-35-2058 | 2058          | Uranium One   | 387879             | 804463              | 241.5              |
| 34       | 73    | 35      | 3473-35-2059 | 2059          | Uranium One   | 387613             | 804858              | 241.4              |
| 34       | 73    | 35      | 3473-35-206  | 35-206        | R.L. Peterson | 387490             | 806424              | 278                |
| 34       | 73    | 35      | 3473-35-2060 | 2060          | Uranium One   | 387434             | 804851              | 241.7              |
| 34       | 73    | 35      | 3473-35-2061 | 2061          | Uranium One   | 387670             | 805030              | 261.6              |
| 34       | 73    | 35      | 3473-35-2062 | 2062          | Uranium One   | 387502             | 805030              | 261.9              |
| 34       | 73    | 35      | 3473-35-2063 | 2063          | Uranium One   | 387760             | 805197              | 261.8              |
| 34       | 73    | 35      | 3473-35-2064 | 2064          | Uranium One   | 387445             | 805198              | 261.3              |
| 34       | 73    | 35      | 3473-35-2065 | 2065          | Uranium One   | 387391             | 805364              | 281.5              |
| 34       | 73    | 35      | 3473-35-2066 | 2066          | Uranium One   | 387402             | 805858              | 400.6              |
| 34       | 73    | 35      | 3473-35-2067 | 2067          | Uranium One   | 387661             | 806055              | 419.5              |
| 34       | 73    | 35      | 3473-35-2068 | 2068          | Uranium One   | 387193             | 806686              | 302.2              |
| 34       | 73    | 35      | 3473-35-2069 | 2069          | Uranium One   | 386778             | 806298              | 401.5              |
| 34       | 73    | 35      | 3473-35-207  | 35-207        | R.L. Peterson | 387193             | 806605              | 278                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company       | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|---------------|--------------------|---------------------|--------------------|
| 34       | 73    | 35      | 3473-35-2070 | 2070          | Uranium One   | 386854             | 805092              | 241.3              |
| 34       | 73    | 35      | 3473-35-2071 | 2071          | Uranium One   | 386876             | 804748              | 241.5              |
| 34       | 73    | 35      | 3473-35-2072 | 2072          | Uranium One   | 389018             | 803372              | 219.7              |
| 34       | 73    | 35      | 3473-35-2073 | 2073          | Uranium One   | 389428             | 803482              | 219.6              |
| 34       | 73    | 35      | 3473-35-2074 | 2074          | Uranium One   | 389584             | 803499              | 218.1              |
| 34       | 73    | 35      | 3473-35-2075 | 2075          | Uranium One   | 390286             | 803859              | 219.5              |
| 34       | 73    | 35      | 3473-35-2076 | 2076          | Uranium One   | 390782             | 804387              | 260.2              |
| 34       | 73    | 35      | 3473-35-2077 | 2077          | Uranium One   | 390764             | 804585              | 280.3              |
| 34       | 73    | 35      | 3473-35-2078 | 2078          | Uranium One   | 390362             | 804657              | 280.4              |
| 34       | 73    | 35      | 3473-35-2079 | 2079          | Uranium One   | 389971             | 804828              | 279.4              |
| 34       | 73    | 35      | 3473-35-208  | 35-208        | R.L. Peterson | 387294             | 806612              | 280                |
| 34       | 73    | 35      | 3473-35-2080 | 2080          | Uranium One   | 389489             | 804765              | 278.9              |
| 34       | 73    | 35      | 3473-35-2081 | 2081          | Uranium One   | 389687             | 802342              | 800.7              |
| 34       | 73    | 35      | 3473-35-2083 | 2083          | Uranium One   | 387793             | 803872              | 241.9              |
| 34       | 73    | 35      | 3473-35-2084 | 2084          | Uranium One   | 387892             | 803976              | 241.3              |
| 34       | 73    | 35      | 3473-35-2085 | 2085          | Uranium One   | 387956             | 804099              | 221.1              |
| 34       | 73    | 35      | 3473-35-2086 | 2086          | Uranium One   | 387737             | 804414              | 240.3              |
| 34       | 73    | 35      | 3473-35-2087 | 2087          | Uranium One   | 387821.2           | 804657.3            | 263.7              |
| 34       | 73    | 35      | 3473-35-2088 | 2088          | Uranium One   | 387705             | 804707.7            | 260.9              |
| 34       | 73    | 35      | 3473-35-2089 | 2089          | Uranium One   | 387563             | 804706              | 261.1              |
| 34       | 73    | 35      | 3473-35-209  | 35-209        | R.L. Peterson | 387396             | 806613              | 276                |
| 34       | 73    | 35      | 3473-35-2090 | 2090          | Uranium One   | 387434             | 804768              | 260.3              |
| 34       | 73    | 35      | 3473-35-2091 | 2091          | Uranium One   | 387702             | 804903              | 280.8              |
| 34       | 73    | 35      | 3473-35-2092 | 2092          | Uranium One   | 387718             | 805030              | 280.9              |
| 34       | 73    | 35      | 3473-35-2093 | 2093          | Uranium One   | 387590             | 805030              | 281.8              |
| 34       | 73    | 35      | 3473-35-2094 | 2094          | Uranium One   | 387429             | 805030              | 281.4              |
| 34       | 73    | 35      | 3473-35-2095 | 2095          | Uranium One   | 387538             | 805696              | 402.5              |
| 34       | 73    | 35      | 3473-35-2096 | 2096          | Uranium One   | 387520             | 805790              | 400.9              |
| 34       | 73    | 35      | 3473-35-2097 | 2097          | Uranium One   | 387241             | 806433              | 302.1              |
| 34       | 73    | 35      | 3473-35-2098 | 2098          | Uranium One   | 387497             | 806479              | 301                |
| 34       | 73    | 35      | 3473-35-2099 | 2099          | Uranium One   | 386060             | 807291              | 460.5              |
| 34       | 73    | 35      | 3473-35-21   | 35-21         | R.L. Peterson | 387813             | 802648              | 174                |
| 34       | 73    | 35      | 3473-35-210  | 35-210        | R.L. Peterson | 387447             | 806615              | 275                |
| 34       | 73    | 35      | 3473-35-2101 | 2101          | Uranium One   | 385783             | 807341              | 601.2              |
| 34       | 73    | 35      | 3473-35-2102 | 2102          | Uranium One   | 387798             | 804247              | 221.7              |
| 34       | 73    | 35      | 3473-35-211  | 35-211        | R.L. Peterson | 387498             | 806619              | 279                |
| 34       | 73    | 35      | 3473-35-212  | 35-212        | R.L. Peterson | 387602             | 806623              | 276                |
| 34       | 73    | 35      | 3473-35-2123 | 2123          | Uranium One   | 390599.3           | 802925.9            | 400.2              |
| 34       | 73    | 35      | 3473-35-2124 | 2124          | Uranium One   | 390688.3           | 802985.3            | 399.8              |
| 34       | 73    | 35      | 3473-35-2125 | 2125          | Uranium One   | 390686.5           | 803128.9            | 400.4              |
| 34       | 73    | 35      | 3473-35-2126 | 2126          | Uranium One   | 388800.7           | 802597.5            | 218.5              |
| 34       | 73    | 35      | 3473-35-2128 | 2128          | Uranium One   | 388248             | 802478              | 220.3              |
| 34       | 73    | 35      | 3473-35-2129 | 2129          | Uranium One   | 388226             | 802375              | 212.5              |
| 34       | 73    | 35      | 3473-35-213  | 35-213        | R.L. Peterson | 387341             | 806701              | 279                |
| 34       | 73    | 35      | 3473-35-2130 | 2130          | Uranium One   | 387927             | 802253              | 214.4              |
| 34       | 73    | 35      | 3473-35-2131 | 2131          | Uranium One   | 388045             | 803867              | 200.1              |
| 34       | 73    | 35      | 3473-35-2132 | 2132          | Uranium One   | 388080             | 803966              | 201.6              |
| 34       | 73    | 35      | 3473-35-2133 | 2133          | Uranium One   | 387788             | 804303              | 201.1              |
| 34       | 73    | 35      | 3473-35-2134 | 2134          | Uranium One   | 387680             | 804298              | 200.7              |
| 34       | 73    | 35      | 3473-35-2135 | 2135          | Uranium One   | 387736             | 804516              | 201                |
| 34       | 73    | 35      | 3473-35-2136 | 2136          | Uranium One   | 387788             | 804606              | 221.4              |
| 34       | 73    | 35      | 3473-35-2137 | 2137          | Uranium One   | 387705             | 804606              | 219.9              |
| 34       | 73    | 35      | 3473-35-2138 | 2138          | Uranium One   | 387654             | 804823              | 241.4              |
| 34       | 73    | 35      | 3473-35-2139 | 2139          | Uranium One   | 387589             | 804979              | 261.2              |
| 34       | 73    | 35      | 3473-35-214  | 35-214        | R.L. Peterson | 387548             | 806721              | 278                |
| 34       | 73    | 35      | 3473-35-2140 | 2140          | Uranium One   | 387496             | 805168              | 260.4              |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company       | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|---------------|--------------------|---------------------|--------------------|
| 34       | 73    | 35      | 3473-35-2141 | 2141          | Uranium One   | 387393             | 805198              | 257.8              |
| 34       | 73    | 35      | 3473-35-2142 | 2142          | Uranium One   | 387445             | 805250              | 262                |
| 34       | 73    | 35      | 3473-35-2143 | 2143          | Uranium One   | 387441             | 805344              | 281.6              |
| 34       | 73    | 35      | 3473-35-2144 | 2144          | Uranium One   | 387286             | 805366              | 362.1              |
| 34       | 73    | 35      | 3473-35-2145 | 2145          | Uranium One   | 387102             | 805405              | 361.7              |
| 34       | 73    | 35      | 3473-35-2146 | 2146          | Uranium One   | 387672             | 805695              | 401.3              |
| 34       | 73    | 35      | 3473-35-2147 | 2147          | Uranium One   | 387395             | 805663              | 400.8              |
| 34       | 73    | 35      | 3473-35-2148 | 2148          | Uranium One   | 387342             | 805902              | 401.7              |
| 34       | 73    | 35      | 3473-35-2149 | 2149          | Uranium One   | 387393             | 805948              | 401.1              |
| 34       | 73    | 35      | 3473-35-215  | 35-215        | R.L. Peterson | 387298             | 806786              | 279                |
| 34       | 73    | 35      | 3473-35-2150 | 2150          | Uranium One   | 387393             | 806369              | 301                |
| 34       | 73    | 35      | 3473-35-2151 | 2151          | Uranium One   | 387393             | 806473              | 302.1              |
| 34       | 73    | 35      | 3473-35-2152 | 2152          | Uranium One   | 387240             | 806638              | 301.9              |
| 34       | 73    | 35      | 3473-35-2153 | 2153          | Uranium One   | 387498             | 806811              | 302.3              |
| 34       | 73    | 35      | 3473-35-2154 | 2154          | Uranium One   | 386902             | 806089              | 420.9              |
| 34       | 73    | 35      | 3473-35-2155 | 2155          | Uranium One   | 386796             | 806199              | 421.6              |
| 34       | 73    | 35      | 3473-35-2156 | 2156          | Uranium One   | 386585             | 806476              | 421.7              |
| 34       | 73    | 35      | 3473-35-216  | 35-216        | R.L. Peterson | 387398             | 806799              | 281                |
| 34       | 73    | 35      | 3473-35-217  | 35-217        | R.L. Peterson | 387494             | 806810              | 281                |
| 34       | 73    | 35      | 3473-35-218  | 35-218        | R.L. Peterson | 386352             | 806209              | 379                |
| 34       | 73    | 35      | 3473-35-219  | 35-219        | R.L. Peterson | 387544             | 806769              | 282                |
| 34       | 73    | 35      | 3473-35-22   | 35-22         | R.L. Peterson | 387809             | 802750              | 179                |
| 34       | 73    | 35      | 3473-35-220  | 35-220        | R.L. Peterson | 386371             | 806030              | 359                |
| 34       | 73    | 35      | 3473-35-221  | 35-221        | R.L. Peterson | 387551             | 806672              | 279                |
| 34       | 73    | 35      | 3473-35-222  | 35-222        | R.L. Peterson | 387399             | 806848              | 282                |
| 34       | 73    | 35      | 3473-35-223  | 35-223        | R.L. Peterson | 386636             | 806373              | 381                |
| 34       | 73    | 35      | 3473-35-224  | 35-224        | R.L. Peterson | 386641             | 806037              | 362                |
| 34       | 73    | 35      | 3473-35-225  | 35-225        | R.L. Peterson | 386681             | 806362              | 379                |
| 34       | 73    | 35      | 3473-35-226  | 35-226        | R.L. Peterson | 387340             | 806745              | 281                |
| 34       | 73    | 35      | 3473-35-227  | 35-227        | R.L. Peterson | 387341             | 806654              | 280                |
| 34       | 73    | 35      | 3473-35-228  | 35-228        | R.L. Peterson | 387439             | 806322              | 280                |
| 34       | 73    | 35      | 3473-35-229  | 35-229        | R.L. Peterson | 387249             | 806688              | 274                |
| 34       | 73    | 35      | 3473-35-23   | 35-23         | R.L. Peterson | 388418             | 802854              | 195                |
| 34       | 73    | 35      | 3473-35-230  | 35-230        | R.L. Peterson | 387442             | 806519              | 281                |
| 34       | 73    | 35      | 3473-35-231  | 35-231        | R.L. Peterson | 387545             | 806521              | 277                |
| 34       | 73    | 35      | 3473-35-232  | 35-232        | R.L. Peterson | 387246             | 806311              | 281                |
| 34       | 73    | 35      | 3473-35-233  | 35-233        | R.L. Peterson | 387340             | 806124              | 261                |
| 34       | 73    | 35      | 3473-35-234  | 35-234        | R.L. Peterson | 387234             | 806118              | 258                |
| 34       | 73    | 35      | 3473-35-235  | 35-235        | R.L. Peterson | 387135             | 806111              | 238                |
| 34       | 73    | 35      | 3473-35-236  | 35-236        | R.L. Peterson | 387388             | 806129              | 259                |
| 34       | 73    | 35      | 3473-35-237  | 35-237        | R.L. Peterson | 387197             | 806308              | 251                |
| 34       | 73    | 35      | 3473-35-238  | 35-238        | R.L. Peterson | 386997             | 805903              | 355                |
| 34       | 73    | 35      | 3473-35-239  | 35-239        | R.L. Peterson | 386995             | 805857              | 240                |
| 34       | 73    | 35      | 3473-35-24   | 35-24         | R.L. Peterson | 387659             | 802551              | 177                |
| 34       | 73    | 35      | 3473-35-240  | 35-240        | R.L. Peterson | 387046             | 805813              | 219                |
| 34       | 73    | 35      | 3473-35-241  | 35-241        | R.L. Peterson | 387097             | 805909              | 340                |
| 34       | 73    | 35      | 3473-35-242  | 35-242        | R.L. Peterson | 387095             | 805814              | 219                |
| 34       | 73    | 35      | 3473-35-243  | 35-243        | R.L. Peterson | 386696             | 805694              | 200                |
| 34       | 73    | 35      | 3473-35-244  | 35-244        | R.L. Peterson | 386767             | 805721              | 200                |
| 34       | 73    | 35      | 3473-35-245  | 35-245        | R.L. Peterson | 386896             | 805711              | 215                |
| 34       | 73    | 35      | 3473-35-246  | 35-246        | R.L. Peterson | 386998             | 805713              | 205                |
| 34       | 73    | 35      | 3473-35-247  | 35-247        | R.L. Peterson | 386948             | 805611              | 339                |
| 34       | 73    | 35      | 3473-35-248  | 35-248        | R.L. Peterson | 386801             | 805489              | 194                |
| 34       | 73    | 35      | 3473-35-249  | 35-249        | R.L. Peterson | 387339             | 805428              | 213                |
| 34       | 73    | 35      | 3473-35-25   | 35-25         | R.L. Peterson | 387856             | 802150              | 177                |
| 34       | 73    | 35      | 3473-35-250  | 35-250        | R.L. Peterson | 387388             | 805431              | 214                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company       | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|---------------|--------------------|---------------------|--------------------|
| 34       | 73    | 35      | 3473-35-251  | 35-251        | R.L. Peterson | 387436             | 805438              | 211                |
| 34       | 73    | 35      | 3473-35-252  | 35-252        | R.L. Peterson | 386750             | 805491              | 199                |
| 34       | 73    | 35      | 3473-35-253  | 35-253        | R.L. Peterson | 386066             | 804340              | 438                |
| 34       | 73    | 35      | 3473-35-254  | 35-254        | R.L. Peterson | 386632             | 804330              | 363                |
| 34       | 73    | 35      | 3473-35-255  | 35-255        | R.L. Peterson | 387232             | 804328              | 360                |
| 34       | 73    | 35      | 3473-35-256  | 35-256        | R.L. Peterson | 386052             | 804772              | 277                |
| 34       | 73    | 35      | 3473-35-257  | 35-257        | R.L. Peterson | 388821             | 804345              | 234                |
| 34       | 73    | 35      | 3473-35-258  | 35-258        | R.L. Peterson | 389031             | 804321              | 249                |
| 34       | 73    | 35      | 3473-35-259  | 35-259        | R.L. Peterson | 387206             | 805282              | 318                |
| 34       | 73    | 35      | 3473-35-26   | 35-26         | R.L. Peterson | 387747             | 802155              | 176                |
| 34       | 73    | 35      | 3473-35-260  | 35-260        | R.L. Peterson | 387244             | 805078              | 327                |
| 34       | 73    | 35      | 3473-35-261  | 35-261        | R.L. Peterson | 387053             | 805460              | 319                |
| 34       | 73    | 35      | 3473-35-262  | 35-262        | R.L. Peterson | 387064             | 805286              | 317                |
| 34       | 73    | 35      | 3473-35-263  | 35-263        | R.L. Peterson | 387062             | 805343              | 319                |
| 34       | 73    | 35      | 3473-35-264  | 35-264        | R.L. Peterson | 388841             | 803642              | 196                |
| 34       | 73    | 35      | 3473-35-265  | 35-265        | R.L. Peterson | 386806             | 805298              | 319                |
| 34       | 73    | 35      | 3473-35-266  | 35-266        | R.L. Peterson | 387058             | 805404              | 318                |
| 34       | 73    | 35      | 3473-35-267  | 35-267        | R.L. Peterson | 386962             | 805392              | 319                |
| 34       | 73    | 35      | 3473-35-268  | 35-268        | R.L. Peterson | 389288             | 804342              | 223                |
| 34       | 73    | 35      | 3473-35-269  | 35-269        | R.L. Peterson | 386747             | 805445              | 307                |
| 34       | 73    | 35      | 3473-35-27   | 35-27         | R.L. Peterson | 388922             | 802841              | 198                |
| 34       | 73    | 35      | 3473-35-270  | 35-270        | R.L. Peterson | 389127             | 803639              | 189                |
| 34       | 73    | 35      | 3473-35-271  | 35-271        | R.L. Peterson | 389584             | 804341              | 236                |
| 34       | 73    | 35      | 3473-35-272  | 35-272        | R.L. Peterson | 389912             | 803588              | 178                |
| 34       | 73    | 35      | 3473-35-273  | 35-273        | R.L. Peterson | 387243             | 805721              | 339                |
| 34       | 73    | 35      | 3473-35-274  | 35-274        | R.L. Peterson | 386745             | 805541              | 314                |
| 34       | 73    | 35      | 3473-35-275  | 35-275        | R.L. Peterson | 387392             | 803919              | 195                |
| 34       | 73    | 35      | 3473-35-276  | 35-276        | R.L. Peterson | 387830             | 804149              | 176                |
| 34       | 73    | 35      | 3473-35-277  | 35-277        | R.L. Peterson | 387734             | 804145              | 158                |
| 34       | 73    | 35      | 3473-35-278  | 35-278        | R.L. Peterson | 387741             | 803914              | 154                |
| 34       | 73    | 35      | 3473-35-279  | 35-279        | R.L. Peterson | 389915             | 803543              | 176                |
| 34       | 73    | 35      | 3473-35-28   | 35-28         | R.L. Peterson | 387260             | 802619              | 216                |
| 34       | 73    | 35      | 3473-35-280  | 35-280        | R.L. Peterson | 389911             | 803636              | 196                |
| 34       | 73    | 35      | 3473-35-281  | 35-281        | R.L. Peterson | 386803             | 805441              | 318                |
| 34       | 73    | 35      | 3473-35-282  | 35-282        | R.L. Peterson | 387878             | 804152              | 178                |
| 34       | 73    | 35      | 3473-35-283  | 35-283        | R.L. Peterson | 387941             | 803919              | 197                |
| 34       | 73    | 35      | 3473-35-284  | 35-284        | R.L. Peterson | 387779             | 804148              | 174                |
| 34       | 73    | 35      | 3473-35-285  | 35-285        | R.L. Peterson | 387793             | 803917              | 156                |
| 34       | 73    | 35      | 3473-35-286  | 35-286        | R.L. Peterson | 387989             | 803915              | 196                |
| 34       | 73    | 35      | 3473-35-287  | 35-287        | R.L. Peterson | 387927             | 804153              | 178                |
| 34       | 73    | 35      | 3473-35-288  | 35-288        | R.L. Peterson | 387707             | 803693              | 156                |
| 34       | 73    | 35      | 3473-35-289  | 35-289        | R.L. Peterson | 387805             | 803697              | 156                |
| 34       | 73    | 35      | 3473-35-29   | 35-29         | R.L. Peterson | 387826             | 802343              | 196                |
| 34       | 73    | 35      | 3473-35-290  | 35-290        | R.L. Peterson | 387349             | 805709              | 338                |
| 34       | 73    | 35      | 3473-35-290C | 35-290C       |               | 387352             | 805716              |                    |
| 34       | 73    | 35      | 3473-35-291  | 35-291        | R.L. Peterson | 388035             | 803914              | 194                |
| 34       | 73    | 35      | 3473-35-292  | 35-292        | R.L. Peterson | 389517             | 803389              | 196                |
| 34       | 73    | 35      | 3473-35-293  | 35-293        | R.L. Peterson | 388035             | 803602              | 192                |
| 34       | 73    | 35      | 3473-35-294  | 35-294        | R.L. Peterson | 386144             | 803817              | 194                |
| 34       | 73    | 35      | 3473-35-295  | 35-295        | R.L. Peterson | 388089             | 803913              | 176                |
| 34       | 73    | 35      | 3473-35-296  | 35-296        | R.L. Peterson | 387780             | 803457              | 176                |
| 34       | 73    | 35      | 3473-35-297  | 35-297        | R.L. Peterson | 388085             | 803604              | 172                |
| 34       | 73    | 35      | 3473-35-298  | 35-298        | R.L. Peterson | 388194             | 803817              | 198                |
| 34       | 73    | 35      | 3473-35-299  | 35-299        | R.L. Peterson | 387875             | 803454              | 176                |
| 34       | 73    | 35      | 3473-35-3    | 35-3          | R.L. Peterson | 388715             | 804400              | 492                |
| 34       | 73    | 35      | 3473-35-30   | 35-30         | R.L. Peterson | 387048             | 802665              | 157                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company       | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|---------------|--------------------|---------------------|--------------------|
| 34       | 73    | 35      | 3473-35-300  | 35-300        | R.L. Peterson | 388149             | 803912              | 175                |
| 34       | 73    | 35      | 3473-35-301  | 35-301        | R.L. Peterson | 388031             | 803966              | 157                |
| 34       | 73    | 35      | 3473-35-302  | 35-302        | R.L. Peterson | 388243             | 803913              | 197                |
| 34       | 73    | 35      | 3473-35-303  | 35-303        | R.L. Peterson | 390010             | 803589              | 179                |
| 34       | 73    | 35      | 3473-35-304  | 35-304        | R.L. Peterson | 389819             | 803590              | 177                |
| 34       | 73    | 35      | 3473-35-305  | 35-305        | R.L. Peterson | 390022             | 803638              | 194                |
| 34       | 73    | 35      | 3473-35-306  | 35-306        | R.L. Peterson | 390109             | 803780              | 195                |
| 34       | 73    | 35      | 3473-35-307  | 35-307        | R.L. Peterson | 389822             | 803491              | 176                |
| 34       | 73    | 35      | 3473-35-308  | 35-308        | R.L. Peterson | 389724             | 803501              | 195                |
| 34       | 73    | 35      | 3473-35-309  | 35-309        | R.L. Peterson | 389822             | 803543              | 176                |
| 34       | 73    | 35      | 3473-35-31   | 35-31         | R.L. Peterson | 387825             | 803064              | 159                |
| 34       | 73    | 35      | 3473-35-310  | 35-310        | R.L. Peterson | 390024             | 803689              | 178                |
| 34       | 73    | 35      | 3473-35-311  | 35-311        | R.L. Peterson | 390110             | 803730              | 174                |
| 34       | 73    | 35      | 3473-35-312  | 35-312        | R.L. Peterson | 389726             | 803552              | 196                |
| 34       | 73    | 35      | 3473-35-313  | 35-313        | R.L. Peterson | 389722             | 803451              | 196                |
| 34       | 73    | 35      | 3473-35-314  | 35-314        | R.L. Peterson | 389584             | 803434              | 195                |
| 34       | 73    | 35      | 3473-35-315  | 35-315        | R.L. Peterson | 390205             | 803771              | 195                |
| 34       | 73    | 35      | 3473-35-316  | 35-316        | R.L. Peterson | 390111             | 803873              | 196                |
| 34       | 73    | 35      | 3473-35-317  | 35-317        | R.L. Peterson | 388286             | 803910              | 188                |
| 34       | 73    | 35      | 3473-35-318  | 35-318        | R.L. Peterson | 388194             | 803914              | 153                |
| 34       | 73    | 35      | 3473-35-319  | 35-319        | R.L. Peterson | 388034             | 804012              | 170                |
| 34       | 73    | 35      | 3473-35-32   | 35-32         | R.L. Peterson | 387448             | 802470              | 155                |
| 34       | 73    | 35      | 3473-35-320  | 35-320        | R.L. Peterson | 388035             | 804057              | 153                |
| 34       | 73    | 35      | 3473-35-321  | 35-321        | R.L. Peterson | 387989             | 804021              | 191                |
| 34       | 73    | 35      | 3473-35-322  | 35-322        | R.L. Peterson | 388097             | 803814              | 174                |
| 34       | 73    | 35      | 3473-35-323  | 35-323        | R.L. Peterson | 388085             | 804012              | 174                |
| 34       | 73    | 35      | 3473-35-324  | 35-324        | R.L. Peterson | 388036             | 804102              | 174                |
| 34       | 73    | 35      | 3473-35-325  | 35-325        | R.L. Peterson | 388085             | 804095              | 170                |
| 34       | 73    | 35      | 3473-35-326  | 35-326        | R.L. Peterson | 388133             | 804011              | 174                |
| 34       | 73    | 35      | 3473-35-327  | 35-327        | R.L. Peterson | 388185             | 804018              | 174                |
| 34       | 73    | 35      | 3473-35-328  | 35-328        | R.L. Peterson | 388038             | 804148              | 172                |
| 34       | 73    | 35      | 3473-35-329  | 35-329        | R.L. Peterson | 387915             | 804025              | 172                |
| 34       | 73    | 35      | 3473-35-33   | 35-33         | R.L. Peterson | 387484             | 802675              | 177                |
| 34       | 73    | 35      | 3473-35-330C | 35-330C       | R.L. Peterson | 388146             | 803864              | 148                |
| 34       | 73    | 35      | 3473-35-331  | 35-331        | R.L. Peterson | 387772             | 804030              | 174                |
| 34       | 73    | 35      | 3473-35-332  | 35-332        | R.L. Peterson | 387681             | 804035              | 152                |
| 34       | 73    | 35      | 3473-35-333  | 35-333        | R.L. Peterson | 387586             | 804043              | 193                |
| 34       | 73    | 35      | 3473-35-334  | 35-334        | R.L. Peterson | 388041             | 804196              | 174                |
| 34       | 73    | 35      | 3473-35-335C | 35-335C       | R.L. Peterson | 387448             | 806758              | 274                |
| 34       | 73    | 35      | 3473-35-336  | 35-336        | R.L. Peterson | 387977             | 804153              | 175                |
| 34       | 73    | 35      | 3473-35-337  | 35-337        | R.L. Peterson | 388043             | 804244              | 174                |
| 34       | 73    | 35      | 3473-35-338  | 35-338        | R.L. Peterson | 387978             | 804190              | 175                |
| 34       | 73    | 35      | 3473-35-339  | 35-339        | R.L. Peterson | 388045             | 804292              | 171                |
| 34       | 73    | 35      | 3473-35-34   | 35-34         | R.L. Peterson | 387824             | 803273              | 115                |
| 34       | 73    | 35      | 3473-35-340  | 35-340        | R.L. Peterson | 387683             | 804144              | 157                |
| 34       | 73    | 35      | 3473-35-341  | 35-341        | R.L. Peterson | 387537             | 804050              | 157                |
| 34       | 73    | 35      | 3473-35-342  | 35-342        | R.L. Peterson | 387742             | 803813              | 156                |
| 34       | 73    | 35      | 3473-35-343  | 35-343        | R.L. Peterson | 387836             | 803814              | 153                |
| 34       | 73    | 35      | 3473-35-344  | 35-344        | R.L. Peterson | 387944             | 803815              | 151                |
| 34       | 73    | 35      | 3473-35-345C | 35-345C       | R.L. Peterson | 388100             | 803866              | 159                |
| 34       | 73    | 35      | 3473-35-346  | 35-346        | R.L. Peterson | 387831             | 804249              | 175                |
| 34       | 73    | 35      | 3473-35-347  | 35-347        | R.L. Peterson | 387999             | 803812              | 148                |
| 34       | 73    | 35      | 3473-35-348  | 35-348        | R.L. Peterson | 388044             | 803812              | 150                |
| 34       | 73    | 35      | 3473-35-349  | 35-349        | R.L. Peterson | 388088             | 804199              | 173                |
| 34       | 73    | 35      | 3473-35-35   | 35-35         | R.L. Peterson | 387365             | 802600              | 156                |
| 34       | 73    | 35      | 3473-35-350C | 35-350C       | R.L. Peterson | 387808             | 804249              | 160                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 35      | 3473-35-351  | 35-351        | R.L. Peterson             | 387995             | 804244              | 173                |
| 34       | 73    | 35      | 3473-35-352  | 35-352        | R.L. Peterson             | 387945             | 804247              | 173                |
| 34       | 73    | 35      | 3473-35-353  | 35-353        | R.L. Peterson             | 387879             | 804563              | 193                |
| 34       | 73    | 35      | 3473-35-354  | 35-354        | R.L. Peterson             | 387781             | 804774              | 191                |
| 34       | 73    | 35      | 3473-35-355  | 35-355        | R.L. Peterson             | 387759             | 804943              | 190                |
| 34       | 73    | 35      | 3473-35-356  | 35-356        | R.L. Peterson             | 387671             | 805112              | 212                |
| 34       | 73    | 35      | 3473-35-357  | 35-357        | R.L. Peterson             | 387429             | 804948              | 196                |
| 34       | 73    | 35      | 3473-35-358  | 35-358        | Nuclear Assurance Company | 387242             | 805290              | 215                |
| 34       | 73    | 35      | 3473-35-359  | 35-359        | R.L. Peterson             | 387292             | 805294              | 195                |
| 34       | 73    | 35      | 3473-35-36   | 35-36         | R.L. Peterson             | 388136             | 803604              | 198                |
| 34       | 73    | 35      | 3473-35-360C | 35-360C       | R.L. Peterson             | 388043             | 804281              | 177                |
| 34       | 73    | 35      | 3473-35-361  | 35-361        | R.L. Peterson             | 387344             | 805295              | 212                |
| 34       | 73    | 35      | 3473-35-362  | 35-362        | R.L. Peterson             | 387692             | 803813              | 149                |
| 34       | 73    | 35      | 3473-35-363  | 35-363        | R.L. Peterson             | 387586             | 803606              | 336                |
| 34       | 73    | 35      | 3473-35-364  | 35-364        | R.L. Peterson             | 387539             | 803603              | 133                |
| 34       | 73    | 35      | 3473-35-365  | 35-365        | R.L. Peterson             | 387572             | 803406              | 154                |
| 34       | 73    | 35      | 3473-35-366  | 35-366        | R.L. Peterson             | 387622             | 803300              | 131                |
| 34       | 73    | 35      | 3473-35-367  | 35-367        | R.L. Peterson             | 387673             | 803397              | 152                |
| 34       | 73    | 35      | 3473-35-368  | 35-368        | R.L. Peterson             | 387680             | 803504              | 150                |
| 34       | 73    | 35      | 3473-35-369  | 35-369        | R.L. Peterson             | 387997             | 803704              | 155                |
| 34       | 73    | 35      | 3473-35-37   | 35-37         | R.L. Peterson             | 388125             | 803392              | 178                |
| 34       | 73    | 35      | 3473-35-370  | 35-370        | R.L. Peterson             | 388093             | 803706              | 192                |
| 34       | 73    | 35      | 3473-35-371  | 35-371        | R.L. Peterson             | 387641             | 803812              | 153                |
| 34       | 73    | 35      | 3473-35-372  | 35-372        | R.L. Peterson             | 387222             | 802864              | 501                |
| 34       | 73    | 35      | 3473-35-373  | 35-373        | R.L. Peterson             | 387409             | 802205              | 136                |
| 34       | 73    | 35      | 3473-35-374  | 35-374        | R.L. Peterson             | 387649             | 804557              | 191                |
| 34       | 73    | 35      | 3473-35-375  | 35-375        | R.L. Peterson             | 387523             | 804941              | 210                |
| 34       | 73    | 35      | 3473-35-376  | 35-376        | R.L. Peterson             | 387377             | 804944              | 192                |
| 34       | 73    | 35      | 3473-35-377  | 35-377        | R.L. Peterson             | 386627             | 802868              | 497                |
| 34       | 73    | 35      | 3473-35-378  | 35-378        | R.L. Peterson             | 388144             | 803704              | 190                |
| 34       | 73    | 35      | 3473-35-379  | 35-379        | R.L. Peterson             | 386026             | 802872              | 334                |
| 34       | 73    | 35      | 3473-35-38   | 35-38         | R.L. Peterson             | 387827             | 803385              | 179                |
| 34       | 73    | 35      | 3473-35-380  | 35-380        | R.L. Peterson             | 387774             | 803387              | 170                |
| 34       | 73    | 35      | 3473-35-381  | 35-381        | R.L. Peterson             | 387510             | 802197              | 498                |
| 34       | 73    | 35      | 3473-35-382  | 35-382        | R.L. Peterson             | 387985             | 803600              | 185                |
| 34       | 73    | 35      | 3473-35-383  | 35-383        | R.L. Peterson             | 388095             | 803662              | 183                |
| 34       | 73    | 35      | 3473-35-384  | 35-384        | R.L. Peterson             | 387874             | 803266              | 178                |
| 34       | 73    | 35      | 3473-35-385  | 35-385        | R.L. Peterson             | 388191             | 803703              | 185                |
| 34       | 73    | 35      | 3473-35-386  | 35-386        | R.L. Peterson             | 387774             | 803281              | 158                |
| 34       | 73    | 35      | 3473-35-387  | 35-387        | R.L. Peterson             | 387723             | 803289              | 157                |
| 34       | 73    | 35      | 3473-35-388  | 35-388        | R.L. Peterson             | 387836             | 804139              | 138                |
| 34       | 73    | 35      | 3473-35-389  | 35-389        | R.L. Peterson             | 387574             | 803305              | 151                |
| 34       | 73    | 35      | 3473-35-39   | 35-39         | R.L. Peterson             | 388125             | 803189              | 157                |
| 34       | 73    | 35      | 3473-35-390  | 35-390        | R.L. Peterson             | 387671             | 803294              | 152                |
| 34       | 73    | 35      | 3473-35-391  | 35-391        | R.L. Peterson             | 387400             | 805706              | 338                |
| 34       | 73    | 35      | 3473-35-392  | 35-392        | R.L. Peterson             | 386328             | 802864              | 228                |
| 34       | 73    | 35      | 3473-35-393  | 35-393        | R.L. Peterson             | 387826             | 803165              | 136                |
| 34       | 73    | 35      | 3473-35-394  | 35-394        | R.L. Peterson             | 387776             | 803179              | 133                |
| 34       | 73    | 35      | 3473-35-395  | 35-395        | R.L. Peterson             | 387725             | 803187              | 149                |
| 34       | 73    | 35      | 3473-35-396  | 35-396        | R.L. Peterson             | 387450             | 805698              | 358                |
| 34       | 73    | 35      | 3473-35-397  | 35-397        | R.L. Peterson             | 387522             | 803411              | 216                |
| 34       | 73    | 35      | 3473-35-398  | 35-398        | R.L. Peterson             | 387801             | 802252              | 155                |
| 34       | 73    | 35      | 3473-35-399  | 35-399        | R.L. Peterson             | 387876             | 803153              | 136                |
| 34       | 73    | 35      | 3473-35-4    | 35-4          | R.L. Peterson             | 388603             | 805317              | 398                |
| 34       | 73    | 35      | 3473-35-40   | 35-40         | R.L. Peterson             | 387464             | 802572              | 219                |
| 34       | 73    | 35      | 3473-35-400  | 35-400        | R.L. Peterson             | 387726             | 803081              | 137                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number | Short Hole ID | Company       | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------|---------------|---------------|--------------------|---------------------|--------------------|
| 34       | 73    | 35      | 3473-35-401 | 35-401        | R.L. Peterson | 387475             | 803414              | 198                |
| 34       | 73    | 35      | 3473-35-402 | 35-402        | R.L. Peterson | 387777             | 803071              | 128                |
| 34       | 73    | 35      | 3473-35-403 | 35-403        | R.L. Peterson | 387331             | 804946              | 198                |
| 34       | 73    | 35      | 3473-35-404 | 35-404        | R.L. Peterson | 387927             | 803143              | 131                |
| 34       | 73    | 35      | 3473-35-405 | 35-405        | R.L. Peterson | 387964             | 803061              | 130                |
| 34       | 73    | 35      | 3473-35-406 | 35-406        | R.L. Peterson | 387925             | 803453              | 158                |
| 34       | 73    | 35      | 3473-35-407 | 35-407        | R.L. Peterson | 387772             | 802850              | 114                |
| 34       | 73    | 35      | 3473-35-408 | 35-408        | R.L. Peterson | 387586             | 802689              | 178                |
| 34       | 73    | 35      | 3473-35-409 | 35-409        | R.L. Peterson | 387352             | 802495              | 156                |
| 34       | 73    | 35      | 3473-35-41  | 35-41         | R.L. Peterson | 387426             | 802361              | 138                |
| 34       | 73    | 35      | 3473-35-410 | 35-410        | R.L. Peterson | 390232             | 804839              | 258                |
| 34       | 73    | 35      | 3473-35-411 | 35-411        | R.L. Peterson | 390110             | 803823              | 193                |
| 34       | 73    | 35      | 3473-35-412 | 35-412        | R.L. Peterson | 390225             | 804649              | 238                |
| 34       | 73    | 35      | 3473-35-413 | 35-413        | R.L. Peterson | 390208             | 803873              | 196                |
| 34       | 73    | 35      | 3473-35-414 | 35-414        | R.L. Peterson | 390566             | 804356              | 236                |
| 34       | 73    | 35      | 3473-35-415 | 35-415        | R.L. Peterson | 389627             | 804544              | 259                |
| 34       | 73    | 35      | 3473-35-416 | 35-416        | R.L. Peterson | 390721             | 804339              | 217                |
| 34       | 73    | 35      | 3473-35-417 | 35-417        | R.L. Peterson | 389626             | 804443              | 238                |
| 34       | 73    | 35      | 3473-35-418 | 35-418        | R.L. Peterson | 390782             | 804338              | 236                |
| 34       | 73    | 35      | 3473-35-419 | 35-419        | R.L. Peterson | 389626             | 804392              | 239                |
| 34       | 73    | 35      | 3473-35-42  | 35-42         | R.L. Peterson | 387413             | 802260              | 139                |
| 34       | 73    | 35      | 3473-35-420 | 35-420        | R.L. Peterson | 390521             | 804140              | 215                |
| 34       | 73    | 35      | 3473-35-421 | 35-421        | R.L. Peterson | 390226             | 804542              | 239                |
| 34       | 73    | 35      | 3473-35-422 | 35-422        | R.L. Peterson | 390517             | 804042              | 215                |
| 34       | 73    | 35      | 3473-35-423 | 35-423        | R.L. Peterson | 390533             | 804529              | 239                |
| 34       | 73    | 35      | 3473-35-424 | 35-424        | R.L. Peterson | 390521             | 804087              | 215                |
| 34       | 73    | 35      | 3473-35-425 | 35-425        | R.L. Peterson | 390621             | 804138              | 236                |
| 34       | 73    | 35      | 3473-35-426 | 35-426        | R.L. Peterson | 390420             | 804038              | 215                |
| 34       | 73    | 35      | 3473-35-427 | 35-427        | R.L. Peterson | 390525             | 804417              | 238                |
| 34       | 73    | 35      | 3473-35-428 | 35-428        | R.L. Peterson | 390518             | 803994              | 209                |
| 34       | 73    | 35      | 3473-35-429 | 35-429        | R.L. Peterson | 390625             | 804438              | 239                |
| 34       | 73    | 35      | 3473-35-43  | 35-43         | R.L. Peterson | 387035             | 802558              | 157                |
| 34       | 73    | 35      | 3473-35-430 | 35-430        | R.L. Peterson | 390416             | 803939              | 216                |
| 34       | 73    | 35      | 3473-35-431 | 35-431        | R.L. Peterson | 390525             | 804376              | 236                |
| 34       | 73    | 35      | 3473-35-432 | 35-432        | R.L. Peterson | 390623             | 804092              | 215                |
| 34       | 73    | 35      | 3473-35-433 | 35-433        | R.L. Peterson | 390728             | 804389              | 239                |
| 34       | 73    | 35      | 3473-35-434 | 35-434        | R.L. Peterson | 390617             | 804034              | 212                |
| 34       | 73    | 35      | 3473-35-435 | 35-435        | R.L. Peterson | 390720             | 804285              | 240                |
| 34       | 73    | 35      | 3473-35-436 | 35-436        | R.L. Peterson | 390713             | 804091              | 216                |
| 34       | 73    | 35      | 3473-35-437 | 35-437        | R.L. Peterson | 390824             | 804349              | 239                |
| 34       | 73    | 35      | 3473-35-438 | 35-438        | R.L. Peterson | 390717             | 803992              | 215                |
| 34       | 73    | 35      | 3473-35-439 | 35-439        | R.L. Peterson | 390679             | 804483              | 238                |
| 34       | 73    | 35      | 3473-35-44  | 35-44         | R.L. Peterson | 387014             | 802462              | 134                |
| 34       | 73    | 35      | 3473-35-440 | 35-440        | R.L. Peterson | 390718             | 804039              | 238                |
| 34       | 73    | 35      | 3473-35-441 | 35-441        | R.L. Peterson | 390826             | 804234              | 239                |
| 34       | 73    | 35      | 3473-35-442 | 35-442        | R.L. Peterson | 390210             | 803925              | 191                |
| 34       | 73    | 35      | 3473-35-443 | 35-443        | R.L. Peterson | 390207             | 803819              | 197                |
| 34       | 73    | 35      | 3473-35-444 | 35-444        | R.L. Peterson | 390779             | 804488              | 256                |
| 34       | 73    | 35      | 3473-35-445 | 35-445        | R.L. Peterson | 390060             | 803776              | 195                |
| 34       | 73    | 35      | 3473-35-446 | 35-446        | R.L. Peterson | 390783             | 804284              | 259                |
| 34       | 73    | 35      | 3473-35-447 | 35-447        | R.L. Peterson | 390736             | 803139              | 174                |
| 34       | 73    | 35      | 3473-35-448 | 35-448        | R.L. Peterson | 390740             | 803089              | 174                |
| 34       | 73    | 35      | 3473-35-449 | 35-449        | R.L. Peterson | 390541             | 802981              | 151                |
| 34       | 73    | 35      | 3473-35-450 | 35-450        | R.L. Peterson | 390310             | 802837              | 117                |
| 34       | 73    | 35      | 3473-35-451 | 35-451        | R.L. Peterson | 390743             | 802940              | 195                |
| 34       | 73    | 35      | 3473-35-452 | 35-452        | R.L. Peterson | 390542             | 802933              | 153                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number | Short Hole ID | Company       | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------|---------------|---------------|--------------------|---------------------|--------------------|
| 34       | 73    | 35      | 3473-35-453 | 35-453        | R.L. Peterson | 390548             | 803080              | 157                |
| 34       | 73    | 35      | 3473-35-454 | 35-454        | R.L. Peterson | 390553             | 803123              | 153                |
| 34       | 73    | 35      | 3473-35-455 | 35-455        | R.L. Peterson | 390545             | 803031              | 158                |
| 34       | 73    | 35      | 3473-35-456 | 35-456        | R.L. Peterson | 390536             | 802884              | 154                |
| 34       | 73    | 35      | 3473-35-457 | 35-457        | R.L. Peterson | 390309             | 802785              | 119                |
| 34       | 73    | 35      | 3473-35-458 | 35-458        | R.L. Peterson | 390309             | 802887              | 118                |
| 34       | 73    | 35      | 3473-35-459 | 35-459        | R.L. Peterson | 390558             | 803171              | 154                |
| 34       | 73    | 35      | 3473-35-46  | 35-46         | R.L. Peterson | 387401             | 802156              | 139                |
| 34       | 73    | 35      | 3473-35-460 | 35-460        | R.L. Peterson | 390206             | 804342              | 219                |
| 34       | 73    | 35      | 3473-35-461 | 35-461        | R.L. Peterson | 389622             | 803781              | 218                |
| 34       | 73    | 35      | 3473-35-462 | 35-462        | R.L. Peterson | 389625             | 803981              | 219                |
| 34       | 73    | 35      | 3473-35-463 | 35-463        | R.L. Peterson | 389628             | 804192              | 240                |
| 34       | 73    | 35      | 3473-35-464 | 35-464        | R.L. Peterson | 390826             | 804883              | 280                |
| 34       | 73    | 35      | 3473-35-465 | 35-465        | R.L. Peterson | 390563             | 803217              | 160                |
| 34       | 73    | 35      | 3473-35-466 | 35-466        | R.L. Peterson | 390300             | 802697              | 119                |
| 34       | 73    | 35      | 3473-35-467 | 35-467        | R.L. Peterson | 390568             | 803265              | 160                |
| 34       | 73    | 35      | 3473-35-468 | 35-468        | R.L. Peterson | 390571             | 803315              | 160                |
| 34       | 73    | 35      | 3473-35-469 | 35-469        | R.L. Peterson | 390458             | 803157              | 123                |
| 34       | 73    | 35      | 3473-35-47  | 35-47         | R.L. Peterson | 387928             | 802848              | 176                |
| 34       | 73    | 35      | 3473-35-470 | 35-470        | R.L. Peterson | 390829             | 805603              | 302                |
| 34       | 73    | 35      | 3473-35-471 | 35-471        | R.L. Peterson | 390517             | 803261              | 159                |
| 34       | 73    | 35      | 3473-35-472 | 35-472        | R.L. Peterson | 390577             | 803365              | 158                |
| 34       | 73    | 35      | 3473-35-473 | 35-473        | R.L. Peterson | 390665             | 803268              | 153                |
| 34       | 73    | 35      | 3473-35-474 | 35-474        | R.L. Peterson | 390408             | 803150              | 140                |
| 34       | 73    | 35      | 3473-35-475 | 35-475        | R.L. Peterson | 390458             | 803067              | 159                |
| 34       | 73    | 35      | 3473-35-476 | 35-476        | R.L. Peterson | 390716             | 803272              | 173                |
| 34       | 73    | 35      | 3473-35-477 | 35-477        | R.L. Peterson | 390476             | 803213              | 157                |
| 34       | 73    | 35      | 3473-35-478 | 35-478        | R.L. Peterson | 390663             | 803316              | 153                |
| 34       | 73    | 35      | 3473-35-479 | 35-479        | R.L. Peterson | 390443             | 803110              | 138                |
| 34       | 73    | 35      | 3473-35-48  | 35-48         | R.L. Peterson | 387822             | 802858              | 178                |
| 34       | 73    | 35      | 3473-35-480 | 35-480        | R.L. Peterson | 390766             | 803269              | 173                |
| 34       | 73    | 35      | 3473-35-481 | 35-481        | R.L. Peterson | 390307             | 802982              | 118                |
| 34       | 73    | 35      | 3473-35-482 | 35-482        | R.L. Peterson | 390713             | 803324              | 155                |
| 34       | 73    | 35      | 3473-35-483 | 35-483        | R.L. Peterson | 390191             | 802828              | 118                |
| 34       | 73    | 35      | 3473-35-484 | 35-484        | R.L. Peterson | 390666             | 803225              | 174                |
| 34       | 73    | 35      | 3473-35-485 | 35-485        | R.L. Peterson | 390189             | 802719              | 99                 |
| 34       | 73    | 35      | 3473-35-486 | 35-486        | R.L. Peterson | 390686             | 803187              | 155                |
| 34       | 73    | 35      | 3473-35-487 | 35-487        | R.L. Peterson | 390197             | 802933              | 120                |
| 34       | 73    | 35      | 3473-35-488 | 35-488        | R.L. Peterson | 390660             | 803364              | 155                |
| 34       | 73    | 35      | 3473-35-489 | 35-489        | R.L. Peterson | 389987             | 802662              | 179                |
| 34       | 73    | 35      | 3473-35-49  | 35-49         | R.L. Peterson | 387713             | 802851              | 178                |
| 34       | 73    | 35      | 3473-35-490 | 35-490        | R.L. Peterson | 390658             | 803408              | 175                |
| 34       | 73    | 35      | 3473-35-491 | 35-491        | R.L. Peterson | 390224             | 804189              | 218                |
| 34       | 73    | 35      | 3473-35-492 | 35-492        | R.L. Peterson | 390225             | 804237              | 216                |
| 34       | 73    | 35      | 3473-35-493 | 35-493        | R.L. Peterson | 390540             | 804680              | 229                |
| 34       | 73    | 35      | 3473-35-494 | 35-494        | R.L. Peterson | 390220             | 804136              | 216                |
| 34       | 73    | 35      | 3473-35-495 | 35-495        | R.L. Peterson | 390223             | 804083              | 218                |
| 34       | 73    | 35      | 3473-35-496 | 35-496        | R.L. Peterson | 389889             | 802597              | 199                |
| 34       | 73    | 35      | 3473-35-497 | 35-497        | R.L. Peterson | 389609             | 820400              | 176                |
| 34       | 73    | 35      | 3473-35-498 | 35-498        | R.L. Peterson | 389866             | 802560              | 178                |
| 34       | 73    | 35      | 3473-35-499 | 35-499        | R.L. Peterson | 389314             | 802813              | 199                |
| 34       | 73    | 35      | 3473-35-5   | 35-5          | R.L. Peterson | 390739             | 802990              | 393                |
| 34       | 73    | 35      | 3473-35-50  | 35-50         | R.L. Peterson | 387931             | 803373              | 174                |
| 34       | 73    | 35      | 3473-35-500 | 35-500        | R.L. Peterson | 389611             | 802361              | 176                |
| 34       | 73    | 35      | 3473-35-501 | 35-501        | R.L. Peterson | 389601             | 802504              | 173                |
| 34       | 73    | 35      | 3473-35-502 | 35-502        | R.L. Peterson | 389598             | 802602              | 177                |



Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 35      | 3473-35-503  | 35-503        | R.L. Peterson             | 389316             | 802539              | 198                |
| 34       | 73    | 35      | 3473-35-504  | 35-504        | R.L. Peterson             | 389592             | 802746              | 217                |
| 34       | 73    | 35      | 3473-35-505  | 35-505        | R.L. Peterson             | 389316             | 802442              | 179                |
| 34       | 73    | 35      | 3473-35-506  | 35-506        | R.L. Peterson             | 389816             | 802558              | 176                |
| 34       | 73    | 35      | 3473-35-507  | 35-507        | R.L. Peterson             | 388957             | 802704              | 178                |
| 34       | 73    | 35      | 3473-35-508  | 35-508        | R.L. Peterson             | 389612             | 802313              | 176                |
| 34       | 73    | 35      | 3473-35-509  | 35-509        | R.L. Peterson             | 389313             | 802488              | 179                |
| 34       | 73    | 35      | 3473-35-51   | 35-51         | R.L. Peterson             | 387828             | 803457              | 178                |
| 34       | 73    | 35      | 3473-35-510  | 35-510        | R.L. Peterson             | 389763             | 802560              | 180                |
| 34       | 73    | 35      | 3473-35-511  | 35-511        | R.L. Peterson             | 389595             | 802797              | 217                |
| 34       | 73    | 35      | 3473-35-512  | 35-512        | R.L. Peterson             | 389795             | 802643              | 199                |
| 34       | 73    | 35      | 3473-35-513  | 35-513        | R.L. Peterson             | 389699             | 802557              | 176                |
| 34       | 73    | 35      | 3473-35-514  | 35-514        | R.L. Peterson             | 389711             | 802356              | 175                |
| 34       | 73    | 35      | 3473-35-515  | 35-515        | R.L. Peterson             | 389703             | 802455              | 173                |
| 34       | 73    | 35      | 3473-35-516  | 35-516        | R.L. Peterson             | 389854             | 802696              | 197                |
| 34       | 73    | 35      | 3473-35-517C | 35-517C       | R.L. Peterson             | 387940             | 804025              | 153                |
| 34       | 73    | 35      | 3473-35-518C | 35-518C       | R.L. Peterson             | 387501             | 805116              | 193                |
| 34       | 73    | 35      | 3473-35-519C | 35-519C       | R.L. Peterson             | 387471             | 806804              | 278                |
| 34       | 73    | 35      | 3473-35-52   | 35-52         | R.L. Peterson             | 387624             | 803403              | 154                |
| 34       | 73    | 35      | 3473-35-520C | 35-520C       | R.L. Peterson             | 389932             | 802619              | 175                |
| 34       | 73    | 35      | 3473-35-521  | 35-521        | Nuclear Assurance Company | 387694             | 802164              | 134                |
| 34       | 73    | 35      | 3473-35-522  | 35-522        | Nuclear Assurance Company | 387646             | 802163              | 136                |
| 34       | 73    | 35      | 3473-35-523  | 35-523        | Nuclear Assurance Company | 387597             | 802163              | 135                |
| 34       | 73    | 35      | 3473-35-524  | 35-524        | Nuclear Assurance Company | 387547             | 802161              | 137                |
| 34       | 73    | 35      | 3473-35-525  | 35-525        | Nuclear Assurance Company | 387650             | 802113              | 199                |
| 34       | 73    | 35      | 3473-35-526  | 35-526        | Nuclear Assurance Company | 387871             | 802401              | 177                |
| 34       | 73    | 35      | 3473-35-527  | 35-527        | Nuclear Assurance Company | 388023             | 802306              | 178                |
| 34       | 73    | 35      | 3473-35-528  | 35-528        | Nuclear Assurance Company | 388171             | 802422              | 177                |
| 34       | 73    | 35      | 3473-35-529  | 35-529        | Nuclear Assurance Company | 388125             | 802360              | 175                |
| 34       | 73    | 35      | 3473-35-53   | 35-53         | R.L. Peterson             | 387609             | 802852              | 58                 |
| 34       | 73    | 35      | 3473-35-530  | 35-530        | Nuclear Assurance Company | 388124             | 802311              | 177                |
| 34       | 73    | 35      | 3473-35-531  | 35-531        | Nuclear Assurance Company | 388128             | 802259              | 176                |
| 34       | 73    | 35      | 3473-35-532  | 35-532        | Nuclear Assurance Company | 388320             | 802582              | 179                |
| 34       | 73    | 35      | 3473-35-533  | 35-533        | Nuclear Assurance Company | 387548             | 802102              | 138                |
| 34       | 73    | 35      | 3473-35-534  | 35-534        | Nuclear Assurance Company | 388325             | 802338              | 175                |
| 34       | 73    | 35      | 3473-35-535  | 35-535        | Nuclear Assurance Company | 388332             | 802233              | 176                |
| 34       | 73    | 35      | 3473-35-536  | 35-536        | Nuclear Assurance Company | 388318             | 802537              | 177                |
| 34       | 73    | 35      | 3473-35-537  | 35-537        | Nuclear Assurance Company | 388519             | 802495              | 180                |
| 34       | 73    | 35      | 3473-35-538  | 35-538        | Nuclear Assurance Company | 388518             | 802443              | 178                |
| 34       | 73    | 35      | 3473-35-539  | 35-539        | Nuclear Assurance Company | 388516             | 802546              | 179                |
| 34       | 73    | 35      | 3473-35-54   | 35-54         | R.L. Peterson             | 387508             | 802853              | 56                 |
| 34       | 73    | 35      | 3473-35-540  | 35-540        | Nuclear Assurance Company | 388740             | 802445              | 177                |
| 34       | 73    | 35      | 3473-35-541  | 35-541        | Nuclear Assurance Company | 388867             | 802601              | 280                |
| 34       | 73    | 35      | 3473-35-542  | 35-542        | Nuclear Assurance Company | 388871             | 802502              | 180                |
| 34       | 73    | 35      | 3473-35-543  | 35-543        | Nuclear Assurance Company | 388867             | 802697              | 177                |
| 34       | 73    | 35      | 3473-35-544  | 35-544        | Nuclear Assurance Company | 388924             | 802659              | 180                |
| 34       | 73    | 35      | 3473-35-545  | 35-545        | Nuclear Assurance Company | 389148             | 802750              | 200                |
| 34       | 73    | 35      | 3473-35-546  | 35-546        | Nuclear Assurance Company | 389153             | 802704              | 200                |
| 34       | 73    | 35      | 3473-35-547  | 35-547        | Nuclear Assurance Company | 389154             | 802651              | 200                |
| 34       | 73    | 35      | 3473-35-549  | 35-549        | Nuclear Assurance Company | 389453             | 802759              | 216                |
| 34       | 73    | 35      | 3473-35-55   | 35-55         | R.L. Peterson             | 387616             | 802959              | 49                 |
| 34       | 73    | 35      | 3473-35-550  | 35-550        | Nuclear Assurance Company | 389477             | 802716              | 216                |
| 34       | 73    | 35      | 3473-35-551  | 35-551        | Nuclear Assurance Company | 389472             | 802642              | 239                |
| 34       | 73    | 35      | 3473-35-552  | 35-552        | Nuclear Assurance Company | 389451             | 802591              | 220                |
| 34       | 73    | 35      | 3473-35-553  | 35-553        | Nuclear Assurance Company | 389904             | 802757              | 219                |
| 34       | 73    | 35      | 3473-35-554  | 35-554        | Nuclear Assurance Company | 389925             | 802512              | 200                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 35      | 3473-35-555 | 35-555        | Nuclear Assurance Company | 389950             | 802567              | 199                |
| 34       | 73    | 35      | 3473-35-556 | 35-556        | Nuclear Assurance Company | 389974             | 802611              | 198                |
| 34       | 73    | 35      | 3473-35-557 | 35-557        | Nuclear Assurance Company | 390059             | 802667              | 197                |
| 34       | 73    | 35      | 3473-35-558 | 35-558        | Nuclear Assurance Company | 390160             | 802682              | 199                |
| 34       | 73    | 35      | 3473-35-559 | 35-559        | Nuclear Assurance Company | 389453             | 802806              | 217                |
| 34       | 73    | 35      | 3473-35-56  | 35-56         | R.L. Peterson             | 387628             | 803506              | 135                |
| 34       | 73    | 35      | 3473-35-560 | 35-560        | Nuclear Assurance Company | 389620             | 802114              | 500                |
| 34       | 73    | 35      | 3473-35-561 | 35-561        | Nuclear Assurance Company | 388931             | 802990              | 199                |
| 34       | 73    | 35      | 3473-35-562 | 35-562        | Nuclear Assurance Company | 388880             | 802987              | 198                |
| 34       | 73    | 35      | 3473-35-563 | 35-563        | Nuclear Assurance Company | 388782             | 802966              | 197                |
| 34       | 73    | 35      | 3473-35-564 | 35-564        | Nuclear Assurance Company | 388830             | 802975              | 159                |
| 34       | 73    | 35      | 3473-35-565 | 35-565        | Nuclear Assurance Company | 389280             | 803446              | 196                |
| 34       | 73    | 35      | 3473-35-566 | 35-566        | Nuclear Assurance Company | 389277             | 803494              | 197                |
| 34       | 73    | 35      | 3473-35-567 | 35-567        | Nuclear Assurance Company | 389288             | 803343              | 198                |
| 34       | 73    | 35      | 3473-35-568 | 35-568        | Nuclear Assurance Company | 389282             | 803398              | 198                |
| 34       | 73    | 35      | 3473-35-569 | 35-569        | Nuclear Assurance Company | 389098             | 803242              | 198                |
| 34       | 73    | 35      | 3473-35-57  | 35-57         | R.L. Peterson             | 387637             | 803606              | 135                |
| 34       | 73    | 35      | 3473-35-570 | 35-570        | Nuclear Assurance Company | 389100             | 803289              | 318                |
| 34       | 73    | 35      | 3473-35-571 | 35-571        | Nuclear Assurance Company | 389099             | 803339              | 237                |
| 34       | 73    | 35      | 3473-35-572 | 35-572        | Nuclear Assurance Company | 388898             | 803229              | 219                |
| 34       | 73    | 35      | 3473-35-573 | 35-573        | Nuclear Assurance Company | 389098             | 803441              | 237                |
| 34       | 73    | 35      | 3473-35-574 | 35-574        | Nuclear Assurance Company | 390209             | 803975              | 198                |
| 34       | 73    | 35      | 3473-35-575 | 35-575        | Nuclear Assurance Company | 390209             | 804024              | 198                |
| 34       | 73    | 35      | 3473-35-576 | 35-576        | Nuclear Assurance Company | 390415             | 804085              | 219                |
| 34       | 73    | 35      | 3473-35-577 | 35-577        | Nuclear Assurance Company | 390407             | 804137              | 218                |
| 34       | 73    | 35      | 3473-35-578 | 35-578        | Nuclear Assurance Company | 390408             | 804184              | 213                |
| 34       | 73    | 35      | 3473-35-579 | 35-579        | Nuclear Assurance Company | 390402             | 804234              | 220                |
| 34       | 73    | 35      | 3473-35-58  | 35-58         | R.L. Peterson             | 387653             | 803714              | 136                |
| 34       | 73    | 35      | 3473-35-580 | 35-580        | Nuclear Assurance Company | 390679             | 804690              | 259                |
| 34       | 73    | 35      | 3473-35-581 | 35-581        | Nuclear Assurance Company | 390685             | 804589              | 239                |
| 34       | 73    | 35      | 3473-35-582 | 35-582        | Nuclear Assurance Company | 390687             | 804537              | 239                |
| 34       | 73    | 35      | 3473-35-583 | 35-583        | Nuclear Assurance Company | 389626             | 804642              | 259                |
| 34       | 73    | 35      | 3473-35-584 | 35-584        | Nuclear Assurance Company | 389621             | 804691              | 400                |
| 34       | 73    | 35      | 3473-35-585 | 35-585        | Nuclear Assurance Company | 389622             | 804740              | 255                |
| 34       | 73    | 35      | 3473-35-586 | 35-586        | Nuclear Assurance Company | 389526             | 804180              | 257                |
| 34       | 73    | 35      | 3473-35-587 | 35-587        | Nuclear Assurance Company | 389717             | 804192              | 238                |
| 34       | 73    | 35      | 3473-35-588 | 35-588        | Nuclear Assurance Company | 389622             | 804240              | 236                |
| 34       | 73    | 35      | 3473-35-589 | 35-589        | Nuclear Assurance Company | 389611             | 804791              | 257                |
| 34       | 73    | 35      | 3473-35-59  | 35-59         | R.L. Peterson             | 387757             | 803695              | 179                |
| 34       | 73    | 35      | 3473-35-590 | 35-590        | Nuclear Assurance Company | 389971             | 804766              | 259                |
| 34       | 73    | 35      | 3473-35-591 | 35-591        | Nuclear Assurance Company | 390004             | 804674              | 259                |
| 34       | 73    | 35      | 3473-35-592 | 35-592        | Nuclear Assurance Company | 390032             | 804576              | 239                |
| 34       | 73    | 35      | 3473-35-593 | 35-593        | Nuclear Assurance Company | 389363             | 804685              | 260                |
| 34       | 73    | 35      | 3473-35-594 | 35-594        | Nuclear Assurance Company | 389081             | 804529              | 261                |
| 34       | 73    | 35      | 3473-35-595 | 35-595        | Nuclear Assurance Company | 389363             | 804783              | 260                |
| 34       | 73    | 35      | 3473-35-596 | 35-596        | Nuclear Assurance Company | 387158             | 804402              | 239                |
| 34       | 73    | 35      | 3473-35-597 | 35-597        | Nuclear Assurance Company | 387081             | 804471              | 222                |
| 34       | 73    | 35      | 3473-35-598 | 35-598        | Nuclear Assurance Company | 387003             | 804535              | 219                |
| 34       | 73    | 35      | 3473-35-599 | 35-599        | Nuclear Assurance Company | 386862             | 804662              | 218                |
| 34       | 73    | 35      | 3473-35-6   | 35-6          | R.L. Peterson             | 389518             | 803026              | 260                |
| 34       | 73    | 35      | 3473-35-60  | 35-60         | R.L. Peterson             | 387843             | 803919              | 199                |
| 34       | 73    | 35      | 3473-35-600 | 35-600        | Nuclear Assurance Company | 386709             | 804792              | 319                |
| 34       | 73    | 35      | 3473-35-601 | 35-601        | Nuclear Assurance Company | 386786             | 804728              | 179                |
| 34       | 73    | 35      | 3473-35-602 | 35-602        | Nuclear Assurance Company | 386324             | 804553              | 179                |
| 34       | 73    | 35      | 3473-35-603 | 35-603        | Nuclear Assurance Company | 386486             | 804443              | 179                |
| 34       | 73    | 35      | 3473-35-604 | 35-604        | Nuclear Assurance Company | 386791             | 804243              | 219                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 35      | 3473-35-605  | 35-605        | Nuclear Assurance Company | 386953             | 804130              | 218                |
| 34       | 73    | 35      | 3473-35-606  | 35-606        | Nuclear Assurance Company | 387038             | 804503              | 219                |
| 34       | 73    | 35      | 3473-35-607  | 35-607        | Nuclear Assurance Company | 386827             | 804693              | 159                |
| 34       | 73    | 35      | 3473-35-608  | 35-608        | Nuclear Assurance Company | 387293             | 805522              | 340                |
| 34       | 73    | 35      | 3473-35-609  | 35-609        | Nuclear Assurance Company | 387186             | 805531              | 339                |
| 34       | 73    | 35      | 3473-35-61   | 35-61         | R.L. Peterson             | 387847             | 804032              | 175                |
| 34       | 73    | 35      | 3473-35-610  | 35-610        | Nuclear Assurance Company | 387347             | 805909              | 379                |
| 34       | 73    | 35      | 3473-35-611  | 35-611        | Nuclear Assurance Company | 387244             | 805909              | 380                |
| 34       | 73    | 35      | 3473-35-612  | 35-612        | Nuclear Assurance Company | 387144             | 805912              | 400                |
| 34       | 73    | 35      | 3473-35-613  | 35-613        | Nuclear Assurance Company | 386420             | 805913              | 399                |
| 34       | 73    | 35      | 3473-35-614  | 35-614        | Nuclear Assurance Company | 386292             | 805779              | 379                |
| 34       | 73    | 35      | 3473-35-615  | 35-615        | Nuclear Assurance Company | 387391             | 805510              | 360                |
| 34       | 73    | 35      | 3473-35-616  | 35-616        | Nuclear Assurance Company | 386743             | 806435              | 397                |
| 34       | 73    | 35      | 3473-35-617  | 35-617        | Nuclear Assurance Company | 386832             | 806435              | 398                |
| 34       | 73    | 35      | 3473-35-618  | 35-618        | Nuclear Assurance Company | 387599             | 806732              | 419                |
| 34       | 73    | 35      | 3473-35-619  | 35-619        | Nuclear Assurance Company | 387016             | 806049              | 379                |
| 34       | 73    | 35      | 3473-35-62   | 35-62         | R.L. Peterson             | 387634             | 804040              | 171                |
| 34       | 73    | 35      | 3473-35-620  | 35-620        | Nuclear Assurance Company | 386060             | 807343              | 803                |
| 34       | 73    | 35      | 3473-35-621  | 35-621        | Nuclear Assurance Company | 387697             | 804861              | 260                |
| 34       | 73    | 35      | 3473-35-621C | 35-621C       | Nuclear Assurance Company | 387698             | 804865              | 181                |
| 34       | 73    | 35      | 3473-35-622  | 35-622        | Nuclear Assurance Company | 387524             | 804854              | 259                |
| 34       | 73    | 35      | 3473-35-623  | 35-623        | Nuclear Assurance Company | 387342             | 804850              | 260                |
| 34       | 73    | 35      | 3473-35-624  | 35-624        | Nuclear Assurance Company | 386966             | 805291              | 320                |
| 34       | 73    | 35      | 3473-35-625  | 35-625        | Nuclear Assurance Company | 386903             | 805331              | 320                |
| 34       | 73    | 35      | 3473-35-626  | 35-626        | Nuclear Assurance Company | 386897             | 805440              | 320                |
| 34       | 73    | 35      | 3473-35-627  | 35-627        | Nuclear Assurance Company | 387448             | 805908              | 380                |
| 34       | 73    | 35      | 3473-35-628  | 35-628        | Nuclear Assurance Company | 387234             | 806050              | 380                |
| 34       | 73    | 35      | 3473-35-629  | 35-629        | Nuclear Assurance Company | 387444             | 806129              | 400                |
| 34       | 73    | 35      | 3473-35-63   | 35-63         | R.L. Peterson             | 387645             | 804348              | 177                |
| 34       | 73    | 35      | 3473-35-630  | 35-630        | Nuclear Assurance Company | 387614             | 806535              | 280                |
| 34       | 73    | 35      | 3473-35-631  | 35-631        | Nuclear Assurance Company | 387465             | 806859              | 280                |
| 34       | 73    | 35      | 3473-35-632  | 35-632        | Nuclear Assurance Company | 387291             | 806713              | 280                |
| 34       | 73    | 35      | 3473-35-633  | 35-633        | Nuclear Assurance Company | 387650             | 806743              | 280                |
| 34       | 73    | 35      | 3473-35-634  | 35-634        | Nuclear Assurance Company | 387477             | 806913              | 271                |
| 34       | 73    | 35      | 3473-35-635  | 35-635        | Nuclear Assurance Company | 387236             | 806726              | 281                |
| 34       | 73    | 35      | 3473-35-636  | 35-636        | Nuclear Assurance Company | 387379             | 806052              | 381                |
| 34       | 73    | 35      | 3473-35-637  | 35-637        | Nuclear Assurance Company | 387061             | 806104              | 400                |
| 34       | 73    | 35      | 3473-35-638  | 35-638        | Nuclear Assurance Company | 386906             | 805907              | 221                |
| 34       | 73    | 35      | 3473-35-639  | 35-639        | Nuclear Assurance Company | 386859             | 805909              | 220                |
| 34       | 73    | 35      | 3473-35-64   | 35-64         | R.L. Peterson             | 387599             | 804556              | 176                |
| 34       | 73    | 35      | 3473-35-640  | 35-640        | Nuclear Assurance Company | 387104             | 802375              | 140                |
| 34       | 73    | 35      | 3473-35-641  | 35-641        | Nuclear Assurance Company | 387104             | 802300              | 220                |
| 34       | 73    | 35      | 3473-35-642  | 35-642        | Nuclear Assurance Company | 387112             | 802180              | 110                |
| 34       | 73    | 35      | 3473-35-643  | 35-643        | Nuclear Assurance Company | 386640             | 805700              | 356                |
| 34       | 73    | 35      | 3473-35-644  | 35-644        | Nuclear Assurance Company | 386896             | 805860              | 220                |
| 34       | 73    | 35      | 3473-35-645  | 35-645        | Nuclear Assurance Company | 386725             | 805902              | 220                |
| 34       | 73    | 35      | 3473-35-646  | 35-646        | Nuclear Assurance Company | 386773             | 805953              | 220                |
| 34       | 73    | 35      | 3473-35-647  | 35-647        | Nuclear Assurance Company | 386057             | 807171              | 500                |
| 34       | 73    | 35      | 3473-35-648  | 35-648        | Nuclear Assurance Company | 387423             | 806911              | 280                |
| 34       | 73    | 35      | 3473-35-649  | 35-649        | Nuclear Assurance Company | 387482             | 806973              | 280                |
| 34       | 73    | 35      | 3473-35-65   | 35-65         | R.L. Peterson             | 387562             | 804768              | 199                |
| 34       | 73    | 35      | 3473-35-650  | 35-650        | Nuclear Assurance Company | 387535             | 806907              | 278                |
| 34       | 73    | 35      | 3473-35-651  | 35-651        | Nuclear Assurance Company | 387293             | 806102              | 380                |
| 34       | 73    | 35      | 3473-35-652  | 35-652        | Nuclear Assurance Company | 387440             | 806054              | 380                |
| 34       | 73    | 35      | 3473-35-653  | 35-653        | Nuclear Assurance Company | 387515             | 805906              | 380                |
| 34       | 73    | 35      | 3473-35-654  | 35-654        | Nuclear Assurance Company | 386926             | 804885              | 178                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 35      | 3473-35-655 | 35-655        | Nuclear Assurance Company | 386441             | 804475              | 178                |
| 34       | 73    | 35      | 3473-35-656 | 35-656        | Nuclear Assurance Company | 387526             | 806847              | 278                |
| 34       | 73    | 35      | 3473-35-657 | 35-657        | Nuclear Assurance Company | 387430             | 806966              | 277                |
| 34       | 73    | 35      | 3473-35-658 | 35-658        |                           | 387369             | 806915              |                    |
| 34       | 73    | 35      | 3473-35-659 | 35-659        | Nuclear Assurance Company | 387511             | 806101              | 379                |
| 34       | 73    | 35      | 3473-35-65C | 35-65C        | Nuclear Assurance Company | 387562             | 804773              | 189                |
| 34       | 73    | 35      | 3473-35-66  | 35-66         | R.L. Peterson             | 387348             | 804755              | 197                |
| 34       | 73    | 35      | 3473-35-660 | 35-660        | Nuclear Assurance Company | 386126             | 807138              | 439                |
| 34       | 73    | 35      | 3473-35-661 | 35-661        | Nuclear Assurance Company | 387568             | 805907              | 379                |
| 34       | 73    | 35      | 3473-35-662 | 35-662        | Nuclear Assurance Company | 386931             | 804819              | 177                |
| 34       | 73    | 35      | 3473-35-663 | 35-663        | Nuclear Assurance Company | 386878             | 804812              | 177                |
| 34       | 73    | 35      | 3473-35-664 | 35-664        | Nuclear Assurance Company | 386869             | 804881              | 175                |
| 34       | 73    | 35      | 3473-35-665 | 35-665        | Nuclear Assurance Company | 386788             | 805093              | 177                |
| 34       | 73    | 35      | 3473-35-666 | 35-666        | Nuclear Assurance Company | 386578             | 804599              | 178                |
| 34       | 73    | 35      | 3473-35-667 | 35-667        | Nuclear Assurance Company | 386399             | 804508              | 177                |
| 34       | 73    | 35      | 3473-35-668 | 35-668        | Nuclear Assurance Company | 386365             | 804529              | 175                |
| 34       | 73    | 35      | 3473-35-669 | 35-669        | Nuclear Assurance Company | 387946             | 803613              | 177                |
| 34       | 73    | 35      | 3473-35-67  | 35-67         | R.L. Peterson             | 387834             | 804362              | 178                |
| 34       | 73    | 35      | 3473-35-670 | 35-670        | Nuclear Assurance Company | 387901             | 803609              | 177                |
| 34       | 73    | 35      | 3473-35-671 | 35-671        | Nuclear Assurance Company | 387852             | 803606              | 178                |
| 34       | 73    | 35      | 3473-35-672 | 35-672        | Nuclear Assurance Company | 387794             | 803602              | 177                |
| 34       | 73    | 35      | 3473-35-673 | 35-673        | Nuclear Assurance Company | 387740             | 803601              | 177                |
| 34       | 73    | 35      | 3473-35-674 | 35-674        | Nuclear Assurance Company | 387683             | 803619              | 177                |
| 34       | 73    | 35      | 3473-35-675 | 35-675        | Nuclear Assurance Company | 387752             | 803647              | 177                |
| 34       | 73    | 35      | 3473-35-676 | 35-676        | Nuclear Assurance Company | 387730             | 803551              | 177                |
| 34       | 73    | 35      | 3473-35-677 | 35-677        | Nuclear Assurance Company | 389522             | 803439              | 360                |
| 34       | 73    | 35      | 3473-35-678 | 35-678        | Nuclear Assurance Company | 390696             | 803405              | 239                |
| 34       | 73    | 35      | 3473-35-679 | 35-679        | Nuclear Assurance Company | 390704             | 803517              | 179                |
| 34       | 73    | 35      | 3473-35-68  | 35-68         | R.L. Peterson             | 387832             | 804564              | 195                |
| 34       | 73    | 35      | 3473-35-680 | 35-680        | Nuclear Assurance Company | 390340             | 803076              | 140                |
| 34       | 73    | 35      | 3473-35-681 | 35-681        | Nuclear Assurance Company | 390075             | 803876              | 199                |
| 34       | 73    | 35      | 3473-35-682 | 35-682        | Nuclear Assurance Company | 390101             | 804121              | 217                |
| 34       | 73    | 35      | 3473-35-683 | 35-683        | Nuclear Assurance Company | 390316             | 803964              | 219                |
| 34       | 73    | 35      | 3473-35-684 | 35-684        | Nuclear Assurance Company | 390511             | 804274              | 239                |
| 34       | 73    | 35      | 3473-35-685 | 35-685        | Nuclear Assurance Company | 390322             | 804123              | 219                |
| 34       | 73    | 35      | 3473-35-686 | 35-686        | Nuclear Assurance Company | 390668             | 804275              | 237                |
| 34       | 73    | 35      | 3473-35-687 | 35-687        | Nuclear Assurance Company | 390005             | 804112              | 215                |
| 34       | 73    | 35      | 3473-35-688 | 35-688        | Nuclear Assurance Company | 390315             | 804179              | 217                |
| 34       | 73    | 35      | 3473-35-689 | 35-689        | Nuclear Assurance Company | 390321             | 804069              | 237                |
| 34       | 73    | 35      | 3473-35-69  | 35-69         | R.L. Peterson             | 387832             | 804774              | 197                |
| 34       | 73    | 35      | 3473-35-690 | 35-690        | Nuclear Assurance Company | 390318             | 803864              | 197                |
| 34       | 73    | 35      | 3473-35-691 | 35-691        | Nuclear Assurance Company | 390458             | 804310              | 234                |
| 34       | 73    | 35      | 3473-35-692 | 35-692        | Nuclear Assurance Company | 389831             | 804743              | 252                |
| 34       | 73    | 35      | 3473-35-693 | 35-693        | Nuclear Assurance Company | 390432             | 804555              | 252                |
| 34       | 73    | 35      | 3473-35-694 | 35-694        | Nuclear Assurance Company | 390829             | 804585              | 254                |
| 34       | 73    | 35      | 3473-35-695 | 35-695        | Nuclear Assurance Company | 390529             | 804479              | 237                |
| 34       | 73    | 35      | 3473-35-696 | 35-696        | Nuclear Assurance Company | 388024             | 802255              | 237                |
| 34       | 73    | 35      | 3473-35-697 | 35-697        | Nuclear Assurance Company | 388020             | 802355              | 197                |
| 34       | 73    | 35      | 3473-35-698 | 35-698        | Nuclear Assurance Company | 389808             | 804794              | 257                |
| 34       | 73    | 35      | 3473-35-699 | 35-699        | Nuclear Assurance Company | 390372             | 804357              | 237                |
| 34       | 73    | 35      | 3473-35-7   | 35-7          | R.L. Peterson             | 389974             | 802903              | 260                |
| 34       | 73    | 35      | 3473-35-70  | 35-70         | R.L. Peterson             | 387617             | 804943              | 192                |
| 34       | 73    | 35      | 3473-35-700 | 35-700        | Nuclear Assurance Company | 387027             | 804827              | 295                |
| 34       | 73    | 35      | 3473-35-701 | 35-701        | Nuclear Assurance Company | 386977             | 804824              | 295                |
| 34       | 73    | 35      | 3473-35-702 | 35-702        | Nuclear Assurance Company | 387026             | 804993              | 235                |
| 34       | 73    | 35      | 3473-35-703 | 35-703        | Nuclear Assurance Company | 386971             | 804988              | 236                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 35      | 3473-35-704  | 35-704        | Nuclear Assurance Company | 386920             | 805097              | 174                |
| 34       | 73    | 35      | 3473-35-705  | 35-705        | Nuclear Assurance Company | 386918             | 805196              | 174                |
| 34       | 73    | 35      | 3473-35-706  | 35-706        | Nuclear Assurance Company | 386900             | 805502              | 436                |
| 34       | 73    | 35      | 3473-35-707  | 35-707        | Nuclear Assurance Company | 386901             | 805552              | 396                |
| 34       | 73    | 35      | 3473-35-708  | 35-708        | Nuclear Assurance Company | 386845             | 805697              | 216                |
| 34       | 73    | 35      | 3473-35-709  | 35-709        | Nuclear Assurance Company | 386590             | 805698              | 396                |
| 34       | 73    | 35      | 3473-35-71   | 35-71         | R.L. Peterson             | 387622             | 805113              | 259                |
| 34       | 73    | 35      | 3473-35-710  | 35-710        | Nuclear Assurance Company | 386492             | 805698              | 396                |
| 34       | 73    | 35      | 3473-35-711  | 35-711        | Nuclear Assurance Company | 386108             | 805928              | 395                |
| 34       | 73    | 35      | 3473-35-712  | 35-712        | Nuclear Assurance Company | 387194             | 805468              | 392                |
| 34       | 73    | 35      | 3473-35-713  | 35-713        | Nuclear Assurance Company | 387195             | 805365              | 375                |
| 34       | 73    | 35      | 3473-35-7139 | 35-7139       |                           | 388781             | 805947              |                    |
| 34       | 73    | 35      | 3473-35-714  | 35-714        | Nuclear Assurance Company | 387500             | 805600              | 395                |
| 34       | 73    | 35      | 3473-35-715  | 35-715        | Nuclear Assurance Company | 387570             | 805792              | 396                |
| 34       | 73    | 35      | 3473-35-716  | 35-716        | Nuclear Assurance Company | 387669             | 805907              | 395                |
| 34       | 73    | 35      | 3473-35-717  | 35-717        | Nuclear Assurance Company | 387622             | 805791              | 396                |
| 34       | 73    | 35      | 3473-35-718  | 35-718        | Nuclear Assurance Company | 387499             | 806003              | 408                |
| 34       | 73    | 35      | 3473-35-719  | 35-719        | Nuclear Assurance Company | 387677             | 805791              | 396                |
| 34       | 73    | 35      | 3473-35-72   | 35-72         | R.L. Peterson             | 387463             | 805100              | 199                |
| 34       | 73    | 35      | 3473-35-720  | 35-720        | Nuclear Assurance Company | 387722             | 805907              | 396                |
| 34       | 73    | 35      | 3473-35-721  | 35-721        | Nuclear Assurance Company | 387820             | 805904              | 416                |
| 34       | 73    | 35      | 3473-35-722  | 35-722        | Nuclear Assurance Company | 387599             | 806004              | 415                |
| 34       | 73    | 35      | 3473-35-723  | 35-723        | Nuclear Assurance Company | 387728             | 805791              | 396                |
| 34       | 73    | 35      | 3473-35-724  | 35-724        | Nuclear Assurance Company | 386160             | 806014              | 396                |
| 34       | 73    | 35      | 3473-35-725  | 35-725        | Nuclear Assurance Company | 387621             | 805907              | 396                |
| 34       | 73    | 35      | 3473-35-725C | 35-725C       | Nuclear Assurance Company | 387615             | 805906              | 377                |
| 34       | 73    | 35      | 3473-35-726  | 35-726        | Nuclear Assurance Company | 387703             | 806003              | 416                |
| 34       | 73    | 35      | 3473-35-727  | 35-727        | Nuclear Assurance Company | 387778             | 805783              | 401                |
| 34       | 73    | 35      | 3473-35-728  | 35-728        | Nuclear Assurance Company | 387604             | 806002              | 398                |
| 34       | 73    | 35      | 3473-35-729  | 35-729        | Nuclear Assurance Company | 387877             | 805789              | 399                |
| 34       | 73    | 35      | 3473-35-73   | 35-73         | R.L. Peterson             | 387446             | 805297              | 299                |
| 34       | 73    | 35      | 3473-35-730  | 35-730        | Nuclear Assurance Company | 387738             | 806912              | 280                |
| 34       | 73    | 35      | 3473-35-731  | 35-731        | Nuclear Assurance Company | 386977             | 806204              | 420                |
| 34       | 73    | 35      | 3473-35-732  | 35-732        | Nuclear Assurance Company | 386490             | 805526              | 419                |
| 34       | 73    | 35      | 3473-35-733  | 35-733        | Nuclear Assurance Company | 386984             | 806108              | 419                |
| 34       | 73    | 35      | 3473-35-734  | 35-734        | Nuclear Assurance Company | 386148             | 806890              | 359                |
| 34       | 73    | 35      | 3473-35-735  | 35-735        | Nuclear Assurance Company | 386074             | 806812              | 399                |
| 34       | 73    | 35      | 3473-35-736  | 35-736        | Nuclear Assurance Company | 386425             | 806452              | 379                |
| 34       | 73    | 35      | 3473-35-737  | 35-737        | Nuclear Assurance Company | 385725             | 806260              | 379                |
| 34       | 73    | 35      | 3473-35-738  | 35-738        | Nuclear Assurance Company | 385655             | 806192              | 379                |
| 34       | 73    | 35      | 3473-35-739  | 35-739        | Nuclear Assurance Company | 385783             | 807259              | 379                |
| 34       | 73    | 35      | 3473-35-74   | 35-74         | R.L. Peterson             | 387240             | 805422              | 194                |
| 34       | 73    | 35      | 3473-35-740  | 35-740        | Nuclear Assurance Company | 385722             | 807181              | 376                |
| 34       | 73    | 35      | 3473-35-741  | 35-741        | Nuclear Assurance Company | 387479             | 807073              | 276                |
| 34       | 73    | 35      | 3473-35-742  | 35-742        | Nuclear Assurance Company | 387636             | 806917              | 298                |
| 34       | 73    | 35      | 3473-35-743  | 35-743        | Nuclear Assurance Company | 387463             | 807026              | 278                |
| 34       | 73    | 35      | 3473-35-744  | 35-744        | Nuclear Assurance Company | 387587             | 806914              | 278                |
| 34       | 73    | 35      | 3473-35-745  | 35-745        | Nuclear Assurance Company | 386963             | 806302              | 417                |
| 34       | 73    | 35      | 3473-35-746  | 35-746        | Nuclear Assurance Company | 386557             | 806598              | 418                |
| 34       | 73    | 35      | 3473-35-75   | 35-75         | R.L. Peterson             | 387241             | 805528              | 199                |
| 34       | 73    | 35      | 3473-35-76   | 35-76         | R.L. Peterson             | 387243             | 805633              | 219                |
| 34       | 73    | 35      | 3473-35-77   | 35-77         | R.L. Peterson             | 387454             | 805592              | 218                |
| 34       | 73    | 35      | 3473-35-774  | 35-774        | Nuclear Assurance Company | 387184             | 806088              | 400                |
| 34       | 73    | 35      | 3473-35-775  | 35-775        | Nuclear Assurance Company | 387615             | 806105              | 420                |
| 34       | 73    | 35      | 3473-35-776  | 35-776        | Nuclear Assurance Company | 387186             | 806141              | 400                |
| 34       | 73    | 35      | 3473-35-777  | 35-777        | Nuclear Assurance Company | 387905             | 805996              | 420                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 35      | 3473-35-778 | 35-778        | Nuclear Assurance Company | 387398             | 805613              | 400                |
| 34       | 73    | 35      | 3473-35-779 | 35-779        | Nuclear Assurance Company | 387290             | 805633              | 400                |
| 34       | 73    | 35      | 3473-35-78  | 35-78         | R.L. Peterson             | 387456             | 805798              | 219                |
| 34       | 73    | 35      | 3473-35-780 | 35-780        | Nuclear Assurance Company | 390588             | 806398              | 395                |
| 34       | 73    | 35      | 3473-35-781 | 35-781        | Nuclear Assurance Company | 388244             | 803820              | 200                |
| 34       | 73    | 35      | 3473-35-782 | 35-782        | Nuclear Assurance Company | 388091             | 804267              | 200                |
| 34       | 73    | 35      | 3473-35-783 | 35-783        | Nuclear Assurance Company | 388132             | 805032              | 262                |
| 34       | 73    | 35      | 3473-35-784 | 35-784        | Nuclear Assurance Company | 389039             | 805646              | 397                |
| 34       | 73    | 35      | 3473-35-785 | 35-785        | Nuclear Assurance Company | 388040             | 805213              | 315                |
| 34       | 73    | 35      | 3473-35-786 | 35-786        | Nuclear Assurance Company | 387975             | 805399              | 296                |
| 34       | 73    | 35      | 3473-35-787 | 35-787        | Nuclear Assurance Company | 388007             | 805307              | 397                |
| 34       | 73    | 35      | 3473-35-78B | 35-78B        |                           | 386884             | 804350              |                    |
| 34       | 73    | 35      | 3473-35-79  | 35-79         | R.L. Peterson             | 387240             | 805800              | 215                |
| 34       | 73    | 35      | 3473-35-790 | 35-790        | Nuclear Assurance Company | 388022             | 805262              | 297                |
| 34       | 73    | 35      | 3473-35-791 | 35-791        | Nuclear Assurance Company | 388658             | 806163              | 317                |
| 34       | 73    | 35      | 3473-35-792 | 35-792        | Nuclear Assurance Company | 388832             | 804433              | 321                |
| 34       | 73    | 35      | 3473-35-793 | 35-793        | Nuclear Assurance Company | 388379             | 806486              | 397                |
| 34       | 73    | 35      | 3473-35-794 | 35-794        | Nuclear Assurance Company | 389421             | 806668              | 381                |
| 34       | 73    | 35      | 3473-35-795 | 35-795        | Nuclear Assurance Company | 388439             | 806410              | 357                |
| 34       | 73    | 35      | 3473-35-796 | 35-796        | Nuclear Assurance Company | 389441             | 806622              | 377                |
| 34       | 73    | 35      | 3473-35-797 | 35-797        | Nuclear Assurance Company | 390254             | 806880              | 417                |
| 34       | 73    | 35      | 3473-35-798 | 35-798        | Nuclear Assurance Company | 388529             | 806359              | 377                |
| 34       | 73    | 35      | 3473-35-799 | 35-799        | Nuclear Assurance Company | 389484             | 806535              | 377                |
| 34       | 73    | 35      | 3473-35-8   | 35-8          | R.L. Peterson             | 385733             | 805466              | 440                |
| 34       | 73    | 35      | 3473-35-80  | 35-80         | R.L. Peterson             | 387348             | 805611              | 216                |
| 34       | 73    | 35      | 3473-35-800 | 35-800        | Nuclear Assurance Company | 388049             | 804344              | 197                |
| 34       | 73    | 35      | 3473-35-801 | 35-801        | Nuclear Assurance Company | 390086             | 807066              | 416                |
| 34       | 73    | 35      | 3473-35-802 | 35-802        | Nuclear Assurance Company | 388572             | 806259              | 362                |
| 34       | 73    | 35      | 3473-35-803 | 35-803        | Nuclear Assurance Company | 390013             | 807132              | 417                |
| 34       | 73    | 35      | 3473-35-804 | 35-804        | Nuclear Assurance Company | 390467             | 804593              | 237                |
| 34       | 73    | 35      | 3473-35-805 | 35-805        | Nuclear Assurance Company | 390399             | 804514              | 257                |
| 34       | 73    | 35      | 3473-35-806 | 35-806        | Nuclear Assurance Company | 389845             | 804884              | 357                |
| 34       | 73    | 35      | 3473-35-807 | 35-807        | Nuclear Assurance Company | 389844             | 804972              | 277                |
| 34       | 73    | 35      | 3473-35-808 | 35-808        | Nuclear Assurance Company | 388514             | 802597              | 177                |
| 34       | 73    | 35      | 3473-35-809 | 35-809        | Nuclear Assurance Company | 388542             | 802407              | 196                |
| 34       | 73    | 35      | 3473-35-81  | 35-81         | R.L. Peterson             | 387351             | 805800              | 217                |
| 34       | 73    | 35      | 3473-35-810 | 35-810        | Nuclear Assurance Company | 387596             | 802499              | 157                |
| 34       | 73    | 35      | 3473-35-811 | 35-811        | Nuclear Assurance Company | 388026             | 802206              | 177                |
| 34       | 73    | 35      | 3473-35-812 | 35-812        | Nuclear Assurance Company | 388875             | 802461              | 177                |
| 34       | 73    | 35      | 3473-35-813 | 35-813        | Nuclear Assurance Company | 388875             | 802188              | 197                |
| 34       | 73    | 35      | 3473-35-814 | 35-814        | Nuclear Assurance Company | 386777             | 804516              | 239                |
| 34       | 73    | 35      | 3473-35-815 | 35-815        | Nuclear Assurance Company | 388017             | 802457              | 199                |
| 34       | 73    | 35      | 3473-35-816 | 35-816        | Nuclear Assurance Company | 387595             | 802449              | 179                |
| 34       | 73    | 35      | 3473-35-817 | 35-817        | Nuclear Assurance Company | 388498             | 802647              | 176                |
| 34       | 73    | 35      | 3473-35-818 | 35-818        | Nuclear Assurance Company | 387806             | 802057              | 199                |
| 34       | 73    | 35      | 3473-35-819 | 35-819        | Nuclear Assurance Company | 387702             | 802059              | 198                |
| 34       | 73    | 35      | 3473-35-82  | 35-82         | R.L. Peterson             | 387348             | 805998              | 236                |
| 34       | 73    | 35      | 3473-35-820 | 35-820        | Nuclear Assurance Company | 387904             | 802063              | 199                |
| 34       | 73    | 35      | 3473-35-821 | 35-821        | Nuclear Assurance Company | 388797             | 802270              | 179                |
| 34       | 73    | 35      | 3473-35-822 | 35-822        | Nuclear Assurance Company | 388947             | 802114              | 176                |
| 34       | 73    | 35      | 3473-35-823 | 35-823        | Nuclear Assurance Company | 387616             | 802348              | 159                |
| 34       | 73    | 35      | 3473-35-824 | 35-824        | Nuclear Assurance Company | 389455             | 802540              | 200                |
| 34       | 73    | 35      | 3473-35-825 | 35-825        | Nuclear Assurance Company | 389029             | 802074              | 158                |
| 34       | 73    | 35      | 3473-35-826 | 35-826        | Nuclear Assurance Company | 388897             | 802410              | 180                |
| 34       | 73    | 35      | 3473-35-827 | 35-827        | Nuclear Assurance Company | 389210             | 802072              | 195                |
| 34       | 73    | 35      | 3473-35-828 | 35-828        | Nuclear Assurance Company | 389456             | 802438              | 179                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number | Short Hole ID | Company                        | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------|---------------|--------------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 35      | 3473-35-83  | 35-83         | R.L. Peterson                  | 387242             | 806208              | 258                |
| 34       | 73    | 35      | 3473-35-831 | 35-831        | Nuclear Assurance Company      | 389465             | 802492              | 179                |
| 34       | 73    | 35      | 3473-35-84  | 35-84         | R.L. Peterson                  | 387242             | 806385              | 258                |
| 34       | 73    | 35      | 3473-35-85  | 35-85         | R.L. Peterson                  | 387341             | 806218              | 252                |
| 34       | 73    | 35      | 3473-35-852 | 35-852        | Nuclear Assurance Company      | 387722             | 806102              | 394                |
| 34       | 73    | 35      | 3473-35-853 | 35-853        | Nuclear Assurance Company      | 387932             | 805900              | 396                |
| 34       | 73    | 35      | 3473-35-854 | 35-854        | Nuclear Assurance Company      | 387934             | 805785              | 396                |
| 34       | 73    | 35      | 3473-35-855 | 35-855        | Nuclear Assurance Company      | 387772             | 806097              | 397                |
| 34       | 73    | 35      | 3473-35-856 | 35-856        | Nuclear Assurance Company      | 387947             | 805996              | 395                |
| 34       | 73    | 35      | 3473-35-857 | 35-857        | Nuclear Assurance Company      | 387861             | 806087              | 393                |
| 34       | 73    | 35      | 3473-35-858 | 35-858        | Nuclear Assurance Company      | 387709             | 806184              | 397                |
| 34       | 73    | 35      | 3473-35-859 | 35-859        | Arizona Public Service Company | 386590.8           | 806530.9            | 380                |
| 34       | 73    | 35      | 3473-35-86  | 35-86         | R.L. Peterson                  | 387132             | 806482              | 259                |
| 34       | 73    | 35      | 3473-35-860 | 35-860        | Arizona Public Service Company | 386777.7           | 806199              | 380                |
| 34       | 73    | 35      | 3473-35-861 | 35-861        | Arizona Public Service Company | 385752.8           | 806195              | 319                |
| 34       | 73    | 35      | 3473-35-862 | 35-862        | Arizona Public Service Company | 386287.7           | 805878.4            | 339                |
| 34       | 73    | 35      | 3473-35-863 | 35-863        | Arizona Public Service Company | 386768.5           | 805194              | 179                |
| 34       | 73    | 35      | 3473-35-864 | 35-864        | Arizona Public Service Company | 386675.4           | 804605.5            | 159                |
| 34       | 73    | 35      | 3473-35-865 | 35-865        | Arizona Public Service Company | 386490.8           | 804344.6            | 158                |
| 34       | 73    | 35      | 3473-35-866 | 35-866        | Arizona Public Service Company | 388341.3           | 803922.7            | 219                |
| 34       | 73    | 35      | 3473-35-867 | 35-867        | Arizona Public Service Company | 388473.7           | 804256.5            | 238                |
| 34       | 73    | 35      | 3473-35-868 | 35-868        | Arizona Public Service Company | 389352.8           | 804723.8            | 260                |
| 34       | 73    | 35      | 3473-35-869 | 35-869        | Arizona Public Service Company | 389846.6           | 804830.8            | 258                |
| 34       | 73    | 35      | 3473-35-87  | 35-87         | R.L. Peterson                  | 386930             | 806596              | 267                |
| 34       | 73    | 35      | 3473-35-870 | 35-870        | Arizona Public Service Company | 390217.1           | 804747.2            | 258                |
| 34       | 73    | 35      | 3473-35-871 | 35-871        | Arizona Public Service Company | 389073.9           | 804623.9            | 258                |
| 34       | 73    | 35      | 3473-35-872 | 35-872        | Arizona Public Service Company | 386676.7           | 804656.6            | 140                |
| 34       | 73    | 35      | 3473-35-873 | 35-873        | Arizona Public Service Company | 386827.9           | 806197.8            | 380                |
| 34       | 73    | 35      | 3473-35-874 | 35-874        | Arizona Public Service Company | 389070.3           | 804672.7            | 258                |
| 34       | 73    | 35      | 3473-35-875 | 35-875        | Malapai                        | 386383.3           | 806778.2            | 380                |
| 34       | 73    | 35      | 3473-35-876 | 35-876        | Malapai                        | 386540.9           | 806528.9            | 379                |
| 34       | 73    | 35      | 3473-35-877 | 35-877        | Malapai                        | 386299.9           | 805830              | 357                |
| 34       | 73    | 35      | 3473-35-878 | 35-878        | Malapai                        | 388267.5           | 805497.6            | 336                |
| 34       | 73    | 35      | 3473-35-879 | 35-879        | Malapai                        | 386680.5           | 804239.4            | 197                |
| 34       | 73    | 35      | 3473-35-88  | 35-88         | R.L. Peterson                  | 387140             | 806378              | 259                |
| 34       | 73    | 35      | 3473-35-880 | 35-880        | Malapai                        | 388881.6           | 804560.5            | 256                |
| 34       | 73    | 35      | 3473-35-881 | 35-881        | Malapai                        | 390211.6           | 804793.9            | 278                |
| 34       | 73    | 35      | 3473-35-882 | 35-882        | Malapai                        | 390522.6           | 803939              | 198                |
| 34       | 73    | 35      | 3473-35-883 | 35-883        | Malapai                        | 389105.4           | 803388.8            | 198                |
| 34       | 73    | 35      | 3473-35-884 | 35-884        | Malapai                        | 388786.2           | 803220.4            | 178                |
| 34       | 73    | 35      | 3473-35-885 | 35-885        | Malapai                        | 386282.6           | 806778.7            | 376                |
| 34       | 73    | 35      | 3473-35-886 | 35-886        | Malapai                        | 386330.5           | 806781.6            | 378                |
| 34       | 73    | 35      | 3473-35-887 | 35-887        | Malapai                        | 388881.3           | 804510.3            | 258                |
| 34       | 73    | 35      | 3473-35-888 | 35-888        | Malapai                        | 388272.6           | 805602.7            | 337                |
| 34       | 73    | 35      | 3473-35-889 | 35-889        | Malapai                        | 386062.9           | 807095.1            | 377                |
| 34       | 73    | 35      | 3473-35-89  | 35-89         | R.L. Peterson                  | 386926             | 806391              | 259                |
| 34       | 73    | 35      | 3473-35-890 | 35-890        | Malapai                        | 385955.9           | 806073              | 337                |
| 34       | 73    | 35      | 3473-35-891 | 35-891        | Malapai                        | 386516.3           | 803945.4            | 195                |
| 34       | 73    | 35      | 3473-35-892 | 35-892        | Malapai                        | 386087             | 804035.9            | 116                |
| 34       | 73    | 35      | 3473-35-893 | 35-893        | Malapai                        | 388728.9           | 804450.3            | 256                |
| 34       | 73    | 35      | 3473-35-894 | 35-894        | Malapai                        | 388835.7           | 803221.6            | 175                |
| 34       | 73    | 35      | 3473-35-895 | 35-895        | Malapai                        | 388276.5           | 805550.3            | 337                |
| 34       | 73    | 35      | 3473-35-896 | 35-896        | Malapai                        | 386620.5           | 803946.5            | 196                |
| 34       | 73    | 35      | 3473-35-9   | 35-9          | R.L. Peterson                  | 390737             | 803189              | 195                |
| 34       | 73    | 35      | 3473-35-90  | 35-90         | R.L. Peterson                  | 386712             | 806391              | 254                |
| 34       | 73    | 35      | 3473-35-91  | 35-91         | R.L. Peterson                  | 386907             | 806186              | 236                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number    | Short Hole ID | Company       | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|----------------|---------------|---------------|--------------------|---------------------|--------------------|
| 34       | 73    | 35      | 3473-35-92     | 35-92         | R.L. Peterson | 386344             | 806403              | 359                |
| 34       | 73    | 35      | 3473-35-93     | 35-93         | R.L. Peterson | 386539             | 806394              | 315                |
| 34       | 73    | 35      | 3473-35-94     | 35-94         | R.L. Peterson | 387059             | 806188              | 359                |
| 34       | 73    | 35      | 3473-35-95     | 35-95         | R.L. Peterson | 387080             | 806043              | 218                |
| 34       | 73    | 35      | 3473-35-96     | 35-96         | R.L. Peterson | 387441             | 806230              | 239                |
| 34       | 73    | 35      | 3473-35-97     | 35-97         | R.L. Peterson | 387341             | 806318              | 255                |
| 34       | 73    | 35      | 3473-35-98     | 35-98         | R.L. Peterson | 387342             | 806416              | 279                |
| 34       | 73    | 35      | 3473-35-99     | 35-99         | R.L. Peterson | 387342             | 806512              | 277                |
| 34       | 73    | 35      | 3473-35-LMP-6  | LMP-6         | Uranium One   | 387430             | 806855              | 281                |
| 34       | 73    | 35      | 3473-35-LMP-7  | LMP-7         | Uranium One   | 387385             | 806320              | 260                |
| 34       | 73    | 35      | 3473-35-LMU-3  | LMU-3         | Uranium One   | 387500             | 806525              | 780                |
| 34       | 73    | 35      | 3473-35-LPW-4  | LPW-4         | Uranium One   | 387485             | 806525              | 260                |
| 34       | 73    | 35      | 3473-35-OW-2   | 1-OW-2        |               | 387595             | 806647              |                    |
| 34       | 73    | 35      | 3473-35-OW-3   | 1-OW-3        |               | 387422             | 806616              |                    |
| 34       | 73    | 35      | 3473-35-OW-4   | 1-OW-4        |               | 387364             | 806866              |                    |
| 34       | 73    | 35      | 3473-35-OW-5   | 1-OW-5        |               | 387475             | 806679              |                    |
| 34       | 73    | 35      | 3473-35-OW-8   | 1-OW-8        |               | 387528             | 806689              |                    |
| 34       | 73    | 35      | 3473-35-OW-9   | 1-OW-9        |               | 387481             | 806704              |                    |
| 34       | 73    | 35      | 3473-35-PW1    | 1-PW1         |               | 387501             | 806705              |                    |
| 34       | 73    | 35      | 3473-35-PW1A   | 1-PW1A        |               | 387500             | 806679              |                    |
| 34       | 73    | 35      | 3473-35-RW-01  | RW-01         |               | 387485.7           | 806685.3            |                    |
| 34       | 73    | 35      | 3473-35-RW-02  | RW-02         |               | 387535.9           | 806686.6            |                    |
| 34       | 73    | 35      | 3473-35-RW-02A | RW-02A        |               | 387535.9           | 806684.4            |                    |
| 34       | 73    | 36      | 3473-36-1      | 36-1          | R.L. Peterson | 391089             | 805037              |                    |
| 34       | 73    | 36      | 3473-36-10     | 36-10         | R.L. Peterson | 393761             | 804770              |                    |
| 34       | 73    | 36      | 3473-36-100    | 36-100        | R.L. Peterson | 391897             | 803798              |                    |
| 34       | 73    | 36      | 3473-36-101    | 36-101        | R.L. Peterson | 391895             | 803849              |                    |
| 34       | 73    | 36      | 3473-36-102    | 36-102        | R.L. Peterson | 391895             | 803744              |                    |
| 34       | 73    | 36      | 3473-36-103    | 36-103        | R.L. Peterson | 392701             | 804545              | 177                |
| 34       | 73    | 36      | 3473-36-104    | 36-104        | R.L. Peterson | 392683             | 804495              | 197                |
| 34       | 73    | 36      | 3473-36-105    | 36-105        | R.L. Peterson | 392934             | 804644              |                    |
| 34       | 73    | 36      | 3473-36-106    | 36-106        | R.L. Peterson | 391899             | 803897              |                    |
| 34       | 73    | 36      | 3473-36-107    | 36-107        | R.L. Peterson | 393453             | 804857              |                    |
| 34       | 73    | 36      | 3473-36-108    | 36-108        | R.L. Peterson | 392717             | 804592              | 213                |
| 34       | 73    | 36      | 3473-36-109    | 36-109        | R.L. Peterson | 392950             | 804690              |                    |
| 34       | 73    | 36      | 3473-36-11     | 36-11         | R.L. Peterson | 393711             | 804742              |                    |
| 34       | 73    | 36      | 3473-36-110    | 36-110        | R.L. Peterson | 393159             | 804791              |                    |
| 34       | 73    | 36      | 3473-36-111    | 36-111        | R.L. Peterson | 392409             | 803650              |                    |
| 34       | 73    | 36      | 3473-36-112    | 36-112        | R.L. Peterson | 393472             | 805004              |                    |
| 34       | 73    | 36      | 3473-36-113    | 36-113        | R.L. Peterson | 393452             | 804929              |                    |
| 34       | 73    | 36      | 3473-36-114    | 36-114        | R.L. Peterson | 392909             | 804555              |                    |
| 34       | 73    | 36      | 3473-36-115    | 36-115        | R.L. Peterson | 393158             | 804373              |                    |
| 34       | 73    | 36      | 3473-36-116    | 36-116        | R.L. Peterson | 392409             | 803205              |                    |
| 34       | 73    | 36      | 3473-36-117    | 36-117        | R.L. Peterson | 392056             | 803258              |                    |
| 34       | 73    | 36      | 3473-36-118    | 36-118        | R.L. Peterson | 391845             | 803898              |                    |
| 34       | 73    | 36      | 3473-36-119    | 36-119        | R.L. Peterson | 392923             | 804596              |                    |
| 34       | 73    | 36      | 3473-36-12     | 36-12         | R.L. Peterson | 393735             | 804757              |                    |
| 34       | 73    | 36      | 3473-36-120    | 36-120        | R.L. Peterson | 392565             | 804453              |                    |
| 34       | 73    | 36      | 3473-36-121    | 36-121        | R.L. Peterson | 391850             | 803786              |                    |
| 34       | 73    | 36      | 3473-36-122    | 36-122        | R.L. Peterson | 393159             | 804687              |                    |
| 34       | 73    | 36      | 3473-36-123    | 36-123        | R.L. Peterson | 392122             | 804112              |                    |
| 34       | 73    | 36      | 3473-36-124    | 36-124        | R.L. Peterson | 393434             | 804710              |                    |
| 34       | 73    | 36      | 3473-36-125    | 36-125        | R.L. Peterson | 393444             | 804754              |                    |
| 34       | 73    | 36      | 3473-36-126    | 36-126        | R.L. Peterson | 393450             | 804805              |                    |
| 34       | 73    | 36      | 3473-36-127    | 36-127        | R.L. Peterson | 393356             | 804242              |                    |
| 34       | 73    | 36      | 3473-36-128    | 36-128        | R.L. Peterson | 393666             | 805023              |                    |



Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 36      | 3473-36-129  | 36-129        | R.L. Peterson             | 393393             | 804448              |                    |
| 34       | 73    | 36      | 3473-36-13   | 36-13         | R.L. Peterson             | 391558             | 806528              |                    |
| 34       | 73    | 36      | 3473-36-130  | 36-130        | R.L. Peterson             | 393664             | 804933              |                    |
| 34       | 73    | 36      | 3473-36-131  | 36-131        | R.L. Peterson             | 393372             | 804342              |                    |
| 34       | 73    | 36      | 3473-36-132  | 36-132        | R.L. Peterson             | 393657             | 804819              |                    |
| 34       | 73    | 36      | 3473-36-133  | 36-133        | R.L. Peterson             | 393386             | 804399              |                    |
| 34       | 73    | 36      | 3473-36-133C | 36-133C       | Nuclear Assurance Company | 393389             | 804406              |                    |
| 34       | 73    | 36      | 3473-36-134  | 36-134        | R.L. Peterson             | 393757             | 804840              |                    |
| 34       | 73    | 36      | 3473-36-135  | 36-135        | R.L. Peterson             | 393592             | 804438              |                    |
| 34       | 73    | 36      | 3473-36-136  | 36-136        | R.L. Peterson             | 393299             | 804800              |                    |
| 34       | 73    | 36      | 3473-36-137  | 36-137        | R.L. Peterson             | 393156             | 804266              |                    |
| 34       | 73    | 36      | 3473-36-138  | 36-138        | R.L. Peterson             | 393831             | 804912              |                    |
| 34       | 73    | 36      | 3473-36-139  | 36-139        | R.L. Peterson             | 392908             | 804097              |                    |
| 34       | 73    | 36      | 3473-36-14   | 36-14         | R.L. Peterson             | 391564             | 806935              |                    |
| 34       | 73    | 36      | 3473-36-140  | 36-140        | R.L. Peterson             | 393870             | 804941              |                    |
| 34       | 73    | 36      | 3473-36-141  | 36-141        | R.L. Peterson             | 393160             | 804366              |                    |
| 34       | 73    | 36      | 3473-36-142  | 36-142        | R.L. Peterson             | 393311             | 804751              |                    |
| 34       | 73    | 36      | 3473-36-143  | 36-143        | R.L. Peterson             | 393160             | 804319              |                    |
| 34       | 73    | 36      | 3473-36-144  | 36-144        | R.L. Peterson             | 392560             | 804406              |                    |
| 34       | 73    | 36      | 3473-36-145  | 36-145        | R.L. Peterson             | 393151             | 804215              |                    |
| 34       | 73    | 36      | 3473-36-146  | 36-146        | R.L. Peterson             | 391795             | 803797              |                    |
| 34       | 73    | 36      | 3473-36-147  | 36-147        | R.L. Peterson             | 392900             | 803991              |                    |
| 34       | 73    | 36      | 3473-36-148  | 36-148        | R.L. Peterson             | 392405             | 804165              |                    |
| 34       | 73    | 36      | 3473-36-149  | 36-149        | R.L. Peterson             | 392793             | 803910              | 198                |
| 34       | 73    | 36      | 3473-36-15   | 36-15         | R.L. Peterson             | 391656             | 807224              |                    |
| 34       | 73    | 36      | 3473-36-150  | 36-150        | R.L. Peterson             | 392556             | 804362              |                    |
| 34       | 73    | 36      | 3473-36-151  | 36-151        | R.L. Peterson             | 393620             | 804534              |                    |
| 34       | 73    | 36      | 3473-36-152  | 36-152        | R.L. Peterson             | 393159             | 804650              |                    |
| 34       | 73    | 36      | 3473-36-153  | 36-153        | R.L. Peterson             | 392904             | 804038              |                    |
| 34       | 73    | 36      | 3473-36-154  | 36-154        | R.L. Peterson             | 392355             | 804236              |                    |
| 34       | 73    | 36      | 3473-36-155  | 36-155        | R.L. Peterson             | 392896             | 803939              |                    |
| 34       | 73    | 36      | 3473-36-156  | 36-156        | R.L. Peterson             | 392797             | 803857              | 196                |
| 34       | 73    | 36      | 3473-36-157  | 36-157        | R.L. Peterson             | 393631             | 804576              |                    |
| 34       | 73    | 36      | 3473-36-158  | 36-158        | R.L. Peterson             | 390979             | 804498              |                    |
| 34       | 73    | 36      | 3473-36-159  | 36-159        | R.L. Peterson             | 391025             | 804239              |                    |
| 34       | 73    | 36      | 3473-36-16   | 36-16         | R.L. Peterson             | 390376             | 804077              |                    |
| 34       | 73    | 36      | 3473-36-160  | 36-160        | R.L. Peterson             | 391122             | 804234              |                    |
| 34       | 73    | 36      | 3473-36-161  | 36-161        | R.L. Peterson             | 390985             | 804600              |                    |
| 34       | 73    | 36      | 3473-36-162  | 36-162        | R.L. Peterson             | 392322             | 804277              |                    |
| 34       | 73    | 36      | 3473-36-163  | 36-163        | R.L. Peterson             | 393579             | 804583              |                    |
| 34       | 73    | 36      | 3473-36-164  | 36-164        | Nuclear Assurance Company | 390997             | 805029              |                    |
| 34       | 73    | 36      | 3473-36-165  | 36-165        | Nuclear Assurance Company | 391181             | 805044              |                    |
| 34       | 73    | 36      | 3473-36-166  | 36-166        | Nuclear Assurance Company | 391048             | 804811              |                    |
| 34       | 73    | 36      | 3473-36-167  | 36-167        | Nuclear Assurance Company | 391141             | 804720              |                    |
| 34       | 73    | 36      | 3473-36-168  | 36-168        | Nuclear Assurance Company | 393396             | 804494              |                    |
| 34       | 73    | 36      | 3473-36-169  | 36-169        | Nuclear Assurance Company | 393153             | 804168              |                    |
| 34       | 73    | 36      | 3473-36-17   | 36-17         | R.L. Peterson             | 391031             | 804066              |                    |
| 34       | 73    | 36      | 3473-36-170  | 36-170        | Nuclear Assurance Company | 393024             | 804147              |                    |
| 34       | 73    | 36      | 3473-36-171  | 36-171        | Nuclear Assurance Company | 393397             | 804549              |                    |
| 34       | 73    | 36      | 3473-36-172  | 36-172        | Nuclear Assurance Company | 393165             | 804519              | 160                |
| 34       | 73    | 36      | 3473-36-173  | 36-173        | Nuclear Assurance Company | 392790             | 804011              | 200                |
| 34       | 73    | 36      | 3473-36-174  | 36-174        | Nuclear Assurance Company | 393023             | 804040              | 160                |
| 34       | 73    | 36      | 3473-36-175  | 36-175        | Nuclear Assurance Company | 393155             | 804117              | 180                |
| 34       | 73    | 36      | 3473-36-176  | 36-176        | Nuclear Assurance Company | 392794             | 803770              | 201                |
| 34       | 73    | 36      | 3473-36-177  | 36-177        | Nuclear Assurance Company | 392374             | 803987              | 220                |
| 34       | 73    | 36      | 3473-36-178  | 36-178        | Nuclear Assurance Company | 392408             | 804038              | 191                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 36      | 3473-36-179  | 36-179        | Nuclear Assurance Company | 392318             | 804313              | 201                |
| 34       | 73    | 36      | 3473-36-18   | 36-18         | R.L. Peterson             | 390872             | 804024              |                    |
| 34       | 73    | 36      | 3473-36-180  | 36-180        | Nuclear Assurance Company | 392395             | 803948              | 197                |
| 34       | 73    | 36      | 3473-36-181  | 36-181        | Nuclear Assurance Company | 392803             | 803819              | 191                |
| 34       | 73    | 36      | 3473-36-182  | 36-182        | Nuclear Assurance Company | 392807             | 803691              | 200                |
| 34       | 73    | 36      | 3473-36-183  | 36-183        | Nuclear Assurance Company | 393020             | 804100              | 180                |
| 34       | 73    | 36      | 3473-36-184  | 36-184        | Nuclear Assurance Company | 392540             | 803400              | 261                |
| 34       | 73    | 36      | 3473-36-185  | 36-185        | Nuclear Assurance Company | 392461             | 803584              | 241                |
| 34       | 73    | 36      | 3473-36-186  | 36-186        | Nuclear Assurance Company | 392400             | 803898              | 221                |
| 34       | 73    | 36      | 3473-36-187  | 36-187        | Nuclear Assurance Company | 392567             | 804507              | 200                |
| 34       | 73    | 36      | 3473-36-188  | 36-188        | Nuclear Assurance Company | 392717             | 804641              | 201                |
| 34       | 73    | 36      | 3473-36-189  | 36-189        | Nuclear Assurance Company | 392493             | 803404              | 241                |
| 34       | 73    | 36      | 3473-36-19   | 36-19         | R.L. Peterson             | 390978             | 804070              |                    |
| 34       | 73    | 36      | 3473-36-190  | 36-190        | Nuclear Assurance Company | 393028             | 803992              | 181                |
| 34       | 73    | 36      | 3473-36-191  | 36-191        | Nuclear Assurance Company | 392887             | 804415              | 181                |
| 34       | 73    | 36      | 3473-36-192  | 36-192        | Nuclear Assurance Company | 393311             | 804703              | 180                |
| 34       | 73    | 36      | 3473-36-193  | 36-193        | Nuclear Assurance Company | 392651             | 803529              | 201                |
| 34       | 73    | 36      | 3473-36-194  | 36-194        | Nuclear Assurance Company | 392811             | 803591              | 199                |
| 34       | 73    | 36      | 3473-36-195  | 36-195        | Nuclear Assurance Company | 392505             | 804080              | 201                |
| 34       | 73    | 36      | 3473-36-196  | 36-196        | Nuclear Assurance Company | 392384             | 804034              | 220                |
| 34       | 73    | 36      | 3473-36-197  | 36-197        | Nuclear Assurance Company | 392790             | 803963              | 197                |
| 34       | 73    | 36      | 3473-36-198  | 36-198        | Nuclear Assurance Company | 392653             | 803579              | 220                |
| 34       | 73    | 36      | 3473-36-199  | 36-199        | Nuclear Assurance Company | 393163             | 804587              | 156                |
| 34       | 73    | 36      | 3473-36-1X   | 36-1X         | Nuclear Assurance Company | 392419             | 802351              | 795                |
| 34       | 73    | 36      | 3473-36-2    | 36-2          | R.L. Peterson             | 391306             | 804982              |                    |
| 34       | 73    | 36      | 3473-36-20   | 36-20         | R.L. Peterson             | 390926             | 804241              |                    |
| 34       | 73    | 36      | 3473-36-200  | 36-200        | Nuclear Assurance Company | 392032             | 803646              | 240                |
| 34       | 73    | 36      | 3473-36-201  | 36-201        | Nuclear Assurance Company | 391996             | 803860              | 280                |
| 34       | 73    | 36      | 3473-36-202  | 36-202        | Nuclear Assurance Company | 393313             | 804677              | 180                |
| 34       | 73    | 36      | 3473-36-203  | 36-203        | Nuclear Assurance Company | 392027             | 803603              | 241                |
| 34       | 73    | 36      | 3473-36-204  | 36-204        | Nuclear Assurance Company | 391726             | 803643              | 236                |
| 34       | 73    | 36      | 3473-36-205  | 36-205        | Nuclear Assurance Company | 392093             | 804001              | 220                |
| 34       | 73    | 36      | 3473-36-206  | 36-206        | Nuclear Assurance Company | 391719             | 803541              | 280                |
| 34       | 73    | 36      | 3473-36-207  | 36-207        | Nuclear Assurance Company | 391728             | 803694              | 259                |
| 34       | 73    | 36      | 3473-36-208  | 36-208        | Nuclear Assurance Company | 392123             | 804044              | 216                |
| 34       | 73    | 36      | 3473-36-209  | 36-209        | Nuclear Assurance Company | 391719             | 803597              | 236                |
| 34       | 73    | 36      | 3473-36-21   | 36-21         | R.L. Peterson             | 390874             | 803972              |                    |
| 34       | 73    | 36      | 3473-36-210  | 36-210        | Nuclear Assurance Company | 391709             | 803493              | 281                |
| 34       | 73    | 35      | 3473-36-2103 | 2103          | Uranium One               | 391058             | 803210              | 219.5              |
| 34       | 73    | 35      | 3473-36-2104 | 2104          | Uranium One               | 391253             | 803375              | 214.9              |
| 34       | 73    | 35      | 3473-36-2105 | 2105          | Uranium One               | 391467             | 803423              | 238.7              |
| 34       | 73    | 35      | 3473-36-2106 | 2106          | Uranium One               | 391467             | 803329              | 233.8              |
| 34       | 73    | 35      | 3473-36-2107 | 2107          | Uranium One               | 391805             | 803593              | 260.7              |
| 34       | 73    | 35      | 3473-36-2108 | 2108          | Uranium One               | 391952             | 803902              | 259.5              |
| 34       | 73    | 35      | 3473-36-2109 | 2109          | Uranium One               | 392267             | 803952              | 258.8              |
| 34       | 73    | 36      | 3473-36-211  | 36-211        | Nuclear Assurance Company | 391994             | 802969              |                    |
| 34       | 73    | 36      | 3473-36-2110 | 2110          | Uranium One               | 392442             | 804338              | 239.4              |
| 34       | 73    | 36      | 3473-36-2111 | 2111          | Uranium One               | 392810             | 804552              | 239.4              |
| 34       | 73    | 36      | 3473-36-2112 | 2112          | Uranium One               | 393036             | 804587              | 219.3              |
| 34       | 73    | 36      | 3473-36-2113 | 2113          | Uranium One               | 393553             | 804855              | 199.7              |
| 34       | 73    | 36      | 3473-36-2114 | 2114          | Uranium One               | 393780             | 804907              | 198.9              |
| 34       | 73    | 36      | 3473-36-2115 | 2115          | Uranium One               | 393496             | 804492              | 199.6              |
| 34       | 73    | 36      | 3473-36-2116 | 2116          | Uranium One               | 393269             | 804329              | 200.8              |
| 34       | 73    | 36      | 3473-36-2117 | 2117          | Uranium One               | 392503.9           | 803554              | 239.2              |
| 34       | 73    | 36      | 3473-36-2118 | 2118          | Uranium One               | 392430             | 803302              | 239.1              |
| 34       | 73    | 36      | 3473-36-2119 | 2119          | Uranium One               | 392204             | 803106              | 217.8              |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 36      | 3473-36-212  | 36-212        | Nuclear Assurance Company | 391603             | 802918              | 275                |
| 34       | 73    | 36      | 3473-36-2120 | 2120          | Uranium One               | 391623             | 802803              | 239.7              |
| 34       | 73    | 36      | 3473-36-2121 | 2121          | Uranium One               | 391500             | 802613              | 218.7              |
| 34       | 73    | 36      | 3473-36-2122 | 2122          | Uranium One               | 391532             | 802402              | 199.6              |
| 34       | 73    | 36      | 3473-36-213  | 36-213        | Nuclear Assurance Company | 392175             | 803003              | 276                |
| 34       | 73    | 36      | 3473-36-214  | 36-214        | Nuclear Assurance Company | 391864             | 802977              | 257                |
| 34       | 73    | 36      | 3473-36-215  | 36-215        | Nuclear Assurance Company | 392019             | 802924              | 257                |
| 34       | 73    | 36      | 3473-36-2157 | 2157          | Uranium One               | 391074             | 803246              | 219.2              |
| 34       | 73    | 36      | 3473-36-2158 | 2158          | Uranium One               | 391264             | 803410              | 219.4              |
| 34       | 73    | 36      | 3473-36-2159 | 2159          | Uranium One               | 391193             | 803284              | 221.4              |
| 34       | 73    | 36      | 3473-36-216  | 36-216        | Nuclear Assurance Company | 391787             | 803012              | 200                |
| 34       | 73    | 36      | 3473-36-2160 | 2160          | Uranium One               | 391467             | 803472              | 241.8              |
| 34       | 73    | 36      | 3473-36-2161 | 2161          | Uranium One               | 391641             | 803492              | 259.9              |
| 34       | 73    | 36      | 3473-36-2162 | 2162          | Uranium One               | 391804             | 803644              | 260                |
| 34       | 73    | 36      | 3473-36-2163 | 2163          | Uranium One               | 391894             | 803924              | 261.2              |
| 34       | 73    | 36      | 3473-36-2164 | 2164          | Uranium One               | 392320             | 804015              | 261.1              |
| 34       | 73    | 36      | 3473-36-2165 | 2165          | Uranium One               | 392621             | 804477              | 238.2              |
| 34       | 73    | 36      | 3473-36-2166 | 2166          | Uranium One               | 392809.6           | 804604.3            | 238                |
| 34       | 73    | 36      | 3473-36-2167 | 2167          | Uranium One               | 393035.5           | 804638.6            | 219.9              |
| 34       | 73    | 36      | 3473-36-2168 | 2168          | Uranium One               | 393231             | 804688              | 238.3              |
| 34       | 73    | 36      | 3473-36-2169 | 2169          | Uranium One               | 393369             | 804805              | 197                |
| 34       | 73    | 36      | 3473-36-217  | 36-217        | Nuclear Assurance Company | 391412             | 802308              | 319                |
| 34       | 73    | 36      | 3473-36-2170 | 2170          | Uranium One               | 393448             | 804898              | 200                |
| 34       | 73    | 36      | 3473-36-2171 | 2171          | Uranium One               | 393645             | 804609              | 200.6              |
| 34       | 73    | 36      | 3473-36-2172 | 2172          | Uranium One               | 393559             | 804534              | 200.9              |
| 34       | 73    | 36      | 3473-36-2173 | 2173          | Uranium One               | 393438             | 804454              | 198.9              |
| 34       | 73    | 36      | 3473-36-2174 | 2174          | Uranium One               | 393381             | 804394              | 199.7              |
| 34       | 73    | 36      | 3473-36-2175 | 2175          | Uranium One               | 393201             | 804267              | 221.6              |
| 34       | 73    | 36      | 3473-36-2176 | 2176          | Uranium One               | 393096             | 804216              | 218.9              |
| 34       | 73    | 36      | 3473-36-2177 | 2177          | Uranium One               | 392960             | 804040              | 219.3              |
| 34       | 73    | 36      | 3473-36-2178 | 2178          | Uranium One               | 392841             | 803858              | 220                |
| 34       | 73    | 36      | 3473-36-2179 | 2179          | Uranium One               | 392480             | 803302              | 241.2              |
| 34       | 73    | 36      | 3473-36-218  | 36-218        | Nuclear Assurance Company | 391358             | 802329              | 220                |
| 34       | 73    | 36      | 3473-36-2180 | 2180          | Uranium One               | 392354             | 803142              | 242.2              |
| 34       | 73    | 36      | 3473-36-2181 | 2181          | Uranium One               | 392107             | 803106              | 218.3              |
| 34       | 73    | 36      | 3473-36-2182 | 2182          | Uranium One               | 391908             | 803013              | 240.8              |
| 34       | 73    | 36      | 3473-36-2183 | 2183          | Uranium One               | 391758             | 802948              | 241.1              |
| 34       | 73    | 36      | 3473-36-2184 | 2184          | Uranium One               | 391673             | 802803              | 242                |
| 34       | 73    | 36      | 3473-36-2185 | 2185          | Uranium One               | 391438             | 802613              | 220.5              |
| 34       | 73    | 36      | 3473-36-2186 | 2186          | Uranium One               | 391582             | 802402              | 201.1              |
| 34       | 73    | 36      | 3473-36-2187 | 2187          | Uranium One               | 391539             | 802221              | 201.9              |
| 34       | 73    | 36      | 3473-36-2188 | 2188          | Uranium One               | 391935             | 803594              | 261.4              |
| 34       | 73    | 36      | 3473-36-219  | 36-219        | Nuclear Assurance Company | 391740             | 803036              | 220                |
| 34       | 73    | 36      | 3473-36-22   | 36-22         | R.L. Peterson             | 390942             | 803087              |                    |
| 34       | 73    | 36      | 3473-36-220  | 36-220        | Nuclear Assurance Company | 391819             | 802975              | 216                |
| 34       | 73    | 36      | 3473-36-221  | 36-221        | Nuclear Assurance Company | 391915             | 802968              | 217                |
| 34       | 73    | 36      | 3473-36-222  | 36-222        | Nuclear Assurance Company | 390849             | 803145              | 319                |
| 34       | 73    | 36      | 3473-36-223  | 36-223        | Nuclear Assurance Company | 390839             | 803241              | 199                |
| 34       | 73    | 36      | 3473-36-224  | 36-224        | Nuclear Assurance Company | 390837             | 803290              | 200                |
| 34       | 73    | 36      | 3473-36-225  | 36-225        | Nuclear Assurance Company | 390845             | 803191              | 219                |
| 34       | 73    | 36      | 3473-36-226  | 36-226        | Nuclear Assurance Company | 390845             | 803091              | 230                |
| 34       | 73    | 36      | 3473-36-227  | 36-227        | Nuclear Assurance Company | 390845             | 803042              | 239                |
| 34       | 73    | 36      | 3473-36-228  | 36-228        | Nuclear Assurance Company | 390922             | 804292              | 237                |
| 34       | 73    | 36      | 3473-36-229  | 36-229        | Nuclear Assurance Company | 390927             | 804186              | 237                |
| 34       | 73    | 36      | 3473-36-22C  | 36-22C        | Nuclear Assurance Company | 390947             | 803087              |                    |
| 34       | 73    | 36      | 3473-36-23   | 36-23         | R.L. Peterson             | 390975             | 804173              |                    |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 36      | 3473-36-230 | 36-230        | Nuclear Assurance Company | 390920             | 804345              | 234                |
| 34       | 73    | 36      | 3473-36-231 | 36-231        | Nuclear Assurance Company | 391170             | 804308              | 257                |
| 34       | 73    | 36      | 3473-36-232 | 36-232        | Nuclear Assurance Company | 391245             | 804316              | 257                |
| 34       | 73    | 36      | 3473-36-233 | 36-233        | Nuclear Assurance Company | 390840             | 804638              | 257                |
| 34       | 73    | 36      | 3473-36-234 | 36-234        | Nuclear Assurance Company | 391565             | 807251              | 334                |
| 34       | 73    | 36      | 3473-36-235 | 36-235        | Nuclear Assurance Company | 391457             | 807150              | 314                |
| 34       | 73    | 36      | 3473-36-24  | 36-24         | R.L. Peterson             | 392218             | 802412              |                    |
| 34       | 73    | 36      | 3473-36-25  | 36-25         | R.L. Peterson             | 390941             | 803190              |                    |
| 34       | 73    | 36      | 3473-36-25C | 36-25C        | Nuclear Assurance Company | 390936             | 803190              |                    |
| 34       | 73    | 36      | 3473-36-26  | 36-26         | R.L. Peterson             | 391802             | 802447              |                    |
| 34       | 73    | 36      | 3473-36-27  | 36-27         | R.L. Peterson             | 391608             | 802486              |                    |
| 34       | 73    | 36      | 3473-36-28  | 36-28         | R.L. Peterson             | 391309             | 802548              |                    |
| 34       | 73    | 36      | 3473-36-29  | 36-29         | R.L. Peterson             | 390940             | 803238              |                    |
| 34       | 73    | 36      | 3473-36-2X  | 36-2X         | Nuclear Assurance Company | 394300             | 802619              |                    |
| 34       | 73    | 36      | 3473-36-3   | 36-3          | R.L. Peterson             | 393605             | 802174              |                    |
| 34       | 73    | 36      | 3473-36-30  | 36-30         | R.L. Peterson             | 391504             | 802502              |                    |
| 34       | 73    | 36      | 3473-36-30C | 36-30C        | Nuclear Assurance Company | 391502             | 802514              |                    |
| 34       | 73    | 36      | 3473-36-31  | 36-31         | R.L. Peterson             | 391451             | 802510              |                    |
| 34       | 73    | 36      | 3473-36-31C | 36-31C        | Nuclear Assurance Company | 391450             | 802523              |                    |
| 34       | 73    | 36      | 3473-36-32  | 36-32         | R.L. Peterson             | 391551             | 802495              |                    |
| 34       | 73    | 36      | 3473-36-32C | 36-32C        | Nuclear Assurance Company | 393389             | 802502              |                    |
| 34       | 73    | 36      | 3473-36-33  | 36-33         | R.L. Peterson             | 391401             | 802516              |                    |
| 34       | 73    | 36      | 3473-36-34  | 36-34         | R.L. Peterson             | 391500             | 802700              |                    |
| 34       | 73    | 36      | 3473-36-35  | 36-35         | R.L. Peterson             | 391349             | 802525              |                    |
| 34       | 73    | 36      | 3473-36-36  | 36-36         | R.L. Peterson             | 391144             | 803185              |                    |
| 34       | 73    | 36      | 3473-36-37  | 36-37         | R.L. Peterson             | 390945             | 803138              |                    |
| 34       | 73    | 36      | 3473-36-37C | 36-37C        | Nuclear Assurance Company | 390940             | 803138              |                    |
| 34       | 73    | 36      | 3473-36-38  | 36-38         | R.L. Peterson             | 390943             | 803041              |                    |
| 34       | 73    | 36      | 3473-36-39  | 36-39         | R.L. Peterson             | 391264             | 802355              |                    |
| 34       | 73    | 36      | 3473-36-3X  | 36-3X         | Nuclear Assurance Company | 395302             | 802533              |                    |
| 34       | 73    | 36      | 3473-36-4   | 36-4          | R.L. Peterson             | 395953             | 802056              |                    |
| 34       | 73    | 36      | 3473-36-40  | 36-40         | R.L. Peterson             | 391146             | 803323              |                    |
| 34       | 73    | 36      | 3473-36-41  | 36-41         | R.L. Peterson             | 391455             | 802704              |                    |
| 34       | 73    | 36      | 3473-36-42  | 36-42         | R.L. Peterson             | 391549             | 802696              |                    |
| 34       | 73    | 36      | 3473-36-43  | 36-43         | R.L. Peterson             | 391796             | 802873              |                    |
| 34       | 73    | 36      | 3473-36-44  | 36-44         | R.L. Peterson             | 391147             | 803373              |                    |
| 34       | 73    | 36      | 3473-36-45  | 36-45         | R.L. Peterson             | 391455             | 802301              |                    |
| 34       | 73    | 36      | 3473-36-46  | 36-46         | R.L. Peterson             | 391073             | 802413              |                    |
| 34       | 73    | 36      | 3473-36-47  | 36-47         | R.L. Peterson             | 391364             | 803427              |                    |
| 34       | 73    | 36      | 3473-36-48  | 36-48         | R.L. Peterson             | 391350             | 803280              |                    |
| 34       | 73    | 36      | 3473-36-49  | 36-49         | R.L. Peterson             | 391600             | 802690              |                    |
| 34       | 73    | 36      | 3473-36-4X  | 36-4X         | Nuclear Assurance Company | 393633             | 803830              |                    |
| 34       | 73    | 36      | 3473-36-5   | 36-5          | R.L. Peterson             | 393853             | 804806              |                    |
| 34       | 73    | 36      | 3473-36-50  | 36-50         | R.L. Peterson             | 391147             | 803283              |                    |
| 34       | 73    | 36      | 3473-36-51  | 36-51         | R.L. Peterson             | 391148             | 803238              |                    |
| 34       | 73    | 36      | 3473-36-52  | 36-52         | R.L. Peterson             | 391554             | 802271              |                    |
| 34       | 73    | 36      | 3473-36-53  | 36-53         | R.L. Peterson             | 391696             | 802891              |                    |
| 34       | 73    | 36      | 3473-36-54  | 36-54         | R.L. Peterson             | 391326             | 802951              |                    |
| 34       | 73    | 36      | 3473-36-55  | 36-55         | R.L. Peterson             | 391501             | 802288              |                    |
| 34       | 73    | 36      | 3473-36-56  | 36-56         | R.L. Peterson             | 391507             | 802077              |                    |
| 34       | 73    | 36      | 3473-36-57  | 36-57         | R.L. Peterson             | 391601             | 802256              |                    |
| 34       | 73    | 36      | 3473-36-58  | 36-58         | R.L. Peterson             | 391461             | 802100              |                    |
| 34       | 73    | 36      | 3473-36-59  | 36-59         | R.L. Peterson             | 391410             | 802116              |                    |
| 34       | 73    | 36      | 3473-36-5X  | 36-5X         | Nuclear Assurance Company | 395512             | 803220              |                    |
| 34       | 73    | 36      | 3473-36-6   | 36-6          | R.L. Peterson             | 396003             | 804646              |                    |
| 34       | 73    | 36      | 3473-36-60  | 36-60         | R.L. Peterson             | 391590             | 803635              |                    |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number   | Short Hole ID | Company                   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|---------------|---------------|---------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 36      | 3473-36-61    | 36-61         | R.L. Peterson             | 391960             | 803058              |                    |
| 34       | 73    | 36      | 3473-36-62    | 36-62         | R.L. Peterson             | 391373             | 803478              |                    |
| 34       | 73    | 36      | 3473-36-63    | 36-63         | R.L. Peterson             | 391743             | 802877              |                    |
| 34       | 73    | 36      | 3473-36-64    | 36-64         | R.L. Peterson             | 391649             | 802904              |                    |
| 34       | 73    | 36      | 3473-36-65    | 36-65         | R.L. Peterson             | 392065             | 803040              |                    |
| 34       | 73    | 36      | 3473-36-66    | 36-66         | R.L. Peterson             | 391580             | 803533              |                    |
| 34       | 73    | 36      | 3473-36-67    | 36-67         | R.L. Peterson             | 392016             | 803044              |                    |
| 34       | 73    | 36      | 3473-36-68    | 36-68         | R.L. Peterson             | 391360             | 803378              |                    |
| 34       | 73    | 36      | 3473-36-69    | 36-69         | R.L. Peterson             | 391913             | 803061              |                    |
| 34       | 73    | 36      | 3473-36-6X    | 36-6X         | Nuclear Assurance Company | 394831             | 805444              |                    |
| 34       | 73    | 36      | 3473-36-7     | 36-7          | R.L. Peterson             | 393435             | 804645              |                    |
| 34       | 73    | 36      | 3473-36-70    | 36-70         | R.L. Peterson             | 391890             | 803593              |                    |
| 34       | 73    | 36      | 3473-36-71    | 36-71         | R.L. Peterson             | 392112             | 803035              |                    |
| 34       | 73    | 36      | 3473-36-72    | 36-72         | R.L. Peterson             | 392155             | 803241              |                    |
| 34       | 73    | 36      | 3473-36-73    | 36-73         | R.L. Peterson             | 392253             | 803225              |                    |
| 34       | 73    | 36      | 3473-36-74    | 36-74         | R.L. Peterson             | 391574             | 803425              |                    |
| 34       | 73    | 36      | 3473-36-75    | 36-75         | R.L. Peterson             | 392345             | 803412              |                    |
| 34       | 73    | 36      | 3473-36-76    | 36-76         | R.L. Peterson             | 391577             | 803486              |                    |
| 34       | 73    | 36      | 3473-36-77    | 36-77         | R.L. Peterson             | 391572             | 803374              |                    |
| 34       | 73    | 36      | 3473-36-78    | 36-78         | R.L. Peterson             | 391354             | 803329              |                    |
| 34       | 73    | 36      | 3473-36-79    | 36-79         | R.L. Peterson             | 391394             | 803645              |                    |
| 34       | 73    | 36      | 3473-36-7X    | 36-7X         | Nuclear Assurance Company | 393197             | 805975              |                    |
| 34       | 73    | 36      | 3473-36-8     | 36-8          | R.L. Peterson             | 393524             | 804665              |                    |
| 34       | 73    | 36      | 3473-36-80    | 36-80         | R.L. Peterson             | 392303             | 803218              |                    |
| 34       | 73    | 36      | 3473-36-81    | 36-81         | R.L. Peterson             | 391889             | 803547              |                    |
| 34       | 73    | 36      | 3473-36-82    | 36-82         | R.L. Peterson             | 392340             | 803510              |                    |
| 34       | 73    | 36      | 3473-36-83    | 36-83         | R.L. Peterson             | 392347             | 803367              |                    |
| 34       | 73    | 36      | 3473-36-84    | 36-84         | R.L. Peterson             | 392106             | 803768              |                    |
| 34       | 73    | 36      | 3473-36-85    | 36-85         | R.L. Peterson             | 390978             | 804237              |                    |
| 34       | 73    | 36      | 3473-36-86    | 36-86         | R.L. Peterson             | 392292             | 803170              |                    |
| 34       | 73    | 36      | 3473-36-87    | 36-87         | R.L. Peterson             | 390876             | 804495              |                    |
| 34       | 73    | 36      | 3473-36-88    | 36-88         | R.L. Peterson             | 391897             | 803695              |                    |
| 34       | 73    | 36      | 3473-36-89    | 36-89         | R.L. Peterson             | 392168             | 803954              |                    |
| 34       | 73    | 36      | 3473-36-9     | 36-9          | R.L. Peterson             | 393668             | 804720              |                    |
| 34       | 73    | 36      | 3473-36-90    | 36-90         | R.L. Peterson             | 392234             | 804134              |                    |
| 34       | 73    | 36      | 3473-36-91    | 36-91         | R.L. Peterson             | 392359             | 803211              |                    |
| 34       | 73    | 36      | 3473-36-92    | 36-92         | R.L. Peterson             | 392168             | 803440              |                    |
| 34       | 73    | 36      | 3473-36-93    | 36-93         | R.L. Peterson             | 392188             | 803999              |                    |
| 34       | 73    | 36      | 3473-36-94    | 36-94         | R.L. Peterson             | 392205             | 804039              |                    |
| 34       | 73    | 36      | 3473-36-95    | 36-95         | R.L. Peterson             | 392221             | 804087              |                    |
| 34       | 73    | 36      | 3473-36-96    | 36-96         | R.L. Peterson             | 392251             | 804185              |                    |
| 34       | 73    | 36      | 3473-36-97    | 36-97         | R.L. Peterson             | 392461             | 803195              |                    |
| 34       | 73    | 36      | 3473-36-98    | 36-98         | R.L. Peterson             | 392441             | 803396              |                    |
| 34       | 73    | 36      | 3473-36-99    | 36-99         | R.L. Peterson             | 392665             | 804446              |                    |
| 34       | 73    | 36      | 3473-36-M-24  | M-24          | Uranium One               | 393224             | 804658              | 360                |
| 34       | 73    | 3       | 3473-3-CRX-51 | CRX-51        |                           | 385800             | 831800              |                    |
| 34       | 73    | 3       | 3473-3-CRX-52 | CRX-52        |                           | 386300             | 831800              |                    |
| 34       | 73    | 3       | 3473-3-M-5    | M-5           | Uranium One               | 382924             | 831585              | 600                |
| 34       | 73    | 4       | 3473-4-10KM   | 10KM          | Kerr McGee                | 376387             | 828726              | 450                |
| 34       | 73    | 4       | 3473-4-11KM   | 11KM          | Kerr McGee                | 376779             | 828715              | 450                |
| 34       | 73    | 4       | 3473-4-12KM   | 12KM          | Kerr McGee                | 376490             | 828637              | 450                |
| 34       | 73    | 4       | 3473-4-13KM   | 13KM          | Kerr McGee                | 377203             | 828796              | 450                |
| 34       | 73    | 4       | 3473-4-14KM   | 14KM          | Kerr McGee                | 377370             | 828807              | 450                |
| 34       | 73    | 4       | 3473-4-15KM   | 15KM          | Kerr McGee                | 377676             | 828862              | 450                |
| 34       | 73    | 4       | 3473-4-16KM   | 16KM          | Kerr McGee                | 377668             | 828750              | 450                |
| 34       | 73    | 4       | 3473-4-17KM   | 17KM          | Kerr McGee                | 377420             | 829162              | 450                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number   | Short Hole ID | Company                        | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|---------------|---------------|--------------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 4       | 3473-4-18KM   | 18KM          | Kerr McGee                     | 377652             | 829136              | 460                |
| 34       | 73    | 4       | 3473-4-19KM   | 19KM          | Kerr McGee                     | 377944             | 828798              | 450                |
| 34       | 73    | 4       | 3473-4-20KM   | 20KM          | Kerr McGee                     | 378105             | 828797              | 460                |
| 34       | 73    | 4       | 3473-4-21KM   | 21KM          | Kerr McGee                     | 378584             | 828764              | 460                |
| 34       | 73    | 4       | 3473-4-22KM   | 22KM          | Kerr McGee                     | 378666             | 828885              | 460                |
| 34       | 73    | 4       | 3473-4-23KM   | 23KM          | Kerr McGee                     | 378912             | 828718              | 460                |
| 34       | 73    | 4       | 3473-4-24KM   | 24KM          | Kerr McGee                     | 379364             | 828743              | 360                |
| 34       | 73    | 4       | 3473-4-25KM   | 25KM          | Kerr McGee                     | 379220             | 828949              | 360                |
| 34       | 73    | 4       | 3473-4-26KM   | 26KM          | Kerr McGee                     | 379343             | 829010              | 360                |
| 34       | 73    | 4       | 3473-4-27KM   | 27KM          | Kerr McGee                     | 379512             | 829010              | 360                |
| 34       | 73    | 4       | 3473-4-28KM   | 28KM          | Kerr McGee                     | 379709             | 829012              | 360                |
| 34       | 73    | 4       | 3473-4-29KM   | 29KM          | Kerr McGee                     | 379606             | 829349              | 360                |
| 34       | 73    | 4       | 3473-4-30KM   | 30KM          | Kerr McGee                     | 379862             | 829381              | 360                |
| 34       | 73    | 4       | 3473-4-31KM   | 31KM          | Kerr McGee                     | 379102             | 828708              | 360                |
| 34       | 73    | 4       | 3473-4-32KM   | 32KM          | Kerr McGee                     | 379270             | 828690              | 360                |
| 34       | 73    | 4       | 3473-4-33KM   | 33KM          | Kerr McGee                     | 379318             | 828745              | 360                |
| 34       | 73    | 4       | 3473-4-34KM   | 34KM          | Kerr McGee                     | 379353             | 828814              | 360                |
| 34       | 73    | 4       | 3473-4-35KM   | 35KM          | Kerr McGee                     | 379458             | 828862              | 360                |
| 34       | 73    | 4       | 3473-4-36KM   | 36KM          | Kerr McGee                     | 379503             | 828916              | 360                |
| 34       | 73    | 4       | 3473-4-37KM   | 37KM          | Kerr McGee                     | 379603             | 828963              | 360                |
| 34       | 73    | 4       | 3473-4-38KM   | 38KM          | Kerr McGee                     | 379608             | 829064              | 360                |
| 34       | 73    | 4       | 3473-4-40C-KM | 40C-KM        | Kerr McGee                     | 379852             | 829343              | 293                |
| 34       | 73    | 4       | 3473-4-42C-KM | 42C-KM        | Kerr McGee                     | 378973             | 828770              | 330                |
| 34       | 73    | 4       | 3473-4-43C-KM | 43C-KM        | Kerr McGee                     | 377585             | 828854              | 420                |
| 34       | 73    | 4       | 3473-4-47KM   | 47KM          | Kerr McGee                     | 375837             | 828739              | 460                |
| 34       | 73    | 4       | 3473-4-48KM   | 48KM          | Kerr McGee                     | 377201             | 828894              | 460                |
| 34       | 73    | 4       | 3473-4-4KM    | 4KM           | Kerr McGee                     | 375786             | 828894              | 450                |
| 34       | 73    | 4       | 3473-4-5KM    | 5KM           | Kerr McGee                     | 376099             | 828891              | 450                |
| 34       | 73    | 4       | 3473-4-6KM    | 6KM           | Kerr McGee                     | 376241             | 828852              | 450                |
| 34       | 73    | 4       | 3473-4-7KM    | 7KM           | Kerr McGee                     | 376387             | 828832              | 450                |
| 34       | 73    | 4       | 3473-4-8KM    | 8KM           | Kerr McGee                     | 376588             | 828783              | 450                |
| 34       | 73    | 4       | 3473-4-9KM    | 9KM           | Kerr McGee                     | 375983             | 828735              | 450                |
| 34       | 73    | 4       | 3473-4-CN-11  | CN11          | Union Pacific Railroad Company | 375343             | 833327              | 438                |
| 34       | 73    | 4       | 3473-4-CN-12  | CN12          | Union Pacific Railroad Company | 377501             | 833095              | 457                |
| 34       | 73    | 4       | 3473-4-CN-133 | CN133         | Union Pacific Railroad Company | 375640             | 828632              | 440                |
| 34       | 73    | 4       | 3473-4-CN-149 | CN149         | Union Pacific Railroad Company | 375645             | 828819              | 434                |
| 34       | 73    | 4       | 3473-4-CN-150 | CN150         | Union Pacific Railroad Company | 376253             | 829012              | 423                |
| 34       | 73    | 4       | 3473-4-CN-151 | CN151         | Union Pacific Railroad Company | 376235             | 828803              | 439                |
| 34       | 73    | 4       | 3473-4-CN-166 | CN166         | Union Pacific Railroad Company | 375282             | 828985              | 420                |
| 34       | 73    | 4       | 3473-4-CN-167 | CN167         | Union Pacific Railroad Company | 375457             | 828978              | 415                |
| 34       | 73    | 4       | 3473-4-CN-172 | CN172         | Union Pacific Railroad Company | 375232             | 828787              | 425                |
| 34       | 73    | 4       | 3473-4-CN-173 | CN173         | Union Pacific Railroad Company | 375459             | 828781              | 423                |
| 34       | 73    | 4       | 3473-4-CN-193 | CN193         | Union Pacific Railroad Company | 377652             | 829227              | 709                |
| 34       | 73    | 4       | 3473-4-CN-203 | CN203         | Union Pacific Railroad Company | 377466             | 828993              | 453                |
| 34       | 73    | 4       | 3473-4-CN-204 | CN204         | Union Pacific Railroad Company | 377460             | 828796              | 454                |
| 34       | 73    | 4       | 3473-4-CN-206 | CN206         | Union Pacific Railroad Company | 376917             | 828618              | 455                |
| 34       | 73    | 4       | 3473-4-CN-207 | CN207         | Union Pacific Railroad Company | 376845             | 828778              | 437                |
| 34       | 73    | 4       | 3473-4-CN-208 | CN208         | Union Pacific Railroad Company | 376843             | 828992              | 440                |
| 34       | 73    | 4       | 3473-4-CN-209 | CN209         | Union Pacific Railroad Company | 377758             | 829793              | 399                |
| 34       | 73    | 4       | 3473-4-CN-210 | CN210         | Union Pacific Railroad Company | 378046             | 830434              | 395                |
| 34       | 73    | 4       | 3473-4-CN-211 | CN211         | Union Pacific Railroad Company | 378662             | 830488              | 395                |
| 34       | 73    | 4       | 3473-4-CN-212 | CN212         | Union Pacific Railroad Company | 379267             | 830471              | 434                |
| 34       | 73    | 4       | 3473-4-CN-213 | CN213         | Union Pacific Railroad Company | 379575             | 831200              | 477                |
| 34       | 73    | 4       | 3473-4-CN-214 | CN214         | Union Pacific Railroad Company | 378988             | 831260              | 460                |
| 34       | 73    | 4       | 3473-4-CN-215 | CN215         | Union Pacific Railroad Company | 378384             | 831283              | 439                |
| 34       | 73    | 4       | 3473-4-CN-216 | CN216         | Union Pacific Railroad Company | 377477             | 830474              | 430                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number   | Short Hole ID | Company                        | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|---------------|---------------|--------------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 4       | 3473-4-CN-217 | CN217         | Union Pacific Railroad Company | 378651             | 829922              | 433                |
| 34       | 73    | 4       | 3473-4-CN-218 | CN218         | Union Pacific Railroad Company | 379271             | 829982              | 433                |
| 34       | 73    | 4       | 3473-4-CN-220 | CN220         | Union Pacific Railroad Company | 378063             | 828932              | 494                |
| 34       | 73    | 4       | 3473-4-CN-221 | CN221         | Union Pacific Railroad Company | 378668             | 828949              | 462                |
| 34       | 73    | 4       | 3473-4-CN-222 | CN222         | Union Pacific Railroad Company | 378659             | 829300              | 457                |
| 34       | 73    | 4       | 3473-4-CN-223 | CN223         | Union Pacific Railroad Company | 379257             | 829284              | 460                |
| 34       | 73    | 4       | 3473-4-CN-224 | CN224         | Union Pacific Railroad Company | 378050             | 830214              | 461                |
| 34       | 73    | 4       | 3473-4-CN-225 | CN225         | Union Pacific Railroad Company | 376547             | 831973              | 457                |
| 34       | 73    | 4       | 3473-4-CN-226 | CN226         | Union Pacific Railroad Company | 376570             | 831779              | 438                |
| 34       | 73    | 4       | 3473-4-CN-227 | CN227         | Union Pacific Railroad Company | 376576             | 831579              | 462                |
| 34       | 73    | 4       | 3473-4-CN-228 | CN228         | Union Pacific Railroad Company | 377180             | 831246              | 476                |
| 34       | 73    | 4       | 3473-4-CN-229 | CN229         | Union Pacific Railroad Company | 377174             | 831033              | 472                |
| 34       | 73    | 4       | 3473-4-CN-230 | CN230         | Union Pacific Railroad Company | 377176             | 830821              | 477                |
| 34       | 73    | 4       | 3473-4-CN-231 | CN231         | Union Pacific Railroad Company | 378054             | 830057              | 460                |
| 34       | 73    | 4       | 3473-4-CN-232 | CN232         | Union Pacific Railroad Company | 378670             | 830292              | 452                |
| 34       | 73    | 4       | 3473-4-CN-233 | CN233         | Union Pacific Railroad Company | 378663             | 830177              | 455                |
| 34       | 73    | 4       | 3473-4-CN-237 | CN237         | Union Pacific Railroad Company | 378068             | 829136              | 511                |
| 34       | 73    | 4       | 3473-4-CN-238 | CN238         | Union Pacific Railroad Company | 378072             | 829327              | 492                |
| 34       | 73    | 4       | 3473-4-CN-239 | CN239         | Union Pacific Railroad Company | 378653             | 829443              | 452                |
| 34       | 73    | 4       | 3473-4-CN-250 | CN250         | Union Pacific Railroad Company | 376841             | 828667              | 447                |
| 34       | 73    | 4       | 3473-4-CN-251 | CN251         | Union Pacific Railroad Company | 376836             | 828824              | 458                |
| 34       | 73    | 4       | 3473-4-CN-257 | CN257         | Union Pacific Railroad Company | 377263             | 828803              | 476                |
| 34       | 73    | 4       | 3473-4-CN-258 | CN258         | Union Pacific Railroad Company | 377664             | 828801              | 457                |
| 34       | 73    | 4       | 3473-4-CN-259 | CN259         | Union Pacific Railroad Company | 377458             | 828750              | 449                |
| 34       | 73    | 4       | 3473-4-CN-263 | CN263         | Union Pacific Railroad Company | 376571             | 831378              | 492                |
| 34       | 73    | 4       | 3473-4-CN-264 | CN264         | Union Pacific Railroad Company | 377170             | 831427              | 537                |
| 34       | 73    | 4       | 3473-4-CN-265 | CN265         | Union Pacific Railroad Company | 378061             | 829873              | 480                |
| 34       | 73    | 4       | 3473-4-CN-270 | CN270         | Union Pacific Railroad Company | 375454             | 828660              | 440                |
| 34       | 73    | 4       | 3473-4-CN-271 | CN271         | Union Pacific Railroad Company | 377044             | 828602              | 458                |
| 34       | 73    | 4       | 3473-4-CN-272 | CN272         | Union Pacific Railroad Company | 377045             | 828756              | 456                |
| 34       | 73    | 4       | 3473-4-CN-273 | CN273         | Union Pacific Railroad Company | 377466             | 828894              | 455                |
| 34       | 73    | 4       | 3473-4-CN-274 | CN274         | Union Pacific Railroad Company | 377694             | 828996              | 455                |
| 34       | 73    | 4       | 3473-4-CN-276 | CN276         | Union Pacific Railroad Company | 377785             | 831589              | 479                |
| 34       | 73    | 4       | 3473-4-CN-28  | CN28          | Union Pacific Railroad Company | 377142             | 831814              | 884                |
| 34       | 73    | 4       | 3473-4-CN-280 | CN280         | Union Pacific Railroad Company | 376641             | 828752              | 458                |
| 34       | 73    | 4       | 3473-4-CN-281 | CN281         | Union Pacific Railroad Company | 375857             | 829010              | 456                |
| 34       | 73    | 4       | 3473-4-CN-282 | CN282         | Union Pacific Railroad Company | 375653             | 829069              | 452                |
| 34       | 73    | 4       | 3473-4-CN-287 | CN287         | Union Pacific Railroad Company | 379862             | 829236              | 531                |
| 34       | 73    | 4       | 3473-4-CN-288 | CN288         | Union Pacific Railroad Company | 379849             | 829840              | 531                |
| 34       | 73    | 4       | 3473-4-CN-289 | CN289         | Union Pacific Railroad Company | 379550             | 831955              | 475                |
| 34       | 73    | 4       | 3473-4-CN-29  | CN29          | Union Pacific Railroad Company | 375927             | 829763              | 556                |
| 34       | 73    | 4       | 3473-4-CN-290 | CN290         | Union Pacific Railroad Company | 380180             | 831963              | 459                |
| 34       | 73    | 4       | 3473-4-CN-297 | CN297         | Union Pacific Railroad Company | 379250             | 828949              | 455                |
| 34       | 73    | 4       | 3473-4-CN-298 | CN298         | Union Pacific Railroad Company | 379663             | 829206              | 457                |
| 34       | 73    | 4       | 3473-4-CN-299 | CN299         | Union Pacific Railroad Company | 380405             | 829833              | 478                |
| 34       | 73    | 4       | 3473-4-CN-30  | CN30          | Union Pacific Railroad Company | 377151             | 829745              | 418                |
| 34       | 73    | 4       | 3473-4-CN-300 | CN300         | Union Pacific Railroad Company | 377869             | 828807              | 480                |
| 34       | 73    | 4       | 3473-4-CN-301 | CN301         | Union Pacific Railroad Company | 376043             | 829016              | 471                |
| 34       | 73    | 4       | 3473-4-CN-36  | CN36          | Union Pacific Railroad Company | 376445             | 830548              | 459                |
| 34       | 73    | 4       | 3473-4-CN-39  | CN39          | Union Pacific Railroad Company | 376982             | 831235              | 454                |
| 34       | 73    | 4       | 3473-4-CN-40  | CN40          | Union Pacific Railroad Company | 376199             | 829171              | 457                |
| 34       | 73    | 4       | 3473-4-CN-42  | CN42          | Union Pacific Railroad Company | 376959             | 829315              | 536                |
| 34       | 73    | 4       | 3473-4-CN-43  | CN43          | Union Pacific Railroad Company | 375557             | 829260              | 496                |
| 34       | 73    | 4       | 3473-4-CN-5   | CN5           | Union Pacific Railroad Company | 379838             | 831872              | 378                |
| 34       | 73    | 4       | 3473-4-CN-6   | CN6           | Union Pacific Railroad Company | 378701             | 832074              | 438                |
| 34       | 73    | 4       | 3473-4-CN-7   | CN7           | Union Pacific Railroad Company | 377482             | 831758              | 438                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number         | Short Hole ID | Company                        | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|---------------------|---------------|--------------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 4       | 3473-4-CN-72        | CN73          | Union Pacific Railroad Company | 375751             | 829901              | 437                |
| 34       | 73    | 4       | 3473-4-CN-74        | CN74          | Union Pacific Railroad Company | 376301             | 829975              | 438                |
| 34       | 73    | 4       | 3473-4-CN-75        | CN75          | Union Pacific Railroad Company | 375964             | 830004              | 438                |
| 34       | 73    | 4       | 3473-4-CN-76        | CN76          | Union Pacific Railroad Company | 375970             | 829856              | 478                |
| 34       | 73    | 4       | 3473-4-CN-77        | CN77          | Union Pacific Railroad Company | 375986             | 829650              | 438                |
| 34       | 73    | 4       | 3473-4-CN-78        | CN78          | Union Pacific Railroad Company | 375761             | 830577              | 437                |
| 34       | 73    | 4       | 3473-4-CN-80        | CN80          | Union Pacific Railroad Company | 376310             | 831189              | 417                |
| 34       | 73    | 4       | 3473-4-CN-82        | CN82          | Union Pacific Railroad Company | 375709             | 831207              | 437                |
| 34       | 73    | 4       | 3473-4-CN-88        | CN88          | Union Pacific Railroad Company | 376428             | 831866              | 437                |
| 34       | 73    | 4       | 3473-4-CN-9         | CN9           | Union Pacific Railroad Company | 376337             | 832072              | 436                |
| 34       | 73    | 4       | 3473-4-CRX-1        | CRX-1         | UNC Teton                      | 380062             | 833331              | 598                |
| 34       | 73    | 4       | 3473-4-CRX-10       | CRX-10        | UNC Teton                      | 375261             | 832477              | 599                |
| 34       | 73    | 4       | 3473-4-CRX-2        | CRX-2         | UNC Teton                      | 380086             | 832565              | 600                |
| 34       | 73    | 4       | 3473-4-CRX-3        | CRX-3         | UNC Teton                      | 378649             | 833401              | 583                |
| 34       | 73    | 4       | 3473-4-CRX-394      | CRX-394       | UNC Teton                      | 376300             | 831600              | 700                |
| 34       | 73    | 4       | 3473-4-CRX-4        | CRX-4         | UNC Teton                      | 378635             | 832678              | 600                |
| 34       | 73    | 4       | 3473-4-CRX-408      | CRX-408       | UNC Teton                      | 376300             | 831800              | 698                |
| 34       | 73    | 4       | 3473-4-CRX-409      | CRX-409       | UNC Teton                      | 376300             | 831400              | 698                |
| 34       | 73    | 4       | 3473-4-CRX-5        | CRX-5         | UNC Teton                      | 376834             | 832677              | 599                |
| 34       | 73    | 4       | 3473-4-CRX-50       | CRX-50        | UNC Teton                      | 385300             | 831700              | 297                |
| 34       | 73    | 4       | 3473-4-CRX-53       | CRX-53        | UNC Teton                      | 384600             | 832700              | 871                |
| 34       | 73    | 4       | 3473-4-CRX-6        | CRX-6         | UNC Teton                      | 375138             | 832549              | 591                |
| 34       | 73    | 4       | 3473-4-CRX-61       | CRX-61        | UNC Teton                      | 385000             | 832200              | 357                |
| 34       | 73    | 4       | 3473-4-CRX-7        | CRX-7         | UNC Teton                      | 375136             | 832865              | 600                |
| 34       | 73    | 4       | 3473-4-CRX-8        | CRX-8         | UNC Teton                      | 379943             | 832018              | 597                |
| 34       | 73    | 4       | 3473-4-CRX-9        | CRX-9         | UNC Teton                      | 377642             | 832040              | 593                |
| 34       | 73    | 4       | 3473-4-KM-3         | KM3           | Kerr McGee                     | 375986             | 828943              | 450                |
| 34       | 73    | 4       | 3473-4-M-4          | M-4           | Uranium One                    | 377499             | 831550              | 600                |
| 34       | 73    | 4       | 1473-4-PRI-0450-045 | 0450-0450     | Power Resources INC.           | 375498             | 829047              | 421                |
| 34       | 73    | 4       | 1473-4-PRI-0475-025 | 0475-0250     | Power Resources INC.           | 375321             | 829142              | 704                |
| 34       | 73    | 4       | 1473-4-PRI-1400-035 | 1400-0350     | Power Resources INC.           | 375419             | 829936              | 413                |
| 34       | 73    | 4       | 1473-4-PRI-1500-035 | 1500-0350     | Power Resources INC.           | 375409             | 830041              | 404                |
| 34       | 73    | 4       | 1473-4-PRI-1600-035 | 1600-0350     | Power Resources INC.           | 375405             | 830148              | 403.5              |
| 34       | 73    | 4       | 3473-4-U-12         | U12           | Urangesellschaft               | 379806             | 828865              | 321                |
| 34       | 73    | 4       | 3473-4-U-13         | U13           | Urangesellschaft               | 379574             | 828828              | 361                |
| 34       | 73    | 4       | 3473-4-U-14         | U14           | Urangesellschaft               | 379762             | 829022              | 321                |
| 34       | 73    | 4       | 3473-4-U-15         | U15           | Urangesellschaft               | 380367             | 829852              | 321                |
| 34       | 73    | 4       | 3473-4-U-16         | U16           | Urangesellschaft               | 379924             | 829140              | 341                |
| 34       | 73    | 4       | 3473-4-U-17         | U17           | Urangesellschaft               | 379960             | 829261              | 321                |
| 34       | 73    | 4       | 3473-4-U-18         | U18           | Urangesellschaft               | 380166             | 829852              | 307                |
| 34       | 73    | 4       | 3473-4-U-19         | U19           | Urangesellschaft               | 380251             | 829767              | 302                |
| 34       | 73    | 4       | 3473-4-U-20         | U20           | Urangesellschaft               | 378131             | 828695              | 381                |
| 34       | 73    | 4       | 3473-4-U-21         | U21           | Urangesellschaft               | 378254             | 828593              | 381                |
| 34       | 73    | 4       | 3473-4-U-22         | U22           | Urangesellschaft               | 378360             | 828707              | 381                |
| 34       | 73    | 4       | 3473-4-U-3          | U3            | Urangesellschaft               | 377037             | 828742              | 421                |
| 34       | 73    | 4       | 3473-4-U-4          | U4            | Urangesellschaft               | 377903             | 828702              | 401                |
| 34       | 73    | 4       | 3473-4-XR-26        | XR26          | Union Pacific Railroad Company | 380380             | 829150              | 463                |
| 34       | 73    | 4       | 3473-4-XR-37        | XR37          | Union Pacific Railroad Company | 380390             | 829550              | 280                |
| 34       | 73    | 4       | 3473-4-XR-58        | XR58          | Union Pacific Railroad Company | 380175             | 831770              | 318                |
| 34       | 73    | 4       | 3473-4-XR-581       | XR581         | Union Pacific Railroad Company | 380180             | 831720              | 317                |
| 34       | 73    | 4       | 3473-4-XR-582       | XR582         | Union Pacific Railroad Company | 380165             | 831810              | 299                |
| 34       | 73    | 4       | 3473-4-XR-583       | XR583         | Union Pacific Railroad Company | 380170             | 831875              | 300                |
| 34       | 73    | 4       | 3473-4-XR-584       | XR584         | Union Pacific Railroad Company | 380175             | 831918              | 300                |
| 34       | 73    | 4       | 3473-4-XR-59        | XR59          | Union Pacific Railroad Company | 379560             | 831543              | 361                |
| 34       | 73    | 4       | 3473-4-XR-60        | XR60          | Union Pacific Railroad Company | 379000             | 831593              | 357                |
| 34       | 73    | 4       | 3473-4-XR-601       | XR601         | Union Pacific Railroad Company | 380347             | 829780              | 299                |



Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number   | Short Hole ID | Company                        | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|---------------|---------------|--------------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 4       | 3473-4-XR-602 | XR602         | Union Pacific Railroad Company | 380330             | 829677              | 298                |
| 34       | 73    | 4       | 3473-4-XR-603 | XR603         | Union Pacific Railroad Company | 380393             | 829962              | 299                |
| 34       | 73    | 4       | 3473-4-XR-604 | XR604         | Union Pacific Railroad Company | 380419             | 830052              | 310                |
| 34       | 73    | 4       | 3473-4-XR-605 | XR605         | Union Pacific Railroad Company | 379863             | 829334              | 317                |
| 34       | 73    | 4       | 3473-4-XR-606 | XR606         | Union Pacific Railroad Company | 379858             | 829426              | 317                |
| 34       | 73    | 4       | 3473-4-XR-607 | XR607         | Union Pacific Railroad Company | 379862             | 829520              | 317                |
| 34       | 73    | 4       | 3473-4-XR-608 | XR608         | Union Pacific Railroad Company | 379243             | 829192              | 320                |
| 34       | 73    | 4       | 3473-4-XR-609 | XR609         | Union Pacific Railroad Company | 379249             | 829081              | 318                |
| 34       | 73    | 4       | 3473-4-XR-61  | XR61          | Union Pacific Railroad Company | 378391             | 831603              | 361                |
| 34       | 73    | 4       | 3473-4-XR-610 | XR610         | Union Pacific Railroad Company | 379272             | 828843              | 320                |
| 34       | 73    | 4       | 3473-4-XR-611 | XR611         | Union Pacific Railroad Company | 379260             | 828734              | 330                |
| 34       | 73    | 4       | 3473-4-XR-612 | XR612         | Union Pacific Railroad Company | 378672             | 828649              | 337                |
| 34       | 73    | 4       | 3473-4-XR-613 | XR613         | Union Pacific Railroad Company | 378640             | 828772              | 337                |
| 34       | 73    | 4       | 3473-4-XR-614 | XR614         | Union Pacific Railroad Company | 378674             | 828841              | 337                |
| 34       | 73    | 4       | 3473-4-XR-615 | XR615         | Union Pacific Railroad Company | 378074             | 829032              | 380                |
| 34       | 73    | 4       | 3473-4-XR-616 | XR616         | Union Pacific Railroad Company | 378068             | 828733              | 370                |
| 34       | 73    | 4       | 3473-4-XR-617 | XR617         | Union Pacific Railroad Company | 378252             | 828736              | 370                |
| 34       | 73    | 4       | 3473-4-XR-618 | XR618         | Union Pacific Railroad Company | 378454             | 828748              | 360                |
| 34       | 73    | 4       | 3473-4-XR-619 | XR619         | Union Pacific Railroad Company | 378256             | 828926              | 377                |
| 34       | 73    | 4       | 3473-4-XR-62  | XR62          | Union Pacific Railroad Company | 377758             | 831785              | 377                |
| 34       | 73    | 4       | 3473-4-XR-620 | XR620         | Union Pacific Railroad Company | 378456             | 828916              | 357                |
| 34       | 73    | 4       | 3473-4-XR-628 | XR628         | Union Pacific Railroad Company | 380170             | 831843              | 300                |
| 34       | 73    | 4       | 3473-4-XR-629 | XR629         | Union Pacific Railroad Company | 377000             | 828900              | 396                |
| 34       | 73    | 4       | 3473-4-XR-63  | XR63          | Union Pacific Railroad Company | 379550             | 831743              | 356                |
| 34       | 73    | 4       | 3473-4-XR-630 | XR630         | Union Pacific Railroad Company | 377000             | 828800              | 399                |
| 34       | 73    | 4       | 3473-4-XR-632 | XR632         | Union Pacific Railroad Company | 376800             | 828900              | 400                |
| 34       | 73    | 4       | 3473-4-XR-633 | XR633         | Union Pacific Railroad Company | 376800             | 828800              | 400                |
| 34       | 73    | 4       | 3473-4-XR-634 | XR634         | Union Pacific Railroad Company | 376800             | 828600              | 400                |
| 34       | 73    | 4       | 3473-4-XR-635 | XR635         | Union Pacific Railroad Company | 376600             | 829000              | 396                |
| 34       | 73    | 4       | 3473-4-XR-636 | XR636         | Union Pacific Railroad Company | 376600             | 828900              | 417                |
| 34       | 73    | 4       | 3473-4-XR-637 | XR637         | Union Pacific Railroad Company | 376600             | 828650              | 397                |
| 34       | 73    | 4       | 3473-4-XR-638 | XR638         | Union Pacific Railroad Company | 379000             | 828800              | 339                |
| 34       | 73    | 4       | 3473-4-XR-639 | XR639         | Union Pacific Railroad Company | 379000             | 828700              | 339                |
| 34       | 73    | 4       | 3473-4-XR-64  | XR64          | Union Pacific Railroad Company | 378993             | 831813              | 360                |
| 34       | 73    | 4       | 3473-4-XR-640 | XR640         | Union Pacific Railroad Company | 379200             | 828800              | 337                |
| 34       | 73    | 4       | 3473-4-XR-641 | XR641         | Union Pacific Railroad Company | 379200             | 828700              | 339                |
| 34       | 73    | 4       | 3473-4-XR-642 | XR642         | Union Pacific Railroad Company | 379400             | 828900              | 336                |
| 34       | 73    | 4       | 3473-4-XR-643 | XR643         | Union Pacific Railroad Company | 379400             | 828800              | 336                |
| 34       | 73    | 4       | 3473-4-XR-644 | XR644         | Union Pacific Railroad Company | 379600             | 829200              | 316                |
| 34       | 73    | 4       | 3473-4-XR-645 | XR645         | Union Pacific Railroad Company | 379600             | 829100              | 317                |
| 34       | 73    | 4       | 3473-4-XR-646 | XR646         | Union Pacific Railroad Company | 379800             | 829450              | 399                |
| 34       | 73    | 4       | 3473-4-XR-647 | XR647         | Union Pacific Railroad Company | 379800             | 829350              | 319                |
| 34       | 73    | 4       | 3473-4-XR-648 | XR648         | Union Pacific Railroad Company | 380000             | 829800              | 323                |
| 34       | 73    | 4       | 3473-4-XR-649 | XR649         | Union Pacific Railroad Company | 380000             | 829600              | 292                |
| 34       | 73    | 4       | 3473-4-XR-65  | XR65          | Union Pacific Railroad Company | 378625             | 831730              | 360                |
| 34       | 73    | 4       | 3473-4-XR-650 | XR650         | Union Pacific Railroad Company | 380000             | 829500              | 300                |
| 34       | 73    | 4       | 3473-4-XR-651 | XR651         | Union Pacific Railroad Company | 380200             | 829700              | 297                |
| 34       | 73    | 4       | 3473-4-XR-652 | XR652         | Union Pacific Railroad Company | 380195             | 829548              | 297                |
| 34       | 73    | 4       | 3473-4-XR-657 | XR657         | Union Pacific Railroad Company | 376600             | 828700              | 398                |
| 34       | 73    | 4       | 3473-4-XR-658 | XR658         | Union Pacific Railroad Company | 376600             | 828850              | 397                |
| 34       | 73    | 4       | 3473-4-XR-659 | XR659         | Union Pacific Railroad Company | 377000             | 828750              | 398                |
| 34       | 73    | 4       | 3473-4-XR-660 | XR660         | Union Pacific Railroad Company | 377000             | 828850              | 397                |
| 34       | 73    | 4       | 3473-4-XR-661 | XR661         | Union Pacific Railroad Company | 377200             | 828850              | 399                |
| 34       | 73    | 4       | 3473-4-XR-662 | XR662         | Union Pacific Railroad Company | 377200             | 828700              | 400                |
| 34       | 73    | 4       | 3473-4-XR-663 | XR663         | Union Pacific Railroad Company | 377600             | 828842              | 399                |
| 34       | 73    | 4       | 3473-4-XR-664 | XR664         | Union Pacific Railroad Company | 377600             | 828750              | 399                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number   | Short Hole ID | Company                        | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|---------------|---------------|--------------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 4       | 3473-4-XR-665 | XR665         | Union Pacific Railroad Company | 377801             | 828796              | 377                |
| 34       | 73    | 4       | 3473-4-XR-666 | XR666         | Union Pacific Railroad Company | 377800             | 828650              | 377                |
| 34       | 73    | 4       | 3473-4-XR-667 | XR667         | Union Pacific Railroad Company | 378000             | 828750              | 380                |
| 34       | 73    | 4       | 3473-4-XR-668 | XR668         | Union Pacific Railroad Company | 378000             | 828650              | 379                |
| 34       | 73    | 4       | 3473-4-XR-669 | XR669         | Union Pacific Railroad Company | 378200             | 828750              | 378                |
| 34       | 73    | 4       | 3473-4-XR-670 | XR670         | Union Pacific Railroad Company | 378200             | 828850              | 378                |
| 34       | 73    | 4       | 3473-4-XR-671 | XR671         | Union Pacific Railroad Company | 378200             | 829099              | 377                |
| 34       | 73    | 4       | 3473-4-XR-672 | XR672         | Union Pacific Railroad Company | 378400             | 828900              | 358                |
| 34       | 73    | 4       | 3473-4-XR-673 | XR673         | Union Pacific Railroad Company | 378400             | 828800              | 358                |
| 34       | 73    | 4       | 3473-4-XR-674 | XR674         | Union Pacific Railroad Company | 378398             | 828704              | 359                |
| 34       | 73    | 4       | 3473-4-XR-675 | XR675         | Union Pacific Railroad Company | 378993             | 828763              | 339                |
| 34       | 73    | 4       | 3473-4-XR-676 | XR676         | Union Pacific Railroad Company | 379000             | 828650              | 339                |
| 34       | 73    | 4       | 3473-4-XR-678 | XR678         | Union Pacific Railroad Company | 376720             | 828780              | 400                |
| 34       | 73    | 4       | 3473-4-XR-679 | XR679         | Union Pacific Railroad Company | 376600             | 828950              | 398                |
| 34       | 73    | 4       | 3473-4-XR-680 | XR680         | Union Pacific Railroad Company | 376400             | 828900              | 398                |
| 34       | 73    | 4       | 3473-4-XR-682 | XR682         | Union Pacific Railroad Company | 376200             | 828900              | 397                |
| 34       | 73    | 4       | 3473-4-XR-683 | XR683         | Union Pacific Railroad Company | 376000             | 828900              | 394                |
| 34       | 73    | 4       | 3473-4-XR-684 | XR684         | Union Pacific Railroad Company | 376000             | 829000              | 397                |
| 34       | 73    | 4       | 3473-4-XR-685 | XR685         | Union Pacific Railroad Company | 375800             | 828950              | 396                |
| 34       | 73    | 4       | 3473-4-XR-686 | XR686         | Union Pacific Railroad Company | 375800             | 828850              | 397                |
| 34       | 73    | 4       | 3473-4-XR-687 | XR687         | Union Pacific Railroad Company | 375600             | 828900              | 398                |
| 34       | 73    | 4       | 3473-4-XR-688 | XR688         | Union Pacific Railroad Company | 375400             | 829050              | 400                |
| 34       | 73    | 4       | 3473-4-XR-689 | XR689         | Union Pacific Railroad Company | 375400             | 829150              | 400                |
| 34       | 73    | 4       | 3473-4-XR-690 | XR690         | Union Pacific Railroad Company | 375200             | 829150              | 397                |
| 34       | 73    | 4       | 3473-4-XR-691 | XR691         | Union Pacific Railroad Company | 375200             | 829050              | 415                |
| 34       | 73    | 4       | 3473-4-XR-692 | XR692         | Union Pacific Railroad Company | 378800             | 828750              | 337                |
| 34       | 73    | 4       | 3473-4-XR-693 | XR693         | Union Pacific Railroad Company | 378800             | 828850              | 339                |
| 34       | 73    | 4       | 3473-4-XR-694 | XR694         | Union Pacific Railroad Company | 380000             | 829400              | 300                |
| 34       | 73    | 4       | 3473-4-XR-695 | XR695         | Union Pacific Railroad Company | 380400             | 829600              | 297                |
| 34       | 73    | 4       | 3473-4-XR-707 | XR707         | Union Pacific Railroad Company | 377400             | 828700              | 400                |
| 34       | 73    | 4       | 3473-4-XR-708 | XR708         | Union Pacific Railroad Company | 377400             | 828600              | 397                |
| 34       | 73    | 4       | 3473-4-XR-710 | XR710         | Union Pacific Railroad Company | 378600             | 828700              | 338                |
| 34       | 73    | 4       | 3473-4-XR-73  | XR73          | Union Pacific Railroad Company | 375620             | 830050              | 440                |
| 34       | 73    | 4       | 3473-4-XR-737 | XR737         | Union Pacific Railroad Company | 375200             | 829200              | 420                |
| 34       | 73    | 4       | 3473-4-XR-738 | XR738         | Union Pacific Railroad Company | 376000             | 828700              | 397                |
| 34       | 73    | 4       | 3473-4-XR-740 | XR740         | Union Pacific Railroad Company | 376000             | 828800              | 400                |
| 34       | 73    | 4       | 3473-4-XR-743 | XR743         | Union Pacific Railroad Company | 378008             | 828847              | 375                |
| 34       | 73    | 4       | 3473-4-XR-744 | XR744         | Union Pacific Railroad Company | 378200             | 828700              | 380                |
| 34       | 73    | 4       | 3473-4-XR-745 | XR745         | Union Pacific Railroad Company | 378400             | 828600              | 360                |
| 34       | 73    | 4       | 3473-4-XR-746 | XR746         | Union Pacific Railroad Company | 378600             | 828650              | 338                |
| 34       | 73    | 4       | 3473-4-XR-747 | XR747         | Union Pacific Railroad Company | 378800             | 828700              | 340                |
| 34       | 73    | 4       | 3473-4-XR-748 | XR748         | Union Pacific Railroad Company | 379370             | 829010              | 318                |
| 34       | 73    | 4       | 3473-4-XR-749 | XR749         | Union Pacific Railroad Company | 379600             | 829000              | 318                |
| 34       | 73    | 4       | 3473-4-XR-75  | XR75          | Union Pacific Railroad Company | 376847             | 829679              | 457                |
| 34       | 73    | 4       | 3473-4-XR-750 | XR750         | Union Pacific Railroad Company | 379600             | 829400              | 320                |
| 34       | 73    | 4       | 3473-4-XR-759 | XR759         | Union Pacific Railroad Company | 377800             | 828700              | 400                |
| 34       | 73    | 4       | 3473-4-XR-76  | XR76          | Union Pacific Railroad Company | 377420             | 829240              | 457                |
| 34       | 73    | 4       | 3473-4-XR-760 | XR760         | Union Pacific Railroad Company | 378000             | 828900              | 378                |
| 34       | 73    | 4       | 3473-4-XR-761 | XR761         | Union Pacific Railroad Company | 378000             | 828800              | 378                |
| 34       | 73    | 4       | 3473-4-XR-762 | XR762         | Union Pacific Railroad Company | 378200             | 828725              | 380                |
| 34       | 73    | 4       | 3473-4-XR-763 | XR763         | Union Pacific Railroad Company | 378200             | 829000              | 378                |
| 34       | 73    | 4       | 3473-4-XR-764 | XR764         | Union Pacific Railroad Company | 378400             | 828850              | 360                |
| 34       | 73    | 4       | 3473-4-XR-765 | XR765         | Union Pacific Railroad Company | 378400             | 828650              | 380                |
| 34       | 73    | 4       | 3473-4-XR-768 | XR768         | Union Pacific Railroad Company | 378800             | 828650              | 340                |
| 34       | 73    | 4       | 3473-4-XR-769 | XR769         | Union Pacific Railroad Company | 379000             | 828775              | 338                |
| 34       | 73    | 4       | 3473-4-XR-77  | XR77          | Union Pacific Railroad Company | 376259             | 829676              | 437                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number   | Short Hole ID | Company                        | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|---------------|---------------|--------------------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 4       | 3473-4-XR-770 | XR770         | Union Pacific Railroad Company | 379200             | 828650              | 340                |
| 34       | 73    | 4       | 3473-4-XR-771 | XR771         | Union Pacific Railroad Company | 379400             | 828750              | 337                |
| 34       | 73    | 4       | 3473-4-XR-772 | XR772         | Union Pacific Railroad Company | 379400             | 828850              | 337                |
| 34       | 73    | 4       | 3473-4-XR-773 | XR773         | Union Pacific Railroad Company | 379600             | 828900              | 320                |
| 34       | 73    | 4       | 3473-4-XR-775 | XR775         | Union Pacific Railroad Company | 379600             | 829300              | 318                |
| 34       | 73    | 4       | 3473-4-XR-776 | XR776         | Union Pacific Railroad Company | 380000             | 829450              | 320                |
| 34       | 73    | 4       | 3473-4-XR-777 | XR777         | Union Pacific Railroad Company | 380008             | 829556              | 300                |
| 34       | 73    | 4       | 3473-4-XR-778 | XR778         | Union Pacific Railroad Company | 380000             | 829650              | 298                |
| 34       | 73    | 4       | 3473-4-XR-779 | XR779         | Union Pacific Railroad Company | 380200             | 829600              | 298                |
| 34       | 73    | 4       | 3473-4-XR-782 | XR782         | Union Pacific Railroad Company | 377800             | 828750              | 400                |
| 34       | 73    | 4       | 3473-4-XR-783 | XR783         | Union Pacific Railroad Company | 377200             | 828750              | 440                |
| 34       | 73    | 4       | 3473-4-XR-785 | XR785         | Union Pacific Railroad Company | 375600             | 828950              | 400                |
| 34       | 73    | 4       | 3473-4-XR-786 | XR786         | Union Pacific Railroad Company | 375400             | 829100              | 410                |
| 34       | 73    | 4       | 3473-4-XR-787 | XR787         | Union Pacific Railroad Company | 375200             | 829100              | 418                |
| 34       | 73    | 4       | 3473-4-XR-802 | XR802         | Union Pacific Railroad Company | 377800             | 828775              | 400                |
| 34       | 73    | 4       | 3473-4-XR-803 | XR803         | Union Pacific Railroad Company | 377800             | 828725              | 400                |
| 34       | 73    | 4       | 3473-4-XR-805 | XR805         | Union Pacific Railroad Company | 379560             | 831650              | 357                |
| 34       | 73    | 4       | 3473-4-XR-806 | XR806         | Union Pacific Railroad Company | 378990             | 831680              | 360                |
| 34       | 73    | 4       | 3473-4-XR-817 | XR817         | Union Pacific Railroad Company | 378990             | 831730              | 355                |
| 34       | 73    | 4       | 3473-4-XR-818 | XR818         | Union Pacific Railroad Company | 379560             | 831700              | 360                |
| 34       | 73    | 4       | 3473-4-XR-819 | XR819         | Union Pacific Railroad Company | 379560             | 831725              | 360                |
| 34       | 73    | 4       | 3473-4-XR-828 | XR828         | Union Pacific Railroad Company | 379000             | 831732              | 358                |
| 34       | 73    | 4       | 3473-4-XR-837 | XR837         | Union Pacific Railroad Company | 378800             | 831725              | 358                |
| 34       | 73    | 4       | 3473-4-XR-838 | XR838         | Union Pacific Railroad Company | 379200             | 831700              | 357                |
| 34       | 73    | 4       | 3473-4-XR-839 | XR839         | Union Pacific Railroad Company | 376570             | 831475              | 380                |
| 34       | 73    | 4       | 3473-4-XR-840 | XR840         | Union Pacific Railroad Company | 377175             | 831625              | 380                |
| 34       | 73    | 4       | 3473-4-XR-841 | XR841         | Union Pacific Railroad Company | 377770             | 831975              | 380                |
| 34       | 73    | 4       | 3473-4-XR-842 | XR842         | Union Pacific Railroad Company | 378400             | 831700              | 318                |
| 34       | 73    | 4       | 3473-4-XR-843 | XR843         | Union Pacific Railroad Company | 380000             | 831750              | 357                |
| 34       | 73    | 4       | 3473-4-XR-844 | XR844         | Union Pacific Railroad Company | 380400             | 831900              | 298                |
| 34       | 73    | 4       | 3473-4-XR-846 | XR846         | Union Pacific Railroad Company | 378380             | 831750              | 358                |
| 34       | 73    | 4       | 3473-4-XR-847 | XR847         | Union Pacific Railroad Company | 378800             | 831800              | 358                |
| 34       | 73    | 4       | 3473-4-XR-848 | XR848         | Union Pacific Railroad Company | 377760             | 831875              | 380                |
| 34       | 73    | 4       | 3473-4-XR-851 | XR851         | Union Pacific Railroad Company | 377175             | 831530              | 380                |
| 34       | 73    | 4       | 3473-4-XR-852 | XR852         | Union Pacific Railroad Company | 376570             | 831425              | 380                |
| 34       | 73    | 4       | 3473-4-XR-853 | XR853         | Union Pacific Railroad Company | 379200             | 831650              | 357                |
| 34       | 73    | 4       | 3473-4-XR-854 | XR854         | Union Pacific Railroad Company | 377760             | 831825              | 380                |
| 34       | 73    | 4       | 3473-4-XR-855 | XR855         | Union Pacific Railroad Company | 379200             | 831725              | 358                |
| 34       | 73    | 4       | 3473-4-XR-856 | XR856         | Union Pacific Railroad Company | 378800             | 831850              | 357                |
| 34       | 73    | 4       | 3473-4-XR-857 | XR857         | Union Pacific Railroad Company | 378380             | 831765              | 360                |
| 34       | 73    | 4       | 3473-4-XR-858 | XR858         | Union Pacific Railroad Company | 378380             | 831715              | 360                |
| 34       | 73    | 4       | 3473-4-XR-859 | XR859         | Union Pacific Railroad Company | 380000             | 831850              | 317                |
| 34       | 73    | 4       | 3473-4-XR-860 | XR860         | Union Pacific Railroad Company | 376570             | 831450              | 377                |
| 34       | 73    | 4       | 3473-4-XR-861 | XR861         | Union Pacific Railroad Company | 377760             | 831800              | 378                |
| 34       | 73    | 4       | 3473-4-XR-867 | XR867         | Union Pacific Railroad Company | 377175             | 831500              | 378                |
| 34       | 73    | 4       | 3473-4-XR-868 | XR868         | Union Pacific Railroad Company | 378785             | 831830              | 360                |
| 34       | 73    | 4       | 3473-4-XR-869 | XR869         | Union Pacific Railroad Company | 380440             | 831898              | 300                |
| 34       | 73    | 5       | 3473-5-M-3    | M-3           | Uranium One                    | 372320             | 831515              | 601                |
| 34       | 73    | 5       | 3473-5-SX-05  | SX-05         | UNC Teton                      | 371115             | 830511              | 496                |
| 34       | 73    | 6       | 3473-6-CRX-6  | CRX-6         | UNC Teton                      | 375100             | 832600              |                    |
| 34       | 73    | 6       | 3473-6-CRX-7  | CRX-7         | UNC Teton                      | 375100             | 832900              |                    |
| 34       | 73    | 6       | 3473-6-M-2    | M-2           | Uranium One                    | 366905             | 830484              | 597                |
| 34       | 73    | 6       | 3473-6-SX-04  | SX-04         | UNC Teton                      | 365720             | 828880              | 496                |
| 34       | 73    | 7       | 3473-7-1000   | 1000          | Uranium One                    | 364950             | 823350              | 700                |
| 34       | 73    | 7       | 3473-7-1001   | 1001          | Uranium One                    | 364950             | 823550              | 702                |
| 34       | 73    | 7       | 3473-7-1002   | 1002          | Uranium One                    | 365350             | 823550              | 706                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number          | Short Hole ID   | Company          | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|----------------------|-----------------|------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 7       | 3473-7-1003          | 1003            | Uranium One      | 366550             | 823550              | 703                |
| 34       | 73    | 7       | 3473-7-1004          | 1004            | Uranium One      | 368150             | 823550              | 706                |
| 34       | 73    | 7       | 3473-7-1005          | 1005            | Uranium One      | 369748             | 823542              | 708                |
| 34       | 73    | 7       | 3473-7-1006          | 1006            | Uranium One      | 369750             | 825150              | 706                |
| 34       | 73    | 7       | 3473-7-1007          | 1007            | Uranium One      | 368150             | 825150              | 706                |
| 34       | 73    | 7       | 3473-7-1008          | 1008            | Uranium One      | 366550             | 825150              | 705                |
| 34       | 73    | 7       | 3473-7-1009          | 1009            | Uranium One      | 364950             | 825150              | 705                |
| 34       | 73    | 7       | 3473-7-1010          | 1010            | Uranium One      | 364950             | 826750              | 708                |
| 34       | 73    | 7       | 3473-7-1011          | 1011            | Uranium One      | 366550             | 826750              | 707                |
| 34       | 73    | 7       | 3473-7-1012          | 1012            | Uranium One      | 368150             | 826750              | 707                |
| 34       | 73    | 7       | 3473-7-1013          | 1013            | Uranium One      | 369750             | 826750              | 484                |
| 34       | 73    | 7       | 3473-7-1014          | 1014            | Uranium One      | 369750             | 828350              | 708                |
| 34       | 73    | 7       | 3473-7-1015          | 1015            | Uranium One      | 368150             | 828350              | 705                |
| 34       | 73    | 7       | 3473-7-1016          | 1016            | Uranium One      | 366550             | 828350              | 707                |
| 34       | 73    | 7       | 3473-7-1017          | 1017            | Uranium One      | 364950             | 828350              | 707                |
| 34       | 73    | 7       | 3473-7-1018          | 1018            | Uranium One      | 364750             | 823550              | 706                |
| 34       | 73    | 7       | 3473-7-1019          | 1019            | Uranium One      | 364950             | 823450              | 700                |
| 34       | 73    | 7       | 3473-7-1020          | 1020            | Uranium One      | 365150             | 823550              | 704                |
| 34       | 73    | 7       | 3473-7-1021          | 1021            | Uranium One      | 364950             | 823750              | 703                |
| 34       | 73    | 7       | 3473-7-1022          | 1022            | Uranium One      | 369735             | 823450              | 703                |
| 34       | 73    | 7       | 3473-7-1023          | 1023            | Uranium One      | 369550             | 823550              | 705                |
| 34       | 73    | 7       | 3473-7-1024          | 1024            | Uranium One      | 369750             | 823750              | 706                |
| 34       | 73    | 7       | 3473-7-1025          | 1025            | Uranium One      | 364850             | 823450              | 708                |
| 34       | 73    | 7       | 3473-7-1026          | 1026            | Uranium One      | 365050             | 823450              | 705                |
| 34       | 73    | 7       | 3473-7-1027          | 1027            | Uranium One      | 365050             | 823550              | 702                |
| 34       | 73    | 7       | 3473-7-1028          | 1028            | Uranium One      | 364950             | 823650              | 704                |
| 34       | 73    | 7       | 3473-7-25            | 25              |                  | 364821             | 825527              |                    |
| 34       | 73    | 7       | 3473-7-27            | 27              |                  | 364791             | 824909              |                    |
| 34       | 73    | 7       | 3473-7-43-1          | 43-1            |                  | 367592             | 826051              |                    |
| 34       | 73    | 7       | 3473-7-CRX-29        | CRX-29          | UNC Teton        | 364750             | 823850              |                    |
| 34       | 73    | 7       | 3473-7-CRX-63        | CRX-63          | UNC Teton        | 364820             | 824762              | 398                |
| 34       | 73    | 8       | 3473-8-CRX-30        | CRX-30          | UNC Teton        | 371450             | 824920              |                    |
| 34       | 73    | 8       | 3473-8-CRX-43        | CRX-43          | UNC Teton        | 371800             | 823600              |                    |
| 34       | 73    | 8       | 3473-8-CRX-44        | CRX-44          | UNC Teton        | 373900             | 823500              |                    |
| 34       | 73    | 8       | 3473-8-M-26          | M-26            | Uranium One      | 372206             | 825894              | 802                |
| 34       | 73    | 9       | 3473-9-1             | 1               | Morrison Nuclear | 380048.3573        | 823396.6972         | 807                |
| 34       | 73    | 9       | 3473-9-100           | 100             | Uranium One      | 380048.3573        | 824196.6972         | 803                |
| 34       | 73    | 9       | 3473-9-1001 water we | 1001 water well | R.L. Peterson    | 379809.3           | 825077.5            | 900                |
| 34       | 73    | 9       | 3473-9-101           | 101             | Uranium One      | 379648.3573        | 824196.6972         | 803                |
| 34       | 73    | 9       | 3473-9-102           | 102             | Uranium One      | 379248.3573        | 824196.6972         | 803                |
| 34       | 73    | 9       | 3473-9-103           | 103             | Uranium One      | 379248.3573        | 825796.6972         | 897                |
| 34       | 73    | 9       | 3473-9-104           | 104             | Uranium One      | 379248.3573        | 827396.6972         | 906                |
| 34       | 73    | 9       | 3473-9-105           | 105             | Uranium One      | 377648.3573        | 827396.6972         | 905                |
| 34       | 73    | 9       | 3473-9-106           | 106             | Uranium One      | 377648.3573        | 825796.6972         | 894                |
| 34       | 73    | 9       | 3473-9-107           | 107             | Uranium One      | 377648.3573        | 824196.6972         | 520                |
| 34       | 73    | 9       | 3473-9-108           | 108             | Uranium One      | 376048.3573        | 824196.6972         | 940                |
| 34       | 73    | 9       | 3473-9-109           | 109             | Uranium One      | 376048.3573        | 825796.6972         | 906                |
| 34       | 73    | 9       | 3473-9-110           | 110             | Uranium One      | 376048.3573        | 827396.6972         | 900                |
| 34       | 73    | 9       | 3473-9-111           | 111             | Uranium One      | 376048.3573        | 828196.6972         | 940                |
| 34       | 73    | 9       | 3473-9-112           | 112             | Uranium One      | 377648.3573        | 828196.6972         | 839                |
| 34       | 73    | 9       | 3473-9-2             | 2               | Uranium One      | 379648.3573        | 823396.6972         | 742                |
| 34       | 73    | 9       | 3473-9-3             | 3               | Uranium One      | 379248.3573        | 823396.6972         | 805                |
| 34       | 73    | 9       | 3473-9-315           | 315             |                  | 379211             | 824084.1            |                    |
| 34       | 73    | 9       | 3473-9-4             | 4               | Uranium One      | 379248.3573        | 823796.6972         | 803                |
| 34       | 73    | 9       | 3473-9-426           | 426             |                  | 379217             | 824129              |                    |
| 34       | 73    | 9       | 3473-9-5             | 5               | Uranium One      | 379648.3573        | 823796.6972         | 802                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number       | Short Hole ID | Company              | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------------|---------------|----------------------|--------------------|---------------------|--------------------|
| 34       | 73    | 9       | 3473-9-6          | 6             | Uranium One          | 380048.3573        | 823796.6972         | 800                |
| 34       | 73    | 9       | 3473-9-74-1       | 74-1          |                      | 377716.9           | 826043.9            |                    |
| 34       | 73    | 9       | 3473-9-CRX-31     | CRX-31        | UNC Teton            | 378300             | 825900              |                    |
| 34       | 73    | 9       | 3473-9-CRX-49     | CRX-49        | UNC Teton            | 378600             | 826550              |                    |
| 34       | 73    | 9       | 3473-9-Jay70-1    | Jay70-1       |                      | 375898             | 824158              |                    |
| 34       | 73    | 9       | 3473-9-Jay70-2    | Jay70-2       |                      | 378520             | 824173              |                    |
| 34       | 73    | 9       | 3473-9-Jay70-3    | Jay70-3       |                      | 377144             | 827615              |                    |
| 34       | 73    | 9       | 3473-9-Jay70-4    | Jay70-4       |                      | 379898             | 827569              |                    |
| 34       | 73    | 9       | 3473-9-Jay70-5    | Jay70-5       |                      | 377795             | 826088              |                    |
| 34       | 74    | 11      | 3474-11-100CEGB   | 100CEGB       | Everest Minerals     | 356260             | 827146              | 563                |
| 34       | 74    | 11      | 3474-11-101CEGB   | 101CEGB       | Everest Minerals     | 356272             | 826936              | 562                |
| 34       | 74    | 11      | 3474-11-103CEGB   | 103CEGB       | Everest Minerals     | 356596             | 827217              | 563                |
| 34       | 74    | 11      | 3474-11-1050-0550 | 1050-0550     | Power Resources INC. | 354654             | 824353              | 455                |
| 34       | 74    | 11      | 3474-11-10KM      | 10KM          | Kerr McGee           | 355860             | 827003              | 1000               |
| 34       | 74    | 11      | 3474-11-113CEGB   | 113CEGB       | Everest Minerals     | 356526             | 825349              | 502                |
| 34       | 74    | 11      | 3474-11-11KM      | 11KM          | Kerr McGee           | 355840             | 825583              | 1000               |
| 34       | 74    | 11      | 3474-11-1250-0550 | 1250-0550     | Power Resources INC. | 354644             | 824551              | 499                |
| 34       | 74    | 11      | 3474-11-12KM      | 12KM          | Kerr McGee           | 355806             | 824160              | 1000               |
| 34       | 74    | 11      | 3474-11-131CEGB   | 131CEGB       | Everest Minerals     | 356589             | 828316              | 563                |
| 34       | 74    | 11      | 3474-11-132CEGB   | 132CEGB       | Everest Minerals     | 356268             | 827036              | 560                |
| 34       | 74    | 11      | 3474-11-134CEGB   | 134CEGB       | Everest Minerals     | 356304             | 824733              | 462                |
| 34       | 74    | 11      | 3474-11-135CEGB   | 135CEGB       | Everest Minerals     | 355349             | 823528              | 422                |
| 34       | 74    | 11      | 3474-11-139CEGB   | 139CEGB       | Everest Minerals     | 356592             | 827264              | 562                |
| 34       | 74    | 11      | 3474-11-13KM      | 13KM          | Kerr McGee           | 355831             | 824913              | 992                |
| 34       | 74    | 11      | 3474-11-1400-0550 | 1400-0550     | Power Resources INC. | 354636             | 824695              | 540                |
| 34       | 74    | 11      | 3474-11-146CEGB   | 146CEGB       | Everest Minerals     | 356264             | 827083              | 563                |
| 34       | 74    | 11      | 3474-11-147CEGB   | 147CEGB       | Everest Minerals     | 356444             | 827117              | 562                |
| 34       | 74    | 11      | 3474-11-14KM      | 14KM          | Kerr McGee           | 355210             | 824177              | 916                |
| 34       | 74    | 11      | 3474-11-150CEGB   | 150CEGB       | Everest Minerals     | 354629             | 824844              | 582                |
| 34       | 74    | 11      | 3474-11-155CEGB   | 155CEGB       | Everest Minerals     | 354656             | 824051              | 462                |
| 34       | 74    | 11      | 3474-11-156CEGB   | 156CEGB       | Everest Minerals     | 356785             | 827287              | 562                |
| 34       | 74    | 11      | 3474-11-158C-CEGB | 158C-CEGB     | Everest Minerals     | 356286             | 824714              | 464                |
| 34       | 74    | 11      | 3474-11-15KM      | 15KM          | Kerr McGee           | 356413             | 824158              | 988                |
| 34       | 74    | 11      | 3474-11-160CEGB   | 160CEGB       | Everest Minerals     | 356781             | 827390              | 538                |
| 34       | 74    | 11      | 3474-11-161CEGB   | 161CEGB       | Everest Minerals     | 356370             | 827145              | 538                |
| 34       | 74    | 11      | 3474-11-162CEGB   | 162CEGB       | Everest Minerals     | 355247             | 823527              | 419                |
| 34       | 74    | 11      | 3474-11-163CEGB   | 163CEGB       | Everest Minerals     | 356086             | 826947              | 550                |
| 34       | 74    | 11      | 3474-11-164CEGB   | 164CEGB       | Everest Minerals     | 355931             | 826712              | 558                |
| 34       | 74    | 11      | 3474-11-165CEGB   | 165CEGB       | Everest Minerals     | 356287             | 826957              | 557                |
| 34       | 74    | 11      | 3474-11-16KM      | 16KM          | Kerr McGee           | 355804             | 823417              | 987                |
| 34       | 74    | 11      | 3474-11-17KM      | 17KM          | Kerr McGee           | 356754             | 827663              | 1006               |
| 34       | 74    | 11      | 3474-11-18KM      | 18KM          | Kerr McGee           | 356670             | 826964              | 944                |
| 34       | 74    | 11      | 3474-11-19KM      | 19KM          | Kerr McGee           | 356457             | 824841              | 1002               |
| 34       | 74    | 11      | 3474-11-20KM      | 20KM          | Kerr McGee           | 356413             | 825557              | 1003               |
| 34       | 74    | 11      | 3474-11-21KM      | 21KM          | Kerr McGee           | 355248             | 823426              | 1003               |
| 34       | 74    | 11      | 3474-11-2250-1150 | 2250-1150     | Power Resources INC. | 355246             | 825554              | 540                |
| 34       | 74    | 11      | 3474-11-2250-1250 | 2250-1250     | Power Resources INC. | 355347             | 825551              | 499                |
| 34       | 74    | 11      | 3474-11-2250-1300 | 2250-1300     | Power Resources INC. | 355399             | 825548              | 499                |
| 34       | 74    | 11      | 3474-11-2250-1350 | 2250-1350     | Power Resources INC. | 355450             | 825550              | 500                |
| 34       | 74    | 11      | 3474-11-22KM      | 22KM          | Kerr McGee           | 355511             | 824172              | 802                |
| 34       | 74    | 11      | 3474-11-23KM      | 23KM          | Kerr McGee           | 355138             | 825483              | 1203               |
| 34       | 74    | 11      | 3474-11-24KM      | 24KM          | Kerr McGee           | 356110             | 824544              | 563                |
| 34       | 74    | 11      | 3474-11-25KM      | 25KM          | Kerr McGee           | 356792             | 825559              | 563                |
| 34       | 74    | 11      | 3474-11-26KM      | 11-26KM       | Kerr McGee           | 354100             | 825492              | 802                |
| 34       | 74    | 11      | 3474-11-27KM      | 27KM          | Kerr McGee           | 355522             | 823815              | 602                |
| 34       | 74    | 11      | 3474-11-2850-1500 | 2850-1500     | Power Resources INC. | 355600             | 826150              | 555                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number       | Short Hole ID | Company              | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------------|---------------|----------------------|--------------------|---------------------|--------------------|
| 34       | 74    | 11      | 3474-11-2850-1600 | 2850-1600     | Power Resources INC. | 355700             | 826150              | 558                |
| 34       | 74    | 11      | 3474-11-2850-1650 | 2850-1650     | Power Resources INC. | 355750             | 826150              | 553                |
| 34       | 74    | 11      | 3474-11-28KM      | 28KM          | Kerr McGee           | 356487             | 826966              | 604                |
| 34       | 74    | 11      | 3474-11-29KM      | 29KM          | Kerr McGee           | 355709             | 823811              | 596                |
| 34       | 74    | 11      | 3474-11-30KM      | 30KM          | Kerr McGee           | 355823             | 824519              | 560                |
| 34       | 74    | 11      | 3474-11-31KM      | 31KM          | Kerr McGee           | 356627             | 825351              | 603                |
| 34       | 74    | 11      | 3474-11-3200-1750 | 3200-1750     | Power Resources INC. | 355948             | 826424              | 559                |
| 34       | 74    | 11      | 3474-11-32KM      | 32KM          | Kerr McGee           | 356712             | 825956              | 601                |
| 34       | 74    | 11      | 3474-11-33KM      | 33KM          | Kerr McGee           | 356212             | 824544              | 603                |
| 34       | 74    | 11      | 3474-11-34KM      | 34KM          | Kerr McGee           | 356112             | 824855              | 603                |
| 34       | 74    | 11      | 3474-11-35KM      | 35KM          | Kerr McGee           | 356676             | 826760              | 602                |
| 34       | 74    | 11      | 3474-11-36KM      | 36KM          | Kerr McGee           | 355050             | 823414              | 597                |
| 34       | 74    | 11      | 3474-11-37KM      | 37KM          | Kerr McGee           | 355349             | 823424              | 599                |
| 34       | 74    | 11      | 3474-11-38KM      | 38KM          | Kerr McGee           | 355228             | 823644              | 501                |
| 34       | 74    | 11      | 3474-11-39KM      | 39KM          | Kerr McGee           | 356048             | 823516              | 501                |
| 34       | 74    | 11      | 3474-11-40KM      | 40KM          | Kerr McGee           | 356015             | 824394              | 500                |
| 34       | 74    | 11      | 3474-11-41KM      | 41KM          | Kerr McGee           | 356117             | 824394              | 503                |
| 34       | 74    | 11      | 3474-11-42KM      | 42KM          | Kerr McGee           | 356664             | 824844              | 500                |
| 34       | 74    | 11      | 3474-11-43KM      | 43KM          | Kerr McGee           | 356460             | 824693              | 503                |
| 34       | 74    | 11      | 3474-11-44KM      | 44KM          | Kerr McGee           | 355408             | 823662              | 460                |
| 34       | 74    | 11      | 3474-11-45KM      | 45KM          | Kerr McGee           | 355522             | 823911              | 458                |
| 34       | 74    | 11      | 3474-11-46KM      | 46KM          | Kerr McGee           | 355643             | 824179              | 440                |
| 34       | 74    | 11      | 3474-11-47KM      | 47KM          | Kerr McGee           | 355869             | 824192              | 461                |
| 34       | 74    | 11      | 3474-11-48KM      | 48KM          | Kerr McGee           | 355776             | 824289              | 459                |
| 34       | 74    | 11      | 3474-11-49KM      | 49KM          | Kerr McGee           | 355986             | 824549              | 500                |
| 34       | 74    | 11      | 3474-11-50KM      | 50KM          | Kerr McGee           | 356117             | 824766              | 500                |
| 34       | 74    | 11      | 3474-11-51KM      | 51KM          | Kerr McGee           | 356668             | 825050              | 520                |
| 34       | 74    | 11      | 3474-11-52KM      | 52KM          | Kerr McGee           | 356524             | 825445              | 520                |
| 34       | 74    | 11      | 3474-11-53KM      | 53KM          | Kerr McGee           | 356702             | 825759              | 420                |
| 34       | 74    | 11      | 3474-11-54KM      | 54KM          | Kerr McGee           | 355151             | 823426              | 450                |
| 34       | 74    | 11      | 3474-11-55KM      | 55KM          | Kerr McGee           | 355620             | 823913              | 460                |
| 34       | 74    | 11      | 3474-11-56KM      | 56KM          | Kerr McGee           | 355706             | 823667              | 460                |
| 34       | 74    | 11      | 3474-11-57KM      | 57KM          | Kerr McGee           | 355626             | 823806              | 440                |
| 34       | 74    | 11      | 3474-11-58KM      | 58KM          | Kerr McGee           | 355425             | 823797              | 440                |
| 34       | 74    | 11      | 3474-11-59KM      | 59KM          | Kerr McGee           | 355645             | 824030              | 460                |
| 34       | 74    | 11      | 3474-11-60KM      | 60KM          | Kerr McGee           | 355827             | 824011              | 460                |
| 34       | 74    | 11      | 3474-11-61KM      | 61KM          | Kerr McGee           | 356452             | 825039              | 498                |
| 34       | 74    | 11      | 3474-11-62KM      | 62KM          | Kerr McGee           | 356321             | 824841              | 500                |
| 34       | 74    | 11      | 3474-11-63KM      | 63KM          | Kerr McGee           | 355910             | 824391              | 460                |
| 34       | 74    | 11      | 3474-11-64KM      | 64KM          | Kerr McGee           | 356567             | 825041              | 561                |
| 34       | 74    | 11      | 3474-11-65KM      | 65KM          | Kerr McGee           | 355557             | 823663              | 420                |
| 34       | 74    | 11      | 3474-11-66KM      | 66KM          | Kerr McGee           | 356588             | 825569              | 461                |
| 34       | 74    | 11      | 3474-11-67KM      | 67KM          | Kerr McGee           | 356588             | 825569              | 500                |
| 34       | 74    | 11      | 3474-11-68KM      | 68KM          | Kerr McGee           | 356792             | 825758              | 501                |
| 34       | 74    | 11      | 3474-11-69KM      | 69KM          | Kerr McGee           | 356495             | 825140              | 564                |
| 34       | 74    | 11      | 3474-11-70KM      | 70KM          | Kerr McGee           | 356523             | 825255              | 554                |
| 34       | 74    | 11      | 3474-11-71KM      | 71KM          | Kerr McGee           | 356685             | 825565              | 564                |
| 34       | 74    | 11      | 3474-11-72KM      | 72KM          | Kerr McGee           | 356235             | 824700              | 500                |
| 34       | 74    | 11      | 3474-11-73KM      | 73KM          | Kerr McGee           | 356780             | 826350              | 555                |
| 34       | 74    | 11      | 3474-11-74KM      | 74KM          | Kerr McGee           | 356800             | 827180              | 601                |
| 34       | 74    | 11      | 3474-11-83CEGB    | 83CEGB        | Everest Minerals     | 354281             | 828603              | 639                |
| 34       | 74    | 11      | 3474-11-98CEGB    | 98CEGB        | Everest Minerals     | 356435             | 827271              | 562                |
| 34       | 74    | 11      | 3474-11-99CEGB    | 99CEGB        | Everest Minerals     | 356581             | 827422              | 562                |
| 34       | 74    | 12      | 3474-12-1         | 12-1          | UNC Teton            | 364372             | 825065              |                    |
| 34       | 74    | 12      | 3474-12-3         | 12-3          | UNC Teton            | 364189.6           | 828025              |                    |
| 34       | 74    | 12      | 3474-12-4         | 12-4          | UNC Teton            | 363275             | 827934              |                    |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number   | Short Hole ID | Company   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|---------------|---------------|-----------|--------------------|---------------------|--------------------|
| 34       | 74    | 12      | 3474-12-444   | 444           | UNC Teton | 360120.8           | 825319.7            |                    |
| 34       | 74    | 12      | 3474-12-445   | 445           | UNC Teton | 360931.6           | 824855.6            |                    |
| 34       | 74    | 12      | 3474-12-448   | 448           | UNC Teton | 361389.1           | 824839.7            |                    |
| 34       | 74    | 12      | 3474-12-449   | 449           | UNC Teton | 360935.5           | 825322.8            |                    |
| 34       | 74    | 12      | 3474-12-450   | 450           | UNC Teton | 360928.8           | 823965.7            |                    |
| 34       | 74    | 12      | 3474-12-451   | 451           | UNC Teton | 361607.1           | 824822.6            |                    |
| 34       | 74    | 12      | 3474-12-452   | 452           | UNC Teton | 360951.5           | 825073              |                    |
| 34       | 74    | 12      | 3474-12-453   | 453           | UNC Teton | 360956.2           | 824373              |                    |
| 34       | 74    | 12      | 3474-12-454   | 454           | UNC Teton | 361171.9           | 824839.5            |                    |
| 34       | 74    | 12      | 3474-12-456   | 456           | UNC Teton | 360943.2           | 824614.6            |                    |
| 34       | 74    | 12      | 3474-12-457   | 457           | UNC Teton | 361491.9           | 824832.7            |                    |
| 34       | 74    | 12      | 3474-12-458   | 458           | UNC Teton | 361300.9           | 824840.3            |                    |
| 34       | 74    | 12      | 3474-12-459   | 459           | UNC Teton | 360941             | 824700.6            |                    |
| 34       | 74    | 12      | 3474-12-460   | 460           | UNC Teton | 360949.3           | 824749.8            |                    |
| 34       | 74    | 12      | 3474-12-461   | 461           | UNC Teton | 360842.8           | 824698.6            |                    |
| 34       | 74    | 12      | 3474-12-462   | 462           | UNC Teton | 361027.6           | 824701.1            |                    |
| 34       | 74    | 12      | 3474-12-463   | 463           | UNC Teton | 360378.3           | 824360.3            |                    |
| 34       | 74    | 12      | 3474-12-464   | 464           | UNC Teton | 360750.1           | 824698.6            |                    |
| 34       | 74    | 12      | 3474-12-466   | 466           | UNC Teton | 359982.8           | 825411              |                    |
| 34       | 74    | 12      | 3474-12-467   | 467           | UNC Teton | 361286.8           | 825107.9            |                    |
| 34       | 74    | 12      | 3474-12-468   | 468           | UNC Teton | 360070.9           | 824349.1            |                    |
| 34       | 74    | 12      | 3474-12-469   | 469           | UNC Teton | 360743.9           | 824782.5            |                    |
| 34       | 74    | 12      | 3474-12-471   | 471           | UNC Teton | 361265.2           | 825372              |                    |
| 34       | 74    | 12      | 3474-12-474   | 474           | UNC Teton | 360200.1           | 824348.4            |                    |
| 34       | 74    | 12      | 3474-12-475   | 475           | UNC Teton | 360840.7           | 824605              |                    |
| 34       | 74    | 12      | 3474-12-476   | 476           | UNC Teton | 360839.6           | 824508.4            |                    |
| 34       | 74    | 12      | 3474-12-477-T | 477-T         | UNC Teton | 359565             | 823506.7            |                    |
| 34       | 74    | 12      | 3474-12-478-T | 478-T         | UNC Teton | 359812.2           | 824337.8            |                    |
| 34       | 74    | 12      | 3474-12-479-T | 479-T         | UNC Teton | 360038.1           | 824339.2            |                    |
| 34       | 74    | 12      | 3474-12-480-T | 480-T         | UNC Teton | 359869.1           | 825312.1            |                    |
| 34       | 74    | 12      | 3474-12-481-T | 481-T         | UNC Teton | 360943.2           | 825192.5            |                    |
| 34       | 74    | 12      | 3474-12-482-T | 482-T         | UNC Teton | 360544.5           | 825182.3            |                    |
| 34       | 74    | 12      | 3474-12-483-T | 483-T         | UNC Teton | 361303.2           | 825638.8            |                    |
| 34       | 74    | 12      | 3474-12-484-T | 484-T         | UNC Teton | 360538.5           | 825317.9            |                    |
| 34       | 74    | 12      | 3474-12-485-T | 485-T         | UNC Teton | 360940.7           | 825261.5            |                    |
| 34       | 74    | 12      | 3474-12-486-T | 486-T         | UNC Teton | 361300             | 825531              |                    |
| 34       | 74    | 12      | 3474-12-487-T | 487-T         | UNC Teton | 361505.4           | 825437.2            |                    |
| 34       | 74    | 12      | 3474-12-488-T | 488-T         | UNC Teton | 359955.9           | 824445.6            |                    |
| 34       | 74    | 12      | 3474-12-491   | 491           | UNC Teton | 360304.8           | 824538.1            |                    |
| 34       | 74    | 12      | 3474-12-492   | 492           | UNC Teton | 360295.3           | 824630.7            |                    |
| 34       | 74    | 12      | 3474-12-493   | 493           | UNC Teton | 360308.3           | 824435              |                    |
| 34       | 74    | 12      | 3474-12-494   | 494           | UNC Teton | 361125.7           | 824751.9            |                    |
| 34       | 74    | 12      | 3474-12-495   | 495           | UNC Teton | 361310             | 824736.6            |                    |
| 34       | 74    | 12      | 3474-12-496   | 496           | UNC Teton | 360619.9           | 824629.9            |                    |
| 34       | 74    | 12      | 3474-12-497   | 497           | UNC Teton | 361135             | 824647.1            |                    |
| 34       | 74    | 12      | 3474-12-498   | 498           | UNC Teton | 361398.7           | 824743.8            |                    |
| 34       | 74    | 12      | 3474-12-500   | 500           | UNC Teton | 360615.5           | 824533.5            |                    |
| 34       | 74    | 12      | 3474-12-501   | 501           | UNC Teton | 360627.1           | 824730.8            |                    |
| 34       | 74    | 12      | 3474-12-502   | 502           | UNC Teton | 360624.6           | 824441.8            |                    |
| 34       | 74    | 12      | 3474-12-503   | 503           | UNC Teton | 360739.1           | 824591.2            |                    |
| 34       | 74    | 12      | 3474-12-504   | 504           | UNC Teton | 360506             | 824531.4            |                    |
| 34       | 74    | 12      | 3474-12-505   | 505           | UNC Teton | 360499.2           | 824631              |                    |
| 34       | 74    | 12      | 3474-12-506   | 506           | UNC Teton | 360496.6           | 824430              |                    |
| 34       | 74    | 12      | 3474-12-507   | 507           | UNC Teton | 360197.2           | 824442.2            |                    |
| 34       | 74    | 12      | 3474-12-508   | 508           | UNC Teton | 360199.9           | 824536.1            |                    |
| 34       | 74    | 12      | 3474-12-509   | 509           | UNC Teton | 360202.6           | 824637.5            |                    |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number      | Short Hole ID | Company            | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|------------------|---------------|--------------------|--------------------|---------------------|--------------------|
| 34       | 74    | 12      | 3474-12-510      | 510           | UNC Teton          | 361308.1           | 824624              |                    |
| 34       | 74    | 12      | 3474-12-511      | 511           | UNC Teton          | 361404.7           | 824632.1            |                    |
| 34       | 74    | 12      | 3474-12-514      | 514           | UNC Teton          | 361428.9           | 825145.6            |                    |
| 34       | 74    | 12      | 3474-12-515      | 515           | UNC Teton          | 361540.3           | 825143.6            |                    |
| 34       | 74    | 12      | 3474-12-516      | 516           | UNC Teton          | 361685.8           | 825146.5            |                    |
| 34       | 74    | 12      | 3474-12-517      | 517           | UNC Teton          | 361432.6           | 825437.3            |                    |
| 34       | 74    | 12      | 3474-12-518      | 518           | UNC Teton          | 361422.4           | 825532.9            |                    |
| 34       | 74    | 12      | 3474-12-519      | 519           | UNC Teton          | 361182             | 825519.3            |                    |
| 34       | 74    | 12      | 3474-12-520      | 520           | UNC Teton          | 361031.4           | 825522              |                    |
| 34       | 74    | 12      | 3474-12-521      | 521           | UNC Teton          | 360947.3           | 825412.9            |                    |
| 34       | 74    | 12      | 3474-12-522      | 522           | UNC Teton          | 360853.7           | 825409              |                    |
| 34       | 74    | 12      | 3474-12-523      | 523           | UNC Teton          | 361498.9           | 824731.2            |                    |
| 34       | 74    | 12      | 3474-12-524      | 524           | UNC Teton          | 361603.1           | 824725.8            |                    |
| 34       | 74    | 12      | 3474-12-525      | 525           | UNC Teton          | 361503.1           | 824926.3            |                    |
| 34       | 74    | 12      | 3474-12-526      | 526           | UNC Teton          | 361600.3           | 824923.8            |                    |
| 34       | 74    | 12      | 3474-12-527      | 527           | UNC Teton          | 361036.4           | 824752.4            |                    |
| 34       | 74    | 12      | 3474-12-528      | 528           | UNC Teton          | 361036.4           | 824798.1            |                    |
| 34       | 74    | 12      | 3474-12-529      | 529           | UNC Teton          | 361040.5           | 825322              |                    |
| 34       | 74    | 12      | 3474-12-531CEGB  | 531           | Everest Minerals   | 359917             | 827247              | 400                |
| 34       | 74    | 12      | 3474-12-532CEGB  | 532           | Everest Minerals   | 359717             | 827252              | 401                |
| 34       | 74    | 12      | 3474-12-DN-169   | DN-169        | Denison Mines, INC | 359827.8           | 825157              | 356                |
| 34       | 74    | 12      | 3474-12-DN-170   | DN-170        | Denison Mines, INC | 359817             | 825365              | 375                |
| 34       | 74    | 12      | 3474-12-DN-171   | DN-171        | Denison Mines, INC | 359813.1           | 825560.4            | 376                |
| 34       | 74    | 12      | 3474-12-DN-172   | 172           | Denison Mines, INC | 359808.2           | 825762.8            |                    |
| 34       | 74    | 12      | 3474-12-DN-183   | DN-183        | Denison Mines, INC | 359816.7           | 825459.1            |                    |
| 34       | 74    | 12      | 3474-12-DNM-20   | DNM-20        | Denison Mines, INC | 361592             | 825765              | 377                |
| 34       | 74    | 12      | 3474-12-ID.T-488 | 488           | UNC Teton          | 359954             | 824440              | 310                |
| 34       | 74    | 12      | 3474-12-IDA-1    | 1             | UNC Teton          | 363064             | 825515              | 397                |
| 34       | 74    | 12      | 3474-12-IDA-10   | 10            | UNC Teton          | 362551             | 825691              | 379                |
| 34       | 74    | 12      | 3474-12-IDA-100  | 100           | UNC Teton          | 362296             | 825027              | 497                |
| 34       | 74    | 12      | 3474-12-IDA-101  | 101           | UNC Teton          | 364204             | 825221              | 489                |
| 34       | 74    | 12      | 3474-12-IDA-102  | 102           | UNC Teton          | 363746             | 825420              | 491                |
| 34       | 74    | 12      | 3474-12-IDA-103  | 103           | UNC Teton          | 363595             | 825538              | 509                |
| 34       | 74    | 12      | 3474-12-IDA-104  | 104           | UNC Teton          | 363640             | 825478              | 492                |
| 34       | 74    | 12      | 3474-12-IDA-105  | 105           | UNC Teton          | 363636             | 825367              | 494                |
| 34       | 74    | 12      | 3474-12-IDA-106  | 106           | UNC Teton          | 363675             | 825326              | 491                |
| 34       | 74    | 12      | 3474-12-IDA-107  | 107           | UNC Teton          | 363785             | 825331              | 491                |
| 34       | 74    | 12      | 3474-12-IDA-108  | 108           | UNC Teton          | 363745             | 825223              | 491                |
| 34       | 74    | 12      | 3474-12-IDA-109  | 109           | UNC Teton          | 363577             | 825374              | 455                |
| 34       | 74    | 12      | 3474-12-IDA-11   | 11            | UNC Teton          | 361943             | 825793              | 399                |
| 34       | 74    | 12      | 3474-12-IDA-110  | 110           | UNC Teton          | 363577             | 825331              | 496                |
| 34       | 74    | 12      | 3474-12-IDA-111  | 111           | UNC Teton          | 363194             | 825019              | 476                |
| 34       | 74    | 12      | 3474-12-IDA-112  | 112           | UNC Teton          | 363517             | 825316              | 482                |
| 34       | 74    | 12      | 3474-12-IDA-113  | 113           | UNC Teton          | 363700             | 825428              | 488                |
| 34       | 74    | 12      | 3474-12-IDA-114  | 114           | UNC Teton          | 363739             | 825373              | 494                |
| 34       | 74    | 12      | 3474-12-IDA-115  | 115           | UNC Teton          | 363728             | 825274              | 496                |
| 34       | 74    | 12      | 3474-12-IDA-116  | 116           | UNC Teton          | 363785             | 825275              | 510                |
| 34       | 74    | 12      | 3474-12-IDA-117  | 117           | UNC Teton          | 362901             | 825031              | 494                |
| 34       | 74    | 12      | 3474-12-IDA-118  | 118           | UNC Teton          | 363825             | 825334              | 492                |
| 34       | 74    | 12      | 3474-12-IDA-119  | 119           | UNC Teton          | 363794             | 825376              | 491                |
| 34       | 74    | 12      | 3474-12-IDA-12   | 12            | UNC Teton          | 362875             | 826078              | 400                |
| 34       | 74    | 12      | 3474-12-IDA-12?  | 12?           | UNC Teton          | 361087.1           | 825711.4            |                    |
| 34       | 74    | 12      | 3474-12-IDA-120  | 120           | UNC Teton          | 362301             | 825228              | 500                |
| 34       | 74    | 12      | 3474-12-IDA-121  | 121           | UNC Teton          | 363685             | 825373              | 491                |
| 34       | 74    | 12      | 3474-12-IDA-122  | 122           | UNC Teton          | 363581             | 825275              | 513                |
| 34       | 74    | 12      | 3474-12-IDA-123  | 123           | UNC Teton          | 363628             | 825272              | 477                |



Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number     | Short Hole ID | Company          | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-----------------|---------------|------------------|--------------------|---------------------|--------------------|
| 34       | 74    | 12      | 3474-12-IDA-124 | 124           | UNC Teton        | 363675             | 825259              | 497                |
| 34       | 74    | 12      | 3474-12-IDA-125 | 125           | UNC Teton        | 363828             | 825269              | 494                |
| 34       | 74    | 12      | 3474-12-IDA-126 | 126           | UNC Teton        | 363791             | 825224              | 491                |
| 34       | 74    | 12      | 3474-12-IDA-127 | 127           | UNC Teton        | 363252             | 825481.6            |                    |
| 34       | 74    | 12      | 3474-12-IDA-128 | 128           | UNC Teton        | 363103             | 825430              | 496                |
| 34       | 74    | 12      | 3474-12-IDA-129 | 129           | UNC Teton        | 363006             | 825435              | 499                |
| 34       | 74    | 12      | 3474-12-IDA-13  | 13            | UNC Teton        | 360973             | 825712              | 398                |
| 34       | 74    | 12      | 3474-12-IDA-130 | 130           | UNC Teton        | 361710             | 825793              | 498                |
| 34       | 74    | 12      | 3474-12-IDA-131 | 131           | UNC Teton        | 363842             | 825383              | 452                |
| 34       | 74    | 12      | 3474-12-IDA-132 | 132           | UNC Teton        | 363941             | 825169              | 508                |
| 34       | 74    | 12      | 3474-12-IDA-133 | 133           | UNC Teton        | 363875             | 825329              | 508                |
| 34       | 74    | 12      | 3474-12-IDA-134 | 134           | UNC Teton        | 363907             | 825320              | 508                |
| 34       | 74    | 12      | 3474-12-IDA-135 | 135           | UNC Teton        | 363878             | 825273              | 492                |
| 34       | 74    | 12      | 3474-12-IDA-136 | 136           | UNC Teton        | 363002             | 825240              | 497                |
| 34       | 74    | 12      | 3474-12-IDA-137 | 137           | UNC Teton        | 363104             | 825231              | 499                |
| 34       | 74    | 12      | 3474-12-IDA-138 | 138           | UNC Teton        | 364015             | 825322              | 491                |
| 34       | 74    | 12      | 3474-12-IDA-139 | 139           | UNC Teton        | 363905             | 825223              | 453                |
| 34       | 74    | 12      | 3474-12-IDA-14  | 14            | UNC Teton        | 364105             | 824874              | 533                |
| 34       | 74    | 12      | 3474-12-IDA-140 | 140           | UNC Teton        | 363923             | 825277              | 511                |
| 34       | 74    | 12      | 3474-12-IDA-141 | 141           | UNC Teton        | 363974             | 825279              | 497                |
| 34       | 74    | 12      | 3474-12-IDA-142 | 142           | UNC Teton        | 363973             | 825330              | 494                |
| 34       | 74    | 12      | 3474-12-IDA-143 | 143           | UNC Teton        | 363503             | 825571              | 491                |
| 34       | 74    | 12      | 3474-12-IDA-144 | 144           | UNC Teton        | 363888             | 825173              | 494                |
| 34       | 74    | 12      | 3474-12-IDA-145 | 145           | UNC Teton        | 363967             | 825225              | 494                |
| 34       | 74    | 12      | 3474-12-IDA-146 | 146           | UNC Teton        | 363981             | 825126              | 492                |
| 34       | 74    | 12      | 3474-12-IDA-147 | 147           | UNC Teton        | 363884             | 825128              | 489                |
| 34       | 74    | 12      | 3474-12-IDA-148 | 148           | UNC Teton        | 363867             | 825222              | 494                |
| 34       | 74    | 12      | 3474-12-IDA-149 | 149           | UNC Teton        | 363940             | 825127              | 453                |
| 34       | 74    | 12      | 3474-12-IDA-15  | 15            | UNC Teton        | 364110.4           | 825622.3            |                    |
| 34       | 74    | 12      | 3474-12-IDA-150 | 150           | UNC Teton        | 363857             | 825167              | 390                |
| 34       | 74    | 12      | 3474-12-IDA-151 | 151           | UNC Teton        | 363823             | 825118              | 456                |
| 34       | 74    | 12      | 3474-12-IDA-152 | 152           | UNC Teton        | 363913             | 824827              | 490                |
| 34       | 74    | 12      | 3474-12-IDA-153 | 153           | UNC Teton        | 363916             | 825028              | 394                |
| 34       | 74    | 12      | 3474-12-IDA-154 | 154           | UNC Teton        | 363910.5           | 824930.1            |                    |
| 34       | 74    | 12      | 3474-12-IDA-155 | 155           | UNC Teton        | 364006             | 825028              | 393                |
| 34       | 74    | 12      | 3474-12-IDA-156 | 156           | UNC Teton        | 364014             | 824926              | 493                |
| 34       | 74    | 12      | 3474-12-IDA-157 | 157           | UNC Teton        | 363861             | 825068              | 491                |
| 34       | 74    | 12      | 3474-12-IDA-158 | 158           | UNC Teton        | 363906             | 825075              | 490                |
| 34       | 74    | 12      | 3474-12-IDA-159 | 159           | UNC Teton        | 363955             | 825073              | 553                |
| 34       | 74    | 12      | 3474-12-IDA-16  | 16            | Morrison Nuclear | 363548             | 825621              | 699                |
| 34       | 74    | 12      | 3474-12-IDA-160 | 160           | UNC Teton        | 362531             | 826225              | 490                |
| 34       | 74    | 12      | 3474-12-IDA-161 | 161           | UNC Teton        | 363959             | 825027              | 493                |
| 34       | 74    | 12      | 3474-12-IDA-162 | 162           | UNC Teton        | 364011             | 825075              | 494                |
| 34       | 74    | 12      | 3474-12-IDA-163 | 163           | UNC Teton        | 364000             | 824968              | 494                |
| 34       | 74    | 12      | 3474-12-IDA-164 | 164           | UNC Teton        | 364123             | 825019              | 496                |
| 34       | 74    | 12      | 3474-12-IDA-165 | 165           | UNC Teton        | 364211.8           | 825023.4            |                    |
| 34       | 74    | 12      | 3474-12-IDA-166 | 166           | UNC Teton        | 364211             | 824919              | 490                |
| 34       | 74    | 12      | 3474-12-IDA-167 | 167           | UNC Teton        | 363224             | 825976              | 460                |
| 34       | 74    | 12      | 3474-12-IDA-168 | 168           | UNC Teton        | 363757             | 825120              | 494                |
| 34       | 74    | 12      | 3474-12-IDA-169 | 169           | UNC Teton        | 363185             | 825963              | 460                |
| 34       | 74    | 12      | 3474-12-IDA-17  | 17            | UNC Teton        | 363508             | 824872              | 614                |
| 34       | 74    | 12      | 3474-12-IDA-170 | 170           | UNC Teton        | 363266             | 825906              | 457                |
| 34       | 74    | 12      | 3474-12-IDA-171 | 171           | UNC Teton        | 363217             | 825876              | 491                |
| 34       | 74    | 12      | 3474-12-IDA-172 | 172           | UNC Teton        | 363199             | 825766              | 456                |
| 34       | 74    | 12      | 3474-12-IDA-173 | 173           | UNC Teton        | 363245             | 825732              | 496                |
| 34       | 74    | 12      | 3474-12-IDA-174 | 174           | UNC Teton        | 362851             | 826186              | 460                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number     | Short Hole ID | Company          | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-----------------|---------------|------------------|--------------------|---------------------|--------------------|
| 34       | 74    | 12      | 3474-12-IDA-175 | 175           | UNC Teton        | 363197             | 826015              | 432                |
| 34       | 74    | 12      | 3474-12-IDA-176 | 176           | UNC Teton        | 360520             | 825940              | 432                |
| 34       | 74    | 12      | 3474-12-IDA-177 | 177           | UNC Teton        | 360822             | 825942              | 367                |
| 34       | 74    | 12      | 3474-12-IDA-178 | 178           | UNC Teton        | 361118             | 825736              | 497                |
| 34       | 74    | 12      | 3474-12-IDA-179 | 179           | UNC Teton        | 360971             | 825835              | 403                |
| 34       | 74    | 12      | 3474-12-IDA-18  | 18            | UNC Teton        | 362911             | 824887              | 628                |
| 34       | 74    | 12      | 3474-12-IDA-180 | 180           | UNC Teton        | 362600             | 825119              | 479                |
| 34       | 74    | 12      | 3474-12-IDA-181 | 181           | UNC Teton        | 360517             | 826943              | 399                |
| 34       | 74    | 12      | 3474-12-IDA-182 | 182           | UNC Teton        | 361714             | 826550              | 498                |
| 34       | 74    | 12      | 3474-12-IDA-183 | 183           | UNC Teton        | 361126             | 826727              | 498                |
| 34       | 74    | 12      | 3474-12-IDA-184 | 184           | UNC Teton        | 362302             | 825143              | 497                |
| 34       | 74    | 12      | 3474-12-IDA-185 | 185           | UNC Teton        | 361117             | 825777              | 439                |
| 34       | 74    | 12      | 3474-12-IDA-186 | 186           | UNC Teton        | 361118             | 825689              | 493                |
| 34       | 74    | 12      | 3474-12-IDA-187 | 187           | UNC Teton        | 360817             | 825793              | 493                |
| 34       | 74    | 12      | 3474-12-IDA-188 | 188           | UNC Teton        | 360824             | 826841              | 492                |
| 34       | 74    | 12      | 3474-12-IDA-189 | 189           | UNC Teton        | 361420             | 826634              | 497                |
| 34       | 74    | 12      | 3474-12-IDA-19  | 19            | UNC Teton        | 362896             | 825619              | 694                |
| 34       | 74    | 12      | 3474-12-IDA-190 | 190           | UNC Teton        | 363007             | 825153              | 497                |
| 34       | 74    | 12      | 3474-12-IDA-191 | 191           | UNC Teton        | 363046             | 825242              | 498                |
| 34       | 74    | 12      | 3474-12-IDA-192 | 192           | UNC Teton        | 362897             | 825208              | 496                |
| 34       | 74    | 12      | 3474-12-IDA-193 | 193           | UNC Teton        | 363102             | 825485              | 499                |
| 34       | 74    | 12      | 3474-12-IDA-194 | 194           | UNC Teton        | 363007             | 825332              | 499                |
| 34       | 74    | 12      | 3474-12-IDA-195 | 195           | UNC Teton        | 363102             | 825604              | 494                |
| 34       | 74    | 12      | 3474-12-IDA-196 | 196           | UNC Teton        | 360822             | 825899              | 453                |
| 34       | 74    | 12      | 3474-12-IDA-197 | 197           | UNC Teton        | 361417             | 826437              | 498                |
| 34       | 74    | 12      | 3474-12-IDA-198 | 198           | UNC Teton        | 362597             | 825160              | 399                |
| 34       | 74    | 12      | 3474-12-IDA-199 | 199           | UNC Teton        | 362318             | 825184              | 393                |
| 34       | 74    | 12      | 3474-12-IDA-2   | 2             | UNC Teton        | 362139             | 825744              | 393                |
| 34       | 74    | 12      | 3474-12-IDA-20  | 20            | Morrison Nuclear | 362317             | 825819              | 612                |
| 34       | 74    | 12      | 3474-12-IDA-200 | 200           | UNC Teton        | 362693             | 825181              | 399                |
| 34       | 74    | 12      | 3474-12-IDA-201 | 201           | UNC Teton        | 362401             | 825187              | 397                |
| 34       | 74    | 12      | 3474-12-IDA-202 | 202           | UNC Teton        | 362507             | 825157              | 399                |
| 34       | 74    | 12      | 3474-12-IDA-203 | 203           | UNC Teton        | 362209             | 825230              | 399                |
| 34       | 74    | 12      | 3474-12-IDA-204 | 204           | UNC Teton        | 363045             | 825441              | 500                |
| 34       | 74    | 12      | 3474-12-IDA-205 | 205           | UNC Teton        | 359917             | 825647              | 459                |
| 34       | 74    | 12      | 3474-12-IDA-206 | 206           | UNC Teton        | 360528             | 825851              | 396                |
| 34       | 74    | 12      | 3474-12-IDA-207 | 207           | UNC Teton        | 361719             | 826432              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-208 | 208           | UNC Teton        | 361131             | 826546              | 393                |
| 34       | 74    | 12      | 3474-12-IDA-209 | 209           | UNC Teton        | 360820             | 827040              | 455                |
| 34       | 74    | 12      | 3474-12-IDA-21  | 21            | UNC Teton        | 362309             | 824885              | 612                |
| 34       | 74    | 12      | 3474-12-IDA-210 | 210           | UNC Teton        | 360513             | 827030              | 499                |
| 34       | 74    | 12      | 3474-12-IDA-211 | 211           | UNC Teton        | 360226             | 827444              | 397                |
| 34       | 74    | 12      | 3474-12-IDA-212 | 212           | UNC Teton        | 359927             | 827449              | 391                |
| 34       | 74    | 12      | 3474-12-IDA-213 | 213           | UNC Teton        | 360519             | 825891              | 500                |
| 34       | 74    | 12      | 3474-12-IDA-214 | 214           | UNC Teton        | 360511             | 825798              | 440                |
| 34       | 74    | 12      | 3474-12-IDA-215 | 215           | UNC Teton        | 360215             | 825734              | 500                |
| 34       | 74    | 12      | 3474-12-IDA-216 | 216           | UNC Teton        | 361416             | 826527              | 497                |
| 34       | 74    | 12      | 3474-12-IDA-217 | 217           | UNC Teton        | 361713             | 826475              | 416                |
| 34       | 74    | 12      | 3474-12-IDA-218 | 218           | UNC Teton        | 361415             | 826489              | 395                |
| 34       | 74    | 12      | 3474-12-IDA-219 | 219           | UNC Teton        | 360219             | 825930              | 400                |
| 34       | 74    | 12      | 3474-12-IDA-22  | 22            | UNC Teton        | 363210             | 825626              | 453                |
| 34       | 74    | 12      | 3474-12-IDA-220 | 220           | UNC Teton        | 359920             | 825845              | 392                |
| 34       | 74    | 12      | 3474-12-IDA-221 | 221           | UNC Teton        | 362986             | 826016              | 429                |
| 34       | 74    | 12      | 3474-12-IDA-222 | 222           | UNC Teton        | 362584             | 826224              | 456                |
| 34       | 74    | 12      | 3474-12-IDA-223 | 223           | UNC Teton        | 364307             | 824917              | 398                |
| 34       | 74    | 12      | 3474-12-IDA-224 | 224           | UNC Teton        | 364129             | 825102              | 436                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number          | Short Hole ID | Company   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|----------------------|---------------|-----------|--------------------|---------------------|--------------------|
| 34       | 74    | 12      | 3474-12-IDA-225      | 225           | UNC Teton | 364214             | 825118              | 463                |
| 34       | 74    | 12      | 3474-12-IDA-226      | 226           | UNC Teton | 364316             | 825030              |                    |
| 34       | 74    | 12      | 3474-12-IDA-227      | 227           | UNC Teton | 364406             | 825016              | 492                |
| 34       | 74    | 12      | 3474-12-IDA-228      | 228           | UNC Teton | 364414             | 824916              | 497                |
| 34       | 74    | 12      | 3474-12-IDA-229      | 229           | UNC Teton | 362741             | 826136              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-23       | 23            | UNC Teton | 363207             | 825423              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-230      | 230           | UNC Teton | 362839             | 826122              | 460                |
| 34       | 74    | 12      | 3474-12-IDA-231      | 231           | UNC Teton | 362937             | 826171              | 457                |
| 34       | 74    | 12      | 3474-12-IDA-232      | 232           | UNC Teton | 362976             | 826135              | 497                |
| 34       | 74    | 12      | 3474-12-IDA-233      | 233           | UNC Teton | 363465             | 825822              | 408                |
| 34       | 74    | 12      | 3474-12-IDA-234      | 234           | UNC Teton | 363346             | 825726              | 454                |
| 34       | 74    | 12      | 3474-12-IDA-235      | 235           | UNC Teton | 363253             | 825776              | 455                |
| 34       | 74    | 12      | 3474-12-IDA-236      | 236           | UNC Teton | 363094             | 826101              | 440                |
| 34       | 74    | 12      | 3474-12-IDA-237      | 237           | UNC Teton | 362854             | 826194              | 453                |
| 34       | 74    | 12      | 3474-12-IDA-238      | 238           | UNC Teton | 362717             | 826176              | 390                |
| 34       | 74    | 12      | 3474-12-IDA-239      | 239           | UNC Teton | 362580             | 826335              | 440                |
| 34       | 74    | 12      | 3474-12-IDA-24       | 24            | UNC Teton | 362611             | 825633              | 451                |
| 34       | 74    | 12      | 3474-12-IDA-240      | 240           | UNC Teton | 363353             | 825790              | 457                |
| 34       | 74    | 12      | 3474-12-IDA-241      | 241           | UNC Teton | 363493             | 825689              | 479                |
| 34       | 74    | 12      | 3474-12-IDA-242      | 242           | UNC Teton | 362221             | 826478              | 480                |
| 34       | 74    | 12      | 3474-12-IDA-243      | 243           | UNC Teton | 363056             | 826159              | 400                |
| 34       | 74    | 12      | 3474-12-IDA-244      | 244           | UNC Teton | 362415             | 826360              | 440                |
| 34       | 74    | 12      | 3474-12-IDA-245      | 245           | UNC Teton | 362299             | 826326              | 457                |
| 34       | 74    | 12      | 3474-12-IDA-246      | 246           | UNC Teton | 363136             | 826076              | 420                |
| 34       | 74    | 12      | 3474-12-IDA-247      | 247           | UNC Teton | 363472             | 825913              | 440                |
| 34       | 74    | 12      | 3474-12-IDA-248      | 248           | UNC Teton | 364102             | 825147              | 435                |
| 34       | 74    | 12      | 3474-12-IDA-249      | 249           | UNC Teton | 364195             | 825164              | 433                |
| 34       | 74    | 12      | 3474-12-IDA-25       | 25            | UNC Teton | 362605             | 825429              | 472                |
| 34       | 74    | 12      | 3474-12-IDA-250      | 250           | UNC Teton | 364057             | 825090              | 435                |
| 34       | 74    | 12      | 3474-12-IDA-251      | 251           | UNC Teton | 364146             | 825107              | 435                |
| 34       | 74    | 12      | 3474-12-IDA-252      | 252           | UNC Teton | 364244             | 825128              | 433                |
| 34       | 74    | 12      | 3474-12-IDA-253      | 253           | UNC Teton | 364111             | 825056              | 431                |
| 34       | 74    | 12      | 3474-12-IDA-254      | 254           | UNC Teton | 364203             | 825057              | 434                |
| 34       | 74    | 12      | 3474-12-IDA-255      | 255           | UNC Teton | 364409             | 825075              | 493                |
| 34       | 74    | 12      | 3474-12-IDA-256      | 256           | UNC Teton | 364355             | 825015              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-257      | 257           | UNC Teton | 364463             | 825010              | 489                |
| 34       | 74    | 12      | 3474-12-IDA-258      | 258           | UNC Teton | 364406             | 824962              | 437                |
| 34       | 74    | 12      | 3474-12-IDA-259      | 259           | UNC Teton | 364322             | 824866              | 435                |
| 34       | 74    | 12      | 3474-12-IDA-26       | 26            | UNC Teton | 362918             | 826378              | 690                |
| 34       | 74    | 12      | 3474-12-IDA-260      | 260           | UNC Teton | 364366             | 824922              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-262      | 262           | UNC Teton | 364310             | 824966              | 435                |
| 34       | 74    | 12      | 3474-12-IDA-263      | 263           | UNC Teton | 364241             | 825175              | 435                |
| 34       | 74    | 12      | 3474-12-IDA-264      | 264           | UNC Teton | 364151             | 825156              | 436                |
| 34       | 74    | 12      | 3474-12-IDA-265      | 265           | UNC Teton | 364247             | 825073              | 434                |
| 34       | 74    | 12      | 3474-12-IDA-266      | 266           | UNC Teton | 364157             | 825063              | 437                |
| 34       | 74    | 12      | 3474-12-IDA-267      | 267           | UNC Teton | 364048             | 825183              | 433                |
| 34       | 74    | 12      | 3474-12-IDA-268      | 268           | UNC Teton | 364093             | 825192              | 436                |
| 34       | 74    | 12      | 3474-12-IDA-269      | 269           | UNC Teton | 364014             | 825128              | 435                |
| 34       | 74    | 12      | 3474-12-IDA-26Dup II | 26            |           | 362909.9           | 826378.1            |                    |
| 34       | 74    | 12      | 3474-12-IDA-27       | 27            | UNC Teton | 362929             | 827125              | 697                |
| 34       | 74    | 12      | 3474-12-IDA-270      | 270           | UNC Teton | 364055             | 825139              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-271      | 271           | UNC Teton | 364415             | 824827              | 435                |
| 34       | 74    | 12      | 3474-12-IDA-272      | 272           | UNC Teton | 364435             | 824735              | 436                |
| 34       | 74    | 12      | 3474-12-IDA-273      | 273           | UNC Teton | 364155             | 825013              | 436                |
| 34       | 74    | 12      | 3474-12-IDA-274      | 274           | UNC Teton | 364250             | 825023              | 437                |
| 34       | 74    | 12      | 3474-12-IDA-275      | 275           | UNC Teton | 364253             | 824980              | 437                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number     | Short Hole ID | Company          | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-----------------|---------------|------------------|--------------------|---------------------|--------------------|
| 34       | 74    | 12      | 3474-12-IDA-276 | 276           | UNC Teton        | 364265             | 824870              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-277 | 277           | UNC Teton        | 364364             | 824814              | 437                |
| 34       | 74    | 12      | 3474-12-IDA-278 | 278           | UNC Teton        | 364123             | 824962              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-279 | 279           | UNC Teton        | 364140             | 825205              | 435                |
| 34       | 74    | 12      | 3474-12-IDA-28  | 28            | UNC Teton        | 361716             | 827143              | 689                |
| 34       | 74    | 12      | 3474-12-IDA-280 | 280           | UNC Teton        | 364093             | 825248              | 437                |
| 34       | 74    | 12      | 3474-12-IDA-281 | 281           | UNC Teton        | 364048             | 825228              | 437                |
| 34       | 74    | 12      | 3474-12-IDA-282 | 282           | UNC Teton        | 364008             | 825217              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-283 | 283           | UNC Teton        | 364209             | 824979              | 437                |
| 34       | 74    | 12      | 3474-12-IDA-284 | 284           | UNC Teton        | 364165             | 824969              | 437                |
| 34       | 74    | 12      | 3474-12-IDA-285 | 285           | UNC Teton        | 364361             | 824962              | 416                |
| 34       | 74    | 12      | 3474-12-IDA-286 | 286           | UNC Teton        | 364363             | 824878              | 418                |
| 34       | 74    | 12      | 3474-12-IDA-287 | 287           | UNC Teton        | 364221             | 824868              | 435                |
| 34       | 74    | 12      | 3474-12-IDA-288 | 288           | UNC Teton        | 364443             | 824638              | 377                |
| 34       | 74    | 12      | 3474-12-IDA-289 | 289           | UNC Teton        | 364509             | 825032              | 418                |
| 34       | 74    | 12      | 3474-12-IDA-29  | 29            | UNC Teton        | 360504             | 827146              | 794                |
| 34       | 74    | 12      | 3474-12-IDA-290 | 290           | UNC Teton        | 364493             | 825129              | 418                |
| 34       | 74    | 12      | 3474-12-IDA-291 | 291           | UNC Teton        | 364133             | 825249              | 439                |
| 34       | 74    | 12      | 3474-12-IDA-292 | 292           | UNC Teton        | 364123             | 825296              | 437                |
| 34       | 74    | 12      | 3474-12-IDA-293 | 293           | UNC Teton        | 364060             | 825321              | 439                |
| 34       | 74    | 12      | 3474-12-IDA-294 | 294           | UNC Teton        | 364010             | 825366              | 439                |
| 34       | 74    | 12      | 3474-12-IDA-295 | 295           | UNC Teton        | 363880             | 825378              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-296 | 296           | UNC Teton        | 363922             | 825372              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-297 | 297           | UNC Teton        | 364022             | 825278              | 437                |
| 34       | 74    | 12      | 3474-12-IDA-298 | 298           | UNC Teton        | 364061             | 825278              | 437                |
| 34       | 74    | 12      | 3474-12-IDA-299 | 299           | UNC Teton        | 364678             | 824864.5            |                    |
| 34       | 74    | 12      | 3474-12-IDA-3   | 3             | Morrison Nuclear | 362148             | 825642              | 390                |
| 34       | 74    | 12      | 3474-12-IDA-30  | 30            | UNC Teton        | 360520             | 826392              | 736                |
| 34       | 74    | 12      | 3474-12-IDA-300 | 300           | UNC Teton        | 364677.3           | 824957.1            |                    |
| 34       | 74    | 12      | 3474-12-IDA-301 | 301           | UNC Teton        | 364676.2           | 824766              |                    |
| 34       | 74    | 12      | 3474-12-IDA-302 | 302           | UNC Teton        | 363794             | 825423              | 439                |
| 34       | 74    | 12      | 3474-12-IDA-303 | 303           | UNC Teton        | 363699             | 825475              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-304 | 304           | UNC Teton        | 363750             | 825469              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-305 | 305           | UNC Teton        | 363592             | 825482              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-306 | 306           | UNC Teton        | 363544             | 825484              | 420                |
| 34       | 74    | 12      | 3474-12-IDA-307 | 307           | UNC Teton        | 363742             | 825721              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-308 | 308           | UNC Teton        | 363748             | 825927              | 437                |
| 34       | 74    | 12      | 3474-12-IDA-309 | 309           | UNC Teton        | 363644             | 825565              | 435                |
| 34       | 74    | 12      | 3474-12-IDA-31  | 31            | UNC Teton        | 361727             | 826361              | 404                |
| 34       | 74    | 12      | 3474-12-IDA-310 | 310           | UNC Teton        | 363596             | 825569              | 433                |
| 34       | 74    | 12      | 3474-12-IDA-311 | 311           | UNC Teton        | 363549             | 825915              | 436                |
| 34       | 74    | 12      | 3474-12-IDA-312 | 312           | UNC Teton        | 363553             | 825724              | 440                |
| 34       | 74    | 12      | 3474-12-IDA-313 | 313           | UNC Teton        | 363437             | 825727              | 439                |
| 34       | 74    | 12      | 3474-12-IDA-314 | 314           | UNC Teton        | 363435             | 825678              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-315 | 315           | UNC Teton        | 363547             | 825775              | 435                |
| 34       | 74    | 12      | 3474-12-IDA-316 | 316           | UNC Teton        | 363642             | 825722              | 436                |
| 34       | 74    | 12      | 3474-12-IDA-317 | 317           | UNC Teton        | 363550             | 825677              | 435                |
| 34       | 74    | 12      | 3474-12-IDA-318 | 318           | UNC Teton        | 363383             | 825827              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-319 | 319           | UNC Teton        | 363287             | 826014              | 434                |
| 34       | 74    | 12      | 3474-12-IDA-32  | 32            | UNC Teton        | 364115             | 825823              | 488                |
| 34       | 74    | 12      | 3474-12-IDA-320 | 320           | UNC Teton        | 363297             | 825964              | 439                |
| 34       | 74    | 12      | 3474-12-IDA-321 | 321           | UNC Teton        | 363259             | 825829              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-322 | 322           | UNC Teton        | 363158             | 825827              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-323 | 323           | UNC Teton        | 363154             | 825777              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-324 | 324           | UNC Teton        | 363491             | 825624              | 436                |
| 34       | 74    | 12      | 3474-12-IDA-325 | 325           | UNC Teton        | 363261             | 825629              | 434                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number     | Short Hole ID | Company          | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-----------------|---------------|------------------|--------------------|---------------------|--------------------|
| 34       | 74    | 12      | 3474-12-IDA-326 | 326           | UNC Teton        | 363158             | 825626              | 435                |
| 34       | 74    | 12      | 3474-12-IDA-327 | 327           | UNC Teton        | 363198             | 825568              | 437                |
| 34       | 74    | 12      | 3474-12-IDA-328 | 328           | UNC Teton        | 363209             | 825672              | 435                |
| 34       | 74    | 12      | 3474-12-IDA-329 | 329           | UNC Teton        | 363500             | 825725              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-33  | 33            | UNC Teton        | 364117             | 826010              | 633                |
| 34       | 74    | 12      | 3474-12-IDA-330 | 330           | UNC Teton        | 363497             | 825775              | 439                |
| 34       | 74    | 12      | 3474-12-IDA-331 | 331           | UNC Teton        | 363445             | 825777              | 436                |
| 34       | 74    | 12      | 3474-12-IDA-332 | 332           | UNC Teton        | 363387             | 825726              | 436                |
| 34       | 74    | 12      | 3474-12-IDA-333 | 333           | UNC Teton        | 363384             | 825678              | 436                |
| 34       | 74    | 12      | 3474-12-IDA-334 | 334           | UNC Teton        | 363376             | 825567              | 439                |
| 34       | 74    | 12      | 3474-12-IDA-335 | 335           | UNC Teton        | 363369             | 825509              | 439                |
| 34       | 74    | 12      | 3474-12-IDA-336 | 336           | UNC Teton        | 363360             | 825401              | 439                |
| 34       | 74    | 12      | 3474-12-IDA-337 | 337           | UNC Teton        | 363475             | 825518              | 436                |
| 34       | 74    | 12      | 3474-12-IDA-338 | 338           | UNC Teton        | 363430             | 825372              | 434                |
| 34       | 74    | 12      | 3474-12-IDA-339 | 339           | UNC Teton        | 363481             | 825373              | 439                |
| 34       | 74    | 12      | 3474-12-IDA-34  | 34            | UNC Teton        | 363544             | 825817              | 391                |
| 34       | 74    | 12      | 3474-12-IDA-340 | 340           | UNC Teton        | 363730             | 825152              | 436                |
| 34       | 74    | 12      | 3474-12-IDA-341 | 341           | UNC Teton        | 363684             | 825215              | 432                |
| 34       | 74    | 12      | 3474-12-IDA-342 | 342           | UNC Teton        | 363809             | 825172              | 437                |
| 34       | 74    | 12      | 3474-12-IDA-343 | 343           | UNC Teton        | 363582             | 825417              | 436                |
| 34       | 74    | 12      | 3474-12-IDA-344 | 344           | UNC Teton        | 363423             | 825515              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-345 | 345           | UNC Teton        | 363478             | 825473              | 437                |
| 34       | 74    | 12      | 3474-12-IDA-346 | 346           | UNC Teton        | 363380             | 825364              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-347 | 347           | UNC Teton        | 362887             | 826120              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-348 | 348           | UNC Teton        | 362939             | 826064              | 435                |
| 34       | 74    | 12      | 3474-12-IDA-349 | 349           | UNC Teton        | 362989             | 826065              | 437                |
| 34       | 74    | 12      | 3474-12-IDA-35  | 35            | Morrison Nuclear | 363534             | 825415              | 483                |
| 34       | 74    | 12      | 3474-12-IDA-350 | 350           | UNC Teton        | 363036             | 826065              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-351 | 351           | UNC Teton        | 362892             | 826016              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-352 | 352           | UNC Teton        | 363088             | 826015              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-353 | 353           | UNC Teton        | 363049             | 825962              | 433                |
| 34       | 74    | 12      | 3474-12-IDA-354 | 354           | UNC Teton        | 362995             | 825964              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-355 | 355           | UNC Teton        | 362946             | 825965              | 439                |
| 34       | 74    | 12      | 3474-12-IDA-356 | 356           | UNC Teton        | 363140             | 825962              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-357 | 357           | UNC Teton        | 363241             | 826067              | 436                |
| 34       | 74    | 12      | 3474-12-IDA-358 | 358           | UNC Teton        | 363180             | 825915              | 435                |
| 34       | 74    | 12      | 3474-12-IDA-359 | 359           | UNC Teton        | 363170             | 825871              | 433                |
| 34       | 74    | 12      | 3474-12-IDA-36  | 36            | UNC Teton        | 362604             | 825224              | 494                |
| 34       | 74    | 12      | 3474-12-IDA-360 | 360           | UNC Teton        | 363113             | 825831              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-361 | 361           | UNC Teton        | 363312             | 825904              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-362 | 362           | UNC Teton        | 363094             | 825963              | 433                |
| 34       | 74    | 12      | 3474-12-IDA-363 | 363           | UNC Teton        | 363134             | 825913              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-364 | 364           | UNC Teton        | 362842             | 826070              | 439                |
| 34       | 74    | 12      | 3474-12-IDA-365 | 365           | UNC Teton        | 362889             | 826071              | 437                |
| 34       | 74    | 12      | 3474-12-IDA-366 | 366           | UNC Teton        | 363121             | 825870              | 436                |
| 34       | 74    | 12      | 3474-12-IDA-367 | 367           | UNC Teton        | 363082             | 825913              | 437                |
| 34       | 74    | 12      | 3474-12-IDA-368 | 368           | UNC Teton        | 363083             | 826066              | 436                |
| 34       | 74    | 12      | 3474-12-IDA-369 | 369           | UNC Teton        | 363042             | 826115              | 396                |
| 34       | 74    | 12      | 3474-12-IDA-37  | 37            | UNC Teton        | 363189             | 825518              | 494                |
| 34       | 74    | 12      | 3474-12-IDA-370 | 370           | UNC Teton        | 359543             | 823333              | 797                |
| 34       | 74    | 12      | 3474-12-IDA-372 | 372           | UNC Teton        | 363105             | 825779              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-373 | 373           | UNC Teton        | 363470             | 825866              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-374 | 374           | UNC Teton        | 362894             | 826171              | 398                |
| 34       | 74    | 12      | 3474-12-IDA-375 | 375           | UNC Teton        | 362987             | 826167              | 398                |
| 34       | 74    | 12      | 3474-12-IDA-376 | 376           | UNC Teton        | 363003             | 825781              | 439                |
| 34       | 74    | 12      | 3474-12-IDA-377 | 377           | UNC Teton        | 362912             | 825764              | 437                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number     | Short Hole ID | Company          | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-----------------|---------------|------------------|--------------------|---------------------|--------------------|
| 34       | 74    | 12      | 3474-12-IDA-378 | 378           | UNC Teton        | 359605             | 824254              | 596                |
| 34       | 74    | 12      | 3474-12-IDA-379 | 379           | UNC Teton        | 359680             | 825157              | 559                |
| 34       | 74    | 12      | 3474-12-IDA-38  | 38            | UNC Teton        | 362206             | 825534              | 494                |
| 34       | 74    | 12      | 3474-12-IDA-380 | 380           | UNC Teton        | 359677             | 826058              | 531                |
| 34       | 74    | 12      | 3474-12-IDA-383 | 383           | UNC Teton        | 363338             | 823328              | 838                |
| 34       | 74    | 12      | 3474-12-IDA-39  | 39            | UNC Teton        | 362212             | 825725              | 492                |
| 34       | 74    | 12      | 3474-12-IDA-390 | 390           | UNC Teton        | 364649.6           | 824591              |                    |
| 34       | 74    | 12      | 3474-12-IDA-391 | 391           | UNC Teton        | 364630.3           | 826051.5            |                    |
| 34       | 74    | 12      | 3474-12-IDA-392 | 392           | UNC Teton        | 364684.7           | 827286.5            |                    |
| 34       | 74    | 12      | 3474-12-IDA-393 | 393           | UNC Teton        | 364594             | 828411              | 1056               |
| 34       | 74    | 12      | 3474-12-IDA-4   | 4             | Morrison Nuclear | 362528             | 825652              | 483                |
| 34       | 74    | 12      | 3474-12-IDA-40  | 40            | UNC Teton        | 362613             | 825726              | 494                |
| 34       | 74    | 12      | 3474-12-IDA-400 | 400           | UNC Teton        | 364621             | 827874              | 476                |
| 34       | 74    | 12      | 3474-12-IDA-401 | 401           | UNC Teton        | 364653             | 827575.5            |                    |
| 34       | 74    | 12      | 3474-12-IDA-402 | 402           | UNC Teton        | 364652.4           | 827669.1            |                    |
| 34       | 74    | 12      | 3474-12-IDA-403 | 403           | UNC Teton        | 364650.7           | 827479.7            |                    |
| 34       | 74    | 12      | 3474-12-IDA-404 | 404           | UNC Teton        | 364470             | 827564              | 468                |
| 34       | 74    | 12      | 3474-12-IDA-405 | 405           | UNC Teton        | 364461             | 827510              | 414                |
| 34       | 74    | 12      | 3474-12-IDA-406 | 406           | UNC Teton        | 364572             | 827562              | 470                |
| 34       | 74    | 12      | 3474-12-IDA-407 | 407           | UNC Teton        | 364651.3           | 827620.6            |                    |
| 34       | 74    | 12      | 3474-12-IDA-408 | 408           | UNC Teton        | 364653.5           | 827720              |                    |
| 34       | 74    | 12      | 3474-12-IDA-409 | 409           | UNC Teton        | 364551             | 827455              | 470                |
| 34       | 74    | 12      | 3474-12-IDA-41  | 41            | UNC Teton        | 361705             | 827825              | 689                |
| 34       | 74    | 12      | 3474-12-IDA-410 | 410           | UNC Teton        | 364633.8           | 827383.9            |                    |
| 34       | 74    | 12      | 3474-12-IDA-411 | 411           | UNC Teton        | 364277             | 827569              | 475                |
| 34       | 74    | 12      | 3474-12-IDA-412 | 412           | UNC Teton        | 364652             | 827529.3            |                    |
| 34       | 74    | 12      | 3474-12-IDA-413 | 413           | UNC Teton        | 364642.6           | 827430.9            |                    |
| 34       | 74    | 12      | 3474-12-IDA-414 | 414           | UNC Teton        | 364559             | 827503              | 432                |
| 34       | 74    | 12      | 3474-12-IDA-415 | 415           | UNC Teton        | 364295             | 827767              | 475                |
| 34       | 74    | 12      | 3474-12-IDA-416 | 416           | UNC Teton        | 364111             | 827753              | 474                |
| 34       | 74    | 12      | 3474-12-IDA-417 | 417           | UNC Teton        | 364373             | 827649              | 475                |
| 34       | 74    | 12      | 3474-12-IDA-418 | 418           | UNC Teton        | 362922             | 828390              | 474                |
| 34       | 74    | 12      | 3474-12-IDA-419 | 419           | UNC Teton        | 364376             | 827566              | 435                |
| 34       | 74    | 12      | 3474-12-IDA-42  | 42            | UNC Teton        | 362933             | 827813              | 792                |
| 34       | 74    | 12      | 3474-12-IDA-420 | 420           | UNC Teton        | 364507             | 827504              | 435                |
| 34       | 74    | 12      | 3474-12-IDA-421 | 421           | UNC Teton        | 364432             | 827602              | 436                |
| 34       | 74    | 12      | 3474-12-IDA-422 | 422           | UNC Teton        | 364528             | 827678              | 430                |
| 34       | 74    | 12      | 3474-12-IDA-423 | 423           | UNC Teton        | 364421             | 827556              | 430                |
| 34       | 74    | 12      | 3474-12-IDA-424 | 424           | UNC Teton        | 364311             | 827943              | 455                |
| 34       | 74    | 12      | 3474-12-IDA-425 | 425           | UNC Teton        | 364459             | 827660              | 436                |
| 34       | 74    | 12      | 3474-12-IDA-426 | 426           | UNC Teton        | 364481             | 827602              | 435                |
| 34       | 74    | 12      | 3474-12-IDA-427 | 427           | UNC Teton        | 364433             | 827759              | 435                |
| 34       | 74    | 12      | 3474-12-IDA-428 | 428           | UNC Teton        | 364299             | 827865              | 473                |
| 34       | 74    | 12      | 3474-12-IDA-429 | 429           | UNC Teton        | 364589             | 827702              | 435                |
| 34       | 74    | 12      | 3474-12-IDA-43  | 43            | UNC Teton        | 363542             | 826017              | 532                |
| 34       | 74    | 12      | 3474-12-IDA-430 | 430           | UNC Teton        | 364381             | 827759              | 455                |
| 34       | 74    | 12      | 3474-12-IDA-431 | 431           | UNC Teton        | 364220             | 827934              | 467                |
| 34       | 74    | 12      | 3474-12-IDA-432 | 432           | UNC Teton        | 364587             | 827753              | 431                |
| 34       | 74    | 12      | 3474-12-IDA-433 | 433           | UNC Teton        | 361779             | 828437              | 477                |
| 34       | 74    | 12      | 3474-12-IDA-434 | 434           | UNC Teton        | 360280             | 828408              | 439                |
| 34       | 74    | 12      | 3474-12-IDA-435 | 435           | UNC Teton        | 360070             | 827438              | 377                |
| 34       | 74    | 12      | 3474-12-IDA-436 | 436           | UNC Teton        | 361760             | 828208              | 437                |
| 34       | 74    | 12      | 3474-12-IDA-437 | 437           | UNC Teton        | 360389             | 827895              | 398                |
| 34       | 74    | 12      | 3474-12-IDA-438 | 438           | UNC Teton        | 360385             | 827737              | 418                |
| 34       | 74    | 12      | 3474-12-IDA-439 | 439           | UNC Teton        | 361205             | 827957              | 437                |
| 34       | 74    | 12      | 3474-12-IDA-44  | 44            | UNC Teton        | 363442             | 825626              | 491                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number     | Short Hole ID | Company   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-----------------|---------------|-----------|--------------------|---------------------|--------------------|
| 34       | 74    | 12      | 3474-12-IDA-440 | 440           | UNC Teton | 360406             | 827608              | 417                |
| 34       | 74    | 12      | 3474-12-IDA-441 | 441           | UNC Teton | 361192             | 828188              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-442 | 442           | UNC Teton | 361776             | 828321              | 438                |
| 34       | 74    | 12      | 3474-12-IDA-443 | 443           | UNC Teton | 359577             | 823797              | 278                |
| 34       | 74    | 12      | 3474-12-IDA-444 | 444           | UNC Teton | 360120             | 825324              | 320                |
| 34       | 74    | 12      | 3474-12-IDA-445 | 445           | UNC Teton | 360931             | 824860              | 360                |
| 34       | 74    | 12      | 3474-12-IDA-446 | 446           | UNC Teton | 359561             | 823563              | 259                |
| 34       | 74    | 12      | 3474-12-IDA-447 | 447           | UNC Teton | 359554             | 823447              | 260                |
| 34       | 74    | 12      | 3474-12-IDA-448 | 448           | UNC Teton | 361389             | 824836              | 340                |
| 34       | 74    | 12      | 3474-12-IDA-449 | 449           | UNC Teton | 360935             | 825326              | 340                |
| 34       | 74    | 12      | 3474-12-IDA-45  | 45            | UNC Teton | 363328             | 825631              | 409                |
| 34       | 74    | 12      | 3474-12-IDA-450 | 450           | UNC Teton | 360923             | 823965              | 300                |
| 34       | 74    | 12      | 3474-12-IDA-451 | 451           | UNC Teton | 361608             | 824824              | 340                |
| 34       | 74    | 12      | 3474-12-IDA-452 | 452           | UNC Teton | 360940             | 825076              | 319                |
| 34       | 74    | 12      | 3474-12-IDA-453 | 453           | UNC Teton | 360937             | 824372              | 300                |
| 34       | 74    | 12      | 3474-12-IDA-454 | 454           | UNC Teton | 361171             | 824844              | 319                |
| 34       | 74    | 12      | 3474-12-IDA-455 | 455           | UNC Teton | 360136             | 823771              | 300                |
| 34       | 74    | 12      | 3474-12-IDA-456 | 456           | UNC Teton | 360941             | 824617              | 320                |
| 34       | 74    | 12      | 3474-12-IDA-457 | 457           | UNC Teton | 361492             | 824835              | 340                |
| 34       | 74    | 12      | 3474-12-IDA-458 | 458           | UNC Teton | 361300             | 824844              | 320                |
| 34       | 74    | 12      | 3474-12-IDA-459 | 459           | UNC Teton | 360939             | 824703              | 320                |
| 34       | 74    | 12      | 3474-12-IDA-46  | 46            | UNC Teton | 363311             | 825472              | 489                |
| 34       | 74    | 12      | 3474-12-IDA-460 | 460           | UNC Teton | 360938             | 824751              | 309                |
| 34       | 74    | 12      | 3474-12-IDA-461 | 461           | UNC Teton | 360842             | 824701              | 338                |
| 34       | 74    | 12      | 3474-12-IDA-462 | 462           | UNC Teton | 361027             | 824703              | 338                |
| 34       | 74    | 12      | 3474-12-IDA-463 | 463           | UNC Teton | 361308             | 825634              | 350.6              |
| 34       | 74    | 12      | 3474-12-IDA-464 | 464           | UNC Teton | 360751             | 824670              | 299                |
| 34       | 74    | 12      | 3474-12-IDA-465 | 465           | UNC Teton | 359844             | 823779              | 258                |
| 34       | 74    | 12      | 3474-12-IDA-466 | 466           | UNC Teton | 359983             | 825416              | 336                |
| 34       | 74    | 12      | 3474-12-IDA-467 | 467           | UNC Teton | 361287             | 825111              | 308                |
| 34       | 74    | 12      | 3474-12-IDA-468 | 468           | UNC Teton | 360067             | 824353              | 266                |
| 34       | 74    | 12      | 3474-12-IDA-469 | 469           | UNC Teton | 360744             | 824785              | 298                |
| 34       | 74    | 12      | 3474-12-IDA-47  | 47            | UNC Teton | 362198             | 826026              | 496                |
| 34       | 74    | 12      | 3474-12-IDA-470 | 470           | UNC Teton | 359711             | 823790              | 246                |
| 34       | 74    | 12      | 3474-12-IDA-471 | 471           | UNC Teton | 361265             | 825375              | 348                |
| 34       | 74    | 12      | 3474-12-IDA-472 | 472           | UNC Teton | 360894             | 824611              | 317                |
| 34       | 74    | 12      | 3474-12-IDA-473 | 473           | UNC Teton | 359781             | 823783              | 258                |
| 34       | 74    | 12      | 3474-12-IDA-474 | 474           | UNC Teton | 360198             | 824353              | 277                |
| 34       | 74    | 12      | 3474-12-IDA-475 | 475           | UNC Teton | 360839             | 824608              | 307                |
| 34       | 74    | 12      | 3474-12-IDA-476 | 476           | UNC Teton | 360837             | 824512              | 308                |
| 34       | 74    | 12      | 3474-12-IDA-477 | 477           | UNC Teton | 359564             | 823509              | 260.6              |
| 34       | 74    | 12      | 3474-12-IDA-478 | 478           | UNC Teton | 359811             | 824331              | 280.6              |
| 34       | 74    | 12      | 3474-12-IDA-479 | 479           | UNC Teton | 360035             | 824336              | 280.6              |
| 34       | 74    | 12      | 3474-12-IDA-48  | 48            | UNC Teton | 363210             | 825227              | 492                |
| 34       | 74    | 12      | 3474-12-IDA-481 | 481           | UNC Teton | 360946             | 825188              | 330.6              |
| 34       | 74    | 12      | 3474-12-IDA-482 | 482           | UNC Teton | 359861             | 825297              | 340.6              |
| 34       | 74    | 12      | 3474-12-IDA-484 | 484           | UNC Teton | 360539             | 825308              | 330.6              |
| 34       | 74    | 12      | 3474-12-IDA-485 | 485           | UNC Teton | 360940             | 825259              | 320.6              |
| 34       | 74    | 12      | 3474-12-IDA-486 | 486           | UNC Teton | 361306             | 825526              | 330.6              |
| 34       | 74    | 12      | 3474-12-IDA-487 | 487           | UNC Teton | 361515             | 825431              | 340.6              |
| 34       | 74    | 12      | 3474-12-IDA-488 | 488           | UNC Teton | 359814             | 824019              | 270.6              |
| 34       | 74    | 12      | 3474-12-IDA-489 | 489           | UNC Teton | 359916             | 824024              | 310                |
| 34       | 74    | 12      | 3474-12-IDA-49  | 49            | UNC Teton | 363433             | 825423              | 489                |
| 34       | 74    | 12      | 3474-12-IDA-490 | 490           | UNC Teton | 360020             | 824022              | 310                |
| 34       | 74    | 12      | 3474-12-IDA-491 | 491           | UNC Teton | 360306             | 824534              | 311                |
| 34       | 74    | 12      | 3474-12-IDA-492 | 492           | UNC Teton | 360296             | 824625              | 310                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number     | Short Hole ID | Company          | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-----------------|---------------|------------------|--------------------|---------------------|--------------------|
| 34       | 74    | 12      | 3474-12-IDA-493 | 493           | UNC Teton        | 360310             | 824427              | 310                |
| 34       | 74    | 12      | 3474-12-IDA-494 | 494           | UNC Teton        | 361132             | 824753              | 320                |
| 34       | 74    | 12      | 3474-12-IDA-495 | 495           | UNC Teton        | 361321             | 824737              | 312                |
| 34       | 74    | 12      | 3474-12-IDA-496 | 496           | UNC Teton        | 360625             | 824628              | 314                |
| 34       | 74    | 12      | 3474-12-IDA-497 | 497           | UNC Teton        | 361143             | 824649              | 310                |
| 34       | 74    | 12      | 3474-12-IDA-498 | 498           | UNC Teton        | 361408             | 824746              | 312                |
| 34       | 74    | 12      | 3474-12-IDA-499 | 499           | UNC Teton        | 359876             | 824023              | 272                |
| 34       | 74    | 12      | 3474-12-IDA-5   | 5             | Morrison Nuclear | 363099             | 825557              | 440                |
| 34       | 74    | 12      | 3474-12-IDA-50  | 50            | UNC Teton        | 363312             | 825431              | 488                |
| 34       | 74    | 12      | 3474-12-IDA-500 | 500           | UNC Teton        | 360621             | 824533              | 310                |
| 34       | 74    | 12      | 3474-12-IDA-501 | 501           | UNC Teton        | 360632             | 824727              | 310                |
| 34       | 74    | 12      | 3474-12-IDA-502 | 502           | UNC Teton        | 360631             | 824437              | 310                |
| 34       | 74    | 12      | 3474-12-IDA-503 | 503           | UNC Teton        | 360746             | 824592              | 310                |
| 34       | 74    | 12      | 3474-12-IDA-504 | 504           | UNC Teton        | 360509             | 824528              | 310                |
| 34       | 74    | 12      | 3474-12-IDA-505 | 505           | UNC Teton        | 360502             | 824626              | 310                |
| 34       | 74    | 12      | 3474-12-IDA-506 | 506           | UNC Teton        | 360500             | 824425              | 310                |
| 34       | 74    | 12      | 3474-12-IDA-507 | 507           | UNC Teton        | 360199             | 824437              | 310                |
| 34       | 74    | 12      | 3474-12-IDA-508 | 508           | UNC Teton        | 360198             | 824532              | 310                |
| 34       | 74    | 12      | 3474-12-IDA-509 | 509           | UNC Teton        | 360203             | 824633              | 310                |
| 34       | 74    | 12      | 3474-12-IDA-51  | 51            | UNC Teton        | 362600             | 825322              | 497                |
| 34       | 74    | 12      | 3474-12-IDA-510 | 510           | UNC Teton        | 361318             | 824625              | 310                |
| 34       | 74    | 12      | 3474-12-IDA-511 | 511           | UNC Teton        | 361414             | 824635              | 310                |
| 34       | 74    | 12      | 3474-12-IDA-512 | 512           | UNC Teton        | 359891             | 824170              | 310                |
| 34       | 74    | 12      | 3474-12-IDA-513 | 513           | UNC Teton        | 359669             | 823566              | 310                |
| 34       | 74    | 12      | 3474-12-IDA-514 | 514           | UNC Teton        | 361439             | 825143              | 360                |
| 34       | 74    | 12      | 3474-12-IDA-515 | 515           | UNC Teton        | 361551             | 825146              | 360                |
| 34       | 74    | 12      | 3474-12-IDA-516 | 516           | UNC Teton        | 361698             | 825147              | 360                |
| 34       | 74    | 12      | 3474-12-IDA-517 | 517           | UNC Teton        | 361439             | 825433              | 360                |
| 34       | 74    | 12      | 3474-12-IDA-518 | 518           | UNC Teton        | 361431             | 825527              | 360                |
| 34       | 74    | 12      | 3474-12-IDA-519 | 519           | UNC Teton        | 361188             | 825515              | 360                |
| 34       | 74    | 12      | 3474-12-IDA-52  | 52            | UNC Teton        | 363531             | 825520              | 494                |
| 34       | 74    | 12      | 3474-12-IDA-520 | 520           | UNC Teton        | 361033             | 825515              | 360                |
| 34       | 74    | 12      | 3474-12-IDA-521 | 521           | UNC Teton        | 360949             | 825406              | 360                |
| 34       | 74    | 12      | 3474-12-IDA-522 | 522           | UNC Teton        | 360852             | 825403              | 360                |
| 34       | 74    | 12      | 3474-12-IDA-523 | 523           | UNC Teton        | 361514             | 824732              | 320                |
| 34       | 74    | 12      | 3474-12-IDA-524 | 524           | UNC Teton        | 361616             | 824728              | 320                |
| 34       | 74    | 12      | 3474-12-IDA-525 | 525           | UNC Teton        | 361514             | 824929              | 320                |
| 34       | 74    | 12      | 3474-12-IDA-526 | 526           | UNC Teton        | 361614             | 824926              | 320                |
| 34       | 74    | 12      | 3474-12-IDA-527 | 527           | UNC Teton        | 361042             | 824754              | 320                |
| 34       | 74    | 12      | 3474-12-IDA-528 | 528           | UNC Teton        | 361041             | 824798              | 320                |
| 34       | 74    | 12      | 3474-12-IDA-529 | 529           | UNC Teton        | 361043             | 825317              | 360                |
| 34       | 74    | 12      | 3474-12-IDA-53  | 53            | UNC Teton        | 363845             | 825427              | 491                |
| 34       | 74    | 12      | 3474-12-IDA-54  | 54            | UNC Teton        | 363837             | 825220              | 490                |
| 34       | 74    | 12      | 3474-12-IDA-55  | 55            | UNC Teton        | 363521             | 825204              | 406                |
| 34       | 74    | 12      | 3474-12-IDA-56  | 56            | UNC Teton        | 363209             | 825826              | 500                |
| 34       | 74    | 12      | 3474-12-IDA-57  | 57            | UNC Teton        | 363238             | 826018              | 511                |
| 34       | 74    | 12      | 3474-12-IDA-58  | 58            | UNC Teton        | 363841             | 825824              | 509                |
| 34       | 74    | 12      | 3474-12-IDA-59  | 59            | UNC Teton        | 362941             | 826016              | 513                |
| 34       | 74    | 12      | 3474-12-IDA-6   | 6             | Morrison Nuclear | 361952             | 825839              | 417                |
| 34       | 74    | 12      | 3474-12-IDA-60  | 60            | UNC Teton        | 362654             | 826231              | 511                |
| 34       | 74    | 12      | 3474-12-IDA-61  | 61            | UNC Teton        | 362215             | 826437              | 492                |
| 34       | 74    | 12      | 3474-12-IDA-62  | 62            | UNC Teton        | 361717             | 826635              | 491                |
| 34       | 74    | 12      | 3474-12-IDA-63  | 63            | UNC Teton        | 362310             | 825330              | 487                |
| 34       | 74    | 12      | 3474-12-IDA-64  | 64            | UNC Teton        | 363222             | 825469              | 490                |
| 34       | 74    | 12      | 3474-12-IDA-65  | 65            | UNC Teton        | 362898             | 825432              | 488                |
| 34       | 74    | 12      | 3474-12-IDA-66  | 66            | UNC Teton        | 363438             | 825481              | 487                |



Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number       | Short Hole ID | Company          | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------------|---------------|------------------|--------------------|---------------------|--------------------|
| 34       | 74    | 12      | 3474-12-IDA-67    | 67            | UNC Teton        | 363483             | 825424              | 409                |
| 34       | 74    | 12      | 3474-12-IDA-68    | 68            | UNC Teton        | 363525             | 825363              | 490                |
| 34       | 74    | 12      | 3474-12-IDA-69    | 69            | UNC Teton        | 363817             | 825028              | 487                |
| 34       | 74    | 12      | 3474-12-IDA-7     | 7             | Morrison Nuclear | 361420             | 825776              | 397                |
| 34       | 74    | 12      | 3474-12-IDA-70    | 70            | UNC Teton        | 363982             | 825226              | 486                |
| 34       | 74    | 12      | 3474-12-IDA-70-1  | 70-1          | Cordero          | 363213             | 824059              | 598                |
| 34       | 74    | 12      | 3474-12-IDA-70-10 | 70-10         | Cordero          | 362022             | 825914              | 401                |
| 34       | 74    | 12      | 3474-12-IDA-70-11 | 70-11         | Cordero          | 361655             | 825633              | 400                |
| 34       | 74    | 12      | 3474-12-IDA-70-12 | 70-12         | Cordero          | 361748             | 825399              | 397                |
| 34       | 74    | 12      | 3474-12-IDA-70-13 | 70-13         | Cordero          | 361747             | 825034              | 400                |
| 34       | 74    | 12      | 3474-12-IDA-70-14 | 70-14         | Cordero          | 361845             | 824809              | 400                |
| 34       | 74    | 12      | 3474-12-IDA-70-15 | 70-15         | Cordero          | 361571             | 825770              | 396                |
| 34       | 74    | 12      | 3474-12-IDA-70-16 | 70-16         | Cordero          | 361428             | 825869              | 397                |
| 34       | 74    | 12      | 3474-12-IDA-70-17 | 70-17         | Cordero          | 362150             | 825588              | 400                |
| 34       | 74    | 12      | 3474-12-IDA-70-18 | 70-18         | Cordero          | 362158             | 825462              | 400                |
| 34       | 74    | 12      | 3474-12-IDA-70-2  | 70-2          | Cordero          | 362125             | 825799              | 455                |
| 34       | 74    | 12      | 3474-12-IDA-70-3  | 70-3          | Cordero          | 362147             | 825697              | 461                |
| 34       | 74    | 12      | 3474-12-IDA-70-4  | 70-4          | Cordero          | 363833             | 827662              | 455                |
| 34       | 74    | 12      | 3474-12-IDA-70-5  | 70-5          | Cordero          | 363841             | 827462              | 456                |
| 34       | 74    | 12      | 3474-12-IDA-70-6  | 70-6          | Cordero          | 362224             | 825931              | 396                |
| 34       | 74    | 12      | 3474-12-IDA-70-7  | 70-7          | Cordero          | 362118             | 825985              | 395                |
| 34       | 74    | 12      | 3474-12-IDA-70-8  | 70-8          | Cordero          | 363804             | 826946              | 401                |
| 34       | 74    | 12      | 3474-12-IDA-70-9  | 70-9          | Cordero          | 363792             | 828092              | 416                |
| 34       | 74    | 12      | 3474-12-IDA-71    | 71            | UNC Teton        | 363618             | 825311              | 488                |
| 34       | 74    | 12      | 3474-12-IDA-72    | 72            | UNC Teton        | 363734             | 825327              | 491                |
| 34       | 74    | 12      | 3474-12-IDA-72-2  | 72-2          | Pioneer Nuclear  | 360786             | 824066              | 360                |
| 34       | 74    | 12      | 3474-12-IDA-72-3  | 72-3          | Pioneer Nuclear  | 359825             | 824991              | 340                |
| 34       | 74    | 12      | 3474-12-IDA-73    | 73            | UNC Teton        | 363631             | 825421              | 488                |
| 34       | 74    | 12      | 3474-12-IDA-74    | 74            | UNC Teton        | 363544             | 825572              | 497                |
| 34       | 74    | 12      | 3474-12-IDA-75    | 75            | UNC Teton        | 363645             | 825525              | 485                |
| 34       | 74    | 12      | 3474-12-IDA-76    | 76            | UNC Teton        | 363367             | 825452              | 492                |
| 34       | 74    | 12      | 3474-12-IDA-77    | 77            | UNC Teton        | 363211             | 825710              | 491                |
| 34       | 74    | 12      | 3474-12-IDA-78    | 78            | UNC Teton        | 363333             | 825673              | 486                |
| 34       | 74    | 12      | 3474-12-IDA-79    | 79            | UNC Teton        | 363372             | 825645              | 487                |
| 34       | 74    | 12      | 3474-12-IDA-8     | 8             | Morrison Nuclear | 360978             | 825663              | 400                |
| 34       | 74    | 12      | 3474-12-IDA-80    | 80            | UNC Teton        | 363415             | 825551              | 495                |
| 34       | 74    | 12      | 3474-12-IDA-81    | 81            | UNC Teton        | 363512             | 825122              | 473                |
| 34       | 74    | 12      | 3474-12-IDA-82    | 82            | UNC Teton        | 363264             | 826213              | 490                |
| 34       | 74    | 12      | 3474-12-IDA-83    | 83            | UNC Teton        | 363343             | 826009              | 490                |
| 34       | 74    | 12      | 3474-12-IDA-84    | 84            | UNC Teton        | 363219             | 825915              | 493                |
| 34       | 74    | 12      | 3474-12-IDA-85    | 85            | UNC Teton        | 362945             | 826134              | 492                |
| 34       | 74    | 12      | 3474-12-IDA-86    | 86            | UNC Teton        | 362839             | 826021              | 490                |
| 34       | 74    | 12      | 3474-12-IDA-87    | 87            | UNC Teton        | 362960             | 825913              | 490                |
| 34       | 74    | 12      | 3474-12-IDA-88    | 88            | UNC Teton        | 363036             | 826020              | 491                |
| 34       | 74    | 12      | 3474-12-IDA-89    | 89            | UNC Teton        | 363150             | 826024              | 494                |
| 34       | 74    | 12      | 3474-12-IDA-9     | 9             | Morrison Nuclear | 360541             | 825459              | 399                |
| 34       | 74    | 12      | 3474-12-IDA-90    | 90            | UNC Teton        | 361712             | 825742              | 497                |
| 34       | 74    | 12      | 3474-12-IDA-91    | 91            | UNC Teton        | 361117             | 825837              | 495                |
| 34       | 74    | 12      | 3474-12-IDA-92    | 92            | UNC Teton        | 360819             | 825836              | 494                |
| 34       | 74    | 12      | 3474-12-IDA-93    | 93            | UNC Teton        | 360514             | 826039              | 498                |
| 34       | 74    | 12      | 3474-12-IDA-94    | 94            | UNC Teton        | 360505             | 826842              | 495                |
| 34       | 74    | 12      | 3474-12-IDA-95    | 95            | UNC Teton        | 362641             | 826131              | 490                |
| 34       | 74    | 12      | 3474-12-IDA-96    | 96            | UNC Teton        | 362449             | 826236              | 499                |
| 34       | 74    | 12      | 3474-12-IDA-97    | 97            | UNC Teton        | 362217             | 826526              | 498                |
| 34       | 74    | 12      | 3474-12-IDA-98    | 98            | UNC Teton        | 362894             | 825246              | 497                |
| 34       | 74    | 12      | 3474-12-IDA-99    | 99            | UNC Teton        | 362604             | 825028              | 496                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number       | Short Hole ID | Company              | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------------|---------------|----------------------|--------------------|---------------------|--------------------|
| 34       | 74    | 12      | 3474-12-M16-1     | M16-1         | Morrison Nuclear     | 363837             | 827870              | 455                |
| 34       | 74    | 12      | 3474-12-M5-1      | M5-1          | Morrison Nuclear     | 362116.5           | 825925.1            |                    |
| 34       | 74    | 12      | 3474-12-M-6       | M-6           | Uranium One          | 363944.3           | 825255.1            | 382                |
| 34       | 74    | 12      | 3474-12-M9-1      | M9-1          | Morrison Nuclear     | 362124             | 825927              | 635                |
| 34       | 74    | 13      | 3474-13-0800-1800 | 0800-1800     | Power Resources INC. | 361148             | 818747              | 759                |
| 34       | 74    | 13      | 3474-13-0800-2000 | 0800-2000     | Power Resources INC. | 361346             | 818748              | 762                |
| 34       | 74    | 13      | 3474-13-1050-1900 | 1050-1900     | Power Resources INC. | 361245             | 818977              | 757                |
| 34       | 74    | 13      | 3474-13-10KM      | 10KM          | Kerr McGee           | 360741             | 818237              | 720                |
| 34       | 74    | 13      | 3474-13-113       | 113           | UNC Teton            | 360502             | 819490              | 778                |
| 34       | 74    | 13      | 3474-13-1150-1450 | 1150-1450     | Power Resources INC. | 360820             | 819905              | 784                |
| 34       | 74    | 13      | 3474-13-11KM      | 11KM          | Kerr McGee           | 360937             | 818215              | 722                |
| 34       | 74    | 13      | 3474-13-12KM      | 12KM          | Kerr McGee           | 360508             | 818351              | 720                |
| 34       | 74    | 13      | 3474-13-1300-2000 | 1300-2000     | Power Resources INC. | 361371             | 819254              | 757                |
| 34       | 74    | 13      | 3474-13-1300-2200 | 1300-2200     | Power Resources INC. | 361569             | 819254              | 762                |
| 34       | 74    | 13      | 3474-13-13KM      | 13KM          | Kerr McGee           | 360268             | 818446              | 720                |
| 34       | 74    | 13      | 3474-13-14KM      | 14KM          | Kerr McGee           | 360100             | 819180              | 799                |
| 34       | 74    | 13      | 3474-13-15KM      | 15KM          | Kerr McGee           | 360300             | 819180              | 798                |
| 34       | 74    | 13      | 3474-13-16KM      | 16KM          | Kerr McGee           | 360500             | 819180              | 800                |
| 34       | 74    | 13      | 3474-13-17KM      | 17KM          | Kerr McGee           | 360700             | 819180              | 800                |
| 34       | 74    | 13      | 3474-13-18CEGB    | 18CEGB        | Everest Minerals     | 360359             | 818774              | 780                |
| 34       | 74    | 13      | 3474-13-19CEGB    | 19CEGB        | Everest Minerals     | 360337             | 818981              | 780                |
| 34       | 74    | 13      | 3474-13-1KM       | 1KM           | Kerr McGee           | 361743             | 819390              | 920                |
| 34       | 74    | 13      | 3474-13-20CEGB    | 20CEGB        | Everest Minerals     | 360531             | 818982              | 780                |
| 34       | 74    | 13      | 3474-13-21CEGB    | 21CEGB        | Everest Minerals     | 360717             | 818989              | 800                |
| 34       | 74    | 13      | 3474-13-22CEGB    | 22CEGB        | Everest Minerals     | 360913             | 819179              | 776                |
| 34       | 74    | 13      | 3474-13-23CEGB    | 23CEGB        | Everest Minerals     | 364452             | 820749              | 716                |
| 34       | 74    | 13      | 3474-13-24CEGB    | 24CEGB        | Everest Minerals     | 364125             | 821098              | 698                |
| 34       | 74    | 13      | 3474-13-25CEGB    | 25CEGB        | Everest Minerals     | 364256             | 820741              |                    |
| 34       | 74    | 13      | 3474-13-26CEGB    | 26CEGB        | Everest Minerals     | 359671             | 818404              | 749                |
| 34       | 74    | 13      | 3474-13-27CEGB    | 27CEGB        | Everest Minerals     | 359654             | 818602              | 750                |
| 34       | 74    | 13      | 3474-13-28CEGB    | 28CEGB        | Everest Minerals     | 359665             | 818803              | 750                |
| 34       | 74    | 13      | 3474-13-29CEGB    | 29CEGB        | Everest Minerals     | 359664             | 818703              | 740                |
| 34       | 74    | 13      | 3474-13-2KM       | 2KM           | Kerr McGee           | 361180             | 818143              | 1006               |
| 34       | 74    | 13      | 3474-13-30CEGB    | 30CEGB        | Everest Minerals     | 360353             | 818672              | 780                |
| 34       | 74    | 13      | 3474-13-31CEGB    | 31CEGB        | Everest Minerals     | 360432             | 818977              | 780                |
| 34       | 74    | 13      | 3474-13-32CEGB    | 32CEGB        | Everest Minerals     | 360818             | 819003              | 800                |
| 34       | 74    | 13      | 3474-13-33CEGB    | 33CEGB        | Everest Minerals     | 360424             | 819172              | 780                |
| 34       | 74    | 13      | 3474-13-34CEGB    | 34CEGB        | Everest Minerals     | 360622             | 819175              | 780                |
| 34       | 74    | 13      | 3474-13-35CEGB    | 35CEGB        | Everest Minerals     | 360823             | 819175              | 780                |
| 34       | 74    | 13      | 3474-13-36CEGB    | 36CEGB        | Everest Minerals     | 360169             | 818442              | 702                |
| 34       | 74    | 13      | 3474-13-37CEGB    | 37CEGB        | Everest Minerals     | 360755             | 818647              | 720                |
| 34       | 74    | 13      | 3474-13-38CEGB    | 38CEGB        | Everest Minerals     | 361147             | 818647              | 720                |
| 34       | 74    | 13      | 3474-13-39 DUP ID | 39 DUP ID     | Kerr McGee           | 359495             | 821460              | 780                |
| 34       | 74    | 13      | 3474-13-39CEGB    | 39CEGB        | Everest Minerals     | 361548             | 818657              | 780                |
| 34       | 74    | 13      | 3474-13-3KM       | 3KM           | Kerr McGee           | 361142             | 818343              | 700                |
| 34       | 74    | 13      | 3474-13-40CEGB    | 40CEGB        | Everest Minerals     | 361557             | 818953              | 800                |
| 34       | 74    | 13      | 3474-13-41CEGB    | 41CEGB        | Everest Minerals     | 361522             | 818356              | 744                |
| 34       | 74    | 13      | 3474-13-42CEGB    | 42CEGB        | Everest Minerals     | 360185             | 818186              | 700                |
| 34       | 74    | 13      | 3474-13-43CEGB    | 43CEGB        | Everest Minerals     | 360574             | 819219              | 740                |
| 34       | 74    | 13      | 3474-13-44CEGB    | 44CEGB        | Everest Minerals     | 360525             | 819076              | 780                |
| 34       | 74    | 13      | 3474-13-45CEGB    | 45CEGB        | Everest Minerals     | 360921             | 819080              | 800                |
| 34       | 74    | 13      | 3474-13-466       | 466           | UNC Teton            | 359929.7           | 819897.1            |                    |
| 34       | 74    | 13      | 3474-13-46CEGB    | 46CEGB        | Everest Minerals     | 361561             | 819055              | 780                |
| 34       | 74    | 13      | 3474-13-473       | 473           | UNC Teton            | 360344             | 819435.4            |                    |
| 34       | 74    | 13      | 3474-13-47CEGB    | 47CEGB        | Everest Minerals     | 360767             | 818995              | 800                |
| 34       | 74    | 13      | 3474-13-48CEGB    | 48CEGB        | Everest Minerals     | 360823             | 818897              | 780                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number       | Short Hole ID | Company          | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------------|---------------|------------------|--------------------|---------------------|--------------------|
| 34       | 74    | 13      | 3474-13-49 DUP ID | 49DUP ID      |                  | 363803             | 821199              | 780                |
| 34       | 74    | 13      | 3474-13-49CEGB    | 49CEGB        | Everest Minerals | 361348             | 818649              | 780                |
| 34       | 74    | 13      | 3474-13-4KM       | 4KM           | Kerr McGee       | 361280             | 818043              | 760                |
| 34       | 74    | 13      | 3474-13-50CEGB    | 50CEGB        | Everest Minerals | 361527             | 818497              | 785                |
| 34       | 74    | 13      | 3474-13-51CEGB    | 51CEGB        | Everest Minerals | 360471             | 818219              | 1500               |
| 34       | 74    | 13      | 3474-13-52CEGB    | 52CEGB        | Everest Minerals | 360631             | 819075              | 780                |
| 34       | 74    | 13      | 3474-13-53CEGB    | 53CEGB        | Everest Minerals | 360820             | 818952              | 800                |
| 34       | 74    | 13      | 3474-13-54CEGB    | 54CEGB        | Everest Minerals | 361248             | 818647              | 780                |
| 34       | 74    | 13      | 3474-13-55CEGB    | 55CEGB        | Everest Minerals | 360077             | 819634              | 800                |
| 34       | 74    | 13      | 3474-13-56CEGB    | 56CEGB        | Everest Minerals | 360560             | 818659              | 780                |
| 34       | 74    | 13      | 3474-13-5KM       | 5KM           | Kerr McGee       | 360748             | 818346              | 999                |
| 34       | 74    | 13      | 3474-13-6KM       | 6KM           | Kerr McGee       | 361728             | 818326              | 1000               |
| 34       | 74    | 13      | 3474-13-7KM       | 7KM           | Kerr McGee       | 360848             | 818453              | 820                |
| 34       | 74    | 13      | 3474-13-8KM       | 8KM           | Kerr McGee       | 360753             | 818452              | 820                |
| 34       | 74    | 13      | 3474-13-9KM       | 9KM           | Kerr McGee       | 360595             | 818040              | 1020               |
| 34       | 74    | 13      | 3474-13-IDA371    | IDA371        | UNC Teton        | 359538             | 822390              | 796                |
| 34       | 74    | 13      | 3474-13-IDA382    | IDA382        | UNC Teton        | 364051             | 820733              | 995                |
| 34       | 74    | 13      | 3474-13-IDA384    | IDA384        | UNC Teton        | 362193             | 821843              | 736                |
| 34       | 74    | 13      | 3474-13-IDA386    | IDA386        | UNC Teton        | 362930             | 820921              | 797                |
| 34       | 74    | 13      | 3474-13-IDA387    | IDA387        | UNC Teton        | 364134             | 820991              | 575                |
| 34       | 74    | 13      | 3474-13-IDA388    | IDA388        | UNC Teton        | 361932             | 820857              | 791                |
| 34       | 74    | 13      | 3474-13-IDA394    | IDA394        | UNC Teton        | 363426             | 820837              | 796                |
| 34       | 74    | 13      | 3474-13-IDA395    | IDA395        | UNC Teton        | 363725             | 820761              | 678                |
| 34       | 74    | 13      | 3474-13-IDA396    | IDA396        | UNC Teton        | 364398             | 822243              | 817                |
| 34       | 74    | 13      | 3474-13-IDA397    | IDA397        | UNC Teton        | 364134             | 820991              | 718                |
| 34       | 74    | 13      | 3474-13-IDA398    | IDA398        | UNC Teton        | 363960             | 820750              | 696                |
| 34       | 74    | 13      | 3474-13-IDA399    | IDA399        | UNC Teton        | 364103             | 820892              | 698                |
| 34       | 74    | 13      | 3474-13-IDA530    | IDA530        | UNC Teton        | 364272             | 820954              | 738                |
| 34       | 74    | 13      | 3474-13-L100      | L100          | UNC Teton        | 360004             | 820526              | 775                |
| 34       | 74    | 13      | 3474-13-L101      | L101          | UNC Teton        | 360604             | 819507              | 773                |
| 34       | 74    | 13      | 3474-13-L102      | L102          | UNC Teton        | 360665             | 819866              | 772                |
| 34       | 74    | 13      | 3474-13-L103      | L103          | UNC Teton        | 360554             | 820072              | 795                |
| 34       | 74    | 13      | 3474-13-L104      | L104          | UNC Teton        | 360743             | 820280              | 796                |
| 34       | 74    | 13      | 3474-13-L105      | L105          | UNC Teton        | 361067             | 819870              | 791                |
| 34       | 74    | 13      | 3474-13-L108      | L108          | UNC Teton        | 360492             | 819900              | 776                |
| 34       | 74    | 13      | 3474-13-L109      | L109          | UNC Teton        | 361094             | 819577              | 797                |
| 34       | 74    | 13      | 3474-13-L11       | L11           | UNC Teton        | 362239             | 819636              | 998                |
| 34       | 74    | 13      | 3474-13-L110      | L110          | UNC Teton        | 360557             | 820176              | 798                |
| 34       | 74    | 13      | 3474-13-L116      | L116          | UNC Teton        | 360535             | 820266              | 796                |
| 34       | 74    | 13      | 3474-13-L118      | L118          | UNC Teton        | 360643             | 820281              | 798                |
| 34       | 74    | 13      | 3474-13-L119      | L119          | UNC Teton        | 360516             | 820365              | 794                |
| 34       | 74    | 13      | 3474-13-L120      | L120          | UNC Teton        | 360483             | 820547              | 795                |
| 34       | 74    | 13      | 3474-13-L121      | L121          | UNC Teton        | 360308             | 820329              | 796                |
| 34       | 74    | 13      | 3474-13-L122      | L122          | UNC Teton        | 360494             | 820457              | 798                |
| 34       | 74    | 13      | 3474-13-L123      | L123          | UNC Teton        | 360412             | 820346              | 797                |
| 34       | 74    | 13      | 3474-13-L124      | L124          | UNC Teton        | 359463             | 820624              | 736                |
| 34       | 74    | 13      | 3474-13-L125      | L125          | UNC Teton        | 359479             | 821087              | 750                |
| 34       | 74    | 13      | 3474-13-L126      | L126          | UNC Teton        | 359742             | 820648              | 756                |
| 34       | 74    | 13      | 3474-13-L127      | L127          | UNC Teton        | 360436             | 821156              | 776                |
| 34       | 74    | 13      | 3474-13-L128      | L128          | UNC Teton        | 359947             | 820642              | 772                |
| 34       | 74    | 13      | 3474-13-L129      | L129          | UNC Teton        | 360815             | 820631              | 837                |
| 34       | 74    | 13      | 3474-13-L130      | L130          | UNC Teton        | 360617             | 820654              | 817                |
| 34       | 74    | 13      | 3474-13-L131      | L131          | UNC Teton        | 360705             | 820642              | 816                |
| 34       | 74    | 13      | 3474-13-L132      | L132          | UNC Teton        | 360634             | 820852              | 815                |
| 34       | 74    | 13      | 3474-13-L133      | L133          | UNC Teton        | 360616             | 820559              | 783                |
| 34       | 74    | 13      | 3474-13-L134      | L134          | UNC Teton        | 360718             | 820565              | 797                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|-----------|--------------------|---------------------|--------------------|
| 34       | 74    | 13      | 3474-13-L135 | L135          | UNC Teton | 360836             | 820270              | 777                |
| 34       | 74    | 13      | 3474-13-L136 | L136          | UNC Teton | 362155             | 818904              | 678                |
| 34       | 74    | 13      | 3474-13-L137 | L137          | UNC Teton | 360660             | 820070              | 779                |
| 34       | 74    | 13      | 3474-13-L138 | L138          | UNC Teton | 360688             | 820743              | 814                |
| 34       | 74    | 13      | 3474-13-L139 | L139          | UNC Teton | 361379             | 820783              | 797                |
| 34       | 74    | 13      | 3474-13-L140 | L140          | UNC Teton | 362177             | 819016              | 795                |
| 34       | 74    | 13      | 3474-13-L141 | L141          | UNC Teton | 360720             | 819410              | 798                |
| 34       | 74    | 13      | 3474-13-L142 | L142          | UNC Teton | 361123             | 820640              | 814                |
| 34       | 74    | 13      | 3474-13-L143 | L143          | UNC Teton | 360909             | 819861              | 797                |
| 34       | 74    | 13      | 3474-13-L16  | L16           | UNC Teton | 359447             | 819991              | 696                |
| 34       | 74    | 13      | 3474-13-L19  | L19           | UNC Teton | 359451             | 819792              | 796                |
| 34       | 74    | 13      | 3474-13-L24  | L24           | UNC Teton | 359457             | 819890              | 756                |
| 34       | 74    | 13      | 3474-13-L25  | L25           | UNC Teton | 359446             | 819701              | 755                |
| 34       | 74    | 13      | 3474-13-L355 | L355          | UNC Teton | 359634             | 819374              | 759                |
| 34       | 74    | 13      | 3474-13-L356 | L356          | UNC Teton | 359645             | 819673              | 758                |
| 34       | 74    | 13      | 3474-13-L357 | L357          | UNC Teton | 359652             | 819867              | 761                |
| 34       | 74    | 13      | 3474-13-L358 | L358          | UNC Teton | 359841             | 819667              | 760                |
| 34       | 74    | 13      | 3474-13-L36  | L36           | UNC Teton | 0                  | 0                   |                    |
| 34       | 74    | 13      | 3474-13-L364 | L364          | UNC Teton | 359825             | 819872              | 760                |
| 34       | 74    | 13      | 3474-13-L365 | L365          | UNC Teton | 360103             | 820059              | 779                |
| 34       | 74    | 13      | 3474-13-L366 | L366          | UNC Teton | 360117             | 819765              | 779                |
| 34       | 74    | 13      | 3474-13-L403 | L403          | UNC Teton | 359633             | 819576              | 760                |
| 34       | 74    | 13      | 3474-13-L404 | L404          | UNC Teton | 359640             | 819774              | 760                |
| 34       | 74    | 13      | 3474-13-L412 | L412          | UNC Teton | 359827             | 819782              | 752                |
| 34       | 74    | 13      | 3474-13-L414 | L414          | UNC Teton | 360684             | 819612              | 780                |
| 34       | 74    | 13      | 3474-13-L415 | L415          | UNC Teton | 360494             | 819599              | 778                |
| 34       | 74    | 13      | 3474-13-L416 | L416          | UNC Teton | 360811             | 819413              | 780                |
| 34       | 74    | 13      | 3474-13-L417 | L417          | UNC Teton | 360435             | 819402              | 780                |
| 34       | 74    | 13      | 3474-13-L418 | L418          | UNC Teton | 360667             | 819736              | 761                |
| 34       | 74    | 13      | 3474-13-L419 | L419          | UNC Teton | 360126             | 819588              | 780                |
| 34       | 74    | 13      | 3474-13-L420 | L420          | UNC Teton | 360098             | 820164              | 700                |
| 34       | 74    | 13      | 3474-13-L421 | L421          | UNC Teton | 362177             | 818073              | 900                |
| 34       | 74    | 13      | 3474-13-L422 | L422          | UNC Teton | 360394             | 819596              | 762                |
| 34       | 74    | 13      | 3474-13-L423 | L423          | UNC Teton | 360333             | 819399              | 776                |
| 34       | 74    | 13      | 3474-13-L424 | L424          | UNC Teton | 360780             | 819568              | 774                |
| 34       | 74    | 13      | 3474-13-L425 | L425          | UNC Teton | 360764             | 819856              | 777                |
| 34       | 74    | 13      | 3474-13-L426 | L426          | UNC Teton | 360751             | 820061              | 777                |
| 34       | 74    | 13      | 3474-13-L427 | L427          | UNC Teton | 360468             | 820096              | 797                |
| 34       | 74    | 13      | 3474-13-L428 | L428          | UNC Teton | 363780             | 818070              | 900                |
| 34       | 74    | 13      | 3474-13-L429 | L429          | UNC Teton | 360113             | 819851              | 780                |
| 34       | 74    | 13      | 3474-13-L430 | L430          | UNC Teton | 359926             | 820061              | 752                |
| 34       | 74    | 13      | 3474-13-L431 | L431          | UNC Teton | 360300             | 820422              | 778                |
| 34       | 74    | 13      | 3474-13-L441 | L441          | UNC Teton | 360095             | 820259              | 778                |
| 34       | 74    | 13      | 3474-13-L442 | L442          | UNC Teton | 359914             | 820149              | 760                |
| 34       | 74    | 13      | 3474-13-L443 | L443          | UNC Teton | 360231             | 819395              | 780                |
| 34       | 74    | 13      | 3474-13-L444 | L444          | UNC Teton | 360842             | 820051              | 798                |
| 34       | 74    | 13      | 3474-13-L445 | L445          | UNC Teton | 360369             | 820109              | 780                |
| 34       | 74    | 13      | 3474-13-L446 | L446          | UNC Teton | 360495             | 819703              | 768                |
| 34       | 74    | 13      | 3474-13-L447 | L447          | UNC Teton | 360317             | 820244              | 773                |
| 34       | 74    | 13      | 3474-13-L448 | L448          | UNC Teton | 360627             | 820458              | 800                |
| 34       | 74    | 13      | 3474-13-L449 | L449          | UNC Teton | 359906             | 820243              | 849                |
| 34       | 74    | 13      | 3474-13-L450 | L450          | UNC Teton | 360518             | 819398              | 769                |
| 34       | 74    | 13      | 3474-13-L451 | L451          | UNC Teton | 360311             | 819737              | 770                |
| 34       | 74    | 13      | 3474-13-L452 | L452          | UNC Teton | 360712             | 820455              | 791                |
| 34       | 74    | 13      | 3474-13-L453 | L453          | UNC Teton | 360143             | 819395              | 751                |
| 34       | 74    | 13      | 3474-13-L454 | L454          | UNC Teton | 359804             | 820136              | 751                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|-----------|--------------------|---------------------|--------------------|
| 34       | 74    | 13      | 3474-13-L455 | L455          | UNC Teton | 359910             | 820346              | 751                |
| 34       | 74    | 13      | 3474-13-L456 | L456          | UNC Teton | 360759             | 819959              | 772                |
| 34       | 74    | 13      | 3474-13-L457 | L457          | UNC Teton | 360746             | 820170              | 789                |
| 34       | 74    | 13      | 3474-13-L458 | L458          | UNC Teton | 360728             | 820367              | 790                |
| 34       | 74    | 13      | 3474-13-L459 | L459          | UNC Teton | 360400             | 819721              | 769                |
| 34       | 74    | 13      | 3474-13-L460 | L460          | UNC Teton | 359911             | 819861              | 750                |
| 34       | 74    | 13      | 3474-13-L639 | L639          | UNC Teton | 360290             | 819592              | 757                |
| 34       | 74    | 13      | 3474-13-L644 | L644          | UNC Teton | 360653             | 820175              | 799                |
| 34       | 74    | 13      | 3474-13-L645 | L645          | UNC Teton | 360634             | 820360              | 800                |
| 34       | 74    | 13      | 3474-13-L646 | L646          | UNC Teton | 360341             | 819495              | 779                |
| 34       | 74    | 13      | 3474-13-L647 | L647          | UNC Teton | 360706             | 819512              | 777                |
| 34       | 74    | 13      | 3474-13-L648 | L648          | UNC Teton | 360910             | 819419              | 780                |
| 34       | 74    | 13      | 3474-13-L649 | L649          | UNC Teton | 360055             | 819393              | 759                |
| 34       | 74    | 13      | 3474-13-L650 | L650          | UNC Teton | 363518             | 818877              | 716                |
| 34       | 74    | 13      | 3474-13-L651 | L651          | UNC Teton | 362980             | 819270              | 600                |
| 34       | 74    | 13      | 3474-13-L652 | L652          | UNC Teton | 362128             | 819505              | 619                |
| 34       | 74    | 13      | 3474-13-L653 | L653          | UNC Teton | 362570             | 819364              | 599                |
| 34       | 74    | 13      | 3474-13-L654 | L654          | UNC Teton | 360479             | 819985              | 780                |
| 34       | 74    | 13      | 3474-13-L655 | L655          | UNC Teton | 359546             | 819794              | 757                |
| 34       | 74    | 13      | 3474-13-L656 | L656          | UNC Teton | 359526             | 819689              | 757                |
| 34       | 74    | 13      | 3474-13-L657 | L657          | UNC Teton | 360013             | 819850              | 759                |
| 34       | 74    | 13      | 3474-13-L658 | L658          | UNC Teton | 360419             | 819491              | 774                |
| 34       | 74    | 13      | 3474-13-L659 | L659          | UNC Teton | 359999             | 820246              | 720                |
| 34       | 74    | 13      | 3474-13-L66  | L66           | UNC Teton | 359438             | 819469              | 755                |
| 34       | 74    | 13      | 3474-13-L660 | L660          | UNC Teton | 360425             | 820256              | 779                |
| 34       | 74    | 13      | 3474-13-L661 | L661          | UNC Teton | 360442             | 820172              | 780                |
| 34       | 74    | 13      | 3474-13-L662 | L662          | UNC Teton | 359897             | 820433              | 757                |
| 34       | 74    | 13      | 3474-13-L663 | L663          | UNC Teton | 359735             | 819782              | 758                |
| 34       | 74    | 13      | 3474-13-L664 | L664          | UNC Teton | 359914             | 819775              | 760                |
| 34       | 74    | 13      | 3474-13-L665 | L665          | UNC Teton | 360656             | 819972              | 777                |
| 34       | 74    | 13      | 3474-13-L666 | L666          | UNC Teton | 360339             | 820180              | 778                |
| 34       | 74    | 13      | 3474-13-L667 | L667          | UNC Teton | 360218             | 819958              | 778                |
| 34       | 74    | 13      | 3474-13-L668 | L668          | UNC Teton | 360257             | 820090              | 778                |
| 34       | 74    | 13      | 3474-13-L669 | L669          | UNC Teton | 360588             | 819716              | 775                |
| 34       | 74    | 13      | 3474-13-L67  | L67           | UNC Teton | 360560             | 819975              | 796                |
| 34       | 74    | 13      | 3474-13-L670 | L670          | UNC Teton | 359739             | 819584              | 757                |
| 34       | 74    | 13      | 3474-13-L671 | L671          | UNC Teton | 360244             | 819505              | 759                |
| 34       | 74    | 13      | 3474-13-L672 | L672          | UNC Teton | 362353             | 819436              | 597                |
| 34       | 74    | 13      | 3474-13-L68  | L68           | UNC Teton | 362122             | 818669              | 796                |
| 34       | 74    | 13      | 3474-13-L69  | L69           | UNC Teton | 362380             | 818030              | 498                |
| 34       | 74    | 13      | 3474-13-L70  | L70           | UNC Teton | 362919             | 817980              | 618                |
| 34       | 74    | 13      | 3474-13-L71  | L71           | UNC Teton | 362195             | 819136              | 958                |
| 34       | 74    | 13      | 3474-13-L72  | L72           | UNC Teton | 362514             | 818611              | 638                |
| 34       | 74    | 13      | 3474-13-L73  | L73           | UNC Teton | 363241             | 818036              | 618                |
| 34       | 74    | 13      | 3474-13-L74  | L74           | UNC Teton | 362931             | 818020              | 618                |
| 34       | 74    | 13      | 3474-13-L75  | L75           | UNC Teton | 364520             | 818050              | 638                |
| 34       | 74    | 13      | 3474-13-L76  | L76           | UNC Teton | 360571             | 819883              | 797                |
| 34       | 74    | 13      | 3474-13-L77  | L77           | UNC Teton | 360620             | 819411              | 797                |
| 34       | 74    | 13      | 3474-13-L78  | L78           | UNC Teton | 359444             | 819603              | 749                |
| 34       | 74    | 13      | 3474-13-L79  | L79           | UNC Teton | 359632             | 819473              | 778                |
| 34       | 74    | 13      | 3474-13-L83  | L83           | UNC Teton | 0                  | 0                   | 615                |
| 34       | 74    | 13      | 3474-13-L86  | L86           | UNC Teton | 359829             | 819445              | 778                |
| 34       | 74    | 13      | 3474-13-L87  | L87           | UNC Teton | 360102             | 819957              | 788                |
| 34       | 74    | 13      | 3474-13-L88  | L88           | UNC Teton | 360590             | 819603              | 794                |
| 34       | 74    | 13      | 3474-13-L90  | L90           | UNC Teton | 359643             | 819985              | 777                |
| 34       | 74    | 13      | 3474-13-L91  | L91           | UNC Teton | 360020             | 820452              | 769                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number       | Short Hole ID | Company              | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------------|---------------|----------------------|--------------------|---------------------|--------------------|
| 34       | 74    | 13      | 3474-13-L92       | L92           | UNC Teton            | 360408             | 819915              | 778                |
| 34       | 74    | 13      | 3474-13-M-7       | M-7           | Uranium One          | 362482.7           | 822461.9            | 491                |
| 34       | 74    | 13      | 3474-13-M-9       | M-9           | Uranium One          | 359522             | 819727.4            | 600                |
| 34       | 74    | 14      | 3474-14-0050-2450 | 0050-2450     | Power Resources INC. | 356568             | 818069              | 596                |
| 34       | 74    | 14      | 3474-14-0100-2450 | 0100-2450     | Power Resources INC. | 356568             | 818119              | 599                |
| 34       | 74    | 14      | 3474-14-0250-2550 | 0250-2550     | Power Resources INC. | 356669             | 818265              | 618                |
| 34       | 74    | 14      | 3474-14-0300-2800 | 0300-2800     | Power Resources INC. | 356935             | 818236              | 636                |
| 34       | 74    | 14      | 3474-14-0400-3150 | 0400-3150     | Power Resources INC. | 357281             | 818379              | 621                |
| 34       | 74    | 14      | 3474-14-0500-3050 | 0500-3050     | Power Resources INC. | 357183             | 818463              | 661                |
| 34       | 74    | 14      | 3474-14-0550-2850 | 0550-2850     | Power Resources INC. | 356991             | 818492              | 639                |
| 34       | 74    | 14      | 3474-14-0600-3150 | 0600-3150     | Power Resources INC. | 357284             | 818592              | 640                |
| 34       | 74    | 14      | 3474-14-0700-3150 | 0700-3150     | Power Resources INC. | 357293             | 818690              | 658                |
| 34       | 74    | 14      | 3474-14-1000      | 1000          | Uranium One          | 354400             | 820600              | 605                |
| 34       | 74    | 14      | 3474-14-1001      | 1001          | Uranium One          | 355200             | 820600              | 605                |
| 34       | 74    | 14      | 3474-14-1002      | 1002          | Uranium One          | 354800             | 820200              | 806                |
| 34       | 74    | 14      | 3474-14-1003      | 1003          | Uranium One          | 354400             | 819800              | 602                |
| 34       | 74    | 14      | 3474-14-1004      | 1004          | Uranium One          | 355200             | 819800              | 603                |
| 34       | 74    | 14      | 3474-14-1005      | 1005          | Uranium One          | 354800             | 819400              | 603                |
| 34       | 74    | 14      | 3474-14-1006      | 1006          | Uranium One          | 354400             | 819000              | 591                |
| 34       | 74    | 14      | 3474-14-1007      | 1007          | Uranium One          | 355200             | 819000              | 605                |
| 34       | 74    | 14      | 3474-14-1008      | 1008          | Uranium One          | 354900             | 818600              | 802                |
| 34       | 74    | 14      | 3474-14-1009      | 1009          | Uranium One          | 354400             | 818200              | 604                |
| 34       | 74    | 14      | 3474-14-100KM     | 100KM         | Kerr McGee           | 355070             | 819272              | 1000               |
| 34       | 74    | 14      | 3474-14-1010      | 1010          | Uranium One          | 355215             | 818300              | 604                |
| 34       | 74    | 14      | 3474-14-101KM     | 101KM         | Kerr McGee           | 354547             | 819290              | 977                |
| 34       | 74    | 14      | 3474-14-102KM     | 102KM         | Kerr McGee           | 354593             | 818496              | 1000               |
| 34       | 74    | 14      | 3474-14-103KM     | 103KM         | Kerr McGee           | 354685             | 818492              | 401                |
| 34       | 74    | 14      | 3474-14-104KM     | 104KM         | Kerr McGee           | 354663             | 818296              | 400                |
| 34       | 74    | 14      | 3474-14-1050-3400 | 1050-3400     | Power Resources INC. | 357493             | 819048              | 700                |
| 34       | 74    | 14      | 3474-14-105KM     | 105KM         | Kerr McGee           | 354541             | 818138              | 401                |
| 34       | 74    | 14      | 3474-14-107KM     | 107KM         | Kerr McGee           | 357027             | 818314              | 701                |
| 34       | 74    | 14      | 3474-14-108KM     | 108KM         | Kerr McGee           | 358200             | 819080              | 702                |
| 34       | 74    | 14      | 3474-14-109KM     | 109KM         | Kerr McGee           | 358234             | 818814              | 700                |
| 34       | 74    | 14      | 3474-14-10KM      | 10KM          | Kerr McGee           | 356712             | 818175              | 1000               |
| 34       | 74    | 14      | 3474-14-110KM     | 110KM         | Kerr McGee           | 358656             | 819322              | 700                |
| 34       | 74    | 14      | 3474-14-111KM     | 111KM         | Kerr McGee           | 357587             | 818251              | 701                |
| 34       | 74    | 14      | 3474-14-112KM     | 112KM         | Kerr McGee           | 357822             | 818643              | 236                |
| 34       | 74    | 14      | 3474-14-113KM     | 113KM         | Kerr McGee           | 357674             | 819114              | 721                |
| 34       | 74    | 14      | 3474-14-114KM     | 114KM         | Kerr McGee           | 354925             | 819276              | 460                |
| 34       | 74    | 14      | 3474-14-115KM     | 115KM         | Kerr McGee           | 355267             | 819287              | 460                |
| 34       | 73    | 14      | 3474-14-116KM     | 116KM         | Kerr McGee           | 355269             | 819051              | 700                |
| 34       | 74    | 14      | 3474-14-117KM     | 117KM         | Kerr McGee           | 358964             | 818786              | 700                |
| 34       | 74    | 14      | 3474-14-118KM     | 118KM         | Kerr McGee           | 358619             | 818854              | 655                |
| 34       | 74    | 14      | 3474-14-119KM     | 119KM         | Kerr McGee           | 358084             | 818729              | 655                |
| 34       | 74    | 14      | 3474-14-11KM      | 11KM          | Kerr McGee           | 356280             | 819664              | 1001               |
| 34       | 74    | 14      | 3474-14-120KM     | 120KM         | Kerr McGee           | 357568             | 818790              | 658                |
| 34       | 74    | 14      | 3474-14-121KM     | 121KM         | Kerr McGee           | 357059             | 818444              | 653                |
| 34       | 74    | 14      | 3474-14-122KM     | 122KM         | Kerr McGee           | 357380             | 818590              | 700                |
| 34       | 74    | 14      | 3474-14-123KM     | 123KM         | Kerr McGee           | 358128             | 818900              | 700                |
| 34       | 74    | 14      | 3474-14-12KM      | 12KM          | Kerr McGee           | 359256             | 819629              | 1002               |
| 34       | 74    | 14      | 3474-14-1300-4850 | 1300-4850     | Power Resources INC. | 358965             | 819281              | 705                |
| 34       | 74    | 14      | 3474-14-13KM      | 13KM          | Kerr McGee           | 358783             | 818144              | 1001               |
| 34       | 74    | 14      | 3474-14-14Dup ID  | 14            |                      | 356403             | 818093              |                    |
| 34       | 74    | 14      | 3474-14-15KM      | 15KM          | Kerr McGee           | 354615             | 818214              | 1003               |
| 34       | 74    | 14      | 3474-14-16KM      | 16KM          | Kerr McGee           | 355798             | 818271              | 1003               |
| 34       | 74    | 14      | 3474-14-1700-2900 | 1700-2900     | Power Resources INC. | 357117             | 819657              | 420                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number       | Short Hole ID | Company              | Easting     | Coordinate | Northing    | Coordinate | Total Logged Depth |
|----------|-------|---------|-------------------|---------------|----------------------|-------------|------------|-------------|------------|--------------------|
| 34       | 74    | 14      | 3474-14-1700-3000 | 1700-3000     | Power Resources INC. | 357217      |            | 819656      |            | 420                |
| 34       | 74    | 14      | 3474-14-1700-3100 | 1700-3100     | Power Resources INC. | 357317      |            | 819656      |            | 420                |
| 34       | 74    | 14      | 3474-14-17KM      | 17KM          | Kerr McGee           | 357819      |            | 818162      |            | 1004               |
| 34       | 74    | 14      | 3474-14-18KM      | 18KM          | Kerr McGee           | 357593      |            | 818490      |            | 744                |
| 34       | 74    | 14      | 3474-14-19KM      | 19KM          | Kerr McGee           | 357861      |            | 818155      |            | 704                |
| 34       | 74    | 14      | 3474-14-1CEGB     | 1CEGB         | Everest Minerals     | 358799      |            | 822920      |            | 300                |
| 34       | 74    | 14      | 3474-14-1KM       | 1KM           | Kerr McGee           | 356384      |            | 818226      |            | 620                |
| 34       | 74    | 14      | 3474-14-20KM      | 20KM          | Kerr McGee           | 358520      |            | 820540      |            | 1007               |
| 34       | 74    | 14      | 3474-14-2100-3300 | 2100-3300     | Power Resources INC. | 357389      |            | 820138      |            | 421                |
| 34       | 74    | 14      | 3474-14-2100-3400 | 3100-3400     | Power Resources INC. | 357489      |            | 820137      |            | 422                |
| 34       | 74    | 14      | 3474-14-2100-3450 | 2100-3450     | Power Resources INC. | 357538      |            | 820137      |            | 421                |
| 34       | 74    | 14      | 3474-14-21KM      | 21KM          | Kerr McGee           | 358635      |            | 819595      |            | 1007               |
| 34       | 74    | 14      | 3474-14-22KM      | 22KM          | Kerr McGee           | 357987      |            | 818941      |            | 1006               |
| 34       | 74    | 14      | 3474-14-23KM      | 23KM          | Kerr McGee           | 359237      |            | 820037      |            | 701                |
| 34       | 74    | 14      | 3474-14-24KM      | 24KM          | Kerr McGee           | 358612      |            | 819197      |            | 745                |
| 34       | 74    | 14      | 3474-14-25KM      | 25KM          | Kerr McGee           | 357978      |            | 819070      |            | 765                |
| 34       | 74    | 14      | 3474-14-26KM      | 26KM          | Kerr McGee           | 356956      |            | 818386      |            | 725                |
| 34       | 74    | 14      | 3474-14-27KM      | 27KM          | Kerr McGee           | 359229      |            | 820236      |            | 721                |
| 34       | 74    | 14      | 3474-14-28KM      | 28KM          | Kerr McGee           | 358638      |            | 819386      |            | 746                |
| 34       | 74    | 14      | 3474-14-29KM      | 29KM          | Kerr McGee           | 357920      |            | 818743      |            | 745                |
| 34       | 74    | 14      | 3474-14-2KM       | 2KM           | Kerr McGee           | 356707      |            | 818394      |            | 619                |
| 34       | 74    | 14      | 3474-14-300       | 300           |                      | 355967.2171 |            | 822299.8923 |            |                    |
| 34       | 74    | 14      | 3474-14-308       | 308           |                      | 356858.2494 |            | 822118.2269 |            |                    |
| 34       | 74    | 14      | 3474-14-30KM      | 30KM          | Kerr McGee           | 356852      |            | 817997      |            | 766                |
| 34       | 74    | 14      | 3474-14-311       | 311           |                      | 357002.6701 |            | 822183.7654 |            |                    |
| 34       | 74    | 14      | 3474-14-31KM      | 31KM          | Kerr McGee           | 359240      |            | 819935      |            | 722                |
| 34       | 74    | 14      | 3474-14-32KM      | 32KM          | Kerr McGee           | 358644      |            | 819503      |            | 742                |
| 34       | 74    | 14      | 3474-14-33KM      | 33KM          | Kerr McGee           | 358078      |            | 819862      |            | 763                |
| 34       | 74    | 14      | 3474-14-34KM      | 34KM          | Kerr McGee           | 357926      |            | 818816      |            | 741                |
| 34       | 74    | 14      | 3474-14-35KM      | 35KM          | Kerr McGee           | 357920      |            | 818649      |            | 721                |
| 34       | 74    | 14      | 3474-14-36KM      | 36KM          | Kerr McGee           | 357250      |            | 818134      |            | 721                |
| 34       | 74    | 14      | 3474-14-37KM      | 37KM          | Kerr McGee           | 359093      |            | 819758      |            | 700                |
| 34       | 74    | 14      | 3474-14-38KM      | 38KM          | Kerr McGee           | 358448      |            | 819189      |            | 702                |
| 34       | 74    | 14      | 3474-14-39KM      | 39KM          | Kerr McGee           | 358653      |            | 819433      |            | 703                |
| 34       | 74    | 14      | 3474-14-3KM       | 3KM           | Kerr McGee           | 357021      |            | 818121      |            | 619                |
| 34       | 74    | 14      | 3474-14-40KM      | 40KM          | Kerr McGee           | 356810      |            | 818385      |            | 704                |
| 34       | 74    | 14      | 3474-14-41KM      | 41KM          | Kerr McGee           | 354614      |            | 818294      |            | 703                |
| 34       | 74    | 14      | 3474-14-42KM      | 42KM          | Kerr McGee           | 357657      |            | 818360      |            | 704                |
| 34       | 74    | 14      | 3474-14-43KM      | 43KM          | Kerr McGee           | 357577      |            | 818594      |            | 705                |
| 34       | 74    | 14      | 3474-14-44KM      | 44KM          | Kerr McGee           | 358357      |            | 819191      |            | 703                |
| 34       | 74    | 14      | 3474-14-45KM      | 45KM          | Kerr McGee           | 358881      |            | 819751      |            | 696                |
| 34       | 74    | 14      | 3474-14-46KM      | 46KM          | Kerr McGee           | 358463      |            | 819292      |            | 700                |
| 34       | 74    | 14      | 3474-14-47KM      | 47KM          | Kerr McGee           | 357877      |            | 819034      |            | 700                |
| 34       | 74    | 14      | 3474-14-48KM      | 48KM          | Kerr McGee           | 357716      |            | 818596      |            | 700                |
| 34       | 74    | 14      | 3474-14-49KM      | 49KM          | Kerr McGee           | 359337      |            | 819950      |            | 697                |
| 34       | 74    | 14      | 3474-14-4KM       | 4KM           | Kerr McGee           | 356925      |            | 818880      |            | 361                |
| 34       | 74    | 14      | 3474-14-50KM      | 50KM          | Kerr McGee           | 358742      |            | 819298      |            | 700                |
| 34       | 74    | 14      | 3474-14-51KM      | 51KM          | Kerr McGee           | 358719      |            | 818980      |            | 700                |
| 34       | 74    | 14      | 3474-14-52KM      | 52KM          | Kerr McGee           | 357713      |            | 818165      |            | 697                |
| 34       | 74    | 14      | 3474-14-533B      | 533B          | Kerr McGee           | 357741.8522 |            | 822458.5075 |            |                    |
| 34       | 74    | 14      | 3474-14-53KM      | 53KM          | Kerr McGee           | 357578      |            | 818702      |            | 702                |
| 34       | 74    | 14      | 3474-14-54KM      | 54KM          | Kerr McGee           | 357402      |            | 818351      |            | 704                |
| 34       | 74    | 14      | 3474-14-55KM      | 55KM          | Kerr McGee           | 356766      |            | 818286      |            | 703                |
| 34       | 74    | 14      | 3474-14-56KM      | 56KM          | Kerr McGee           | 358083      |            | 818644      |            | 703                |
| 34       | 74    | 14      | 3474-14-57        | 57            |                      | 355049.3117 |            | 821579.9846 |            |                    |
| 34       | 74    | 14      | 3474-14-57KM      | 57KM          | Kerr McGee           | 354783      |            | 818492      |            | 624                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number       | Short Hole ID | Company          | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------------|---------------|------------------|--------------------|---------------------|--------------------|
| 34       | 74    | 14      | 3474-14-582-T     | 582-T         |                  | 356193.7571        | 822924.7302         |                    |
| 34       | 74    | 14      | 3474-14-58KM      | 58KM          | Kerr McGee       | 358846             | 819385              | 705                |
| 34       | 74    | 14      | 3474-14-59KM      | 59KM          | Kerr McGee       | 357876             | 819130              | 703                |
| 34       | 74    | 14      | 3474-14-5KM       | 5KM           | Kerr McGee       | 357581             | 819631              | 361                |
| 34       | 74    | 14      | 3474-14-60KM      | 60KM          | Kerr McGee       | 358069             | 819126              | 702                |
| 34       | 74    | 14      | 3474-14-61KM      | 61KM          | Kerr McGee       | 358821             | 818984              | 700                |
| 34       | 74    | 14      | 3474-14-62KM      | 62KM          | Kerr McGee       | 358817             | 819082              | 698                |
| 34       | 74    | 14      | 3474-14-63KM      | 63KM          | Kerr McGee       | 358632             | 818770              | 700                |
| 34       | 74    | 14      | 3474-14-642CH     | 642CH         | UNC Teton        | 356440             | 821857              | 236                |
| 34       | 74    | 14      | 3474-14-643       | 643           |                  | 355916.014         | 822070.9519         |                    |
| 34       | 74    | 14      | 3474-14-64KM      | 64KM          | Kerr McGee       | 359263             | 819812              | 657                |
| 34       | 74    | 14      | 3474-14-65KM      | 65KM          | Kerr McGee       | 359077             | 819371              | 639                |
| 34       | 74    | 14      | 3474-14-66KM      | 66KM          | Kerr McGee       | 359080             | 819179              | 660                |
| 34       | 74    | 14      | 3474-14-678CEGB   | 678CEGB       | Everest Minerals | 358320             | 821430              | 420                |
| 34       | 74    | 14      | 3474-14-679CEGB   | 679CEGB       | Everest Minerals | 358307             | 821534              | 420                |
| 34       | 74    | 14      | 3474-14-67KM      | 67KM          | Kerr McGee       | 358814             | 819188              | 700                |
| 34       | 74    | 14      | 3474-14-680CEGB   | 680CEGB       | Everest Minerals | 358406             | 821575              | 440                |
| 34       | 74    | 14      | 3474-14-681CEGB   | 681CEGB       | Everest Minerals | 358443             | 821693              | 459                |
| 34       | 74    | 14      | 3474-14-682WCEGB  | 682W          | Everest Minerals | 357655             | 822150              | 420                |
| 34       | 74    | 14      | 3474-14-683CEGB   | 683CEGB       | Everest Minerals | 355050             | 821689              | 315                |
| 34       | 74    | 14      | 3474-14-684CEGB   | 684CEGB       | Everest Minerals | 356311             | 822345              | 270                |
| 34       | 74    | 14      | 3474-14-685CEGB   | 685CEGB       | Everest Minerals | 356357             | 822292              | 280                |
| 34       | 74    | 14      | 3474-14-686W-CEGB | 686W-CEGB     | Everest Minerals | 356408             | 822340              | 279                |
| 34       | 74    | 14      | 3474-14-687CEGB   | 687CEGB       | Everest Minerals | 359099             | 819957              | 663                |
| 34       | 74    | 14      | 3474-14-688CEGB   | 688CEGB       | Everest Minerals | 359053             | 819622              | 703                |
| 34       | 74    | 14      | 3474-14-689CEGB   | 689CEGB       | Everest Minerals | 358974             | 819416              | 705                |
| 34       | 74    | 14      | 3474-14-68KM      | 68KM          | Kerr McGee       | 358530             | 818963              | 697                |
| 34       | 74    | 14      | 3474-14-690CEGB   | 690CEGB       | Everest Minerals | 358866             | 819164              | 697                |
| 34       | 74    | 14      | 3474-14-691CEGB   | 691CEGB       | Everest Minerals | 358715             | 819078              | 725                |
| 34       | 74    | 14      | 3474-14-692CEGB   | 692CEGB       | Everest Minerals | 358322             | 819033              | 725                |
| 34       | 74    | 14      | 3474-14-693CEGB   | 693CEGB       | Everest Minerals | 358536             | 819381              | 703                |
| 34       | 74    | 14      | 3474-14-694CEGB   | 694CEGB       | Everest Minerals | 358335             | 819371              | 703                |
| 34       | 74    | 14      | 3474-14-695CEGB   | 695CEGB       | Everest Minerals | 358870             | 819064              | 725                |
| 34       | 74    | 14      | 3474-14-696CEGB   | 696CEGB       | Everest Minerals | 358230             | 819261              | 705                |
| 34       | 74    | 14      | 3474-14-697CEGB   | 697CEGB       | Everest Minerals | 358055             | 819329              | 725                |
| 34       | 74    | 14      | 3474-14-698CEGB   | 698CEGB       | Everest Minerals | 358078             | 818924              | 720                |
| 34       | 74    | 14      | 3474-14-699CEGB   | 699CEGB       | Everest Minerals | 357843             | 818866              | 665                |
| 34       | 74    | 14      | 3474-14-69KM      | 69KM          | Kerr McGee       | 358534             | 819068              | 700                |
| 34       | 74    | 14      | 3474-14-6KM       | 6KM           | Kerr McGee       | 357978             | 820410              | 380                |
| 34       | 74    | 14      | 3474-14-700CEGB   | 700CEGB       | Everest Minerals | 359002             | 819620              | 703                |
| 34       | 74    | 14      | 3474-14-701CEGB   | 701CEGB       | Everest Minerals | 359159             | 819623              | 703                |
| 34       | 74    | 14      | 3474-14-702CEGB   | 702CEGB       | Everest Minerals | 358534             | 819591              | 704                |
| 34       | 74    | 14      | 3474-14-703CEGB   | 703CEGB       | Everest Minerals | 358538             | 819496              | 703                |
| 34       | 74    | 14      | 3474-14-704CEGB   | 704CEGB       | Everest Minerals | 359101             | 819414              | 703                |
| 34       | 74    | 14      | 3474-14-705CEGB   | 705CEGB       | Everest Minerals | 358769             | 819033              | 725                |
| 34       | 74    | 14      | 3474-14-706CEGB   | 706CEGB       | Everest Minerals | 358560             | 819303              | 705                |
| 34       | 74    | 14      | 3474-14-707CEGB   | 707CEGB       | Everest Minerals | 357958             | 819221              | 724                |
| 34       | 74    | 14      | 3474-14-708CEGB   | 708CEGB       | Everest Minerals | 358341             | 819272              | 643                |
| 34       | 74    | 14      | 3474-14-709CEGB   | 709CEGB       | Everest Minerals | 357480             | 818783              | 664                |
| 34       | 74    | 14      | 3474-14-70KM      | 70KM          | Kerr McGee       | 358968             | 818988              | 700                |
| 34       | 74    | 14      | 3474-14-710CEGB   | 710CEGB       | Everest Minerals | 357473             | 818559              | 645                |
| 34       | 74    | 14      | 3474-14-711CEGB   | 711CEGB       | Everest Minerals | 357743             | 818489              | 665                |
| 34       | 74    | 14      | 3474-14-712CEGB   | 712CEGB       | Everest Minerals | 357278             | 818529              | 665                |
| 34       | 74    | 14      | 3474-14-713CEGB   | 713CEGB       | Everest Minerals | 357681             | 818701              | 645                |
| 34       | 74    | 14      | 3474-14-714CEGB   | 714CEGB       | Everest Minerals | 357655             | 818994              | 726                |
| 34       | 74    | 14      | 3474-14-715CEGB   | 715CEGB       | Everest Minerals | 359166             | 819435              | 704                |



Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number     | Short Hole ID | Company          | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-----------------|---------------|------------------|--------------------|---------------------|--------------------|
| 34       | 74    | 14      | 3474-14-716CEGB | 716CEGB       | Everest Minerals | 359381             | 819541              | 704                |
| 34       | 74    | 14      | 3474-14-717CEGB | 717CEGB       | Everest Minerals | 359169             | 819385              | 703                |
| 34       | 74    | 14      | 3474-14-718CEGB | 718CEGB       | Everest Minerals | 359031             | 819418              | 703                |
| 34       | 74    | 14      | 3474-14-719CEGB | 719CEGB       | Everest Minerals | 358228             | 819312              | 642                |
| 34       | 74    | 14      | 3474-14-71KM    | 71KM          | Kerr McGee       | 358482             | 818761              | 700                |
| 34       | 74    | 14      | 3474-14-720CEGB | 720CEGB       | Everest Minerals | 358002             | 818945              | 644                |
| 34       | 74    | 14      | 3474-14-721CEGB | 721CEGB       | Everest Minerals | 358010             | 819225              | 643                |
| 34       | 74    | 14      | 3474-14-722CEGB | 722CEGB       | Everest Minerals | 357286             | 818241              | 623                |
| 34       | 74    | 14      | 3474-14-723CEGB | 723CEGB       | Everest Minerals | 356855             | 818392              | 665                |
| 34       | 74    | 14      | 3474-14-724CEGB | 724CEGB       | Everest Minerals | 356789             | 818107              | 604                |
| 34       | 74    | 14      | 3474-14-725CEGB | 725CEGB       | Everest Minerals | 356763             | 818078              | 604                |
| 34       | 74    | 14      | 3474-14-726CEGB | 726CEGB       | Everest Minerals | 357659             | 819049              | 703                |
| 34       | 74    | 14      | 3474-14-727CEGB | 727CEGB       | Everest Minerals | 357661             | 818906              | 702                |
| 34       | 74    | 14      | 3474-14-728CEGB | 728CEGB       | Everest Minerals | 355665             | 819060              | 442                |
| 34       | 74    | 14      | 3474-14-729CEGB | 729CEGB       | Everest Minerals | 356048             | 818280              | 402                |
| 34       | 74    | 14      | 3474-14-72KM    | 72KM          | Kerr McGee       | 358141             | 818827              | 700                |
| 34       | 74    | 14      | 3474-14-730CEGB | 730CEGB       | Everest Minerals | 357466             | 818893              | 686                |
| 34       | 74    | 14      | 3474-14-731CEGB | 731CEGB       | Everest Minerals | 354114             | 819246              | 462                |
| 34       | 74    | 14      | 3474-14-732CEGB | 732CEGB       | Everest Minerals | 357333             | 820010              | 402                |
| 34       | 74    | 14      | 3474-14-733CEGB | 733CEGB       | Everest Minerals | 355240             | 819795              | 462                |
| 34       | 74    | 14      | 3474-14-73KM    | 73KM          | Kerr McGee       | 357881             | 818910              | 696                |
| 34       | 74    | 14      | 3474-14-74KM    | 74KM          | Kerr McGee       | 359147             | 818997              | 700                |
| 34       | 74    | 14      | 3474-14-75KM    | 75KM          | Kerr McGee       | 358968             | 819080              | 701                |
| 34       | 74    | 14      | 3474-14-76KM    | 76KM          | Kerr McGee       | 359264             | 819719              | 701                |
| 34       | 74    | 14      | 3474-14-77KM    | 77KM          | Kerr McGee       | 358971             | 819171              | 696                |
| 34       | 74    | 14      | 3474-14-78KM    | 78KM          | Kerr McGee       | 358815             | 819280              | 697                |
| 34       | 74    | 14      | 3474-14-79KM    | 79KM          | Kerr McGee       | 359170             | 819720              | 698                |
| 34       | 74    | 14      | 3474-14-80KM    | 80KM          | Kerr McGee       | 359202             | 819543              | 700                |
| 34       | 74    | 14      | 3474-14-81KM    | 81KM          | Kerr McGee       | 358730             | 818778              | 700                |
| 34       | 74    | 14      | 3474-14-82?     | 82?           |                  | 356768.4912        | 821834.5014         |                    |
| 34       | 74    | 14      | 3474-14-82KM    | 82KM          | Kerr McGee       | 358631             | 818576              | 698                |
| 34       | 74    | 14      | 3474-14-83KM    | 83KM          | Kerr McGee       | 358584             | 819226              | 695                |
| 34       | 74    | 14      | 3474-14-84KM    | 84KM          | Kerr McGee       | 358427             | 819043              | 695                |
| 34       | 74    | 14      | 3474-14-85KM    | 85KM          | Kerr McGee       | 357973             | 819129              | 697                |
| 34       | 74    | 14      | 3474-14-86KM    | 86KM          | Kerr McGee       | 358162             | 819123              | 698                |
| 34       | 74    | 14      | 3474-14-87KM    | 87KM          | Kerr McGee       | 357954             | 818496              | 697                |
| 34       | 74    | 14      | 3474-14-88KM    | 88KM          | Kerr McGee       | 358278             | 818985              | 700                |
| 34       | 74    | 14      | 3474-14-89KM    | 89KM          | Kerr McGee       | 359083             | 819083              | 696                |
| 34       | 74    | 14      | 3474-14-90KM    | 90KM          | Kerr McGee       | 359081             | 819280              | 658                |
| 34       | 74    | 14      | 3474-14-91KM    | 91KM          | Kerr McGee       | 358860             | 819490              | 698                |
| 34       | 74    | 14      | 3474-14-92KM    | 92KM          | Kerr McGee       | 358752             | 819407              | 697                |
| 34       | 74    | 14      | 3474-14-93KM    | 93KM          | Kerr McGee       | 358688             | 819216              | 697                |
| 34       | 74    | 14      | 3474-14-94KM    | 94KM          | Kerr McGee       | 359327             | 819315              | 697                |
| 34       | 74    | 14      | 3474-14-95KM    | 95KM          | Kerr McGee       | 356778             | 820547              | 1003               |
| 34       | 74    | 14      | 3474-14-96KM    | 96KM          | Kerr McGee       | 356247             | 820550              | 1001               |
| 34       | 74    | 14      | 3474-14-97KM    | 97KM          | Kerr McGee       | 355660             | 820553              | 977                |
| 34       | 74    | 14      | 3474-14-98KM    | 98KM          | Kerr McGee       | 355659             | 820021              | 1003               |
| 34       | 74    | 14      | 3474-14-99KM    | 99KM          | Kerr McGee       | 355655             | 819547              | 995                |
| 34       | 74    | 14      | 3474-14-BM-1    | BM-1          | UNC Teton        | 358229             | 821547              | 622                |
| 34       | 74    | 14      | 3474-14-BM-2    | BM-2          | UNC Teton        | 354792             | 822904              | 561                |
| 34       | 74    | 14      | 3474-14-CP-1    | CP-1          |                  | 355206.1953        | 821026.1357         |                    |
| 34       | 74    | 14      | 3474-14-CP-10   | CP-10         |                  | 355091.1953        | 821225.1357         |                    |
| 34       | 74    | 14      | 3474-14-CP-11   | CP-11         |                  | 354389.1953        | 822269.1357         |                    |
| 34       | 74    | 14      | 3474-14-CP-12   | CP-12         |                  | 354497.1953        | 819744.1357         |                    |
| 34       | 74    | 14      | 3474-14-CP-3    | CP-3          |                  | 354488.1953        | 822248.1357         |                    |
| 34       | 74    | 14      | 3474-14-CP-4    | CP-4          |                  | 357377.1953        | 821851.1357         |                    |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number     | Short Hole ID | Company   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-----------------|---------------|-----------|--------------------|---------------------|--------------------|
| 34       | 74    | 14      | 3474-14-CP-5    | CP-5          |           | 357525.1953        | 821170.1357         |                    |
| 34       | 74    | 14      | 3474-14-CP-6    | CP-6          |           | 359177.1953        | 820427.1357         |                    |
| 34       | 74    | 14      | 3474-14-CP-7    | CP-7          |           | 358514.1953        | 823268.1357         |                    |
| 34       | 74    | 14      | 3474-14-CP-8    | CP-8          |           | 356609.1953        | 822519.1357         |                    |
| 34       | 74    | 14      | 3474-14-CP-9    | CP-9          |           | 355952.1953        | 821634.1357         |                    |
| 34       | 74    | 14      | 3474-14-IDA-381 | IDA-381       | UNC Teton | 358879             | 823127              | 518                |
| 34       | 74    | 14      | 3474-14-L10     | L10           | UNC Teton | 354361             | 823028              | 997                |
| 34       | 74    | 14      | 3474-14-L106    | L106          | UNC Teton | 357819             | 822383              | 475                |
| 34       | 74    | 14      | 3474-14-L107    | L107          | UNC Teton | 357906             | 822281              | 476                |
| 34       | 74    | 14      | 3474-14-L111    | L111          | UNC Teton | 357816             | 822285              | 476                |
| 34       | 74    | 14      | 3474-14-L112    | L112          | UNC Teton | 357712             | 822291              | 476                |
| 34       | 74    | 14      | 3474-14-L114    | L114          | UNC Teton | 356212             | 822308              | 393                |
| 34       | 74    | 14      | 3474-14-L115    | L115          | UNC Teton | 356407             | 822301              | 416                |
| 34       | 74    | 14      | 3474-14-L117    | L117          | UNC Teton | 358021             | 822382              | 476                |
| 34       | 74    | 14      | 3474-14-L12     | L12           | UNC Teton | 357103             | 820635              | 998                |
| 34       | 74    | 14      | 3474-14-L13     | L13           | UNC Teton | 356830             | 822656              | 635                |
| 34       | 74    | 14      | 3474-14-L14     | L14           | UNC Teton | 354374             | 822627              | 671                |
| 34       | 74    | 14      | 3474-14-L144    | L144          | UNC Teton | 356318             | 822587              | 300                |
| 34       | 74    | 14      | 3474-14-L145    | L145          | UNC Teton | 356315             | 822197              | 420                |
| 34       | 74    | 14      | 3474-14-L146    | L146          | UNC Teton | 356029             | 822301              | 400                |
| 34       | 74    | 14      | 3474-14-L147    | L147          | UNC Teton | 356596             | 822294              | 420                |
| 34       | 74    | 14      | 3474-14-L148    | L148          | UNC Teton | 356828             | 822255              | 420                |
| 34       | 74    | 14      | 3474-14-L149    | L149          | UNC Teton | 357615             | 822295              | 440                |
| 34       | 74    | 14      | 3474-14-L15     | L15           | UNC Teton | 357450             | 820621              | 396                |
| 34       | 74    | 14      | 3474-14-L150CH  | L150CH        | UNC Teton | 356852             | 822035              | 421                |
| 34       | 74    | 14      | 3474-14-L151    | L151          | UNC Teton | 356596             | 822392              | 300                |
| 34       | 74    | 14      | 3474-14-L152    | L152          | UNC Teton | 356602             | 822095              | 420                |
| 34       | 74    | 14      | 3474-14-L153    | L153          | UNC Teton | 357039             | 822183              | 420                |
| 34       | 74    | 14      | 3474-14-L154    | L154          | UNC Teton | 356032             | 822108              | 400                |
| 34       | 74    | 14      | 3474-14-L155    | L155          | UNC Teton | 357425             | 822296              | 440                |
| 34       | 74    | 14      | 3474-14-L156    | L156          | UNC Teton | 357226             | 822198              | 420                |
| 34       | 74    | 14      | 3474-14-L157    | L157          | UNC Teton | 357612             | 822387              | 435                |
| 34       | 74    | 14      | 3474-14-L158    | L158          | UNC Teton | 356294             | 822008              | 420                |
| 34       | 74    | 14      | 3474-14-L159    | L159          | UNC Teton | 356599             | 821878              | 420                |
| 34       | 74    | 14      | 3474-14-L160    | L160          | UNC Teton | 356603             | 822482              | 300                |
| 34       | 74    | 14      | 3474-14-L161    | L161          | UNC Teton | 357625             | 822108              | 440                |
| 34       | 74    | 14      | 3474-14-L162    | L162          | UNC Teton | 357917             | 821890              | 460                |
| 34       | 74    | 14      | 3474-14-L163    | L163          | UNC Teton | 357041             | 822279              | 438                |
| 34       | 74    | 14      | 3474-14-L164    | L164          | UNC Teton | 357211             | 822287              | 440                |
| 34       | 74    | 14      | 3474-14-L165    | L165          | UNC Teton | 357422             | 822391              | 439                |
| 34       | 74    | 14      | 3474-14-L166    | L166          | UNC Teton | 356600             | 821989              | 420                |
| 34       | 74    | 14      | 3474-14-L167    | L167          | UNC Teton | 357603             | 822471              | 440                |
| 34       | 74    | 14      | 3474-14-L168    | L168          | UNC Teton | 356599             | 821779              | 410                |
| 34       | 74    | 14      | 3474-14-L169    | L169          | UNC Teton | 356292             | 821915              | 421                |
| 34       | 74    | 14      | 3474-14-L17     | L17           | UNC Teton | 356837             | 822166              | 598                |
| 34       | 74    | 14      | 3474-14-L170    | L170          | UNC Teton | 357619             | 822199              | 440                |
| 34       | 74    | 14      | 3474-14-L171    | L171          | UNC Teton | 357701             | 822099              | 438                |
| 34       | 74    | 14      | 3474-14-L172    | L172          | UNC Teton | 357792             | 822090              | 438                |
| 34       | 74    | 14      | 3474-14-L173    | L173          | UNC Teton | 356029             | 821930              | 400                |
| 34       | 74    | 14      | 3474-14-L174    | L174          | UNC Teton | 355829             | 821926              | 399                |
| 34       | 74    | 14      | 3474-14-L175    | L175          | UNC Teton | 357753             | 821690              | 458                |
| 34       | 74    | 14      | 3474-14-L176    | L176          | UNC Teton | 355604             | 821694              | 400                |
| 34       | 74    | 14      | 3474-14-L177    | L177          | UNC Teton | 357598             | 822566              | 460                |
| 34       | 74    | 14      | 3474-14-L178    | L178          | UNC Teton | 357815             | 821887              | 440                |
| 34       | 74    | 14      | 3474-14-L179    | L179          | UNC Teton | 357041             | 822081              | 421                |
| 34       | 74    | 14      | 3474-14-L18     | L18           | UNC Teton | 358027             | 822479              | 594                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|-----------|--------------------|---------------------|--------------------|
| 34       | 74    | 14      | 3474-14-L180 | L180          | UNC Teton | 357235             | 822102              | 421                |
| 34       | 74    | 14      | 3474-14-L181 | L181          | UNC Teton | 357429             | 822200              | 438                |
| 34       | 74    | 14      | 3474-14-L182 | L182          | UNC Teton | 356803             | 821777              | 420                |
| 34       | 74    | 14      | 3474-14-L183 | L183          | UNC Teton | 356605             | 821593              | 419                |
| 34       | 74    | 14      | 3474-14-L184 | L184          | UNC Teton | 357801             | 822186              | 440                |
| 34       | 74    | 14      | 3474-14-L185 | L185          | UNC Teton | 356500             | 822396              | 300                |
| 34       | 74    | 14      | 3474-14-L186 | L186          | UNC Teton | 356286             | 821734              | 421                |
| 34       | 74    | 14      | 3474-14-L187 | L187          | UNC Teton | 357419             | 822483              | 438                |
| 34       | 74    | 14      | 3474-14-L188 | L188          | UNC Teton | 357204             | 822385              | 440                |
| 34       | 74    | 14      | 3474-14-L189 | L189          | UNC Teton | 356022             | 821748              | 400                |
| 34       | 74    | 14      | 3474-14-L190 | L190          | UNC Teton | 355826             | 822023              | 380                |
| 34       | 74    | 14      | 3474-14-L191 | L191          | UNC Teton | 355846             | 821730              | 420                |
| 34       | 74    | 14      | 3474-14-L192 | L192          | UNC Teton | 357044             | 822384              | 460                |
| 34       | 74    | 14      | 3474-14-L193 | L193          | UNC Teton | 355600             | 821490              | 399                |
| 34       | 74    | 14      | 3474-14-L194 | L194          | UNC Teton | 355626             | 821892              | 400                |
| 34       | 74    | 14      | 3474-14-L195 | L195          | UNC Teton | 355404             | 821684              | 361                |
| 34       | 74    | 14      | 3474-14-L196 | L196          | UNC Teton | 357035             | 821982              | 418                |
| 34       | 74    | 14      | 3474-14-L197 | L197          | UNC Teton | 356397             | 821905              | 421                |
| 34       | 74    | 14      | 3474-14-L198 | L198          | UNC Teton | 356495             | 821891              | 420                |
| 34       | 74    | 14      | 3474-14-L199 | L199          | UNC Teton | 357635             | 821884              | 438                |
| 34       | 74    | 14      | 3474-14-L200 | L200          | UNC Teton | 358002             | 820603              | 395                |
| 34       | 74    | 14      | 3474-14-L201 | L201          | UNC Teton | 356951             | 821971              | 418                |
| 34       | 74    | 14      | 3474-14-L202 | L202          | UNC Teton | 357034             | 821775              | 419                |
| 34       | 74    | 14      | 3474-14-L203 | L203          | UNC Teton | 357648             | 821685              | 459                |
| 34       | 74    | 14      | 3474-14-L204 | L204          | UNC Teton | 357025             | 821576              | 420                |
| 34       | 74    | 14      | 3474-14-L205 | L205          | UNC Teton | 357026             | 821469              | 441                |
| 34       | 74    | 14      | 3474-14-L206 | L206          | UNC Teton | 357435             | 821881              | 440                |
| 34       | 74    | 14      | 3474-14-L207 | L207          | UNC Teton | 357632             | 821998              | 439                |
| 34       | 74    | 14      | 3474-14-L208 | L208          | UNC Teton | 356014             | 821559              | 419                |
| 34       | 74    | 14      | 3474-14-L209 | L209          | UNC Teton | 356276             | 821544              | 419                |
| 34       | 74    | 14      | 3474-14-L210 | L210          | UNC Teton | 356021             | 821657              | 421                |
| 34       | 74    | 14      | 3474-14-L211 | L211          | UNC Teton | 355237             | 822716              | 598                |
| 34       | 74    | 14      | 3474-14-L212 | L212          | UNC Teton | 356026             | 821841              | 392                |
| 34       | 74    | 14      | 3474-14-L213 | L213          | UNC Teton | 355926             | 821749              | 399                |
| 34       | 74    | 14      | 3474-14-L214 | L214          | UNC Teton | 355601             | 822082              | 281                |
| 34       | 74    | 14      | 3474-14-L215 | L215          | UNC Teton | 356197             | 821743              | 399                |
| 34       | 74    | 14      | 3474-14-L216 | L216          | UNC Teton | 356104             | 821748              | 401                |
| 34       | 74    | 14      | 3474-14-L217 | L217          | UNC Teton | 355603             | 821601              | 399                |
| 34       | 74    | 14      | 3474-14-L218 | L218          | UNC Teton | 355404             | 821592              | 359                |
| 34       | 74    | 14      | 3474-14-L219 | L219          | UNC Teton | 356280             | 821637              | 414                |
| 34       | 74    | 14      | 3474-14-L220 | L220          | UNC Teton | 356264             | 821357              | 419                |
| 34       | 74    | 14      | 3474-14-L221 | L221          | UNC Teton | 355810             | 821521              | 417                |
| 34       | 74    | 14      | 3474-14-L222 | L222          | UNC Teton | 355227             | 822517              | 438                |
| 34       | 74    | 14      | 3474-14-L223 | L223          | UNC Teton | 355241             | 821613              | 360                |
| 34       | 74    | 14      | 3474-14-L224 | L224          | UNC Teton | 355122             | 821526              | 361                |
| 34       | 74    | 14      | 3474-14-L225 | L225          | UNC Teton | 355401             | 821892              | 359                |
| 34       | 74    | 14      | 3474-14-L226 | L226          | UNC Teton | 355599             | 821287              | 399                |
| 34       | 74    | 14      | 3474-14-L227 | L227          | UNC Teton | 355822             | 821628              | 421                |
| 34       | 74    | 14      | 3474-14-L228 | L228          | UNC Teton | 356183             | 821546              | 419                |
| 34       | 74    | 14      | 3474-14-L229 | L229          | UNC Teton | 355398             | 821496              | 358                |
| 34       | 74    | 14      | 3474-14-L230 | L230          | UNC Teton | 356290             | 821829              | 421                |
| 34       | 74    | 14      | 3474-14-L231 | L231          | UNC Teton | 355251             | 821517              | 359                |
| 34       | 74    | 14      |              | L232          | UNC Teton | 355120             | 821433              | 360                |
| 34       | 74    | 14      |              | L233          | UNC Teton | 354353             | 822224              | 455                |
| 34       | 74    | 14      |              | L234          | UNC Teton | 355003             | 821537              | 361                |
| 34       | 74    | 14      |              | L235          | UNC Teton | 354587             | 821709              | 358                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|-----------|--------------------|---------------------|--------------------|
| 34       | 74    | 14      | 3474-14-L232 | L232          | UNC Teton | 354799             | 821716              | 359                |
| 34       | 74    | 14      | 3474-14-L233 | L233          | UNC Teton | 355609             | 822187              | 261                |
| 34       | 74    | 14      | 3474-14-L234 | L234          | UNC Teton | 355409             | 822001              | 261                |
| 34       | 74    | 14      | 3474-14-L235 | L235          | UNC Teton | 356396             | 821728              | 419                |
| 34       | 74    | 14      | 3474-14-L236 | L236          | UNC Teton | 355402             | 821404              | 359                |
| 34       | 74    | 14      | 3474-14-L237 | L237          | UNC Teton | 355625             | 821790              | 359                |
| 34       | 74    | 14      | 3474-14-L238 | L238          | UNC Teton | 356399             | 821825              | 419                |
| 34       | 74    | 14      | 3474-14-L239 | L239          | UNC Teton | 355001             | 821745              | 341                |
| 34       | 74    | 14      | 3474-14-L240 | L240          | UNC Teton | 355001             | 821431              | 341                |
| 34       | 74    | 14      | 3474-14-L241 | L241          | UNC Teton | 356525             | 821813              | 419                |
| 34       | 74    | 14      | 3474-14-L242 | L242          | UNC Teton | 354587             | 821806              | 358                |
| 34       | 74    | 14      | 3474-14-L243 | L243          | UNC Teton | 354586             | 821615              | 338                |
| 34       | 74    | 14      | 3474-14-L244 | L244          | UNC Teton | 354791             | 821815              | 359                |
| 34       | 74    | 14      | 3474-14-L245 | L245          | UNC Teton | 354808             | 821617              | 339                |
| 34       | 74    | 14      | 3474-14-L246 | L246          | UNC Teton | 355608             | 822280              | 259                |
| 34       | 74    | 14      | 3474-14-L247 | L247          | UNC Teton | 355607             | 821985              | 258                |
| 34       | 74    | 14      | 3474-14-L248 | L248          | UNC Teton | 355825             | 822121              | 258                |
| 34       | 74    | 14      | 3474-14-L249 | L249          | UNC Teton | 355409             | 822094              | 239                |
| 34       | 74    | 14      | 3474-14-L250 | L250          | UNC Teton | 355019             | 821815              | 339                |
| 34       | 74    | 14      | 3474-14-L251 | L251          | UNC Teton | 355018             | 821656              | 339                |
| 34       | 74    | 14      | 3474-14-L252 | L252          | UNC Teton | 355026             | 821267              | 338                |
| 34       | 74    | 14      | 3474-14-L253 | L253          | UNC Teton | 354476             | 821707              | 359                |
| 34       | 74    | 14      | 3474-14-L254 | L254          | UNC Teton | 354276             | 821646              | 359                |
| 34       | 74    | 14      | 3474-14-L255 | L255          | UNC Teton | 354831             | 823027              | 418                |
| 34       | 74    | 14      | 3474-14-L256 | L256          | UNC Teton | 354740             | 823249              | 440                |
| 34       | 74    | 14      | 3474-14-L257 | L257          | UNC Teton | 354652             | 822827              | 421                |
| 34       | 74    | 14      | 3474-14-L258 | L258          | UNC Teton | 354369             | 822519              | 401                |
| 34       | 74    | 14      | 3474-14-L259 | L259          | UNC Teton | 354371             | 822323              | 399                |
| 34       | 74    | 14      | 3474-14-L26  | L26           | UNC Teton | 356850             | 822063              | 494                |
| 34       | 74    | 14      | 3474-14-L260 | L260          | UNC Teton | 355414             | 822191              | 240                |
| 34       | 74    | 14      | 3474-14-L261 | L261          | UNC Teton | 354818             | 821518              | 339                |
| 34       | 74    | 14      | 3474-14-L262 | L262          | UNC Teton | 355811             | 822237              | 259                |
| 34       | 74    | 14      | 3474-14-L263 | L263          | UNC Teton | 356034             | 822017              | 261                |
| 34       | 74    | 14      | 3474-14-L264 | L264          | UNC Teton | 354820             | 821323              | 335                |
| 34       | 74    | 14      | 3474-14-L265 | L265          | UNC Teton | 354247             | 821789              | 361                |
| 34       | 74    | 14      | 3474-14-L266 | L266          | UNC Teton | 357145             | 821158              | 441                |
| 34       | 74    | 14      | 3474-14-L267 | L267          | UNC Teton | 357934             | 821504              | 458                |
| 34       | 74    | 14      | 3474-14-L268 | L268          | UNC Teton | 358133             | 821491              | 459                |
| 34       | 74    | 14      | 3474-14-L269 | L269          | UNC Teton | 354615             | 821309              | 319                |
| 34       | 74    | 14      | 3474-14-L27  | L27           | UNC Teton | 358011             | 822279              | 535                |
| 34       | 74    | 14      | 3474-14-L270 | L270          | UNC Teton | 354733             | 822796              | 418                |
| 34       | 74    | 14      | 3474-14-L271 | L271          | UNC Teton | 354546             | 822817              | 421                |
| 34       | 74    | 14      | 3474-14-L272 | L272          | UNC Teton | 354645             | 822696              | 401                |
| 34       | 74    | 14      | 3474-14-L273 | L273          | UNC Teton | 354736             | 822896              | 419                |
| 34       | 74    | 14      | 3474-14-L274 | L274          | UNC Teton | 354256             | 822438              | 421                |
| 34       | 74    | 14      | 3474-14-L275 | L275          | UNC Teton | 354457             | 822437              | 402                |
| 34       | 74    | 14      | 3474-14-L276 | L276          | UNC Teton | 354843             | 823193              | 419                |
| 34       | 74    | 14      | 3474-14-L277 | L277          | UNC Teton | 354736             | 823091              | 418                |
| 34       | 74    | 14      | 3474-14-L278 | L278          | UNC Teton | 355843             | 822349              | 259                |
| 34       | 74    | 14      | 3474-14-L279 | L279          | UNC Teton | 354827             | 822784              | 401                |
| 34       | 74    | 14      | 3474-14-L28  | L28           | UNC Teton | 357591             | 820617              | 697                |
| 34       | 74    | 14      | 3474-14-L280 | L280          | UNC Teton | 354406             | 821236              | 339                |
| 34       | 74    | 14      | 3474-14-L281 | L281          | UNC Teton | 354643             | 823197              | 420                |
| 34       | 74    | 14      | 3474-14-L282 | L282          | UNC Teton | 354729             | 822688              | 397                |
| 34       | 74    | 14      | 3474-14-L283 | L283          | UNC Teton | 354568             | 822495              | 401                |
| 34       | 74    | 14      | 3474-14-L284 | L284          | UNC Teton | 354595             | 821408              | 221                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number    | Short Hole ID | Company   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|----------------|---------------|-----------|--------------------|---------------------|--------------------|
| 34       | 74    | 14      | 3474-14-L285   | L285          | UNC Teton | 354508             | 821301              | 222                |
| 34       | 74    | 14      | 3474-14-L286   | L286          | UNC Teton | 354253             | 822322              | 401                |
| 34       | 74    | 14      | 3474-14-L287   | L287          | UNC Teton | 354939             | 823196              | 439                |
| 34       | 74    | 14      | 3474-14-L288   | L288          | UNC Teton | 354928             | 822768              | 411                |
| 34       | 74    | 14      | 3474-14-L289   | L289          | UNC Teton | 356925             | 821527              | 401                |
| 34       | 74    | 14      | 3474-14-L29    | L29           | UNC Teton | 358092             | 820600              | 396                |
| 34       | 74    | 14      | 3474-14-L290   | L290          | UNC Teton | 355843             | 823177              | 459                |
| 34       | 74    | 14      | 3474-14-L291   | L291          | UNC Teton | 357652             | 821500              | 459                |
| 34       | 74    | 14      | 3474-14-L292   | L292          | UNC Teton | 357225             | 821354              | 440                |
| 34       | 74    | 14      | 3474-14-L293   | L293          | UNC Teton | 358127             | 821592              | 439                |
| 34       | 74    | 14      | 3474-14-L294   | L294          | UNC Teton | 357930             | 821423              | 439                |
| 34       | 74    | 14      | 3474-14-L295   | L295          | UNC Teton | 357449             | 821680              | 440                |
| 34       | 74    | 14      | 3474-14-L296   | L296          | UNC Teton | 357497             | 820806              | 382                |
| 34       | 74    | 14      | 3474-14-L297   | L297          | UNC Teton | 358089             | 820783              | 400                |
| 34       | 74    | 14      | 3474-14-L298   | L298          | UNC Teton | 358538             | 821123              | 439                |
| 34       | 74    | 14      | 3474-14-L299   | L299          | UNC Teton | 358521             | 821473              | 459                |
| 34       | 74    | 14      | 3474-14-L30    | L30           | UNC Teton | 356865             | 821965              | 457                |
| 34       | 74    | 14      | 3474-14-L301CH | L301CH        | UNC Teton | 356831             | 822049              | 387                |
| 34       | 74    | 14      | 3474-14-L302CH | L302CH        | UNC Teton | 356829             | 822085              | 265                |
| 34       | 74    | 14      | 3474-14-L303   | L303          | UNC Teton | 356812             | 822042              | 497                |
| 34       | 74    | 14      | 3474-14-L304   | L304          | UNC Teton | 356836             | 822108              | 103                |
| 34       | 74    | 14      | 3474-14-L305   | L305          | UNC Teton | 356810             | 822347              | 389                |
| 34       | 74    | 14      | 3474-14-L306   | L306          | UNC Teton | 356736             | 822043              | 392                |
| 34       | 74    | 14      | 3474-14-L307   | L307          | UNC Teton | 356869             | 821859              | 381                |
| 34       | 74    | 14      | 3474-14-L309   | L309          | UNC Teton | 356832             | 822137              | 255                |
| 34       | 74    | 14      | 3474-14-L31    | L31           | UNC Teton | 358725             | 821302              | 535                |
| 34       | 74    | 14      | 3474-14-L310   | L310          | UNC Teton | 356946             | 821983              | 255                |
| 34       | 74    | 14      | 3474-14-L312   | L312          | UNC Teton | 356500             | 822051              | 267                |
| 34       | 74    | 14      | 3474-14-L313   | L313          | UNC Teton | 357050             | 822130              | 249                |
| 34       | 74    | 14      | 3474-14-L314   | L314          | UNC Teton | 356802             | 822065              | 497                |
| 34       | 74    | 14      | 3474-14-L315   | L315          | UNC Teton | 356019             | 822286              | 78                 |
| 34       | 74    | 14      | 3474-14-L316   | L316          | UNC Teton | 356364             | 821451              | 418                |
| 34       | 74    | 14      | 3474-14-L317   | L317          | UNC Teton | 356927             | 821862              | 265                |
| 34       | 74    | 14      | 3474-14-L318   | L318          | UNC Teton | 354425             | 821646              | 358                |
| 34       | 74    | 14      | 3474-14-L319   | L319          | UNC Teton | 356976             | 821568              | 275                |
| 34       | 74    | 14      | 3474-14-L32    | L32           | UNC Teton | 357989             | 822092              | 494                |
| 34       | 74    | 14      | 3474-14-L320   | L320          | UNC Teton | 356681             | 821822              | 257                |
| 34       | 74    | 14      | 3474-14-L321   | L321          | UNC Teton | 357413             | 821348              | 440                |
| 34       | 74    | 14      | 3474-14-L322   | L322          | UNC Teton | 355041             | 823198              | 438                |
| 34       | 74    | 14      | 3474-14-L323   | L323          | UNC Teton | 357043             | 821148              | 421                |
| 34       | 74    | 14      | 3474-14-L324   | L324          | UNC Teton | 357239             | 821161              | 441                |
| 34       | 74    | 14      | 3474-14-L325   | L325          | UNC Teton | 357256             | 820958              | 421                |
| 34       | 74    | 14      | 3474-14-L326   | L326          | UNC Teton | 357531             | 821879              | 420                |
| 34       | 74    | 14      | 3474-14-L327   | L327          | UNC Teton | 357211             | 821541              | 439                |
| 34       | 74    | 14      | 3474-14-L328   | L328          | UNC Teton | 358119             | 821689              | 439                |
| 34       | 74    | 14      | 3474-14-L329   | L329          | UNC Teton | 357438             | 821494              | 440                |
| 34       | 74    | 14      | 3474-14-L33    | L33           | UNC Teton | 356879             | 821869              | 435                |
| 34       | 74    | 14      | 3474-14-L330   | L330          | UNC Teton | 358491             | 821684              | 439                |
| 34       | 74    | 14      | 3474-14-L331   | L331          | UNC Teton | 358419             | 821479              | 461                |
| 34       | 74    | 14      | 3474-14-L332   | L332          | UNC Teton | 358615             | 821467              | 481                |
| 34       | 74    | 14      | 3474-14-L333   | L333          | UNC Teton | 357508             | 821343              | 440                |
| 34       | 74    | 14      | 3474-14-L334   | L334          | UNC Teton | 358344             | 821121              | 439                |
| 34       | 74    | 14      | 3474-14-L335   | L335          | UNC Teton | 357900             | 820789              | 400                |
| 34       | 74    | 14      | 3474-14-L336   | L336          | UNC Teton | 358185             | 820781              | 399                |
| 34       | 74    | 14      | 3474-14-L337   | L337          | UNC Teton | 357250             | 821054              | 421                |
| 34       | 74    | 14      | 3474-14-L338   | L338          | UNC Teton | 358110             | 821780              | 461                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|-----------|--------------------|---------------------|--------------------|
| 34       | 74    | 14      | 3474-14-L339 | L339          | UNC Teton | 358393             | 821690              | 479                |
| 34       | 74    | 14      | 3474-14-L34  | L34           | UNC Teton | 357880             | 822084              | 456                |
| 34       | 74    | 14      | 3474-14-L340 | L340          | UNC Teton | 358587             | 821702              | 500                |
| 34       | 74    | 14      | 3474-14-L341 | L341          | UNC Teton | 358383             | 821883              | 501                |
| 34       | 74    | 14      | 3474-14-L342 | L342          | UNC Teton | 357390             | 820809              | 379                |
| 34       | 74    | 14      | 3474-14-L343 | L343          | UNC Teton | 357596             | 820798              | 400                |
| 34       | 74    | 14      | 3474-14-L344 | L344          | UNC Teton | 357352             | 820953              | 380                |
| 34       | 74    | 14      | 3474-14-L345 | L345          | UNC Teton | 357646             | 821599              | 419                |
| 34       | 74    | 14      | 3474-14-L346 | L346          | UNC Teton | 358243             | 821123              | 441                |
| 34       | 74    | 14      | 3474-14-L347 | L347          | UNC Teton | 358444             | 821119              | 440                |
| 34       | 74    | 14      | 3474-14-L348 | L348          | UNC Teton | 358532             | 821217              | 440                |
| 34       | 74    | 14      | 3474-14-L349 | L349          | UNC Teton | 358284             | 821883              | 457                |
| 34       | 74    | 14      | 3474-14-L35  | L35           | UNC Teton | 358526             | 821313              | 500                |
| 34       | 74    | 14      | 3474-14-L350 | L350          | UNC Teton | 358480             | 821881              | 480                |
| 34       | 74    | 14      | 3474-14-L351 | L351          | UNC Teton | 358377             | 821981              | 480                |
| 34       | 74    | 14      | 3474-14-L352 | L352          | UNC Teton | 358198             | 821881              | 460                |
| 34       | 74    | 14      | 3474-14-L353 | L353          | UNC Teton | 358227             | 821022              | 442                |
| 34       | 74    | 14      | 3474-14-L354 | L354          | UNC Teton | 357346             | 821055              | 381                |
| 34       | 74    | 14      | 3474-14-L359 | L359          | UNC Teton | 358207             | 820903              | 421                |
| 34       | 74    | 14      | 3474-14-L36  | L36           | UNC Teton | 358635             | 821307              | 479                |
| 34       | 74    | 14      | 3474-14-L360 | L360          | UNC Teton | 355456             | 819360              | 760                |
| 34       | 74    | 14      | 3474-14-L361 | L361          | UNC Teton | 354199             | 819392              | 800                |
| 34       | 74    | 14      | 3474-14-L362 | L362          | UNC Teton | 358313             | 821483              | 461                |
| 34       | 74    | 14      | 3474-14-L363 | L363          | UNC Teton | 358294             | 821783              | 460                |
| 34       | 74    | 14      | 3474-14-L367 | L367          | UNC Teton | 355153             | 823200              | 433                |
| 34       | 74    | 14      | 3474-14-L368 | L368          | UNC Teton | 354838             | 822907              | 432                |
| 34       | 74    | 14      | 3474-14-L369 | L369          | UNC Teton | 354671             | 822878              | 388                |
| 34       | 74    | 14      | 3474-14-L37  | L37           | UNC Teton | 354368             | 822427              | 413                |
| 34       | 74    | 14      | 3474-14-L370 | L370          | UNC Teton | 354547             | 822712              | 395                |
| 34       | 74    | 14      | 3474-14-L371 | L371          | UNC Teton | 354456             | 822353              | 395                |
| 34       | 74    | 14      | 3474-14-L372 | L372          | UNC Teton | 354384             | 821340              | 334                |
| 34       | 74    | 14      | 3474-14-L373 | L373          | UNC Teton | 355235             | 821705              | 357                |
| 34       | 74    | 14      | 3474-14-L374 | L374          | UNC Teton | 356123             | 821834              | 388                |
| 34       | 74    | 14      | 3474-14-L375 | L375          | UNC Teton | 356220             | 822213              | 288                |
| 34       | 74    | 14      | 3474-14-L376 | L376          | UNC Teton | 356483             | 822304              | 290                |
| 34       | 74    | 14      | 3474-14-L377 | L377          | UNC Teton | 356410             | 822484              | 294                |
| 34       | 74    | 14      | 3474-14-L378 | L378          | UNC Teton | 356467             | 822215              | 291                |
| 34       | 74    | 14      | 3474-14-L379 | L379          | UNC Teton | 354536             | 822885              | 393                |
| 34       | 74    | 14      | 3474-14-L38  | L38           | UNC Teton | 356896             | 821768              | 412                |
| 34       | 74    | 14      | 3474-14-L380 | L380          | UNC Teton | 356266             | 821453              | 409                |
| 34       | 74    | 14      | 3474-14-L381 | L381          | UNC Teton | 356378             | 821538              | 421                |
| 34       | 74    | 14      | 3474-14-L382 | L382          | UNC Teton | 356596             | 821696              | 421                |
| 34       | 74    | 14      | 3474-14-L383 | L383          | UNC Teton | 354552             | 822366              | 395                |
| 34       | 74    | 14      | 3474-14-L384 | L384          | UNC Teton | 355213             | 821817              | 356                |
| 34       | 74    | 14      | 3474-14-L385 | L385          | UNC Teton | 356033             | 822268              | 271                |
| 34       | 74    | 14      | 3474-14-L386 | L386          | UNC Teton | 356923             | 821481              | 395                |
| 34       | 74    | 14      | 3474-14-L387 | L387          | UNC Teton | 356804             | 821679              | 416                |
| 34       | 74    | 14      | 3474-14-L388 | L388          | UNC Teton | 356740             | 822166              | 416                |
| 34       | 74    | 14      | 3474-14-L389 | L389          | UNC Teton | 357135             | 821986              | 416                |
| 34       | 74    | 14      | 3474-14-L39  | L39           | UNC Teton | 357542             | 820619              | 297                |
| 34       | 74    | 14      | 3474-14-L390 | L390          | UNC Teton | 357439             | 821982              | 437                |
| 34       | 74    | 14      | 3474-14-L391 | L391          | UNC Teton | 357333             | 821885              | 438                |
| 34       | 74    | 14      | 3474-14-L392 | L392          | UNC Teton | 357756             | 821499              | 450                |
| 34       | 74    | 14      | 3474-14-L393 | L393          | UNC Teton | 357338             | 821140              | 415                |
| 34       | 74    | 14      | 3474-14-L394 | L394          | UNC Teton | 357453             | 820941              | 397                |
| 34       | 74    | 14      | 3474-14-L395 | L395          | UNC Teton | 358116             | 820893              | 415                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|-----------|--------------------|---------------------|--------------------|
| 34       | 74    | 14      | 3474-14-L396 | L396          | UNC Teton | 358314             | 820898              | 415                |
| 34       | 74    | 14      | 3474-14-L397 | L397          | UNC Teton | 358361             | 821218              | 440                |
| 34       | 74    | 14      | 3474-14-L398 | L398          | UNC Teton | 358328             | 821382              | 457                |
| 34       | 74    | 14      | 3474-14-L399 | L399          | UNC Teton | 356823             | 821491              | 395                |
| 34       | 74    | 14      | 3474-14-L40  | L40           | UNC Teton | 357921             | 821335              | 417                |
| 34       | 74    | 14      | 3474-14-L400 | L400          | UNC Teton | 358285             | 821674              | 456                |
| 34       | 74    | 14      | 3474-14-L401 | L401          | UNC Teton | 354207             | 819960              | 420                |
| 34       | 74    | 14      | 3474-14-L402 | L402          | UNC Teton | 355462             | 819976              | 420                |
| 34       | 74    | 14      | 3474-14-L405 | L405          | UNC Teton | 355451             | 819673              | 418                |
| 34       | 74    | 14      | 3474-14-L406 | L406          | UNC Teton | 354206             | 819672              | 298                |
| 34       | 74    | 14      | 3474-14-L407 | L407          | UNC Teton | 355451             | 819509              | 418                |
| 34       | 74    | 14      | 3474-14-L408 | L408          | UNC Teton | 355462             | 819840              | 338                |
| 34       | 74    | 14      | 3474-14-L409 | L409          | UNC Teton | 354219             | 819806              | 278                |
| 34       | 74    | 14      | 3474-14-L41  | L41           | UNC Teton | 354384             | 821840              | 393                |
| 34       | 74    | 14      | 3474-14-L410 | L410          | UNC Teton | 355450             | 819591              | 418                |
| 34       | 74    | 14      | 3474-14-L411 | L411          | UNC Teton | 355260             | 819494              | 418                |
| 34       | 74    | 14      | 3474-14-L413 | L413          | UNC Teton | 354847             | 819821              | 414                |
| 34       | 74    | 14      | 3474-14-L42  | L42           | UNC Teton | 355194             | 822134              | 418                |
| 34       | 74    | 14      | 3474-14-L43  | L43           | UNC Teton | 357946             | 821699              | 435                |
| 34       | 74    | 14      | 3474-14-L432 | L432          | UNC Teton | 358703             | 821464              | 457                |
| 34       | 74    | 14      | 3474-14-L433 | L433          | UNC Teton | 358571             | 821876              | 457                |
| 34       | 74    | 14      | 3474-14-L434 | L434          | UNC Teton | 358236             | 821373              | 437                |
| 34       | 74    | 14      | 3474-14-L435 | L435          | UNC Teton | 358671             | 821903              | 477                |
| 34       | 74    | 14      | 3474-14-L436 | L436          | UNC Teton | 354834             | 823095              | 434                |
| 34       | 74    | 14      | 3474-14-L437 | L437          | UNC Teton | 354925             | 823091              | 436                |
| 34       | 74    | 14      | 3474-14-L438 | L438          | UNC Teton | 355043             | 823097              | 434                |
| 34       | 74    | 14      | 3474-14-L439 | L439          | UNC Teton | 354922             | 822985              | 436                |
| 34       | 74    | 14      | 3474-14-L44  | L44           | UNC Teton | 357316             | 821352              | 454                |
| 34       | 74    | 14      | 3474-14-L440 | L440          | UNC Teton | 354828             | 822679              | 438                |
| 34       | 74    | 14      | 3474-14-L45  | L45           | UNC Teton | 356909             | 821672              | 432                |
| 34       | 74    | 14      | 3474-14-L46  | L46           | UNC Teton | 354797             | 822552              | 399                |
| 34       | 74    | 14      | 3474-14-L461 | L461          | UNC Teton | 354462             | 822517              | 417                |
| 34       | 74    | 14      | 3474-14-L462 | L462          | UNC Teton | 355168             | 822001              | 237                |
| 34       | 74    | 14      | 3474-14-L463 | L463          | UNC Teton | 355210             | 821907              | 236                |
| 34       | 74    | 14      | 3474-14-L464 | L464          | UNC Teton | 354475             | 821808              | 354                |
| 34       | 74    | 14      | 3474-14-L465 | L465          | UNC Teton | 354308             | 821204              | 335                |
| 34       | 74    | 14      | 3474-14-L466 | L466          | UNC Teton | 356109             | 822017              | 414                |
| 34       | 74    | 14      | 3474-14-L467 | L467          | UNC Teton | 356105             | 821929              | 416                |
| 34       | 74    | 14      | 3474-14-L468 | L468          | UNC Teton | 356212             | 822131              | 417                |
| 34       | 74    | 14      | 3474-14-L469 | L469          | UNC Teton | 356082             | 821658              | 416                |
| 34       | 74    | 14      | 3474-14-L47  | L47           | UNC Teton | 355038             | 821230              | 398                |
| 34       | 74    | 14      | 3474-14-L470 | L470          | UNC Teton | 356208             | 822488              | 295                |
| 34       | 74    | 14      | 3474-14-L471 | L471          | UNC Teton | 356390             | 822192              | 416                |
| 34       | 74    | 14      | 3474-14-L472 | L472          | UNC Teton | 356478             | 822086              | 416                |
| 34       | 74    | 14      | 3474-14-L473 | L473          | UNC Teton | 356395             | 822000              | 415                |
| 34       | 74    | 14      | 3474-14-L474 | L474          | UNC Teton | 356489             | 821987              | 416                |
| 34       | 74    | 14      | 3474-14-L475 | L475          | UNC Teton | 357025             | 821261              | 434                |
| 34       | 74    | 14      | 3474-14-L476 | L476          | UNC Teton | 357108             | 821536              | 434                |
| 34       | 74    | 14      | 3474-14-L477 | L477          | UNC Teton | 357132             | 821457              | 434                |
| 34       | 74    | 14      | 3474-14-L478 | L478          | UNC Teton | 357135             | 821258              | 436                |
| 34       | 74    | 14      | 3474-14-L479 | L479          | UNC Teton | 357319             | 821540              | 436                |
| 34       | 74    | 14      | 3474-14-L48  | L48           | UNC Teton | 356956             | 821347              | 433                |
| 34       | 74    | 14      | 3474-14-L480 | L480          | UNC Teton | 357350             | 821672              | 436                |
| 34       | 74    | 14      | 3474-14-L482 | L482          | UNC Teton | 357707             | 822487              | 436                |
| 34       | 74    | 14      | 3474-14-L483 | L483          | UNC Teton | 357712             | 822392              | 432                |
| 34       | 74    | 14      | 3474-14-L484 | L484          | UNC Teton | 357804             | 822486              | 434                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number    | Short Hole ID | Company   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|----------------|---------------|-----------|--------------------|---------------------|--------------------|
| 34       | 74    | 14      | 3474-14-L485   | L485          | UNC Teton | 357701             | 822196              | 434                |
| 34       | 74    | 14      | 3474-14-L486   | L486          | UNC Teton | 357909             | 822181              | 437                |
| 34       | 74    | 14      | 3474-14-L487   | L487          | UNC Teton | 357911             | 821776              | 471                |
| 34       | 74    | 14      | 3474-14-L488   | L488          | UNC Teton | 358106             | 821881              | 476                |
| 34       | 74    | 14      | 3474-14-L489   | L489          | UNC Teton | 358281             | 821981              | 475                |
| 34       | 74    | 14      | 3474-14-L49    | L49           | UNC Teton | 354564             | 822586              | 358                |
| 34       | 74    | 14      | 3474-14-L490   | L490          | UNC Teton | 358455             | 821972              | 474                |
| 34       | 74    | 14      | 3474-14-L491   | L491          | UNC Teton | 358142             | 821371              | 453                |
| 34       | 74    | 14      | 3474-14-L492   | L492          | UNC Teton | 358431             | 821309              | 456                |
| 34       | 74    | 14      | 3474-14-L493   | L493          | UNC Teton | 358457             | 821215              | 456                |
| 34       | 74    | 14      | 3474-14-L494   | L494          | UNC Teton | 358321             | 821030              | 436                |
| 34       | 74    | 14      | 3474-14-L495   | L495          | UNC Teton | 358136             | 821018              | 436                |
| 34       | 74    | 14      | 3474-14-L496   | L496          | UNC Teton | 354475             | 821607              | 351                |
| 34       | 74    | 14      | 3474-14-L497   | L497          | UNC Teton | 355137             | 823103              | 436                |
| 34       | 74    | 14      | 3474-14-L498   | L498          | UNC Teton | 354845             | 819645              | 416                |
| 34       | 74    | 14      | 3474-14-L499   | L499          | UNC Teton | 355070             | 819493              | 417                |
| 34       | 74    | 14      | 3474-14-L50    | L50           | UNC Teton | 354637             | 823004              | 436                |
| 34       | 74    | 14      | 3474-14-L500   | L500          | UNC Teton | 357254             | 821663              | 434                |
| 34       | 74    | 14      | 3474-14-L501   | L501          | UNC Teton | 356851             | 821851              | 383                |
| 34       | 74    | 14      | 3474-14-L502   | L502          | UNC Teton | 357330             | 821772              | 435                |
| 34       | 74    | 14      | 3474-14-L503   | L503          | UNC Teton | 357230             | 821448              | 434                |
| 34       | 74    | 14      | 3474-14-L504   | L504          | UNC Teton | 356930             | 821291              | 434                |
| 34       | 74    | 14      | 3474-14-L505   | L505          | UNC Teton | 357238             | 821245              | 431                |
| 34       | 74    | 14      | 3474-14-L506   | L506          | UNC Teton | 357443             | 821428              | 435                |
| 34       | 74    | 14      | 3474-14-L507   | L507          | UNC Teton | 355258             | 819365              | 436                |
| 34       | 74    | 14      | 3474-14-L508   | L508          | UNC Teton | 355164             | 819501              | 415                |
| 34       | 74    | 14      | 3474-14-L509CH | L509CH        | UNC Teton | 356775             | 822044              | 401                |
| 34       | 74    | 14      | 3474-14-L51    | L51           | UNC Teton | 354312             | 821335              | 354                |
| 34       | 74    | 14      | 3474-14-L510CH | L510CH        | UNC Teton | 357521             | 822392              | 419                |
| 34       | 74    | 14      | 3474-14-L511CH | L511CH        | UNC Teton | 356366             | 822396              | 278                |
| 34       | 74    | 14      | 3474-14-L512CH | L512CH        | UNC Teton | 355186             | 821716              | 319                |
| 34       | 74    | 14      | 3474-14-L513   | L513          | UNC Teton | 356766             | 822223              | 418                |
| 34       | 74    | 14      | 3474-14-L514   | L514          | UNC Teton | 356702             | 822272              | 423                |
| 34       | 74    | 14      | 3474-14-L515   | L515          | UNC Teton | 356690             | 822162              | 418                |
| 34       | 74    | 14      | 3474-14-L516   | L516          | UNC Teton | 356759             | 821899              | 399                |
| 34       | 74    | 14      | 3474-14-L517   | L517          | UNC Teton | 356991             | 821977              | 400                |
| 34       | 74    | 14      | 3474-14-L518   | L518          | UNC Teton | 356956             | 821912              | 400                |
| 34       | 74    | 14      | 3474-14-L519   | L519          | UNC Teton | 357130             | 822381              | 438                |
| 34       | 74    | 14      | 3474-14-L52    | L52           | UNC Teton | 357938             | 821600              | 450                |
| 34       | 74    | 14      | 3474-14-L520   | L520          | UNC Teton | 357287             | 822440              | 439                |
| 34       | 74    | 14      | 3474-14-L521   | L521          | UNC Teton | 357134             | 822229              | 439                |
| 34       | 74    | 14      | 3474-14-L522   | L522          | UNC Teton | 357275             | 822199              | 419                |
| 34       | 74    | 14      | 3474-14-L523   | L523          | UNC Teton | 357086             | 821985              | 400                |
| 34       | 74    | 14      | 3474-14-L524   | L524          | UNC Teton | 357338             | 821980              | 435                |
| 34       | 74    | 14      | 3474-14-L525   | L525          | UNC Teton | 357428             | 822074              | 439                |
| 34       | 74    | 14      | 3474-14-L526   | L526          | UNC Teton | 357235             | 821879              | 439                |
| 34       | 74    | 14      | 3474-14-L527   | L527          | UNC Teton | 357226             | 821770              | 438                |
| 34       | 74    | 14      | 3474-14-L528   | L528          | UNC Teton | 357158             | 821657              | 438                |
| 34       | 74    | 14      | 3474-14-L529   | L529          | UNC Teton | 357328             | 822333              | 438                |
| 34       | 74    | 14      | 3474-14-L53    | L53           | UNC Teton | 355124             | 821628              | 375                |
| 34       | 74    | 14      | 3474-14-L530   | L530          | UNC Teton | 357495             | 822544              | 438                |
| 34       | 74    | 14      | 3474-14-L531   | L531          | UNC Teton | 357705             | 822533              | 438                |
| 34       | 74    | 14      | 3474-14-L532   | L532          | UNC Teton | 358111             | 822292              | 449                |
| 34       | 74    | 14      | 3474-14-L533   | L533          | UNC Teton | 358116             | 822388              | 437                |
| 34       | 74    | 14      | 3474-14-L534   | L534          | UNC Teton | 358011             | 822184              | 448                |
| 34       | 74    | 14      | 3474-14-L535   | L535          | UNC Teton | 357703             | 822046              | 437                |



Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number     | Short Hole ID | Company   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-----------------|---------------|-----------|--------------------|---------------------|--------------------|
| 34       | 74    | 14      | 3474-14-L536    | L536          | UNC Teton | 357833             | 821939              | 438                |
| 34       | 74    | 14      | 3474-14-L537    | L537          | UNC Teton | 357522             | 821936              | 438                |
| 34       | 74    | 14      | 3474-14-L538    | L538          | UNC Teton | 357544             | 821769              | 439                |
| 34       | 74    | 14      | 3474-14-L539    | L539          | UNC Teton | 357645             | 821779              | 438                |
| 34       | 74    | 14      | 3474-14-L54     | L54           | UNC Teton | 357135             | 821349              | 434                |
| 34       | 74    | 14      | 3474-14-L540    | L540          | UNC Teton | 357013             | 821912              | 398                |
| 34       | 74    | 14      | 3474-14-L541    | L541          | UNC Teton | 357741             | 821791              | 458                |
| 34       | 74    | 14      | 3474-14-L542    | L542          | UNC Teton | 357854             | 821694              | 459                |
| 34       | 74    | 14      | 3474-14-L543    | L543          | UNC Teton | 358007             | 821771              | 458                |
| 34       | 74    | 14      | 3474-14-L544    | L544          | UNC Teton | 358201             | 821821              | 459                |
| 34       | 74    | 14      | 3474-14-L545    | L545          | UNC Teton | 358666             | 821985              | 496                |
| 34       | 74    | 14      | 3474-14-L546    | L546          | UNC Teton | 358770             | 821911              | 477                |
| 34       | 74    | 14      | 3474-14-L547    | L547          | UNC Teton | 358673             | 821779              | 476                |
| 34       | 74    | 14      | 3474-14-L548    | L548          | UNC Teton | 358645             | 821597              | 495                |
| 34       | 74    | 14      | 3474-14-L549    | L549          | UNC Teton | 358710             | 821353              | 478                |
| 34       | 74    | 14      | 3474-14-L55     | L55           | UNC Teton | 354658             | 822570              | 375                |
| 34       | 74    | 14      | 3474-14-L550    | L550          | UNC Teton | 358640             | 821208              | 458                |
| 34       | 74    | 14      | 3474-14-L551    | L551          | UNC Teton | 358038             | 821364              | 458                |
| 34       | 74    | 14      | 3474-14-L552    | L552          | UNC Teton | 357763             | 821397              | 457                |
| 34       | 74    | 14      | 3474-14-L553    | L553          | UNC Teton | 357615             | 821344              | 438                |
| 34       | 74    | 14      | 3474-14-L554    | L554          | UNC Teton | 357506             | 821235              | 435                |
| 34       | 74    | 14      | 3474-14-L555    | L555          | UNC Teton | 357444             | 821779              | 435                |
| 34       | 74    | 14      | 3474-14-L556    | L556          | UNC Teton | 357058             | 821652              | 418                |
| 34       | 74    | 14      | 3474-14-L557    | L557          | UNC Teton | 356234             | 821838              | 415                |
| 34       | 74    | 14      | 3474-14-L558    | L558          | UNC Teton | 356588             | 822193              | 417                |
| 34       | 74    | 14      | 3474-14-L559    | L559          | UNC Teton | 356656             | 822395              | 298                |
| 34       | 74    | 14      | 3474-14-L56     | L56           | UNC Teton | 355133             | 821740              | 350                |
| 34       | 74    | 14      | 3474-14-L560    | L560          | UNC Teton | 356593             | 822534              | 296                |
| 34       | 74    | 14      | 3474-14-L561    | L561          | UNC Teton | 356159             | 822304              | 295                |
| 34       | 74    | 14      | 3474-14-L562    | L562          | UNC Teton | 358739             | 821597              | 493                |
| 34       | 74    | 14      | 3474-14-L563    | L563          | UNC Teton | 357767             | 821345              | 457                |
| 34       | 74    | 14      | 3474-14-L564    | L564          | UNC Teton | 356027             | 822169              | 398                |
| 34       | 74    | 14      | 3474-14-L565    | L565          | UNC Teton | 356928             | 822098              | 398                |
| 34       | 74    | 14      | 3474-14-L566    | L566          | UNC Teton | 355383             | 821774              | 300                |
| 34       | 74    | 14      | 3474-14-L568CH  | L568CH        | UNC Teton | 354782             | 822841              | 373                |
| 34       | 74    | 14      | 3474-14-L570    | L570          | UNC Teton | 356935             | 821840              | 94                 |
| 34       | 74    | 14      | 3474-14-L571    | L571          | UNC Teton | 357973             | 823119              | 440                |
| 34       | 74    | 14      | 3474-14-L572    | L572          | UNC Teton | 356916             | 821960              | 259                |
| 34       | 74    | 14      | 3474-14-L573    | L573          | UNC Teton | 356994             | 821856              | 274                |
| 34       | 74    | 14      | 3474-14-L574    | L574          | UNC Teton | 356861             | 821814              | 265                |
| 34       | 74    | 14      | 3474-14-L575    | L575          | UNC Teton | 357166             | 821934              | 379                |
| 34       | 74    | 14      | 3474-14-L576    | L576          | UNC Teton | 356676             | 821869              | 384                |
| 34       | 74    | 14      | 3474-14-L577    | L577          | UNC Teton | 357103             | 822685              | 458                |
| 34       | 74    | 14      | 3474-14-L578    | L578          | UNC Teton | 357937             | 823121              | 327                |
| 34       | 74    | 14      | 3474-14-L58     | L58           | UNC Teton | 357033             | 821347              | 434                |
| 34       | 74    | 14      | 3474-14-L581    | L581          | UNC Teton | 354398             | 821631              | 299                |
| 34       | 74    | 14      | 3474-14-L582A-T | L582A-T       | UNC Teton | 356416             | 822913              | 459                |
| 34       | 74    | 14      | 3474-14-L583    | L583          | UNC Teton | 357991             | 823121              | 170                |
| 34       | 74    | 14      | 3474-14-L584    | L584          | UNC Teton | 354914             | 823258              | 421                |
| 34       | 74    | 14      | 3474-14-L585CH  | L585CH        | UNC Teton | 354400             | 822411              | 400                |
| 34       | 74    | 14      | 3474-14-L586CH  | L586CH        | UNC Teton | 354693             | 821715              | 336                |
| 34       | 74    | 14      | 3474-14-L587CH  | L587CH        | UNC Teton | 355483             | 821403              | 349                |
| 34       | 74    | 14      | 3474-14-L588    | L588          | UNC Teton | 356162             | 821840              | 259                |
| 34       | 74    | 14      | 3474-14-L588CH  | L588CH        | UNC Teton | 356162             | 821840              | 259                |
| 34       | 74    | 14      | 3474-14-L589    | L589          | UNC Teton | 354591             | 822999              | 400                |
| 34       | 74    | 14      | 3474-14-L59     | L59           | UNC Teton | 354740             | 822993              | 418                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number    | Short Hole ID | Company   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|----------------|---------------|-----------|--------------------|---------------------|--------------------|
| 34       | 74    | 14      | 3474-14-L590   | L590          | UNC Teton | 354873             | 822838              | 399                |
| 34       | 74    | 14      | 3474-14-L591   | L591          | UNC Teton | 354506             | 822716              | 380                |
| 34       | 74    | 14      | 3474-14-L592   | L592          | UNC Teton | 354423             | 822607              | 380                |
| 34       | 74    | 14      | 3474-14-L593   | L593          | UNC Teton | 355015             | 822976              | 399                |
| 34       | 74    | 14      | 3474-14-L594   | L594          | UNC Teton | 354256             | 822476              | 380                |
| 34       | 74    | 14      | 3474-14-L595   | L595          | UNC Teton | 354453             | 822307              | 380                |
| 34       | 74    | 14      | 3474-14-L596   | L596          | UNC Teton | 354376             | 821771              | 340                |
| 34       | 74    | 14      | 3474-14-L597   | L597          | UNC Teton | 354888             | 821773              | 340                |
| 34       | 74    | 14      | 3474-14-L598   | L598          | UNC Teton | 354895             | 821623              | 339                |
| 34       | 74    | 14      | 3474-14-L599   | L599          | UNC Teton | 354703             | 821606              | 340                |
| 34       | 74    | 14      | 3474-14-L60    | L60           | UNC Teton | 355144             | 821832              | 359                |
| 34       | 74    | 14      | 3474-14-L600   | L600          | UNC Teton | 354942             | 822897              | 400                |
| 34       | 74    | 14      | 3474-14-L601   | L601          | UNC Teton | 354638             | 823059              | 399                |
| 34       | 74    | 14      | 3474-14-L602   | L602          | UNC Teton | 355369             | 821798              | 320                |
| 34       | 74    | 14      | 3474-14-L603   | L603          | UNC Teton | 357518             | 822138              | 437                |
| 34       | 74    | 14      | 3474-14-L604CH | L604CH        | UNC Teton | 357389             | 821602              | 410                |
| 34       | 74    | 14      | 3474-14-L605CH | L605CH        | UNC Teton | 357970             | 820704              | 386                |
| 34       | 74    | 14      | 3474-14-L606   | L606          | UNC Teton | 356917             | 821198              | 420                |
| 34       | 74    | 14      | 3474-14-L607   | L607          | UNC Teton | 356938             | 821109              | 418                |
| 34       | 74    | 14      | 3474-14-L608   | L608          | UNC Teton | 357048             | 821056              | 419                |
| 34       | 74    | 14      | 3474-14-L609   | L609          | UNC Teton | 357148             | 821057              | 419                |
| 34       | 74    | 14      | 3474-14-L61    | L61           | UNC Teton | 354467             | 820507              | 318                |
| 34       | 74    | 14      | 3474-14-L610   | L610          | UNC Teton | 357455             | 821054              | 398                |
| 34       | 74    | 14      | 3474-14-L611   | L611          | UNC Teton | 357376             | 820873              | 399                |
| 34       | 74    | 14      | 3474-14-L612   | L612          | UNC Teton | 357399             | 820696              | 400                |
| 34       | 74    | 14      | 3474-14-L613   | L613          | UNC Teton | 357553             | 820926              | 398                |
| 34       | 74    | 14      | 3474-14-L614   | L614          | UNC Teton | 357144             | 822080              | 419                |
| 34       | 74    | 14      | 3474-14-L615   | L615          | UNC Teton | 357339             | 822250              | 439                |
| 34       | 74    | 14      | 3474-14-L616   | L616          | UNC Teton | 357322             | 821267              | 419                |
| 34       | 74    | 14      | 3474-14-L617   | L617          | UNC Teton | 357421             | 822551              | 455                |
| 34       | 74    | 14      | 3474-14-L618CH | L618CH        | UNC Teton | 358298             | 821317              | 440                |
| 34       | 74    | 14      | 3474-14-L619   | L619          | UNC Teton | 356974             | 822275              | 439                |
| 34       | 74    | 14      | 3474-14-L62    | L62           | UNC Teton | 354345             | 821588              | 346                |
| 34       | 74    | 14      | 3474-14-L620   | L620          | UNC Teton | 356824             | 821150              | 418                |
| 34       | 74    | 14      | 3474-14-L621   | L621          | UNC Teton | 356880             | 821032              | 420                |
| 34       | 74    | 14      | 3474-14-L622   | L622          | UNC Teton | 357008             | 820999              | 420                |
| 34       | 74    | 14      | 3474-14-L623   | L623          | UNC Teton | 356363             | 821645              | 420                |
| 34       | 74    | 14      | 3474-14-L624   | L624          | UNC Teton | 355908             | 821634              | 418                |
| 34       | 74    | 14      | 3474-14-L625   | L625          | UNC Teton | 356214             | 822008              | 419                |
| 34       | 74    | 14      | 3474-14-L626   | L626          | UNC Teton | 355719             | 822126              | 278                |
| 34       | 74    | 14      | 3474-14-L627   | L627          | UNC Teton | 357187             | 821211              | 400                |
| 34       | 74    | 14      | 3474-14-L628   | L628          | UNC Teton | 357674             | 821970              | 415                |
| 34       | 74    | 14      | 3474-14-L629   | L629          | UNC Teton | 355653             | 821671              | 420                |
| 34       | 74    | 14      | 3474-14-L63    | L63           | UNC Teton | 354383             | 820985              | 328                |
| 34       | 74    | 14      | 3474-14-L630   | L630          | UNC Teton | 356785             | 821074              | 420                |
| 34       | 74    | 14      | 3474-14-L631   | L631          | UNC Teton | 356712             | 821155              | 418                |
| 34       | 74    | 14      | 3474-14-L632   | L632          | UNC Teton | 354961             | 822847              | 398                |
| 34       | 74    | 14      | 3474-14-L633   | L633          | UNC Teton | 355039             | 822894              | 399                |
| 34       | 74    | 14      | 3474-14-L634   | L634          | UNC Teton | 355973             | 821921              | 399                |
| 34       | 74    | 14      | 3474-14-L635   | L635          | UNC Teton | 357398             | 821262              | 418                |
| 34       | 74    | 14      | 3474-14-L636   | L636          | UNC Teton | 357313             | 820883              | 399                |
| 34       | 74    | 14      | 3474-14-L637   | L637          | UNC Teton | 356949             | 820951              | 419                |
| 34       | 74    | 14      | 3474-14-L638   | L638          | UNC Teton | 356917             | 821442              | 399                |
| 34       | 74    | 14      | 3474-14-L64    | L64           | UNC Teton | 354364             | 821698              | 359                |
| 34       | 74    | 14      | 3474-14-L640CH | L640CH        | UNC Teton | 355461             | 822032              | 239                |
| 34       | 74    | 14      | 3474-14-L641CH | L641CH        | UNC Teton | 355853             | 822193              | 250                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number   | Short Hole ID | Company     | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|---------------|---------------|-------------|--------------------|---------------------|--------------------|
| 34       | 74    | 14      | 3474-14-L65   | L65           | UNC Teton   | 354354             | 821102              | 209                |
| 34       | 74    | 14      | 3474-14-L674  | L674          | UNC Teton   | 356610             | 821044              | 618                |
| 34       | 74    | 14      | 3474-14-L675  | L675          | UNC Teton   | 355983             | 820943              | 618                |
| 34       | 74    | 14      | 3474-14-L676  | L676          | UNC Teton   | 356594             | 821288              | 598                |
| 34       | 74    | 14      | 3474-14-L677  | L677          | UNC Teton   | 356551             | 820888              | 618                |
| 34       | 74    | 14      | 3474-14-L7    | L7            | UNC Teton   | 359275             | 820635              | 998                |
| 34       | 74    | 14      | 3474-14-L8    | L8            | UNC Teton   | 355164             | 820698              | 996                |
| 34       | 74    | 14      | 3474-14-L80   | L80           | UNC Teton   | 358007             | 823052              | 455                |
| 34       | 74    | 14      | 3474-14-L81   | L81           | UNC Teton   | 357826             | 822719              | 480                |
| 34       | 74    | 14      | 3474-14-L82   | L82           | UNC Teton   | 356836             | 823107              | 467                |
| 34       | 74    | 14      | 3474-14-L84   | L84           | UNC Teton   | 356942             | 822076              | 413                |
| 34       | 74    | 14      | 3474-14-L85   | L85           | UNC Teton   | 357929             | 822476              | 478                |
| 34       | 74    | 14      | 3474-14-L89   | L89           | UNC Teton   | 356315             | 822397              | 397                |
| 34       | 74    | 14      | 3474-14-L9    | L9            | UNC Teton   | 358031             | 822666              | 585                |
| 34       | 74    | 14      | 3474-14-L93   | L93           | UNC Teton   | 356939             | 822177              | 416                |
| 34       | 74    | 14      | 3474-14-L94   | L94           | UNC Teton   | 356942             | 822124              | 416                |
| 34       | 74    | 14      | 3474-14-L95   | L95           | UNC Teton   | 356412             | 822397              | 396                |
| 34       | 74    | 14      | 3474-14-L96   | L96           | UNC Teton   | 356221             | 822403              | 390                |
| 34       | 74    | 14      | 3474-14-L97   | L97           | UNC Teton   | 356309             | 822300              | 385                |
| 34       | 74    | 14      | 3474-14-L98   | L98           | UNC Teton   | 356317             | 822495              | 395                |
| 34       | 74    | 14      | 3474-14-L99   | L99           | UNC Teton   | 357918             | 822378              | 473                |
| 34       | 74    | 14      | 3474-14-LMO-1 | LMO-1         | Uranium One | 356425             | 822080              | 157                |
| 34       | 74    | 14      | 3474-14-LMP-1 | LMP-1         | Uranium One | 356440.9084        | 822395.9095         | 400                |
| 34       | 74    | 14      | 3474-14-LMP-2 | LMP-2         | Uranium One | 356457.9099        | 821704.9096         | 410                |
| 34       | 74    | 14      | 3474-14-LMP-3 | LMP-3         | Uranium One | 356448.9084        | 822384.9095         | 281                |
| 34       | 74    | 14      | 3474-14-LMP-4 | LMP-4         | Uranium One | 356438.9092        | 821704.9093         | 280                |
| 34       | 74    | 14      | 3474-14-LMU-1 | LMU-1         | Uranium One | 356459.9086        | 822084.9087         | 513                |
| 34       | 74    | 14      | 3474-14-LPW-1 | LPW-1         | Uranium One | 356449.9086        | 822084.9087         | 400                |
| 34       | 74    | 14      | 3474-14-LPW-2 | LPW-2         | Uranium One | 356439.9086        | 822084.9087         | 280                |
| 34       | 74    | 14      | 3474-14-M-8   | M-8           | Uranium One | 358350             | 821550              | 600                |
| 34       | 74    | 14      | 3474-14-MI-10 | MI-10         | UNC Teton   | 356955             | 822007              | 418                |
| 34       | 74    | 14      | 3474-14-MI-12 | MI-12         | UNC Teton   | 356994             | 821976              | 401                |
| 34       | 74    | 14      | 3474-14-MI-2  | MI-2          | UNC Teton   | 356899             | 822050              | 398                |
| 34       | 74    | 14      | 3474-14-MI-6  | MI-6          | UNC Teton   | 356930             | 821976              | 423                |
| 34       | 74    | 14      | 3474-14-MI-8  | MI-8          | UNC Teton   | 356969             | 821946              | 401                |
| 34       | 74    | 14      | 3474-14-MM-1  | MM-1          | UNC Teton   | 356627             | 822148              | 402                |
| 34       | 74    | 14      | 3474-14-MM-10 | MM-10         | UNC Teton   | 358345             | 821701              | 429                |
| 34       | 74    | 14      | 3474-14-MM-2  | MM-2          | UNC Teton   | 357162             | 822231              | 440                |
| 34       | 74    | 14      | 3474-14-MM-3  | MM-3          | UNC Teton   | 357551             | 822307              | 441                |
| 34       | 74    | 14      | 3474-14-MM-4  | MM-4          | UNC Teton   | 358339             | 821616              | 441                |
| 34       | 74    | 14      | 3474-14-MM-5  | MM-5          | UNC Teton   | 355487             | 821637              | 380                |
| 34       | 74    | 14      | 3474-14-MM-6  | MM-6          | UNC Teton   | 354774             | 822944              | 399                |
| 34       | 74    | 14      | 3474-14-MM-7  | MM-7          | UNC Teton   | 357709             | 821613              | 443                |
| 34       | 74    | 14      | 3474-14-MM-8  | MM-8          | UNC Teton   | 355241             | 822766              | 384                |
| 34       | 74    | 14      | 3474-14-MM-9  | MM-9          | UNC Teton   | 354689             | 822713              | 366                |
| 34       | 74    | 14      | 3474-14-MR-3  | MR-3          | UNC Teton   | 356916             | 822013              | 422                |
| 34       | 74    | 14      | 3474-14-MR-5  | MR-5          | UNC Teton   | 356962             | 821976              | 420                |
| 34       | 74    | 14      | 3474-14-NI-1  | NI-1          | UNC Teton   | 356881             | 821858              | 278                |
| 34       | 74    | 14      | 3474-14-NI-10 | NI-10         | UNC Teton   | 356968             | 821790              | 300                |
| 34       | 74    | 14      | 3474-14-NI-12 | NI-12         | UNC Teton   | 356996             | 821747              | 282                |
| 34       | 74    | 14      | 3474-14-NI-2  | NI-2          | UNC Teton   | 356927             | 821881              | 274                |
| 34       | 74    | 14      | 3474-14-NI-3  | NI-3          | UNC Teton   | 356899             | 821808              | 279                |
| 34       | 74    | 14      | 3474-14-NI-4  | NI-4          | UNC Teton   | 356948             | 821837              | 279                |
| 34       | 74    | 14      | 3474-14-NI-6  | NI-6          | UNC Teton   | 356926             | 821766              | 301                |
| 34       | 74    | 14      | 3474-14-NI-8  | NI-8          | UNC Teton   | 356953             | 821723              | 280                |
| 34       | 74    | 14      | 3474-14-NM-1  | NM-1          | UNC Teton   | 357283             | 821853              | 320                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number        | Short Hole ID | Company   | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------------|---------------|-----------|--------------------|---------------------|--------------------|
| 34       | 74    | 14      | 3474-14-NM-2       | NM-2          | UNC Teton | 355420             | 822054              | 240                |
| 34       | 74    | 14      | 3474-14-NM-3       | NM-3          | UNC Teton | 354777             | 822989              | 284                |
| 34       | 74    | 14      | 3474-14-NM-4       | NM-4          | UNC Teton | 358316             | 821700              | 322                |
| 34       | 74    | 14      | 3474-14-NR-1       | NR-1          | UNC Teton | 356914             | 821848              | 279                |
| 34       | 74    | 14      | 3474-14-NR-3       | NR-3          | UNC Teton | 356935             | 821799              | 243                |
| 34       | 74    | 14      | 3474-14-NR-5       | NR-5          | UNC Teton | 356961             | 821758              | 280                |
| 34       | 74    | 14      | 3474-14-OM-1       | OM-1          | UNC Teton | 356772             | 823097              | 83                 |
| 34       | 74    | 14      | 3474-14-OM-2       | OM-2          | UNC Teton | 356933             | 821820              | 148                |
| 34       | 74    | 14      | 3474-14-OM-3       | OM-3          | UNC Teton | 357909             | 823124              | 119                |
| 34       | 74    | 14      | 3474-14-PN5-L567CH | L567CH        | UNC Teton | 358446             | 821752              | 448                |
| 34       | 74    | 14      | 3474-14-POT 4+     | POT 4+        |           | 356991.1953        | 822869.1357         |                    |
| 34       | 74    | 14      | 3474-14-POT 8+     | POT 8+        |           | 356987.1953        | 822495.1357         |                    |
| 34       | 74    | 14      | 3474-14-POT-12     | POT 12        |           | 356971.1953        | 822066.1357         |                    |
| 34       | 74    | 15      | 3474-15-1          | 1             |           | 351441             | 819608              |                    |
| 34       | 74    | 15      | 3474-15-10         | 10            |           | 351156             | 821048              |                    |
| 34       | 74    | 15      | 3474-15-11         | 11            |           | 349215             | 819511              |                    |
| 34       | 74    | 15      | 3474-15-12         | 12            |           | 350695             | 819389              |                    |
| 34       | 74    | 15      | 3474-15-13         | 13            |           | 349723             | 821069              |                    |
| 34       | 74    | 15      | 3474-15-14         | 14            |           | 353155             | 821024              |                    |
| 34       | 74    | 15      | 3474-15-15         | 15            |           | 350282             | 822422              |                    |
| 34       | 74    | 15      | 3474-15-16         | 16            |           | 352586             | 822487              |                    |
| 34       | 74    | 15      | 3474-15-17         | 17            |           | 351413             | 818176              |                    |
| 34       | 74    | 15      | 3474-15-19         | 19            |           | 353688             | 819592              |                    |
| 34       | 74    | 15      | 3474-15-2          | 2             |           | 351379             | 820339              |                    |
| 34       | 74    | 15      | 3474-15-2 Dup ID   | 2D            |           | 351505             | 822145              |                    |
| 34       | 74    | 15      | 3474-15-20         | 20            |           | 352552             | 820301              |                    |
| 34       | 74    | 15      | 3474-15-21         | 21            |           | 352004             | 821044              |                    |
| 34       | 74    | 15      | 3474-15-22         | 22            |           | 350302             | 818193              |                    |
| 34       | 74    | 15      | 3474-15-23         | 23            |           | 353636             | 820267              |                    |
| 34       | 74    | 15      | 3474-15-24         | 24            |           | 351989.7           | 821182              |                    |
| 34       | 74    | 15      | 3474-15-25         | 25            |           | 352607             | 821690              |                    |
| 34       | 74    | 15      | 3474-15-26         | 26            |           | 353638             | 820306              |                    |
| 34       | 74    | 15      | 3474-15-27         | 27            |           | 352031             | 822480              |                    |
| 34       | 74    | 15      | 3474-15-28         | 28            |           | 353107             | 820289              |                    |
| 34       | 74    | 15      | 3474-15-29         | 29            |           | 353397             | 819922              |                    |
| 34       | 74    | 15      | 3474-15-3          | 3             |           | 351375             | 821772              |                    |
| 34       | 74    | 15      | 3474-15-30         | 30            |           | 352016             | 821658              |                    |
| 34       | 74    | 15      | 3474-15-31         | 31            |           | 352016             | 820316              |                    |
| 34       | 74    | 15      | 3474-15-32         | 32            |           | 351077             | 819393              |                    |
| 34       | 74    | 15      | 3474-15-33         | 33            |           | 350692             | 819658              |                    |
| 34       | 74    | 15      | 3474-15-34         | 34            |           | 353348             | 820421              |                    |
| 34       | 74    | 15      | 3474-15-35         | 35            |           | 353344             | 820623              |                    |
| 34       | 74    | 15      | 3474-15-36         | 36            |           | 352095             | 821042              |                    |
| 34       | 74    | 15      | 3474-15-37         | 37            |           | 351919             | 820928              |                    |
| 34       | 74    | 15      | 3474-15-38         | 38            |           | 351812             | 820703              |                    |
| 34       | 74    | 15      | 3474-15-39         | 39            |           | 351895             | 821177              |                    |
| 34       | 74    | 15      | 3474-15-4          | 4             |           | 351430             | 822694              |                    |
| 34       | 74    | 15      | 3474-15-40         | 40            |           | 352078             | 821275              |                    |
| 34       | 74    | 15      | 3474-15-41         | 41            |           | 352185             | 821648              |                    |
| 34       | 74    | 15      | 3474-15-42         | 42            |           | 352611             | 821594              |                    |
| 34       | 74    | 15      | 3474-15-43         | 43            |           | 352788             | 821772              |                    |
| 34       | 74    | 15      | 3474-15-44         | 44            |           | 352407             | 822483              |                    |
| 34       | 74    | 15      | 3474-15-45         | 45            |           | 352603             | 822651              |                    |
| 34       | 74    | 15      | 3474-15-46         | 46            |           | 351807             | 821184              |                    |
| 34       | 74    | 15      | 3474-15-47         | 47            |           | 351804.7           | 821094              |                    |
| 34       | 74    | 15      | 3474-15-48         | 48            |           | 351547             | 820696              |                    |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number     | Short Hole ID | Company     | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-----------------|---------------|-------------|--------------------|---------------------|--------------------|
| 34       | 74    | 15      | 3474-15-49      | 49            |             | 352000             | 821105              |                    |
| 34       | 74    | 15      | 3474-15-50      | 50            |             | 352784             | 821593              |                    |
| 34       | 74    | 15      | 3474-15-51      | 51            |             | 352012.7           | 820932              |                    |
| 34       | 74    | 15      | 3474-15-52      | 52            |             | 353822             | 820371              |                    |
| 34       | 74    | 15      | 3474-15-53      | 53            |             | 353582             | 820459              |                    |
| 34       | 74    | 15      | 3474-15-54      | 54            |             | 353124             | 821591              |                    |
| 34       | 74    | 15      | 3474-15-55      | 55            |             | 351911             | 821019              |                    |
| 34       | 74    | 15      | 3474-15-56      | 56            |             | 352433             | 821609              |                    |
| 34       | 74    | 15      | 3474-15-57      | 57            |             | 353052             | 818076              |                    |
| 34       | 74    | 15      | 3474-15-57DupID | 15            |             | 353132             | 822480              |                    |
| 34       | 74    | 15      | 3474-15-58      | 58            |             | 351803             | 821129              |                    |
| 34       | 74    | 15      | 3474-15-59      | 59            |             | 351814             | 820995              |                    |
| 34       | 74    | 15      | 3474-15-60      | 60            |             | 351812             | 821090              |                    |
| 34       | 74    | 15      | 3474-15-61      | 61            |             | 351615             | 820897              |                    |
| 34       | 74    | 15      | 3474-15-62      | 62            |             | 353143             | 820842              |                    |
| 34       | 74    | 15      | 3474-15-63      | 63            |             | 353149             | 820629              |                    |
| 34       | 74    | 15      | 3474-15-64      | 64            |             | 353826             | 820269              |                    |
| 34       | 74    | 15      | 3474-15-65      | 65            |             | 353826             | 820175              |                    |
| 34       | 74    | 15      | 3474-15-66      | 66            |             | 353829             | 820071              |                    |
| 34       | 74    | 15      | 3474-15-67      | 67            |             | 351358             | 820682              |                    |
| 34       | 74    | 15      | 3474-15-68      | 68            |             | 353148             | 820740              |                    |
| 34       | 74    | 15      | 3474-15-69      | 69            |             | 353046             | 820837              |                    |
| 34       | 74    | 15      | 3474-15-70      | 70            |             | 352959             | 820837              |                    |
| 34       | 74    | 15      | 3474-15-71      | 71            |             | 351336             | 820879              |                    |
| 34       | 74    | 15      | 3474-15-72      | 72            |             | 351612             | 820993              |                    |
| 34       | 74    | 15      | 3474-15-73      | 73            |             | 352165             | 821201              |                    |
| 34       | 74    | 15      | 3474-15-74      | 74            |             | 352449             | 821234              |                    |
| 34       | 74    | 15      | 3474-15-75      | 75            |             | 352445             | 821328              |                    |
| 34       | 74    | 15      | 3474-15-76      | 76            |             | 352612             | 821402              |                    |
| 34       | 74    | 15      | 3474-15-77      | 77            |             | 352970             | 822502              |                    |
| 34       | 74    | 15      | 3474-15-78      | 78            |             | 352775             | 822489              |                    |
| 34       | 74    | 1       | 3474-1-CRX-23   | CRX-23        | UNC Teton   | 360150             | 828850              | 605                |
| 34       | 74    | 1       | 3474-1-CRX-24   | CRX-24        | UNC Teton   | 361550             | 829500              | 604                |
| 34       | 74    | 1       | 3474-1-CRX-26   | CRX-26        | UNC Teton   | 359825             | 829800              | 603                |
| 34       | 74    | 23      | 3474-23-10      | 10            | Kerr McGee  | 354571.21          | 817206.34           |                    |
| 34       | 74    | 23      | 3474-23-1000    | 1000          | Uranium One | 357105             | 817207              | 703                |
| 34       | 74    | 23      | 3474-23-1001    | 1001          | Uranium One | 357505             | 817603              | 702                |
| 34       | 74    | 23      | 3474-23-1002    | 1002          | Uranium One | 357500             | 816800              | 703                |
| 34       | 74    | 23      | 3474-23-1003    | 1003          | Uranium One | 357911             | 817209              | 704                |
| 34       | 74    | 23      | 3474-23-1004    | 1004          | Uranium One | 358310             | 817733              | 705                |
| 34       | 74    | 23      | 3474-23-1005    | 1005          | Uranium One | 358510             | 816810              | 704                |
| 34       | 74    | 23      | 3474-23-1006    | 1006          | Uranium One | 359102             | 817605              | 705                |
| 34       | 74    | 23      | 3474-23-1007    | 1007          | Uranium One | 358190             | 817583              | 600                |
| 34       | 74    | 23      | 3474-23-1008    | 1008          | Uranium One | 358202             | 817702              | 602                |
| 34       | 74    | 23      | 3474-23-1009    | 1009          | Uranium One | 358200             | 817808              | 603                |
| 34       | 74    | 23      | 3474-23-1010    | 1010          | Uranium One | 358299             | 817793              | 603                |
| 34       | 74    | 23      | 3474-23-1011    | 1011          | Uranium One | 358400             | 817807              | 601                |
| 34       | 74    | 23      | 3474-23-1012    | 1012          | Uranium One | 358400             | 817194              | 703                |
| 34       | 74    | 23      | 3474-23-1013    | 1013          | Uranium One | 358600             | 817198              | 701                |
| 34       | 74    | 23      | 3474-23-1014    | 1014          | Uranium One | 358802             | 817197              | 696                |
| 34       | 74    | 23      | 3474-23-1015    | 1015          | Uranium One | 358482             | 817210              | 702                |
| 34       | 74    | 23      | 3474-23-1016    | 1016          | Uranium One | 358695             | 817205              | 704                |
| 34       | 74    | 23      | 3474-23-1017    | 1017          | Uranium One | 358591             | 817316              | 701                |
| 34       | 74    | 23      | 3474-23-1018    | 1018          | Uranium One | 358604             | 817107              | 700                |
| 34       | 74    | 23      | 3474-23-1019    | 1019          | Uranium One | 358505             | 817398              | 700                |
| 34       | 74    | 23      | 3474-23-1020    | 1020          | Uranium One | 358600             | 817405              | 702                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company     | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|-------------|--------------------|---------------------|--------------------|
| 34       | 74    | 23      | 3474-23-1021 | 1021          | Uranium One | 358700             | 817404              | 701                |
| 34       | 74    | 23      | 3474-23-1022 | 1022          | Uranium One | 358000             | 817807              | 704                |
| 34       | 74    | 23      | 3474-23-1023 | 1023          | Uranium One | 357985             | 817987.8            | 701                |
| 34       | 74    | 23      | 3474-23-1024 | 1024          | Uranium One | 358197             | 817985              | 704                |
| 34       | 74    | 23      | 3474-23-1025 | 1025          | Uranium One | 357988             | 817702              | 700                |
| 34       | 74    | 23      | 3474-23-1026 | 1026          | Uranium One | 358491             | 817301              | 702                |
| 34       | 74    | 23      | 3474-23-1027 | 1027          | Uranium One | 358393             | 817296              | 702                |
| 34       | 74    | 23      | 3474-23-1028 | 1028          | Uranium One | 358389             | 817400              | 703                |
| 34       | 74    | 23      | 3474-23-1029 | 1029          | Uranium One | 358397             | 817500              | 700                |
| 34       | 74    | 23      | 3474-23-1030 | 1030          | Uranium One | 358497             | 817517              | 699                |
| 34       | 74    | 23      | 3474-23-1031 | 1031          | Uranium One | 358582             | 817797              | 700                |
| 34       | 74    | 23      | 3474-23-1032 | 1032          | Uranium One | 358394             | 817897              | 703                |
| 34       | 74    | 23      | 3474-23-1033 | 1033          | Uranium One | 358450             | 817409              | 703                |
| 34       | 74    | 23      | 3474-23-1034 | 1034          | Uranium One | 358550             | 817404              | 703                |
| 34       | 74    | 23      | 3474-23-1035 | 1035          | Uranium One | 358600             | 817359              | 703                |
| 34       | 74    | 23      | 3474-23-1036 | 1036          | Uranium One | 358344             | 817497              | 702                |
| 34       | 74    | 23      | 3474-23-1037 | 1037          | Uranium One | 358205             | 817502              | 702                |
| 34       | 74    | 23      | 3474-23-1038 | 1038          | Uranium One | 358007             | 817500              | 697                |
| 34       | 74    | 23      | 3474-23-1039 | 1039          | Uranium One | 358298             | 817979              | 699                |
| 34       | 74    | 23      | 3474-23-1040 | 1040          | Uranium One | 358445             | 817497              | 701                |
| 34       | 74    | 23      | 3474-23-1041 | 1041          | Uranium One | 357793             | 817701              | 700                |
| 34       | 74    | 23      | 3474-23-1042 | 1042          | Uranium One | 358704             | 817347              | 704                |
| 34       | 74    | 23      | 3474-23-1043 | 1043          | Uranium One | 358700             | 817296              | 703                |
| 34       | 74    | 23      | 3474-23-1044 | 1044          | Uranium One | 358748             | 817296              | 703                |
| 34       | 74    | 23      | 3474-23-1045 | 1045          | Uranium One | 358200             | 817897              | 703                |
| 34       | 74    | 23      | 3474-23-1046 | 1046          | Uranium One | 358300             | 817899              | 702                |
| 34       | 74    | 23      | 3474-23-1047 | 1047          | Uranium One | 358905             | 817605              | 700                |
| 34       | 74    | 23      | 3474-23-1048 | 1048          | Uranium One | 357698             | 817605              | 701                |
| 34       | 74    | 23      | 3474-23-1049 | 1049          | Uranium One | 357841             | 817616              | 704                |
| 34       | 74    | 23      | 3474-23-1050 | 1050          | Uranium One | 357898             | 817604              | 702                |
| 34       | 74    | 23      | 3474-23-1051 | 1051          | Uranium One | 357697             | 817702              | 703                |
| 34       | 74    | 23      | 3474-23-1052 | 1052          | Uranium One | 357301             | 817805              | 703                |
| 34       | 74    | 23      | 3474-23-1053 | 1053          | Uranium One | 357498             | 817800              | 702                |
| 34       | 74    | 23      | 3474-23-1054 | 1054          | Uranium One | 357697             | 817800              | 702                |
| 34       | 74    | 23      | 3474-23-1055 | 1055          | Uranium One | 358400             | 817856              | 701                |
| 34       | 74    | 23      | 3474-23-1056 | 1056          | Uranium One | 358546             | 817358              | 703                |
| 34       | 74    | 23      | 3474-23-1057 | 1057          | Uranium One | 357700             | 817747              | 703                |
| 34       | 74    | 23      | 3474-23-1058 | 1058          | Uranium One | 357653             | 817696              | 703                |
| 34       | 74    | 23      | 3474-23-1059 | 1059          | Uranium One | 357700             | 817648              | 700                |
| 34       | 74    | 23      | 3474-23-1060 | 1060          | Uranium One | 357751             | 817701              | 703                |
| 34       | 74    | 23      | 3474-23-1061 | 1061          | Uranium One | 357754             | 817646              | 703                |
| 34       | 74    | 23      | 3474-23-1062 | 1062          | Uranium One | 357815             | 817646              | 703                |
| 34       | 74    | 23      | 3474-23-1063 | 1063          | Uranium One | 357751             | 817595              | 703                |
| 34       | 74    | 23      | 3474-23-1064 | 1064          | Uranium One | 357853             | 817600              | 702                |
| 34       | 74    | 23      | 3474-23-1065 | 1065          | Uranium One | 358491             | 817348              | 701                |
| 34       | 74    | 23      | 3474-23-1066 | 1066          | Uranium One | 358541             | 817304              | 703                |
| 34       | 74    | 23      | 3474-23-1067 | 1067          | Uranium One | 357896             | 817693              | 703                |
| 34       | 74    | 23      | 3474-23-1068 | 1068          | Uranium One | 357448             | 817907              | 702                |
| 34       | 74    | 23      | 3474-23-1069 | 1069          | Uranium One | 357490             | 817909              | 703                |
| 34       | 74    | 23      | 3474-23-1070 | 1070          | Uranium One | 357547             | 817901              | 703                |
| 34       | 74    | 23      | 3474-23-1071 | 1071          | Uranium One | 357597             | 817799              | 703                |
| 34       | 74    | 23      | 3474-23-1072 | 1072          | Uranium One | 357654             | 817755              | 701                |
| 34       | 74    | 23      | 3474-23-1073 | 1073          | Uranium One | 357597             | 817700              | 703                |
| 34       | 74    | 23      | 3474-23-1074 | 1074          | Uranium One | 357646             | 817646              | 700                |
| 34       | 74    | 23      | 3474-23-1075 | 1075          | Uranium One | 357747             | 817748              | 698                |
| 34       | 74    | 23      | 3474-23-1076 | 1076          | Uranium One | 358645             | 817316              | 704                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number   | Short Hole ID | Company     | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|---------------|---------------|-------------|--------------------|---------------------|--------------------|
| 34       | 74    | 23      | 3474-23-1077  | 1077          | Uranium One | 358700             | 817253              | 702                |
| 34       | 74    | 23      | 3474-23-1078  | 1078          | Uranium One | 357343             | 817913              | 703                |
| 34       | 74    | 23      | 3474-23-1079  | 1079          | Uranium One | 357545             | 817788              | 702                |
| 34       | 74    | 23      | 3474-23-1080  | 1080          | Uranium One | 357600             | 817848              | 702                |
| 34       | 74    | 23      | 3474-23-1081  | 1081          | Uranium One | 357545             | 817848              | 703                |
| 34       | 74    | 23      | 3474-23-1082  | 1082          | Uranium One | 357412             | 817911              | 702                |
| 34       | 74    | 23      | 3474-23-1083  | 1083          | Uranium One | 357461             | 817951              | 696                |
| 34       | 74    | 23      | 3474-23-1084  | 1084          | Uranium One | 357503             | 817974              | 703                |
| 34       | 74    | 23      | 3474-23-1085  | 1085          | Uranium One | 357946             | 817696              | 703                |
| 34       | 74    | 23      | 3474-23-1086  | 1086          | Uranium One | 357946             | 817643              | 702                |
| 34       | 74    | 23      | 3474-23-1087  | 1087          | Uranium One | 357896             | 817643              | 702                |
| 34       | 74    | 23      | 3474-23-1088  | 1088          | Uranium One | 357202             | 817804              | 700                |
| 34       | 74    | 23      | 3474-23-1089  | 1089          | Uranium One | 357255             | 817907              | 700                |
| 34       | 74    | 23      | 3474-23-1090A | 1090A         | Uranium One | 357347             | 817852              | 699                |
| 34       | 74    | 23      | 3474-23-1091  | 1091          | Uranium One | 357646             | 817789              | 702                |
| 34       | 74    | 23      | 3474-23-1092  | 1092          | Uranium One | 357570             | 817752              | 700                |
| 34       | 74    | 23      | 3474-23-1093  | 1093          | Uranium One | 357393             | 817951              | 702                |
| 34       | 74    | 23      | 3474-23-1094  | 1094          | Uranium One | 356900             | 817609              | 695                |
| 34       | 74    | 23      | 3474-23-1095  | 1095          | Uranium One | 358094             | 817978              | 694                |
| 34       | 74    | 23      | 3474-23-1096  | 1096          | Uranium One | 358000             | 817902              | 696                |
| 34       | 74    | 23      | 3474-23-1097  | 1097          | Uranium One | 358898             | 817302              | 700                |
| 34       | 74    | 23      | 3474-23-1098  | 1098          | Uranium One | 358900             | 817207              | 700                |
| 34       | 74    | 23      | 3474-23-1099  | 1099          | Uranium One | 358344             | 817895              | 698                |
| 34       | 74    | 23      | 3474-23-11    | 11            | Kerr McGee  | 356350.01          | 817205.13           |                    |
| 34       | 74    | 23      | 3474-23-1100  | 1100          | Uranium One | 358382             | 817992              | 698                |
| 34       | 74    | 23      | 3474-23-1101  | 1101          | Uranium One | 358493             | 817895              | 698                |
| 34       | 74    | 23      | 3474-23-1102  | 1102          | Uranium One | 356896             | 817900              | 700                |
| 34       | 74    | 23      | 3474-23-1103  | 1103          | Uranium One | 357295             | 817960              | 693                |
| 34       | 74    | 23      | 3474-23-1104  | 1104          | Uranium One | 357498             | 817852              | 697                |
| 34       | 74    | 23      | 3474-23-1105  | 1105          | Uranium One | 356749             | 817905              | 697                |
| 34       | 74    | 23      | 3474-23-1106  | 1106          | Uranium One | 356748             | 817610              | 697                |
| 34       | 74    | 23      | 3474-23-1107  | 1107          | Uranium One | 357003             | 817905              | 698                |
| 34       | 74    | 23      | 3474-23-1108  | 1108          | Uranium One | 357003             | 817602              | 699                |
| 34       | 74    | 23      | 3474-23-1109  | 1109          | Uranium One | 357740             | 817954              | 698                |
| 34       | 74    | 23      | 3474-23-1110  | 1110          | Uranium One | 357746             | 817842              | 699                |
| 34       | 74    | 23      | 3474-23-1111  | 1111          | Uranium One | 356753             | 817273              | 698                |
| 34       | 74    | 23      | 3474-23-1112  | 1112          | Uranium One | 358700             | 817597              | 699                |
| 34       | 74    | 23      | 3474-23-1113  | 1113          | Uranium One | 358698             | 817953              | 698                |
| 34       | 74    | 23      | 3474-23-1114  | 1114          | Uranium One | 359120             | 817886              | 699                |
| 34       | 74    | 23      | 3474-23-1115  | 1115          | Uranium One | 356753             | 817751              | 699                |
| 34       | 74    | 23      | 3474-23-1116  | 1116          | Uranium One | 356900             | 817756              | 700                |
| 34       | 74    | 23      | 3474-23-1117  | 1117          | Uranium One | 357098             | 817908              | 697                |
| 34       | 74    | 23      | 3474-23-1118  | 1118          | Uranium One | 359303             | 817597              | 702                |
| 34       | 74    | 23      | 3474-23-1119  | 1119          | Uranium One | 359300             | 817408              | 701                |
| 34       | 74    | 23      | 3474-23-1120  | 1120          | Uranium One | 359100             | 817800.6            |                    |
| 34       | 74    | 23      | 3474-23-1121  | 1121          | Uranium One | 356900             | 817821              | 700                |
| 34       | 74    | 23      | 3474-23-1122  | 1122          | Uranium One | 357000             | 817746              | 700                |
| 34       | 74    | 23      | 3474-23-1123  | 1123          | Uranium One | 356906             | 817397              | 700                |
| 34       | 74    | 23      | 3474-23-1124  | 1124          | Uranium One | 356904             | 817495              | 699                |
| 34       | 74    | 23      | 3474-23-1125  | 1125          | Uranium One | 356827             | 817603              | 700                |
| 34       | 74    | 23      | 3474-23-1126  | 1126          | Uranium One | 357004             | 817820              | 696                |
| 34       | 74    | 23      | 3474-23-1127  | 1127          | Uranium One | 356904             | 817495              | 700                |
| 34       | 74    | 23      | 3474-23-1128  | 1128          | Uranium One | 357000             | 817501              | 701                |
| 34       | 74    | 23      | 3474-23-1129  | 1129          | Uranium One | 359200             | 817615              | 700                |
| 34       | 74    | 23      | 3474-23-1130  | 1130          | Uranium One | 359300             | 817715              | 701                |
| 34       | 74    | 23      | 3474-23-1131  | 1131          | Uranium One | 356823             | 817758              | 697                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number   | Short Hole ID | Company                | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|---------------|---------------|------------------------|--------------------|---------------------|--------------------|
| 34       | 74    | 23      | 3474-23-1132  | 1132          | Uranium One            | 356822             | 817690              | 700                |
| 34       | 74    | 23      | 3474-23-1133  | 1133          | Uranium One            | 357182             | 817907              | 700                |
| 34       | 74    | 23      | 3474-23-1134  | 1134          | Uranium One            | 358905             | 817455              | 700                |
| 34       | 74    | 23      | 3474-23-1135  | 1135          | Uranium One            | 359005             | 817805              | 701                |
| 34       | 74    | 23      | 3474-23-1136  | 1136          | Uranium One            | 358998             | 817302              | 697                |
| 34       | 74    | 23      | 3474-23-1137  | 1137          | Uranium One            | 358998             | 817202              | 697                |
| 34       | 74    | 23      | 3474-23-1138  | 1138          | Uranium One            | 357899             | 817906              | 700                |
| 34       | 74    | 23      | 3474-23-1139  | 1139          | Uranium One            | 357899             | 817806              | 700                |
| 34       | 74    | 23      | 3474-23-1140  | 1140          | Uranium One            | 358097             | 817802              | 698                |
| 34       | 74    | 23      | 3474-23-1141  | 1141          | Uranium One            | 357840             | 817954              | 699                |
| 34       | 74    | 23      | 3474-23-1142  | 1142          | Uranium One            | 357792             | 817921              | 698                |
| 34       | 74    | 23      | 3474-23-1143  | 1143          | Uranium One            | 358097             | 817702              | 700                |
| 34       | 74    | 23      | 3474-23-1144  | 1144          | Uranium One            | 356748             | 817683              | 698                |
| 34       | 74    | 23      | 3474-23-1145  | 1145          | Uranium One            | 356823             | 817833              | 693                |
| 34       | 74    | 23      | 3474-23-1146  | 1146          | Uranium One            | 356948             | 817683              | 699                |
| 34       | 74    | 23      | 3474-23-1147  | 1147          | Uranium One            | 358493             | 817795              | 699                |
| 34       | 74    | 23      | 3474-23-1148  | 1148          | Uranium One            | 358493             | 817695              | 700                |
| 34       | 74    | 23      | 3474-23-1149  | 1149          | Uranium One            | 358593             | 817695              | 698                |
| 34       | 74    | 23      | 3474-23-1150  | 1150          | Uranium One            | 356748             | 817408              | 700                |
| 34       | 74    | 23      | 3474-23-1151  | 1151          | Uranium One            | 356823             | 817508              | 700                |
| 34       | 74    | 23      | 3474-23-1152  | 1152          | Uranium One            | 356823             | 817408              | 697                |
| 34       | 74    | 23      | 3474-23-1154  | 1154          | Uranium One            | 359200             | 817786              | 700                |
| 34       | 74    | 23      | 3474-23-1155  | 1155          | Uranium One            | 359300             | 817786              | 699                |
| 34       | 74    | 23      | 3474-23-14    | 14            | Kerr McGee             | 358248.9           | 816851.5            | 1003               |
| 34       | 74    | 23      | 3474-23-16    | 16            | Kerr McGee             | 355080.5           | 817305.21           | 1006               |
| 34       | 74    | 23      | 3474-23-17    | 17            | Kerr McGee             | 355769.2           | 817240.14           | 1006               |
| 34       | 74    | 23      | 3474-23-18    | 18            | Kerr McGee             | 356057.94          | 817256.53           | 724                |
| 34       | 74    | 23      | 3474-23-19    | 19            | Kerr McGee             | 356352.5           | 817773.42           | 725                |
| 34       | 74    | 23      | 3474-23-20    | 20            |                        | 357357.79          | 817714.5            |                    |
| 34       | 74    | 23      | 3474-23-21    | 21            |                        | 357364.23          | 817426.69           |                    |
| 34       | 74    | 23      | 3474-23-22    | 22            |                        | 356840.69          | 817154.89           |                    |
| 34       | 74    | 23      | 3474-23-23    | 23            |                        | 356553.33          | 817823.54           |                    |
| 34       | 74    | 23      | 3474-23-23-24 | 23-24         |                        | 359322.35          | 817304.21           |                    |
| 34       | 74    | 23      | 3474-23-25    | 25            |                        | 358877.52          | 817336.05           |                    |
| 34       | 74    | 23      | 3474-23-26    | 26            |                        | 357460.78          | 817431.82           |                    |
| 34       | 74    | 23      | 3474-23-27    | 27            |                        | 357464.69          | 817576.18           |                    |
| 34       | 74    | 23      | 3474-23-28    | 28            |                        | 357464.75          | 817716.47           |                    |
| 34       | 74    | 23      | 3474-23-29    | 29            |                        | 357663.42          | 817585.44           |                    |
| 34       | 74    | 23      | 3474-23-302C  | 302C          | Uranium Resources INC. | 358687.8           | 817087.9            | 192                |
| 34       | 74    | 23      | 3474-23-303   | 303           | Uranium Resources INC. | 357747             | 817166              | 215                |
| 34       | 74    | 23      | 3474-23-304   | 304           | Uranium Resources INC. | 358140             | 817145              | 576                |
| 34       | 74    | 23      | 3474-23-319   | 319           | Uranium Resources INC. | 358335             | 817147              | 214                |
| 34       | 74    | 23      | 3474-23-321   | 321           | Uranium Resources INC. | 358351             | 817343              | 378                |
| 34       | 74    | 23      | 3474-23-322   | 322           | Uranium Resources INC. | 359254             | 816630              | 284                |
| 34       | 74    | 23      | 3474-23-325   | 325           | Uranium Resources INC. | 358552             | 817351              | 234                |
| 34       | 74    | 23      | 3474-23-328   | 328           | Uranium Resources INC. | 358505             | 817354              | 234                |
| 34       | 74    | 23      | 3474-23-329   | 329           | Uranium Resources INC. | 358607.7           | 817359.8            | 212                |
| 34       | 74    | 23      | 3474-23-340   | 340           | Uranium Resources INC. | 358437             | 817144              | 396                |
| 34       | 74    | 23      | 3474-23-458   | 458           | Uranium Resources INC. | 358387.8           | 817145              | 234                |
| 34       | 74    | 23      | 3474-23-459   | 459           | Uranium Resources INC. | 359208.3           | 816443.9            | 295                |
| 34       | 74    | 23      | 3474-23-461   | 461           | Uranium Resources INC. | 359249             | 816533.9            | 275                |
| 34       | 74    | 23      | 3474-23-473   | 473           | Uranium Resources INC. | 358626.12          | 817247.7            | 225                |
| 34       | 74    | 23      | 3474-23-474   | 474           | Uranium Resources INC. | 358621.7           | 817354.3            | 214                |
| 34       | 74    | 23      | 3474-23-475   | 475           | Uranium Resources INC. | 358819.4           | 817180.3            | 225                |
| 34       | 74    | 23      | 3474-23-476   | 476           | Uranium Resources INC. | 358646.4           | 817164.9            | 204                |
| 34       | 74    | 23      | 3474-23-477   | 477           | Uranium Resources INC. | 358361.5           | 817144.1            | 204                |



Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number      | Short Hole ID | Company                | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|------------------|---------------|------------------------|--------------------|---------------------|--------------------|
| 34       | 74    | 23      | 3474-23-478      | 478           | Uranium Resources INC. | 358520.5           | 817235.5            | 214                |
| 34       | 74    | 23      | 3474-23-479      | 479           | Uranium Resources INC. | 358969.9           | 816805.7            | 244                |
| 34       | 74    | 23      | 3474-23-480      | 480           | Uranium Resources INC. | 359074.5           | 816667.9            | 245                |
| 34       | 74    | 23      | 3474-23-489      | 489           | Uranium Resources INC. | 358743.8           | 817037.6            | 225                |
| 34       | 74    | 23      | 3474-23-490      | 490           | Uranium Resources INC. | 358955.1           | 816962.8            | 235                |
| 34       | 74    | 23      | 3474-23-501      | 501           | Uranium Resources INC. | 359164.6           | 816699.8            | 265                |
| 34       | 74    | 23      | 3474-23-505      | 505           | Uranium Resources INC. | 359352.2           | 816535.4            | 295                |
| 34       | 74    | 23      | 3474-23-539      | 539           | Uranium Resources INC. | 359179.3           | 816592              | 294                |
| 34       | 74    | 23      | 3474-23-540      | 540           | Uranium Resources INC. | 359004.8           | 816888.5            | 255                |
| 34       | 74    | 23      | 3474-23-541      | 541           | Uranium Resources INC. | 358422.7           | 817348.5            | 212                |
| 34       | 74    | 23      | 3474-23-72-1     | 72-1          |                        | 354338.1           | 816928.7            |                    |
| 34       | 74    | 23      | 3474-23-72-2     | UID2          |                        | 354350.9           | 817011              |                    |
| 34       | 74    | 23      | 3474-23-DN-176   | DN-176        | Denison Mines, INC     | 354252.8           | 816833.1            | 379                |
| 34       | 74    | 23      | 3474-23-DN-177   | DN-177        | Denison Mines, INC     | 354347.9           | 816833.1            | 375                |
| 34       | 74    | 23      | 3474-23-DN-178   | DN-178        | Denison Mines, INC     | 354452             | 816827.4            | 377                |
| 34       | 74    | 23      | 3474-23-DN-179   | DN-179        | Denison Mines, INC     | 354547.9           | 816828.2            | 397                |
| 34       | 74    | 23      | 3474-23-DN-180   | DN-180        | Denison Mines, INC     | 354649             | 816825.4            | 396                |
| 34       | 74    | 23      | 3474-23-DN-181   | DN-181        | Denison Mines, INC     | 354404.8           | 816829              | 395                |
| 34       | 74    | 23      | 3474-23-DN-182   | DN-182        | Denison Mines, INC     | 354453.6           | 816877.8            | 395                |
| 34       | 74    | 23      | 3474-23-DN-319   | DN-319        | Denison Mines, INC     | 354319.5           | 816831.5            | 379                |
| 34       | 74    | 23      | 3474-23-DN-320   | DN-320        | Denison Mines, INC     | 354307.9           | 816927.5            | 396                |
| 34       | 74    | 23      | 3474-23-DN-321   | DN-321        | Denison Mines, INC     | 354374.8           | 816829.9            | 378                |
| 34       | 74    | 23      | 3474-23-FU1      | 1             | UNC Teton              | 358506.1           | 815991.3            | 497                |
| 34       | 74    | 23      | 3474-23-FU12     | 12            | UNC Teton              | 358764.1           | 817089.5            | 599                |
| 34       | 74    | 23      | 3474-23-FU13     | 13            | UNC Teton              | 358857.7           | 817085.4            | 596                |
| 34       | 74    | 23      | 3474-23-FU14     | 14            | UNC Teton              | 358457.6           | 816723.3            | 596                |
| 34       | 74    | 23      | 3474-23-FU17     | 17            | UNC Teton              | 358856.7           | 817094.4            | 628                |
| 34       | 74    | 23      | 3474-23-FU18     | 18            | UNC Teton              | 358561.9           | 817083.8            | 292                |
| 34       | 74    | 23      | 3474-23-FU19     | 19            | UNC Teton              | 358875.4           | 817004.7            | 294                |
| 34       | 74    | 23      | 3474-23-FU2      | 2             | UNC Teton              | 355816.2           | 817037.2            | 454                |
| 34       | 74    | 23      | 3474-23-FU20     | 20            | UNC Teton              | 358891.5           | 816926.2            | 275                |
| 34       | 74    | 23      | 3474-23-FU21     | 21            | UNC Teton              | 359065.8           | 816918.9            | 294                |
| 34       | 74    | 23      | 3474-23-FU22     | 22            | UNC Teton              | 359273.6           | 816721.6            | 293                |
| 34       | 74    | 23      | 3474-23-FU25     | 25            | UNC Teton              | 359076             | 816728.8            | 293                |
| 34       | 74    | 23      | 3474-23-FU27     | 27            | UNC Teton              | 358795.6           | 816895.7            | 289                |
| 34       | 74    | 23      | 3474-23-FU3      | 3             | UNC Teton              | 357838.2           | 816778.3            | 518                |
| 34       | 74    | 23      | 3474-23-FU-40-1  | M-40          | Morrison Nuclear       | 358173.2           | 816390.7            | 598                |
| 34       | 74    | 23      | 3474-23-FU-44-1  | M-44          | Morrison Nuclear       | 357004.3           | 815735.2            | 597                |
| 34       | 74    | 23      | 3474-23-FU-5     | 5             | UNC Teton              | 356032.7           | 816366.8            | 335                |
| 34       | 74    | 23      | 3474-23-FU-51-1  | M-51          | Morrison Nuclear       | 354644.7           | 817033.1            | 600                |
| 34       | 74    | 23      | 3474-23-FU6      | 6             | UNC Teton              | 358027.5           | 815057.5            | 458                |
| 34       | 74    | 23      | 3474-23-FU-70-10 | N-10          | Cordero                | 355183.9           | 815745.8            | 460                |
| 34       | 74    | 23      | 3474-23-FU-70-12 | N-12          | Cordero                | 354327.6           | 817148              | 475                |
| 34       | 74    | 23      | 3474-23-FU-70-2  | N-2           | Cordero                | 356936.9           | 816664.9            | 596                |
| 34       | 74    | 23      | 3474-23-FU-70-5  | N-5           | Cordero                | 355785.9           | 816555.6            | 455                |
| 34       | 74    | 23      | 3474-23-FU-70-6  | N-6           | Cordero                | 355821.9           | 817085.6            | 455                |
| 34       | 74    | 23      | 3474-23-FU-70-7  | N-7           | Cordero                | 355461.5           | 816119.9            | 475                |
| 34       | 74    | 23      | 3474-23-FU-70-9  | N-9           | Cordero                | 354362.6           | 816649.6            | 460                |
| 34       | 74    | 23      | 3474-23-FU-71-4  | 71-4          | Cordero                | 358171.4           | 816422.5            | 416                |
| 34       | 74    | 23      | 3474-23-FU-71-5  | 71-5          | Cordero                | 358172             | 816335.2            | 460                |
| 34       | 74    | 23      | 3474-23-FU-71-6  | 71-6          | Cordero                | 358172             | 816368.2            | 414                |
| 34       | 74    | 23      | 3474-23-FU8      | 8             | UNC Teton              | 355954.7           | 815957.9            | 396                |
| 34       | 74    | 23      | 3474-23-K1       | 1             | Kerr McGee             | 356744.64          | 817764.74           | 618                |
| 34       | 74    | 23      | 3474-23-K-10     | K-10          | Kerr McGee             | 354475.1           | 816648              | 1000               |
| 34       | 74    | 23      | 3474-23-K-11     | K-11          | Kerr McGee             | 356309.8           | 816653.3            | 1004               |
| 34       | 74    | 23      | 3474-23-K-13     | K-13          | Kerr McGee             | 356962.79          | 817374.51           | 1005               |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number   | Short Hole ID | Company          | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|---------------|---------------|------------------|--------------------|---------------------|--------------------|
| 34       | 74    | 23      | 3474-23-K-14  | 14            | Kerr McGee       | 358131.7           | 816646.1            | 1003               |
| 34       | 74    | 23      | 3474-23-K-16  | K-16          | Kerr McGee       | 355075.2           | 816648.1            | 1006               |
| 34       | 74    | 23      | 3474-23-K-17  | K-17          | Kerr McGee       | 355676.5           | 816647.9            | 1006               |
| 34       | 74    | 23      | 3474-23-K-18  | K-18          | Kerr McGee       | 356010.6           | 816626.4            | 724                |
| 34       | 74    | 23      | 3474-23-K-19  | K-19          | Kerr McGee       | 356308.7           | 817211.6            | 726                |
| 34       | 74    | 23      | 3474-23-M-13  | M-13          | Morrison Nuclear | 359100             | 816750              | 501                |
| 34       | 74    | 23      | 3474-23-N-11  | N-11          | Cordero          | 354226.9           | 815308              |                    |
| 34       | 74    | 23      | 3474-23-N-13  | N-13          | Cordero          | 354283.7           | 817386.4            |                    |
| 34       | 74    | 23      | 3474-23-N-8   | N-8           | Cordero          | 354364.8           | 816927.5            |                    |
| 34       | 74    | 24      | 3474-24-10    | 10            |                  | 363844.5           | 816515.5            |                    |
| 34       | 74    | 24      | 3474-24-1000  | 1000          | Uranium One      | 359535             | 817181              | 900                |
| 34       | 74    | 24      | 3474-24-1001  | 1001          | Uranium One      | 359923             | 817594              | 605                |
| 34       | 74    | 24      | 3474-24-1002  | 1002          | Uranium One      | 359900             | 816800              | 604                |
| 34       | 74    | 24      | 3474-24-1003  | 1003          | Uranium One      | 360300             | 817200              | 702                |
| 34       | 74    | 24      | 3474-24-1004  | 1004          | Uranium One      | 360700             | 817600              | 703                |
| 34       | 74    | 24      | 3474-24-1005  | 1005          | Uranium One      | 360700             | 816800              | 705                |
| 34       | 74    | 24      | 3474-24-1006  | 1006          | Uranium One      | 361074             | 817177              | 704                |
| 34       | 74    | 24      | 3474-24-1007  | 1007          | Uranium One      | 361480             | 817613              | 701                |
| 34       | 74    | 24      | 3474-24-1008  | 1008          | Uranium One      | 361500             | 816815              | 704                |
| 34       | 74    | 24      | 3474-24-1009  | 1009          | Uranium One      | 361900             | 817200              | 696                |
| 34       | 74    | 24      | 3474-24-1010  | 1010          | Uranium One      | 362400             | 817600              | 701                |
| 34       | 74    | 24      | 3474-24-1011  | 1011          | Uranium One      | 362400             | 816805              | 603                |
| 34       | 74    | 24      | 3474-24-1012  | 1012          | Uranium One      | 362901             | 817203              | 703                |
| 34       | 74    | 24      | 3474-24-1013  | 1013          | Uranium One      | 363305             | 817605              | 702                |
| 34       | 74    | 24      | 3474-24-1014  | 1014          | Uranium One      | 363300             | 816804              | 903                |
| 34       | 74    | 24      | 3474-24-1015  | 1015          | Uranium One      | 363696             | 817255              | 699                |
| 34       | 74    | 24      | 3474-24-1016  | 1016          | Uranium One      | 364105             | 817600              | 703                |
| 34       | 74    | 24      | 3474-24-1017  | 1017          | Uranium One      | 364102             | 816805              | 702                |
| 34       | 74    | 24      | 3474-24-1018  | 1018          | Uranium One      | 364502             | 817201              | 701                |
| 34       | 74    | 24      | 3474-24-1019  | 1019          | Uranium One      | 361717             | 817410              | 742                |
| 34       | 74    | 24      | 3474-24-1020  | 1020          | Uranium One      | 362100             | 817400              | 742                |
| 34       | 74    | 24      | 3474-24-1021  | 1021          | Uranium One      | 361802             | 817004              | 741                |
| 34       | 74    | 24      | 3474-24-1022  | 1022          | Uranium One      | 362201             | 816994              | 741                |
| 34       | 74    | 24      | 3474-24-1023  | 1023          | Uranium One      | 363700             | 816400              | 908                |
| 34       | 74    | 24      | 3474-24-1023A | 1023A         | Uranium One      | 362300             | 816900              | 744                |
| 34       | 74    | 24      | 3474-24-1024  | 1024          | Uranium One      | 362502             | 816897              | 723                |
| 34       | 74    | 24      | 3474-24-1025  | 1025          | Uranium One      | 362500             | 816700              | 742                |
| 34       | 74    | 24      | 3474-24-1026  | 1026          | Uranium One      | 364500             | 816400              | 703                |
| 34       | 74    | 24      | 3474-24-1026A | 1026A         | Uranium One      | 362300             | 816700              | 742                |
| 34       | 74    | 24      | 3474-24-1027  | 1027          | Uranium One      | 361391             | 817725              | 710                |
| 34       | 74    | 24      | 3474-24-1028  | 1028          | Uranium One      | 361562             | 817699              | 700                |
| 34       | 74    | 24      | 3474-24-1029  | 1029          | Uranium One      | 361390             | 817509              | 700                |
| 34       | 74    | 24      | 3474-24-1030  | 1030          | Uranium One      | 361572             | 817522              | 702                |
| 34       | 74    | 24      | 3474-24-1031  | 1031          | Uranium One      | 361566             | 817602              | 704                |
| 34       | 74    | 24      | 3474-24-1032  | 1032          | Uranium One      | 361568             | 817556              | 704                |
| 34       | 74    | 24      | 3474-24-1033  | 1033          | Uranium One      | 361517             | 817556              | 705                |
| 34       | 74    | 24      | 3474-24-1034  | 1034          | Uranium One      | 361488             | 817548              | 704                |
| 34       | 74    | 24      | 3474-24-1035  | 1035          | Uranium One      | 361554             | 817829              | 745                |
| 34       | 74    | 24      | 3474-24-1036  | 1036          | Uranium One      | 361745             | 817553              | 744                |
| 34       | 74    | 24      | 3474-24-1037  | 1037          | Uranium One      | 362499             | 817081              | 744                |
| 34       | 74    | 24      | 3474-24-1038  | 1038          | Uranium One      | 362685             | 817082              | 741                |
| 34       | 74    | 24      | 3474-24-1039  | 1039          | Uranium One      | 362700             | 816900              | 745                |
| 34       | 74    | 24      | 3474-24-1040  | 1040          | Uranium One      | 361315             | 817504              | 703                |
| 34       | 74    | 24      | 3474-24-1041  | 1041          | Uranium One      | 361508             | 817503              | 705                |
| 34       | 74    | 24      | 3474-24-1042  | 1042          | Uranium One      | 361406             | 817400              | 633                |
| 34       | 74    | 24      | 3474-24-1043  | 1043          | Uranium One      | 361300             | 817400              | 704                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company     | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|-------------|--------------------|---------------------|--------------------|
| 34       | 74    | 24      | 3474-24-1044 | 1044          | Uranium One | 361647             | 817551              | 703                |
| 34       | 74    | 24      | 3474-24-1045 | 1045          | Uranium One | 361411             | 817606              | 703                |
| 34       | 74    | 24      | 3474-24-1046 | 1046          | Uranium One | 361305             | 817808              | 701                |
| 34       | 74    | 24      | 3474-24-1047 | 1047          | Uranium One | 361703             | 817802              | 704                |
| 34       | 74    | 24      | 3474-24-1048 | 1048          | Uranium One | 361955             | 817557              | 704                |
| 34       | 74    | 24      | 3474-24-1049 | 1049          | Uranium One | 362500             | 817300              | 701                |
| 34       | 74    | 24      | 3474-24-1050 | 1050          | Uranium One | 362607             | 817106              | 700                |
| 34       | 74    | 24      | 3474-24-1051 | 1051          | Uranium One | 362400             | 817100              | 705                |
| 34       | 74    | 24      | 3474-24-1052 | 1052          | Uranium One | 361355             | 817672              | 706                |
| 34       | 74    | 24      | 3474-24-1053 | 1053          | Uranium One | 361697.2537        | 817544.3033         | 725                |
| 34       | 74    | 24      | 3474-24-1054 | 1054          | Uranium One | 361749.9361        | 817450.2554         | 727                |
| 34       | 74    | 24      | 3474-24-1055 | 1055          | Uranium One | 361650             | 817450              | 726                |
| 34       | 74    | 24      | 3474-24-1056 | 1056          | Uranium One | 361601             | 817548              | 725                |
| 34       | 74    | 24      | 3474-24-1057 | 1057          | Uranium One | 361849             | 817550              | 702                |
| 34       | 74    | 24      | 3474-24-1058 | 1058          | Uranium One | 361854             | 817448              | 706                |
| 34       | 74    | 24      | 3474-24-1059 | 1059          | Uranium One | 361950             | 817450              | 702                |
| 34       | 74    | 24      | 3474-24-1060 | 1060          | Uranium One | 361954             | 817748              | 705                |
| 34       | 74    | 24      | 3474-24-1061 | 1061          | Uranium One | 361648.949         | 817495.6461         | 706                |
| 34       | 74    | 24      | 3474-24-1062 | 1062          | Uranium One | 361698.8861        | 817495.6261         | 705                |
| 34       | 74    | 24      | 3474-24-1063 | 1063          | Uranium One | 361698.8861        | 817446.1993         | 705                |
| 34       | 74    | 24      | 3474-24-1064 | 1064          | Uranium One | 361800             | 817456              | 705                |
| 34       | 74    | 24      | 3474-24-1065 | 1065          | Uranium One | 361699.9185        | 817600.0561         | 706                |
| 34       | 74    | 24      | 3474-24-1066 | 1066          | Uranium One | 361750.0924        | 817598.5743         | 704                |
| 34       | 74    | 24      | 3474-24-1067 | 1067          | Uranium One | 362450             | 817100              | 706                |
| 34       | 74    | 24      | 3474-24-1068 | 1068          | Uranium One | 362500             | 817150              | 704                |
| 34       | 74    | 24      | 3474-24-1069 | 1069          | Uranium One | 362503             | 817059              | 704                |
| 34       | 74    | 24      | 3474-24-1070 | 1070          | Uranium One | 363332             | 817216              | 705                |
| 34       | 74    | 24      | 3474-24-1071 | 1071          | Uranium One | 363700             | 816800              | 704                |
| 34       | 74    | 24      | 3474-24-1072 | 1072          | Uranium One | 364158             | 817222              | 706                |
| 34       | 74    | 24      | 3474-24-1073 | 1073          | Uranium One | 364500             | 816800              | 704                |
| 34       | 74    | 24      | 3474-24-1074 | 1074          | Uranium One | 362550             | 817150              | 705                |
| 34       | 74    | 24      | 3474-24-1075 | 1075          | Uranium One | 362500             | 817200              | 701                |
| 34       | 74    | 24      | 3474-24-1076 | 1076          | Uranium One | 362600             | 817200              | 724                |
| 34       | 74    | 24      | 3474-24-1077 | 1077          | Uranium One | 362611             | 817051              | 723                |
| 34       | 74    | 24      | 3474-24-1078 | 1078          | Uranium One | 364500             | 816700              | 701                |
| 34       | 74    | 24      | 3474-24-1079 | 1079          | Uranium One | 361795             | 817553              | 700                |
| 34       | 74    | 24      | 3474-24-1080 | 1080          | Uranium One | 362058             | 817756              | 744                |
| 34       | 74    | 24      | 3474-24-1081 | 1081          | Uranium One | 364500             | 816900              | 693                |
| 34       | 74    | 24      | 3474-24-1082 | 1082          | Uranium One | 361443             | 817808              | 721                |
| 34       | 74    | 24      | 3474-24-1083 | 1083          | Uranium One | 361476             | 817755              | 718                |
| 34       | 74    | 24      | 3474-24-1084 | 1084          | Uranium One | 361554             | 817752              | 722                |
| 34       | 74    | 24      | 3474-24-1085 | 1085          | Uranium One | 361155             | 817648              | 721                |
| 34       | 74    | 24      | 3474-24-1086 | 1086          | Uranium One | 361208             | 817704              | 723                |
| 34       | 74    | 24      | 3474-24-1087 | 1087          | Uranium One | 361200             | 817801              | 720                |
| 34       | 74    | 24      | 3474-24-1088 | 1088          | Uranium One | 362100             | 817200              | 724                |
| 34       | 74    | 24      | 3474-24-1089 | 1089          | Uranium One | 361900             | 817100              | 719                |
| 34       | 74    | 24      | 3474-24-1090 | 1090          | Uranium One | 361700             | 817200              | 722                |
| 34       | 74    | 24      | 3474-24-1091 | 1091          | Uranium One | 360950             | 817649              | 701                |
| 34       | 74    | 24      | 3474-24-1092 | 1092          | Uranium One | 361855             | 817657              | 742                |
| 34       | 74    | 24      | 3474-24-1093 | 1093          | Uranium One | 361955             | 817657              | 740                |
| 34       | 74    | 24      | 3474-24-1094 | 1094          | Uranium One | 362055             | 817657              | 740                |
| 34       | 74    | 24      | 3474-24-1096 | 1096          | Uranium One | 362100             | 817300              | 722                |
| 34       | 74    | 24      | 3474-24-1097 | 1097          | Uranium One | 362200             | 817200              | 723                |
| 34       | 74    | 24      | 3474-24-1098 | 1098          | Uranium One | 364407             | 816805              | 721                |
| 34       | 74    | 24      | 3474-24-1099 | 1099          | Uranium One | 359502             | 817600              | 700                |
| 34       | 74    | 24      | 3474-24-11   | 11            |             | 362066.9           | 817181.1            | 1500               |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number  | Short Hole ID | Company                | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|--------------|---------------|------------------------|--------------------|---------------------|--------------------|
| 34       | 74    | 24      | 3474-24-1100 | 1100          | Uranium One            | 359512             | 817900              | 697                |
| 34       | 74    | 24      | 3474-24-1101 | 1101          | Uranium One            | 359906             | 817904              | 700                |
| 34       | 74    | 24      | 3474-24-1102 | 1102          | Uranium One            | 360300             | 817900              | 702                |
| 34       | 74    | 24      | 3474-24-1103 | 1103          | Uranium One            | 360703             | 817899              | 702                |
| 34       | 74    | 24      | 3474-24-1104 | 1104          | Uranium One            | 361100             | 817900              | 712                |
| 34       | 74    | 24      | 3474-24-1105 | 1105          | Uranium One            | 359499             | 817401              | 701                |
| 34       | 74    | 24      | 3474-24-1106 | 1106          | Uranium One            | 359701             | 817598              | 702                |
| 34       | 74    | 24      | 3474-24-1107 | 1107          | Uranium One            | 359888             | 817234.2            | 697                |
| 34       | 74    | 24      | 3474-24-1108 | 1108          | Uranium One            | 360204             | 816809              | 701                |
| 34       | 74    | 24      | 3474-24-1109 | 1109          | Uranium One            | 359493             | 817703              | 702                |
| 34       | 74    | 24      | 3474-24-1110 | 1110          | Uranium One            | 359694             | 817901              | 701                |
| 34       | 74    | 24      | 3474-24-1111 | 1111          | Uranium One            | 363500             | 816800              | 700                |
| 34       | 74    | 24      | 3474-24-1112 | 1112          | Uranium One            | 364300             | 816800              | 700                |
| 34       | 74    | 24      | 3474-24-1113 | 1113          | Uranium One            | 364400             | 816700              | 702                |
| 34       | 74    | 24      | 3474-24-1114 | 1114          | Uranium One            | 359400             | 817597              | 701                |
| 34       | 74    | 24      | 3474-24-1115 | 1115          | Uranium One            | 359500             | 817515              | 697                |
| 34       | 74    | 24      | 3474-24-1116 | 1116          | Uranium One            | 359598             | 817598              | 697                |
| 34       | 74    | 24      | 3474-24-1117 | 1117          | Uranium One            | 364412             | 816917              | 702                |
| 34       | 74    | 24      | 3474-24-1118 | 1118          | Uranium One            | 364500             | 816600              | 701                |
| 34       | 74    | 24      | 3474-24-1119 | 1119          | Uranium One            | 359410             | 817689              | 702                |
| 34       | 74    | 24      | 3474-24-1120 | 1120          | Uranium One            | 359400             | 817500              | 701                |
| 34       | 74    | 24      | 3474-24-1121 | 1121          | Uranium One            | 359510             | 817789              | 701                |
| 34       | 74    | 24      | 3474-24-1122 | 1122          | Uranium One            | 359750             | 817812              | 700                |
| 34       | 74    | 24      | 3474-24-1123 | 1123          | Uranium One            | 362903             | 817601              | 743                |
| 34       | 74    | 24      | 3474-24-1124 | 1124          | Uranium One            | 363100             | 817200              | 742                |
| 34       | 74    | 24      | 3474-24-1125 | 1125          | Uranium One            | 363300             | 817400              | 740                |
| 34       | 74    | 24      | 3474-24-1126 | 1126          | Uranium One            | 363300             | 817000              | 740                |
| 34       | 74    | 24      | 3474-24-1127 | 1127          | Uranium One            | 363500             | 817200              | 741                |
| 34       | 74    | 24      | 3474-24-1128 | 1128          | Uranium One            | 363700             | 817600              | 738                |
| 34       | 74    | 24      | 3474-24-1129 | 1129          | Uranium One            | 363875             | 816852              | 739                |
| 34       | 74    | 24      | 3474-24-1130 | 1130          | Uranium One            | 364105             | 817000              | 740                |
| 34       | 74    | 24      | 3474-24-1131 | 1131          | Uranium One            | 361700             | 817300              | 719                |
| 34       | 74    | 24      | 3474-24-1132 | 1132          | Uranium One            | 361800             | 817200              | 720                |
| 34       | 74    | 24      | 3474-24-1133 | 1133          | Uranium One            | 361800             | 817100              | 719                |
| 34       | 74    | 24      | 3474-24-1134 | 1134          | Uranium One            | 362000             | 817200              | 719                |
| 34       | 74    | 24      | 3474-24-1139 | 1139          | Uranium One            | 363507             | 816999              | 738                |
| 34       | 74    | 24      | 3474-24-15   | 15            |                        | 362744.4           | 816526.6            |                    |
| 34       | 74    | 24      | 3474-24-16   | 16            |                        | 363179.7           | 817339.4            |                    |
| 34       | 74    | 24      | 3474-24-23   | 23            |                        | 359591.7           | 816710              |                    |
| 34       | 74    | 24      | 3474-24-28   | 28            |                        | 362417.4           | 817257.6            |                    |
| 34       | 74    | 24      | 3474-24-29   | 29            |                        | 362373.3           | 815584.7            |                    |
| 34       | 74    | 24      | 3474-24-305  | 305           | Uranium Resources INC. | 359433             | 816482              | 644                |
| 34       | 74    | 24      | 3474-24-307  | 307           | Uranium Resources INC. | 360211             | 816363              | 696                |
| 34       | 74    | 24      | 3474-24-31   | 31            |                        | 360776.2           | 816665.5            |                    |
| 34       | 74    | 24      | 3474-24-311  | 311           | Uranium Resources INC. | 361356             | 815937              | 455                |
| 34       | 74    | 24      | 3474-24-314  | 314           | Uranium Resources INC. | 361761             | 816327              | 795                |
| 34       | 74    | 24      | 3474-24-317  | 317           | Uranium Resources INC. | 362470             | 816935              | 795                |
| 34       | 74    | 24      | 3474-24-32   | 32            |                        | 362551.1           | 817250.6            |                    |
| 34       | 74    | 24      | 3474-24-323  | 323           | Uranium Resources INC. | 359912             | 816404              | 314                |
| 34       | 74    | 24      | 3474-24-324  | 324           | Uranium Resources INC. | 360196             | 816150              | 314                |
| 34       | 74    | 24      | 3474-24-326  | 326           | Uranium Resources INC. | 359625             | 816386              | 354                |
| 34       | 74    | 24      | 3474-24-327  | 327           | Uranium Resources INC. | 359894             | 816232              | 334                |
| 34       | 74    | 24      | 3474-24-35   | 35            |                        | 360756             | 817338.6            |                    |
| 34       | 74    | 24      | 3474-24-460  | 460           | Uranium Resources INC. | 360524.4           | 815327.6            | 595                |
| 34       | 74    | 24      | 3474-24-462  | 462           | Uranium Resources INC. | 359576.1           | 816266.4            | 314                |
| 34       | 74    | 24      | 3474-24-463  | 463           | Uranium Resources INC. | 360308.1           | 814762.8            | 543                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number | Short Hole ID | Company                | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-------------|---------------|------------------------|--------------------|---------------------|--------------------|
| 34       | 74    | 24      | 3474-24-464 | 464           | Uranium Resources INC. | 359797.3           | 815767.5            | 542                |
| 34       | 74    | 24      | 3474-24-465 | 465           | Uranium Resources INC. | 360419.1           | 815044.8            | 214                |

Table 2.6-1: Ludeman Drill Hole Records

| Township | Range | Section | Hole Number     | Short Hole ID | Company                | Easting Coordinate | Northing Coordinate | Total Logged Depth |
|----------|-------|---------|-----------------|---------------|------------------------|--------------------|---------------------|--------------------|
| 34       | 74    | 24      | 3474-24-466     | 466           | Uranium Resources INC. | 359856.8           | 815935.3            | 244                |
| 34       | 74    | 24      | 3474-24-467     | 467           | Uranium Resources INC. | 360359.6           | 814903.9            | 194                |
| 34       | 74    | 24      | 3474-24-468     | 468           | Uranium Resources INC. | 360391.2           | 814978.5            | 194                |
| 34       | 74    | 24      | 3474-24-469     | 469           | Uranium Resources INC. | 359795.7           | 815862.7            | 213                |
| 34       | 74    | 24      | 3474-24-470     | 470           | Uranium Resources INC. | 359777             | 815676.1            | 194                |
| 34       | 74    | 24      | 3474-24-472     | 472           | Uranium Resources INC. | 360405.1           | 815010.7            | 171                |
| 34       | 74    | 24      | 3474-24-491     | 491           | Uranium Resources INC. | 360160.4           | 815412.6            | 443                |
| 34       | 74    | 24      | 3474-24-492     | 492           | Uranium Resources INC. | 359888.7           | 815862.7            | 234                |
| 34       | 74    | 24      | 3474-24-493     | 493           | Uranium Resources INC. | 360486.1           | 814945              | 194                |
| 34       | 74    | 24      | 3474-24-494     | 494           | Uranium Resources INC. | 360092.4           | 815343.3            | 214                |
| 34       | 74    | 24      | 3474-24-496     | 496           | Uranium Resources INC. | 360160.6           | 815276.3            | 214                |
| 34       | 74    | 24      | 3474-24-497     | 497           | Uranium Resources INC. | 359963.5           | 815935.9            | 235                |
| 34       | 74    | 24      | 3474-24-498     | 498           | Uranium Resources INC. | 361153.9           | 814748.8            | 395                |
| 34       | 74    | 24      | 3474-24-499     | 499           | Uranium Resources INC. | 360090.9           | 815483.4            | 214                |
| 34       | 74    | 24      | 3474-24-500     | 500           | Uranium Resources INC. | 359525.3           | 816430.4            | 324                |
| 34       | 74    | 24      | 3474-24-502     | 502           | Uranium Resources INC. | 359691.1           | 816087.7            | 335                |
| 34       | 74    | 24      | 3474-24-503     | 503           | Uranium Resources INC. | 360325.5           | 815077              | 214                |
| 34       | 74    | 24      | 3474-24-506     | 506           | Uranium Resources INC. | 360295.1           | 815011.9            | 194                |
| 34       | 74    | 24      | 3474-24-507     | 307           | Uranium Resources INC. | 361304.4           | 814366.9            | 396                |
| 34       | 74    | 24      | 3474-24-509     | 501           | Uranium Resources INC. | 359762.3           | 816141.4            | 265                |
| 34       | 74    | 24      | 3474-24-510     | 510           | Uranium Resources INC. | 360155             | 815563.8            | 234                |
| 34       | 74    | 24      | 3474-24-513     | 513           | Uranium Resources INC. | 361331.14          | 814091.8            | 234                |
| 34       | 74    | 24      | 3474-24-514     | 514           | Uranium Resources INC. | 360229             | 815346.1            | 234                |
| 34       | 74    | 24      | 3474-24-515     | 515           | Uranium Resources INC. | 361329.7           | 814189.8            | 234                |
| 34       | 74    | 24      | 3474-24-516     | 516           | Uranium Resources INC. | 360758.2           | 814742.1            | 354                |
| 34       | 74    | 24      | 3474-24-518     | 518           | Uranium Resources INC. | 360535.1           | 814744.3            | 315                |
| 34       | 74    | 24      | 3474-24-519     | 519           | Uranium Resources INC. | 359785.6           | 815999.1            | 244                |
| 34       | 74    | 24      | 3474-24-520     | 520           | Uranium Resources INC. | 361321.3           | 813988.8            | 114                |
| 34       | 74    | 24      | 3474-24-521     | 521           | Uranium Resources INC. | 360949             | 825406              | 360                |
| 34       | 74    | 24      | 3474-24-522     | 522           | Uranium Resources INC. | 360852             | 825403              | 360                |
| 34       | 74    | 24      | 3474-24-523     | 523           | Uranium Resources INC. | 359522.3           | 816352              | 333                |
| 34       | 74    | 24      | 3474-24-524     | 524           | Uranium Resources INC. | 360246.9           | 815176.5            | 254                |
| 34       | 74    | 24      | 3474-24-525     | 525           | Uranium Resources INC. | 360000.5           | 815734.2            | 251                |
| 34       | 74    | 24      | 3474-24-526     | 526           | Uranium Resources INC. | 360716.7           | 814743.2            | 134                |
| 34       | 74    | 24      | 3474-24-527     | 527           | Uranium Resources INC. | 360228.1           | 815078.3            | 214                |
| 34       | 74    | 24      | 3474-24-528     | 528           | Uranium Resources INC. | 360093.7           | 815725.4            | 235                |
| 34       | 74    | 24      | 3474-24-529     | 529           | Uranium Resources INC. | 359742             | 815933.8            | 234                |
| 34       | 74    | 24      | 3474-24-530     | 530           | Uranium Resources INC. | 360260.4           | 815269.8            | 214                |
| 34       | 74    | 24      | 3474-24-531     | 531           | Uranium Resources INC. | 360582.8           | 814912.9            | 194                |
| 34       | 74    | 24      | 3474-24-532     | 532           | Uranium Resources INC. | 360133.2           | 815640.7            | 234                |
| 34       | 74    | 24      | 3474-24-533     | 533           | Uranium Resources INC. | 359394.4           | 816394.6            | 335                |
| 34       | 74    | 24      | 3474-24-534     | 534           | Uranium Resources INC. | 360179.8           | 815209.3            | 214                |
| 34       | 74    | 24      | 3474-24-535     | 535           | Uranium Resources INC. | 360064.9           | 815568.2            | 234                |
| 34       | 74    | 24      | 3474-24-536     | 536           | Uranium Resources INC. | 360560.9           | 814823.3            | 194                |
| 34       | 74    | 24      | 3474-24-537     | 537           | Uranium Resources INC. | 359791.5           | 815722.5            | 214                |
| 34       | 74    | 24      | 3474-24-538     | 538           | Uranium Resources INC. | 359693.8           | 816262.1            | 335                |
| 34       | 74    | 24      | 3474-24-542     | 542           | Uranium Resources INC. | 360161.8           | 815344.7            | 234                |
| 34       | 74    | 24      | 3474-24-543     | 543           | Uranium Resources INC. | 359971.7           | 815809.6            | 235                |
| 34       | 74    | 24      | 3474-24-544     | 544           | Uranium Resources INC. | 360107.1           | 815565.3            | 234                |
| 34       | 74    | 24      | 3474-24-545     | 545           | Uranium Resources INC. | 360039.9           | 815737.1            | 235                |
| 34       | 74    | 24      | 3474-24-7       | 7             |                        | 363343.3           | 816782.7            |                    |
| 34       | 74    | 24      | 3474-24-9       | 9             |                        | 362676.9           | 817268              |                    |
| 34       | 74    | 24      | 3474-24-FU-25-1 | M-25          | Morrison Nuclear       | 362393.3           | 817171.5            | 598                |
| 34       | 74    | 24      | 3474-24-FU-83-1 | M-83          | Morrison Nuclear       | 364002.4           | 814886.1            | 815                |
| 34       | 74    | 24      | 3474-24-FU-92-1 | M-92          | Morrison Nuclear       | 361815             | 812817.6            | 586                |
| 34       | 74    | 24      | 3474-24-FU-97-1 | M-97          | Morrison Nuclear       | 359850.1           | 814089.2            | 597                |

**ADDENDUM 2.6-B**  
**LUDEMAN SOILS TABLE**

**Table 2.6-2: Soil Mapping Unit Acreages**

| Map Symbol     | Map Unit Description   | Proposed Disturbance | Existing Disturbance | Proposed Disturbance Within Existing Disturbance | Total Disturbance |
|----------------|--|----------------------|----------------------|--|-------------------|
| Ba             | Bahl clay loam   | 0.00                 | 0.05                 | 0.00   | 0.05              |
| Bo             | Bowbac sandy loam  | 0.00                 | 16.03                | 0.00   | 16.03             |
| Ca             | Cambria loam   | 10.12                | 23.15                | 0.00   | 33.27             |
| Cl             | Clarkelen fine sandy loam  | 0.00                 | 48.20                | 0.00   | 48.20             |
| CuNC           | Cushman noncalcareous variant  | 0.00                 | 4.18                 | 0.00   | 4.18              |
| Cu             | Cushman very fine sandy loam   | 0.26                 | 0.00                 | 0.00   | 0.26              |
| De             | Decolney fine sandy loam   | 1.87                 | 4.39                 | 0.00   | 6.26              |
| Dr             | Draknab loamy sand   | 0.00                 | 0.00                 | 0.00   | 0.00              |
| Dw             | Dwyer fine sand  | 2.37                 | 0.00                 | 0.00   | 2.37              |
| EmMV           | Embry moderately deep variant  | 0.14                 | 2.60                 | 0.00   | 2.74              |
| Fo             | Forkwood loam  | 21.87                | 21.12                | 0.35   | 43.34             |
| FoNC-CINC-ThNC | Forkwood noncalcareous variant-Clarkelen noncalcareous variant-Theedle noncalcareous variant | 104.09               | 0.00                 | 0.00   | 104.09            |
| Fo-Sh          | Forkwood-Shingle complex   | 0.00                 | 12.12                | 0.00   | 12.12             |
| Fo-Th          | Forkwood-Theedle complex   | 15.05                | 5.63                 | 0.00   | 20.68             |
| Ha             | Haverdad loam  | 8.05                 | 0.00                 | 0.00   | 8.05              |
| Hi             | Hiland fine sandy loam   | 67.50                | 34.87                | 2.55   | 104.92            |
| HiNC           | Hiland noncalcareous variant   | 0.00                 | 0.00                 | 0.00   | 0.00              |
| KeNC           | Keeline noncalcareous variant  | 0.00                 | 11.90                | 0.00   | 11.90             |
| Ke             | Keeline sandy loam   | 8.26                 | 29.16                | 0.01   | 37.43             |
| Ke-De-Th       | Keeline-Decolney-Theedle complex   | 0.22                 | 31.93                | 0.01   | 32.16             |
| Ke-Or-Ta       | Keeline-Orpha-Taluce complex   | 19.05                | 1.46                 | 0.00   | 20.51             |
| Ki             | Kishona loam   | 160.54               | 60.69                | 0.03   | 221.26            |



|              |  |               |               |             |                 |
|--------------|--|---------------|---------------|-------------|-----------------|
| Ki-Fo        | Kishona-Forkwood complex                               | 18.45         | 0.00          | 0.00        | 18.45           |
| Lo-ThNC      | Lolite-Theedle noncalcareous complex                   | 0.00          | 0.00          | 0.00        | 0.00            |
| Or           | Orpha loamy sand                                       | 20.73         | 24.73         | 0.00        | 45.46           |
| OrMV         | Orpha moderately deep variant                          | 0.00          | 4.68          | 0.00        | 4.68            |
| Pe           | Petrie clay loam                                       | 1.07          | 2.41          | 0.00        | 3.48            |
| Re           | Renohill clay loam                                     | 7.77          | 0.00          | 0.00        | 7.77            |
| Sh           | Shingle clay loam                                      | 80.08         | 25.33         | 0.00        | 105.41          |
| ShNC         | Shingle noncalcareous variant                          | 1.42          | 0.00          | 0.00        | 1.42            |
| Sh-Fo-EmMV   | Shingle-Forkwood-Embry moderately deep variant complex | 0.00          | 0.00          | 0.00        | 0.00            |
| Sh-Th-Ki     | Shingle-Theedle-Kishona complex                        | 7.16          | 3.30          | 0.00        | 10.46           |
| TaNC         | Taluce noncalcareous variant                           | 25.64         | 0.60          | 0.00        | 26.24           |
| TaNC-Or      | Taluce noncalcareous variant-Orpha complex             | 16.45         | 0.00          | 0.00        | 16.45           |
| Th           | Theedle loam   | 66.90         | 6.68          | 0.00        | 73.58           |
| ThNC         | Theedle noncalcareous variant                          | 19.78         | 3.39          | 0.00        | 23.17           |
| Th-CuNC      | Theedle-Cushman noncalcareous variant complex          | 1.25          | 0.00          | 0.00        | 1.25            |
| TI           | Tulloch loamy sand                                     | 17.82         | 0.00          | 0.00        | 17.82           |
| TINC         | Tulloch noncalcareous variant                          | 0.00          | 0.00          | 0.00        | 0.00            |
| TINC-Ta      | Tulloch noncalcareous variant-Taluce complex           | 0.00          | 0.00          | 0.00        | 0.00            |
| TINC-Tu      | Tulloch noncalcareous variant-Turnercrest complex      | 27.74         | 0.00          | 0.00        | 27.74           |
| Tu           | Turnercrest fine sandy loam                            | 45.03         | 9.06          | 0.04        | 54.13           |
| TuNC         | Turnercrest noncalcareous variant                      | 0.15          | 0.00          | 0.00        | 0.15            |
| UI           | Ulm clay loam  | 1.22          | 2.55          | 0.00        | 3.77            |
| Wo           | Worf loam  | 34.28         | 0.00          | 0.00        | 34.28           |
| WoNC         | Worf noncalcareous variant                             | 0.08          | 0.00          | 0.00        | 0.08            |
| Zi           | Zigweid loam   | 1.06          | 0.00          | 0.00        | 1.06            |
| ZiNC-Th      | Zigweid noncalcareous variant-Theedle complex          | 0.00          | 0.02          | 0.00        | 0.02            |
| <b>Total</b> |  | <b>813.47</b> | <b>390.24</b> | <b>2.99</b> | <b>1,206.70</b> |

**Table 2.6-3: Soil Series Sample Summary**

| Soil Series                       | Number of Profiles Sampled for Chemical Analysis 1 |
|-----------------------------------|--|
| Bahl                              | 1  |
| Bowbac                            | 1  |
| Cambria                           | 2  |
| Clarkelen                         | 3  |
| Clarkelen noncalcareous variant   | 1  |
| Cushman                           | 1  |
| Cushman noncalcareous variant     | 1  |
| Decolney                          | 2  |
| Draknab                           | 1  |
| Dwyer                             | 1  |
| Embry moderately deep variant     | 1  |
| Forkwood                          | 3  |
| Forkwood noncalcareous variant    | 1  |
| Haverdad                          | 1  |
| Hiland                            | 2  |
| Hiland noncalcareous variant      | 1  |
| Keeline                           | 3  |
| Keeline noncalcareous variant     | 1  |
| Kishona                           | 3  |
| Lolite                            | 1  |
| Orpha                             | 2  |
| Petrie                            | 1  |
| Renohill                          | 1  |
| Shingle                           | 3  |
| Shingle noncalcareous variant     | 1  |
| Taluce                            | 1  |
| Taluce noncalcareous variant      | 1  |
| Theedle                           | 3  |
| Theedle noncalcareous variant     | 1  |
| Tulloch                           | 1  |
| Tulloch noncalcareous variant     | 1  |
| Turnercrest                       | 2  |
| Turnercrest noncalcareous variant | 1  |
| Ulm                               | 2  |
| Worf                              | 1  |
| Worf noncalcareous variant        | 1  |
| Zigweid                           | 1  |
| Zigweid noncalcareous variant     | 1  |
| Total                             | 56   |

<sup>1</sup>Samples were taken within proposed disturbed area, when possible, as defined by initial estimates of the ore body.

**Table 2.6-4: Soil Sample Locations**

| Soil Sample Number <sup>1</sup> | Map Unit Symbol | Soil Series                        |
|---------------------------------|-----------------|------------------------------------|
| 137                             | Wo              | Worf clay loam                     |
| 138                             | TaNC            | Taluze noncalcareous variant       |
| 139                             | Ha              | Haverdad clay loam                 |
| 140                             | Or              | Orpha sandy clay loam              |
| 141                             | Tl              | Tulloch sandy clay loam            |
| 142                             | Ke-Or-Ta        | Taluze sandy loam                  |
| 146                             | Lo-ThNC         | Lolite clay                        |
| 148                             | Hi              | Hiland sandy clay loam             |
| 150                             | TINC-Tu         | Turnercrest sandy loam             |
| 151                             | ThNC            | Theedle noncalcareous variant      |
| 152                             | Ki-Fo           | Forkwood sandy clay loam           |
| 153                             | Ke              | Keeline sandy loam                 |
| 154                             | Th              | Theedle sandy clay loam            |
| 155                             | Hi              | Hiland sandy clay loam             |
| 156                             | Ul              | Ulm sandy clay loam                |
| 158                             | Ki              | Kishona clay                       |
| 159                             | Zi              | Zigweid clay                       |
| 160                             | Fo              | Forkwood clay loam                 |
| 161                             | Fo              | Forkwood clay loam                 |
| 162                             | ShNC            | Shingle noncalcareous variant      |
| 163                             | Ki              | Kishona clay/clay loam             |
| 164                             | Tu              | Turnercrest sandy clay loam        |
| 165                             | Ki              | Kishona clay loam                  |
| 166                             | Dw              | Dwyer loamy sand                   |
| 168                             | FoNC-CINC-ThNC  | Clarkelen noncalcareous variant    |
| 170                             | Ca              | Cambria sandy clay loam            |
| 171                             | Sh-Fo-EmMV      | Shingle clay loam                  |
| 172                             | Sh-Fo-EmMV      | Embry moderately deep variant      |
| 173                             | Ke              | Keeline sandy clay loam            |
| 174                             | Ba              | Bahl clay loam                     |
| 175                             | HiNC            | Hiland noncalcareous variant       |
| 177                             | WoNC            | Worf noncalcareous variant         |
| 178                             | Dr              | Draknab sandy loam                 |
| 180                             | Th              | Theedle clay                       |
| 181                             | TuNC            | Turnercrest noncalcareous variant  |
| 182                             | Ke-Or-Ta        | Orpha sandy loam                   |
| 183                             | CuNC            | Cushman noncalcareous variant      |
| 184                             | Sh              | Shingle sandy loam/sandy clay loam |
| 185                             | Cl              | Clarkelen sandy loam               |

| Soil Sample Number <sup>1</sup> | Map Unit Symbol | Soil Series                        |
|---------------------------------|-----------------|------------------------------------|
| 186                             | ZiNC-Th         | Zigweid noncalcareous variant      |
| 187                             | Re              | Renohill clay                      |
| 188                             | Ke              | Keeline sandy loam/sandy clay loam |
| 189                             | Bo              | Bowbac sandy clay                  |
| 190                             | De              | Decolney sandy loam                |
| 191                             | TiNC-Tu         | Tullock noncalcareous variant      |
| 192                             | Sh              | Shingle clay loam                  |
| 193                             | Ul              | Ulm clay loam                      |
| 194                             | Pe              | Petrie clay/clay loam              |
| 195                             | KeNC            | Keeline noncalcareous variant      |
| 197                             | De              | Decolney sandy loam                |
| 198                             | Th              | Theedle sandy loam                 |
| 199                             | FoNC-CiNC-ThNC  | Forkwood noncalcareous variant     |
| 201                             | Ca              | Cambria sandy loam/sandy clay loam |
| 202                             | Cl              | Clarkelen clay                     |
| 203                             | Cu              | Cushman clay loam                  |
| 204                             | Cl              | Clarkelen sandy clay loam          |

<sup>1</sup>Samples were taken within proposed disturbed area, when possible, as defined by initial estimates of the ore body.

**Table 2.6-5: Summary of Marginal and Unsuitable Parameters within Sampled Profiles**

| Series                        | Sample Point | Depth (in) | Marginal <sup>1</sup>  | Unsuitable <sup>1</sup> |
|-------------------------------|--------------|------------|------------------------|-------------------------|
| Worf                          | 137          | 5-12       | Clay %                 |                         |
| Haverdad                      | 139          | 36-46      | Saturation %<br>Clay % |                         |
| Orpha                         | 140          | 35-45      | Clay %                 |                         |
|                               |              | 45-55      | Saturation %<br>Clay % |                         |
|                               |              | 55-60      | Clay %                 |                         |
| Tulloch                       | 141          | 0-11       | Saturation %           |                         |
| Taluce                        | 142          | 8-16       | Saturation %           |                         |
| Lolite                        | 146          | 0-9        | Clay %                 |                         |
|                               |              | 9-24       | Clay %                 |                         |
| Turnercrest                   | 150          | 20-35      | Saturation %           |                         |
| Theedle noncalcareous variant | 151          | 7-24       | Clay %                 |                         |
| Theedle                       | 154          | 24-36      | Clay %                 |                         |
| Hiland                        | 155          | 37-48      | pH                     |                         |
| Ulm                           | 156          | 12-29      | Clay %                 |                         |
|                               |              | 29-37      | Clay %<br>Selenium     |                         |
|                               |              | 37-53      | Clay %                 |                         |
| Kishona                       | 158          | 0-12       | Clay %                 |                         |
| Zigweid                       | 159          | 0-14       | Clay %                 |                         |
|                               |              | 14-28      | Clay %                 |                         |
| Forkwood                      | 160          | 13-21      | Clay %                 |                         |
|                               |              | 33-55      | Clay %                 |                         |
|                               |              | 55-60      | Clay %                 |                         |
| Forkwood                      | 161          | 12-28      | Clay %                 |                         |
|                               |              | 28-46      | Clay %                 |                         |
| Shingle noncalcareous variant | 162          | 0-12       | Clay %                 |                         |
| Kishona                       | 163          | 0-7        | Clay %                 |                         |
|                               |              | 20-29      | SAR                    |                         |
|                               |              | 29-37      | SAR                    | EC                      |
|                               |              | 37-50      |                        | EC<br>SAR               |
|                               |              | 50-60      |                        | EC<br>SAR               |
| Dwyer                         | 166          | 0-7        | Saturation %           |                         |
|                               |              | 21-36      | Saturation %           |                         |

| Series                        | Sample Point | Depth (in) | Marginal <sup>1</sup>              | Unsuitable <sup>1</sup> |
|-------------------------------|--------------|------------|------------------------------------|-------------------------|
|                               |              | 36-48      | Saturation %                       |                         |
| Embry moderately deep variant | 172          | 0-12       | Saturation %                       |                         |
|                               |              | 12-19      | Saturation %                       |                         |
|                               |              |            |                                    |                         |
| Bahl                          | 174          | 3-10       | Clay %                             |                         |
|                               |              | 10-20      | Clay %                             |                         |
|                               |              | 20-36      | Clay %                             |                         |
|                               |              | 36-48      | Selenium                           |                         |
| Hiland noncalcareous variant  | 175          | 0-4        | Saturation %<br>Sand %<br>Selenium |                         |
| Draknab                       | 178          | 2-12       | Saturation %                       |                         |
|                               |              | 12-18      | Saturation %                       |                         |
|                               |              | 29-35      | Saturation %                       |                         |
|                               |              | 35-60      | Saturation %                       |                         |
| Theedle                       | 180          | 0-2        | Clay %                             |                         |
|                               |              | 2-12       | Clay %                             |                         |
| Clarkelen                     | 185          | 31-48      | Saturation %                       |                         |
| Renohill                      | 187          | 0-8        | Clay %                             |                         |
|                               |              | 8-17       | Clay %                             |                         |
|                               |              | 17-22      | Clay %                             |                         |
| Keeline                       | 188          | 21-30      |                                    | SAR                     |
| Bowbac                        | 189          | 0-8        |                                    | SAR                     |
|                               |              | 18-24      |                                    | SAR                     |
| Decolney                      | 190          | 0-3        | SAR                                |                         |
| Tulloch noncalcareous variant | 191          | 3-11       | Saturation %                       |                         |
| Shingle                       | 192          | 1-8        | Clay %                             |                         |
| Ulm                           | 193          | 3-10       | Clay %                             |                         |
|                               |              | 36-60      | Clay %<br>Selenium                 |                         |
| Petrie                        | 194          | 0-8        | Clay %                             |                         |
|                               |              | 32-44      | Clay %                             |                         |
| Keeline noncalcareous variant | 195          | 0-9        | Saturation %                       |                         |
|                               |              | 9-18       | Saturation %                       |                         |
|                               |              | 18-37      | Saturation %                       |                         |
|                               |              | 37-48      | Saturation %                       |                         |
| Decolney                      | 197          | 0-4        | Saturation %                       |                         |
|                               |              | 4-10       | Saturation %                       |                         |
|                               |              | 10-19      | Saturation %                       |                         |
|                               |              | 19-36      | Saturation %                       |                         |

| Series                         | Sample Point | Depth (in) | Marginal <sup>1</sup>  | Unsuitable <sup>1</sup> |
|--------------------------------|--------------|------------|------------------------|-------------------------|
|                                |              | 36-48      | Saturation %<br>Sand % |                         |
| Theedle                        | 198          | 0-6        | Saturation %           |                         |
|                                |              | 6-22       | Saturation %           |                         |
| Forkwood noncalcareous variant | 199          | 14-26      | Saturation %           |                         |
|                                |              | 43-60      | Saturation %           |                         |
| Clarkelen                      | 202          | 0-4        | Clay %                 |                         |
|                                |              | 4-17       | Clay %                 |                         |
| Cushman                        | 203          | 8-21       | Clay %                 |                         |
|                                |              | 21-40      | Selenium               |                         |
| Clarkelen                      | 204          | 29-48      | Saturation %           |                         |

<sup>1</sup>Marginal and unsuitable parameters based on lab analysis.

**Table 2.6-6: Summary of Trends in Marginal and Unsuitable Parameters for Soil Series**

| Series                         | Unsuitable/Marginal Parameter <sup>1</sup> |
|--------------------------------|--|
| Bahl                           | Clay %                                     |
| Bowbac                         | SAR  |
| Clarkelen                      | Saturation %                               |
| Cushman                        | Clay %, Selenium                           |
| Decolney                       | Saturation %                               |
| Draknab                        | Saturation %                               |
| Dwyer                          | Saturation %                               |
| Embry moderately deep variant  | Saturation %                               |
| Forkwood                       | Clay %                                     |
| Forkwood noncalcareous variant | Saturation %                               |
| Haverdad                       | Saturation %, Clay %                       |
| Hiland                         | pH   |
| Hiland noncalcareous variant   | Saturation %, Sand %, Selenium             |
| Keeline                        | SAR  |
| Keeline noncalcareous variant  | Saturation %                               |
| Kishona                        | Clay %, EC, SAR                            |
| Lolite                         | Clay %                                     |
| Orpha                          | Saturation %                               |
| Petrie                         | Clay %                                     |
| Renohill                       | Clay %                                     |
| Shingle                        | Clay %                                     |
| Shingle noncalcareous variant  | Clay %                                     |
| Taluce                         | Saturation %                               |
| Theedle                        | Clay %                                     |
| Theedle noncalcareous variant  | Clay %                                     |
| Tullock                        | Saturation %                               |
| Tullock noncalcareous variant  | Saturation %                               |
| Ulm                            | Clay %, Selenium                           |
| Worf                           | Clay %                                     |
| Zigweid                        | Clay %                                     |

<sup>1</sup>Marginal and unsuitable parameters based on lab analysis.



**Table 2.6-7: Summary of Approximate Soil Salvage Depths**

| Map Symbol     | Mapping Unit Description   | Disturbance Areas <sup>1</sup> (acres) | Salvage Depth (feet) | Total Volume (Acre feet) |
|----------------|--|--|----------------------|--------------------------|
| Ba             | Bahl clay loam   | 0.05                                   | 0.83                 | 0.04                     |
| Bo             | Bowbac sandy loam  | 16.03                                  | 0.00                 | 0.00                     |
| Ca             | Cambria loam   | 33.27                                  | 2.88                 | 95.82                    |
| Cl             | Clarkelen fine sandy loam  | 48.20                                  | 2.89                 | 139.30                   |
| CuNC           | Cushman noncalcareous variant  | 4.18                                   | 1.83                 | 7.65                     |
| Cu             | Cushman very fine sandy loam   | 0.26                                   | 0.67                 | 0.17                     |
| De             | Decolney fine sandy loam   | 6.26                                   | 2.08                 | 13.02                    |
| Dw             | Dwyer fine sand  | 2.37                                   | 4.00                 | 9.48                     |
| EmMV           | Embry moderately deep variant  | 2.74                                   | 1.58                 | 4.33                     |
| Fo             | Forkwood loam  | 43.34                                  | 1.78                 | 77.15                    |
| FoNC-CINC-ThNC | Forkwood noncalcareous variant-Clarkelen noncalcareous variant-Theedle noncalcareous variant | 104.09                                 | 3.53                 | 367.44                   |
| Fo-Sh          | Forkwood-Shingle complex   | 12.12                                  | 1.33                 | 16.16                    |
| Fo-Th          | Forkwood-Theedle complex   | 20.68                                  | 1.88                 | 38.88                    |
| Ha             | Haverdad loam  | 8.05                                   | 1.67                 | 13.44                    |
| Hi             | Hiland fine sandy loam   | 104.92                                 | 1.50                 | 157.38                   |
| KeNC           | Keeline noncalcareous variant  | 11.90                                  | 4.00                 | 47.60                    |
| Ke             | Keeline sandy loam   | 37.43                                  | 2.69                 | 100.69                   |
| Ke-De-Th       | Keeline-Decolney-Theedle complex   | 32.16                                  | 2.25                 | 72.36                    |
| Ke-Or-Ta       | Keeline-Orpha-Taluce complex   | 20.51                                  | 2.33                 | 47.79                    |
| Ki             | Kishona loam   | 221.26                                 | 3.14                 | 694.76                   |
| Ki-Fo          | Kishona-Forkwood complex   | 18.45                                  | 2.46                 | 45.39                    |
| Or             | Orpha loamy sand   | 45.46                                  | 3.63                 | 165.02                   |
| OrMV           | Orpha moderately deep variant  | 4.68                                   | 2.92                 | 13.67                    |
| Pe             | Petrie clay loam   | 3.48                                   | 3.00                 | 10.44                    |
| Re             | Renohill clay loam   | 7.77                                   | 1.42                 | 11.03                    |
| Sh             | Shingle clay loam  | 105.41                                 | 0.89                 | 93.81                    |
| ShNC           | Shingle noncalcareous variant  | 1.42                                   | 1.00                 | 1.42                     |
| Sh-Th-Ki       | Shingle-Theedle-Kishona complex  | 10.46                                  | 2.00                 | 20.92                    |
| TaNC           | Taluce noncalcareous variant   | 26.24                                  | 1.25                 | 32.80                    |
| TaNC-Or        | Taluce noncalcareous variant-Orpha complex   | 16.45                                  | 2.44                 | 40.14                    |

|   |   |                 |             |                 |
|---|---|-----------------|-------------|-----------------|
| <b>Th</b>   | Theedle loam                                      | 73.58           | 1.98        | 145.69          |
| <b>ThNC</b>   | Theedle noncalcareous variant                     | 23.17           | 0.58        | 13.44           |
| <b>Th-CuNC</b>                                      | Theedle-Cushman noncalcareous variant complex     | 1.25            | 1.90        | 2.38            |
| <b>Tl</b>   | Tulloch loamy sand                                | 17.82           | 1.25        | 22.28           |
| <b>TINC-Tu</b>                                      | Tulloch noncalcareous variant-Turnercrest complex | 27.74           | 1.96        | 54.37           |
| <b>Tu</b>   | Turnercrest fine sandy loam                       | 54.13           | 2.42        | 130.99          |
| <b>TuNC</b>   | Turnercrest noncalcareous variant                 | 0.15            | 1.75        | 0.26            |
| <b>Ul</b>   | Ulm clay loam                                     | 3.77            | 2.71        | 10.22           |
| <b>Wo</b>   | Worf loam   | 34.28           | 1.58        | 54.16           |
| <b>WoNC</b>   | Worf noncalcareous variant                        | 0.08            | 1.00        | 0.08            |
| <b>Zi</b>   | Zigweid loam                                      | 1.06            | 5.00        | 5.3             |
| <b>ZiNC-Th</b>                                      | Zigweid noncalcareous variant-Theedle complex     | 0.02            | 3.49        | 0.07            |
| <b>Average Salvage Depth of Permit/Project Area</b> |   | ---             | <b>2.13</b> | ---             |
| <b>Total</b>  |   | <b>1,206.70</b> | ---         | <b>2,777.34</b> |

<sup>1</sup>Samples were taken within proposed disturbed area, when possible, as defined by initial estimates of the ore body.

**Table 2.6-8: Summary of Wind and Water Erosion Hazards**

| Soil Sample Number | Soil Series                       | Water Erosion Hazard <sup>1</sup> | Wind Erosion Hazard <sup>2</sup> |
|--------------------|-----------------------------------|-----------------------------------|----------------------------------|
| 137                | Worf clay loam                    | Slight                            | Very Slight                      |
| 138                | Taluze noncalcareous variant      | Negligible                        | Moderate                         |
| 139                | Haverdad clay loam                | Slight                            | Slight                           |
| 140                | Orpha sandy clay loam             | Very Slight                       | Moderate                         |
| 141                | Tulloch sandy clay loam           | Negligible                        | Moderate                         |
| 142                | Taluze sandy loam                 | Negligible                        | Severe                           |
| 146                | Lolite clay                       | Very Slight                       | Very Slight                      |
| 148                | Hiland sandy clay loam            | Very Slight                       | Slight                           |
| 150                | Turnercrest sandy loam            | Negligible                        | Severe                           |
| 151                | Theedle noncalcareous variant     | Very Slight                       | Very Slight                      |
| 152                | Forkwood sandy clay loam          | Very Slight                       | Slight                           |
| 153                | Keeline sandy loam                | Negligible                        | Moderate                         |
| 154                | Theedle sandy clay loam           | Very Slight                       | Slight                           |
| 155                | Hiland sandy clay loam            | Very Slight                       | Slight                           |
| 156                | Ulm sandy clay loam               | Very Slight                       | Slight                           |
| 158                | Kishona clay                      | Very Slight                       | Very Slight                      |
| 159                | Zigweid clay                      | Very Slight                       | Very Slight                      |
| 160                | Forkwood clay loam                | Slight                            | Very Slight                      |
| 161                | Forkwood clay loam                | Very Slight                       | Slight                           |
| 162                | Shingle noncalcareous variant     | Slight                            | Very Slight                      |
| 163                | Kishona clay/clay loam            | Slight                            | Very Slight                      |
| 164                | Turnercrest sandy clay loam       | Very Slight                       | Slight                           |
| 165                | Kishona clay loam                 | Very Slight                       | Slight                           |
| 166                | Dwyer loamy sand                  | Negligible                        | Severe                           |
| 168                | Clarkelen noncalcareous variant   | Very Slight                       | Moderate                         |
| 170                | Cambria sandy clay loam           | Negligible                        | Moderate                         |
| 171                | Shingle clay loam                 | Slight                            | Very Slight                      |
| 172                | Embry moderately deep variant     | Very Slight                       | Moderate                         |
| 173                | Keeline sandy clay loam           | Very Slight                       | Moderate                         |
| 174                | Bahl clay loam                    | Slight                            | Very Slight                      |
| 175                | Hiland noncalcareous variant      | Negligible                        | Severe                           |
| 177                | Worf noncalcareous variant        | Very Slight                       | Slight                           |
| 178                | Draknab sandy loam                | Very Slight                       | Moderate                         |
| 180                | Theedle clay                      | Slight                            | Very Slight                      |
| 181                | Turnercrest noncalcareous variant | Negligible                        | Moderate                         |
| 182                | Orpha sandy loam                  | Negligible                        | Severe                           |
| 183                | Cushman noncalcareous variant     | Slight                            | Very Slight                      |

| Soil Sample Number | Soil Series                        | Water Erosion Hazard <sup>1</sup> | Wind Erosion Hazard <sup>2</sup> |
|--------------------|------------------------------------|-----------------------------------|----------------------------------|
| 184                | Shingle sandy loam/sandy clay loam | Very Slight                       | Slight                           |
| 185                | Clarkelen sandy loam               | Very Slight                       | Moderate                         |
| 186                | Zigweid noncalcareous variant      | Slight                            | Very Slight                      |
| 187                | Renohill clay                      | Slight                            | Negligible                       |
| 188                | Keeline sandy loam/sandy clay loam | Very Slight                       | Moderate                         |
| 189                | Bowbac sandy clay                  | Negligible                        | Slight                           |
| 190                | Decolney sandy loam                | Very Slight                       | Moderate                         |
| 191                | Tulloch noncalcareous variant      | Negligible                        | Moderate                         |
| 192                | Shingle clay loam                  | Very Slight                       | Very Slight                      |
| 193                | Ulm clay loam                      | Very Slight                       | Very Slight                      |
| 194                | Petrie clay/clay loam              | Very Slight                       | Very Slight                      |
| 195                | Keeline noncalcareous variant      | Very Slight                       | Moderate                         |
| 197                | Decolney sandy loam                | Very Slight                       | Moderate                         |
| 198                | Theedle sandy loam                 | Very Slight                       | Moderate                         |
| 199                | Forkwood noncalcareous variant     | Very Slight                       | Slight                           |
| 201                | Cambria sandy loam/sandy clay loam | Very Slight                       | Moderate                         |
| 202                | Clarkelen clay                     | Slight                            | Very Slight                      |
| 203                | Cushman clay loam                  | Very Slight                       | Slight                           |
| 204                | Clarkelen sandy clay loam          | Very Slight                       | Slight                           |

<sup>1</sup>Based on silt percentage found in A horizon from lab analysis.

<sup>2</sup>Based on sand percentage from 0 to 18 inches from lab analysis.

**ADDENDUM 2.6-C**  
**SOIL MAPPING UNIT DESCRIPTIONS**

### **“Ba” – Bahl clay loam**

The Bahl clay loam mapping unit consists of very deep, well drained soils formed on alluvial fans, fan aprons, hillslopes, and terraces in alluvium from clay shales. It occurs on alluvial fans, fan aprons, hillslopes, and terraces at elevations from 3,500 to 5,000 feet.

The mean annual precipitation is estimated to be 10 to 17 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 110 to 130 days.

Slopes are simple and range from 0 to 20 percent. Parent material consists of alluvium from clay shales.

A typical profile contains a six-inch light brownish gray clay loam surface layer. The transition subsoil is a light brownish gray clay that is approximately six-inches thick. The substratum is a light brownish gray clay that extends to approximately 48 inches in depth.

Permeability within the Bahl soil is slow. Runoff is slow on the gentler slopes and rapid on the steeper slopes. The water erosion hazard is slight and the wind erosion hazard is very slight.

### **Productivity and Reclamation Potential**

There are five plant species that are common to this map unit: Western wheatgrass, Blue grama, Green needlegrass, Big sagebrush, and Prairie junegrass.

In a favorable year (above average moisture), the production is approximately 1,800 lbs/acres. In an unfavorable (drought) year, the production is approximately 750 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include low strength and shrink-swell. This map unit is a poor source for topsoil; limitations include sodium content and high clay content. This map unit is a poor source of overall reclamation material; limitations include high clay content, low organic matter content, high sodium content, and water erosion.

### **“Bo” – Bowbac sandy loam**

The Bowbac sandy loam mapping unit consists of moderately deep, well drained soils formed in alluvium, eolian deposits or residuum derived primarily from argillaceous sandstone. It occurs on alluvial fans, terraces, dissected fan remnants, fan piedmonts, hillslopes, pediments, plateaus, ridges, and buttes at elevations from 3,500 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 15 percent. Parent material consists of alluvium, eolian deposits or residuum derived primarily from argillaceous sandstone.

A typical profile contains a three- inch brown fine sandy loam surface layer. The transition subsoil is a yellowish brown sandy clay loam that is approximately 36 inches thick. The substratum is argillaceous sandstone.

Permeability within the Bowbac soil is moderate. Runoff is low on the gentler slopes and medium on the steeper slopes. The water erosion hazard is negligible and the wind erosion hazard is slight.

### **Productivity and Reclamation Potential**

There are five plant species that are common to this map unit: Needleandthread, Prairie sandreed, Indian ricegrass, Silver sagebrush, and Threadleaf sedge.

In a favorable year (above average moisture), the production is approximately 1,600 lbs/acres. In an unfavorable (drought) year, the production is approximately 750 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock. This map unit is a fair source for topsoil; limitations include depth to bedrock and slope. This map unit is a poor source of overall reclamation material; limitations include wind erosion, droughtiness, depth to bedrock, and low organic matter content.

### **“Ca” – Cambria loam**

The Cambria loam mapping unit consists of very deep, well drained soils formed in alluvium and slope alluvium from mixed sources. It occurs on fan remnants, fan piedmonts, alluvial fans, hills, ridges and terraces at elevations from 3,500 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 15 percent. Parent material consists of alluvium and slope alluvium from mixed sources.

A typical profile contains a four-inch brown loam surface layer. The transition subsoil is a brown clay loam that is approximately six-inches thick. The substratum is a pale brown loam that extends to approximately 50 inches in depth.

Permeability within the Cambria soil is moderate. Runoff is low on the gentler slopes and medium on the steeper slopes. The water erosion hazard is negligible to very slight and the wind erosion hazard is moderate.

### **Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Western wheatgrass, Needleandthread, Green needlegrass, Blue grama, Big sagebrush, and Indian ricegrass.

In a favorable year (above average moisture), the production is approximately 1,500 lbs/acres. In an unfavorable (drought) year, the production is approximately 700 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a fair source for topsoil; limitations include slope. This map unit is a fair source of overall reclamation material; limitations include low organic matter content and water erosion.



### **“CI” – Clarkelen fine sandy loam**

The Clarkelen fine sandy loam mapping unit consists of very deep, well, moderately well, or somewhat excessively drained soils formed in stratified recent stream alluvium from mixed sedimentary sources. It occurs on flood plains and terraces adjacent to floodplains at elevations from 3,500 to 6,200 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 44 to 49 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 6 percent. Parent material consists of stratified but dominantly moderately coarse textured recent stream alluvium originally weathered from sedimentary rock.

A typical profile contains a six-inch grayish brown fine sandy loam surface layer. The substratum is a light brownish gray stratified loam, fine sandy loam, loamy fine sand, and fine sand that extends to approximately 54 inches in depth.

Permeability within the Clarkelen soil is moderately rapid. Runoff is slow. The water erosion hazard is very slight to slight and the wind erosion hazard is very slight to moderate. The soil is subject to occasionally flooding for brief or very brief periods following intense storms in spring and summer or from snowmelt in spring.

### **Productivity and Reclamation Potential**

There are eight plant species that are common to this map unit: Basin wildrye, Green needlegrass, Western wheatgrass, Sandberg bluegrass, Blue grama, Silver sagebrush, Snowberry, and Threadleaf sedge.

In a favorable year (above average moisture), the production is approximately 2,400 lbs/acres. In an unfavorable (drought) year, the production is approximately 1,200 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a good source for topsoil; there are no limitations listed. This map unit is a fair source of overall reclamation material; limitations include low organic matter content and droughtiness.

### **“Cu” – Cushman very fine sandy loam**

The Cushman very fine sandy loam mapping unit consists of moderately deep, well drained soils formed in slopewash alluvium and residuum from interbedded shales and siltstone and fine-grained argillaceous sandstone. It occurs on buttes, fan remnants, hills, piedmonts, ridges and terraces at elevations from 3,500 to 6,000 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 20 percent. Parent material consists of moderately fine textured slopewash alluvium and residuum. Surface erosion is common in overgrazed areas, and some thin eolian deposits overlie these soils in some areas.

A typical profile contains a two inch light brownish gray very fine sandy loam surface layer. The transition subsoil is a brown to yellowish brown clay loam that is approximately 12 inches thick. The substratum is a pale to very pale brown loam that extends to approximately 18 inches in depth.

Permeability within the Cushman soil is moderate. Runoff is medium. The water erosion hazard is very slight and the wind erosion hazard is slight.

### **Productivity and Reclamation Potential**

There are four plant species that are common to this map unit: Needleandthread, Western wheatgrass, Blue grama, and Green needlegrass.

In a favorable year (above average moisture), the production is approximately 1,500 lbs/acres. In an unfavorable (drought) year, the production is approximately 700 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock and low strength. This map unit is a fair source for topsoil; limitations include depth to bedrock. This map unit is a fair source of overall reclamation material; limitations include depth to bedrock, low organic matter content, and water erosion.

### **“CuNC” – Cushman noncalcareous variant**

The Cushman noncalcareous variant mapping unit consists of moderately deep, well drained soils formed in slopewash alluvium and residuum from interbedded shales and siltstone and fine-grained argillaceous sandstone. It occurs on buttes, fan remnants, hills, piedmonts, ridges and terraces at elevations from 3,500 to 6,000 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 20 percent. Parent material consists of moderately fine textured slopewash alluvium and residuum. Surface erosion is common in overgrazed areas, and some thin eolian deposits overlie these soils in some areas.

A typical profile contains a two inch light brownish gray very fine sandy loam surface layer. The transition subsoil is a brown to yellowish brown clay loam that is approximately 12 inches thick. The substratum is a pale to very pale brown loam that extends to approximately 18 inches in depth.

Permeability within the Cushman soil is moderate. Runoff is medium. The water erosion hazard is slight and the wind erosion hazard is very slight.

### **Productivity and Reclamation Potential**

There are four plant species that are common to this map unit: Needleandthread, Western wheatgrass, Blue grama, and Green needlegrass.

In a favorable year (above average moisture), the production is approximately 1,500 lbs/acres. In an unfavorable (drought) year, the production is approximately 700 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock and low strength. This map unit is a fair source for topsoil; limitations include depth to bedrock. This map unit is a fair source of overall reclamation material; limitations include depth to bedrock, low organic matter content, and water erosion.

### **“De” – Decolney fine sandy loam**

The Decolney fine sandy loam mapping unit consists of very deep, well drained soils formed in alluvium or eolian deposits derived from sedimentary beds. It occurs on stabilized dune topography including alluvial fans, fan remnants, pediments, terraces, plateaus, ridges and hills at elevations from 3,500 to 5,200 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 44 to 49 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 20 percent. Parent material consists of eolian or alluvium deposits derived from mixed sedimentary bedrock.

A typical profile contains a three- inch brown fine sandy loam surface layer. The transition subsoil is a brown to yellowish brown sandy clay loam that is approximately 19 inches thick. The substratum is a brown to pale brown fine sandy loam that extends to approximately 38 inches in depth.

Permeability within the Decolney soil is moderate. Runoff is low on the gentler slopes and medium on the steeper slopes. The water erosion hazard is very slight and the wind erosion hazard is moderate.

### **Productivity and Reclamation Potential**

There are eight plant species that are common to this map unit: Needleandthread, Prairie sandreed, Indian ricegrass, Little bluestem, Threadleaf sedge, Western wheatgrass, Blue grama, and Silver sagebrush.

In a favorable year (above average moisture), the production is approximately 1,600 lbs/acres. In an unfavorable (drought) year, the production is approximately 750 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a good source for topsoil; there are no limitations listed. This map unit is a fair source of overall reclamation material; limitations include low organic matter content.

### **“Dr” – Draknab loamy sand**

The Draknab loamy sand mapping unit consists of very deep, moderately well, well or excessively well drained soils formed in stratified recent stream alluvium. It occurs on flood plains and on adjacent low terrace positions at elevations from 3,500 to 6,000 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 44 to 49 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 6 percent. Parent material consists of coarse textured recent stream alluvium derived originally from sandstone-dominated sedimentary rock.

A typical profile contains a two inch yellowish brown loamy sand surface layer. The transition subsoil is a yellowish brown sandy loam that is approximately six-inches thick. The substratum is a pale brown to very pale brown stratified sand, coarse sand, loamy coarse sand and loamy sand that extends to approximately 52 inches in depth.

Permeability within the Draknab soil is rapid. Runoff is negligible on the gentler slopes and very low on the steeper slopes. This soil is subject to rare to frequent flooding for very brief or brief periods during prolonged, high intensity storms in the spring and early summer. The water erosion hazard is very slight and the wind erosion hazard is moderate.

### **Productivity and Reclamation Potential**

There are seven plant species that are common to this map unit: Prairie sandreed, Sand bluestem, Needleandthread, Fringed sagewort, Indian ricegrass, Sand dropseed, and Silver sagebrush.

In a favorable year (above average moisture), the production is approximately 3,000 lbs/acres. In an unfavorable (drought) year, the production is approximately 1,600 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a fair source for topsoil; limitations include high sand content. This map unit is a poor source of overall reclamation material; limitations include wind erosion, high sand content, droughtiness, and low organic matter content.

### **“Dw” – Dwyer fine sand**

The Dwyer fine sand mapping unit consists of very deep, excessively drained soils formed in eolian sand. It occurs on dune-like forms frequently on or near the edges of alluvial terraces at elevations from 3,500 to 5,600 feet.

The mean annual precipitation is estimated to be 10 to 16 inches. The mean annual air temperature is 48 degrees Fahrenheit. The frost-free season ranges from 110 to 130 days.

Slopes are irregular and range from 0 to 25 percent. Parent material consists of eolian sand.

A typical profile contains a six-inch pale brown fine sand surface layer. The substratum is a very pale brown fine sand that extends to approximately 54 inches in depth.

Permeability within the Dwyer soil is rapid. Runoff is very slow on the gentler slopes and medium on the steeper slopes. The water erosion hazard is negligible and the wind erosion hazard is severe.

### **Productivity and Reclamation Potential**

There are eight plant species that are common to this map unit: Prairie sandreed, Sand bluestem, Needleandthread, Indian ricegrass, Sand dropseed, Silver sagebrush, Threadleaf sedge, and Western wheatgrass.

In a favorable year (above average moisture), the production is approximately 1,700 lbs/acres. In an unfavorable (drought) year, the production is approximately 900 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a poor source for topsoil; limitations include high sand content and slope. This map unit is a poor source of overall reclamation material; limitations include high sand content, wind erosion, droughtiness, and low organic matter content.

### **“EmMV” – Embry moderately deep variant**

The Embry moderately deep variant mapping unit consists of moderately deep, well drained soils formed in alluvium and eolian deposits derived from sandstone. It occurs on hills, dunes, terraces and alluvial fans at elevations from 4,200 to 6,000 feet.

The mean annual precipitation is estimated to be 10 to 15 inches. The annual air temperature is 45 to 50 degrees Fahrenheit. The frost-free season ranges from 110 to 130 days.

Slopes range from 0 to 20 percent. Parent material consists of alluvium and eolian deposits derived from noncalcareous sandstone.

A typical profile contains a six-inch light brownish gray sandy loam surface layer. The substratum is a light brownish gray to pale brown sandy loam that extends to approximately 34 inches in depth.

Permeability within the Embry soil is moderately rapid. Runoff is slow on the gentler slopes and medium on the steeper slopes. The water erosion hazard is very slight and the wind erosion hazard is moderate.

### **Productivity and Reclamation Potential**

There are eight plant species that are common to this map unit: Needleandthread, Prairie sandreed, Indian ricegrass, Little bluestem, Blue grama, Silver sagebrush, Threadleaf sedge, and Western wheatgrass.

In a favorable year (above average moisture), the production is approximately 1,600 lbs/acres. In an unfavorable (drought) year, the production is approximately 750 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a fair source for topsoil; limitations include slope. This map unit is a fair source of overall reclamation material; limitations include low organic matter content.

### **“Fo” – Forkwood loam**

The Forkwood loam mapping unit consists of very deep, well drained soils formed in alluvium. It occurs on terraces, alluvial fans, fan remnants, hills, ridges and pediments at elevations from 3,500 to 6,000 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 15 percent. Parent material consists of slopewash alluvium derived from interbedded shales and argillaceous sandstone.

A typical profile contains a five-inch brown loam surface layer. The transition subsoil is a brown to light brownish gray clay loam that is approximately 25 inches thick. The substratum is a light brownish gray loam that extends to approximately 30 inches in depth.

Permeability within the Forkwood soil is moderate. Runoff is low on the gentler slopes and medium on the steeper slopes. The water erosion hazard is very slight to slight and the wind erosion hazard is very slight to slight.

### **Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Needleandthread, Western wheatgrass, Blue grama, Big sagebrush, Little bluestem, and Winterfat.

In a favorable year (above average moisture), the production is approximately 1,900 lbs/acres. In an unfavorable (drought) year, the production is approximately 700 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a good source for topsoil; there are no limitations listed. This map unit is a fair source of overall reclamation material; limitations include low organic matter content and water erosion.



**“FoNC-CINC-ThNC” – Forkwood noncalcareous variant-Clarkelen noncalcareous variant-Theedle noncalcareous variant complex**

**Forkwood noncalcareous variant**

The Forkwood noncalcareous variant mapping unit consists of very deep, well drained soils formed in alluvium. It occurs on terraces, alluvial fans, fan remnants, hills, ridges and pediments at elevations from 3,500 to 6,000 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 15 percent. Parent material consists of slopewash alluvium derived from interbedded shales and argillaceous sandstone.

A typical profile contains a five-inch brown loam surface layer. The transition subsoil is a brown to light brownish gray clay loam that is approximately 25 inches thick. The substratum is a light brownish gray loam that extends to approximately 30 inches in depth.

Permeability within the Forkwood soil is moderate. Runoff is low on the gentler slopes and medium on the steeper slopes. The water erosion hazard is very slight and the wind erosion hazard is slight.

**Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Needleandthread, Western wheatgrass, Blue grama, Big sagebrush, Little bluestem, and Winterfat.

In a favorable year (above average moisture), the production is approximately 1,900 lbs/acres. In an unfavorable (drought) year, the production is approximately 700 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a good source for topsoil; there are no limitations listed. This map unit is a fair source of overall reclamation material; limitations include low organic matter content and water erosion.

**Clarkelen noncalcareous variant**

The Clarkelen noncalcareous variant mapping unit consists of very deep, well, moderately well, or somewhat excessively drained soils formed in stratified recent stream

alluvium from mixed sedimentary sources. It occurs on flood plains and terraces adjacent to floodplains at elevations from 3,500 to 6,200 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 44 to 49 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 6 percent. Parent material consists of stratified but dominantly moderately coarse textured recent stream alluvium originally weathered from sedimentary rock.

A typical profile contains a six-inch grayish brown fine sandy loam surface layer. The substratum is a light brownish gray stratified loam, fine sandy loam, loamy fine sand, and fine sand that extends to approximately 54 inches in depth.

Permeability within the Clarkelen soil is moderately rapid. Runoff is slow. The water erosion hazard is very slight and the wind erosion hazard is moderate. The soil is subject to occasionally flooding for brief or very brief periods following intense storms in spring and summer or from snowmelt in spring.

#### **Productivity and Reclamation Potential**

There are eight plant species that are common to this map unit: Basin wildrye, Green needlegrass, Western wheatgrass, Sandberg bluegrass, Blue grama, Silver sagebrush, Snowberry, and Threadleaf sedge.

In a favorable year (above average moisture), the production is approximately 2,400 lbs/acres. In an unfavorable (drought) year, the production is approximately 1,200 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a good source for topsoil; there are no limitations listed. This map unit is a fair source of overall reclamation material; limitations include low organic matter content and droughtiness.

#### **Theedle noncalcareous variant**

The Theedle noncalcareous variant mapping unit consists of moderately deep, well drained soils formed in residuum and slope alluvium weathered from soft sandstone. It occurs on rock-controlled fan aprons, fan pediments, and undulating to rolling uplands at elevations from 3,500 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 45 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 75 percent. Parent material consists of medium textured slope alluvium and residuum derived primarily from interbedded sandstone and shale.

A typical profile contains a four-inch light brownish gray loam surface layer. The transition subsoil is a light brownish gray loam that is approximately four-inches thick. The substratum is a light gray loam that extends to approximately 20 inches in depth.

Permeability within the Theedle soil is moderate. Runoff is slow on the gentler slopes and rapid on the steeper slopes. The water erosion hazard is very slight and the wind erosion hazard is very slight.

### **Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Needleandthread, Western wheatgrass, Blue grama, Big sagebrush, Little bluestem, and Winterfat.

In a favorable year (above average moisture), the production is approximately 1,900 lbs/acres. In an unfavorable (drought) year, the production is approximately 700 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock, low strength, shrink-swell, and slope. This map unit is a poor source for topsoil; limitations include slope and depth to bedrock. This map unit is a fair source of overall reclamation material; limitations include depth to bedrock, low organic matter content, droughtiness, and water erosion.

## **“Fo-Sh” – Forkwood-Shingle complex**

### **Forkwood loam**

The Forkwood loam mapping unit consists of very deep, well drained soils formed in alluvium. It occurs on terraces, alluvial fans, fan remnants, hills, ridges and pediments at elevations from 3,500 to 6,000 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 15 percent. Parent material consists of slopewash alluvium derived from interbedded shales and argillaceous sandstone.

A typical profile contains a five-inch brown loamsurface layer. The transition subsoil is a brown to light brownish gray clay loam that is approximately 25 inches thick. The substratum is a light brownish gray loam that extends to approximately 30 inches in depth.

Permeability within the Forkwood soil is moderate. Runoff is low on the gentler slopes and medium on the steeper slopes. The water erosion hazard is very slight to slight and the wind erosion hazard is very slight to slight.

### **Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Needleandthread, Western wheatgrass, Blue grama, Big sagebrush, Little bluestem, and Winterfat.

In a favorable year (above average moisture), the production is approximately 1,900 lbs/acres. In an unfavorable (drought) year, the production is approximately 700 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a good source for topsoil; there are no limitations listed. This map unit is a fair source of overall reclamation material; limitations include low organic matter content and water erosion.

### **Shingle clay loam**

The Shingle clay loam mapping unit consists of very shallow or shallow, well drained soils formed in residuum or colluviums derived from interbedded shale and sandstone or

in alluvium from mudstone. It occurs on bedrock controlled hillslopes and ridges at elevations from 3,200 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 80 percent. Parent material consists of colluviums and residuum weathered from soft, interbedded sandstone and shale or in alluvium from mudstone.

A typical profile contains a four-inch light brownish gray clay loam surface layer. The transition subsoil is a light yellowish brown clay loam that is approximately four-inches thick. The substratum is a light yellowish brown clay loam that extends to approximately seven-inches in depth.

Permeability within the Shingle soil is moderate. Runoff is medium on the gentler slopes and high on the steeper slopes. The water erosion hazard is very slight to slight and the wind erosion hazard is very slight to slight.

#### **Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Bluebunch wheatgrass, Western wheatgrass, Blue grama, Needleandthread, Threadleaf sedge, and Big sagebrush.

In a favorable year (above average moisture), the production is approximately 1,200 lbs/acres. In an unfavorable (drought) year, the production is approximately 450 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock and slope. This map unit is a poor source for topsoil; limitations include depth to bedrock, rock fragments, and slope. This map unit is a poor source of overall reclamation material; limitations include droughtiness, depth to bedrock, and low organic matter content.

## **“Fo-Th” – Forkwood-Theedle complex**

### **Forkwood loam**

The Forkwood loam mapping unit consists of very deep, well drained soils formed in alluvium. It occurs on terraces, alluvial fans, fan remnants, hills, ridges and pediments at elevations from 3,500 to 6,000 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 15 percent. Parent material consists of slopewash alluvium derived from interbedded shales and argillaceous sandstone.

A typical profile contains a five-inch brown loam surface layer. The transition subsoil is a brown to light brownish gray clay loam that is approximately 25 inches thick. The substratum is a light brownish gray loam that extends to approximately 30 inches in depth.

Permeability within the Forkwood soil is moderate. Runoff is low on the gentler slopes and medium on the steeper slopes. The water erosion hazard is very slight to slight and the wind erosion hazard is very slight to slight.

### **Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Needleandthread, Western wheatgrass, Blue grama, Big sagebrush, Little bluestem, and Winterfat.

In a favorable year (above average moisture), the production is approximately 1,900 lbs/acres. In an unfavorable (drought) year, the production is approximately 700 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a good source for topsoil; there are no limitations listed. This map unit is a fair source of overall reclamation material; limitations include low organic matter content and water erosion.

### **Theedle loam**

The Theedle loam mapping unit consists of moderately deep, well drained soils formed in residuum and slope alluvium weathered from soft sandstone. It occurs on rock-controlled

fan aprons, fan pediments, and undulating to rolling uplands at elevations from 3,500 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 45 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 75 percent. Parent material consists of medium textured slope alluvium and residuum derived primarily from interbedded sandstone and shale.

A typical profile contains a four-inch light brownish gray loam surface layer. The transition subsoil is a light brownish gray loam that is approximately four-inches thick. The substratum is a light gray loam that extends to approximately 20 inches in depth.

Permeability within the Theedle soil is moderate. Runoff is slow on the gentler slopes and rapid on the steeper slopes. The water erosion hazard is very slight to slight and the wind erosion hazard is very slight to moderate.

#### **Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Needleandthread, Western wheatgrass, Blue grama, Big sagebrush, Little bluestem, and Winterfat.

In a favorable year (above average moisture), the production is approximately 1,900 lbs/acres. In an unfavorable (drought) year, the production is approximately 700 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock, low strength, shrink-swell, and slope. This map unit is a poor source for topsoil; limitations include slope and depth to bedrock. This map unit is a fair source of overall reclamation material; limitations include depth to bedrock, low organic matter content, droughtiness, and water erosion.

### **“Ha” – Haverdad loam**

The Haverdad loam mapping unit consists of very deep, well drained soils formed in stratified alluvium. It occurs on floodplains and low terraces at elevations from 3,500 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 17 inches. The annual air temperature is 43 to 52 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 6 percent. Parent material consists of alluvium from mixed sources.

A typical profile contains a four-inch pale brown loam surface layer. The substratum is a pale brown loam or clay loam stratified with fine sandy loam, sandy loam, loam, silt loam, and silty clay loam that extends to approximately 56 inches in depth.

Permeability within the Haverdad soil is moderate. Runoff is slow. Flooding for brief periods occurs during spring runoff and after thunder showers. The water erosion hazard is slight and the wind erosion hazard is slight.

### **Productivity and Reclamation Potential**

There are five plant species that are common to this map unit: Green needlegrass, Cottonwood, Needleandthread, Slender wheatgrass, and Western wheatgrass.

In a favorable year (above average moisture), the production is approximately 3,000 lbs/acres. In an unfavorable (drought) year, the production is approximately 1,600 lbs/acres.

According to NRCS information, this map unit is a fair source for roadfill; limitations include low strength and shrink-swell. This map unit is a good source for topsoil; there are no limitations listed. This map unit is a poor source of overall reclamation material; limitations include high alkalinity and low organic matter content.



### **“Hi” – Hiland fine sandy loam**

The Hiland fine sandy loam mapping unit consists of very deep, well drained soils formed in alluvium or eolian deposits. It occurs on relict surfaces consisting of terraces, fans, fan remnants, pediments, ridges, hills and stabilized dunes at elevations from 3,500 to 6,300 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 20 percent. Parent material consists of moderately coarse alluvium and eolian material derived predominantly from sandstone.

A typical profile contains a six-inch brown to pale brown fine sandy loam surface layer. The transition subsoil is a brown, yellowish brown, or pale brown sandy clay loam that is approximately 25 inches thick. The substratum is a light yellowish brown fine sandy loam that extends to approximately 29 inches in depth.

Permeability within the Hiland soil is moderate. Runoff is low on the gentler slopes and medium on the steeper slopes. The water erosion hazard is very slight and the wind erosion hazard is slight.

### **Productivity and Reclamation Potential**

There are seven plant species that are common to this map unit: Needleandthread, Prairie sandreed, Thickspike wheatgrass, Threadleaf sedge, Blue grama, Sand bluestem, and Silver sagebrush.

In a favorable year (above average moisture), the production is approximately 1,600 lbs/acres. In an unfavorable (drought) year, the production is approximately 750 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a fair source for topsoil; limitations include slope. This map unit is a poor source of overall reclamation material; limitations include wind erosion and low organic matter content.

### **“HiNC” – Hiland noncalcareous variant**

The Hiland noncalcareous variant mapping unit consists of very deep, well drained soils formed in alluvium or eolian deposits. It occurs on relict surfaces consisting of terraces, fans, fan remnants, pediments, ridges, hills and stabilized dunes at elevations from 3,500 to 6,300 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 20 percent. Parent material consists of moderately coarse alluvium and eolian material derived predominantly from sandstone.

A typical profile contains a six-inch brown to pale brown fine sandy loam surface layer. The transition subsoil is a brown, yellowish brown, or pale brown sandy clay loam that is approximately 25 inches thick. The substratum is a light yellowish brown fine sandy loam that extends to approximately 29 inches in depth.

Permeability within the Hiland soil is moderate. Runoff is low on the gentler slopes and medium on the steeper slopes. The water erosion hazard is negligible and the wind erosion hazard is severe.

### **Productivity and Reclamation Potential**

There are seven plant species that are common to this map unit: Needleandthread, Prairie sandreed, Thickspike wheatgrass, Threadleaf sedge, Blue grama, Sand bluestem, and Silver sagebrush.

In a favorable year (above average moisture), the production is approximately 1,600 lbs/acres. In an unfavorable (drought) year, the production is approximately 750 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a fair source for topsoil; limitations include slope. This map unit is a poor source of overall reclamation material; limitations include wind erosion and low organic matter content.

### **“Ke” – Keeline sandy loam**

The Keeline sandy loam mapping unit consists of very deep, well or somewhat excessively drained soils formed in alluvium or eolian deposits derived from sandstone. It occurs on upland ridgetops, hillslopes, terraces, benches, alluvial fans, and fan remnants at elevations from 3,500 to 6,200 feet.

The mean annual precipitation is estimated to be 10 to 15 inches. The annual air temperature is 44 to 49 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 40 percent. Parent material consists of moderately coarse alluvium or eolian deposits derived from calcareous sandstone.

A typical profile contains a three- inch yellowish brown sandy loam surface layer. The transition subsoil is a pale brown sandy loam that is approximately five-inches thick. The substratum is a very pale brown sandy loam that extends to approximately 52 inches in depth.

Permeability within the Keeline soil is moderately rapid. Runoff is slow. The water erosion hazard is negligible to very slight and the wind erosion hazard is moderate.

### **Productivity and Reclamation Potential**

There are five plant species that are common to this map unit: Needleandthread, Prairie sandreed, Big sagebrush, Blue grama, and Threadleaf sedge.

In a favorable year (above average moisture), the production is approximately 1,600 lbs/acres. In an unfavorable (drought) year, the production is approximately 750 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a good source for topsoil; there are no limitations listed. This map unit is a fair source of overall reclamation material; limitations include low organic matter content.

### **“KeNC” – Keeline noncalcareous variant**

The Keeline noncalcareous variant mapping unit consists of very deep, well or somewhat excessively drained soils formed in alluvium or eolian deposits derived from sandstone. It occurs on upland ridgetops, hillslopes, terraces, benches, alluvial fans, and fan remnants at elevations from 3,500 to 6,200 feet.

The mean annual precipitation is estimated to be 10 to 15 inches. The annual air temperature is 44 to 49 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 40 percent. Parent material consists of moderately coarse alluvium or eolian deposits derived from calcareous sandstone.

A typical profile contains a three-inch yellowish brown sandy loam surface layer. The transition subsoil is a pale brown sandy loam that is approximately five-inches thick. The substratum is a very pale brown sandy loam that extends to approximately 52 inches in depth.

Permeability within the Keeline soil is moderately rapid. Runoff is slow. The water erosion hazard is very slight and the wind erosion hazard is moderate.

### **Productivity and Reclamation Potential**

There are five plant species that are common to this map unit: Needleandthread, Prairie sandreed, Big sagebrush, Blue grama, and Threadleaf sedge.

In a favorable year (above average moisture), the production is approximately 1,600 lbs/acres. In an unfavorable (drought) year, the production is approximately 750 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a good source for topsoil; there are no limitations listed. This map unit is a fair source of overall reclamation material; limitations include low organic matter content.

## **“Ke-De-Th” – Keeline-Decolney-Theedle complex**

### **Keeline sandy loam**

The Keeline sandy loam mapping unit consists of very deep, well or somewhat excessively drained soils formed in alluvium or eolian deposits derived from sandstone. It occurs on upland ridgetops, hillslopes, terraces, benches, alluvial fans, and fan remnants at elevations from 3,500 to 6,200 feet.

The mean annual precipitation is estimated to be 10 to 15 inches. The annual air temperature is 44 to 49 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 40 percent. Parent material consists of moderately coarse alluvium or eolian deposits derived from calcareous sandstone.

A typical profile contains a three-inch yellowish brown sandy loam surface layer. The transition subsoil is a pale brown sandy loam that is approximately five-inches thick. The substratum is a very pale brown sandy loam that extends to approximately 52 inches in depth.

Permeability within the Keeline soil is moderately rapid. Runoff is slow. The water erosion hazard is negligible to very slight and the wind erosion hazard is moderate.

### **Productivity and Reclamation Potential**

There are five plant species that are common to this map unit: Needleandthread, Prairie sandreed, Big sagebrush, Blue grama, and Threadleaf sedge.

In a favorable year (above average moisture), the production is approximately 1,600 lbs/acres. In an unfavorable (drought) year, the production is approximately 750 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a good source for topsoil; there are no limitations listed. This map unit is a fair source of overall reclamation material; limitations include low organic matter content.

### **Decolney fine sandy loam**

The Decolney fine sandy loam mapping unit consists of very deep, well drained soils formed in alluvium or eolian deposits derived from sedimentary beds. It occurs on

stabilized dune topography including alluvial fans, fan remnants, pediments, terraces, plateaus, ridges and hills at elevations from 3,500 to 5,200 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 44 to 49 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 20 percent. Parent material consists of eolian or alluvium deposits derived from mixed sedimentary bedrock.

A typical profile contains a three-inch brown fine sandy loam surface layer. The transition subsoil is a brown to yellowish brown sandy clay loam that is approximately 19 inches thick. The substratum is a brown to pale brown fine sandy loam that extends to approximately 38 inches in depth.

Permeability within the Decolney soil is moderate. Runoff is low on the gentler slopes and medium on the steeper slopes. The water erosion hazard is very slight and the wind erosion hazard is moderate.

### **Productivity and Reclamation Potential**

There are eight plant species that are common to this map unit: Needleandthread, Prairie sandreed, Indian ricegrass, Little bluestem, Threadleaf sedge, Western wheatgrass, Blue grama, and Silver sagebrush.

In a favorable year (above average moisture), the production is approximately 1,600 lbs/acres. In an unfavorable (drought) year, the production is approximately 750 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a good source for topsoil; there are no limitations listed. This map unit is a fair source of overall reclamation material; limitations include low organic matter content.

### **Theedle loam**

The Theedle loam mapping unit consists of moderately deep, well drained soils formed in residuum and slope alluvium weathered from soft sandstone. It occurs on rock-controlled fan aprons, fan pediments, and undulating to rolling uplands at elevations from 3,500 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 45 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 75 percent. Parent material consists of medium textured slope alluvium and residuum derived primarily from interbedded sandstone and shale.

A typical profile contains a four-inch light brownish gray loam surface layer. The transition subsoil is a light brownish gray loam that is approximately four-inches thick. The substratum is a light gray loam that extends to approximately 20 inches in depth.

Permeability within the Theedle soil is moderate. Runoff is slow on the gentler slopes and rapid on the steeper slopes. The water erosion hazard is very slight to slight and the wind erosion hazard is very slight to moderate.

**Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Needleandthread, Western wheatgrass, Blue grama, Big sagebrush, Little bluestem, and Winterfat.

In a favorable year (above average moisture), the production is approximately 1,900 lbs/acres. In an unfavorable (drought) year, the production is approximately 700 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock, low strength, shrink-swell, and slope. This map unit is a poor source for topsoil; limitations include slope and depth to bedrock. This map unit is a fair source of overall reclamation material; limitations include depth to bedrock, low organic matter content, droughtiness, and water erosion.

## **“Ke-Or-Ta” – Keeline-Orpha-Taluce complex**

### **Keeline sandy loam**

The Keeline sandy loam mapping unit consists of very deep, well or somewhat excessively drained soils formed in alluvium or eolian deposits derived from sandstone. It occurs on upland ridgetops, hillslopes, terraces, benches, alluvial fans, and fan remnants at elevations from 3,500 to 6,200 feet.

The mean annual precipitation is estimated to be 10 to 15 inches. The annual air temperature is 44 to 49 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 40 percent. Parent material consists of moderately coarse alluvium or eolian deposits derived from calcareous sandstone.

A typical profile contains a three-inch yellowish brown sandy loam surface layer. The transition subsoil is a pale brown sandy loam that is approximately five-inches thick. The substratum is a very pale brown sandy loam that extends to approximately 52 inches in depth.

Permeability within the Keeline soil is moderately rapid. Runoff is slow. The water erosion hazard is negligible to very slight and the wind erosion hazard is moderate.

### **Productivity and Reclamation Potential**

There are five plant species that are common to this map unit: Needleandthread, Prairie sandreed, Big sagebrush, Blue grama, and Threadleaf sedge.

In a favorable year (above average moisture), the production is approximately 1,600 lbs/acres. In an unfavorable (drought) year, the production is approximately 750 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a good source for topsoil; there are no limitations listed. This map unit is a fair source of overall reclamation material; limitations include low organic matter content.

### **Orpha loamy sand**

The Orpha loamy sand mapping unit consists of very deep, excessively drained soils formed in alluvium or eolian sand from mixed sources. It occurs on rolling dunes, hills,



terraces, floodplains, uplands, valley side slopes, toeslopes, and footslopes at elevations from 3,500 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 18 inches. The annual air temperature is 44 to 50 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 45 percent. Parent material consists of alluvium or eolian deposits generally adjacent to and downwind of sandy parent sources.

A typical profile contains a six-inch grayish brown loamy sand surface layer. The substratum is a light brownish gray sand that extends to approximately 54 inches in depth.

Permeability within the Orpha soil is rapid or very rapid. Runoff is very low on the gentler slopes and low on the steeper slopes. The water erosion hazard is negligible to very slight and the wind erosion hazard is moderate to severe.

#### **Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Sand bluestem, Needleandthread, Prairie sandreed, Little bluestem, Thickspike wheatgrass, and Sand sagebrush.

In a favorable year (above average moisture), the production is approximately 1,800 lbs/acres. In an unfavorable (drought) year, the production is approximately 900 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a poor source for topsoil; limitations include high sand content. This map unit is a poor source of overall reclamation material; limitations include high sand content, wind erosion, low organic matter content, and droughtiness.

#### **Taluca sandy loam**

The Taluce sandy loam mapping unit consists of very shallow or shallow, well drained soils formed in residuum and slope alluvium derived from sandstone. It occurs on ridges and hills at elevations from 3,500 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 17 inches. The annual air temperature is 42 to 51 degrees Fahrenheit. The frost-free season ranges from 100 to 130 days.

Slopes range from 3 to 70 percent. Parent material consists of residuum and slope alluvium derived from sandstone.

A typical profile contains a four-inch yellowish brown sandy loam surface layer. The substratum is a light yellowish brown sandy loam that extends to approximately five inches in depth.

Permeability within the Taluce soil is rapid. Runoff is medium on the gentler slopes and rapid on the steeper slopes. The water erosion hazard is negligible and the wind erosion hazard is severe.

### **Productivity and Reclamation Potential**

There are eight plant species that are common to this map unit: Needleandthread, Prairie sandreed, Blue grama, Indian ricegrass, Little bluestem, Sand bluestem, Threadleaf sedge, and Western wheatgrass.

In a favorable year (above average moisture), the production is approximately 1,300 lbs/acres. In an unfavorable (drought) year, the production is approximately 600 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock and slope. This map unit is a poor source for topsoil; limitations include slope and depth to bedrock. This map unit is a poor source of overall reclamation material; limitations include depth to bedrock, low organic matter content, and droughtiness.

### **“Ki” – Kishona loam**

The Kishona loam mapping unit consists of very deep, well drained soils formed in alluvium. It occurs on fan aprons, alluvial fans, fan remnants, hills, ridges and terraces at elevations from 3,500 to 6,700 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 6 percent but range up to 30 percent on dissected slopes. Parent material consists of alluvium derived from sandstones and shales.

A typical profile contains a four-inch brown loam surface layer. The transition subsoil is a very pale brown silty clay loam that is approximately 20 inches thick. The substratum is a pale brown loam that extends to approximately 36 inches in depth.

Permeability within the Kishona soil is moderate. Runoff is slow on gentler slopes and medium on steeper slopes. The water erosion hazard is very slight to slight and the wind erosion hazard is very slight to slight.

### **Productivity and Reclamation Potential**

There are seven plant species that are common to this map unit: Needleandthread, Western wheatgrass, Blue grama, Green needlegrass, Big sagebrush, Little bluestem, and Thickspike wheatgrass.

In a favorable year (above average moisture), the production is approximately 1,500 lbs/acres. In an unfavorable (drought) year, the production is approximately 700 lbs/acres.

According to NRCS information, this map unit is a fair source for roadfill; limitations include low strength and shrink-swell. This map unit is a good source for topsoil; there are no limitations listed. This map unit is a fair source of overall reclamation material; limitations include low organic matter content and water erosion.

## **“Ki-Fo” – Kishona-Forkwood complex**

### **Kishona loam**

The Kishona loam mapping unit consists of very deep, well drained soils formed in alluvium. It occurs on fan aprons, alluvial fans, fan remnants, hills, ridges and terraces at elevations from 3,500 to 6,700 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 6 percent but range up to 30 percent on dissected slopes. Parent material consists of alluvium derived from sandstones and shales.

A typical profile contains a four-inch brown loam surface layer. The transition subsoil is a very pale brown silty clay loam that is approximately 20 inches thick. The substratum is a pale brown loam that extends to approximately 36 inches in depth.

Permeability within the Kishona soil is moderate. Runoff is slow on gentler slopes and medium on steeper slopes. The water erosion hazard is very slight to slight and the wind erosion hazard is very slight to slight.

### **Productivity and Reclamation Potential**

There are seven plant species that are common to this map unit: Needleandthread, Western wheatgrass, Blue grama, Green needlegrass, Big sagebrush, Little bluestem, and Thickspike wheatgrass.

In a favorable year (above average moisture), the production is approximately 1,500 lbs/acres. In an unfavorable (drought) year, the production is approximately 700 lbs/acres.

According to NRCS information, this map unit is a fair source for roadfill; limitations include low strength and shrink-swell. This map unit is a good source for topsoil; there are no limitations listed. This map unit is a fair source of overall reclamation material; limitations include low organic matter content and water erosion.

### **Forkwood loam**

The Forkwood loam mapping unit consists of very deep, well drained soils formed in alluvium. It occurs on terraces, alluvial fans, fan remnants, hills, ridges and pediments at elevations from 3,500 to 6,000 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 15 percent. Parent material consists of slopewash alluvium derived from interbedded shales and argillaceous sandstone.

A typical profile contains a five-inch brown loam surface layer. The transition subsoil is a brown to light brownish gray clay loam that is approximately 25 inches thick. The substratum is a light brownish gray loam that extends to approximately 30 inches in depth.

Permeability within the Forkwood soil is moderate. Runoff is low on the gentler slopes and medium on the steeper slopes. The water erosion hazard is very slight to slight and the wind erosion hazard is very slight to slight.

#### **Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Needleandthread, Western wheatgrass, Blue grama, Big sagebrush, Little bluestem, and Winterfat.

In a favorable year (above average moisture), the production is approximately 1,900 lbs/acres. In an unfavorable (drought) year, the production is approximately 700 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a good source for topsoil; there are no limitations listed. This map unit is a fair source of overall reclamation material; limitations include low organic matter content and water erosion.

## **“Lo-ThNC” – Lolite-Theedle noncalcareous complex**

### **Lolite clay**

The Lolite clay mapping unit consists of shallow, well drained soils formed in residuum. It occurs on ridges and hillsides at elevations from 4,900 to 6,500 feet.

The mean annual precipitation is estimated to be 9 to 14 inches. The annual air temperature is 42 to 51 degrees Fahrenheit. The frost-free season ranges from 110 to 130 days.

Slopes range from 3 to 45 percent. Parent material consists of residuum derived from sodic, noncalcareous shale.

A typical profile contains a two inch light brownish gray clay surface layer. The transition subsoil is light brownish gray clay that is approximately four-inches thick. The substratum is gray clay that extends to approximately four-inches in depth.

Permeability within the Lolite soil is slow. Runoff is rapid. The water erosion hazard is very slight and the wind erosion hazard is very slight.

### **Productivity and Reclamation Potential**

There are eight plant species that are common to this map unit: Bluebunch wheatgrass, Bottlebrush squirreltail, Gardner’s saltbrush, Indian ricegrass, Western wheatgrass, Birdfoot sagebrush, Sandberg bluegrass, and other perennial forbs.

In a favorable year (above average moisture), the production is approximately 200 lbs/acres. In an unfavorable (drought) year, the production is approximately 50 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock, low strength, slope, and shrink-swell. This map unit is a poor source for topsoil; limitations include depth to bedrock, high clay content, slope, and high sodium content. This map unit is a poor source of overall reclamation material; limitations include droughtiness, high sodium content, depth to bedrock, high clay content, and high salinity.

### **Theedle noncalcareous variant**

The Theedle noncalcareous variant mapping unit consists of moderately deep, well drained soils formed in residuum and slope alluvium weathered from soft sandstone. It occurs on rock-controlled fan aprons, fan pediments, and undulating to rolling uplands at elevations from 3,500 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 45 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 75 percent. Parent material consists of medium textured slope alluvium and residuum derived primarily from interbedded sandstone and shale.

A typical profile contains a four-inch light brownish gray loam surface layer. The transition subsoil is a light brownish gray loam that is approximately four-inches thick. The substratum is a light gray loam that extends to approximately 20 inches in depth.

Permeability within the Theedle soil is moderate. Runoff is slow on the gentler slopes and rapid on the steeper slopes. The water erosion hazard is very slight and the wind erosion hazard is very slight.

### **Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Needleandthread, Western wheatgrass, Blue grama, Big sagebrush, Little bluestem, and Winterfat.

In a favorable year (above average moisture), the production is approximately 1,900 lbs/acres. In an unfavorable (drought) year, the production is approximately 700 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock, low strength, shrink-swell, and slope. This map unit is a poor source for topsoil; limitations include slope and depth to bedrock. This map unit is a fair source of overall reclamation material; limitations include depth to bedrock, low organic matter content, droughtiness, and water erosion.

### **“Or” – Orpha loamy sand**

The Orpha loamy sand mapping unit consists of very deep, excessively drained soils formed in alluvium or eolian sand from mixed sources. It occurs on rolling dunes, hills, terraces, floodplains, uplands, valley side slopes, toeslopes, and footslopes at elevations from 3,500 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 18 inches. The annual air temperature is 44 to 50 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 45 percent. Parent material consists of alluvium or eolian deposits generally adjacent to and downwind of sandy parent sources.

A typical profile contains a six-inch grayish brown loamy sand surface layer. The substratum is a light brownish gray sand that extends to approximately 54 inches in depth.

Permeability within the Orpha soil is rapid or very rapid. Runoff is very low on the gentler slopes and low on the steeper slopes. The water erosion hazard is negligible to very slight and the wind erosion hazard is moderate to severe.

### **Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Sand bluestem, Needleandthread, Prairie sandreed, Little bluestem, Thickspike wheatgrass, and Sand sagebrush.

In a favorable year (above average moisture), the production is approximately 1,800 lbs/acres. In an unfavorable (drought) year, the production is approximately 900 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a poor source for topsoil; limitations include high sand content. This map unit is a poor source of overall reclamation material; limitations include high sand content, wind erosion, low organic matter content, and droughtiness.



**“Pe” – Petrie clay loam**

The Petrie clay loam mapping unit consists of deep, well drained soils formed in alluvium derived from sodic sedimentary rock. It occurs on fan aprons, fan pediments, and alluvial terraces at elevations from 3,700 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 16 inches. The annual air temperature is 43 to 49 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 10 percent. Parent material consists of alluvium derived from sodic shale and siltstone.

A typical profile contains a one inch light yellowish brown clay loam surface layer. The transition subsoil is a light yellowish brown clay loam that is approximately four-inches thick. The substratum is a light yellowish brown clay that extends to approximately 55 inches in depth.

Permeability within the Petrie soil is very slow. Runoff is slow on the gentler slopes and medium on the steeper slopes. The water erosion hazard is very slight and the wind erosion hazard is very slight.

**Productivity and Reclamation Potential**

There are eight plant species that are common to this map unit: Gardner’s saltbrush, Bottlebrush squirreltail, Indian ricegrass, Western wheatgrass, Alkali sacaton, Birdfoot sagebrush, Greasewood, and Winterfat.

In a favorable year (above average moisture), the production is approximately 650 lbs/acres. In an unfavorable (drought) year, the production is approximately 300 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include low strength and shrink-swell hazard. This map unit is a poor source for topsoil; limitations include high sodium content, high clay content, high salinity, and many rock fragments. This map unit is a poor source of overall reclamation material; limitations include high sodium content, high clay content, high alkalinity, water erosion hazard, and low organic matter content.

### **“Re” – Renohill clay loam**

The Renohill clay loam mapping unit consists of moderately deep, well drained soils formed in alluvium, colluviums, and residuum. It occurs on bedrock controlled plateaus, alluvial fans, hills and ridges at elevations from 3,500 to 6,000 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 47 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 30 percent. Parent material consists of alluvium, colluviums, and residuum derived from calcareous shale.

A typical profile contains a four-inch light brownish gray clay loam surface layer. The transition subsoil is a grayish brown heavy clay loam that is approximately three-inches thick. The substratum is a light olive brown, light yellowish brown, and light brownish gray clay or clay loam that extends to approximately 23 inches in depth.

Permeability within the Renohill soil is slow. Runoff is low on the gentler slopes and high on the steeper slopes. The water erosion hazard is slight and the wind erosion hazard is negligible.

### **Productivity and Reclamation Potential**

There are four plant species that are common to this map unit: Needleandthread, Western wheatgrass, Blue grama, and Green needlegrass.

In a favorable year (above average moisture), the production is approximately 1,500 lbs/acres. In an unfavorable (drought) year, the production is approximately 700 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include low strength, shallow depth to bedrock, and shrink-swell susceptibility. This map unit is a fair source for topsoil; limitations include high clay content and shallow depth to bedrock. This map unit is a fair source of overall reclamation material; limitations include low organic matter content, high clay content, shallow depth to bedrock, and water erosion susceptibility.

### **“Sh” – Shingle clay loam**

The Shingle clay loam mapping unit consists of very shallow or shallow, well drained soils formed in residuum or colluviums derived from interbedded shale and sandstone or in alluvium from mudstone. It occurs on bedrock controlled hillslopes and ridges at elevations from 3,200 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 80 percent. Parent material consists of colluviums and residuum weathered from soft, interbedded sandstone and shale or in alluvium from mudstone.

A typical profile contains a four-inch light brownish gray clay loam surface layer. The transition subsoil is a light yellowish brown clay loam that is approximately four-inches thick. The substratum is a light yellowish brown clay loam that extends to approximately seven-inches in depth.

Permeability within the Shingle soil is moderate. Runoff is medium on the gentler slopes and high on the steeper slopes. The water erosion hazard is very slight to slight and the wind erosion hazard is very slight to slight.

### **Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Bluebunch wheatgrass, Western wheatgrass, Blue grama, Needleandthread, Threadleaf sedge, and Big sagebrush.

In a favorable year (above average moisture), the production is approximately 1,200 lbs/acres. In an unfavorable (drought) year, the production is approximately 450 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock and slope. This map unit is a poor source for topsoil; limitations include depth to bedrock, rock fragments, and slope. This map unit is a poor source of overall reclamation material; limitations include droughtiness, depth to bedrock, and low organic matter content.

### **“ShNC” – Shingle noncalcareous variant**

The Shingle noncalcareous variant mapping unit consists of very shallow or shallow, well drained soils formed in residuum or colluviums derived from interbedded shale and sandstone or in alluvium from mudstone. It occurs on bedrock controlled hillslopes and ridges at elevations from 3,200 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 80 percent. Parent material consists of colluviums and residuum weathered from soft, interbedded sandstone and shale or in alluvium from mudstone.

A typical profile contains a four-inch light brownish gray clay loam surface layer. The transition subsoil is a light yellowish brown clay loam that is approximately four-inches thick. The substratum is a light yellowish brown clay loam that extends to approximately seven-inches in depth.

Permeability within the Shingle soil is moderate. Runoff is medium on the gentler slopes and high on the steeper slopes. The water erosion hazard is slight and the wind erosion hazard is very slight.

### **Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Bluebunch wheatgrass, Western wheatgrass, Blue grama, Needleandthread, Threadleaf sedge, and Big sagebrush.

In a favorable year (above average moisture), the production is approximately 1,200 lbs/acres. In an unfavorable (drought) year, the production is approximately 450 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock and slope. This map unit is a poor source for topsoil; limitations include depth to bedrock, rock fragments, and slope. This map unit is a poor source of overall reclamation material; limitations include droughtiness, depth to bedrock, and low organic matter content.

**“Sh-Fo-EmMV” – Shingle-Forkwood-Embry moderately deep variant complex**

**Shingle clay loam**

The Shingle clay loam mapping unit consists of very shallow or shallow, well drained soils formed in residuum or colluviums derived from interbedded shale and sandstone or in alluvium from mudstone. It occurs on bedrock controlled hillslopes and ridges at elevations from 3,200 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 80 percent. Parent material consists of colluviums and residuum weathered from soft, interbedded sandstone and shale or in alluvium from mudstone.

A typical profile contains a four-inch light brownish gray clay loam surface layer. The transition subsoil is a light yellowish brown clay loam that is approximately four-inches thick. The substratum is a light yellowish brown clay loam that extends to approximately seven-inches in depth.

Permeability within the Shingle soil is moderate. Runoff is medium on the gentler slopes and high on the steeper slopes. The water erosion hazard is very slight to slight and the wind erosion hazard is very slight to slight.

**Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Bluebunch wheatgrass, Western wheatgrass, Blue grama, Needleandthread, Threadleaf sedge, and Big sagebrush.

In a favorable year (above average moisture), the production is approximately 1,200 lbs/acres. In an unfavorable (drought) year, the production is approximately 450 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock and slope. This map unit is a poor source for topsoil; limitations include depth to bedrock, rock fragments, and slope. This map unit is a poor source of overall reclamation material; limitations include droughtiness, depth to bedrock, and low organic matter content.

**Forkwood loam**

The Forkwood loam mapping unit consists of very deep, well drained soils formed in alluvium. It occurs on terraces, alluvial fans, fan remnants, hills, ridges and pediments at elevations from 3,500 to 6,000 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 15 percent. Parent material consists of slopewash alluvium derived from interbedded shales and argillaceous sandstone.

A typical profile contains a five-inch brown loam surface layer. The transition subsoil is a brown to light brownish gray clay loam that is approximately 25 inches thick. The substratum is a light brownish gray loam that extends to approximately 30 inches in depth.

Permeability within the Forkwood soil is moderate. Runoff is low on the gentler slopes and medium on the steeper slopes. The water erosion hazard is very slight to slight and the wind erosion hazard is very slight to slight.

#### **Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Needleandthread, Western wheatgrass, Blue grama, Big sagebrush, Little bluestem, and Winterfat.

In a favorable year (above average moisture), the production is approximately 1,900 lbs/acres. In an unfavorable (drought) year, the production is approximately 700 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a good source for topsoil; there are no limitations listed. This map unit is a fair source of overall reclamation material; limitations include low organic matter content and water erosion.

#### **Embry moderately deep variant**

The Embry moderately deep variant mapping unit consists of moderately deep, well drained soils formed in alluvium and eolian deposits derived from sandstone. It occurs on hills, dunes, terraces and alluvial fans at elevations from 4,200 to 6,000 feet.

The mean annual precipitation is estimated to be 10 to 15 inches. The annual air temperature is 45 to 50 degrees Fahrenheit. The frost-free season ranges from 110 to 130 days.

Slopes range from 0 to 20 percent. Parent material consists of alluvium and eolian deposits derived from noncalcareous sandstone.

A typical profile contains a six-inch light brownish gray sandy loam surface layer. The substratum is a light brownish gray to pale brown sandy loam that extends to approximately 34 inches in depth.

Permeability within the Embry soil is moderately rapid. Runoff is slow on the gentler slopes and medium on the steeper slopes. The water erosion hazard is very slight and the wind erosion hazard is moderate.

**Productivity and Reclamation Potential**

There are eight plant species that are common to this map unit: Needleandthread, Prairie sandreed, Indian ricegrass, Little bluestem, Blue grama, Silver sagebrush, Threadleaf sedge, and Western wheatgrass.

In a favorable year (above average moisture), the production is approximately 1,600 lbs/acres. In an unfavorable (drought) year, the production is approximately 750 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a fair source for topsoil; limitations include slope. This map unit is a fair source of overall reclamation material; limitations include low organic matter content.

## **“Sh-Th-Ki” – Shingle-Theedle-Kishona complex**

### **Shingle clay loam**

The Shingle clay loam mapping unit consists of very shallow or shallow, well drained soils formed in residuum or colluviums derived from interbedded shale and sandstone or in alluvium from mudstone. It occurs on bedrock controlled hillslopes and ridges at elevations from 3,200 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 80 percent. Parent material consists of colluviums and residuum weathered from soft, interbedded sandstone and shale or in alluvium from mudstone.

A typical profile contains a four-inch light brownish gray clay loam surface layer. The transition subsoil is a light yellowish brown clay loam that is approximately four-inches thick. The substratum is a light yellowish brown clay loam that extends to approximately seven-inches in depth.

Permeability within the Shingle soil is moderate. Runoff is medium on the gentler slopes and high on the steeper slopes. The water erosion hazard is very slight to slight and the wind erosion hazard is very slight to slight.

### **Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Bluebunch wheatgrass, Western wheatgrass, Blue grama, Needleandthread, Threadleaf sedge, and Big sagebrush.

In a favorable year (above average moisture), the production is approximately 1,200 lbs/acres. In an unfavorable (drought) year, the production is approximately 450 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock and slope. This map unit is a poor source for topsoil; limitations include depth to bedrock, rock fragments, and slope. This map unit is a poor source of overall reclamation material; limitations include droughtiness, depth to bedrock, and low organic matter content.

### **Theedle loam**



The Theedle loam mapping unit consists of moderately deep, well drained soils formed in residuum and slope alluvium weathered from soft sandstone. It occurs on rock-controlled fan aprons, fan pediments, and undulating to rolling uplands at elevations from 3,500 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 45 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 75 percent. Parent material consists of medium textured slope alluvium and residuum derived primarily from interbedded sandstone and shale.

A typical profile contains a four-inch light brownish gray loam surface layer. The transition subsoil is a light brownish gray loam that is approximately four-inches thick. The substratum is a light gray loam that extends to approximately 20 inches in depth.

Permeability within the Theedle soil is moderate. Runoff is slow on the gentler slopes and rapid on the steeper slopes. The water erosion hazard is very slight to slight and the wind erosion hazard is very slight to moderate.

### **Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Needleandthread, Western wheatgrass, Blue grama, Big sagebrush, Little bluestem, and Winterfat.

In a favorable year (above average moisture), the production is approximately 1,900 lbs/acres. In an unfavorable (drought) year, the production is approximately 700 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock, low strength, shrink-swell, and slope. This map unit is a poor source for topsoil; limitations include slope and depth to bedrock. This map unit is a fair source of overall reclamation material; limitations include depth to bedrock, low organic matter content, droughtiness, and water erosion.

### **Kishona loam**

The Kishona loam mapping unit consists of very deep, well drained soils formed in alluvium. It occurs on fan aprons, alluvial fans, fan remnants, hills, ridges and terraces at elevations from 3,500 to 6,700 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 6 percent but range up to 30 percent on dissected slopes. Parent material consists of alluvium derived from sandstones and shales.

A typical profile contains a four-inch brown loam surface layer. The transition subsoil is a very pale brown silty clay loam that is approximately 20 inches thick. The substratum is a pale brown loam that extends to approximately 36 inches in depth.

Permeability within the Kishona soil is moderate. Runoff is slow on gentler slopes and medium on steeper slopes. The water erosion hazard is very slight to slight and the wind erosion hazard is very slight to slight.

### **Productivity and Reclamation Potential**

There are seven plant species that are common to this map unit: Needleandthread, Western wheatgrass, Blue grama, Green needlegrass, Big sagebrush, Little bluestem, and Thickspike wheatgrass.

In a favorable year (above average moisture), the production is approximately 1,500 lbs/acres. In an unfavorable (drought) year, the production is approximately 700 lbs/acres.

According to NRCS information, this map unit is a fair source for roadfill; limitations include low strength and shrink-swell. This map unit is a good source for topsoil; there are no limitations listed. This map unit is a fair source of overall reclamation material; limitations include low organic matter content and water erosion.

### **TaNC” – Taluce noncalcareous variant**

The Taluce noncalcareous variant mapping unit consists of very shallow or shallow, well drained soils formed in residuum and slope alluvium derived from sandstone. It occurs on ridges and hills at elevations from 3,500 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 17 inches. The annual air temperature is 42 to 51 degrees Fahrenheit. The frost-free season ranges from 100 to 130 days.

Slopes range from 3 to 70 percent. Parent material consists of residuum and slope alluvium derived from sandstone.

A typical profile contains a four-inch yellowish brown sandy loam surface layer. The substratum is a light yellowish brown sandy loam that extends to approximately five-inches in depth.

Permeability within the Taluce soil is rapid. Runoff is medium on the gentler slopes and rapid on the steeper slopes. The water erosion hazard is negligible and the wind erosion hazard is moderate.

### **Productivity and Reclamation Potential**

There are eight plant species that are common to this map unit: Needleandthread, Prairie sandreed, Blue grama, Indian ricegrass, Little bluestem, Sand bluestem, Threadleaf sedge, and Western wheatgrass.

In a favorable year (above average moisture), the production is approximately 1,300 lbs/acres. In an unfavorable (drought) year, the production is approximately 600 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock and slope. This map unit is a poor source for topsoil; limitations include slope and depth to bedrock. This map unit is a poor source of overall reclamation material; limitations include depth to bedrock, low organic matter content, and droughtiness.

## **“TaNC-Or” – Taluce noncalcareous variant-Orpha complex**

### **Taluce noncalcareous variant**

The Taluce noncalcareous variant mapping unit consists of very shallow or shallow, well drained soils formed in residuum and slope alluvium derived from sandstone. It occurs on ridges and hills at elevations from 3,500 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 17 inches. The annual air temperature is 42 to 51 degrees Fahrenheit. The frost-free season ranges from 100 to 130 days.

Slopes range from 3 to 70 percent. Parent material consists of residuum and slope alluvium derived from sandstone.

A typical profile contains a four-inch yellowish brown sandy loam surface layer. The substratum is a light yellowish brown sandy loam that extends to approximately five-inches in depth.

Permeability within the Taluce soil is rapid. Runoff is medium on the gentler slopes and rapid on the steeper slopes. The water erosion hazard is negligible and the wind erosion hazard is moderate.

### **Productivity and Reclamation Potential**

There are eight plant species that are common to this map unit: Needleandthread, Prairie sandreed, Blue grama, Indian ricegrass, Little bluestem, Sand bluestem, Threadleaf sedge, and Western wheatgrass.

In a favorable year (above average moisture), the production is approximately 1,300 lbs/acres. In an unfavorable (drought) year, the production is approximately 600 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock and slope. This map unit is a poor source for topsoil; limitations include slope and depth to bedrock. This map unit is a poor source of overall reclamation material; limitations include depth to bedrock, low organic matter content, and droughtiness.

### **Orpha loamy sand**

The Orpha loamy sand mapping unit consists of very deep, excessively drained soils formed in alluvium or eolian sand from mixed sources. It occurs on rolling dunes, hills,

terraces, floodplains, uplands, valley side slopes, toeslopes, and footslopes at elevations from 3,500 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 18 inches. The annual air temperature is 44 to 50 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 45 percent. Parent material consists of alluvium or eolian deposits generally adjacent to and downwind of sandy parent sources.

A typical profile contains a six-inch grayish brown loamy sand surface layer. The substratum is a light brownish gray sand that extends to approximately 54 inches in depth.

Permeability within the Orpha soil is rapid or very rapid. Runoff is very low on the gentler slopes and low on the steeper slopes. The water erosion hazard is negligible to very slight and the wind erosion hazard is moderate to severe.

#### **Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Sand bluestem, Needleandthread, Prairie sandreed, Little bluestem, Thickspike wheatgrass, and Sand sagebrush.

In a favorable year (above average moisture), the production is approximately 1,800 lbs/acres. In an unfavorable (drought) year, the production is approximately 900 lbs/acres.

According to NRCS information, this map unit is a good source for roadfill; there are no limitations listed. This map unit is a poor source for topsoil; limitations include high sand content. This map unit is a poor source of overall reclamation material; limitations include high sand content, wind erosion, low organic matter content, and droughtiness.

### **“Th” – Theedle loam**

The Theedle loam mapping unit consists of moderately deep, well drained soils formed in residuum and slope alluvium weathered from soft sandstone. It occurs on rock-controlled fan aprons, fan pediments, and undulating to rolling uplands at elevations from 3,500 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 45 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 75 percent. Parent material consists of medium textured slope alluvium and residuum derived primarily from interbedded sandstone and shale.

A typical profile contains a four-inch light brownish gray loam surface layer. The transition subsoil is a light brownish gray loam that is approximately four-inches thick. The substratum is a light gray loam that extends to approximately 20 inches in depth.

Permeability within the Theedle soil is moderate. Runoff is slow on the gentler slopes and rapid on the steeper slopes. The water erosion hazard is very slight to slight and the wind erosion hazard is very slight to moderate.

### **Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Needleandthread, Western wheatgrass, Blue grama, Big sagebrush, Little bluestem, and Winterfat.

In a favorable year (above average moisture), the production is approximately 1,900 lbs/acres. In an unfavorable (drought) year, the production is approximately 700 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock, low strength, shrink-swell, and slope. This map unit is a poor source for topsoil; limitations include slope and depth to bedrock. This map unit is a fair source of overall reclamation material; limitations include depth to bedrock, low organic matter content, droughtiness, and water erosion.

### **“ThNC” – Theedle noncalcareous variant**

The Theedle noncalcareous variant mapping unit consists of moderately deep, well drained soils formed in residuum and slope alluvium weathered from soft sandstone. It occurs on rock-controlled fan aprons, fan pediments, and undulating to rolling uplands at elevations from 3,500 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 45 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 75 percent. Parent material consists of medium textured slope alluvium and residuum derived primarily from interbedded sandstone and shale.

A typical profile contains a four-inch light brownish gray loam surface layer. The transition subsoil is a light brownish gray loam that is approximately four-inches thick. The substratum is a light gray loam that extends to approximately 20 inches in depth.

Permeability within the Theedle soil is moderate. Runoff is slow on the gentler slopes and rapid on the steeper slopes. The water erosion hazard is very slight and the wind erosion hazard is very slight.

### **Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Needleandthread, Western wheatgrass, Blue grama, Big sagebrush, Little bluestem, and Winterfat.

In a favorable year (above average moisture), the production is approximately 1,900 lbs/acres. In an unfavorable (drought) year, the production is approximately 700 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock, low strength, shrink-swell, and slope. This map unit is a poor source for topsoil; limitations include slope and depth to bedrock. This map unit is a fair source of overall reclamation material; limitations include depth to bedrock, low organic matter content, droughtiness, and water erosion.

## **“Th-CuNc” – Theedle-Cushman noncalcareous variant complex**

### **Theedle loam**

The Theedle loam mapping unit consists of moderately deep, well drained soils formed in residuum and slope alluvium weathered from soft sandstone. It occurs on rock-controlled fan aprons, fan pediments, and undulating to rolling uplands at elevations from 3,500 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 45 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 75 percent. Parent material consists of medium textured slope alluvium and residuum derived primarily from interbedded sandstone and shale.

A typical profile contains a four-inch light brownish gray loam surface layer. The transition subsoil is a light brownish gray loam that is approximately four-inches thick. The substratum is a light gray loam that extends to approximately 20 inches in depth.

Permeability within the Theedle soil is moderate. Runoff is slow on the gentler slopes and rapid on the steeper slopes. The water erosion hazard is very slight to slight and the wind erosion hazard is very slight to moderate.

### **Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Needleandthread, Western wheatgrass, Blue grama, Big sagebrush, Little bluestem, and Winterfat.

In a favorable year (above average moisture), the production is approximately 1,900 lbs/acres. In an unfavorable (drought) year, the production is approximately 700 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock, low strength, shrink-swell, and slope. This map unit is a poor source for topsoil; limitations include slope and depth to bedrock. This map unit is a fair source of overall reclamation material; limitations include depth to bedrock, low organic matter content, droughtiness, and water erosion.

### **Cushman noncalcareous variant**

The Cushman noncalcareous variant mapping unit consists of moderately deep, well drained soils formed in slopewash alluvium and residuum from interbedded shales and



siltstone and fine-grained argillaceous sandstone. It occurs on buttes, fan remnants, hills, piedmonts, ridges and terraces at elevations from 3,500 to 6,000 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 20 percent. Parent material consists of moderately fine textured slopewash alluvium and residuum. Surface erosion is common in overgrazed areas, and some thin eolian deposits overlie these soils in some areas.

A typical profile contains a two inch light brownish gray very fine sandy loam surface layer. The transition subsoil is a brown to yellowish brown clay loam that is approximately 12 inches thick. The substratum is a pale to very pale brown loam that extends to approximately 18 inches in depth.

Permeability within the Cushman soil is moderate. Runoff is medium. The water erosion hazard is slight and the wind erosion hazard is very slight.

#### **Productivity and Reclamation Potential**

There are four plant species that are common to this map unit: Needleandthread, Western wheatgrass, Blue grama, and Green needlegrass.

In a favorable year (above average moisture), the production is approximately 1,500 lbs/acres. In an unfavorable (drought) year, the production is approximately 700 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock and low strength. This map unit is a fair source for topsoil; limitations include depth to bedrock. This map unit is a fair source of overall reclamation material; limitations include depth to bedrock, low organic matter content, and water erosion.

### **“T1” – Tullock loamy sand**

The Tullock loamy sand mapping unit consists of moderately deep, excessively drained soils formed in residuum, alluvium or eolian deposits derived from sandstone. It occurs on dunes, hills and ridges at elevations from 3,500 to 6,000 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 47 to 53 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 45 percent. Parent material consists of eolian deposits and residuum derived from sandstone.

A typical profile contains a five-inch brown loamy sand surface layer. The substratum is a brown and pale brown loamy sand that extends to approximately 26 inches in depth.

Permeability within the Tullock soil is rapid. Runoff is negligible on the gentler slopes and low on the steeper slopes. The water erosion hazard is negligible and the wind erosion hazard is moderate.

### **Productivity and Reclamation Potential**

There are seven plant species that are common to this map unit: Prairie sandreed, Sand bluestem, Fringed sagewort, Indian ricegrass, Needleandthread, Sand dropseed, and Silver sagebrush.

In a favorable year (above average moisture), the production is approximately 1,700 lbs/acres. In an unfavorable (drought) year, the production is approximately 900 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock. This map unit is a poor source for topsoil; limitations include high sand content, steep slope, and shallow depth to bedrock. This map unit is a poor source of overall reclamation material; limitations include high sand content, wind erosion susceptibility, droughtiness, low organic matter content, and shallow depth to bedrock.

#### **“TINC” – Tullock noncalcareous variant**

The Tullock noncalcareous variant mapping unit consists of moderately deep, excessively drained soils formed in residuum, alluvium or eolian deposits derived from sandstone. It occurs on dunes, hills and ridges at elevations from 3,500 to 6,000 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 47 to 53 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 45 percent. Parent material consists of eolian deposits and residuum derived from sandstone.

A typical profile contains a five-inch brown loamy sand surface layer. The substratum is a brown and pale brown loamy sand that extends to approximately 26 inches in depth.

Permeability within the Tullock soil is rapid. Runoff is negligible on the gentler slopes and low on the steeper slopes. The water erosion hazard is negligible and the wind erosion hazard is moderate.

#### **Productivity and Reclamation Potential**

There are seven plant species that are common to this map unit: Prairie sandreed, Sand bluestem, Fringed sagewort, Indian ricegrass, Needleandthread, Sand dropseed, and Silver sagebrush.

In a favorable year (above average moisture), the production is approximately 1,700 lbs/acres. In an unfavorable (drought) year, the production is approximately 900 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock. This map unit is a poor source for topsoil; limitations include high sand content, steep slope, and shallow depth to bedrock. This map unit is a poor source of overall reclamation material; limitations include high sand content, wind erosion susceptibility, droughtiness, low organic matter content, and shallow depth to bedrock.

## **“TINC-Ta” – Tullock noncalcareous variant-Taluze complex**

### **Tullock noncalcareous variant**

The Tullock noncalcareous variant mapping unit consists of moderately deep, excessively drained soils formed in residuum, alluvium or eolian deposits derived from sandstone. It occurs on dunes, hills and ridges at elevations from 3,500 to 6,000 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 47 to 53 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 45 percent. Parent material consists of eolian deposits and residuum derived from sandstone.

A typical profile contains a five-inch brown loamy sand surface layer. The substratum is a brown and pale brown loamy sand that extends to approximately 26 inches in depth.

Permeability within the Tullock soil is rapid. Runoff is negligible on the gentler slopes and low on the steeper slopes. The water erosion hazard is negligible and the wind erosion hazard is moderate.

### **Productivity and Reclamation Potential**

There are seven plant species that are common to this map unit: Prairie sandreed, Sand bluestem, Fringed sagewort, Indian ricegrass, Needleandthread, Sand dropseed, and Silver sagebrush.

In a favorable year (above average moisture), the production is approximately 1,700 lbs/acres. In an unfavorable (drought) year, the production is approximately 900 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock. This map unit is a poor source for topsoil; limitations include high sand content, steep slope, and shallow depth to bedrock. This map unit is a poor source of overall reclamation material; limitations include high sand content, wind erosion susceptibility, droughtiness, low organic matter content, and shallow depth to bedrock.

### **Taluze sandy loam**

The Taluce sandy loam mapping unit consists of very shallow or shallow, well drained soils formed in residuum and slope alluvium derived from sandstone. It occurs on ridges and hills at elevations from 3,500 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 17 inches. The annual air temperature is 42 to 51 degrees Fahrenheit. The frost-free season ranges from 100 to 130 days.

Slopes range from 3 to 70 percent. Parent material consists of residuum and slope alluvium derived from sandstone.

A typical profile contains a four-inch yellowish brown sandy loam surface layer. The substratum is a light yellowish brown sandy loam that extends to approximately five-inches in depth.

Permeability within the Taluce soil is rapid. Runoff is medium on the gentler slopes and rapid on the steeper slopes. The water erosion hazard is negligible and the wind erosion hazard is severe.

#### **Productivity and Reclamation Potential**

There are eight plant species that are common to this map unit: Needleandthread, Prairie sandreed, Blue grama, Indian ricegrass, Little bluestem, Sand bluestem, Threadleaf sedge, and Western wheatgrass.

In a favorable year (above average moisture), the production is approximately 1,300 lbs/acres. In an unfavorable (drought) year, the production is approximately 600 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock and slope. This map unit is a poor source for topsoil; limitations include slope and depth to bedrock. This map unit is a poor source of overall reclamation material; limitations include depth to bedrock, low organic matter content, and droughtiness.

## **“TINC-Tu” – Tullock noncalcareous variant-Turnercrest complex**

### **Tullock noncalcareous variant**

The Tullock noncalcareous variant mapping unit consists of moderately deep, excessively drained soils formed in residuum, alluvium or eolian deposits derived from sandstone. It occurs on dunes, hills and ridges at elevations from 3,500 to 6,000 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 47 to 53 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 45 percent. Parent material consists of eolian deposits and residuum derived from sandstone.

A typical profile contains a five-inch brown loamy sand surface layer. The substratum is a brown and pale brown loamy sand that extends to approximately 26 inches in depth.

Permeability within the Tullock soil is rapid. Runoff is negligible on the gentler slopes and low on the steeper slopes. The water erosion hazard is negligible and the wind erosion hazard is moderate.

### **Productivity and Reclamation Potential**

There are seven plant species that are common to this map unit: Prairie sandreed, Sand bluestem, Fringed sagewort, Indian ricegrass, Needleandthread, Sand dropseed, and Silver sagebrush.

In a favorable year (above average moisture), the production is approximately 1,700 lbs/acres. In an unfavorable (drought) year, the production is approximately 900 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock. This map unit is a poor source for topsoil; limitations include high sand content, steep slope, and shallow depth to bedrock. This map unit is a poor source of overall reclamation material; limitations include high sand content, wind erosion susceptibility, droughtiness, low organic matter content, and shallow depth to bedrock.

### **Turnercrest fine sandy loam**

The Turnercrest fine sandy loam mapping unit consists of moderately deep, well drained soils formed in eolian or alluvium deposits and residuum derived from soft sandstone. It

occurs on bedrock-controlled hills, fan remnants, ridges, and structural benches at elevations from 3,200 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 15 inches. The annual air temperature is 45 to 53 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 30 percent. Parent material consists of eolian or alluvium deposits and sandy residuum.

A typical profile contains a two inch brown fine sandy loam surface layer. The substratum is a brown to light gray fine sandy loam that extends to approximately 23 inches in depth.

Permeability within the Turnercrest soil is moderately rapid. Runoff is very low on the gentler slopes and medium on the steeper slopes. The water erosion hazard is negligible to very slight and the wind erosion hazard is slight to severe.

#### **Productivity and Reclamation Potential**

There are three plant species that are common to this map unit: Needleandthread, Prairie sandreed, and Indian ricegrass.

In a favorable year (above average moisture), the production is approximately 1,600 lbs/acres. In an unfavorable (drought) year, the production is approximately 750 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock. This map unit is a fair source for topsoil; limitations include steep slope, high sand content, and shallow depth to bedrock. This map unit is a fair source of overall reclamation material; limitations include droughtiness, low organic matter content, high sand content, water erosion susceptibility, and shallow depth to bedrock.

### **“Tu” –Turnercrest fine sandy loam**

The Turnercrest fine sandy loam mapping unit consists of moderately deep, well drained soils formed in eolian or alluvium deposits and residuum derived from soft sandstone. It occurs on bedrock-controlled hills, fan remnants, ridges, and structural benches at elevations from 3,200 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 15 inches. The annual air temperature is 45 to 53 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 30 percent. Parent material consists of eolian or alluvium deposits and sandy residuum.

A typical profile contains a two inch brown fine sandy loam surface layer. The substratum is a brown to light gray fine sandy loam that extends to approximately 23 inches in depth.

Permeability within the Turnercrest soil is moderately rapid. Runoff is very low on the gentler slopes and medium on the steeper slopes. The water erosion hazard is negligible to very slight and the wind erosion hazard is slight to severe.

### **Productivity and Reclamation Potential**

There are three plant species that are common to this map unit: Needleandthread, Prairie sandreed, and Indian ricegrass.

In a favorable year (above average moisture), the production is approximately 1,600 lbs/acres. In an unfavorable (drought) year, the production is approximately 750 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock. This map unit is a fair source for topsoil; limitations include steep slope, high sand content, and shallow depth to bedrock. This map unit is a fair source of overall reclamation material; limitations include droughtiness, low organic matter content, high sand content, water erosion susceptibility, and shallow depth to bedrock.



**“TuNC” –Turnercrest noncalcareous variant**

The Turnercrest noncalcareous variant mapping unit consists of moderately deep, well drained soils formed in eolian or alluvium deposits and residuum derived from soft sandstone. It occurs on bedrock-controlled hills, fan remnants, ridges, and structural benches at elevations from 3,200 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 15 inches. The annual air temperature is 45 to 53 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 30 percent. Parent material consists of eolian or alluvium deposits and sandy residuum.

A typical profile contains a two inch brown fine sandy loam surface layer. The substratum is a brown to light gray fine sandy loam that extends to approximately 23 inches in depth.

Permeability within the Turnercrest soil is moderately rapid. Runoff is very low on the gentler slopes and medium on the steeper slopes. The water erosion hazard is negligible and the wind erosion hazard is moderate.

**Productivity and Reclamation Potential**

There are three plant species that are common to this map unit: Needleandthread, Prairie sandreed, and Indian ricegrass.

In a favorable year (above average moisture), the production is approximately 1,600 lbs/acres. In an unfavorable (drought) year, the production is approximately 750 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock. This map unit is a fair source for topsoil; limitations include steep slope, high sand content, and shallow depth to bedrock. This map unit is a fair source of overall reclamation material; limitations include droughtiness, low organic matter content, high sand content, water erosion susceptibility, and shallow depth to bedrock.

### **“UI” –Ulm clay loam**

The Ulm clay loam mapping unit consists of very deep, well drained soils formed in calcareous alluvium derived from sedimentary rock. It occurs on relict terraces, alluvial fans, fan remnants, plateaus, ridges and hills at elevations from 3,500 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 46 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 18 percent. Parent material consists of fine and medium textured alluvium derived from interbedded shales and argillaceous sandstone.

A typical profile contains a four-inch grayish brown clay loam surface layer. The transition subsoil is a brown clay that is approximately 21 inches thick. The substratum is a pale brown clay loam that extends to approximately 35 inches in depth.

Permeability within the Ulm soil is moderate to slow. Runoff is medium. The water erosion hazard is very slight and the wind erosion hazard is very slight to slight.

### **Productivity and Reclamation Potential**

There are five plant species that are common to this map unit: Green needlegrass, Western wheatgrass, Blue grama, Big sagebrush, and Cusick's bluegrass

In a favorable year (above average moisture), the production is approximately 1,400 lbs/acres. In an unfavorable (drought) year, the production is approximately 600 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include low strength and shrink-swell susceptibility. This map unit is a poor source for topsoil; limitations include high clay content. This map unit is a poor source of overall reclamation material; limitations include high clay content, low organic matter content, and water erosion susceptibility.

### **“Wo” –Worf loam**

The Worf loam mapping unit consists of very shallow or shallow, well drained soils formed in residuum and colluvial slopewash weathered from sedimentary rock. It occurs on upland hills and ridges at elevations from 3,500 to 5,600 feet.

The mean annual precipitation is estimated to be 10 to 17 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 30 percent. Parent material consists of calcareous materials weathered from sedimentary bedrock.

A typical profile contains a three-inch grayish brown loam surface layer. The transition subsoil is a grayish brown loam that is approximately two inches thick. The substratum is a brown to light yellowish brown clay loam or loam that extends to approximately nine-inches in depth.

Permeability within the Worf soil is moderate. Runoff is medium on the gentler slopes and rapid on the steeper slopes. The water erosion hazard is slight and the wind erosion hazard is very slight.

### **Productivity and Reclamation Potential**

There are nine plant species that are common to this map unit: Bluebunch wheatgrass, Blue grama, Needleandthread, Western wheatgrass, Big sagebrush, Indian ricegrass, Needleleaf sedge, Sideoats grama, and Threadleaf sedge.

In a favorable year (above average moisture), the production is approximately 1,200 lbs/acres. In an unfavorable (drought) year, the production is approximately 450 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include shallow depth to bedrock, low strength, shrink-swell susceptibility, and steep slope. This map unit is a poor source for topsoil; limitations include shallow depth to bedrock, steep slope, and high clay content. This map unit is a poor source of overall reclamation material; limitations include wind erosion susceptibility, shallow depth to bedrock, droughtiness, low organic matter content, and high clay content.

### **“WoNC” –Worf noncalcareous variant**

The Worf noncalcareous variant mapping unit consists of very shallow or shallow, well drained soils formed in residuum and colluvial slopewash weathered from sedimentary rock. It occurs on upland hills and ridges at elevations from 3,500 to 5,600 feet.

The mean annual precipitation is estimated to be 10 to 17 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 30 percent. Parent material consists of noncalcareous materials weathered from sedimentary bedrock.

A typical profile contains a three-inch grayish brown loam surface layer. The transition subsoil is a grayish brown loam that is approximately two inches thick. The substratum is a brown to light yellowish brown clay loam or loam that extends to approximately nine-inches in depth.

Permeability within the Worf soil is moderate. Runoff is medium on the gentler slopes and rapid on the steeper slopes. The water erosion hazard is very slight and the wind erosion hazard is slight.

### **Productivity and Reclamation Potential**

There are nine plant species that are common to this map unit: Bluebunch wheatgrass, Blue grama, Needleandthread, Western wheatgrass, Big sagebrush, Indian ricegrass, Needleleaf sedge, Sideoats grama, and Threadleaf sedge.

In a favorable year (above average moisture), the production is approximately 1,200 lbs/acres. In an unfavorable (drought) year, the production is approximately 450 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include shallow depth to bedrock, low strength, shrink-swell susceptibility, and steep slope. This map unit is a poor source for topsoil; limitations include shallow depth to bedrock, steep slope, and high clay content. This map unit is a poor source of overall reclamation material; limitations include wind erosion susceptibility, shallow depth to bedrock, droughtiness, low organic matter content, and high clay content.

### **“Zi” – Zigweid loam**

The Zigweid loam mapping unit consists of very deep, well drained soils formed in alluvium from mixed sedimentary sources. It occurs on fan aprons, alluvial fans, fan piedmonts, fan remnants, terraces, ridges and hills at elevations from 3,500 to 6,600 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 20 percent. Parent material consists of calcareous, moderately fine textured sediments derived from interbedded shale and soft sandstone.

A typical profile contains a four-inch light brownish gray loam surface layer. The transition subsoil is a brown clay loam that is approximately 13 inches thick. The substratum is a brown to pale brown loam or clay loam that extends to approximately 43 inches in depth.

Permeability within the Zigweid soil is moderate. Runoff is medium on the gentler slopes and rapid on the steeper slopes. The water erosion hazard is very slight and the wind erosion hazard is very slight.

### **Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Western wheatgrass, Needleandthread, Big sagebrush, Bluebunch wheatgrass, Green needlegrass, and Muttongrass.

In a favorable year (above average moisture), the production is approximately 1,400 lbs/acres. In an unfavorable (drought) year, the production is approximately 600 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include low strength and shrink-swell susceptibility. This map unit is a good source for topsoil; there are no limitations listed. This map unit is a fair source of overall reclamation material; limitations include low organic matter content and water erosion susceptibility.

## **“ZiNC-Th” – Zigweid noncalcareous variant-Theedle complex**

### **Zigweid noncalcareous variant**

The Zigweid noncalcareous variant mapping unit consists of very deep, well drained soils formed in alluvium from mixed sedimentary sources. It occurs on fan aprons, alluvial fans, fan piedmonts, fan remnants, terraces, ridges and hills at elevations from 3,500 to 6,600 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 43 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 20 percent. Parent material consists of noncalcareous, moderately fine textured sediments derived from interbedded shale and soft sandstone.

A typical profile contains a four-inch light brownish gray loam surface layer. The transition subsoil is a brown clay loam that is approximately 13 inches thick. The substratum is a brown to pale brown loam or clay loam that extends to approximately 43 inches in depth.

Permeability within the Zigweid soil is moderate. Runoff is medium on the gentler slopes and rapid on the steeper slopes. The water erosion hazard is slight and the wind erosion hazard is very slight.

### **Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Western wheatgrass, Needleandthread, Big sagebrush, Bluebunch wheatgrass, Green needlegrass, and Muttongrass.

In a favorable year (above average moisture), the production is approximately 1,400 lbs/acres. In an unfavorable (drought) year, the production is approximately 600 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include low strength and shrink-swell susceptibility. This map unit is a good source for topsoil; there are no limitations listed. This map unit is a fair source of overall reclamation material; limitations include low organic matter content and water erosion susceptibility.

### **Theedle loam**

The Theedle loam mapping unit consists of moderately deep, well drained soils formed in residuum and slope alluvium weathered from soft sandstone. It occurs on rock-controlled fan aprons, fan pediments, and undulating to rolling uplands at elevations from 3,500 to 6,500 feet.

The mean annual precipitation is estimated to be 10 to 14 inches. The annual air temperature is 45 to 51 degrees Fahrenheit. The frost-free season ranges from 105 to 130 days.

Slopes range from 0 to 75 percent. Parent material consists of medium textured slope alluvium and residuum derived primarily from interbedded sandstone and shale.

A typical profile contains a four-inch light brownish gray loam surface layer. The transition subsoil is a light brownish gray loam that is approximately four-inches thick. The substratum is a light gray loam that extends to approximately 20 inches in depth.

Permeability within the Theedle soil is moderate. Runoff is slow on the gentler slopes and rapid on the steeper slopes. The water erosion hazard is very slight to slight and the wind erosion hazard is very slight to moderate.

### **Productivity and Reclamation Potential**

There are six plant species that are common to this map unit: Needleandthread, Western wheatgrass, Blue grama, Big sagebrush, Little bluestem, and Winterfat.

In a favorable year (above average moisture), the production is approximately 1,900 lbs/acres. In an unfavorable (drought) year, the production is approximately 700 lbs/acres.

According to NRCS information, this map unit is a poor source for roadfill; limitations include depth to bedrock, low strength, shrink-swell, and slope. This map unit is a poor source for topsoil; limitations include slope and depth to bedrock. This map unit is a fair source of overall reclamation material; limitations include depth to bedrock, low organic matter content, droughtiness, and water erosion.

**ADDENDUM 2.6-D**  
**SAMPLED SOIL SERIES DESCRIPTIONS**



WORF  
CLAY LOAM

Soil Mapping Unit "Wo"  
Lab Sample ID: C08100869-001\_003  
BKS Sample ID: #137

Typical Pedon: Worf clay loam- rangeland. (Colors are for dry soil unless otherwise stated.)

The Worf series consists of well drained soils that are very shallow or shallow to bedrock. They formed in residuum and colluvial slopewash weathered from sedimentary rock. Worf soils are on upland hills and ridges and have slopes of 0 to 30 percent. The mean annual precipitation is about 12 inches, and the mean annual temperature is about 45 degrees F.

**A** - 0 to 2 inches; brown (10YR 5/3) clay loam, brown (10YR 4/3) moist; strong very fine granular structure; soft, very friable, slightly sticky and slightly plastic; many fine and very fine roots; noneffervescent; neutral (pH 6.6); clear smooth boundary (two to four-inches thick).

**AB** - 2 to 5 inches; yellowish brown (10YR 5/4) clay loam, dark yellowish brown (10YR 4/4) moist; weak medium subangular blocky structure parting to moderate very fine granular; slightly hard, very friable, moderately sticky and slightly plastic; many fine and very fine roots; few faint clay films on vertical faces of peds; noneffervescent; neutral (pH 6.6); clear smooth boundary (two to three-inches thick).

**Bw** - 5 to 12 inches; yellowish brown (10YR 5/4) clay, dark yellowish brown (10YR 4/4) moist; moderate fine prismatic structure parting to moderate fine subangular blocky; hard, very friable, moderately sticky and moderately plastic; many fine roots; many distinct clay films on faces of peds, common faint clay films in root channels and pores; noneffervescent; neutral (pH 6.8); clear wavy boundary. (4 to 11 inches thick)

**C** - 12 to 19 inches; light yellowish brown (10YR 6/4) gravelly clay loam, yellowish brown (10YR 5/4) moist; moderate medium prismatic structure parting to moderate medium subangular blocky; hard, friable, moderately sticky and slightly plastic; common fine and medium roots; noneffervescent, neutral (pH 7.0); gradual wavy boundary. (four-to seven-inches thick)

**Cr** - 19 to 60 inches; moderately to strongly calcareous grey, white and brown shale interbedded with sandstone.

Type Location - Johnson County, Wyoming; refer to waypoint 137 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to calcareous material ranges from four- to ten-inches; depth to bedrock ranges from eight- to 20-inches. The soil is 90 to 100 percent base saturated. Rock fragments range from 0 to 15 percent but are typically less than five percent and are mostly soft shale fragments. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, and is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 53 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days.

The A horizon has hue of 2.5Y or 10YR, value of 5 or 6 dry, 3 or 4 moist, and chroma of 2 or 3. Texture is loamy sand, loam, or fine sandy loam. Reaction is neutral or slightly alkaline.

The Bt horizon has hue of 2.5Y through 7.5YR, value of 5 or 6 dry, 4 or 5 moist, and chroma of 2 through 4. It is typically light clay loam but may be loam or sandy clay loam with clay ranging from 18 to 35 percent, silt from 20 to 55 percent, and sand from 15 to 50 percent with 15 to 35 percent being fine sand or coarser. Reaction is neutral to moderately alkaline.

The Bk or Btk horizon has hue of 5Y through 10YR, value of 5 through 7 dry, 4 through 6 moist, and chroma of 2 through 4. Calcium carbonate equivalent is 3 to 12 percent. Texture is loam or fine sandy loam in the Bk and clay loam or sandy clay loam in the Btk. Reaction is slightly alkaline through strongly alkaline.

Range in Characteristics (according to field observations, lab analysis): A cambic and C horizon were identified instead of an argillic and calcic horizons. Textures are finer than typical for this series.

Taxonomic Class - Loamy, mixed, superactive, mesic, shallow Ustic Haplargids

Suitability for Topsoil (According to WDEQ Guideline 1) - Marginal texture (clay) was found from 5-12 inches. Estimated stripping depth is 19 inches.

Geographic Setting (According to Official Series Description) - These soils are on upland hills and ridges. Slopes range from 0 to 30 percent and are both simple and complex. Elevation is 3,500 to 5,600 feet. These soils formed in calcareous materials weathered from sedimentary bedrock. The mean annual precipitation is 12 inches with over half of the annual precipitation falling in April, May, and June and less than one inch falling in

each month of July, August, September, and October. Precipitation ranges from 10 to 17 inches. The mean annual temperature is 43 to 51 degrees F. The frost-free season is about 105 to 130 days.

TALUCE  
NONCALCAREOUS VARIANT

Soil Mapping Unit "TaNC"  
Lab Sample ID: C08100869-004\_005  
BKS Sample ID: #138

Typical Pedon: Taluce sandy loam-on a convex north-facing slope, used as rangeland.  
(Colors are for dry soil unless otherwise stated.)

The Taluce series consists of well drained soils that are very shallow or shallow to soft sandstone. They formed in residuum and slope alluvium derived from sandstone. They are on ridges and hills. Slopes range from 3 to 70 percent. The mean annual precipitation is about 12 inches, and the mean annual air temperature is about 46 degrees F.

**A** - 0 to 4 inches; light yellowish brown (10YR 6/4) sandy loam, yellowish brown (10YR 5/4) moist; moderate fine and medium granular structure; soft, very friable, nonsticky and nonplastic; common fine roots; noneffervescent, neutral (pH 7.2); clear smooth boundary. (one- to four-inches thick)

**C** - 4 to 15 inches; very pale brown (10YR 7/4) gravelly sandy loam, light yellowish brown (10YR 6/4) moist; weak medium platy rock structure; slightly hard, very friable, nonsticky and nonplastic; common fine roots; noneffervescent, slightly alkaline (pH 7.4). (5 to 18 inches thick)

**Cr** - 15 inches; soft, platy, slightly to noncalcareous sandstone.

Type Location - Natrona County, Wyoming; refer to waypoint 138 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to bedrock ranges from 6 to 20 inches. Rock fragments range from 0 to 15 percent. The particle-size control section has 10 to 18 percent clay. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F and is never moist in some or all parts for as long as 60 consecutive days when the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27. It is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period.

The A horizon has a hue of 10YR or 2.5Y value of 4 to 6 dry, 3 to 5 moist, and chroma of 2 to 6. It is fine sandy loam, very fine sandy loam, sandy loam, loamy sand or loamy fine

sand. Reaction is neutral to moderately alkaline. Some pedons have a thin Bw horizon. Rock fragments range from 0 to 20 percent.

The C horizon has hue of 2.5Y or 10YR, value of 5 through 7 dry, 4 or 5 moist, and chroma of 2 through 6. It is sandy loam, fine sandy loam or very fine sandy loam and has 10 to 18 percent clay. Reaction is slightly alkaline to strongly alkaline. Rock fragments range from 0 to 20 percent.

The Cr horizon is slightly calcareous sandstone that can be interbedded with mudstone or shale.

Range in Characteristics (according to field observations, lab analysis): The profile is noncalcareous throughout.

Taxonomic Class - Loamy, mixed, superactive, noncalcareous, mesic, shallow Ustic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) – No marginal or unsuitable parameters were found for this profile. Estimated stripping depth is 15 inches.

Geographic Setting (According to Official Series Description) - Taluce soils are on ridges and hills. Slope ranges from 3 to 70 percent. They formed in residuum and slope alluvium derived from sandstone. The mean annual precipitation ranges from 10 to 17 inches with over half of the precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. The mean annual air temperature is 42 to 51 degrees F. Elevation is 3,500 to 6,500 feet. The frost-free season is 100 to 130 days.

HAVERDAD  
CLAY LOAM

Soil Mapping Unit "Ha"  
Lab Sample ID: C08100869-006\_010  
BKS Sample ID: #139

Typical Pedon: Haverdad clay loam-utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Haverdad series consists of very deep, well drained soils formed in stratified alluvium on flood plains and low terraces. Permeability is moderate. Slopes range from 0 to 6 percent. The mean annual precipitation is about 11 inches, and the mean annual temperature is about 45 degrees F.

**A** - 0 to 2 inches; brown (10YR 4/3) clay loam, very dark brown (10YR 2/2) moist; moderate medium subangular structure parting to weak fine granular; slightly hard, friable, slightly sticky and slightly plastic; many fine roots throughout; carbonates are disseminated throughout; strongly effervescent; neutral (pH 7.2); gradual smooth boundary. (two to eight-inches thick)

**AC** - 2 to 7 inches; grayish brown (10YR 5/2) clay loam, very dark gray (10YR 3/1) moist; moderate medium subangular structure parting to weak fine granular; slightly hard, friable, slightly sticky and slightly plastic; many fine roots throughout; noneffervescent; neutral (pH 7.2); gradual smooth boundary. (two- to eight-inches thick)

**C1** - 7 to 16 inches; light brownish gray (10YR 6/2) loam, dark brownish gray (10YR 4/2) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common fine roots throughout; carbonates are disseminated throughout; slightly effervescent; slightly alkaline (pH 7.4); clear smooth boundary.

**C2** - 16 to 20 inches; very pale brown (10YR 7/4) loam, stratified with fine sandy loam, sand loam, clay loam, and silt loam, yellowish brown (10YR 5/4) moist; weak fine and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few fine and very fine roots throughout; noneffervescent; slightly alkaline (pH 7.4); gradual smooth boundary.

**2Ck1** - 20 to 36 inches; light brownish gray (10YR 6/2) clay loam, stratified with fine sandy loam, loam, silt loam, and silty clay loam, grayish brown (10YR 5/2) moist; weak fine and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few fine and very fine roots throughout; carbonates are disseminated throughout; strongly effervescent; slightly alkaline (pH 7.6); gradual smooth boundary.

**2Ck2** - 36 to 46 inches; yellowish brown (10YR 5/4) clay, stratified with fine sandy loam, loam, silt loam, and silty clay loam, dark yellowish brown (10YR 4/4) moist; weak fine and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few fine and very fine roots throughout; carbonates are disseminated throughout; moderately effervescent; slightly alkaline (pH 7.7); gradual smooth boundary.

**2Ck3** - 46 to 60 inches; yellowish brown (10YR 5/4) silty clay loam, stratified with fine sandy loam, loam, silt loam, and clay loam, dark yellowish brown (10YR 4/4) moist; weak fine and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few fine and very fine roots throughout; carbonates are disseminated throughout; strongly effervescent; slightly alkaline (pH 7.7); gradual smooth boundary.

Type Location - Niobrara County, Wyoming; refer to waypoint 139 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) –

Soil moisture: The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F or more. This soil is moist for 60 consecutive days when the soil temperature at 20 inches is 41 degrees F, which occurs about April 21-27, but is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period.

Mean annual soil temperature: 48 to 53 degrees F and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 195 days.

Organic carbon content: .5 to 1.0 percent and decreases irregularly with depth

Rock fragments: 0 to 15 percent gravel

EC (mmhos/cm): 0 to 8 mmhos throughout but where irrigated some soils may range up to 16 mmhos

Calcium sulfate occurs in some pedons.

The soil is typically calcareous to the surface, but some pedons are leached as deep as 20 inches.

A horizon:

Hue: 10YR or 2.5Y

Value: 4 through 6 dry, 3 through 5 moist

Chroma: 2 through 4 dry or moist

Texture: loam, clay loam, silt loam, silty clay loam, very fine sandy loam, fine sandy loam, sandy loam

Reaction: slightly alkaline through strongly alkaline

Some pedons have an AC horizon.

C horizon:

Hue: 10YR or 2.5Y

Value: 5 through 7 dry, 4 to 6 moist

Chroma: 2 through 4 dry or moist

Texture: variable but when averaged is loam or light clay loam with 18 to 35 percent clay

Calcium carbonate equivalent: 1 to 15 percent which changes erratically between strata

Reaction: slightly alkaline through strongly alkaline

Range in Characteristics (according to field observations, lab analysis): Calcic horizons were found towards the bottom of the profile, which is not typical for this series.

Taxonomic Class - Fine-loamy, mixed, superactive, calcareous, mesic Ustic Torrifuvents

Suitability for Topsoil (According to WDEQ Guideline 1) – Marginal texture (clay) was found from 36-46 inches. Saturation percentage was marginal at 36-46 inches. Estimated stripping depth is 20 inches.

Geographic Setting (According to Official Series Description) –

Parent material: alluvium from mixed sources

Landform: floodplains and low terraces

Elevations: 3,500 to 6,500 feet

Slopes: 0 to 6 percent

Mean annual precipitation: about 11 inches, ranging 10 to 17, with over half of annual precipitation falling in April, May, and June

Mean annual temperature: about 45 degrees F and ranges from 43 to 52 degrees F

Frost-free period: 105 to 130 days



ORPHA  
SANDY CLAY LOAM

Soil Mapping Unit "Or"  
Lab Sample ID: C08100869-011\_016  
BKS Sample ID: #140

Typical Pedon: Orpha sandy clay loam-on a west facing dune slope of 6 percent; utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Orpha series consists of very deep, excessively drained soils on rolling dunes, hills, terraces, floodplains, uplands, valley side slopes, toeslopes, and footslopes. They formed in alluvium or eolian sand from mixed sources. Slopes range from 0 to 45 percent. The mean annual precipitation is about 12 inches, and the mean annual air temperature is about 46 degrees F.

**A** - 0 to 2 inches; brown (10YR 5/3) sandy clay loam, brown (10YR 4/3) moist; weak medium and coarse granular structure; loose, soft, nonsticky and nonplastic; noneffervescent; neutral (pH 7.0); gradual wavy boundary. (two- to six-inches thick)

**AC** - 2 to 9 inches; pale brown (10YR 6/3) sandy clay loam, brown (10YR 5/3) moist; weak medium and coarse granular structure; loose, soft, nonsticky and nonplastic; noneffervescent; slightly alkaline (pH 7.0); gradual wavy boundary. (two to 7 inches thick)

**C1** - 9 to 13 inches; brown (10YR 5/3) sandy loam, brown (10YR 4/3) moist; single grain, loose, nonsticky and nonplastic; noneffervescent; slightly alkaline (pH 7.4).

**C2** - 13 to 20 inches; grayish brown (10YR 5/2) sandy loam, dark grayish brown (10YR 4/2) moist; single grain, loose, nonsticky and nonplastic; noneffervescent; slightly alkaline (pH 7.4).

**C3** - 20 to 28 inches; grayish brown (10YR 5/2) gravelly sandy loam, dark grayish brown (10YR 4/2) moist; single grain, loose, nonsticky and nonplastic; noneffervescent; slightly alkaline (pH 7.5).

**C4** - 28 to 35 inches; brown (10YR 5/3) gravelly sandy loam, brown (10YR 4/3) moist; single grain, loose, nonsticky and nonplastic; noneffervescent; slightly alkaline (pH 7.5).

**2C5** - 35 to 45 inches; light gray (10YR 7/1) clay, gray (10YR 6/1) moist; moderate fine prismatic structure parting to moderate fine subangular blocky; hard, very friable, moderately sticky and moderately plastic; many distinct clay films on faces of peds,

common faint clay films in root channels and pores; noneffervescent; slightly alkaline (pH 7.6); clear wavy boundary.

**2C6** - 45 to 55 inches; white (10YR 8/1) clay, light gray (10YR 7/1) moist; moderate fine prismatic structure parting to moderate fine subangular blocky; hard, very friable, moderately sticky and moderately plastic; many distinct clay films on faces of pedis, common faint clay films in root channels and pores; moderately effervescent; moderately alkaline (pH 7.9); clear wavy boundary.

**2Cn** - 55 to 60 inches; white (10YR 8/1) clay, light gray (10YR 7/1) moist; moderate fine prismatic structure parting to moderate fine subangular blocky; hard, very friable, moderately sticky and moderately plastic; many distinct clay films on faces of pedis, common faint clay films in root channels and pores; strongly effervescent; slightly alkaline (pH 7.6); clear wavy boundary.

Type Location - Converse County, Wyoming; refer to waypoint 140 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Rock fragments are less than 15 percent in the particle-size control section. Depth to carbonates is typically greater than 40 inches but may be 30 inches in some pedons. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F. It is never moist in all parts for as long as 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 44 to 52 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days.

The A horizon has hue of 10YR or 2.5Y, value of 4 to 7 dry, 3 to 6 moist, and chroma of 2 to 4. Texture is sand, fine sand, loamy sand and loamy fine sand. Reaction is neutral or slightly alkaline.

The C horizon has hue of 10YR or 2.5Y, value of 5 to 8 dry, 4 to 7 moist, and chroma of 2 to 6. Texture is sand, fine sand, loamy sand or loamy fine sand. Some pedons may have thin strata of sandy loam or fine sandy loam where they are near the parent source. Reaction ranges from neutral to moderately alkaline. Some pedons have AC horizons.

Range in Characteristics (according to field observations, lab analysis): Textures in the top 35 inches are slightly finer than typical. The bottom portion of the profile has a fine texture, which is not typical of this series.

Taxonomic Class - Mixed, mesic Ustic Torripsamments

Suitability for Topsoil (According to WDEQ Guideline 1) – Marginal texture (clay) was found from 35-60 inches. Saturation percentage was marginal at 45-55 inches. Estimated stripping depth is 45 inches.

Geographic Setting (According to Official Series Description) - Orpha soils occur primarily as rolling or hilly dunes. They are on hills, valley side slopes, footslopes, toeslopes, stream terraces, broad floodplains and uplands. They formed in alluvium or eolian deposits generally adjacent to and downwind of sandy parent sources. Slopes are usually 0 to 45 percent. In Nebraska slopes are as high as 60 percent. Elevations are 3,500 to 6,500 feet. Precipitation ranges from 10 to 18 inches with over half the annual precipitation falling in April, May, and June. The mean annual air temperature ranges from 44 to 50 degrees F. The frost-free season is about 105 to 130 days.

TULLOCK  
SANDY CLAY LOAM

Soil Mapping Unit "T1"  
Lab Sample ID: C08100869-017\_018  
BKS Sample ID: #141

Typical Pedon: Tullock sandy clay loam-in rangeland. (Colors are for dry soil unless otherwise stated.)

The Tullock series consists of moderately deep, excessively drained soils formed in residuum, alluvium or eolian deposits derived from sandstone. They are on dunes, hills and ridges. Slopes are 0 to 45 percent. The mean annual precipitation is about 12 inches. The mean annual air temperature is about 46 degrees F.

**A** - 0 to 2 inches; light yellowish brown (10YR 6/4) sandy clay loam, yellowish brown (10YR 5/4) moist; weak medium and fine granular structure; loose; noneffervescent; neutral (pH 7.2); clear wavy boundary. (two- to six-inches thick)

**AC** - 2 to 11 inches; light yellowish brown (10YR 6/4) sandy clay loam, yellowish brown (10YR 5/4) moist; weak medium and fine granular structure; loose; noneffervescent; neutral (pH 7.2); clear wavy boundary.

**C** - 11 to 15 inches; very pale brown (10YR 7/3) gravelly sandy clay loam, pale brown (10YR 6/3) moist; massive; loose; noneffervescent; slightly alkaline (pH 7.7); clear wavy boundary. (0 to 18 inches thick)

**Ck** - 15 to 21 inches; pale brown (10YR 6/3) gravelly sandy clay loam, brown (10YR 5/3) moist; massive; loose; strongly effervescent; carbonates disseminated throughout; slightly alkaline (pH 7.7); clear wavy boundary.

**Cr** - 21 inches; soft, violently calcareous sandstone.

Type Location - Converse County, Wyoming; refer to waypoint 141 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - These soils typically effervesce throughout but some in some pedons the A horizon is leached. Depth to paralithic contact is 20 to 40 inches. The soil has 0 to 15 percent rock fragments. These soils are usually dry in the moisture control section for 60 consecutive days and 90 cumulative days between July 15 and October 25. The soil temperature at a depth of 20 inches is 41 degrees F or warmer for 175 to 192 days. The mean annual soil temperature is 47 to 53 degrees F.

The A horizon has hue of 2.5Y or 10YR value of 5 or 6 and 3 to 5 moist, and chroma of 2 to 5. It is loamy sand, sand, loamy fine sand, fine sandy loam or fine sand. It is neutral to moderately alkaline.

Some pedons have an AC horizon. When present, it has hue or 2.5Y or 10YR, value of 5 or 6 and 4 or 5 moist, and chroma of 3 or 4. It is loamy sand, loamy fine sand, fine sand or sand.

The C horizon has hue of 2.5Y or 10YR, value of 5 to 7 and 4 to 6 moist, and chroma of 2 to 6. It is loamy sand, loamy fine sand, fine sand or sand. It is slightly alkaline or moderately alkaline.

The Cr horizon is soft calcareous sandstone which may be interbedded with conglomerate or shale in some areas.

Range in Characteristics (according to field observations, lab analysis): Textures are finer than typical for this series. A calcic horizon was identified, which is not typical.

Taxonomic Class - Mixed, mesic Ustic Torripsamments

Suitability for Topsoil (According to WDEQ Guideline 1) – Saturation percentage was marginal at 0-11 inches. Estimated stripping depth is 15 inches.

Geographic Setting (According to Official Series Description) - Tullock soils are on dunes and footslopes and toeslopes of hills and ridges. They formed in eolian deposits and residuum derived from sandstone. Slopes are 0 to 45 percent. Elevation is 3500 to 6,000 feet. Mean annual soil temperature is 47 to 53 degrees F. Mean annual precipitation is 10 to 14 inches. The frost-free period is 105 to 130 days.

TALUCE  
SANDY LOAM

Soil Mapping Unit "Ta"  
Lab Sample ID: C08100869-019\_020  
BKS Sample ID: #142

Typical Pedon: Taluce sandy loam-on a convex north-facing slope, used as rangeland. (Colors are for dry soil unless otherwise stated.)

The Taluce series consists of well drained soils that are very shallow or shallow to soft sandstone. They formed in residuum and slope alluvium derived from sandstone. They are on ridges and hills. Slopes range from 3 to 70 percent. The mean annual precipitation is about 12 inches, and the mean annual air temperature is about 46 degrees F.

**A** - 0 to 1 inch; grayish brown (10YR 5/2) sandy loam, dark grayish brown (10YR 4/2) moist; moderate fine and medium granular structure; soft, very friable, nonsticky and nonplastic; common fine roots; noneffervescent, slightly alkaline (pH 7.8); clear smooth boundary. (one- to four-inches thick)

**AC** - 1 to 8 inches; light brownish gray (10YR 6/2) sandy loam, grayish brown (10YR 5/2) moist; moderate fine and medium granular structure; soft, very friable, nonsticky and nonplastic; common fine roots; noneffervescent, slightly alkaline (pH 7.8); clear smooth boundary.

**Ck** - 8 to 16 inches; very pale brown (10YR 8/2) sandy loam, light gray (10YR 7/2) moist; weak medium platy rock structure; slightly hard, very friable, nonsticky and nonplastic; common fine roots; strongly to violently effervescent, calcium carbonate disseminated; moderately alkaline (pH 7.9). (5 to 18 inches thick)

**Cr** - 16 inches; soft, platy sandstone.

Type Location - Natrona County, Wyoming; refer to waypoint 142 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to bedrock ranges from 6 to 20 inches. Typically, these soils are calcareous throughout, but some pedons are leached to a depth of as much as 4 inches. Rock fragments range from 0 to 15 percent. The particle-size control section has 10 to 18 percent clay. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F and is never moist in some or all parts for as long as 60 consecutive days when the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27. It is dry in all parts of the moisture control

section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period.

The A horizon has a hue of 10YR or 2.5Y value of 4 to 6 dry, 3 to 5 moist, and chroma of 2 to 6. It is fine sandy loam, very fine sandy loam, sandy loam, loamy sand or loamy fine sand. Reaction is neutral to moderately alkaline. Some pedons have a thin Bw horizon. Rock fragments range from 0 to 20 percent.

The C horizon has hue of 2.5Y or 10YR, value of 5 through 7 dry, 4 or 5 moist, and chroma of 2 through 6. It is sandy loam, fine sandy loam or very fine sandy loam and has 10 to 18 percent clay. Some pedons have slight accumulations of calcium carbonate. Reaction is slightly alkaline to strongly alkaline. Rock fragments range from 0 to 20 percent.

The Cr horizon is calcareous sandstone that can be interbedded with mudstone or shale.

Range in Characteristics (according to field observations, lab analysis): This profile contains an AC and calcic horizon, which are not typical.

Taxonomic Class - Loamy, mixed, superactive, calcareous, mesic, shallow Ustic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) – Saturation percentage was marginal at 8-16 inches. Estimated stripping depth is eight-inches.

Geographic Setting (According to Official Series Description) - Taluce soils are on ridges and hills. Slope ranges from 3 to 70 percent. They formed in residuum and slope alluvium derived from sandstone. The mean annual precipitation ranges from 10 to 17 inches with over half of the precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. The mean annual air temperature is 42 to 51 degrees F. Elevation is 3,500 to 6,500 feet. The frost-free season is 100 to 130 days.

LOLITE  
CLAY

Soil Mapping Unit "Lo"  
Lab Sample ID: C08100869-021\_022  
BKS Sample ID: #146

Typical Pedon: Lolite clay-rangeland. (Colors are for dry soil unless otherwise stated.)

The Lolite series consists of well drained, slowly permeable soils that are shallow to noncalcareous sodic shale on ridges and hillsides. They formed in residuum. Slopes range from 3 to 45 percent. The mean annual precipitation is about 11 inches, and the mean annual temperature is about 45 degrees F.

**A** - 0 to 3 inches; gray (5YR 6/1) clay, dark gray (5YR 4/1) moist; weak fine granular structure; slightly hard, friable, sticky and plastic; common fine roots; noneffervescent; slightly alkaline (pH 7.4); clear wavy boundary. (0.25 to 3 inches thick)

**Bt** - 3 to 9 inches; pinkish gray (7.5YR 7/2) clay, brown (7.5YR 5/2) moist; weak medium subangular blocky structure; hard, firm, sticky and plastic; common fine roots; noneffervescent; slightly alkaline (pH 7.4); clear wavy boundary. (zero- to six-inches thick)

**C** - 9 to 24 inches; light brownish gray (10YR 6/2) clay, grayish brown(10YR 5/2) moist; fine platy shale rock structure; hard, firm, sticky and plastic; few fine roots; few fine clusters of sodium sulfate crystals inherited from the parent material; ESP of 35; noneffervescent; slightly alkaline (pH 7.6). (3 to 18 inches thick)

**Cr** - 24 inches; soft, platy, strongly sodic shale.

Type Location - Natrona County, Wyoming; refer to waypoint 146 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to bedrock ranges from 6 to 20 inches. The particle-size control section is clay, silty clay, or clay loam with 35 to 55 percent clay and less than 35 percent fine sand or coarser. The mean annual soil temperature is 47 to 52 degrees F. Hue is 2.5Y or 5Y, value is 5 or 6 dry, 3 through 5 moist, and chroma is 1 through 3. It is mildly alkaline or moderately alkaline.

The A horizon typically is noncalcareous, however, in some pedons it is calcareous from dust and overflow. ESP is less than 15. Salinity is less than 4 mmhos. A vesicular crust is on some pedons.



The By horizon has less than 5 percent gypsum. ESP is less than 15. Salinity is less than 4 mmhos. Some pedons do not have a By horizon.

The C horizon has platy shale rock structure, however, roots can penetrate the platy fragments. Salt crystals, dominantly sodium sulfate, are inherited from the parent material with only slight alteration. ESP is commonly greater than 20 and ranges from 15 to 60. Salinity is commonly greater than 10 mmhos and ranges from 8 to 20 mmhos.

The Cr is soft, platy, noncalcareous, sodic shale. It is frequently more than 20 feet thick.

Range in Characteristics (according to field observations, lab analysis): An argillic horizon was found in place of a gypsic horizon.

Taxonomic Class - Clayey, mixed, superactive, nonacid, mesic, shallow Typic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) – Marginal texture (clay) was found from 0-24 inches. Estimated stripping depth is 9 inches.

Geographic Setting (According to Official Series Description) - Lolite soils are on ridges and hillsides. Slopes range from 3 to 45 percent and are mainly convex. They formed in residuum derived from sodic, noncalcareous shale. These soils are often intermixed with rock outcrop and gullied land. The mean annual precipitation is 9 to 14 inches, and the mean annual temperature is 42 to 51 degrees F. The frost-free season is 110 to 130 days. Elevation is 4,900 to 6,500 feet.

HILAND  
SANDY CLAY LOAM

Soil Mapping Unit "Hi"  
Lab Sample ID: C08100869-023\_027  
BKS Sample ID: #148

Typical Pedon: Hiland sandy clay loam-on northeast facing slope of 3 percent; utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Hiland series consists of very deep, well drained soils formed in alluvium or eolian deposits on relict surfaces consisting of terraces, fans, fan remnants, pediments, ridges, hills and stabilized dunes. Permeability is moderate. Slopes range from 0 to 20 percent. The average annual precipitation is about 12 inches, and the mean annual air temperature is about 45 degrees F.

**A** - 0 to 3 inches; brown (10YR 5/3) sandy clay loam, brown (10YR 4/3) moist; weak medium granular structure parting to weak fine granular; slightly hard, friable, nonsticky and nonplastic; many very fine and common fine roots; noneffervescent; neutral (pH 7.0); abrupt smooth boundary. (two to 5 inches thick)

**Bw** - 3 to 9 inches; yellowish brown (10YR 5/4) sandy clay loam, dark yellowish brown (10YR 4/4) moist; strong medium prismatic structure parting to strong fine and medium angular blocky; hard, friable, moderately sticky and moderately plastic; many very fine roots in a mat at the top of the horizon and common very fine roots between peds; many fine pores; noneffervescent; neutral (pH 7.0); clear wavy boundary.

**BC** - 9 to 17 inches; light yellowish brown (10YR 6/4) sandy clay loam, yellowish brown (10YR 5/4) moist; moderate coarse prismatic structure parting to moderate medium subangular blocky; hard, friable, moderately sticky and moderately plastic; common very fine roots between peds; many fine pores; noneffervescent; neutral (pH 7.3); gradual wavy boundary.

**Ck1** - 17 to 24 inches; very pale brown (10YR 7/3) clay loam to loam, pale brown (10YR 6/3) moist; weak coarse prismatic structure parting to moderate medium and coarse subangular blocky; slightly hard, very friable, nonsticky and nonplastic; common very fine roots; many fine pores; few fine and medium rounded light gray (10YR 7/2) masses of carbonate throughout; strongly effervescent; moderately alkaline (pH 8.1); gradual smooth boundary.

**Ck2** - 24 to 37 inches; very pale brown (10YR 7/3) sandy clay loam, pale brown (10YR 6/3) moist; weak coarse prismatic structure parting to moderate medium and coarse subangular blocky; slightly hard, very friable, nonsticky and nonplastic; common very

fine roots; many fine pores; few fine and medium rounded light gray (10YR 7/2) masses of carbonate throughout; strongly effervescent; moderately alkaline (pH 8.2); gradual smooth boundary.

C - 37 to 60 inches; light yellowish brown (10YR 6/4) sandy clay loam, yellowish brown (10YR 5/4) moist; weak coarse prismatic structure parting to moderate medium and coarse subangular blocky; slightly hard, very friable, nonsticky and nonplastic; common very fine roots; many fine pores; slightly effervescent; moderately alkaline (pH 8.3); gradual smooth boundary.

Type Location - Converse County, Wyoming; refer to waypoint 148 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Gravel ranges from 0 to 15 percent in the solum and from 0 to 30 percent in the 2C or Bk horizons. The base of the Bt or Btk ranges from 15 to 35 inches. Depth to continuous carbonate accumulation ranges from 14 to 32 inches. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F and is never moist in all parts for as long as 60 consecutive days when the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, but is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 52 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days. EC ranges from 0 to 2 mmhos from the surface to the base of the Bt and from 1 to 4 mmhos below the base of the Bt. Bedrock is deeper than 60 inches.

The A horizon has hue of 10YR, value of 4 to 6 dry and 3 to 5 moist, and chroma of 2 to 4. It is sandy loam, fine sandy loam, very fine sandy loam, sandy clay loam or loamy sand. Vesicular crust occurs on some pedons. This horizon is neutral to moderately alkaline.

The E horizon has hue of 10YR, value of 4 to 6 and 3 to 5 moist, and chroma of 2 to 4. It is fine sandy loam, very fine sandy loam, sandy loam, sandy clay loam or loamy sand. It is neutral or slightly alkaline.

The Bt horizon has hue of 2.5Y to 7.5YR, value of 4 to 6 dry and 3 to 5 moist, and chroma of 2 to 4. It has a weighted clay content of 20 to 35 percent and is sandy clay loam; however, parts of this horizon may be sandy loam. This horizon is typically noncalcareous. Reaction is neutral to moderately alkaline.

If a Btk horizon is present, it has the same ranges as defined for the Bt except that it is replugged with carbonate and reaction ranges from moderately to strongly alkaline.

The Bk horizon has hue of 2.5Y or 10YR, value of 5 to 7 dry and 4 to 7 moist, and chroma of 2 to 4. It is sandy loam, loamy sand, fine sandy loam or sandy clay loam; or, when other textures occur, the horizon average must be sandy loam, loamy sand or fine sandy loam. It is not a calcic horizon. It does not have 5 percent more calcium carbonate equivalent than the underlying horizon or has less than 5 percent secondary carbonates. It is moderately or strongly alkaline. Exchangeable sodium is less than 15 percent even though field tests indicate strongly alkaline reactions.

Some pedons have a 2Bk, 2C or C horizon. The 2C and 2Bk horizons may contain more rock fragments. Contrasting textures of sand may occur below 40 inches. It is calcareous but typically has less than 5 percent calcium carbonate equivalent.

Range in Characteristics (according to field observations, lab analysis): Cambic and BC horizons were found in place of E and argillic horizons. The Ck1 horizon has a finer texture than what is typical of this series.

Taxonomic Class - Fine-loamy, mixed, superactive, mesic Ustic Haplargids

Suitability for Topsoil (According to WDEQ Guideline 1) – No marginal or unsuitable parameters were found. Estimated stripping depth is 17 inches.

Geographic Setting (According to Official Series Description) - Hiland soils are on relict surfaces consisting of terraces, fan remnants, pediments, fans, ridges, hills and stabilized dunes. Slopes are 0 to 20 percent. They formed in moderately coarse alluvium and eolian material derived predominantly from sandstone. Elevations are 3,500 to 6,300 feet. The average annual precipitation is about 12 inches with over half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. Precipitation ranges from 10 to 14 inches. The mean annual air temperature is 43 to 51 degrees F. The frost-free season is 105 to 130 days.

TURNERCREST  
SANDY LOAM

Soil Mapping Unit "Tu"

Lab Sample ID: C08100869-028\_031

BKS Sample ID: #150

Typical Pedon: Turnercrest sandy loam-on a northeast facing hill footslope of 8 percent; utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Turnercrest soils consist of moderately deep, well drained soils formed in eolian or alluvium deposits and residuum derived from soft sandstone. They are on bedrock-controlled hills, fan remnants, ridges and structural benches. Slopes range from 0 to 30 percent. The average annual precipitation is about 12, and the mean annual air temperature is about 47 degrees F.

**A** - 0 to 2 inches; light brownish gray (10YR 6/2) sandy loam, dark grayish brown (10YR 4/2) moist; weak fine granular structure; soft, very friable; many fine and very fine roots; noneffervescent; neutral (pH 7.3); clear smooth boundary. (two- to six-inches thick)

**Bw1** - 2 to 5 inches; light brownish gray (10YR 6/2) sandy loam, grayish brown (10YR 5/2) moist; weak medium and coarse subangular blocky structure; soft, friable; common fine and very fine roots; noneffervescent; neutral (pH 7.3); gradual smooth boundary. (zero- to eight-inches thick)

**Bw2** - 5 to 12 inches; light brownish gray (10YR 5/2) sandy loam, dark grayish brown (10YR 4/2) moist; weak medium and coarse subangular blocky structure; soft, friable; common fine and very fine roots; noneffervescent; slightly alkaline (pH 7.7); gradual smooth boundary. (zero- to eight-inches thick)

**C1** - 12 to 20 inches; light gray (10YR 7/2) loamy sand, pale brown (10YR 6/3) moist; massive; slightly hard, very friable; few fine roots to 15 inches; moderately effervescent; carbonates disseminated and as few fine filaments; moderately alkaline (pH 8.3); clear wavy boundary.

**C2** - 20 to 35 inches; very pale brown (10YR 7/3) loamy sand, light yellowish brown (10YR 6/4) moist; massive; slightly hard, very friable; few fine roots to 15 inches; slightly effervescent; carbonates disseminated and as few fine filaments; moderately alkaline (pH 8.4); clear wavy boundary.

**Cr** - 35 inches; soft, tan and white, noncalcareous sandstone.

Type Location - Weston County, Wyoming; refer to waypoint 150 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to soft, calcareous sandstone ranges from 20 to 40 inches. These soils are typically calcareous throughout but may be leached as much as to 6 inches in some pedons. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F or warmer and is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 53 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days. The particle-size control section is fine sandy loam or sandy loam with 7 to 18 percent clay and 52 to 80 percent sand with more than 15 percent being fine sand or coarser. EC is 0 to 2 mmhos throughout the soil. Rock fragments may be present but break down on pretreatment and do not have lithic properties.

The A horizon has hue of 10YR or 2.5Y, value of 4 to 6 and 3 to 5 moist, and chroma of 2 to 4. Textures are loamy sand, loamy fine sand, fine sandy loam or sandy loam. Reaction is neutral to moderately alkaline.

The Bw horizon, where present, has hue of 10YR or 2.5Y, value of 5 or 6 and 3 to 5 moist, and chroma of 2 or 3. Depth to the base of the Bw horizon is less than 10 inches. Texture is fine sandy loam or sandy loam. Reaction is slightly alkaline or moderately alkaline.

The Bk has hue of 10YR or 2.5Y, value of 5 to 7 and 3 to 6 moist, and chroma of 2 or 3. Texture is fine sandy loam, very fine sandy loam or sandy loam. Reaction is slightly or moderately alkaline.

The C horizon, when present, has hue of 10YR or 2.5Y, value of 5 to 7 and 4 to 6 moist, and chroma of 2 to 4. Texture is fine sandy loam, very fine sandy loam or sandy loam. Some pedons have thin layers of loamy fine sand. Reaction is slightly alkaline or moderately alkaline.

The Cr horizon has a paralithic contact to soft, calcareous sandstone. The sandstone has hue of 10YR or 2.5Y.

Range in Characteristics (according to field observations, lab analysis): This profile is less calcareous than typical, resulting in cambic horizons rather than calcic.

Taxonomic Class - Coarse-loamy, mixed, superactive, calcareous, mesic Ustic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) – Saturation percentage was marginal at 20-35 inches. Estimated stripping depth is 20 inches.

Geographic Setting (According to Official Series Description) - Turnercrest soils are on hills, ridges, fan remnants and structural benches. They formed in eolian or alluvium deposits and sandy residuum. Slopes are 0 to 30 percent. Elevations are 3,200 to 6,500 feet. The average annual precipitation is 10 to 15 inches with over half falling as snow or rain in April, May, and June and less than one inch falling in each month of July, August, September, and October. The mean annual air temperature is 45 to 53 degrees F. The frost-free season is 105 to 130 days.

THEEDLE  
NONCALCAREOUS VARIANT

Soil Mapping Unit "ThNC"  
Lab Sample ID: C08100869-032\_033  
BKS Sample ID: #151

Typical Pedon: Theedle clay loam-on west facing hill footslope of 6 percent; rangeland. (Colors are for dry soil unless otherwise stated.)

The Theedle series consists of well drained soils that are moderately deep to soft bedrock. They formed in residuum and slope alluvium weathered from soft sandstone. The Theedle soils are on hills, ridges and fan remnants. Slopes are 0 to 75 percent. The mean annual precipitation is about 12 inches, and the mean annual air temperature is 45 degrees F.

**A** - 0 to 4 inches; very pale brown (10YR 7/3) clay loam, brown (10YR 5/3) moist; weak granular structure; slightly hard, friable, nonsticky and nonplastic; many very fine, fine, and medium roots; noneffervescent; slightly alkaline (pH 7.6); clear smooth boundary. (zero- to 5 inches thick)

**AC** - 4 to 7 inches; very pale brown (10YR 7/3) clay loam, brown (10YR 5/3) moist; massive; slightly hard, friable, nonsticky and nonplastic; common very fine, fine, and medium roots; noneffervescent; slightly alkaline (pH 7.6); clear smooth boundary. (3 to 10 inches thick)

**C** - 7 to 24 inches; very pale brown (10YR 8/4) clay, light yellowish brown (10YR 6/4) moist; massive; slightly hard, friable, sticky and nonplastic; few fine and very fine roots; noneffervescent; slightly alkaline (pH 7.7); clear smooth boundary. (14 to 26 inches thick)

**Cr** - 24 inches; light gray, soft, noncalcareous shale.

Type Location - Weston County, Wyoming; refer to waypoint 151 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to soft, gray, calcareous sandstone or sandy shale ranges from 20 to 40 inches but is typically less than 32 inches. The soil lacks a cambic horizon, but structural Bw horizons are present in about half the pedons observed. The soil is typically calcareous throughout but may be leached up to 5 inches. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F and is dry in all parts of the moisture control section for at least 60 consecutive days from July



15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 51 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days. The particle size control section averages between 18 and 35 percent clay and is loam, clay loam, or sandy clay loam with more than 15 but less than 35 percent fine or coarser sand. The soil has up to 10 percent rock fragments throughout.

The A horizon has hue of 10YR or 2.5Y, value of 3 to 6 dry, 3 to 5 moist, and chroma of 2 to 4. It is loam, clay loam or fine sandy loam. Reaction ranges from neutral to moderately alkaline. EC is 0 to 2 mmhos/cm.

The B<sub>ck</sub> (or AC and B<sub>w</sub>, when present) has hue of 10YR or 2.5Y, value of 5 or 6 dry, 3 to 5 moist, and chroma of 2 to 4. Texture is loam, clay loam or sandy clay loam. Reaction is slightly alkaline to strongly alkaline. EC is 0 to 4 mmhos/cm.

The C horizon has hue of 10YR or 2.5Y, value of 5 to 7 dry, 4 to 7 moist, and chroma of 2 to 5. Texture is loam, clay loam or sandy clay loam. Reaction is slightly alkaline to strongly alkaline. EC is less than 8 mmhos/cm. Carbonates usually average between 5 and 14 percent with slight segregation in some pedons.

Range in Characteristics (according to field observations, lab analysis): This profile is noncalcareous throughout. The C horizon has a finer texture than what is typical for this series.

Taxonomic Class - Fine-loamy, mixed, superactive, calcareous, mesic Ustic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) – Marginal texture (clay) was found from 7-24 inches. Estimated stripping depth is 7 inches.

Geographic Setting (According to Official Series Description) - Theedle soils are on rock-controlled fan aprons, fan pediments, and undulating to rolling uplands. They may occupy all components of the hillslope profile but typically are on the lower shoulder, footslope, and toeslope. Slopes range from 0 to 75 percent. The soils formed in medium textured slope alluvium and residuum derived primarily from interbedded sandstone and shale. Elevation is 3,500 to 6,500 feet. The average annual precipitation is 12 inches with over half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. Precipitation ranges from 10 to 14 inches. The mean annual air temperature ranges from 45 to 51 degrees F. The frost-free season is 105 to 130 days.

FORKWOOD  
SANDY CLAY LOAM

Soil Mapping Unit "Fo"  
Lab Sample ID: C08100869-034\_038  
BKS Sample ID: #152

Typical Pedon: Forkwood sandy clay loam-utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Forkwood series consists of very deep, well drained soils formed in alluvium. Forkwood soils are on terraces, alluvial fans, fan remnants, hills, ridges and pediments. Slopes range from 0 to 15 percent. The mean annual precipitation is about 11 inches, and the mean annual air temperature is about 45 degrees F.

**A** - 0 to 5 inches; grayish brown (10YR 5/2) sandy clay loam, dark grayish brown (10YR 4/2) moist; weak fine granular structure; soft, very friable, slightly sticky and slightly plastic; many fine and medium roots throughout; noneffervescent; slightly alkaline (pH 7.6); abrupt smooth boundary. (one- to six-inches thick)

**AB** - 5 to 9 inches; light brownish gray (10YR 6/2) sandy clay loam, grayish brown (10YR 5/2) moist; weak fine granular structure; soft, very friable, slightly sticky and slightly plastic; many fine and medium roots throughout; noneffervescent; slightly alkaline (pH 7.6); abrupt smooth boundary.

**Bt** - 9 to 19 inches; dark yellowish brown (10YR 4/6) sandy clay loam, dark yellowish brown (10YR 3/6) moist; strong medium angular blocky structure; slightly hard, friable, moderately sticky and moderately plastic; common fine and medium roots throughout; common distinct clay films on faces of peds; noneffervescent; slightly alkaline (pH 7.6); clear smooth boundary. (6 to 20 inches thick)

**Ck1** - 19 to 39 inches; gray (10YR 6/1) clay loam, brown (10YR 5/3) moist; moderate medium subangular blocky structure parting to weak fine subangular blocky; slightly hard, friable, slightly sticky and slightly plastic; few fine roots throughout; few fine threads and masses of carbonates throughout; violently effervescent; moderately alkaline (pH 8.1); gradual wavy boundary.

**Ck2** - 39 to 55 inches; gray (10YR 5/1) sandy clay loam, brown (10YR 4/3) moist; moderate medium subangular blocky structure parting to weak fine subangular blocky; slightly hard, friable, slightly sticky and slightly plastic; few fine roots throughout; few fine threads and masses of carbonates throughout; moderately effervescent; moderately alkaline (pH 8.3); gradual wavy boundary.

C - 55 to 60 inches; light yellowish brown (10YR 6/4) sandy clay loam, yellowish brown (10YR 5/4) moist; massive; soft, very friable, slightly sticky and slightly plastic; few fine roots throughout; slightly effervescent; moderately alkaline (pH 8.3). (0 to 40 inches thick)

Type Location - Niobrara County, Wyoming; refer to waypoint 152 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to the base of the argillic horizon is 10 to 33 inches, and depth to continuous horizons of carbonate accumulation is 10 to 33 inches. Rock fragments range from 0 to 15 percent. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, and is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature ranges from 47 to 53 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days. EC ranges from 0 to 4 mmhos/cm throughout the profile. Bedrock is deeper than 60 inches.

The A horizon has hue of 2.5Y or 10YR, value of 4 to 6 dry and 3 to 5 moist, and chroma of 2 to 4. A vesicular crust occurs on some pedons. Texture is very fine sandy loam, loam, clay loam or fine sandy loam. Reaction is neutral through moderately alkaline.

The Bt horizon has hue of 2.5Y, 10YR or 7.5YR, value of 4 to 7 dry and 3 to 5 moist, and chroma of 2 to 4. Texture is loam or clay loam with 18 to 35 percent clay and more than 15 but less than 35 percent fine sand or coarser. Reaction is neutral through moderately alkaline.

The Btk horizon has hue of 2.5Y or 10YR, value of 4 to 7 dry and 3 to 5 moist, and chroma of 2 to 4. Texture is loam or clay loam. It is slightly alkaline or moderately alkaline. It has 3 to 12 percent calcium carbonate equivalent.

The Bk horizon has hue of 5Y, 2.5Y or 10YR, value of 5 to 7 dry and 4 to 6 moist, and chroma of 2 to 4. Texture is loam, fine sandy loam, very fine sandy loam or clay loam. This horizon has 1 to 14 percent authigenic calcium carbonate accumulation. It is moderately alkaline or strongly alkaline.

The C horizon, when present, has hue of 5Y to 10YR, value of 5 to 7 dry, 4 to 6 moist, and chroma of 2 to 4. Carbonates range from 1 to 8 percent and are mostly allogenic. ESP ranges from 4 to 12. Reaction is moderately or strongly alkaline.

Range in Characteristics (according to field observations, lab analysis): The AB horizon is not typical for this series. Textures are slightly sandier than typical for the series.

Taxonomic Class - Fine-loamy, mixed, superactive, mesic Ustic Haplargids

Suitability for Topsoil (According to WDEQ Guideline 1) – No marginal or unsuitable parameters were found for this profile. Estimated stripping depth is 19 inches.

Geographic Setting (According to Official Series Description) - Forkwood soils are on terraces, alluvial fans, fan remnants, hills, ridges and pediments. Slopes are 0 to 15 percent. The soils formed in slopewash alluvium derived from interbedded shales and argillaceous sandstone. Elevations are 3,500 to 6,000 feet. The average annual precipitation is 10 to 14 inches with over half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. The mean annual air temperature ranges from 43 to 51 degrees F. The estimated frost-free season is about 105 to 130 days depending upon elevation, aspect, and air drainage.

KEELINE  
SANDY LOAM

Soil Mapping Unit "Ke"  
Lab Sample ID: C08100869-039\_043  
BKS Sample ID: #153

Typical Pedon: Keeline sandy loam-on east facing shoulder slope of 4 percent; utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Keeline series consists of very deep, well or somewhat excessively drained soils formed in alluvium or eolian deposits derived from sandstone. Keeline soils are on upland ridgetops, hillslopes, terraces, benches, alluvial fans, and fan remnants. Slopes range from 0 to 40 percent. The mean annual precipitation is about 12 inches, and the mean annual temperature is about 46 degrees F.

**A** - 0 to 2 inches; yellow (10YR 7/6) sandy loam, brownish yellow (10YR 6/6) moist; weak fine subangular blocky and granular structure; soft, very friable, nonsticky and nonplastic; noneffervescent; neutral (pH 7.3); abrupt smooth boundary. (two to eight-inches thick)

**AC** - 2 to 5 inches; light yellowish brown (10YR 6/4) sandy loam, yellowish brown (10YR 5/4) moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; noneffervescent; neutral (pH 7.3); clear smooth boundary. (zero- to seven-inches thick)

**C** - 5 to 16 inches; light brownish gray (10YR 6/2) sandy loam, brown (10YR 5/3) moist; massive; soft, very friable, nonsticky and nonplastic; noneffervescent; slightly alkaline (pH 7.5); gradual smooth boundary. (8 to 50 inches thick)

**Ck1** - 16 to 46 inches; pale brown (10YR 6/3) sandy clay loam, brown (10YR 5/3) moist; massive; soft, very friable, nonsticky and nonplastic; violently effervescent; calcium carbonate disseminated; moderately alkaline (pH 8.3); gradual smooth boundary. (0 to 30 inches thick)

**Ck2** - 46 to 60 inches; gray (10YR 6/1) sandy clay loam, grayish brown (10YR 5/2) moist; massive; soft, very friable, nonsticky and nonplastic; strongly effervescent, calcium carbonate disseminated; moderately alkaline (pH 8.4).

Type Location - Converse County, Wyoming; refer to waypoint 153 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Free carbonates typically occur throughout the profile, but some pedons may be leached as much as 6 inches. The control section averages fine sandy loam or sandy loam with 5 to 18 percent clay. Rock fragments range from 0 to 15 percent. Some thin strata of coarser material may occur. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, and is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 52 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days. EC ranges from 0 to 4 mmhos throughout the profile. Bedrock is deeper than 60 inches.

The A horizon has hue of 7.5YR through 2.5Y, value of 5 through 7 dry, 4 or 5 moist, and chroma of 2 through 4. It is sandy loam and less commonly loamy sand, fine sandy loam, or loamy fine sand. Reaction is neutral to moderately alkaline.

The Bw horizon, when present, has the same properties of the A except for structure which is usually weak subangular blocky.

Some pedons have an AC horizon.

The C horizon has hue of 7.5YR through 5Y, value of 4 through 7 dry, 4 through 6 moist, and chroma of 2 through 4. Texture averages sandy loam or fine sandy loam. Some pedons have subhorizons of very fine sandy loam or loamy fine sand. Reaction is moderately or strongly alkaline and some pedons have weak, discontinuous accumulations of calcium carbonate.

Range in Characteristics (according to field observations, lab analysis): This profile contains calcic horizons, which are not typical of this series. These calcic horizons are finer in texture than the C horizons are typically for this series.

Taxonomic Class - Coarse-loamy, mixed, superactive, calcareous, mesic Ustic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) - No marginal or unsuitable parameters were found for this profile. Estimated stripping depth is 16 inches.

Geographic Setting (According to Official Series Description) - Keeline soils are on terraces, benches, alluvial fans, fan remnants, ridgetop and hillslope positions. Slopes are 0 to 40 percent. These soils formed in moderately coarse alluvium or eolian deposits derived from calcareous sandstone. Elevations are 3,500 to 6,200 feet. The average annual precipitation is 12 inches with over one-half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August,

September, and October. Precipitation ranges from 10 to 15 inches. The mean annual temperature is about 46 degrees F but ranges from 44 to 49 degrees F. The frost-free season is about 105 to 130 days.

THEEDLE  
SANDY CLAY LOAM

Soil Mapping Unit "Th"  
Lab Sample ID: C08100869-044\_047  
BKS Sample ID: #154

Typical Pedon: Theedle sandy clay loam-on west facing hill footslope of 6 percent; rangeland. (Colors are for dry soil unless otherwise stated.)

The Theedle series consists of well drained soils that are moderately deep to soft bedrock. They formed in residuum and slope alluvium weathered from soft sandstone. The Theedle soils are on hills, ridges and fan remnants. Slopes are 0 to 75 percent. The mean annual precipitation is about 12 inches, and the mean annual air temperature is 45 degrees F.

**A** - 0 to 2 inches; pale brown (10YR 6/3) sandy clay loam, brown (10YR 4/3) moist; weak granular structure; slightly hard, friable, nonsticky and nonplastic; many very fine, fine, and medium roots; noneffervescent; slightly alkaline (pH 7.6); clear smooth boundary. (zero- to five-inches thick)

**AC** - 2 to 7 inches; pale brown (10YR 6/3) sandy clay loam, brown (10YR 4/3) moist; massive; slightly hard, friable, nonsticky and nonplastic; common very fine, fine, and medium roots; noneffervescent; slightly alkaline (pH 7.6); clear smooth boundary. (4 to 10 inches thick)

**C** - 7 to 18 inches; light brownish gray (10YR 6/2) sandy clay, dark grayish brown (10YR 4/2) moist; massive; slightly hard, friable, sticky and nonplastic; few fine and very fine roots; noneffervescent, slightly alkaline (pH 7.7); clear smooth boundary.

**Ck1** - 18 to 24 inches; light brownish gray (10YR 6/2) clay loam, dark grayish brown (10YR 4/2) moist; massive; slightly hard, friable, sticky and nonplastic; few fine and very fine roots; violently effervescent, calcium carbonate disseminated; moderately alkaline (pH 7.9); clear smooth boundary.

**Ck2** - 24 to 36 inches; light reddish brown (2.5YR 7/3) clay, reddish brown (2.5YR 5/3) moist; massive; slightly hard, friable, sticky and nonplastic; few fine and very fine roots; strongly effervescent, calcium carbonate disseminated; moderately alkaline (pH 8.0); clear smooth boundary.

**Cr** - 36 inches; light gray, soft, moderately calcareous shale.



Type Location - Weston County, Wyoming; refer to waypoint 154 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to soft, gray, calcareous sandstone or sandy shale ranges from 20 to 40 inches but is typically less than 32 inches. The soil lacks a cambic horizon, but structural Bw horizons are present in about half the pedons observed. The soil is typically calcareous throughout but may be leached up to 5 inches. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F and is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 51 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days. The particle size control section averages between 18 and 35 percent clay and is loam, clay loam, or sandy clay loam with more than 15 but less than 35 percent fine or coarser sand. The soil has up to 10 percent rock fragments throughout.

The A horizon has hue of 10YR or 2.5Y, value of 3 to 6 dry, 3 to 5 moist, and chroma of 2 to 4. It is loam, clay loam or fine sandy loam. Reaction ranges from neutral to moderately alkaline. EC is 0 to 2 mmhos/cm.

The B<sub>ck</sub> (or AC and B<sub>w</sub>, when present) has hue of 10YR or 2.5Y, value of 5 or 6 dry, 3 to 5 moist, and chroma of 2 to 4. Texture is loam, clay loam or sandy clay loam. Reaction is slightly alkaline to strongly alkaline. EC is 0 to 4 mmhos/cm.

The C horizon has hue of 10YR or 2.5Y, value of 5 to 7 dry, 4 to 7 moist, and chroma of 2 to 5. Texture is loam, clay loam or sandy clay loam. Reaction is slightly alkaline to strongly alkaline. EC is less than 8 mmhos/cm. Carbonates usually average between 5 and 14 percent with slight segregation in some pedons.

Range in Characteristics (according to field observations, lab analysis): The calcic horizons towards the bottom of the profile are not typical. The textures are finer than typical of this series.

Taxonomic Class - Fine-loamy, mixed, superactive, calcareous, mesic Ustic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) - Marginal texture (clay) was found from 24-36 inches. Estimated stripping depth is 12 inches.

Geographic Setting (According to Official Series Description) - Theedle soils are on rock-controlled fan aprons, fan pediments, and undulating to rolling uplands. They may occupy all components of the hillslope profile but typically are on the lower shoulder, footslope, and toeslope. Slopes range from 0 to 75 percent. The soils formed in medium

textured slope alluvium and residuum derived primarily from interbedded sandstone and shale. Elevation is 3,500 to 6,500 feet. The average annual precipitation is 12 inches with over half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. Precipitation ranges from 10 to 14 inches. The mean annual air temperature ranges from 45 to 51 degrees F. The frost-free season is 105 to 130 days.

HILAND  
SANDY CLAY LOAM

Soil Mapping Unit "Hi"  
Lab Sample ID: C08100869-048\_053  
BKS Sample ID: #155

Typical Pedon: Hiland sandy clay loam-on northeast facing slope of 3 percent; utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Hiland series consists of very deep, well drained soils formed in alluvium or eolian deposits on relict surfaces consisting of terraces, fans, fan remnants pediments, ridges, hills and stabilized dunes. Permeability is moderate. Slopes range from 0 to 20 percent. The average annual precipitation is about 12 inches, and the mean annual air temperature is about 45 degrees F.

**A** - 0 to 2 inches; grayish brown (10YR 5/2) sandy clay loam, dark grayish brown (10YR 4/2) moist; weak medium granular structure parting to weak fine granular; slightly hard, friable, nonsticky and nonplastic; many very fine and common fine roots; noneffervescent; slightly alkaline (pH 7.8); abrupt smooth boundary. (two to 5 inches thick)

**Bt1** - 2 to 11 inches; yellowish brown (10YR 5/4) sandy clay loam, dark yellowish brown (10YR 4/4) moist; strong medium prismatic structure parting to strong fine and medium angular blocky; hard, friable, moderately sticky and moderately plastic; many very fine roots in a mat at the top of the horizon and common very fine roots between peds; many fine pores; many prominent continuous dark brown (7.5YR 3/3) clay films on faces of peds; noneffervescent; slightly alkaline (pH 7.8); clear wavy boundary.

**Bt2** - 11 to 19 inches; light yellowish brown (10YR 6/4) sandy clay loam to sandy clay, yellowish brown (10YR 5/4) moist; strong medium prismatic structure parting to moderate medium subangular blocky; hard, firm, moderately sticky and moderately plastic; common very fine roots between peds; many fine pores; common prominent continuous dark brown (10YR 3/3) clay films on faces of peds and occur as fillings in root channels and pipes; noneffervescent; neutral (pH 7.3); gradual wavy boundary.

**Bck** - 19 to 26 inches; light brownish gray (10YR 6/2) sandy clay loam, grayish brown (10YR 5/2) moist; weak coarse prismatic structure parting to moderate medium and coarse subangular blocky; slightly hard, very friable, nonsticky and nonplastic; common very fine roots; many fine pores; few fine and medium rounded light gray (10YR 7/2) masses of carbonate throughout; violently effervescent; moderately alkaline (pH 8.0); gradual smooth boundary.

**Ck** - 26 to 37 inches; light brownish gray (10YR 6/2) sandy clay loam, grayish brown (10YR 5/2) moist; weak coarse prismatic structure parting to moderate medium and coarse subangular blocky; slightly hard, very friable, nonsticky and nonplastic; common very fine roots; many fine pores; strongly effervescent; moderately alkaline (pH 8.2); gradual smooth boundary.

**C1** - 37 to 48 inches; light yellowish brown (10YR 6/4) sandy clay loam, yellowish brown (10YR 5/4) moist; weak coarse prismatic structure parting to moderate medium and coarse subangular blocky; slightly hard, very friable, nonsticky and nonplastic; common very fine roots; many fine pores; moderately effervescent; strongly alkaline (pH 8.7); gradual smooth boundary.

**C2** - 48 to 60 inches; light yellowish brown (2.5Y 6/4) coarse sandy clay loam, yellowish brown (2.5Y 5/4) moist; weak coarse prismatic structure parting to moderate medium and coarse subangular blocky; slightly hard, very friable, nonsticky and nonplastic; common very fine roots; many fine pores; slightly effervescent; moderately alkaline (pH 8.1); gradual smooth boundary.

Type Location - Converse County, Wyoming; refer to waypoint 155 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Gravel ranges from 0 to 15 percent in the solum and from 0 to 30 percent in the 2C or Bk horizons. The base of the Bt or Btk ranges from 15 to 35 inches. Depth to continuous carbonate accumulation ranges from 14 to 32 inches. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F and is never moist in all parts for as long as 60 consecutive days when the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, but is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 52 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days. EC ranges from 0 to 2 mmhos from the surface to the base of the Bt and from 1 to 4 mmhos below the base of the Bt. Bedrock is deeper than 60 inches.

The A horizon has hue of 10YR, value of 4 to 6 dry and 3 to 5 moist, and chroma of 2 to 4. It is sandy loam, fine sandy loam, very fine sandy loam, sandy clay loam or loamy sand. Vesicular crust occurs on some pedons. This horizon is neutral to moderately alkaline.

The E horizon has hue of 10YR, value of 4 to 6 and 3 to 5 moist, and chroma of 2 to 4. It is fine sandy loam, very fine sandy loam, sandy loam, sandy clay loam or loamy sand. It is neutral or slightly alkaline.

The Bt horizon has hue of 2.5Y to 7.5YR, value of 4 to 6 dry and 3 to 5 moist, and chroma of 2 to 4. It has a weighted clay content of 20 to 35 percent and is sandy clay loam; however, parts of this horizon may be sandy loam. This horizon is typically noncalcareous. Reaction is neutral to moderately alkaline.

If a Btk horizon is present, it has the same ranges as defined for the Bt except that it is replugged with carbonate and reaction ranges from moderately to strongly alkaline.

The Bk horizon has hue of 2.5Y or 10YR, value of 5 to 7 dry and 4 to 7 moist, and chroma of 2 to 4. It is sandy loam, loamy sand, fine sandy loam or sandy clay loam; or, when other textures occur, the horizon average must be sandy loam, loamy sand or fine sandy loam. It is not a calcic horizon. It does not have 5 percent more calcium carbonate equivalent than the underlying horizon or has less than 5 percent secondary carbonates. It is moderately or strongly alkaline. Exchangeable sodium is less than 15 percent even though field tests indicate strongly alkaline reactions.

Some pedons have a 2Bk, 2C or C horizon. The 2C and 2Bk horizons may contain more rock fragments. Contrasting textures of sand may occur below 40 inches. It is calcareous but typically has less than 5 percent calcium carbonate equivalent.

Range in Characteristics (according to field observations, lab analysis): This profile does not have an E horizon, but has 2 C horizons at the bottom, which is not typical for this series.

Taxonomic Class - Fine-loamy, mixed, superactive, mesic Ustic Haplargids

Suitability for Topsoil (According to WDEQ Guideline 1) – Marginal pH (alkaline) was found from 37-48 inches. Estimated stripping depth is 19 inches.

Geographic Setting (According to Official Series Description) - Hiland soils are on relict surfaces consisting of terraces, fan remnants, pediments, fans, ridges, hills and stabilized dunes. Slopes are 0 to 20 percent. They formed in moderately coarse alluvium and eolian material derived predominantly from sandstone. Elevations are 3,500 to 6,300 feet. The average annual precipitation is about 12 inches with over half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. Precipitation ranges from 10 to 14 inches. The mean annual air temperature is 43 to 51 degrees F. The frost-free season is 105 to 130 days.

ULM  
SANDY CLAY LOAM

Soil Mapping Unit "UI"  
Lab Sample ID: C08100869-054\_058  
BKS Sample ID: #156

Typical Pedon: Ulm sandy clay loam-rangeland. (Colors are for dry soil unless otherwise stated.)

The Ulm series consists of very deep, well drained soils that formed in calcareous alluvium derived from sedimentary rock. Ulm soils are on relict terraces, alluvial fans, fan remnants, plateaus, ridges and hills. Slopes are 0 to 18 percent. The mean annual precipitation is about 12 inches, and the mean air annual temperature is about 47 degrees F.

**A** - 0 to 3 inches; grayish brown (10YR 5/2) sandy clay loam, dark grayish brown (10YR 4/2) moist; strong fine granular structure; slightly hard, friable, sticky and plastic; many fine and few medium roots; noneffervescent; neutral (pH 6.6); clear smooth boundary. (two to 5 inches thick)

**Bt1** - 3 to 12 inches; brown (10YR 5/3) sandy clay loam, brown (10YR 4/3) moist; strong coarse prismatic structure parting to strong medium and coarse angular blocky; very hard, very firm, very sticky and very plastic; common fine and few medium roots; many prominent clay films on faces of peds; noneffervescent; neutral (pH 6.6); clear wavy boundary. (6 to 23 inches thick)

**Bt2** - 12 to 29 inches; brown (10YR 5/3) clay, brown (10YR 4/3) moist; strong coarse prismatic structure parting to strong medium and coarse angular blocky; very hard, very firm, very sticky and very plastic; common fine and few medium roots; many prominent clay films on faces of peds; moderately effervescent; slightly alkaline (pH 7.7); clear wavy boundary. (6 to 23 inches thick)

**Bn** - 29 to 37 inches; pale brown (10YR 6/3) clay, brown (10YR 4/3) moist; moderate medium subangular blocky structure; hard, firm, sticky and plastic; few fine and medium roots; slightly effervescent; sodium as scattered distinct masses, seams and streaks; slightly alkaline (pH 7.8); clear wavy boundary.

**Cn** - 37 to 53 inches; pale brown (10YR 6/3) clay, brown (10YR 5/3) moist; massive; hard, firm, sticky and plastic; sodium as scattered distinct masses, seams and streaks; noneffervescent; slightly alkaline (pH 7.6).

**Ck** - 53 to 60 inches; pale brown (10YR 6/3) clay loam, brown (10YR 5/3) moist; massive; hard, firm, sticky and plastic; calcium carbonate as common distinct masses, seams and streaks; 5 percent partially weathered shale and sandstone channers; strongly effervescent; slightly alkaline (pH 7.7).

Type Location - Campbell County, Wyoming; refer to waypoint 156 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to calcareous material ranges from 12 to 33 inches. Rock fragments range from 0 to 15 percent channers. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, and is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 53 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days.

The A horizon has hue of 2.5Y or 10YR, value of 5 to 7 dry and 3 to 5 moist, and chroma of 1 to 4. Texture is loam or clay loam. It usually has granular structure but has subangular blocky structure in some pedons. This horizon is soft or slightly hard. Reaction is neutral or slightly alkaline.

The Bt horizon has hue of 2.5Y or 10YR, value of 5 or 6 dry and 3 to 5 moist, and chroma of 2 to 4. Where colors are dark enough to be mollic the values are derived from parent material weathered from dark colored shales. Texture is usually clay loam, silty clay loam, silty clay or clay with clay ranging from 35 to 50 percent, silt from 10 to 40 percent, and sand from 15 to 50 percent with more than 15 percent fine sand or coarser. This horizon usually has prismatic structure but has angular or subangular blocky structure in some pedons. Reaction is neutral to moderately alkaline.

The Btk horizon has hue of 5Y, 2.5Y or 10YR, value of 5 to 7 dry and 4 to 6 moist, and chroma of 2 to 4. Texture is clay, clay loam, silty clay or silty clay loam. Reaction is slightly alkaline or moderately alkaline. The calcium carbonate equivalent ranges from 6 to 12 percent.

The Bk horizon has hue of 5Y, 2.5Y or 10YR, value of 5 to 7 dry and 4 to 6 moist, and chroma of 2 to 4. Texture is clay loam, silty clay loam, silty clay, sandy clay loam, loam or clay. It has 6 to 15 percent calcium carbonate equivalent. Reaction is moderately alkaline or strongly alkaline. Some areas have a sandy or gravelly substratum below 40 inches.

Some pedons have a C horizon.

Range in Characteristics (according to field observations, lab analysis): In this profile, the calcic horizon(s) is found only at the bottom of the profile, which is not typical. Also, natric horizons were found for this profile.

Taxonomic Class - Fine, smectitic, mesic Ustic Haplargids

Suitability for Topsoil (According to WDEQ Guideline 1) – Marginal texture (clay) was found from 12-53 inches. Marginal selenium levels were found from 29-37 inches. Estimated stripping depth is 29 inches.

Geographic Setting (According to Official Series Description) - Ulm soils are on relict alluvial terraces, alluvial fans, fan remnants, plateaus and footslopes and toeslopes of hills. Slopes are 0 to 18 percent. The soils formed in fine and medium textured alluvium derived from interbedded shales and argillaceous sandstone. Elevations are 3,500 to 6,500 feet. The mean annual precipitation is 10 to 14 inches with over half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. The mean annual air temperature ranges from 46 to 51 degrees F. The frost-free season is 105 to 130 days.



KISHONA  
CLAY

Soil Mapping Unit "Ki"  
Lab Sample ID: C08100869-059\_063  
BKS Sample ID: #158

Typical Pedon: Kishona clay-in rangeland. (Colors are for dry soil unless otherwise stated.)

The Kishona series consists of very deep, well drained soils formed in alluvium on fan aprons, alluvial fans, fan remnants, hills, ridges and terraces. Permeability is moderate. Slopes range from 0 to 30 percent. The average annual precipitation is about 12 inches, and the mean annual temperature is about 46 degrees F.

**A** - 0 to 2 inches; brown (10YR 5/3) clay, dark brown (10YR 3/3) moist; moderate medium and fine granular structure; soft, very friable, slightly sticky and nonplastic; common fine roots throughout; noneffervescent; neutral (pH 7.1); clear smooth boundary. (one- to six-inches thick)

**Bw** - 2 to 12 inches; very pale brown (10YR 7/3) clay, brown (10YR 5/3) moist; weak medium and coarse angular structure; hard, friable, slightly sticky and slightly plastic; few fine and very fine roots throughout; noneffervescent; neutral (pH 7.1); gradual smooth boundary. (0 to 30 inches thick)

**BC** - 12 to 25 inches; very pale brown (10YR 7/3) clay loam, brown (10YR 5/3) moist; weak, medium and coarse angular structure; hard, friable, slightly sticky and slightly plastic; few fine and very fine roots throughout; slightly effervescent; slightly alkaline (pH 7.6); gradual smooth boundary.

**C1** - 25 to 33 inches; pale brown (10YR 6/3) sandy loam to sandy clay loam, brown (10YR 5/3) moist; massive; slightly hard, friable, slight sticky and nonplastic; few very fine roots throughout; noneffervescent; moderately alkaline (pH 7.9).

**C2** - 33 to 48 inches; pale brown (10YR 6/3) sandy clay loam, brown (10YR 5/3) moist; massive; slightly hard, friable, slight sticky and nonplastic; few very fine roots throughout; moderately effervescent; moderately alkaline (pH 8.0).

**C3** - 48 to 58 inches; pale brown (10YR 6/3) loamy sand, brown (10YR 5/3) moist; massive; slightly hard, friable, slight sticky and nonplastic; few very fine roots throughout; noneffervescent; moderately alkaline (pH 8.1).

**Cr** - 58 inches; moderately calcareous tan and gray sandstone

Type Location - Niobrara County, Wyoming; refer to waypoint 158 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Rock fragments ranges from 0 to 15 percent. The mean annual soil temperature ranges from 48 to 53 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 190 to 202 days. The depth to carbonates ranges from 0 to 10 inches. Saline phases are recognized. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F and is never moist in some or all parts for as long as 90 consecutive days when the soil temperature at a depth of 20 inches is 48 degrees F or more. This soil is moist for 60 consecutive days when the soil temperature at a depth of 20 inches is 41 degrees F, which occurs April 21-27, but is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during that period.

The A horizon has hue of 2.5Y or 10YR, value of 4 to 6 dry, 3 to 5 moist, and chroma of 2 to 4. It is very fine sandy loam, fine sandy loam, loam, silt loam, silty clay loam or clay loam. It is neutral to moderately alkaline.

Some pedons have a thin, noncalcareous Bw horizon that has its base at a depth of less than 10 inches.

The Bk and C horizons have hue of 5Y, 2.5Y or 10YR, value of 5 to 7 dry, 4 or 5 moist, and chroma of 2 to 4. They are loam, clay loam or silty clay loam and have 20 to 35 percent clay, 20 to 55 percent silt, and 15 to 35 percent fine sand or coarser. Reaction ranges from moderately alkaline to very strongly alkaline. Carbonates in the Bk horizon range from 3 to 14 percent and occur as accumulations in small masses, streaks or seams that decrease with increasing depth, or they are disseminated throughout. The Bk horizon has an EC of 0 to 8 mmhos/cm.

Range in Characteristics (according to field observations, lab analysis): This profile has a BC horizon instead of a calcic horizon. The top of the profile is finer than typical, and the bottom is sandier than typical.

Taxonomic Class - Fine-loamy, mixed, superactive, calcareous, mesic Ustic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) - Marginal texture (clay) was found from 0-12 inches. Estimated stripping depth is 48 inches.

Geographic Setting (According to Official Series Description) - Kishona soils are on dissected alluvial fans, fan remnants, fan aprons, hills, ridges and terraces. Slopes are typically 0 to 6 percent but range up to 30 percent on dissected slopes. The soils formed

in alluvium derived from sandstones and shales. Elevation is 3,500 to 6,700 feet. The average annual precipitation ranges from 10 to 14 inches with over one-half falling in April, May and June and less than one inch falling in each month of July, August, September, and October. The mean annual air temperature is about 45 degrees F but ranges from 43 to 51 degrees F. The frost-free season is about 105 to 130 days.

ZIGWEID  
CLAY

Soil Mapping Unit "Zi"  
Lab Sample ID: C08100869-064\_067  
BKS Sample ID: #159

Typical Pedon: Zigweid clay-on a 3 percent southwest facing slope; utilized as rangeland.  
(Colors are for dry soil unless otherwise stated.)

The Zigweid series consists of very deep, well drained soils formed in alluvium from mixed sedimentary sources on fan aprons, alluvial fans, fan piedmonts, fan remnants, terraces, ridges and hills. Slopes range from 0 to 20 percent. Permeability is moderate. The mean annual precipitation is about 13 inches, and the mean annual air temperature is about 46 degrees F.

**A** - 0 to 3 inches; light brownish gray (10YR 6/2) clay, dark grayish brown (10YR 4/2) moist; moderate fine and medium granular structure; slight hard, friable, nonsticky and nonplastic; many very fine and fine roots throughout; noneffervescent; slightly alkaline (pH 7.4); clear smooth boundary.

**Bw** - 3 to 14 inches; brown (10YR 5/3) clay, brown (10YR 4/3) moist; moderate medium prismatic structure parting to moderate fine and medium subangular blocky; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine roots throughout and few medium throughout; noneffervescent; slightly alkaline (pH 7.4); gradual wavy boundary. (6 to 14 inches thick)

**Bk** - 14 to 28 inches; brown (10YR 5/3) clay, brown (10YR 4/3) moist; moderate medium prismatic structure parting to moderate fine and medium subangular blocky; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine roots throughout; common fine irregular light gray (10YR 7/2) carbonate threads throughout; moderately effervescent; moderately alkaline (pH 7.9); gradual wavy boundary.

**Ck** - 28 to 37 inches; pale brown (10YR 6/3) clay loam, brown (10YR 4/3) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots throughout; common fine irregular light gray (10YR 7/2) carbonate threads throughout; moderately effervescent; moderately alkaline (pH 8.1).

**C** - 37 to 60 inches; pale brown (10YR 6/3) sandy clay loam, brown (10YR 4/3) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots throughout; moderately effervescent; moderately alkaline (pH 8.1).

Type Location - Campbell County, Wyoming; refer to waypoint 159 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to carbonates ranges from 0 to 8 inches. Depth to the Bk horizon and the base of the cambic horizon ranges from 10 to 22 inches. The particle-size control section and soil profile are clay loam or loam. Clay ranges from 18 to 35 percent, silt from 20 to 55 percent, and sand from 15 to 50 percent with more than 15 percent but less than 35 percent fine sand or coarser. Rock fragments range from 0 to 15 but are typically less than 5 percent and are mostly soft shale chips. The moisture control section is usually dry in all parts for 90 cumulative days following the summer solstice and for 60 consecutive days during this period. The mean annual soil temperature is 47 to 53 degrees F. The soil temperature at a depth of 20 inches is 41 degrees F or warmer for 175 to 192 days.

The A horizon has hue of 5Y, 2.5Y or 10YR, value of 4 to 6 dry, 3 to 5 moist, and chroma of 2 or 3. It is loam or clay loam. Reaction is neutral to moderately alkaline.

The Bw horizon has hue of 5Y, 2.5Y or 10YR, value of 5 or 6 dry, 4 or 5 moist, and chroma of 2 to 4. It is loam or clay loam. Reaction is slightly alkaline or moderately alkaline.

The Bk horizon has hue of 5Y, 2.5Y or 10YR, value of 5 to 7 dry, 4 to 6 moist, and chroma of 2 to 4. It is loam or clay loam. It has 5 to 14 percent calcium carbonate equivalent and may have a few scattered crystals of calcium sulfate. Reaction is moderately alkaline or strongly alkaline.

Some pedons have a C horizon with similar properties as the Bk horizon. Some pedons may have sandy clay loam textures below 40 inches. It typically has 3 to 5 percent less calcium carbonate than the overlying Bk horizon.

Range in Characteristics (according to field observations, lab analysis): The upper two feet of the profile have a finer texture than typical.

Taxonomic Class - Fine-loamy, mixed, superactive, mesic Ustic Haplocambids

Suitability for Topsoil (According to WDEQ Guideline 1) - Marginal texture (clay) was found from 0-28 inches. Estimated stripping depth is 60 inches.

Geographic Setting (According to Official Series Description) - These soils are on fan aprons, alluvial fans, terraces, fan piedmonts, fan remnants, ridges and hills. In many areas they are dissected. Slopes range from 0 to 20 percent. These soils formed in calcareous, moderately fine textured sediments derived from interbedded shale and soft

sandstone. Elevations are 3,500 to 6,600 feet. The mean annual precipitation is 13 inches with over half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. Precipitation ranges from 10 to 14 inches. The mean annual temperature is about 46 degrees F, and ranges from 43 to 51 degrees F. The frost-free season is about 105 to 130 days.

FORKWOOD  
CLAY LOAM

Soil Mapping Unit "Fo"

Lab Sample ID: C08100869-068\_072

BKS Sample ID: #160

Typical Pedon: Forkwood clay loam-utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Forkwood series consists of very deep, well drained soils formed in alluvium. Forkwood soils are on terraces, alluvial fans, fan remnants, hills, ridges and pediments. Slopes range from 0 to 15 percent. The mean annual precipitation is about 11 inches, and the mean annual air temperature is about 45 degrees F.

**A** - 0 to 2 inches; brown (10YR 5/3) clay loam, dark grayish brown (10YR 4/2) moist; weak fine granular structure; soft, very friable, slightly sticky and slightly plastic; many fine and medium roots throughout; noneffervescent; slightly alkaline (pH 7.5); abrupt smooth boundary. (one to six-inches thick)

**Bt1** - 2 to 13 inches; brown (10YR 5/3) clay loam, brown (10YR 4/3) moist; strong medium angular blocky structure; slightly hard, friable, moderately sticky and moderately plastic; common fine and medium roots throughout; common distinct clay films on faces of peds; noneffervescent; slightly alkaline (pH 7.5); clear smooth boundary. (6 to 20 inches thick)

**Bt2** - 13 to 21 inches; brown (10YR 5/3) clay to clay loam, brown (10YR 4/3) moist; strong medium angular blocky structure; slightly hard, friable, moderately sticky and moderately plastic; common fine and medium roots throughout; common distinct clay films on faces of peds; moderately effervescent; moderately alkaline (pH 8.1); clear smooth boundary. (6 to 20 inches thick)

**Bt3** - 21 to 33 inches; light brownish gray (2.5Y 6/2) clay loam, dark grayish brown (2.5Y 4/2) moist; strong medium angular blocky structure; hard, firm, moderately sticky and moderately plastic; few fine and medium roots throughout; few faint clay films on faces of peds; few masses of carbonates; moderately effervescent; moderately alkaline (pH 8.1); clear smooth boundary. (3 to 12 inches thick)

**Ck1** - 33 to 55 inches; light brownish gray (2.5Y 6/2) gravelly clay, grayish brown (2.5Y 5/2) moist; massive; soft, very friable, slightly sticky and slightly plastic; few fine roots throughout; few masses of carbonates throughout; slightly effervescent; moderately alkaline (pH 8.1). (0 to 40 inches thick)

**Ck2** - 55 to 60 inches; light brownish gray (2.5Y 6/2) clay to clay loam, grayish brown (2.5Y 5/2) moist; massive; soft, very friable, slightly sticky and slightly plastic; few fine roots throughout; few masses of carbonates throughout; slightly effervescent; moderately alkaline (pH 8.1). (0 to 40 inches thick)

Type Location - Niobrara County, Wyoming; refer to waypoint 160 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to the base of the argillic horizon is 10 to 33 inches, and depth to continuous horizons of carbonate accumulation is 10 to 33 inches. Rock fragments range from 0 to 15 percent. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, and is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature ranges from 47 to 53 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days. EC ranges from 0 to 4 mmhos/cm throughout the profile. Bedrock is deeper than 60 inches.

The A horizon has hue of 2.5Y or 10YR, value of 4 to 6 dry and 3 to 5 moist, and chroma of 2 to 4. A vesicular crust occurs on some pedons. Texture is very fine sandy loam, loam, clay loam or fine sandy loam. Reaction is neutral through moderately alkaline.

The Bt horizon has hue of 2.5Y, 10YR or 7.5YR, value of 4 to 7 dry and 3 to 5 moist, and chroma of 2 to 4. Texture is loam or clay loam with 18 to 35 percent clay and more than 15 but less than 35 percent fine sand or coarser. Reaction is neutral through moderately alkaline.

The Btk horizon has hue of 2.5Y or 10YR, value of 4 to 7 dry and 3 to 5 moist, and chroma of 2 to 4. Texture is loam or clay loam. It is slightly alkaline or moderately alkaline. It has 3 to 12 percent calcium carbonate equivalent.

The Bk horizon has hue of 5Y, 2.5Y or 10YR, value of 5 to 7 dry and 4 to 6 moist, and chroma of 2 to 4. Texture is loam, fine sandy loam, very fine sandy loam or clay loam. This horizon has 1 to 14 percent authigenic calcium carbonate accumulation. It is moderately alkaline or strongly alkaline.

The C horizon, when present, has hue of 5Y to 10YR, value of 5 to 7 dry, 4 to 6 moist, and chroma of 2 to 4. Carbonates range from 1 to 8 percent and are mostly allogenic. ESP ranges from 4 to 12. Reaction is moderately or strongly alkaline.



Range in Characteristics (according to field observations, lab analysis): The calcic horizons are found as C horizons rather than B or BC horizons. Textures are somewhat finer than typical throughout this profile.

Taxonomic Class - Fine-loamy, mixed, superactive, mesic Ustic Haplargids

Suitability for Topsoil (According to WDEQ Guideline 1) – Marginal texture (clay) was found from 13-21 inches and 33-60 inches. Estimated stripping depth is 33 inches.

Geographic Setting (According to Official Series Description) - Forkwood soils are on terraces, alluvial fans, fan remnants, hills, ridges and pediments. Slopes are 0 to 15 percent. The soils formed in slopewash alluvium derived from interbedded shales and argillaceous sandstone. Elevations are 3,500 to 6,000 feet. The average annual precipitation is 10 to 14 inches with over half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. The mean annual air temperature ranges from 43 to 51 degrees F. The estimated frost-free season is about 105 to 130 days depending upon elevation, aspect, and air drainage.

FORKWOOD  
CLAY LOAM

Soil Mapping Unit "Fo"

Lab Sample ID: C08100869-073\_076

BKS Sample ID: #161

Typical Pedon: Forkwood clay loam-utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Forkwood series consists of very deep, well drained soils formed in alluvium. Forkwood soils are on terraces, alluvial fans, fan remnants, hills, ridges and pediments. Slopes range from 0 to 15 percent. The mean annual precipitation is about 11 inches, and the mean annual air temperature is about 45 degrees F.

**A** - 0 to 2 inches; brown (10YR 5/3) clay loam, dark grayish brown (10YR 4/2) moist; weak fine granular structure; soft, very friable, slightly sticky and slightly plastic; many fine and medium roots throughout; noneffervescent; slightly alkaline (pH 7.7); abrupt smooth boundary. (one to six-inches thick)

**Bt** - 2 to 12 inches; brown (10YR 5/3) clay loam, brown (10YR 4/3) moist; strong medium angular blocky structure; slightly hard, friable, moderately sticky and moderately plastic; common fine and medium roots throughout; common distinct clay films on faces of peds; noneffervescent; slightly alkaline; (pH 7.7) clear smooth boundary. (6 to 20 inches thick)

**Btk** - 12 to 28 inches; light brownish gray (2.5Y 6/2) clay, dark grayish brown (2.5Y 4/2) moist; strong medium angular blocky structure; hard, firm, moderately sticky and moderately plastic; few fine and medium roots throughout; few faint clay films on faces of peds; few masses of carbonates; strongly effervescent; slightly alkaline (pH 7.4); clear smooth boundary. (3 to 16 inches thick)

**Bn** - 28 to 46 inches; light brownish gray (2.5Y 6/2) clay, light olive brown (2.5Y 5/4) moist; moderate medium subangular blocky structure parting to weak fine subangular blocky; slightly hard, friable, slightly sticky and slightly plastic; few fine roots throughout; many coarse threads and masses of sodium throughout; moderately effervescent; slightly alkaline (pH 7.6); gradual wavy boundary. (9 to 45 inches thick)

**BCK** - 46 to 51 inches; light brownish gray (2.5Y 6/2) sandy clay loam, grayish brown (2.5Y 5/2) moist; massive; soft, very friable, slightly sticky and slightly plastic; few fine roots throughout; violently effervescent; slightly alkaline (pH 7.6). (0 to 40 inches thick)

**Ck** - 51 to 60 inches; light brownish gray (2.5Y 6/2) sandy clay loam, grayish brown (2.5Y 5/2) moist; massive; soft, very friable, slightly sticky and slightly plastic; few fine roots throughout; strongly effervescent; slightly alkaline (pH 7.6). (0 to 40 inches thick)

Type Location - Niobrara County, Wyoming; refer to waypoint 161 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to the base of the argillic horizon is 10 to 33 inches, and depth to continuous horizons of carbonate accumulation is 10 to 33 inches. Rock fragments range from 0 to 15 percent. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, and is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature ranges from 47 to 53 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days. EC ranges from 0 to 4 mmhos/cm throughout the profile. Bedrock is deeper than 60 inches.

The A horizon has hue of 2.5Y or 10YR, value of 4 to 6 dry and 3 to 5 moist, and chroma of 2 to 4. A vesicular crust occurs on some pedons. Texture is very fine sandy loam, loam, clay loam or fine sandy loam. Reaction is neutral through moderately alkaline.

The Bt horizon has hue of 2.5Y, 10YR or 7.5YR, value of 4 to 7 dry and 3 to 5 moist, and chroma of 2 to 4. Texture is loam or clay loam with 18 to 35 percent clay and more than 15 but less than 35 percent fine sand or coarser. Reaction is neutral through moderately alkaline.

The Btk horizon has hue of 2.5Y or 10YR, value of 4 to 7 dry and 3 to 5 moist, and chroma of 2 to 4. Texture is loam or clay loam. It is slightly alkaline or moderately alkaline. It has 3 to 12 percent calcium carbonate equivalent.

The Bk horizon has hue of 5Y, 2.5Y or 10YR, value of 5 to 7 dry and 4 to 6 moist, and chroma of 2 to 4. Texture is loam, fine sandy loam, very fine sandy loam or clay loam. This horizon has 1 to 14 percent authigenic calcium carbonate accumulation. It is moderately alkaline or strongly alkaline.

The C horizon, when present, has hue of 5Y to 10YR, value of 5 to 7 dry, 4 to 6 moist, and chroma of 2 to 4. Carbonates range from 1 to 8 percent and are mostly allogenic. ESP ranges from 4 to 12. Reaction is moderately or strongly alkaline.

Range in Characteristics (according to field observations, lab analysis): The typical calcic horizon is replaced by a natric horizon in this profile. The textures from 12-46 inches are finer than what is typical for this series.

Taxonomic Class - Fine-loamy, mixed, superactive, mesic Ustic Haplargids

Suitability for Topsoil (According to WDEQ Guideline 1) – Marginal texture (clay) was found from 12-46 inches. Estimated stripping depth is 12 inches.

Geographic Setting (According to Official Series Description) - Forkwood soils are on terraces, alluvial fans, fan remnants, hills, ridges and pediments. Slopes are 0 to 15 percent. The soils formed in slopewash alluvium derived from interbedded shales and argillaceous sandstone. Elevations are 3,500 to 6,000 feet. The average annual precipitation is 10 to 14 inches with over half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. The mean annual air temperature ranges from 43 to 51 degrees F. The estimated frost-free season is about 105 to 130 days depending upon elevation, aspect, and air drainage.

SHINGLE  
NONCALCAREOUS VARIANT

Soil Mapping Unit "ShNC"  
Lab Sample ID: C08100869\_077  
BKS Sample ID: #162

Typical Pedon: Shingle clay to clay loam-rangeland. (Colors are for dry soil unless otherwise stated.)

The Shingle series consists of well drained soils that are very shallow or shallow to bedrock. They formed in residuum and colluvium derived from interbedded shale and sandstone or in alluvium from mudstone. Shingle soils are on bedrock controlled hillslopes and ridges. Slopes are 0 to 80 percent. The mean annual precipitation is about 13 inches, and the mean annual temperature is 45 degrees F.

**A** - 0 to 5 inches; light brownish gray (10YR 6/2) clay to clay loam, dark grayish brown (10YR 4/2) moist; moderate very fine granular structure; soft, very friable, moderately sticky and moderately plastic; noneffervescent, neutral (pH 7.2); clear smooth boundary. (one to six- inches thick)

**C** - 5 to 12 inches; light yellowish brown (2.5Y 6/3) clay to clay loam, light olive brown (2.5Y 5/3) moist; massive; hard, variable, moderately sticky and moderately plastic; noneffervescent; neutral (pH 7.2); clear wavy boundary. (4 to 15 inches thick)

**Cr** - 12 inches; soft, slightly to moderately calcareous shale interbedded with lenses of soft sandstone.

Type Location - Goshen County, Wyoming; refer to waypoint 162 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to soft bedrock and paralithic contact ranges from 4 to 20 inches. The mean annual soil temperature is 47 to 53 degrees F. The soils commonly are calcareous throughout, but some pedons are leached to 6 inches. The particle size control section averages 20 to 35 percent clay and has more than 15 percent but less than 35 percent fine or coarser sand. The soil is usually dry. The moisture control section is usually moist in April, May and early June. It is dry for 60 consecutive days or more during the 90 day period following the summer solstice. EC is 0 to 2 mmhos throughout.

The A horizon has hue of 5Y through 7.5YR, value of 5 through 7 dry, 3 through 6 moist, and chroma of 1 through 6. Reaction is neutral through strongly alkaline. Some pedons have a light gravel lag on the surface. Texture is loam, silt loam, clay loam, silty clay

loam, cobbly loam, and gravelly clay loam. Rock fragments or shale channers range from 0 to 35 percent.

A Bw or AC horizon, when present, has the combined properties of the A and C horizons.

The C horizon has hue of 5Y through 7.5YR, value of 4 through 7 dry, 3 through 6 moist, and chroma of 1 through 6. It is loam, silt loam, clay loam or silty clay loam. Rock fragments or shale channers range from 0 to 35 percent. Reaction is slightly alkaline through strongly alkaline.

Range in Characteristics (according to field observations, lab analysis): This profile is noncalcareous throughout. Textures are slightly finer than what is typical for this series.

Taxonomic Class - Loamy, mixed, superactive, calcareous, mesic, shallow Ustic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) – Marginal texture (clay) was found from 0-12 inches. Estimated stripping depth is 12 inches.

Geographic Setting (According to Official Series Description) - The Shingle soils occur on all hillslope positions. Slopes are 0 to 80 percent. These soils formed in colluvium and residuum weathered from soft, interbedded sandstone and shale or in alluvium from mudstone. Elevation is 3,200 to 6,500 feet. The mean annual precipitation is about 10 to 14 inches, most of which falls in April, May, and June. The mean annual temperature is about 45 degrees F but ranges from 43 to 51 degrees F. The frost-free season is about 105 to 130 days.

KISHONA  
CLAY LOAM

Soil Mapping Unit "Ki"  
Lab Sample ID: C08100869-078\_083  
BKS Sample ID: #163

Typical Pedon: Kishona clay to clay loam-in rangeland. (Colors are for dry soil unless otherwise stated.)

The Kishona series consists of very deep, well drained soils formed in alluvium on fan aprons, alluvial fans, fan remnants, hills, ridges and terraces. Permeability is moderate. Slopes range from 0 to 30 percent. The average annual precipitation is about 12 inches, and the mean annual temperature is about 46 degrees F.

**A** - 0 to 2 inches; brown (10YR 5/3) clay to clay loam, dark brown (10YR 3/3) moist; moderate medium and fine granular structure; soft, very friable, slightly sticky and nonplastic; common fine roots throughout; moderately effervescent; slightly alkaline (pH 7.4); clear smooth boundary. (one to six-inches thick)

**ABk** - 2 to 7 inches; brown (10YR 5/3) clay to clay loam, dark brown (10YR 3/3) moist; moderate medium and fine granular structure; soft, very friable, slightly sticky and nonplastic; common fine roots throughout; strongly effervescent; slightly alkaline (pH 7.4); clear smooth boundary. (one- to six-inches thick)

**Bk** - 7 to 20 inches; very pale brown (10YR 7/3) clay loam, brown (10YR 5/3) moist; weak medium and coarse angular structure; hard, friable, slightly sticky and slightly plastic; few fine and very fine roots throughout; common fine masses of carbonates; violently effervescent; slightly alkaline (pH 7.8); gradual smooth boundary. (0 to 30 inches thick)

**Bkn** - 20 to 29 inches; very pale brown (10YR 7/3) silt loam, brown (10YR 5/3) moist; weak medium and coarse angular structure; hard, friable, slightly sticky and slightly plastic; few fine and very fine roots throughout; many large masses of sodium; common fine masses of carbonates; strongly effervescent; moderately alkaline (pH 8.2); gradual smooth boundary. (0 to 30 inches thick)

**BCn** - 29 to 37 inches; very pale brown (10YR 7/3) clay loam, brown (10YR 5/3) moist; weak medium and coarse angular structure; hard, friable, slightly sticky and slightly plastic; few fine and very fine roots throughout; many large masses of sodium; slightly effervescent; moderately alkaline (pH 8.3); gradual smooth boundary. (0 to 30 inches thick)

**C1** - 37 to 50 inches; pale brown (10YR 6/3) clay loam, brown (10YR 5/3) moist; massive; slightly hard, friable, slight sticky and nonplastic; few very fine roots throughout; scattered moderate masses of sodium; slightly effervescent; moderately alkaline (pH 8.3).

**C2** - 50 to 60 inches; pale brown (10YR 6/3) clay loam, brown (10YR 5/3) moist; massive; slightly hard, friable, slight sticky and nonplastic; few very fine roots throughout; scattered moderate masses of sodium; slightly effervescent; moderately alkaline (pH 8.3).

Type Location - Niobrara County, Wyoming; refer to waypoint 163 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Rock fragments ranges from 0 to 15 percent. The mean annual soil temperature ranges from 48 to 53 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 190 to 202 days. The depth to carbonates ranges from 0 to 10 inches. Saline phases are recognized. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F and is never moist in some or all parts for as long as 90 consecutive days when the soil temperature at a depth of 20 inches is 48 degrees F or more. This soil is moist for 60 consecutive days when the soil temperature at a depth of 20 inches is 41 degrees F, which occurs April 21-27, but is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during that period.

The A horizon has hue of 2.5Y or 10YR, value of 4 to 6 dry, 3 to 5 moist, and chroma of 2 to 4. It is very fine sandy loam, fine sandy loam, loam, silt loam, silty clay loam or clay loam. It is neutral to moderately alkaline.

Some pedons have a thin, noncalcareous Bw horizon that has its base at a depth of less than 10 inches.

The Bk and C horizons have hue of 5Y, 2.5Y or 10YR, value of 5 to 7 dry, 4 or 5 moist, and chroma of 2 to 4. They are loam, clay loam or silty clay loam and have 20 to 35 percent clay, 20 to 55 percent silt, and 15 to 35 percent fine sand or coarser. Reaction ranges from moderately alkaline to very strongly alkaline. Carbonates in the Bk horizon range from 3 to 14 percent and occur as accumulations in small masses, streaks or seams that decrease with increasing depth, or they are disseminated throughout. The Bk horizon has an EC of 0 to 8 mmhos/cm.

Range in Characteristics (according to field observations, lab analysis): Multiple natric horizons were found, which is not typical of this series. The A horizon has a slightly finer texture than typical.



Taxonomic Class - Fine-loamy, mixed, superactive, calcareous, mesic Ustic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) -Marginal clay content was found from 0-7 inches. Marginal SAR levels were found from 20-37 inches and unsuitable SAR levels were found from 37-60 inches. Unsuitable EC levels were found from 29-60 inches. Estimated stripping depth is 29 inches.

Geographic Setting (According to Official Series Description) - Kishona soils are on dissected alluvial fans, fan remnants, fan aprons, hills, ridges and terraces. Slopes are typically 0 to 6 percent but range up to 30 percent on dissected slopes. The soils formed in alluvium derived from sandstones and shales. Elevation is 3,500 to 6,700 feet. The average annual precipitation ranges from 10 to 14 inches with over one-half falling in April, May and June and less than one inch falling in each month of July, August, September, and October. The mean annual air temperature is about 45 degrees F but ranges from 43 to 51 degrees F. The frost-free season is about 105 to 130 days.

TURNERCREST  
SANDY CLAY LOAM

Soil Mapping Unit "Tu"  
Lab Sample ID: C08100869-084\_086  
BKS Sample ID: #164

Typical Pedon: Turnercrest sandy clay loam-on a northeast facing hill footslope of 8 percent; utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Turnercrest soils consist of moderately deep, well drained soils formed in eolian or alluvium deposits and residuum derived from soft sandstone. They are on bedrock-controlled hills, fan remnants, ridges and structural benches. Slopes range from 0 to 30 percent. The average annual precipitation is about 12, and the mean annual air temperature is about 47 degrees F.

**A** - 0 to 3 inches; brown (10YR 5/3) sandy clay loam, very dark grayish brown (10YR 3/2) moist; weak fine granular structure; soft, very friable; many fine and very fine roots; noneffervescent; neutral (pH 7.3); clear smooth boundary. (two- to six-inches thick)

**Bw** - 3 to 10 inches; brown (10YR 5/3) sandy clay loam, brown (10YR 4/3) moist; weak medium and coarse subangular blocky structure; soft, friable; common fine and very fine roots; noneffervescent; neutral (pH 7.3); gradual smooth boundary. (zero- to eight-inches thick)

**Ck1** - 10 to 20 inches; brown (10YR 5/3) clay loam, brown (10YR 4/3) moist; weak medium and coarse subangular blocky structure; soft, friable; common fine and very fine roots; strongly effervescent; carbonates occurs in filaments and few masses; moderately alkaline (pH 7.9); gradual smooth boundary.

**Ck2** - 20 to 34 inches; light gray (10YR 7/2) gravelly clay loam, pale brown (10YR 6/3) moist; massive; slightly hard, very friable; few fine roots to 15 inches; strongly effervescent; carbonates disseminated and as few fine filaments; moderately alkaline (pH 8.0); clear wavy boundary.

**C** - 34 to 38 inches; light gray (10YR 7/2) gravelly clay loam, pale brown (10YR 6/3) moist; massive; slightly hard, very friable; few fine roots to 15 inches; slightly effervescent; moderately alkaline (pH 8.0); clear wavy boundary.

**Cr** - 38 inches; soft, light gray and very pale brown, noncalcareous sandstone.

Type Location - Weston County, Wyoming; refer to waypoint 164 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to soft, calcareous sandstone ranges from 20 to 40 inches. These soils are typically calcareous throughout but may be leached as much as to 6 inches in some pedons. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F or warmer and is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 53 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days. The particle-size control section is fine sandy loam or sandy loam with 7 to 18 percent clay and 52 to 80 percent sand with more than 15 percent being fine sand or coarser. EC is 0 to 2 mmhos throughout the soil. Rock fragments may be present but break down on pretreatment and do not have lithic properties.

The A horizon has hue of 10YR or 2.5Y, value of 4 to 6 and 3 to 5 moist, and chroma of 2 to 4. Textures are loamy sand, loamy fine sand, fine sandy loam or sandy loam. Reaction is neutral to moderately alkaline.

The Bw horizon, where present, has hue of 10YR or 2.5Y, value of 5 or 6 and 3 to 5 moist, and chroma of 2 or 3. Depth to the base of the Bw horizon is less than 10 inches. Texture is fine sandy loam or sandy loam. Reaction is slightly alkaline or moderately alkaline.

The Bk has hue of 10YR or 2.5Y, value of 5 to 7 and 3 to 6 moist, and chroma of 2 or 3. Texture is fine sandy loam, very fine sandy loam or sandy loam. Reaction is slightly or moderately alkaline.

The C horizon, when present, has hue of 10YR or 2.5Y, value of 5 to 7 and 4 to 6 moist, and chroma of 2 to 4. Texture is fine sandy loam, very fine sandy loam or sandy loam. Some pedons have thin layers of loamy fine sand. Reaction is slightly alkaline or moderately alkaline.

The Cr horizon has a paralithic contact to soft, calcareous sandstone. The sandstone has hue of 10YR or 2.5Y.

Range in Characteristics (according to field observations, lab analysis): Textures are much finer than those typical of this series.

Taxonomic Class - Coarse-loamy, mixed, superactive, calcareous, mesic Ustic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) – No marginal or unsuitable parameters were found for this profile. Estimated stripping depth is 38 inches.

Geographic Setting (According to Official Series Description) - Turnercrest soils are on hills, ridges, fan remnants and structural benches. They formed in eolian or alluvium deposits and sandy residuum. Slopes are 0 to 30 percent. Elevations are 3,200 to 6,500 feet. The average annual precipitation is 10 to 15 inches with over half falling as snow or rain in April, May, and June and less than one inch falling in each month of July, August, September, and October. The mean annual air temperature is 45 to 53 degrees F. The frost-free season is 105 to 130 days.

KISHONA  
CLAY LOAM

Soil Mapping Unit "Ki"  
Lab Sample ID: C08100869-087\_091  
BKS Sample ID: #165

Typical Pedon: Kishona sandy clay loam-in rangeland. (Colors are for dry soil unless otherwise stated.)

The Kishona series consists of very deep, well drained soils formed in alluvium on fan aprons, alluvial fans, fan remnants, hills, ridges and terraces. Permeability is moderate. Slopes range from 0 to 30 percent. The average annual precipitation is about 12 inches, and the mean annual temperature is about 46 degrees F.

**A** - 0 to 2 inches; brown (10YR 5/3) clay loam, dark brown (10YR 3/3) moist; moderate medium and fine granular structure; soft, very friable, slightly sticky and nonplastic; common fine roots throughout; strongly effervescent; moderately alkaline (pH 7.9); clear smooth boundary. (one- to six- inches thick)

**Bk1** - 2 to 17 inches; very pale brown (10YR 7/3) clay loam, brown (10YR 5/3) moist; weak medium and coarse angular structure; hard, friable, slightly sticky and slightly plastic; few fine and very fine roots throughout; common fine masses of carbonates; violently effervescent; moderately alkaline (pH 7.9); gradual smooth boundary. (0 to 30 inches thick)

**Bk2** - 17 to 27 inches; very pale brown (10YR 7/3) clay loam, brown (10YR 5/3) moist; weak medium and coarse angular structure; hard, friable, slightly sticky and slightly plastic; few fine and very fine roots throughout; common fine masses of carbonates; strongly effervescent; moderately alkaline (pH 8.4); gradual smooth boundary. (0 to 30 inches thick)

**C** - 27 to 36 inches; pale brown (10YR 6/3) clay loam, brown (10YR 5/3) moist; massive; slightly hard, friable, slight sticky and nonplastic; few very fine roots throughout; moderately effervescent; moderately alkaline (pH 8.4).

**Cn** - 36 to 60 inches; pale brown (10YR 6/3) clay loam, brown (10YR 5/3) moist; massive; slightly hard, friable, slight sticky and nonplastic; few very fine roots throughout; few small masses of sodium; slightly effervescent; moderately alkaline (pH 8.2).

Type Location - Niobrara County, Wyoming; refer to waypoint 165 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Rock fragments ranges from 0 to 15 percent. The mean annual soil temperature ranges from 48 to 53 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 190 to 202 days. The depth to carbonates ranges from 0 to 10 inches. Saline phases are recognized. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F and is never moist in some or all parts for as long as 90 consecutive days when the soil temperature at a depth of 20 inches is 48 degrees F or more. This soil is moist for 60 consecutive days when the soil temperature at a depth of 20 inches is 41 degrees F, which occurs April 21-27, but is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during that period.

The A horizon has hue of 2.5Y or 10YR, value of 4 to 6 dry, 3 to 5 moist, and chroma of 2 to 4. It is very fine sandy loam, fine sandy loam, loam, silt loam, silty clay loam or clay loam. It is neutral to moderately alkaline.

Some pedons have a thin, noncalcareous Bw horizon that has its base at a depth of less than 10 inches.

The Bk and C horizons have hue of 5Y, 2.5Y or 10YR, value of 5 to 7 dry, 4 or 5 moist, and chroma of 2 to 4. They are loam, clay loam or silty clay loam and have 20 to 35 percent clay, 20 to 55 percent silt, and 15 to 35 percent fine sand or coarser. Reaction ranges from moderately alkaline to very strongly alkaline. Carbonates in the Bk horizon range from 3 to 14 percent and occur as accumulations in small masses, streaks or seams that decrease with increasing depth, or they are disseminated throughout. The Bk horizon has an EC of 0 to 8 mmhos/cm.

Range in Characteristics (according to field observations, lab analysis): A natric horizon was found at the bottom of the profile, which is not typical for this series.

Taxonomic Class - Fine-loamy, mixed, superactive, calcareous, mesic Ustic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) – No marginal or unsuitable parameters were found for this profile. Estimated stripping depth is 36 inches.

Geographic Setting (According to Official Series Description) - Kishona soils are on dissected alluvial fans, fan remnants, fan aprons, hills, ridges and terraces. Slopes are typically 0 to 6 percent but range up to 30 percent on dissected slopes. The soils formed in alluvium derived from sandstones and shales. Elevation is 3,500 to 6,700 feet. The average annual precipitation ranges from 10 to 14 inches with over one-half falling in April, May and June and less than one inch falling in each month of July, August,

September, and October. The mean annual air temperature is about 45 degrees F but ranges from 43 to 51 degrees F. The frost-free season is about 105 to 130 days.

DWYER  
LOAMY SAND

Soil Mapping Unit "Dw"  
Lab Sample ID: C08100869-092\_095  
BKS Sample ID: #166

Typical Pedon: Dwyer loamy sand-grassland. (Colors are for dry soil unless otherwise stated.)

The Dwyer series consists of very deep, excessively drained soils that formed in eolian sand. Dwyer soils are on dune-like forms frequently on or near the edges of alluvial terraces and have slopes of 0 to 25 percent. The mean annual precipitation is about 14 inches, and the mean annual temperature is about 48 degrees F.

**A** - 0 to 2 inches; pale brown (10YR 6/3) loamy sand, dark grayish brown (10YR 4/2) moist; single grain; loose; noneffervescent; slightly alkaline (pH 7.6); gradual smooth boundary. (two to eight-inches thick)

**C1** - 2 to 7 inches; very pale brown (10YR 7/3) loamy sand, grayish brown (10YR 5/2) moist; single grain; loose; noneffervescent; slightly alkaline (pH 7.6).

**C2** - 7 to 13 inches; very pale brown (10YR 7/3) sandy loam, grayish brown (10YR 5/2) moist; single grain; loose; moderately effervescent; moderately alkaline (pH 7.9).

**Ck1** - 13 to 21 inches; very pale brown (10YR 7/3) sandy loam, grayish brown (10YR 5/2) moist; single grain; loose; strongly effervescent; moderately alkaline (pH 7.9).

**Ck2** - 21 to 36 inches; very pale brown (10YR 7/3) very gravelly very fine sandy loam, grayish brown (10YR 5/2) moist; single grain; loose; violently effervescent; moderately alkaline (pH 8.2).

**Ck3** - 36 to 48 inches; very pale brown (10YR 7/3) very gravelly loamy very fine sand, grayish brown (10YR 5/2) moist; single grain; loose; strongly effervescent; slightly alkaline (pH 7.8).

**Cr** - 48 inches; tan sandstone

Type Location - Goshen County, Wyoming; refer to waypoint 166 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) -



Typically, this soil is calcareous throughout but is leached in the upper part of the series control section in some pedons.

The control section is sand, loamy sand, fine sand, or loamy fine sand.

Coarse fragments range from 0 to 15 percent but are commonly less than 3 percent. These soils may have a weak and inconsistent accumulation of secondary calcium carbonate at any depth but are not considered to have a continuous Bk horizon.

The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F and is never moist in some or all parts for as long as 60 consecutive days when the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, but is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 53 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days. Bedrock is deeper than 60 inches.

A horizon :

Hue: 2.5Y or 10YR

Value: 5 through 7 dry, 3 through 5 moist

Chroma: 2 or 3

Texture: Fine sand, loamy fine sand or loamy sand

Clay content: 2-10 percent

Sand content: greater than 80 percent

Reaction: mildly alkaline through strongly alkaline but is slightly acid or neutral in some pedons

AC horizon:

Texture: loamy fine sand or fine sand is in some pedon.

C horizon

Hue: 2.5Y through 7.5YR

Value: 5 through 7 dry, 3 through 5 moist

Chroma: 2 through 4

Texture: Fine sand or loamy fine sand

Clay content: 2-10 percent

Sand content: greater than 80 percent

Reaction: moderately alkaline or strongly alkaline and may contain few small carbonate concretions or seams of calcium carbonate erratically at any depth

Range in Characteristics (according to field observations, lab analysis): Multiple calcic horizons were found towards the bottom of this profile, which is not typical of this series.

Taxonomic Class - Mixed, mesic Ustic Torripsamments

Suitability for Topsoil (According to WDEQ Guideline 1) – Saturation percentage was marginal from 0-7 inches and 21-48 inches. Estimated stripping depth is 48 inches.

Geographic Setting (According to Official Series Description) –

Landscape: terraces and rolling uplands

Landform: hill slopes and dune-like forms frequently on or near the edges of alluvial terraces

Slopes: irregular, ranging from 0 to 25 percent

Elevation: 3,500 to 5,600 feet

Parent material: eolian sand

Average annual precipitation: 14 inches with about half of the precipitation occurring in April, May, and June

Mean annual precipitation: 10 to 16 inches

Mean annual temperature: 48 degrees F, and the mean summer temperature is 68 degrees F

Frost-free season: 110 to 130 day.

CLARKELEN  
NONCALCAREOUS VARIANT

Soil Mapping Unit "CINC"  
Lab Sample ID: C08100869-096\_100  
BKS Sample ID: #168

Typical Pedon: Clarkelen loam-utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Clarkelen series consists of very deep, well, moderately well or somewhat excessively drained soils formed in stratified recent stream alluvium from mixed sedimentary sources. Clarkelen soils are on flood plains and terraces. Slopes range from 0 to 6 percent. The average annual precipitation is about 12 inches, and the mean annual air temperature is about 46 degrees F.

**A** - 0 to 4 inch; grayish brown (10YR 5/2) loam, dark grayish brown (10YR 4/2) moist; weak fine granular structure; soft, very friable; nonsticky and nonplastic; common fine and very fine, and few medium roots throughout; noneffervescent; slightly acid (pH 6.2); gradual smooth boundary. (one- to six-inches thick)

**AC** - 4 to 9 inch; grayish brown (10YR 5/2) loam, dark grayish brown (10YR 4/2) moist; weak fine granular structure; soft, very friable; nonsticky and nonplastic; common fine and very fine, and few medium roots throughout; noneffervescent; slightly acid (pH 6.2); gradual smooth boundary.

**C1** - 9 to 29 inches; light brownish gray (10YR 6/2) weakly stratified loam, dark grayish brown (10YR 4/2) moist; massive; thin stratifications; soft, very friable, nonsticky and nonplastic; common fine and very fine, and few medium roots throughout; noneffervescent; neutral (pH 6.6); abrupt wavy boundary.

**C2** - 29 to 41 inches; light brownish gray (10YR 6/2) and pale brown (10YR 6/3) stratified loam, grayish brown (10YR 5/2) moist; massive; thin stratifications; slight hard, friable, nonsticky and nonplastic; few fine and very fine roots; noneffervescent; neutral (pH 6.9); abrupt wavy boundary.

**C3** - 41 to 51 inches; light brownish gray (10YR 6/2) sandy loam to sandy clay loam, grayish brown (10YR 5/2) moist; single grain; loose, nonsticky and nonplastic; few fine roots; noneffervescent; neutral (pH 7.0); abrupt smooth boundary.

**C4** - 51 to 60 inches; grayish brown (10YR 5/2) sandy loam, dark grayish brown (10YR 4/2) moist; massive; thin stratifications; slightly hard, friable, nonsticky and nonplastic; few fine roots; noneffervescent; neutral (pH 7.0).

Type Location - Niobrara County, Wyoming; refer to waypoint 168 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) – This soil typically lacks horizons of continuous carbonate accumulation. Depth to carbonates ranges from 0 to eight-inches. Rock fragments are typically less than 5 percent but may range to 15 percent. Organic matter content decreases irregularly with depth; and thin, highly variable textural strata usually occur between 6 and 24 inches. The particle-size control section contains from 5 to 18 percent clay and is sandy loam, fine sandy loam or loam when averaged. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F and is never moist in all parts for as long as 60 consecutive days when the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, but is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 52 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days.

The A horizon has hue of 10YR or 2.5Y, value of 4 to 7 dry and 3 to 6 moist, and chroma of 2 to 4. Texture typically is sandy loam or fine sandy loam but may range from loamy sand to clay loam depending upon the most recent deposition. Reaction ranges from neutral to moderately alkaline. It has an EC of 0 to 4 mmhos/cm. Nitrogen and phosphorus levels are not abnormally enriched. Some pedons have an AC horizon up to eight-inches thick.

The C horizon has hue of 7.5YR, 10YR or 2.5Y, value of 5 to 7 dry and 4 to 6 moist, and chroma of 2 to 4. Texture centers on sandy loam, fine sandy loam or loam, but strata of very fine sandy loam, loam, silt loam, loamy fine sand, loamy sand, fine sand or sand of varying thickness occur. Skeletal material may occur below 40 inches in some pedons. Reaction ranges from slightly alkaline to strongly alkaline. EC is typically 4 mmhos/cm or less but may range up to 8 when irrigated or where it receives saline discharge from surrounding shale beds.

Range in Characteristics (according to field observations, lab analysis): The pH is acidic rather than neutral or alkaline for the A and AC horizons and neutral instead of alkaline for the C horizons.

Taxonomic Class - Coarse-loamy, mixed, superactive, calcareous, mesic Ustic Torrifluvents

Suitability for Topsoil (According to WDEQ Guideline 1) – No marginal or unsuitable parameters were found for this profile. Estimated stripping depth is 60 inches.

Geographic Setting (According to Official Series Description) – Clarkelen soils are on flood plains and terraces adjacent to floodplains. Slopes are 0 to 6 percent. The soils formed in stratified but dominantly moderately coarse textured recent stream alluvium originally weathered from sedimentary rock. Elevation is 3,500 to 6,200 feet. The average annual precipitation is 12 inches with over half falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. Precipitation ranges from 10 to 14 inches. The mean annual air temperature ranges from 44 to 49 degrees F. The frost-free season is about 105 to 130 days.

CAMBRIA  
SANDY CLAY LOAM

Soil Mapping Unit "Ca"

Lab Sample ID: C08100869-101\_104

BKS Sample ID: #170

Typical Pedon: Cambria sandy clay loam on rangeland. (Colors are for dry soil unless otherwise stated.)

The Cambria series consists of very deep, well drained, moderately permeable soils that formed in alluvium and slope alluvium on fan remnants, alluvial fans, fan piedmonts, terraces, ridges and hills. Slopes range from 0 to 15 percent and are usually simple but may be complex where the area has been dissected by ephemeral streams. The mean annual precipitation is about 12 inches, and the mean annual air temperature is about 45 degrees F.

**A** - 0 to 2 inches; brown (10YR 5/3) extremely gravelly sandy clay loam, dark brown (10YR 3/3) moist; weak thin platy structure; soft, very friable, slightly sticky and slightly plastic; common fine and very fine roots; noneffervescent; neutral (pH 6.9); clear smooth boundary. (two to 5 inches thick)

**Bt** - 2 to 9 inches; brown (10YR 5/3) sandy clay loam, brown (10YR 4/3) moist; moderate medium prismatic structure parting to moderate fine and medium subangular blocky; slightly hard, friable, moderately sticky and moderately plastic; common distinct dark brown (10YR 3/3) clay films on faces of peds; noneffervescent; neutral (pH 6.9); clear wavy boundary. (5 to eight-inches thick)

**Bk** - 9 to 29 inches; pale brown (10YR 6/3) clay loam, brown (10YR 5/3) moist; moderate medium prismatic structure parting to moderate fine and medium subangular blocky; soft, very friable, slightly sticky and slightly plastic; strongly effervescent; common fine irregular light gray (10YR 7/2) carbonate threads throughout; slightly alkaline (pH 7.8); gradual wavy boundary.

**C** - 29 to 40 inches; pale brown (10YR 6/3) clay loam, brown (10YR 5/3) moist; moderate fine and medium subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; moderately effervescent; moderately alkaline (pH 8.1).

**Cn** - 40 to 60 inches; pale brown (10YR 6/3) clay loam, brown (10YR 5/3) moist; moderate fine and medium subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; slightly effervescent; scattered small sodium masses throughout; moderately alkaline (pH 7.9).

Type Location - Campbell County, Wyoming; refer to waypoint 170 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) –

Soil moisture: The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, and is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 48 to 52 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days.

Depth to the base of the argillic horizon: 10 inches or less

Depth to secondary calcium carbonate: 3 to 10 inches but ranges to 15 inches in some pedons

Particle-size control section: It is loam, clay loam, silty clay loam or sandy clay loam. The part below the argillic horizon averages 18 to 35 percent clay, 10 to 50 percent silt, and 20 to 70 percent sand with more than 15 but less than 52 percent coarser than very fine sand.

A horizon:

Hue: 10YR or 2.5Y

Value: 4 to 6 dry, 3 to 5 moist

Chroma: 2 to 4 dry or moist

Texture: fine sandy loam, sandy loam, loam, very fine sandy loam or silt loam

Reaction: typically neutral or slightly alkaline but may be moderately alkaline in some pedons

Some pedons have an AB horizon up to 4 inches thick.

Bt horizon:

Hue: 7.5YR, 10YR or 2.5Y

Value: 4 to 6 dry, 3 to 5 moist

Chroma: 2 to 4 dry or moist

Texture: loam, clay loam, silty clay loam or sandy clay loam

Reaction: neutral to moderately alkaline

A thin Btk horizon may be present above the Bk horizon in some pedons and have properties of both the Bt and Bk.

Bk horizon:

Hue: 10YR or 2.5Y

Value: 5 to 8 dry, 4 to 6 moist

Chroma: 2 to 4 dry or moist

Texture: typically loam or clay loam but some subhorizons have sandy loam, fine sandy loam, very fine sandy loam, silt loam, silty clay loam or sandy clay loam strata

Calcium carbonate equivalent: averages less than 15 percent, but discontinuous strata may exceed 15 percent in some pedons

Reaction: moderately or strongly alkaline with less than 15 percent ESP

Some pedons have a C horizon

Range in Characteristics (according to field observations, lab analysis): A natric horizon was identified for this profile, which is not typical of this series. The A horizon has a finer texture than what is typical.

Taxonomic Class - Fine-loamy, mixed, superactive, mesic Ustic Haplargids

Suitability for Topsoil (According to WDEQ Guideline 1) – No marginal or unsuitable parameter were found for this profile. Estimated stripping depth is 9 inches.

Geographic Setting (According to Official Series Description) –

Parent material: alluvium and slope alluvium from mixed sources

Landform: fan remnants, fan piedmonts, alluvial fans, hills, ridges and terraces

Slopes: 0 to 15 percent

Elevations: 3,500 to 6,500 feet

Average annual precipitation: 10 to 14 inches with over one-half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October

Mean annual air temperature: 43 to 51 degrees F

Frost-free season: 105 to 130 days



SHINGLE  
CLAY LOAM

Soil Mapping Unit "Sh"  
Lab Sample ID: C08100869-105  
BKS Sample ID: #171

Typical Pedon: Shingle clay loam-rangeland. (Colors are for dry soil unless otherwise stated.)

The Shingle series consists of well drained soils that are very shallow or shallow to bedrock. They formed in residuum and colluvium derived from interbedded shale and sandstone or in alluvium from mudstone. Shingle soils are on bedrock controlled hillslopes and ridges. Slopes are 0 to 80 percent. The mean annual precipitation is about 13 inches, and the mean annual temperature is 45 degrees F.

**A** - 0 to 3 inches; light brownish gray (10YR 6/2) clay loam, dark grayish brown (10YR 4/2) moist; moderate very fine granular structure; soft, very friable, moderately sticky and moderately plastic; noneffervescent; slightly alkaline (pH 7.6); clear smooth boundary. (one- to six-inches thick)

**Ck** - 3 to 7 inches; light yellowish brown (2.5Y 6/3) heavy clay loam, light olive brown (2.5Y 5/3) moist; massive; hard, variable, moderately sticky and moderately plastic; strongly effervescent, lime disseminated; slightly alkaline (pH 7.6); clear wavy boundary. (4 to 15 inches thick)

**Cr** - 7 inches; soft, strongly calcareous shale interbedded with lenses of soft sandstone

Type Location - Goshen County, Wyoming; refer to waypoint 171 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to soft bedrock and paralithic contact ranges from 4 to 20 inches. The mean annual soil temperature is 47 to 53 degrees F. The soils commonly are calcareous throughout, but some pedons are leached to 6 inches. The particle size control section averages 20 to 35 percent clay and has more than 15 percent but less than 35 percent fine or coarser sand. The soil is usually dry. The moisture control section is usually moist in April, May and early June. It is dry for 60 consecutive days or more during the 90 day period following the summer solstice. EC is 0 to 2 mmhos throughout.

The A horizon has hue of 5Y through 7.5YR, value of 5 through 7 dry, 3 through 6 moist, and chroma of 1 through 6. Reaction is neutral through strongly alkaline. Some pedons have a light gravel lag on the surface. Texture is loam, silt loam, clay loam, silty clay

loam, cobbly loam, and gravelly clay loam. Rock fragments or shale channers range from 0 to 35 percent.

A Bw or AC horizon, when present, has the combined properties of the A and C horizons.

The C horizon has hue of 5Y through 7.5YR, value of 4 through 7 dry, 3 through 6 moist, and chroma of 1 through 6. It is loam, silt loam, clay loam or silty clay loam. Rock fragments or shale channers range from 0 to 35 percent. Reaction is slightly alkaline through strongly alkaline.

Range in Characteristics (according to field observations, lab analysis): There is a calcic horizon found at the bottom of the profile, which is not typical for this series.

Taxonomic Class - Loamy, mixed, superactive, calcareous, mesic, shallow Ustic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) – No marginal or unsuitable parameters were found for this profile. The estimated stripping depth is 7 inches.

Geographic Setting (According to Official Series Description) - The Shingle soils occur on all hillslope positions. Slopes are 0 to 80 percent. These soils formed in colluvium and residuum weathered from soft, interbedded sandstone and shale or in alluvium from mudstone. Elevation is 3,200 to 6,500 feet. The mean annual precipitation is about 10 to 14 inches, most of which falls in April, May, and June. The mean annual temperature is about 45 degrees F but ranges from 43 to 51 degrees F. The frost-free season is about 105 to 130 days.

EMBRY  
MODERATELY DEEP VARIANT

Soil Mapping Unit "EmMV"  
Lab Sample ID: C08100869-106\_108  
BKS Sample ID: #172

Typical Pedon: Embry sandy clay loam-utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The soils of the Embry series are very deep, well-drained soils formed in alluvium and eolian deposits derived from sandstone. They are on hills, dunes, terraces and alluvial fans. Slopes are 0 to 20 percent. The mean annual precipitation is about 12 inches and the mean annual air temperature is about 46 degrees F.

**A** - 0 to 4 inches; light brownish gray (10YR 6/2) fine sandy clay loam, dark grayish brown (10YR 4/2) moist; moderate fine granular structure; soft, very friable, nonsticky and nonplastic; noneffervescent; neutral (pH 7.1); clear smooth boundary. (4 to 16 inches thick)

**AC** - 4 to 12 inches; light brownish gray (10YR 6/2) fine sandy clay loam, dark grayish brown (10YR 4/2) moist; moderate fine granular structure; soft, very friable, nonsticky and nonplastic; noneffervescent; neutral (pH 7.1); clear smooth boundary.

**C1** - 12 to 19 inches; light brownish gray (10YR 6/2) sandy loam, dark grayish brown (10YR 4/2) moist; massive; slightly hard, very friable, nonsticky and nonplastic; few fine vesicular pores; noneffervescent; slightly alkaline (pH 7.5); gradual wavy boundary.

**C2** - 19 to 29 inches; pale brown (10YR 6/3) coarse sandy loam, brown (10YR 4/3) moist; massive; slightly hard, very friable, nonsticky and nonplastic; noneffervescent; slightly alkaline (pH 7.6).

**Cr** - 29 inches; strongly calcareous mixed gley shale.

Type Location - Johnson County, Wyoming; refer to waypoint 172 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - These soils are typically noncalcareous throughout, however some pedons may effervesce below a depth of 40 inches. Rock fragments range from 0 to 15 percent but are typically less than 5 percent and are mainly gravel size sandstone fragments. The control section is typically sandy loam but clay ranges from 5 to 18 percent, silt from 5 to 40 percent, and sand from 50 to 83 percent with more than 35 percent fine sand or coarser. The moisture control

section is dry for 60 consecutive days and 90 cumulative days between July 15 and October 25. The mean annual soil temperature ranges from 47 degrees to 53 degrees F.

The A horizon has hue of 2.5Y to 7.5YR, value of 5 or 6 dry and 4 or 5 moist, and chroma of 1 to 4. This horizon is slightly acid to slightly alkaline.

The C horizon has hue of 2.5Y to 7.5YR, value of 5 to 7 dry and 4 to 6 moist, and chroma of 2 to 4. It is sandy loam or fine sandy loam. It is slightly acid to moderately alkaline.

Range in Characteristics (according to field observations, lab analysis): This profile is moderately deep to paralithic material, rather than deep.

Taxonomic Class - Coarse-loamy, mixed, superactive, nonacid, mesic Ustic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) – Saturation percentage was marginal at 0-19 inches. Estimated stripping depth is 19 inches.

Geographic Setting (According to Official Series Description) - Embry soils are on alluvial fans, hills, dunes and terraces. Slopes are 0 to 20 percent. Elevation is 4200 to 6000 feet. These soils formed in alluvium and eolian deposits derived from noncalcareous sandstone. Annual precipitation ranges from 10 to 15 inches most of which falls as rain or snow in April, May, and June. The mean annual air temperature is 45 to 50 degrees F. The frost-free period is 110 to 130 days.

KEELINE  
SANDY CLAY LOAM

Soil Mapping Unit "Ke"

Lab Sample ID: C08100869-109\_113

BKS Sample ID: #173

Typical Pedon: Keeline sandy clay loam-on east facing shoulder slope of 4 percent; utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Keeline series consists of very deep, well or somewhat excessively drained soils formed in alluvium or eolian deposits derived from sandstone. Keeline soils are on upland ridgetops, hillslopes, terraces, benches, alluvial fans, and fan remnants. Slopes range from 0 to 40 percent. The mean annual precipitation is about 12 inches, and the mean annual temperature is about 46 degrees F.

**A** - 0 to 2 inches; yellowish brown (10YR 5/4) sandy clay loam, brown (10YR 4/3) moist; weak fine subangular blocky and granular structure; soft, very friable, nonsticky and nonplastic; strongly effervescent; calcium carbonate disseminated; slightly alkaline (pH 7.6); abrupt smooth boundary. (two to 8 inches thick)

**Ck1** - 2 to 15 inches; very pale brown (10YR 7/3) sandy clay loam, light yellowish brown (10YR 6/4) moist; massive; soft, very friable, nonsticky and nonplastic; strongly effervescent; calcium carbonate disseminated; slightly alkaline (pH 7.6); gradual smooth boundary. (8 to 50 inches thick)

**Ck2** - 15 to 31 inches; very pale brown (10YR 7/3) sandy clay loam, pale brown (10YR 6/3) moist; massive; soft, very friable, nonsticky and nonplastic; moderately effervescent; calcium carbonate disseminated; moderately alkaline (pH 8.0); gradual smooth boundary. (0 to 25 inches thick)

**C1** - 31 to 37 inches; very pale brown (10YR 7/3) sandy loam to sandy clay loam, light yellowish brown (10YR 6/4) moist; massive; soft, very friable, nonsticky and nonplastic; slightly effervescent; moderately alkaline (pH 7.9).

**C2** - 37 to 55 inches; very pale brown (10YR 7/3) coarse sandy loam, light yellowish brown (10YR 6/4) moist; massive; soft, very friable, nonsticky and nonplastic; noneffervescent; slightly alkaline (pH 7.8).

**C3** - 55 to 60 inches; very pale brown (10YR 7/3) loam, light yellowish brown (10YR 6/4) moist; massive; soft, very friable, nonsticky and nonplastic; noneffervescent; neutral (pH 7.2).

Type Location - Converse County, Wyoming; refer to waypoint 173 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Free carbonates typically occur throughout the profile, but some pedons may be leached as much as 6 inches. The control section averages fine sandy loam or sandy loam with 5 to 18 percent clay. Rock fragments range from 0 to 15 percent. Some thin strata of coarser material may occur. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, and is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 52 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days. EC ranges from 0 to 4 mmhos throughout the profile. Bedrock is deeper than 60 inches.

The A horizon has hue of 7.5YR through 2.5Y, value of 5 through 7 dry, 4 or 5 moist, and chroma of 2 through 4. It is sandy loam and less commonly loamy sand, fine sandy loam, or loamy fine sand. Reaction is neutral to moderately alkaline.

The Bw horizon, when present, has the same properties of the A except for structure which is usually weak subangular blocky.

Some pedons have an AC horizon.

The C horizon has hue of 7.5YR through 5Y, value of 4 through 7 dry, 4 through 6 moist, and chroma of 2 through 4. Texture averages sandy loam or fine sandy loam. Some pedons have subhorizons of very fine sandy loam or loamy fine sand. Reaction is moderately or strongly alkaline and some pedons have weak, discontinuous accumulations of calcium carbonate.

Range in Characteristics (according to field observations, lab analysis): Two calcic horizons were identified for this profile, which is not typical of this series. Slightly finer textures were found from 0 to 37 inches in this profile.

Taxonomic Class - Coarse-loamy, mixed, superactive, calcareous, mesic Ustic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) - No marginal or unsuitable parameters were found for this profile. Estimated stripping depth is 60 inches.

Geographic Setting (According to Official Series Description) - Keeline soils are on terraces, benches, alluvial fans, fan remnants, ridgetop and hillslope positions. Slopes are 0 to 40 percent. These soils formed in moderately coarse alluvium or eolian deposits

derived from calcareous sandstone. Elevations are 3,500 to 6,200 feet. The average annual precipitation is 12 inches with over one-half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. Precipitation ranges from 10 to 15 inches. The mean annual temperature is about 46 degrees F but ranges from 44 to 49 degrees F. The frost-free season is about 105 to 130 days.

BAHL  
CLAY LOAM

Soil Mapping Unit "Ba"

Lab Sample ID: C08100869-114\_118

BKS Sample ID: #174

Typical Pedon: Bahl clay loam-on north-facing terrace with slope of 3 percent; utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Bahl series consists of very deep, well drained soils formed on alluvial fans, fan aprons, hillslopes, and terraces in alluvium from clay shales. Slopes range from 0 to 20 percent. The mean annual precipitation is about 12 inches, and the mean annual temperature is about 46 degrees F.

**A** - 0 to 3 inches; light brownish gray (2.5Y 6/2) clay loam, grayish brown (2.5Y 5/2) moist; weak angular blocky structure; very hard, very firm, very sticky and plastic; common fine and medium roots; noneffervescent; neutral (pH 7.1); clear wavy boundary. (3 to 6 inches thick)

**AB** - 3 to 10 inches; light brownish gray (2.5Y 6/2) clay, grayish brown (2.5Y 5/2) moist; weak angular blocky structure; very hard, very firm, very sticky and plastic; common fine and medium roots; moderately effervescent; slightly alkaline (pH 7.5); clear wavy boundary.

**Bk** - 10 to 20 inches; light brownish gray (2.5Y 6/2) clay, grayish brown (2.5Y 5/2) moist; weak angular blocky structure; very hard, very firm, very sticky and plastic; few fine and medium roots; strongly effervescent, calcium carbonate is disseminated; slightly alkaline (pH 7.8); gradual wavy boundary (4 to 15 inches thick).

**Cn1** - 20 to 36 inches; light brownish gray (2.5Y 6/2) clay, grayish brown (2.5Y 5/2) moist; massive; very hard, very firm, very sticky and plastic; few fine roots; noneffervescent, sodium is disseminated; slightly alkaline (pH 7.6).

**Cn2** - 36 to 48 inches; light brownish gray (2.5Y 6/2) clay loam, grayish brown (2.5Y 5/2) moist; massive; very hard, very firm, very sticky and plastic; few fine roots; noneffervescent, sodium is disseminated; slightly alkaline (pH 7.6).

Type Location - Weston County, Wyoming; refer to waypoint 132 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - The soil is usually calcareous throughout but is noncalcareous in the upper few inches of some



pedons. The particle size control section is clay or clay loam with 35 to 55 percent clay. Deep, wide cracks are present and are open for 6 to 8 months. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F and is never moist in some or all parts for as long as 60 consecutive days when the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, but is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 51 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days.

The A horizon has hue of 10YR through 5Y, value of 5 through 7 dry, 3 through 5 moist, and chroma of 2 or 3. Texture is clay loam or clay, and clay ranges from 30 to 45 percent. EC ranges from 0 to 2 mmhos. Reaction is neutral through moderately alkaline.

The AC horizon, has the same ranges as allowed for the combined ranges of the A and C horizons. A Bw may be present in some pedons but does not meet the criteria for a cambic horizon.

Some pedons have a Bk horizon, that is not a calcic horizon, with properties similar to the C horizon. Pedons with Bk horizons may have an AB horizon with properties similar to the A and Bk horizons.

The C horizon has hue of 10YR through 5Y, value of 5 through 7 dry, 4 through 6 moist, and chroma of 2 through 4. Texture is typically clay but may be clay loam, and clay ranges from 35 to 55 percent. EC ranges from 2 to 4 mmhos. Reaction is slightly alkaline through strongly alkaline.

Range in Characteristics (according to field observations, lab analysis): Two natric C horizons were found in this profile, in place of one normal C horizon.

Taxonomic Class - Fine, smectitic, calcareous, mesic Ustertic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) – Marginal texture (clay) was found from 3-36 inches. Selenium levels were marginal from 36-48 inches. Estimated stripping depth is 10 inches.

Geographic Setting (According to Official Series Description) - Bahl soils are on alluvial fans, fan aprons, hillslopes, and terraces. Slopes are simple and range from 0 to 20 percent. The soils formed in alluvium from clay shales. Elevation is 3,500 to 5,000 feet. The average annual precipitation is 10 to 17 inches of which about half falls in April, May, and June. The average annual temperature is 43 to 51 degrees F. The frost-free season is about 110 to 130 days.

HILAND  
NONCALCAREOUS VARIANT

Soil Mapping Unit "HiNC"  
Lab Sample ID: C08100869-119\_123  
BKS Sample ID: #175

Typical Pedon: Hiland sand-on northeast facing slope of 3 percent; utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Hiland series consists of very deep, well drained soils formed in alluvium or eolian deposits on relict surfaces consisting of terraces, fans, fan remnants pediments, ridges, hills and stabilized dunes. Permeability is moderate. Slopes range from 0 to 20 percent. The average annual precipitation is about 12 inches, and the mean annual air temperature is about 45 degrees F.

**A** - 0 to 4 inches; brown (10YR 5/3) sand, brown (10YR 4/3) moist; weak medium granular structure parting to weak fine granular; slightly hard, friable, nonsticky and nonplastic; many very fine and common fine roots; noneffervescent; neutral (pH 6.7); abrupt smooth boundary. (two to 5 inches thick)

**Bt1** - 4 to 17 inches; brown (7.5YR 5/4) sandy clay loam, brown (7.5YR 4/4) moist; strong medium prismatic structure parting to strong fine and medium angular blocky; hard, friable, moderately sticky and moderately plastic; many very fine roots in a mat at the top of the horizon and common very fine roots between peds; many fine pores; many prominent continuous dark brown (7.5YR 3/3) clay films on faces of peds; noneffervescent; neutral (pH 6.9); clear wavy boundary.

**Bt2** - 17 to 33 inches; yellowish brown (10YR 5/4) sandy clay loam, dark yellowish brown (10YR 4/4) moist; strong medium prismatic structure parting to moderate medium subangular blocky; hard, firm, moderately sticky and moderately plastic; common very fine roots between peds; many fine pores; common prominent continuous dark brown (10YR 3/3) clay films on faces of peds and occur as fillings in root channels and pipes; noneffervescent; neutral (pH 7.3); gradual wavy boundary.

**C1** - 33 to 41 inches; light yellowish brown (2.5Y 6/3) sandy loam to sandy clay loam, light olive brown (2.5Y 5/3) moist; weak coarse prismatic structure parting to moderate medium and coarse subangular blocky; slightly hard, very friable, nonsticky and nonplastic; common very fine roots; many fine pores; noneffervescent; slightly alkaline (pH 7.7); gradual smooth boundary.

**C2** - 41 to 48 inches; light yellowish brown (2.5Y 6/3) sandy clay loam, light olive brown (2.5Y 5/3) moist; common fine and medium distinct yellowish brown (10YR 5/6) and

common fine light brownish gray (10YR 6/2) relic redoximorphic features; weak coarse prismatic structure parting to moderate medium and coarse subangular blocky; slightly hard, very friable, nonsticky and nonplastic; common very fine roots; many fine pores; noneffervescent; moderately alkaline (pH 8.0); gradual smooth boundary.

Type Location - Converse County, Wyoming; refer to waypoint 133 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Gravel ranges from 0 to 15 percent in the solum and from 0 to 30 percent in the 2C or Bk horizons. The base of the Bt or Btk ranges from 15 to 35 inches. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F and is never moist in all parts for as long as 60 consecutive days when the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, but is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 52 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days. EC ranges from 0 to 2 mmhos from the surface to the base of the Bt and from 1 to 4 mmhos below the base of the Bt. Bedrock is deeper than 60 inches.

The A horizon has hue of 10YR, value of 4 to 6 dry and 3 to 5 moist, and chroma of 2 to 4. It is sandy loam, fine sandy loam, very fine sandy loam, sandy clay loam or loamy sand. Vesicular crust occurs on some pedons. This horizon is neutral to moderately alkaline.

The E horizon has hue of 10YR, value of 4 to 6 and 3 to 5 moist, and chroma of 2 to 4. It is fine sandy loam, very fine sandy loam, sandy loam, sandy clay loam or loamy sand. It is neutral or slightly alkaline.

The Bt horizon has hue of 2.5Y to 7.5YR, value of 4 to 6 dry and 3 to 5 moist, and chroma of 2 to 4. It has a weighted clay content of 20 to 35 percent and is sandy clay loam; however, parts of this horizon may be sandy loam. This horizon is typically noncalcareous. Reaction is neutral to moderately alkaline.

If a Btk horizon is present, it has the same ranges as defined for the Bt except that it is replugged with carbonate and reaction ranges from moderately to strongly alkaline.

The Bk horizon has hue of 2.5Y or 10YR, value of 5 to 7 dry and 4 to 7 moist, and chroma of 2 to 4. It is sandy loam, loamy sand, fine sandy loam or sandy clay loam; or, when other textures occur, the horizon average must be sandy loam, loamy sand or fine sandy loam. It is not a calcic horizon. It does not have 5 percent more calcium carbonate equivalent than the underlying horizon or has less than 5 percent secondary carbonates. It

is moderately or strongly alkaline. Exchangeable sodium is less than 15 percent even though field tests indicate strongly alkaline reactions.

Some pedons have a 2Bk, 2C or C horizon. The 2C and 2Bk horizons may contain more rock fragments. Contrasting textures of sand may occur below 40 inches. It is calcareous but typically has less than 5 percent calcium carbonate equivalent.

Range in Characteristics (according to field observations, lab analysis): Profile is noncalcareous throughout. There was no E horizon identified in this profile. Two C horizons were found in place of the calcic B horizon at the bottom of the profile. The A horizon is sandier than what is typical of this series.

Taxonomic Class - Fine-loamy, mixed, superactive, mesic Ustic Haplargids

Suitability for Topsoil (According to WDEQ Guideline 1) – Marginal texture (sand) was found from 0-4 inches. Saturation percentage was marginal from 0-4 inches. Estimated stripping depth is 41 inches.

Geographic Setting (According to Official Series Description) - Hiland soils are on relict surfaces consisting of terraces, fan remnants, pediments, fans, ridges, hills and stabilized dunes. Slopes are 0 to 20 percent. They formed in moderately coarse alluvium and eolian material derived predominantly from sandstone. Elevations are 3,500 to 6,300 feet. The average annual precipitation is about 12 inches with over half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. Precipitation ranges from 10 to 14 inches. The mean annual air temperature is 43 to 51 degrees F. The frost-free season is 105 to 130 days.

WOLF  
NONCALCAREOUS VARIANT

Soil Mapping Unit "WoNC"  
Lab Sample ID: C08100869-124\_125  
BKS Sample ID: #177

Typical Pedon: Wolf sandy loam to sandy clay loam- rangeland. (Colors are for dry soil unless otherwise stated.)

The Wolf series consists of well drained soils that are very shallow or shallow to bedrock. They formed in residuum and colluvial slopewash weathered from sedimentary rock. Wolf soils are on upland hills and ridges and have slopes of 0 to 30 percent. The mean annual precipitation is about 12 inches, and the mean annual temperature is about 45 degrees F.

**A** - 0 to 2 inches; grayish brown (10YR 5/2) sandy loam to sandy clay loam, dark grayish brown (10YR 4/2) moist; strong very fine granular structure; soft, very friable, slightly sticky and slightly plastic; many fine and very fine roots; noneffervescent; neutral (pH 7.0); clear smooth boundary. (two to four inches thick)

**Bt** - 2 to 15 inches; brown (10YR 5/3) clay loam, brown (10YR 4/3) moist; moderate fine prismatic structure parting to moderate fine subangular blocky; hard, very friable, moderately sticky and moderately plastic; many fine roots; many distinct clay films on faces of peds, common faint clay films in root channels and pores; noneffervescent; neutral (pH 6.8); clear wavy boundary. (4 to 13 inches thick)

**Cr** - 15 inches; noncalcareous sandstone interbedded with loamstone.

Type Location - Johnson County, Wyoming; refer to waypoint 21 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to bedrock ranges from 8 to 20 inches. The soil is 90 to 100 percent base saturated. Rock fragments range from 0 to 15 percent but are typically less than 5 percent and are mostly soft shale fragments. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, and is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 53 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days.

The A horizon has hue of 2.5Y or 10YR, value of 5 or 6 dry, 3 or 4 moist, and chroma of 2 or 3. Texture is loamy sand, loam, or fine sandy loam. Reaction is neutral or slightly alkaline.

The Bt horizon has hue of 2.5Y through 7.5YR, value of 5 or 6 dry, 4 or 5 moist, and chroma of 2 through 4. It is typically light clay loam but may be loam or sandy clay loam with clay ranging from 18 to 35 percent, silt from 20 to 55 percent, and sand from 15 to 50 percent with 15 to 35 percent being fine sand or coarser. Reaction is neutral to moderately alkaline.

The Bk or Btk horizon has hue of 5Y through 10YR, value of 5 through 7 dry, 4 through 6 moist, and chroma of 2 through 4. Calcium carbonate equivalent is 3 to 12 percent. Texture is loam or fine sandy loam in the Bk and clay loam or sandy clay loam in the Btk. Reaction is slightly alkaline through strongly alkaline.

Range in Characteristics (according to field observations, lab analysis): This profile is noncalcareous throughout. No calcic horizon was found for this profile, which is not typical of this series.

Taxonomic Class - Loamy, mixed, superactive, mesic, shallow Ustic Haplargids

Suitability for Topsoil (According to WDEQ Guideline 1) – No marginal or unsuitable parameters were found for this profile. Estimated stripping depth is 12 inches.

Geographic Setting (According to Official Series Description) - These soils are on upland hills and ridges. Slopes range from 0 to 30 percent and are both simple and complex. Elevation is 3,500 to 5,600 feet. These soils formed in noncalcareous materials weathered from sedimentary bedrock. The mean annual precipitation is 12 inches with over half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. Precipitation ranges from 10 to 17 inches. The mean annual temperature is 43 to 51 degrees F. The frost-free season is about 105 to 130 days.

DRAKNAB  
SANDY LOAM

Soil Mapping Unit "Dr"

Lab Sample ID: C08100869-126\_131

BKS Sample ID: #178

Typical Pedon: Draknab sandy loam-on an east facing, very gentle sloping flood plain; utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Draknab series consists of very deep, moderately well, well or excessively drained soils formed in stratified recent stream alluvium. Draknab soils are on flood plains and on adjacent low terrace positions. Slopes range from 0 to 6 percent. The mean annual precipitation is about 12 inches, and the mean annual temperature is about 46 degrees F.

**A** - 0 to 2 inches; yellowish brown (10YR 5/4) sandy loam, brown (10YR 4/3) moist; weak medium and fine granular structure; soft, very friable, nonsticky and nonplastic; noneffervescent; neutral (pH 6.8); abrupt smooth boundary. (two- to six-inches thick)

**AC** - 2 to 12 inches; yellowish brown (10YR 5/4) sandy loam, brown (10YR 4/3) moist; weak medium subangular blocky structure parting to weak medium granular; soft, very friable, nonsticky and nonplastic; noneffervescent; neutral (pH 7.2); clear wavy boundary. (0 to 10 inches thick)

**C1** - 12 to 18 inches; very pale brown (10YR 7/3) sandy loam, yellowish brown (10YR 5/4) moist; single grain; loose, nonsticky and nonplastic; noneffervescent; neutral (pH 7.2); clear wavy boundary. (6 to 15 inches thick)

**C2** - 18 to 29 inches; pale brown, coarse sandy clay loam, dark yellowish brown (10YR 4/4) moist; massive; soft, very friable, nonsticky and nonplastic; noneffervescent; slightly alkaline (pH 7.7); gradual smooth boundary. (0 to 24 inches thick)

**C3** - 29 to 35 inches; very pale brown (10YR 7/3), stratified sandy loam, pale brown (10YR 6/3) moist; single grain; loose, nonsticky and nonplastic; noneffervescent; neutral (pH 7.0).

**C4** - 35 to 60 inches; very pale brown (10YR 7/3), stratified sandy loam, pale brown (10YR 6/3) moist; single grain; loose, nonsticky and nonplastic; moderately effervescent; moderately alkaline (pH 8.0).

Type Location - Converse County, Wyoming; refer to waypoint 40 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Carbonates occur throughout the profile, but the surface to depths of 10 inches may be free of carbonates, depending upon the source material of the most recent deposition. Organic matter content decreases irregularly with depth. Thin, highly variable textural strata usually occur between depths of 10 and 30 inches. Rock fragments are gravel size and typically are less than 5 percent throughout the profile, but may range to 15 percent. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F and is never moist in some or all parts for as long as 60 consecutive days when the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, but is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 52 degrees F and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days. EC ranges from 0 to 4 mmhos/cm throughout the soil.

The A horizon has hue of 2.5Y, 10YR or 7.5YR, value of 5 to 7 and 3 to 6 moist, and chroma of 2 to 4. Texture is loamy sand, sandy loam, loamy fine sand, fine sandy loam, very fine sandy loam or loam. Reaction is neutral to moderately alkaline.

The C horizon has hue of 2.5Y, 10YR or 7.5YR, value of 5 to 7 and 4 to 7 moist, and chroma of 2 to 4. Texture is loamy sand, loamy coarse sand, coarse sand, loamy fine sand or sand. Many pedons have stratification of varying thickness and texture, very fine sandy loam and sandy loam being the more common. Reaction ranges from slightly alkaline to strongly alkaline.

Range in Characteristics (according to field observations, lab analysis): This profile contains a horizon at 18-29 inches with a higher clay percent than what is typical for this series.

Taxonomic Class - Sandy, mixed, mesic Ustic Torrfluvents

Suitability for Topsoil (According to WDEQ Guideline 1) - Saturation percentage was marginal from 2-18 inches and 29-60 inches. Estimated stripping depth is 60 inches.

Geographic Setting (According to Official Series Description) - Draknab soils are on flood plains and low terraces adjacent to flood plains. Slopes are 0 to 6 percent. The soils formed in coarse textured recent stream alluvium derived originally from sandstone-dominated sedimentary rock. Elevations are 3,500 to 6,000 feet. The average annual precipitation is 12 inches with over half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. Precipitation ranges from 10 to 14 inches. The mean annual temperature is about 46 degrees F, but ranges from 44 to 49 degrees F. The frost-free season is about 105 to 130 days.



THEEDLE  
CLAY

Soil Mapping Unit "Th"  
Lab Sample ID: C08100869-132\_135  
BKS Sample ID: #180

Typical Pedon: Theedle clay -on west facing hill footslope of 6 percent; rangeland.  
(Colors are for dry soil unless otherwise stated.)

The Theedle series consists of well drained soils that are moderately deep to soft bedrock. They formed in residuum and slope alluvium weathered from soft sandstone. The Theedle soils are on hills, ridges and fan remnants. Slopes are 0 to 75 percent. The mean annual precipitation is about 12 inches, and the mean annual air temperature is 45 degrees F.

**A** - 0 to 2 inches; light brownish gray (10YR 6/2) clay, dark grayish brown (10YR 4/2) moist; weak granular structure; slightly hard, friable, nonsticky and nonplastic; many very fine, fine, and medium roots; noneffervescent; moderately alkaline (pH 8.1); clear smooth boundary. (zero- to five-inches thick)

**AC** - 2 to 12 inches; light brownish gray (2.5Y 6/2) clay to clay loam, dark grayish brown (2.5Y 4/2) moist; massive; slightly hard, friable, nonsticky and nonplastic; common very fine, fine, and medium roots; noneffervescent; neutral (pH 6.8); clear smooth boundary. (4 to 10 inches thick)

**C1** - 12 to 19 inches; light gray (2.5Y 7/2) clay loam, grayish brown (2.5Y 5/2) moist; massive; slightly hard, friable, sticky and nonplastic; few fine and very fine roots; noneffervescent; neutral (pH 6.8); clear smooth boundary.

**C2** - 19 to 37 inches; light gray (2.5Y 7/2) clay loam, grayish brown (2.5Y 5/2) moist; massive; slightly hard, friable, sticky and nonplastic; few fine and very fine roots; moderately effervescent; neutral (pH 7.2); clear smooth boundary. (14 to 26 inches thick)

**Cr** - 37 inches; light gray, soft, noncalcareous sandstone.

Type Location - Weston County, Wyoming; refer to waypoint 41 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to soft, gray, calcareous sandstone or sandy shale ranges from 20 to 40 inches but is typically less than 32 inches. The soil lacks a cambic horizon, but structural Bw horizons are present in about half the pedons observed. The soil is typically calcareous throughout but may be

leached up to 5 inches. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F and is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 51 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days. The particle size control section averages between 18 and 35 percent clay and is loam, clay loam, or sandy clay loam with more than 15 but less than 35 percent fine or coarser sand. The soil has up to 10 percent rock fragments throughout.

The A horizon has hue of 10YR or 2.5Y, value of 3 to 6 dry, 3 to 5 moist, and chroma of 2 to 4. It is loam, clay loam or fine sandy loam. Reaction ranges from neutral to moderately alkaline. EC is 0 to 2 mmhos/cm.

The B<sub>ck</sub> (or AC and B<sub>w</sub>, when present) has hue of 10YR or 2.5Y, value of 5 or 6 dry, 3 to 5 moist, and chroma of 2 to 4. Texture is loam, clay loam or sandy clay loam. Reaction is slightly alkaline to strongly alkaline. EC is 0 to 4 mmhos/cm.

The C horizon has hue of 10YR or 2.5Y, value of 5 to 7 dry, 4 to 7 moist, and chroma of 2 to 5. Texture is loam, clay loam or sandy clay loam. Reaction is slightly alkaline to strongly alkaline. EC is less than 8 mmhos/cm. Carbonates usually average between 5 and 14 percent with slight segregation in some pedons.

Range in Characteristics (according to field observations, lab analysis): Higher clay percentages are found from 0-12 inches in this profile than what is typical of this series.

Taxonomic Class - Fine-loamy, mixed, superactive, calcareous, mesic Ustic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) – Marginal texture (clay) was found from 0-12 inches. Estimated stripping depth is 37 inches.

Geographic Setting (According to Official Series Description) - Theedle soils are on rock-controlled fan aprons, fan pediments, and undulating to rolling uplands. They may occupy all components of the hillslope profile but typically are on the lower shoulder, footslope, and toeslope. Slopes range from 0 to 75 percent. The soils formed in medium textured slope alluvium and residuum derived primarily from interbedded sandstone and shale. Elevation is 3,500 to 6,500 feet. The average annual precipitation is 12 inches with over half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. Precipitation ranges from 10 to 14 inches. The mean annual air temperature ranges from 45 to 51 degrees F. The frost-free season is 105 to 130 days.

TURNERCREST  
NONCALCAREOUS VARIANT

Soil Mapping Unit "Tu"

Lab Sample ID: C08100869-136\_138

BKS Sample ID: #181

Typical Pedon: Turnercrest sandy clay loam-on a northeast facing hill footslope of 8 percent; utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Turnercrest soils consist of moderately deep, well drained soils formed in eolian or alluvium deposits and residuum derived from soft sandstone. They are on bedrock-controlled hills, fan remnants, ridges and structural benches. Slopes range from 0 to 30 percent. The average annual precipitation is about 12, and the mean annual air temperature is about 47 degrees F.

**A** - 0 to 2 inches; brown (10YR 5/3) sandy clay loam, very dark grayish brown (10YR 3/2) moist; weak fine granular structure; soft, very friable; many fine and very fine roots; noneffervescent; neutral (pH 6.7); clear smooth boundary. (two- to six-inches thick)

**Bw** - 2 to 9 inches; brown (10YR 5/3) sandy loam, brown (10YR 4/3) moist; weak medium and coarse subangular blocky structure; soft, friable; common fine and very fine roots; noneffervescent; neutral (pH 6.8); gradual smooth boundary. (zero- to eight-inches thick)

**C1** - 9 to 16 inches; light gray (10YR 7/2) sandy loam to sandy clay loam, pale brown (10YR 6/3) moist; massive; slightly hard, very friable; few fine roots to 15 inches; noneffervescent; neutral (pH 7.2); clear wavy boundary.

**C2** - 16 to 21 inches; light gray (10YR 7/2) sandy loam to sandy clay loam, pale brown (10YR 6/3) moist; massive; slightly hard, very friable; few fine roots to 15 inches; noneffervescent; neutral (pH 7.2); clear wavy boundary.

**Cr** - 21 inches; soft, light gray and very pale brown, strongly calcareous sandstone.

Type Location - Weston County, Wyoming; refer to waypoint 43 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to soft, calcareous sandstone ranges from 20 to 40 inches. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F or warmer and is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative

days during this period. The mean annual soil temperature is 47 to 53 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days. The particle-size control section is fine sandy loam or sandy loam with 7 to 18 percent clay and 52 to 80 percent sand with more than 15 percent being fine sand or coarser. EC is 0 to 2 mmhos throughout the soil. Rock fragments may be present but break down on pretreatment and do not have lithic properties.

The A horizon has hue of 10YR or 2.5Y, value of 4 to 6 and 3 to 5 moist, and chroma of 2 to 4. Textures are loamy sand, loamy fine sand, fine sandy loam or sandy loam. Reaction is neutral to moderately alkaline.

The Bw horizon, where present, has hue of 10YR or 2.5Y, value of 5 or 6 and 3 to 5 moist, and chroma of 2 or 3. Depth to the base of the Bw horizon is less than 10 inches. Texture is fine sandy loam or sandy loam. Reaction is slightly alkaline or moderately alkaline.

The Bk has hue of 10YR or 2.5Y, value of 5 to 7 and 3 to 6 moist, and chroma of 2 or 3. Texture is fine sandy loam, very fine sandy loam or sandy loam. Reaction is slightly or moderately alkaline.

The C horizon, when present, has hue of 10YR or 2.5Y, value of 5 to 7 and 4 to 6 moist, and chroma of 2 to 4. Texture is fine sandy loam, very fine sandy loam or sandy loam. Some pedons have thin layers of loamy fine sand. Reaction is slightly alkaline or moderately alkaline.

The Cr horizon has a paralithic contact to soft, calcareous sandstone. The sandstone has hue of 10YR or 2.5Y.

Range in Characteristics (according to field observations, lab analysis): This profile is noncalcareous throughout. No calcic horizons are found in this profile, which is not typical. The A and C horizons in this profile have a higher clay percent than what is typical of this series.

Taxonomic Class - Coarse-loamy, mixed, superactive, noncalcareous, mesic Ustic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) – No marginal or unsuitable parameters were found for this profile. Estimated stripping depth is 21 inches.

Geographic Setting (According to Official Series Description) - Turnercrest soils are on hills, ridges, fan remnants and structural benches. They formed in eolian or alluvium deposits and sandy residuum. Slopes are 0 to 30 percent. Elevations are 3,200 to 6,500 feet. The average annual precipitation is 10 to 15 inches with over half falling as snow or rain in April, May, and June and less than one inch falling in each month of July, August,

September, and October. The mean annual air temperature is 45 to 53 degrees F. The frost-free season is 105 to 130 days.

ORPHA  
SANDY LOAM

Soil Mapping Unit "Or"  
Lab Sample ID: C08100869-139\_142  
BKS Sample ID: #182

Typical Pedon: Orpha sandy loam-on a west facing dune slope of 6 percent; utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Orpha series consists of very deep, excessively drained soils on rolling dunes, hills, terraces, floodplains, uplands, valley side slopes, toeslopes, and footslopes. They formed in alluvium or eolian sand from mixed sources. Slopes range from 0 to 45 percent. The mean annual precipitation is about 12 inches, and the mean annual air temperature is about 46 degrees F.

**A** - 0 to 2 inches; grayish brown (10YR 5/2) sandy loam, dark grayish brown (10YR 4/2) moist; weak medium and coarse granular structure; loose, soft, nonsticky and nonplastic; noneffervescent; neutral (pH 6.8); gradual wavy boundary. (two- to six-inches thick)

**C1** - 2 to 15 inches; light brownish gray (10YR 6/2) sandy loam, grayish brown (10YR 5/2) moist; single grain, loose, nonsticky and nonplastic; noneffervescent; neutral (pH 7.2).

**C2** - 15 to 44 inches; light brownish gray (10YR 6/2) sandy loam, grayish brown (10YR 5/2) moist; single grain, loose, nonsticky and nonplastic; noneffervescent; slightly alkaline (pH 7.8).

Type Location - Converse County, Wyoming; refer to waypoint 44 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Rock fragments are less than 15 percent in the particle-size control section. Depth to carbonates is typically greater than 40 inches but may be 30 inches in some pedons. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F. It is never moist in all parts for as long as 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 44 to 52 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days.

The A horizon has hue of 10YR or 2.5Y, value of 4 to 7 dry, 3 to 6 moist, and chroma of 2 to 4. Texture is sand, fine sand, loamy sand and loamy fine sand. Reaction is neutral or slightly alkaline.

The C horizon has hue of 10YR or 2.5Y, value of 5 to 8 dry, 4 to 7 moist, and chroma of 2 to 6. Texture is sand, fine sand, loamy sand or loamy fine sand. Some pedons may have thin strata of sandy loam or fine sandy loam where they are near the parent source. Reaction ranges from neutral to moderately alkaline. Some pedons have AC horizons.

Range in Characteristics (according to field observations, lab analysis): Textures are slightly finer than what is typical for this series.

Taxonomic Class - Mixed, mesic Ustic Torripsamments

Suitability for Topsoil (According to WDEQ Guideline 1) – No marginal or unsuitable parameters were found for this profile. Estimated stripping depth is 44 inches.

Geographic Setting (According to Official Series Description) - Orpha soils occur primarily as rolling or hilly dunes. They are on hills, valley side slopes, footslopes, toeslopes, stream terraces, broad floodplains and uplands. They formed in alluvium or eolian deposits generally adjacent to and downwind of sandy parent sources. Slopes are usually 0 to 45 percent. In Nebraska slopes are as high as 60 percent. Elevations are 3,500 to 6,500 feet. Precipitation ranges from 10 to 18 inches with over half the annual precipitation falling in April, May, and June. The mean annual air temperature ranges from 44 to 50 degrees F. The frost-free season is about 105 to 130 days.

CUSHMAN  
NONCALCAREOUS VARIANT

Soil Mapping Unit "CuNC"  
Lab Sample ID: C08100869-143\_144  
BKS Sample ID: #183

Typical Pedon: Cushman clay loam-on south facing slope of about 3 percent under native grass vegetation. (Colors are for dry soil unless otherwise stated.)

The Cushman series consists of well drained soils that are moderately deep to bedrock. These soils formed in slopewash alluvium and residuum from interbedded shales and siltstone and fine-grained argillaceous sandstone. Cushman soils are on buttes, fan remnants, hills, piedmonts, ridges and terraces. Slopes are 0 to 20 percent. The mean annual precipitation is about 13 inches, and the mean annual air temperature is about 45 degrees F.

**A** - 0 to 4 inches; light brownish gray (10YR 6/2) clay loam, dark brown (10YR 3/3) moist; moderate medium granular structure; soft, friable, slightly sticky and slightly plastic; common very fine, fine, and few medium roots; noneffervescent; neutral (pH 7.2); clear smooth boundary. (two- to six-inches thick)

**AB** - 4 to 8 inches; light brownish gray (10YR 6/2) clay loam, dark brown (10YR 3/3) moist; moderate medium granular structure; soft, friable, slightly sticky and slightly plastic; common very fine, fine, and few medium roots; noneffervescent; neutral (pH 7.2); clear smooth boundary.

**Bt** - 8 to 22 inches; brown (10YR 5/3) silt loam to loam, dark yellowish brown (10YR 3/4) moist; weak medium prismatic structure parting to moderate medium subangular blocky; slightly hard, friable, moderately sticky and moderately plastic; common very fine, fine and few medium roots; few faint clay films on faces of peds and lining pores; noneffervescent; slightly alkaline (pH 7.6); clear smooth boundary.

**Cr** - 22 inches; soft, thickly stratified gray and brown strongly calcareous shale; reaction of crushed fragments strongly alkaline; these shales extend to depths greater than 10 feet.

Type Location - Sheridan County, Wyoming; refer to waypoint 47 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to a paralithic contact and bedrock is typically about 28 to 32 inches but ranges from 20 to 40 inches. Depth to continuous horizons of carbonate accumulation is 7 to 26 inches. Depth to the base of the argillic horizon ranges from 10 to 26 inches. Rock fragments range



from 0 to 15 percent and are soft shale channers or semirounded sandstone pebbles. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, and is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 53 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days. EC ranges from 0 to 2 mmhos throughout.

The A horizon has hue of 10YR or 2.5Y, value of 4 to 6 dry, 3 to 5 moist, and chroma of 2 to 4. Reaction is neutral or slightly alkaline.

The Bt horizon has hue of 10YR or 2.5Y, value of 4 to 6 dry, 3 to 5 moist, and chroma of 2 to 4. Texture of the Bt is clay loam or loam with 20 to 35 percent clay and more than 15 percent but less than 35 percent fine sand or coarser. Reaction is neutral to moderately alkaline.

The Btk horizon has hue of 10YR or 2.5Y, value of 5 to 7 dry, 4 to 6 moist, and chroma of 2 to 4. Texture is loam or clay loam with 20 to 35 percent clay. Reaction is moderately alkaline or strongly alkaline. Calcium carbonate ranges from 3 to 12 percent.

The Bk horizon has hue of 10YR and 2.5Y, value of 6 to 8 dry, 4 to 6 moist, and chroma of 2 to 4. Texture is loam or clay loam with 20 to 30 percent total clay of which about 2 to 4 percent is carbonate clay. Reaction is typically moderately alkaline but may be strongly alkaline when sodic shales are present. Calcium carbonate equivalent is 5 to 15 percent, but some horizons may exceed 15 percent but are discontinuous or too thin to be considered as a calcic.

The Cr is weakly consolidated sedimentary rock. It is primarily calcareous shale; but siltstone or thinly interbedded fine grained argillaceous sandstone is common. The rock is typically moderately alkaline or strongly alkaline when crushed, but slightly alkaline or neutral shales are not uncommon.

Range in Characteristics (according to field observations, lab analysis): This profile is noncalcareous throughout. This profile has an AB horizon, but no calcic B horizons, which is not typical of this series.

Taxonomic Class - Fine-loamy, mixed, superactive, mesic Ustic Haplargids

Suitability for Topsoil (According to WDEQ Guideline 1) – No marginal or unsuitable parameters were found for this profile. Estimated stripping depth is 22 inches.

Geographic Setting (According to Official Series Description) - Cushman soils are on buttes, fan remnants fan piedmonts, hills and ridges. Slopes range from 0 to 20 percent. The soils formed in moderately fine textured slopewash alluvium and residuum. Surface erosion is common in overgrazed areas, and some thin eolian deposits overlie these soils in some areas. Elevations are 3,500 to 6,000 feet. The mean annual precipitation is 13 inches and ranges from 10 to 14 inches with over half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September and October. The mean annual temperature is 43 to 51 degrees F. The frost-free season is about 105 to 130 days depending upon elevation, aspect, and air drainage.

SHINGLE  
SANDY LOAM TO SANDY CLAY LOAM

Soil Mapping Unit "Sh"  
Lab Sample ID: C08100869-145\_146  
BKS Sample ID: #184

Typical Pedon: Shingle sandy loam to sandy clay loam-rangeland. (Colors are for dry soil unless otherwise stated.)

The Shingle series consists of well drained soils that are very shallow or shallow to bedrock. They formed in residuum and colluvium derived from interbedded shale and sandstone or in alluvium from mudstone. Shingle soils are on bedrock controlled hillslopes and ridges. Slopes are 0 to 80 percent. The mean annual precipitation is about 13 inches, and the mean annual temperature is 45 degrees F.

**A** - 0 to 5 inches; light brownish gray (10YR 6/2) sandy loam to sandy clay loam, dark grayish brown (10YR 4/2) moist; moderate very fine granular structure; soft, very friable, moderately sticky and moderately plastic; noneffervescent; neutral (pH 7.1); clear smooth boundary. (one- to six-inches thick)

**AC** - 5 to 8 inches; light yellowish brown (2.5Y 6/3) sandy loam to sandy clay loam, light olive brown (2.5Y 5/3) moist; weak medium subangular blocky structure; hard, friable, moderately sticky and moderately plastic; noneffervescent; neutral (pH 7.1); gradual smooth boundary. (zero- to five-inches thick)

**Ck** - 8 to 17 inches; light yellowish brown (2.5Y 6/3) clay loam, light olive brown (2.5Y 5/3) moist; massive; hard, variable, moderately sticky and moderately plastic; strongly effervescent, lime disseminated; neutral (pH 7.2); clear wavy boundary. (4 to 15 inches thick)

**Cr** - 17 inches; soft, strongly calcareous shale interbedded with lenses of soft sandstone.

Type Location - Goshen County, Wyoming; refer to waypoint 122 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to soft bedrock and paralithic contact ranges from 4 to 20 inches. The mean annual soil temperature is 47 to 53 degrees F. The soils commonly are calcareous throughout, but some pedons are leached to 6 inches. The particle size control section averages 20 to 35 percent clay and has more than 15 percent but less than 35 percent fine or coarser sand. The soil is usually dry. The moisture control section is usually moist in April, May and

early June. It is dry for 60 consecutive days or more during the 90 day period following the summer solstice. EC is 0 to 2 mmhos throughout.

The A horizon has hue of 5Y through 7.5YR, value of 5 through 7 dry, 3 through 6 moist, and chroma of 1 through 6. Reaction is neutral through strongly alkaline. Some pedons have a light gravel lag on the surface. Texture is loam, silt loam, clay loam, silty clay loam, cobbly loam, and gravelly clay loam. Rock fragments or shale channers range from 0 to 35 percent.

A Bw or AC horizon, when present, has the combined properties of the A and C horizons.

The C horizon has hue of 5Y through 7.5YR, value of 4 through 7 dry, 3 through 6 moist, and chroma of 1 through 6. It is loam, silt loam, clay loam or silty clay loam. Rock fragments or shale channers range from 0 to 35 percent. Reaction is slightly alkaline through strongly alkaline.

Range in Characteristics (according to field observations, lab analysis): A calcic horizon was identified at the bottom of this profile, which is not typical for this series. The A and AC horizons have a sandier texture than what is typical of this series.

Taxonomic Class - Loamy, mixed, superactive, calcareous, mesic, shallow Ustic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) - No marginal or unsuitable parameters were found for this profile. Estimated stripping depth is 17 inches.

Geographic Setting (According to Official Series Description) - The Shingle soils occur on all hillslope positions. Slopes are 0 to 80 percent. These soils formed in colluvium and residuum weathered from soft, interbedded sandstone and shale or in alluvium from mudstone. Elevation is 3,200 to 6,500 feet. The mean annual precipitation is about 10 to 14 inches, most of which falls in April, May, and June. The mean annual temperature is about 45 degrees F but ranges from 43 to 51 degrees F. The frost-free season is about 105 to 130 days.

CLARKELEN  
SANDY LOAM

Soil Mapping Unit "Cl"  
Lab Sample ID: C08100869-147\_150  
BKS Sample ID: #185

Typical Pedon: Clarkelen sandy loam-utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Clarkelen series consists of very deep, well, moderately well or somewhat excessively drained soils formed in stratified recent stream alluvium from mixed sedimentary sources. Clarkelen soils are on flood plains and terraces. Slopes range from 0 to 6 percent. The average annual precipitation is about 12 inches, and the mean annual air temperature is about 46 degrees F.

**A** - 0 to 2 inches; grayish brown (10YR 5/2) sandy loam, dark grayish brown (10YR 4/2) moist; weak fine granular structure; soft, very friable; nonsticky and nonplastic; common fine and very fine, and few medium roots throughout; noneffervescent; neutral (pH 7.2); gradual smooth boundary. (one- to six-inches thick)

**AC** - 2 to 19 inches; grayish brown (10YR 5/2) sandy clay loam, dark grayish brown (10YR 4/2) moist; weak fine granular structure; soft, very friable; nonsticky and nonplastic; common fine and very fine, and few medium roots throughout; noneffervescent; neutral (pH 7.0); gradual smooth boundary.

**Ck1** - 19 to 31 inches; light brownish gray (10YR 6/2) weakly stratified sandy clay loam, dark grayish brown (10YR 4/2) moist; massive; thin stratifications; soft, very friable, nonsticky and nonplastic; common fine and very fine, and few medium roots throughout; calcium carbonate disseminated throughout; strongly effervescent; slightly alkaline (pH 7.5); abrupt wavy boundary.

**Ck2** - 31 to 48 inches; light brownish gray (10YR 6/2) and pale brown (10YR 6/3) stratified sandy loam to sandy clay loam, grayish brown (10YR 5/2) moist; massive; thin stratifications; slight hard, friable, nonsticky and nonplastic; few fine and very fine roots; calcium carbonate disseminated throughout; strongly effervescent; slightly alkaline (pH 7.6); abrupt wavy boundary.

Type Location - Niobrara County, Wyoming; refer to waypoint 123 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) – This soil typically lacks horizons of continuous carbonate accumulation. Depth to carbonates

ranges from 0 to 8 inches. Rock fragments are typically less than 5 percent but may range to 15 percent. Organic matter content decreases irregularly with depth; and thin, highly variable textural strata usually occur between 6 and 24 inches. The particle-size control section contains from 5 to 18 percent clay and is sandy loam, fine sandy loam or loam when averaged. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F and is never moist in all parts for as long as 60 consecutive days when the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, but is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 52 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days.

The A horizon has hue of 10YR or 2.5Y, value of 4 to 7 dry and 3 to 6 moist, and chroma of 2 to 4. Texture typically is sandy loam or fine sandy loam but may range from loamy sand to clay loam depending upon the most recent deposition. Reaction ranges from neutral to moderately alkaline. It has an EC of 0 to 4 mmhos/cm. Nitrogen and phosphorus levels are not abnormally enriched. Some pedons have an AC horizon up to 8 inches thick.

The C horizon has hue of 7.5YR, 10YR or 2.5Y, value of 5 to 7 dry and 4 to 6 moist, and chroma of 2 to 4. Texture centers on sandy loam, fine sandy loam or loam, but strata of very fine sandy loam, loam, silt loam, loamy fine sand, loamy sand, fine sand or sand of varying thickness occur. Skeletal material may occur below 40 inches in some pedons. Reaction ranges from slightly alkaline to strongly alkaline. EC is typically 4 mmhos/cm or less but may range up to 8 when irrigated or where it receives saline discharge from surrounding shale beds.

Range in Characteristics (according to field observations, lab analysis): The C horizons of this profile were identified as calcic horizons, which is not typical of this series. This profile contains a slightly higher clay percent than what is typical.

Taxonomic Class - Coarse-loamy, mixed, superactive, calcareous, mesic Ustic Torrifluvents

Suitability for Topsoil (According to WDEQ Guideline 1) – Saturation percentage was marginal at 31-48 inches. Estimated stripping depth is 31 inches.

Geographic Setting (According to Official Series Description) – Clarkelen soils are on flood plains and terraces adjacent to floodplains. Slopes are 0 to 6 percent. The soils formed in stratified but dominantly moderately coarse textured recent stream alluvium originally weathered from sedimentary rock. Elevation is 3,500 to 6,200 feet. The average annual precipitation is 12 inches with over half falling in April, May, and June

and less than one inch falling in each month of July, August, September, and October. Precipitation ranges from 10 to 14 inches. The mean annual air temperature ranges from 44 to 49 degrees F. The frost-free season is about 105 to 130 days.

ZIGWEID  
NONCALCAREOUS VARIANT

Soil Mapping Unit "ZiNC"  
Lab Sample ID: C08100869-151\_155  
BKS Sample ID: #186

Typical Pedon: Zigweid clay loam-on a 3 percent southwest facing slope; utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Zigweid series consists of very deep, well drained soils formed in alluvium from mixed sedimentary sources on fan aprons, alluvial fans, fan piedmonts, fan remnants, terraces, ridges and hills. Slopes range from 0 to 20 percent. Permeability is moderate. The mean annual precipitation is about 13 inches, and the mean annual air temperature is about 46 degrees F.

**A** - 0 to 4 inches; light brownish gray (10YR 6/2) heavy clay loam, dark grayish brown (10YR 4/2) moist; moderate fine and medium granular structure; slight hard, friable, nonsticky and nonplastic; many very fine and fine roots throughout; noneffervescent; slightly alkaline (pH 7.6); clear smooth boundary. (4 to 8 inches thick)

**AB** - 4 to 8 inches; light brownish gray (10YR 6/2) clay loam, dark grayish brown (10YR 4/2) moist; moderate fine and medium granular structure; slight hard, friable, nonsticky and nonplastic; many very fine and fine roots throughout; noneffervescent; slightly alkaline (pH 7.6); clear smooth boundary.

**Bw1** - 8 to 18 inches; brown (10YR 5/3) sandy clay loam, brown (10YR 4/3) moist; moderate medium prismatic structure parting to moderate fine and medium subangular blocky; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine roots throughout and few medium throughout; noneffervescent; neutral (pH 7.0); gradual wavy boundary. (6 to 14 inches thick)

**Bw2** - 18 to 31 inches; brown (10YR 5/3) clay loam, brown (10YR 4/3) moist; moderate medium prismatic structure parting to moderate fine and medium subangular blocky; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine roots throughout and few medium throughout; noneffervescent; neutral (pH 6.9); gradual wavy boundary. (6 to 14 inches thick)

**C1** - 31 to 43 inches; brown (10YR 5/3) sandy clay loam, brown (10YR 4/3) moist; moderate medium prismatic structure parting to moderate fine and medium subangular blocky; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine roots throughout; noneffervescent; slightly alkaline (pH 7.5); gradual wavy boundary.



C2 - 43 to 60 inches; pale brown (10YR 6/3) sandy clay loam, brown (10YR 4/3) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots throughout; noneffervescent; neutral (pH 7.0).

Type Location - Campbell County, Wyoming; refer to waypoint 124 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to carbonates ranges from 0 to 8 inches. Depth to the Bk horizon and the base of the cambic horizon ranges from 10 to 22 inches. The particle-size control section and soil profile are clay loam or loam. Clay ranges from 18 to 35 percent, silt from 20 to 55 percent, and sand from 15 to 50 percent with more than 15 percent but less than 35 percent fine sand or coarser. Rock fragments range from 0 to 15 but are typically less than 5 percent and are mostly soft shale chips. The moisture control section is usually dry in all parts for 90 cumulative days following the summer solstice and for 60 consecutive days during this period. The mean annual soil temperature is 47 to 53 degrees F. The soil temperature at a depth of 20 inches is 41 degrees F or warmer for 175 to 192 days.

The A horizon has hue of 5Y, 2.5Y or 10YR, value of 4 to 6 dry, 3 to 5 moist, and chroma of 2 or 3. It is loam or clay loam. Reaction is neutral to moderately alkaline.

The Bw horizon has hue of 5Y, 2.5Y or 10YR, value of 5 or 6 dry, 4 or 5 moist, and chroma of 2 to 4. It is loam or clay loam. Reaction is slightly alkaline or moderately alkaline.

The Bk horizon has hue of 5Y, 2.5Y or 10YR, value of 5 to 7 dry, 4 to 6 moist, and chroma of 2 to 4. It is loam or clay loam. It has 5 to 14 percent calcium carbonate equivalent and may have a few scattered crystals of calcium sulfate. Reaction is moderately alkaline or strongly alkaline.

Some pedons have a C horizon with similar properties as the Bk horizon. Some pedons may have sandy clay loam textures below 40 inches. It typically has 3 to 5 percent less calcium carbonate than the overlying Bk horizon.

Range in Characteristics (according to field observations, lab analysis): This profile is noncalcareous throughout. This profile has an AB horizon, but no calcic B horizons, which is not typical of this series. This profile has a sandy clay loam texture above 40 inches, which is also not typical.

Taxonomic Class - Fine-loamy, mixed, superactive, mesic Ustic Haplocambids

Suitability for Topsoil (According to WDEQ Guideline 1) – No marginal or unsuitable parameters were found for this profile. Estimated stripping depth is 60 inches.

Geographic Setting (According to Official Series Description) - These soils are on fan aprons, alluvial fans, terraces, fan piedmonts, fan remnants, ridges and hills. In many areas they are dissected. Slopes range from 0 to 20 percent. These soils formed in calcareous, moderately fine textured sediments derived from interbedded shale and soft sandstone. Elevations are 3,500 to 6,600 feet. The mean annual precipitation is 13 inches with over half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. Precipitation ranges from 10 to 14 inches. The mean annual temperature is about 46 degrees F, and ranges from 43 to 51 degrees F. The frost-free season is about 105 to 130 days.

RENOHILL  
CLAY

Soil Mapping Unit "Re"

Lab Sample ID: C08100869-156\_158

BKS Sample ID: #187

Typical Pedon: Renohill silty clay-rangeland. (Colors are for dry soil unless otherwise stated.)

The Renohill series consists of well drained soils that are moderately deep to soft bedrock. These soils formed in alluvium, colluvium, and residuum. Renohill soils are on bedrock controlled plateaus, alluvial fans, hills and ridges. Slopes are 0 to 30 percent. The mean annual precipitation is about 12 inches, and the mean annual air temperature is about 45 degrees F.

**A** - 0 to 3 inches; light brownish gray (10YR 6/2) clay, dark grayish brown (10YR 4/2) moist; strong fine granular structure; soft, very friable, slightly sticky and slightly plastic; common medium and fine roots; noneffervescent; neutral (pH 7.2); clear smooth boundary. (one- to six-inches thick)

**BA** - 3 to 8 inches; grayish brown (10YR 5/2) clay, dark grayish brown (10YR 4/2) moist; moderate medium subangular blocky structure parting to moderate medium granular; slightly hard, friable, sticky and plastic; common fine and medium roots; noneffervescent; neutral (pH 7.2); clear smooth boundary. (zero- to five-inches thick)

**Bt1** - 8 to 12 inches; light olive brown (2.5Y 5/4) heavy clay, olive brown (2.5Y 4/4) moist; moderate medium prismatic parting to moderate medium angular blocky; very hard, firm, very sticky and very plastic; common fine and medium roots; many prominent clay films on faces of peds and lining root channels and pores; moderately effervescent; slightly alkaline (pH 7.5); clear smooth boundary. (4 to 16 inches thick)

**Bt2** - 12 to 17 inches; light yellowish brown (2.5Y 6/4) heavy clay, light olive brown (2.5Y 5/4) moist; weak coarse angular and subangular blocky structure; very hard, firm, sticky and plastic; few faint clay films on faces of peds; slightly effervescent; slightly alkaline (pH 7.5); gradual smooth boundary. (4 to 16 inches thick)

**Bn** - 17 to 22 inches; light brownish gray (2.5Y 6/2) heavy clay, grayish brown (2.5Y 5/2) moist; massive; very hard, firm, sticky and plastic; noneffervescent, sodium occurs as common soft masses and threads; about 5 percent soft shale chips; neutral (pH 7.1); clear smooth boundary. (5 to 20 inches thick)

**Cr** - 22 inches; soft, noncalcareous shale with thin lenses of sandstone

Type Location - Campbell County, Wyoming; refer to waypoint 62 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to bedrock and the paralithic contact ranges from 20 to 40 inches. Depth to the base of the argillic horizon ranges from 12 to 28 inches. Depth to carbonates ranges from 10 to 20 inches. Rock fragments are typically less than 5 percent but may range from 0 to 15 percent. The majority of the rock fragments are soft and break down upon pretreatment. The mean annual soil temperature is about 47 to 53 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days.

The A horizon has hue of 2.5Y or 10YR, value of 4 to 6 dry and 3 to 5 moist, and chroma of 2 or 3. It is clay loam, fine sandy loam or loam. Reaction is neutral or slightly alkaline.

The Bt horizon has hue of 2.5Y or 10YR, value of 4 to 6 dry and 4 or 5 moist, and chroma of 2 to 5. Texture is clay or heavy clay loam with 35 to 50 percent clay. EC is less than 2 mmhos. Reaction is neutral to moderately alkaline. This horizon is typically noncalcareous throughout but may be effervescent immediately above the Btk horizon.

The Btk horizon has hue of 2.5Y or 10YR, value of 5 to 7 dry and 4 to 6 moist, and chroma of 2 to 4. Texture is clay, clay loam, silty clay loam or silty clay with 35 to 50 percent clay. Secondary carbonates range from 3 to 12 percent. EC ranges up to 4 mmhos/cm. Reaction is moderately alkaline or strongly alkaline.

The Bk horizon has hue of 2.5Y or 10YR, value of 5 to 7 dry and 4 to 6 moist, and chroma of 2 to 6. Texture is clay loam, clay, silty clay loam or silty clay with 28 to 42 percent clay. Secondary carbonates range from 5 to 15 percent. EC ranges up to 4 mmhos/cm. Reaction is moderately alkaline or strongly alkaline.

The Cr horizon consists of soft, effervescent shale interbedded with thin lenses of sandstone or siltstone. In some pedons the bedrock is noneffervescent.

Range in Characteristics (according to field observations, lab analysis): There is a natric B horizon instead of a calcic B horizon for this profile. The A horizon in this profile has a finer texture than what is typical for this series.

Taxonomic Class - Fine, smectitic, mesic Ustic Haplargids

Suitability for Topsoil (According to WDEQ Guideline 1) - Marginal texture (clay) was found from 0-22 inches. Estimated stripping depth is 17 inches.

Geographic Setting (According to Official Series Description) - Renohill soils are on bedrock controlled plateaus, alluvial fans, hills and ridges. They formed in alluvium, colluvium and residuum derived from calcareous shale. Slopes are 0 to 30 percent. Elevations are 3,500 to 6,000 feet. The mean annual precipitation ranges from 10 to 14 inches most of which falls as snow and rain in April, May, and early June. The mean annual air temperature ranges from 43 to 47 degrees F. The frost-free period is 105 to 130 days.

KEELINE  
SANDY LOAM TO SANDY CLAY LOAM

Soil Mapping Unit "Ke"  
Lab Sample ID: C08100869-159\_162  
BKS Sample ID: #188

Typical Pedon: Keeline sandy loam to sandy clay loam-on east facing shoulder slope of 4 percent; utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Keeline series consists of very deep, well or somewhat excessively drained soils formed in alluvium or eolian deposits derived from sandstone. Keeline soils are on upland ridgetops, hillslopes, terraces, benches, alluvial fans, and fan remnants. Slopes range from 0 to 40 percent. The mean annual precipitation is about 12 inches, and the mean annual temperature is about 46 degrees F.

**A** - 0 to 3 inches; yellowish brown (10YR 5/4) sandy loam to sandy clay loam, brown (10YR 4/3) moist; weak fine subangular blocky and granular structure; soft, very friable, nonsticky and nonplastic; noneffervescent; slightly alkaline (pH 7.6); abrupt smooth boundary. (two to 8 inches thick)

**AC** - 3 to 9 inches; pale brown (10YR 6/3) sandy loam to sandy clay loam, brown (10YR 5/3) moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; noneffervescent; slightly alkaline (pH 7.6); clear smooth boundary. (zero- to seven-inches thick)

**C1** - 9 to 21 inches; very pale brown (10YR 7/3) fine sandy loam to fine sandy clay loam, light yellowish brown (10YR 6/4) moist; massive; soft, very friable, nonsticky and nonplastic; moderately effervescent; moderately alkaline (pH 8.0); gradual smooth boundary. (8 to 50 inches thick)

**C2** - 21 to 30 inches; very pale brown (10YR 7/3) very fine sandy clay loam, pale brown (10YR 6/3) moist; massive; soft, very friable, nonsticky and nonplastic; strongly effervescent; calcium carbonate disseminated; moderately alkaline (pH 8.2); gradual smooth boundary. (0 to 25 inches thick)

**C3** - 30 to 48 inches; very pale brown (10YR 7/3) very fine sandy clay loam, light yellowish brown (10YR 6/4) moist; massive; soft, very friable, nonsticky and nonplastic; strongly effervescent, calcium carbonate disseminated; neutral (pH 7.0).

Type Location - Converse County, Wyoming; refer to waypoint 83 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Free carbonates typically occur throughout the profile, but some pedons may be leached as much as 6 inches. The control section averages fine sandy loam or sandy loam with 5 to 18 percent clay. Rock fragments range from 0 to 15 percent. Some thin strata of coarser material may occur. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, and is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 52 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days. EC ranges from 0 to 4 mmhos throughout the profile. Bedrock is deeper than 60 inches.

The A horizon has hue of 7.5YR through 2.5Y, value of 5 through 7 dry, 4 or 5 moist, and chroma of 2 through 4. It is sandy loam and less commonly loamy sand, fine sandy loam, or loamy fine sand. Reaction is neutral to moderately alkaline.

The Bw horizon, when present, has the same properties of the A except for structure which is usually weak subangular blocky.

Some pedons have an AC horizon.

The C horizon has hue of 7.5YR through 5Y, value of 4 through 7 dry, 4 through 6 moist, and chroma of 2 through 4. Texture averages sandy loam or fine sandy loam. Some pedons have subhorizons of very fine sandy loam or loamy fine sand. Reaction is moderately or strongly alkaline and some pedons have weak, discontinuous accumulations of calcium carbonate.

Range in Characteristics (according to field observations, lab analysis): This texture has a slightly higher clay percent than what is typical for this series.

Taxonomic Class - Coarse-loamy, mixed, superactive, calcareous, mesic Ustic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) - An unsuitable SAR was found from 21-30 inches. Estimated stripping depth is 21 inches.

Geographic Setting (According to Official Series Description) - Keeline soils are on terraces, benches, alluvial fans, fan remnants, ridgetop and hillslope positions. Slopes are 0 to 40 percent. These soils formed in moderately coarse alluvium or eolian deposits derived from calcareous sandstone. Elevations are 3,500 to 6,200 feet. The average annual precipitation is 12 inches with over one-half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. Precipitation ranges from 10 to 15 inches. The mean annual

temperature is about 46 degrees F but ranges from 44 to 49 degrees F. The frost-free season is about 105 to 130 days.



BOWBAC  
SANDY CLAY

Soil Mapping Unit "Bo"

Lab Sample ID: C08100869-163\_165

BKS Sample ID: #189

Typical Pedon: Bowbac sandy clay -on a northeast facing slope of 1 percent under native vegetation. (Colors are for dry soil unless otherwise stated.)

The Bowbac series consists of moderately deep, well drained soils formed in alluvium, eolian deposits or residuum derived primarily from argillaceous sandstone. They occupy alluvial fans, terraces, dissected fan remnants, fan piedmonts, hillslopes, pediments, plateaus, ridges and buttes. Slopes are 0 to 15 percent and both simple and complex. The mean annual precipitation is about 13 inches, and the mean annual temperature is about 46 degrees F.

**A** - 0 to 3 inches; brown (10YR 5/3) sandy clay, dark brown (10YR 3/3) moist; weak fine and very fine granular structure; soft, very friable, nonsticky and nonplastic; many fine and very fine roots; noneffervescent; slightly alkaline (pH 7.8); abrupt wavy boundary. (two to 7 inches thick)

**Bt** - 3 to 8 inches; yellowish brown (10YR 5/4) heavy sandy clay, brown (10YR 4/3) moist; moderate coarse and medium prismatic structure parting to moderate medium and coarse angular blocky; hard, friable, slightly sticky and moderately plastic; common fine and very fine, few medium and coarse roots; many distinct clay films on faces of peds; noneffervescent; slightly alkaline (pH 7.8); clear wavy boundary.

**Btk** - 8 to 18 inches; yellowish brown (10YR 5/4) very fine sandy clay loam, dark yellowish brown (10YR 4/4) moist; moderate medium and coarse subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few medium fine and very fine roots; common distinct clay films on faces of peds; violently effervescent; moderately alkaline (pH 8.0); clear wavy boundary.

**Bk** - 18 to 24 inches; very pale brown (10YR 7/3) clay loam, brown (10YR 5/3) moist; massive; soft, friable, slightly plastic; few medium, fine and very fine roots; violently effervescent, calcium carbonate as few fine and medium soft masses; neutral (pH 7.3); abrupt smooth boundary. (6 to 18 inches thick)

**Cr** - 24 inches; slightly hard, violently effervescent, argillaceous sandstone.

Type Location - Campbell County, Wyoming; refer to waypoint 80 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to soft sandstone ranges from 20 to 40 inches. Depth to continuous carbonate accumulation ranges from 10 to 35 inches, and depth to the base of the argillic horizon ranges from 10 to 35 inches. Coarse fragments range from 0 to 15 percent and are soft sandstone channers or semirounded gravel. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F and is never moist in some or all parts for as long as 60 consecutive days when the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, but is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 53 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days. EC ranges from 0 to 2 mmhos throughout the profile.

The A horizon has hue of 2.5Y through 7.5YR, value of 4 through 6 dry, 3 through 5 moist, and chroma of 2 through 4. Textures are loamy fine sand, sandy loam, sandy clay loam, fine sandy loam, very fine sandy loam, or loam. Reaction is typically neutral or slightly alkaline but ranges to moderately alkaline in some pedons.

The Bt horizon has hue of 2.5Y through 7.5YR, value of 4 through 6 dry, 3 through 5 moist, and chroma of 2 through 4. In pedons where mollic colors are present in this horizon, the layer is too thin to meet the requirements for a mollic epipedon. Texture is sandy clay loam with more than 35 percent fine sand or coarser. Clay ranges from 20 to 35 percent. Reaction is typically slightly alkaline but may range from neutral to moderately alkaline.

Some pedons have a Btk horizon.

The Bk horizon has hue of 2.5Y through 7.5YR, value of 5 through 7 dry, 4 through 6 moist, and chroma of 2 through 6. Texture is typically sandy loam or sandy clay loam but may be fine sandy loam or very fine sandy loam. Carbonates range from 6 to 14 percent. This horizon does not meet the requirements of a diagnostic calcic. Discontinuous horizons with greater than 15 percent carbonates occur in some pedons. Reaction is moderately or strongly alkaline with less than 15 percent ESP.

The Cr is a paralithic contact to calcareous, argillaceous sandstone. This material is weakly consolidated and does restrict the movement of water and, therefore, roots. Interbedded shales may be present in some areas and may form the contact.

Range in Characteristics (according to field observations, lab analysis): The texture of the Bk horizon is finer than typical for this series.

Taxonomic Class - Fine-loamy, mixed, superactive, mesic Ustic Haplargids

Suitability for Topsoil (According to WDEQ Guideline 1) – SAR is unsuitable from 0-8 inches and 18-24 inches. Estimated stripping depth is 0 inches.

Geographic Setting (According to Official Series Description) - Bowbac soils are on alluvial fans, terraces, dissected fan remnants, fan piedmonts, hillslopes, pediments, plateaus, ridges and buttes. Slopes are 0 to 15 percent. Elevations are 3,500 to 6,500 feet. The average annual precipitation is 13 inches with over half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. Precipitation ranges from 10 to 14 inches. The mean annual temperature ranges from 43 to 51 degrees F. The frost-free season is about 105 to 130 days.

DECOLNEY  
SANDY LOAM

Soil Mapping Unit "De"  
Lab Sample ID: C08100869-166\_169  
BKS Sample ID: #190

Typical Pedon: Decolney sandy loam-on a north facing slope of 3 percent; utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Decolney series consists of very deep, well drained soils that formed in alluvium or eolian deposits derived from sedimentary beds. Decolney soils are on stabilized dune topography on uplands. Slopes range from 0 to 20 percent. The mean annual precipitation is about 13 inches, and the mean annual air temperature is about 47 degrees F.

**A** - 0 to 3 inches; brown (10YR 5/3) sandy loam, brown (10YR 4/3) moist; weak fine granular structure; soft, very friable; nonsticky and nonplastic; many fine and very fine roots; common fine pores; noneffervescent; neutral (pH 7.3); abrupt smooth boundary. (two to 5 inches thick)

**Bt** - 3 to 14 inches; yellowish brown (10YR 5/4) sandy clay loam, dark yellowish brown (10YR 4/4) moist; moderate coarse prismatic structure parting to moderate coarse subangular blocky; hard, friable, slightly sticky and slightly plastic; common fine and very fine roots; common fine pores; many faint dark brown (10YR 3/3) clay films on faces of peds and lining pores; noneffervescent; moderately alkaline (pH 7.9); clear wavy boundary.

**Ck** - 14 to 38 inches; brown (10YR 5/3) very fine sandy clay loam, brown (10YR 4/3) moist; massive; slightly hard, friable, nonsticky and nonplastic; few fine and very fine roots; calcium carbonate disseminated; violently effervescent; slightly alkaline (pH 7.8); abrupt wavy boundary.

**C** - 38 to 48 inches; pale brown (10YR 6/3) coarse sandy clay loam, brown (10YR 5/3) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; few fine and very fine roots; slightly effervescent; slightly alkaline (pH 7.4).

Type Location - Campbell County, Wyoming; refer to waypoint 104 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to the base of the argillic horizon is 10 to 30 inches. Depth to carbonates is greater than 40 inches. The mean annual soil temperature is 47 to 52 degrees F. The soil is usually dry at a depth of 20 inches when the temperature is 41 degrees F. The moisture control section

is dry for at least 60 consecutive days and 90 cumulative days between July 15 and October 25. The soil temperature is 41 degrees F or greater for 175 to 192 days. Rock fragments range from 0 to 10 percent.

The A horizon has hue of 10YR or 7.5YR, value of 4 to 6 dry, 3 or 4 moist, and chroma of 2 or 3. It is fine sandy loam, sandy loam, sandy clay loam or loam. It is neutral or slightly alkaline.

The Bt horizon has hue of 10YR or 7.5YR, value of 4 or 5 dry, 3 or 4 moist, and chroma of 3 or 4. It is sandy clay loam. It has 20 to 35 percent clay and more than 35 percent fine or coarser sand in the particle-size control section. It is neutral to moderately alkaline.

The C horizon has hue of 10YR or 7.5YR, value of 4 to 6 dry, 4 or 5 moist, and chroma of 2 to 4. It is fine sandy loam, sandy loam or sandy clay loam with 10 to 24 percent clay and more than 35 percent fine or coarser sand. It is slightly alkaline or moderately alkaline.

Range in Characteristics (according to field observations, lab analysis): A calcic C horizon was identified for this profile, which is not typical of this series.

Taxonomic Class - Fine-loamy, mixed, superactive, mesic Ustic Haplargids

Suitability for Topsoil (According to WDEQ Guideline 1) – SAR is marginal from 0-3 inches. Estimated stripping depth is 14 inches.

Geographic Setting (According to Official Series Description) - Decolney soils are on stabilized dune topography including alluvial fans, fan remnants, pediments, terraces, plateaus, ridges and hills. They formed in eolian or alluvium deposits derived from mixed sedimentary bedrock. Slopes are 0 to 20 percent. Elevations range from 3,500 to 5,200 feet. The mean annual precipitation is 10 to 14 inches, about half of which falls as rain or snow from late March through June. The mean annual air temperature ranges from 44 to 49 degrees F. The frost-free period is estimated to range from 105 to 130 days.

TULLOCK  
NONCALCAREOUS VARIANT

Soil Mapping Unit "TINC"  
Lab Sample ID: C08100869-170\_173  
BKS Sample ID: #191

Typical Pedon: Tullock sandy loam to sandy clay loam-in rangeland. (Colors are for dry soil unless otherwise stated.)

The Tullock series consists of moderately deep, excessively drained soils formed in residuum, alluvium or eolian deposits derived from sandstone. They are on dunes, hills and ridges. Slopes are 0 to 45 percent. The mean annual precipitation is about 12 inches. The mean annual air temperature is about 46 degrees F.

**A** - 0 to 3 inches; brown (10YR 5/3) sandy loam to sandy clay loam, brown (10YR 4/3) moist; weak medium and fine granular structure; loose; noneffervescent; slightly alkaline (pH 7.5); clear wavy boundary. (two- to six-inches thick)

**AC** - 3 to 11 inches; brown (10YR 5/3) sandy loam, brown (10YR 4/3) moist; weak medium and fine granular structure; loose; noneffervescent; slightly alkaline (pH 7.6); clear wavy boundary.

**C1** - 11 to 18 inches; brown (10YR 5/3) sandy loam, brown (10YR 4/3) moist; massive; loose; noneffervescent; moderately alkaline (pH 8.1); clear wavy boundary. (0 to 18 inches thick)

**C2** - 18 to 34 inches; pale brown (10YR 6/3) gravelly sandy loam to sandy clay loam, brown (10YR 5/3) moist; massive; loose; noneffervescent; moderately alkaline (pH 8.1); clear wavy boundary.

**Cr** - 34 inches; soft moderately calcareous sandstone.

Type Location - Converse County, Wyoming; refer to waypoint 84 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - These soils typically effervesce throughout but some in some pedons the A horizon is leached. Depth to paralithic contact is 20 to 40 inches. The soil has 0 to 15 percent rock fragments. These soils are usually dry in the moisture control section for 60 consecutive days and 90 cumulative days between July 15 and October 25. The soil temperature at a depth of 20 inches is 41 degrees F or warmer for 175 to 192 days. The mean annual soil temperature is 47 to 53 degrees F.

The A horizon has hue of 2.5Y or 10YR value of 5 or 6 and 3 to 5 moist, and chroma of 2 to 5. It is loamy sand, sand, loamy fine sand, fine sandy loam or fine sand. It is neutral to moderately alkaline.

Some pedons have an AC horizon. When present, it has hue or 2.5Y or 10YR, value of 5 or 6 and 4 or 5 moist, and chroma of 3 or 4. It is loamy sand, loamy fine sand, fine sand or sand.

The C horizon has hue of 2.5Y or 10YR, value of 5 to 7 and 4 to 6 moist, and chroma of 2 to 6. It is loamy sand, loamy fine sand, fine sand or sand. It is slightly alkaline or moderately alkaline.

The Cr horizon is soft calcareous sandstone which may be interbedded with conglomerate or shale in some areas.

Range in Characteristics (according to field observations, lab analysis): This profile is noncalcareous throughout. Textures are slightly finer in the A and C2 horizons than what is typical for this series.

Taxonomic Class - Mixed, mesic Ustic Torripsamments

Suitability for Topsoil (According to WDEQ Guideline 1) – Saturation percentage is marginal from 3-11 inches. Estimated stripping depth is 18 inches.

Geographic Setting (According to Official Series Description) - Tullock soils are on dunes and footslopes and toeslopes of hills and ridges. They formed in eolian deposits and residuum derived from sandstone. Slopes are 0 to 45 percent. Elevation is 3500 to 6,000 feet. Mean annual soil temperature is 47 to 53 degrees F. Mean annual precipitation is 10 to 14 inches. The frost-free period is 105 to 130 days.

SHINGLE  
CLAY LOAM

Soil Mapping Unit "Sh"  
Lab Sample ID: C08100869-174\_175  
BKS Sample ID: #192

Typical Pedon: Shingle clay loam-rangeland. (Colors are for dry soil unless otherwise stated.)

The Shingle series consists of well drained soils that are very shallow or shallow to bedrock. They formed in residuum and colluvium derived from interbedded shale and sandstone or in alluvium from mudstone. Shingle soils are on bedrock controlled hillslopes and ridges. Slopes are 0 to 80 percent. The mean annual precipitation is about 13 inches, and the mean annual temperature is 45 degrees F.

**A** - 0 to 1 inch; light brownish gray (10YR 6/2) clay loam, dark grayish brown (10YR 4/2) moist; moderate very fine granular structure; soft, very friable, moderately sticky and moderately plastic; slightly effervescent; neutral (pH 7.1); clear smooth boundary. (one- to six-inches thick)

**C** - 1 to 8 inches; light yellowish brown (2.5Y 6/3) clay, light olive brown (2.5Y 5/3) moist; massive; hard, variable, moderately sticky and moderately plastic; slightly effervescent; neutral (pH 7.3); clear wavy boundary. (4 to 15 inches thick)

**Cr** - 8 inches; soft, strongly calcareous shale interbedded with lenses of soft sandstone.

Type Location - Goshen County, Wyoming; refer to waypoint 87 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to soft bedrock and paralithic contact ranges from 4 to 20 inches. The mean annual soil temperature is 47 to 53 degrees F. The soils commonly are calcareous throughout, but some pedons are leached to 6 inches. The particle size control section averages 20 to 35 percent clay and has more than 15 percent but less than 35 percent fine or coarser sand. The soil is usually dry. The moisture control section is usually moist in April, May and early June. It is dry for 60 consecutive days or more during the 90 day period following the summer solstice. EC is 0 to 2 mmhos throughout.

The A horizon has hue of 5Y through 7.5YR, value of 5 through 7 dry, 3 through 6 moist, and chroma of 1 through 6. Reaction is neutral through strongly alkaline. Some pedons have a light gravel lag on the surface. Texture is loam, silt loam, clay loam, silty clay



loam, cobbly loam, and gravelly clay loam. Rock fragments or shale channers range from 0 to 35 percent.

A Bw or AC horizon, when present, has the combined properties of the A and C horizons.

The C horizon has hue of 5Y through 7.5YR, value of 4 through 7 dry, 3 through 6 moist, and chroma of 1 through 6. It is loam, silt loam, clay loam or silty clay loam. Rock fragments or shale channers range from 0 to 35 percent. Reaction is slightly alkaline through strongly alkaline.

Range in Characteristics (according to field observations, lab analysis): The C horizon for this profile has a finer texture than what is typical for this series.

Taxonomic Class - Loamy, mixed, superactive, calcareous, mesic, shallow Ustic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) - Marginal texture (clay) was found from 1-8 inches. Estimated stripping depth is 8 inches.

Geographic Setting (According to Official Series Description) - The Shingle soils occur on all hillslope positions. Slopes are 0 to 80 percent. These soils formed in colluvium and residuum weathered from soft, interbedded sandstone and shale or in alluvium from mudstone. Elevation is 3,200 to 6,500 feet. The mean annual precipitation is about 10 to 14 inches, most of which falls in April, May, and June. The mean annual temperature is about 45 degrees F but ranges from 43 to 51 degrees F. The frost-free season is about 105 to 130 days.

ULM  
CLAY LOAM

Soil Mapping Unit "UI"  
Lab Sample ID: C08100869-176\_180  
BKS Sample ID: #193

Typical Pedon: Ulm clay loam-rangeland. (Colors are for dry soil unless otherwise stated.)

The Ulm series consists of very deep, well drained soils that formed in calcareous alluvium derived from sedimentary rock. Ulm soils are on relict terraces, alluvial fans, fan remnants, plateaus, ridges and hills. Slopes are 0 to 18 percent. The mean annual precipitation is about 12 inches, and the mean air annual temperature is about 47 degrees F.

**A** - 0 to 3 inches; grayish brown (10YR 5/2) clay loam, dark grayish brown (10YR 4/2) moist; strong fine granular structure; slightly hard, friable, sticky and plastic; many fine and few medium roots; noneffervescent; neutral (pH 6.6); clear smooth boundary. (two to 5 inches thick)

**Bt** - 3 to 10 inches; brown (10YR 5/3) clay, brown (10YR 4/3) moist; strong coarse prismatic structure parting to strong medium and coarse angular blocky; very hard, very firm, very sticky and very plastic; common fine and few medium roots; many prominent clay films on faces of peds; noneffervescent; slightly alkaline (pH 7.5); clear wavy boundary. (6 to 23 inches thick)

**Bk1** - 10 to 18 inches; pale brown (10YR 6/3) clay loam, brown (10YR 4/3) moist; moderate medium subangular blocky structure; hard, firm, sticky and plastic; few fine and medium roots; strongly effervescent; calcium carbonate as common distinct masses, seams and streaks; moderately alkaline (pH 7.9); clear wavy boundary.

**Bk2** - 18 to 36 inches; pale brown (10YR 6/3) clay loam, brown (10YR 5/3) moist; massive; hard, firm, sticky and plastic; calcium carbonate as common distinct masses, seams and streaks; strongly effervescent; moderately alkaline (pH 8.0).

**Cn** - 36 to 60 inches; pale brown (10YR 6/3) clay, brown (10YR 5/3) moist; massive; hard, firm, sticky and plastic; sodium as common distinct masses, seams and streaks; slightly effervescent; slightly alkaline (pH 7.8).

Type Location - Campbell County, Wyoming; refer to waypoint 88 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to calcareous material ranges from 12 to 33 inches. Rock fragments range from 0 to 15 percent channers. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, and is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 53 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days.

The A horizon has hue of 2.5Y or 10YR, value of 5 to 7 dry and 3 to 5 moist, and chroma of 1 to 4. Texture is loam or clay loam. It usually has granular structure but has subangular blocky structure in some pedons. This horizon is soft or slightly hard. Reaction is neutral or slightly alkaline.

The Bt horizon has hue of 2.5Y or 10YR, value of 5 or 6 dry and 3 to 5 moist, and chroma of 2 to 4. Where colors are dark enough to be mollic the values are derived from parent material weathered from dark colored shales. Texture is usually clay loam, silty clay loam, silty clay or clay with clay ranging from 35 to 50 percent, silt from 10 to 40 percent, and sand from 15 to 50 percent with more than 15 percent fine sand or coarser. This horizon usually has prismatic structure but has angular or subangular blocky structure in some pedons. Reaction is neutral to moderately alkaline.

The Btk horizon has hue of 5Y, 2.5Y or 10YR, value of 5 to 7 dry and 4 to 6 moist, and chroma of 2 to 4. Texture is clay, clay loam, silty clay or silty clay loam. Reaction is slightly alkaline or moderately alkaline. The calcium carbonate equivalent ranges from 6 to 12 percent.

The Bk horizon has hue of 5Y, 2.5Y or 10YR, value of 5 to 7 dry and 4 to 6 moist, and chroma of 2 to 4. Texture is clay loam, silty clay loam, silty clay, sandy clay loam, loam or clay. It has 6 to 15 percent calcium carbonate equivalent. Reaction is moderately alkaline or strongly alkaline. Some areas have a sandy or gravelly substratum below 40 inches.

Some pedons have a C horizon.

Range in Characteristics (according to field observations, lab analysis): A natric C horizon was identified at the bottom of this profile, which is not typical of this series.

Taxonomic Class - Fine, smectitic, mesic Ustic Haplargids

Suitability for Topsoil (According to WDEQ Guideline 1) - Marginal texture (clay) was found from 3-10 inches and 36-60 inches. Estimated stripping depth is 36 inches.

Geographic Setting (According to Official Series Description) - Ulm soils are on relict alluvial terraces, alluvial fans, fan remnants, plateaus and footslopes and toeslopes of hills. Slopes are 0 to 18 percent. The soils formed in fine and medium textured alluvium derived from interbedded shales and argillaceous sandstone. Elevations are 3,500 to 6,500 feet. The mean annual precipitation is 10 to 14 inches with over half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. The mean annual air temperature ranges from 46 to 51 degrees F. The frost-free season is 105 to 130 days.

PETRIE  
CLAY TO CLAY LOAM

Soil Mapping Unit "Pe"  
Lab Sample ID: C08100869-181\_184  
BKS Sample ID: #194

Typical Pedon: Petrie clay to clay loam-rangeland. (Colors are for dry soil unless otherwise stated.)

The Petrie series consists of deep, well drained soils that formed in alluvium derived from sodic sedimentary rock. These soils are on fan aprons, fan pediments, and alluvial terraces. Slopes are 0 to 10 percent. The mean annual precipitation is about 13 inches, and the mean annual temperature is about 45 degrees F.

**A** - 0 to 3 inches; light yellowish brown (2.5Y 6/4) clay to clay loam, light olive brown (2.5Y 5/4) moist; moderate medium granular structure; slightly hard, friable, slightly sticky and slightly plastic; common fine and medium roots; noneffervescent; slightly alkaline (pH 7.5); clear smooth boundary. (one- to six-inches thick)

**AC** - 3 to 8 inches; light yellowish brown (2.5Y 6/4) clay to clay loam, light olive brown (2.5Y 5/4) moist; weak medium subangular blocky structure parting to moderate coarse granular; slightly hard, friable, slightly sticky and slightly plastic; common fine and few medium roots; noneffervescent; slightly alkaline (pH 7.5); clear wavy boundary. (two to 7 inches thick)

**C1** - 8 to 17 inches; light yellowish brown (2.5Y 6/4) clay loam, light olive brown (2.5Y 5/4) moist; massive; very hard, firm, sticky and plastic; few fine roots; strongly effervescent; moderately alkaline (pH 8.0); gradual wavy boundary.

**C2** - 17 to 32 inches; light yellowish brown (2.5Y 6/4) clay loam, light olive brown (2.5Y 5/4) moist; massive; very hard, very firm, sticky and plastic; few fine roots; strongly effervescent; moderately alkaline (pH 8.4).

**C3** - 32 to 44 inches; light yellowish brown (2.5Y 6/4) clay to clay loam, light olive brown (2.5Y 5/4) moist; massive; very hard, very firm, sticky and plastic; few fine roots; slightly effervescent; moderately alkaline (pH 8.1).

**Cr** - 44 inches; noneffervescent mixed black and gray shale.

Type Location - Natrona County, Wyoming; refer to waypoint 16 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - These soils are typically calcareous throughout but may be leached a few inches in some pedons. The mean annual soil temperature is 47 to 53 degrees F. The particle size control section is a clay, silty clay, clay loam, or silty clay loam with 35 to 60 percent clay. Exchangeable sodium ranges from 15 to 40 percent throughout the control section. Rock fragments are typically less than 5 percent but range from 0 to 15 percent rounded pebbles. Calcium carbonate equivalent ranges from 1 to about 8 percent. The majority of the carbonates and gypsum are autogenetic with only minor secondary accumulations with depth.

The A horizon has hue of 2.5Y through 7.5YR, value of 5 through 7 dry, 3 through 5 moist, and chroma of 2 through 4. Cracks one cm wide extend to the surface of most pedons. EC ranges from 2 to 4 mmhos. Reaction is moderately through very strongly alkaline.

The AC horizon has hue of 2.5Y through 7.5YR, value of 5 through 7 dry, 4 through 6 moist, and chroma of 2 through 4. Texture is typically clay loam or clay but may be silty clay or silty clay loam. Cracks one cm wide extend through this horizon. EC ranges from 2 to 4 mmhos. Reaction is strongly or very strongly alkaline. Some pedons have a Bw horizon in place of the AC horizon. This is allowed since the distinction is difficult at best between the two.

The C horizon has hue of 2.5Y through 7.5YR, value of 5 through 7 dry, 4 through 6 moist, and chroma of 2 through 4. Texture is typically clay loam or clay but may be silty clay or silty clay loam. Cracks are common to a depth of 30 inches or more in this horizon. Autogenetic carbonates and gypsum range from few to common soft masses and nests of crystals. EC ranges from 4 to 8 mmhos in nonirrigated areas. Some areas, where irrigated, have seasonal water tables and EC may range up to 16 mmhos. Reaction is strongly or very strongly alkaline.

Range in Characteristics (according to field observations, lab analysis): This profile is less alkaline than what is typical of this series.

Taxonomic Class - Fine, smectitic, calcareous, mesic Ustertic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) - Marginal texture (clay) was found from 0-8 inches and 32-44 inches. Estimated stripping depth is 36 inches.

Geographic Setting (According to Official Series Description) - Petrie soils are on fan aprons, fan pediments, alluvial terraces, and to a limited extent low energy alluvial fans. These soils formed in alluvium derived from sodic shale and siltstone. Slopes are 0 to 10 percent. Elevation is 3,700 to 6,500 feet. The mean annual precipitation is about 13 inches and ranges from 10 to 16 inches of which about half falls as snow or rain in April, May, and early June. The mean annual air temperature ranges from 43 to 49 degrees F.

The frost-free season is estimated to range from 105 to 130 days depending upon elevation, aspect, and local air drainage.

KEELINE  
NONCALCAREOUS VARIANT

Soil Mapping Unit "KeNC"  
Lab Sample ID: C08100869-185\_188  
BKS Sample ID: #195

Typical Pedon: Keeline very fine sandy loam-on east facing shoulder slope of 4 percent; utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Keeline series consists of very deep, well or somewhat excessively drained soils formed in alluvium or eolian deposits derived from sandstone. Keeline soils are on upland ridgetops, hillslopes, terraces, benches, alluvial fans, and fan remnants. Slopes range from 0 to 40 percent. The mean annual precipitation is about 12 inches, and the mean annual temperature is about 46 degrees F.

**A** - 0 to 3 inches; yellowish brown (10YR 5/4) very fine sandy loam, brown (10YR 4/3) moist; weak fine subangular blocky and granular structure; soft, very friable, nonsticky and nonplastic; noneffervescent; neutral (pH 7.3); abrupt smooth boundary. (two to 8 inches thick)

**AC** - 3 to 9 inches; pale brown (10YR 6/3) very fine sandy loam, brown (10YR 5/3) moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; noneffervescent; neutral (pH 7.3); clear smooth boundary. (zero- to seven-inches thick)

**C1** - 9 to 18 inches; very pale brown (10YR 7/3) very fine sandy loam, light yellowish brown (10YR 6/4) moist; massive; soft, very friable, nonsticky and nonplastic; noneffervescent; slightly alkaline (pH 7.4); gradual smooth boundary. (8 to 50 inches thick)

**C2** - 18 to 37 inches; very pale brown (10YR 7/3) very fine sandy loam, pale brown (10YR 6/3) moist; massive; soft, very friable, nonsticky and nonplastic; noneffervescent; slightly alkaline (pH 7.8); gradual smooth boundary. (0 to 25 inches thick)

**C3** - 37 to 48 inches; very pale brown (10YR 7/3) very fine sandy loam, light yellowish brown (10YR 6/4) moist; massive; soft, very friable, nonsticky and nonplastic; noneffervescent; moderately alkaline (pH 8.0).

Type Location - Converse County, Wyoming; refer to waypoint 23 on map included in this report.



Range in Soil Characteristics (According to Official Series Description) - Free carbonates typically occur throughout the profile, but some pedons may be leached as much as 6 inches. The control section averages fine sandy loam or sandy loam with 5 to 18 percent clay. Rock fragments range from 0 to 15 percent. Some thin strata of coarser material may occur. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, and is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 52 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days. EC ranges from 0 to 4 mmhos throughout the profile. Bedrock is deeper than 60 inches.

The A horizon has hue of 7.5YR through 2.5Y, value of 5 through 7 dry, 4 or 5 moist, and chroma of 2 through 4. It is sandy loam and less commonly loamy sand, fine sandy loam, or loamy fine sand. Reaction is neutral to moderately alkaline.

The Bw horizon, when present, has the same properties of the A except for structure which is usually weak subangular blocky.

Some pedons have an AC horizon.

The C horizon has hue of 7.5YR through 5Y, value of 4 through 7 dry, 4 through 6 moist, and chroma of 2 through 4. Texture averages sandy loam or fine sandy loam. Some pedons have subhorizons of very fine sandy loam or loamy fine sand. Reaction is moderately or strongly alkaline and some pedons have weak, discontinuous accumulations of calcium carbonate.

Range in Characteristics (according to field observations, lab analysis): This profile is noncalcareous throughout.

Taxonomic Class - Coarse-loamy, mixed, superactive, noncalcareous, mesic Ustic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) - Saturation percentage is marginal from 0-48 inches. Estimated stripping depth is 48 inches.

Geographic Setting (According to Official Series Description) - Keeline soils are on terraces, benches, alluvial fans, fan remnants, ridgetop and hillslope positions. Slopes are 0 to 40 percent. These soils formed in moderately coarse alluvium or eolian deposits derived from calcareous sandstone. Elevations are 3,500 to 6,200 feet. The average annual precipitation is 12 inches with over one-half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. Precipitation ranges from 10 to 15 inches. The mean annual

temperature is about 46 degrees F but ranges from 44 to 49 degrees F. The frost-free season is about 105 to 130 days.

DECOLNEY  
SANDY LOAM

Soil Mapping Unit "De"

Lab Sample ID: C08100869-189\_193

BKS Sample ID: #197

Typical Pedon: Decolney sandy loam-on a north facing slope of 3 percent; utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Decolney series consists of very deep, well drained soils that formed in alluvium or eolian deposits derived from sedimentary beds. Decolney soils are on stabilized dune topography on uplands. Slopes range from 0 to 20 percent. The mean annual precipitation is about 13 inches, and the mean annual air temperature is about 47 degrees F.

**A** - 0 to 4 inches; brown (10YR 5/3) sandy loam, brown (10YR 4/3) moist; weak fine granular structure; soft, very friable; nonsticky and nonplastic; many fine and very fine roots; common fine pores; noneffervescent; neutral (pH 7.1); abrupt smooth boundary. (two to 5 inches thick)

**Bt** - 4 to 10 inches; yellowish brown (10YR 5/4) sandy clay loam, dark yellowish brown (10YR 4/4) moist; moderate coarse prismatic structure parting to moderate coarse subangular blocky; hard, friable, slightly sticky and slightly plastic; common fine and very fine roots; common fine pores; many faint dark brown (10YR 3/3) clay films on faces of peds and lining pores; noneffervescent; neutral (pH 7.3); clear wavy boundary.

**C1** - 10 to 19 inches; brown (10YR 5/3) sandy loam, brown (10YR 4/3) moist; massive; slightly hard, friable, nonsticky and nonplastic; few fine and very fine roots; noneffervescent; slightly alkaline (pH 7.6); abrupt wavy boundary. (5 to 21 inches thick)

**C2** - 19 to 36 inches; pale brown (10YR 6/3) loamy sand, brown (10YR 5/3) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; few fine and very fine roots; noneffervescent; moderately alkaline (pH 8.2).

**C3** - 36 to 48 inches; pale brown (10YR 6/3) sand, brown (10YR 5/3) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; few fine and very fine roots; noneffervescent; moderately alkaline (pH 8.3).

Type Location - Campbell County, Wyoming; refer to waypoint 25 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to the base of the argillic horizon is 10 to 30 inches. Depth to carbonates is greater than 40

inches. The mean annual soil temperature is 47 to 52 degrees F. The soil is usually dry at a depth of 20 inches when the temperature is 41 degrees F. The moisture control section is dry for at least 60 consecutive days and 90 cumulative days between July 15 and October 25. The soil temperature is 41 degrees F or greater for 175 to 192 days. Rock fragments range from 0 to 10 percent.

The A horizon has hue of 10YR or 7.5YR, value of 4 to 6 dry, 3 or 4 moist, and chroma of 2 or 3. It is fine sandy loam, sandy loam, sandy clay loam or loam. It is neutral or slightly alkaline.

The Bt horizon has hue of 10YR or 7.5YR, value of 4 or 5 dry, 3 or 4 moist, and chroma of 3 or 4. It is sandy clay loam. It has 20 to 35 percent clay and more than 35 percent fine or coarser sand in the particle-size control section. It is neutral to moderately alkaline.

The C horizon has hue of 10YR or 7.5YR, value of 4 to 6 dry, 4 or 5 moist, and chroma of 2 to 4. It is fine sandy loam, sandy loam or sandy clay loam with 10 to 24 percent clay and more than 35 percent fine or coarser sand. It is slightly alkaline or moderately alkaline.

Range in Characteristics (according to field observations, lab analysis): The textures from 19-48 inches are coarser than typical for this series.

Taxonomic Class - Fine-loamy, mixed, superactive, mesic Ustic Haplargids

Suitability for Topsoil (According to WDEQ Guideline 1) – Marginal texture (sand) was found from 36-48 inches. Saturation percentage was marginal from 0-48 inches. Estimated stripping depth is 36 inches.

Geographic Setting (According to Official Series Description) - Decolney soils are on stabilized dune topography including alluvial fans, fan remnants, pediments, terraces, plateaus, ridges and hills. They formed in eolian or alluvium deposits derived from mixed sedimentary bedrock. Slopes are 0 to 20 percent. Elevations range from 3,500 to 5,200 feet. The mean annual precipitation is 10 to 14 inches, about half of which falls as rain or snow from late March through June. The mean annual air temperature ranges from 44 to 49 degrees F. The frost-free period is estimated to range from 105 to 130 days.

THEEDLE  
SANDY LOAM

Soil Mapping Unit "Th"  
Lab Sample ID: C08100869-194\_195  
BKS Sample ID: #198

Typical Pedon: Theedle sandy loam-on west facing hill footslope of 6 percent; rangeland. (Colors are for dry soil unless otherwise stated.)

The Theedle series consists of well drained soils that are moderately deep to soft bedrock. They formed in residuum and slope alluvium weathered from soft sandstone. The Theedle soils are on hills, ridges and fan remnants. Slopes are 0 to 75 percent. The mean annual precipitation is about 12 inches, and the mean annual air temperature is 45 degrees F.

**A** - 0 to 2 inches; light brownish gray (10YR 6/2) sandy loam, dark grayish brown (10YR 4/2) moist; weak granular structure; slightly hard, friable, nonsticky and nonplastic; many very fine, fine, and medium roots; noneffervescent; neutral (pH 6.6); clear smooth boundary. (zero- to five-inches thick)

**AB** - 2 to 6 inches; light brownish gray (10YR 6/2) sandy loam, dark grayish brown (10YR 4/2) moist; weak granular structure; slightly hard, friable, nonsticky and nonplastic; many very fine, fine, and medium roots; noneffervescent; neutral (pH 6.6); clear smooth boundary.

**Bw** - 6 to 18 inches; light brownish gray (2.5Y 6/2) sandy loam to sandy clay loam, dark grayish brown (2.5Y 4/2) moist; massive; slightly hard, friable, nonsticky and nonplastic; common very fine, fine, and medium roots; noneffervescent; slightly alkaline (pH 7.4); clear smooth boundary. (4 to 12 inches thick)

**C** - 18 to 22 inches; light gray (2.5Y 7/2) sandy loam to sandy clay loam, grayish brown (2.5Y 5/2) moist; massive; slightly hard, friable, sticky and nonplastic; few fine and very fine roots; slightly effervescent; slightly alkaline (pH 7.4); clear smooth boundary.

**Cr** - 22 inches; light gray, soft, strongly calcareous sandstone.

Type Location - Weston County, Wyoming; refer to waypoint 26 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to soft, gray, calcareous sandstone or sandy shale ranges from 20 to 40 inches but is typically less than 32 inches. The soil lacks a cambic horizon, but structural Bw horizons are present in

about half the pedons observed. The soil is typically calcareous throughout but may be leached up to 5 inches. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F and is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 51 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days. The particle size control section averages between 18 and 35 percent clay and is loam, clay loam, or sandy clay loam with more than 15 but less than 35 percent fine or coarser sand. The soil has up to 10 percent rock fragments throughout.

The A horizon has hue of 10YR or 2.5Y, value of 3 to 6 dry, 3 to 5 moist, and chroma of 2 to 4. It is loam, clay loam or fine sandy loam. Reaction ranges from neutral to moderately alkaline. EC is 0 to 2 mmhos/cm.

The B<sub>ck</sub> (or AC and B<sub>w</sub>, when present) has hue of 10YR or 2.5Y, value of 5 or 6 dry, 3 to 5 moist, and chroma of 2 to 4. Texture is loam, clay loam or sandy clay loam. Reaction is slightly alkaline to strongly alkaline. EC is 0 to 4 mmhos/cm.

The C horizon has hue of 10YR or 2.5Y, value of 5 to 7 dry, 4 to 7 moist, and chroma of 2 to 5. Texture is loam, clay loam or sandy clay loam. Reaction is slightly alkaline to strongly alkaline. EC is less than 8 mmhos/cm. Carbonates usually average between 5 and 14 percent with slight segregation in some pedons.

Range in Characteristics (according to field observations, lab analysis): The AB, B<sub>w</sub>, and C horizons are slightly more coarse than what is typical of this series.

Taxonomic Class - Fine-loamy, mixed, superactive, calcareous, mesic Ustic Torriorthents

Suitability for Topsoil (According to WDEQ Guideline 1) – Saturation percentage was marginal from 0-22 inches. Estimated stripping depth is 22 inches.

Geographic Setting (According to Official Series Description) - Theedle soils are on rock-controlled fan aprons, fan pediments, and undulating to rolling uplands. They may occupy all components of the hillslope profile but typically are on the lower shoulder, footslope, and toeslope. Slopes range from 0 to 75 percent. The soils formed in medium textured slope alluvium and residuum derived primarily from interbedded sandstone and shale. Elevation is 3,500 to 6,500 feet. The average annual precipitation is 12 inches with over half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. Precipitation ranges from 10 to 14 inches. The mean annual air temperature ranges from 45 to 51 degrees F. The frost-free season is 105 to 130 days.

FORKWOOD  
NONCALCAREOUS VARIANT

Soil Mapping Unit "FoNC"  
Lab Sample ID: C08100869-196\_200  
BKS Sample ID: #199

Typical Pedon: Forkwood sandy clay loam-utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Forkwood series consists of very deep, well drained soils formed in alluvium. Forkwood soils are on terraces, alluvial fans, fan remnants, hills, ridges and pediments. Slopes range from 0 to 15 percent. The mean annual precipitation is about 11 inches, and the mean annual air temperature is about 45 degrees F.

**A** - 0 to 3 inches; brown (10YR 5/3) sandy clay loam, dark grayish brown (10YR 4/2) moist; weak fine granular structure; soft, very friable, slightly sticky and slightly plastic; many fine and medium roots throughout; noneffervescent; moderately acid (pH 6.0); abrupt smooth boundary. (one- to six-inches thick)

**AB** - 3 to 14 inches; brown (10YR 5/3) sandy loam, dark grayish brown (10YR 4/2) moist; weak fine granular structure; soft, very friable, slightly sticky and slightly plastic; many fine and medium roots throughout; noneffervescent; neutral (pH 6.6); abrupt smooth boundary.

**Bt1** - 14 to 26 inches; brown (10YR 5/3) sandy clay loam, brown (10YR 4/3) moist; strong medium angular blocky structure; slightly hard, friable, moderately sticky and moderately plastic; common fine and medium roots throughout; common distinct clay films on faces of peds; noneffervescent; neutral (pH 7.1); clear smooth boundary. (6 to 20 inches thick)

**Bt2** - 26 to 43 inches; light brownish gray (2.5Y 6/2) sandy clay loam, dark grayish brown (2.5Y 4/2) moist; strong medium angular blocky structure; hard, firm, moderately sticky and moderately plastic; few fine and medium roots throughout; few faint clay films on faces of peds; noneffervescent; neutral (pH 7.2); clear smooth boundary.

**C** - 43 to 60 inches; light brownish gray (2.5Y 6/2) sandy clay loam, grayish brown (2.5Y 5/2) moist; massive; soft, very friable, slightly sticky and slightly plastic; few fine roots throughout; noneffervescent; slightly alkaline (pH 7.4). (0 to 40 inches thick)

Type Location - Niobrara County, Wyoming; refer to waypoint 27 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to the base of the argillic horizon is 10 to 33 inches, and depth to continuous horizons of carbonate accumulation is 10 to 33 inches. Rock fragments range from 0 to 15 percent. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, and is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature ranges from 47 to 53 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days. EC ranges from 0 to 4 mmhos/cm throughout the profile. Bedrock is deeper than 60 inches.

The A horizon has hue of 2.5Y or 10YR, value of 4 to 6 dry and 3 to 5 moist, and chroma of 2 to 4. A vesicular crust occurs on some pedons. Texture is very fine sandy loam, loam, clay loam or fine sandy loam. Reaction is neutral through moderately alkaline.

The Bt horizon has hue of 2.5Y, 10YR or 7.5YR, value of 4 to 7 dry and 3 to 5 moist, and chroma of 2 to 4. Texture is loam or clay loam with 18 to 35 percent clay and more than 15 but less than 35 percent fine sand or coarser. Reaction is neutral through moderately alkaline.

The Btk horizon has hue of 2.5Y or 10YR, value of 4 to 7 dry and 3 to 5 moist, and chroma of 2 to 4. Texture is loam or clay loam. It is slightly alkaline or moderately alkaline. It has 3 to 12 percent calcium carbonate equivalent.

The Bk horizon has hue of 5Y, 2.5Y or 10YR, value of 5 to 7 dry and 4 to 6 moist, and chroma of 2 to 4. Texture is loam, fine sandy loam, very fine sandy loam or clay loam. This horizon has 1 to 14 percent authigenic calcium carbonate accumulation. It is moderately alkaline or strongly alkaline.

The C horizon, when present, has hue of 5Y to 10YR, value of 5 to 7 dry, 4 to 6 moist, and chroma of 2 to 4. Carbonates range from 1 to 8 percent and are mostly allogenic. ESP ranges from 4 to 12. Reaction is moderately or strongly alkaline.

Range in Characteristics (according to field observations, lab analysis): This profile is noncalcareous throughout. An AB horizon was found for this profile, which is not typical for this series. The texture from 14-60 inches is sandy clay loam, which is not a typical texture for this series.

Taxonomic Class - Fine-loamy, mixed, superactive, mesic Ustic Haplargids

Suitability for Topsoil (According to WDEQ Guideline 1) – Saturation percentage was marginal from 14-26 inches and 43-60 inches. Estimated stripping depth is 60 inches.



Geographic Setting (According to Official Series Description) - Forkwood soils are on terraces, alluvial fans, fan remnants, hills, ridges and pediments. Slopes are 0 to 15 percent. The soils formed in slopewash alluvium derived from interbedded shales and argillaceous sandstone. Elevations are 3,500 to 6,000 feet. The average annual precipitation is 10 to 14 inches with over half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. The mean annual air temperature ranges from 43 to 51 degrees F. The estimated frost-free season is about 105 to 130 days depending upon elevation, aspect, and air drainage.

CAMBRIA  
SANDY LOAM TO SANDY CLAY LOAM

Soil Mapping Unit "Ca"  
Lab Sample ID: C08100869-201\_205  
BKS Sample ID: #201

Typical Pedon: Cambria sandy loam to sandy clay loam on rangeland. (Colors are for dry soil unless otherwise stated.)

The Cambria series consists of very deep, well drained, moderately permeable soils that formed in alluvium and slope alluvium on fan remnants, alluvial fans, fan piedmonts, terraces, ridges and hills. Slopes range from 0 to 15 percent and are usually simple but may be complex where the area has been dissected by ephemeral streams. The mean annual precipitation is about 12 inches, and the mean annual air temperature is about 45 degrees F.

**A** - 0 to 2 inches; brown (10YR 5/3) sandy loam to sandy clay loam, dark brown (10YR 3/3) moist; weak thin platy structure; soft, very friable, slightly sticky and slightly plastic; common fine and very fine roots; noneffervescent; neutral (pH 7.1); clear smooth boundary. (two to 5 inches thick)

**Bt** - 2 to 10 inches; brown (10YR 5/3) sandy clay, brown (10YR 4/3) moist; moderate medium prismatic structure parting to moderate fine and medium subangular blocky; slightly hard, friable, moderately sticky and moderately plastic; common distinct dark brown (10YR 3/3) clay films on faces of peds; noneffervescent; slightly alkaline (pH 7.5); clear wavy boundary. (5 to 8 inches thick)

**Btk** - 10 to 31 inches; pale brown (10YR 6/3) clay loam, brown (10YR 5/3) moist; moderate medium prismatic structure parting to moderate fine and medium subangular blocky; soft, very friable, slightly sticky and slightly plastic; strongly effervescent; moderately alkaline (pH 8.2); gradual wavy boundary.

**C1** - 31 to 42 inches; pale brown (10YR 6/3) clay loam, brown (10YR 5/3) moist; moderate fine and medium subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; moderately effervescent; moderately alkaline (pH 8.3).

**C2** - 42 to 48 inches; pale brown (10YR 6/3) sandy clay loam, brown (10YR 5/3) moist; moderate fine and medium subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; slightly effervescent; moderately alkaline (pH 8.1).

Type Location - Campbell County, Wyoming; refer to waypoint 170 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) –

Soil moisture: The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, and is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 48 to 52 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days.

Depth to the base of the argillic horizon: 10 inches or less

Depth to secondary calcium carbonate: 3 to 10 inches but ranges to 15 inches in some pedons

Particle-size control section: It is loam, clay loam, silty clay loam or sandy clay loam. The part below the argillic horizon averages 18 to 35 percent clay, 10 to 50 percent silt, and 20 to 70 percent sand with more than 15 but less than 52 percent coarser than very fine sand.

A horizon:

Hue: 10YR or 2.5Y

Value: 4 to 6 dry, 3 to 5 moist

Chroma: 2 to 4 dry or moist

Texture: fine sandy loam, sandy loam, loam, very fine sandy loam or silt loam

Reaction: typically neutral or slightly alkaline but may be moderately alkaline in some pedons

Some pedons have an AB horizon up to 4 inches thick.

Bt horizon:

Hue: 7.5YR, 10YR or 2.5Y

Value: 4 to 6 dry, 3 to 5 moist

Chroma: 2 to 4 dry or moist

Texture: loam, clay loam, silty clay loam or sandy clay loam

Reaction: neutral to moderately alkaline

A thin Btk horizon may be present above the Bk horizon in some pedons and have properties of both the Bt and Bk.

Bk horizon:

Hue: 10YR or 2.5Y

Value: 5 to 8 dry, 4 to 6 moist

Chroma: 2 to 4 dry or moist

Texture: typically loam or clay loam but some subhorizons have sandy loam, fine sandy loam, very fine sandy loam, silt loam, silty clay loam or sandy clay loam strata

Calcium carbonate equivalent: averages less than 15 percent, but discontinuous strata may exceed 15 percent in some pedons

Reaction: moderately or strongly alkaline with less than 15 percent ESP

Some pedons have a C horizon

Range in Characteristics (according to field observations, lab analysis): Two C horizons were found in this profile, instead of two calcic B horizons, which is not typical of this series. This profile's Bt horizon is a sandy clay, which is not a typical texture for that horizon.

Taxonomic Class - Fine-loamy, mixed, superactive, mesic Ustic Haplargids

Suitability for Topsoil (According to WDEQ Guideline 1) – No marginal or unsuitable parameters were found for this profile. Estimated stripping depth is 60 inches.

Geographic Setting (According to Official Series Description) –

Parent material: alluvium and slope alluvium from mixed sources

Landform: fan remnants, fan piedmonts, alluvial fans, hills, ridges and terraces

Slopes: 0 to 15 percent

Elevations: 3,500 to 6,500 feet

Average annual precipitation: 10 to 14 inches with over one-half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September, and October

Mean annual air temperature: 43 to 51 degrees F

Frost-free season: 105 to 130 days

CLARKELEN  
CLAY

Soil Mapping Unit "CI"  
Lab Sample ID: C08100869-206\_210  
BKS Sample ID: #202

Typical Pedon: Clarkelen clay-utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Clarkelen series consists of very deep, well, moderately well or somewhat excessively drained soils formed in stratified recent stream alluvium from mixed sedimentary sources. Clarkelen soils are on flood plains and terraces. Slopes range from 0 to 6 percent. The average annual precipitation is about 12 inches, and the mean annual air temperature is about 46 degrees F.

**A** - 0 to 4 inches; grayish brown (10YR 5/2) clay, dark grayish brown (10YR 4/2) moist; weak fine granular structure; soft, very friable; nonsticky and nonplastic; common fine and very fine, and few medium roots throughout; noneffervescent; neutral (pH 7.1); gradual smooth boundary. (one- to six-inches thick)

**C1** - 4 to 17 inches; light brownish gray (10YR 6/2) silty clay, dark grayish brown (10YR 4/2) moist; massive; soft, very friable, nonsticky and nonplastic; common fine and very fine, and few medium roots throughout; noneffervescent; slightly alkaline (pH 7.6); abrupt wavy boundary.

**C2** - 17 to 27 inches; light brownish gray (10YR 6/2) and pale brown (10YR 6/3) stratified loam, grayish brown (10YR 5/2) moist; massive; thin stratifications; slight hard, friable, nonsticky and nonplastic; few fine and very fine roots; noneffervescent; moderately alkaline (pH 8.0); abrupt wavy boundary.

**C3** - 27 to 36 inches; light brownish gray (10YR 6/2) sandy clay loam, grayish brown (10YR 5/2) moist; single grain; loose, nonsticky and nonplastic; few fine roots; moderately effervescent; slightly alkaline (pH 7.4); abrupt smooth boundary.

**C4** - 36 to 43 inches; grayish brown (10YR 5/2) sandy loam to sandy clay loam, dark grayish brown (10YR 4/2) moist; massive; thin stratifications; slightly hard, friable, nonsticky and nonplastic; few fine roots; noneffervescent; slightly alkaline (pH 7.6).

**C5** - 43 to 48 inches; grayish brown (10YR 5/2) coarse sandy loam to sandy clay loam, dark grayish brown (10YR 4/2) moist; massive; thin stratifications; slightly hard, friable, nonsticky and nonplastic; few fine roots; slightly effervescent; slightly alkaline (pH 7.6).

Type Location - Niobrara County, Wyoming; refer to waypoint 102 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) – This soil typically lacks horizons of continuous carbonate accumulation. Depth to carbonates ranges from 0 to 8 inches. Rock fragments are typically less than 5 percent but may range to 15 percent. Organic matter content decreases irregularly with depth; and thin, highly variable textural strata usually occur between 6 and 24 inches. The particle-size control section contains from 5 to 18 percent clay and is sandy loam, fine sandy loam or loam when averaged. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F and is never moist in all parts for as long as 60 consecutive days when the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, but is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 52 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days.

The A horizon has hue of 10YR or 2.5Y, value of 4 to 7 dry and 3 to 6 moist, and chroma of 2 to 4. Texture typically is sandy loam or fine sandy loam but may range from loamy sand to clay loam depending upon the most recent deposition. Reaction ranges from neutral to moderately alkaline. It has an EC of 0 to 4 mmhos/cm. Nitrogen and phosphorus levels are not abnormally enriched. Some pedons have an AC horizon up to 8 inches thick.

The C horizon has hue of 7.5YR, 10YR or 2.5Y, value of 5 to 7 dry and 4 to 6 moist, and chroma of 2 to 4. Texture centers on sandy loam, fine sandy loam or loam, but strata of very fine sandy loam, loam, silt loam, loamy fine sand, loamy sand, fine sand or sand of varying thickness occur. Skeletal material may occur below 40 inches in some pedons. Reaction ranges from slightly alkaline to strongly alkaline. EC is typically 4 mmhos/cm or less but may range up to 8 when irrigated or where it receives saline discharge from surrounding shale beds.

Range in Characteristics (according to field observations, lab analysis): The top 17 and bottom 12 inches of this profile have a finer texture than what is typical of this series.

Taxonomic Class - Coarse-loamy, mixed, superactive, calcareous, mesic Ustic Torrifluvents

Suitability for Topsoil (According to WDEQ Guideline 1) – Marginal texture (clay and silty clay) was found from 0-17 inches. Estimated stripping depth is 48 inches.

Geographic Setting (According to Official Series Description) – Clarkelen soils are on flood plains and terraces adjacent to floodplains. Slopes are 0 to 6 percent. The soils formed in stratified but dominantly moderately coarse textured recent stream alluvium originally weathered from sedimentary rock. Elevation is 3,500 to 6,200 feet. The average annual precipitation is 12 inches with over half falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. Precipitation ranges from 10 to 14 inches. The mean annual air temperature ranges from 44 to 49 degrees F. The frost-free season is about 105 to 130 days.

CUSHMAN  
CLAY LOAM

Soil Mapping Unit "Cu"

Lab Sample ID: C08100869-211\_214

BKS Sample ID: #203

Typical Pedon: Cushman clay loam-on south facing slope of about 3 percent under native grass vegetation. (Colors are for dry soil unless otherwise stated.)

The Cushman series consists of well drained soils that are moderately deep to bedrock. These soils formed in slopewash alluvium and residuum from interbedded shales and siltstone and fine-grained argillaceous sandstone. Cushman soils are on buttes, fan remnants, hills, piedmonts, ridges and terraces. Slopes are 0 to 20 percent. The mean annual precipitation is about 13 inches, and the mean annual air temperature is about 45 degrees F.

**A** - 0 to 2 inches; light brownish gray (10YR 6/2) clay loam, dark brown (10YR 3/3) moist; moderate medium granular structure; soft, friable, slightly sticky and slightly plastic; common very fine, fine, and few medium roots; noneffervescent; slightly alkaline (pH 7.6); clear smooth boundary. (two- to six-inches thick)

**Bt** - 2 to 8 inches; brown (10YR 5/3) sandy clay, dark yellowish brown (10YR 3/4) moist; weak medium prismatic structure parting to moderate medium subangular blocky; slightly hard, friable, moderately sticky and moderately plastic; common very fine, fine and few medium roots; few faint clay films on faces of peds and lining pores; noneffervescent; slightly alkaline (pH 7.6); clear smooth boundary.

**Btk** - 8 to 21 inches; pale brown (10YR 6/3) clay, yellowish brown (10YR 5/4) moist; moderate coarse prismatic structure parting to moderate fine and very fine subangular blocky; hard, firm, moderately sticky and moderately plastic; few fine roots; few faint clay films on faces of peds; strongly effervescent; calcium carbonate on faces of peds and in pores as common distinct irregularly shaped filaments and masses; moderately alkaline (pH 8.0); clear smooth boundary. (0 to 13 inches thick)

**Cn** - 21 to 40 inches; very pale brown (10YR 8/2) loam, pale brown (10YR 6/3) moist; weak coarse subangular blocky structure; slightly hard, friable, moderately sticky and moderately plastic; slightly effervescent; sodium as common prominent irregularly shaped, masses and many fine filaments; moderately alkaline (pH 7.9); clear smooth boundary. (7 to 19 inches thick)

**Cr** - 40 inches; soft, thickly stratified gray and brown slightly calcareous shale; these shales extend to depths greater than 10 feet.



Type Location - Sheridan County, Wyoming; refer to waypoint 103 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) - Depth to a paralithic contact and bedrock is typically about 28 to 32 inches but ranges from 20 to 40 inches. Depth to continuous horizons of carbonate accumulation is 7 to 26 inches. Depth to the base of the argillic horizon ranges from 10 to 26 inches. Rock fragments range from 0 to 15 percent and are soft shale channers or semirounded sandstone pebbles. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, and is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 53 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days. EC ranges from 0 to 2 mmhos throughout.

The A horizon has hue of 10YR or 2.5Y, value of 4 to 6 dry, 3 to 5 moist, and chroma of 2 to 4. Reaction is neutral or slightly alkaline.

The Bt horizon has hue of 10YR or 2.5Y, value of 4 to 6 dry, 3 to 5 moist, and chroma of 2 to 4. Texture of the Bt is clay loam or loam with 20 to 35 percent clay and more than 15 percent but less than 35 percent fine sand or coarser. Reaction is neutral to moderately alkaline.

The Btk horizon has hue of 10YR or 2.5Y, value of 5 to 7 dry, 4 to 6 moist, and chroma of 2 to 4. Texture is loam or clay loam with 20 to 35 percent clay. Reaction is moderately alkaline or strongly alkaline. Calcium carbonate ranges from 3 to 12 percent.

The Bk horizon has hue of 10YR and 2.5Y, value of 6 to 8 dry, 4 to 6 moist, and chroma of 2 to 4. Texture is loam or clay loam with 20 to 30 percent total clay of which about 2 to 4 percent is carbonate clay. Reaction is typically moderately alkaline but may be strongly alkaline when sodic shales are present. Calcium carbonate equivalent is 5 to 15 percent, but some horizons may exceed 15 percent but are discontinuous or too thin to be considered as a calcic.

The Cr is weakly consolidated sedimentary rock. It is primarily calcareous shale; but siltstone or thinly interbedded fine grained argillaceous sandstone is common. The rock is typically moderately alkaline or strongly alkaline when crushed, but slightly alkaline or neutral shales are not uncommon.

Range in Characteristics (according to field observations, lab analysis): This profile has a natric C horizon in place of a calcic B horizon at the bottom of the profile, which is not

typical of this series. The A and Btk horizons for this horizon are finer in texture than what is typical. This profile's Bt has a higher percentage of sand and clay than what is typical.

Taxonomic Class - Fine-loamy, mixed, superactive, mesic Ustic Haplargids

Suitability for Topsoil (According to WDEQ Guideline 1) – Marginal texture (clay) was found from 8-21 inches. Selenium was marginal from 21-40 inches. Estimated stripping depth is 8 inches.

Geographic Setting (According to Official Series Description) - Cushman soils are on buttes, fan remnants fan piedmonts, hills and ridges. Slopes range from 0 to 20 percent. The soils formed in moderately fine textured slopewash alluvium and residuum. Surface erosion is common in overgrazed areas, and some thin eolian deposits overlie these soils in some areas. Elevations are 3,500 to 6,000 feet. The mean annual precipitation is 13 inches and ranges from 10 to 14 inches with over half of the annual precipitation falling in April, May, and June and less than one inch falling in each month of July, August, September and October. The mean annual temperature is 43 to 51 degrees F. The frost-free season is about 105 to 130 days depending upon elevation, aspect, and air drainage.

CLARKELEN  
SANDY CLAY LOAM

Soil Mapping Unit "C1"  
Lab Sample ID: C08100869-215\_218  
BKS Sample ID: #204

Typical Pedon: Clarkelen sandy clay loam-utilized as rangeland. (Colors are for dry soil unless otherwise stated.)

The Clarkelen series consists of very deep, well, moderately well or somewhat excessively drained soils formed in stratified recent stream alluvium from mixed sedimentary sources. Clarkelen soils are on flood plains and terraces. Slopes range from 0 to 6 percent. The average annual precipitation is about 12 inches, and the mean annual air temperature is about 46 degrees F.

**A** - 0 to 3 inches; grayish brown (10YR 5/2) sandy clay loam, dark grayish brown (10YR 4/2) moist; weak fine granular structure; soft, very friable; nonsticky and nonplastic; common fine and very fine, and few medium roots throughout; noneffervescent; slightly alkaline (pH 7.6); gradual smooth boundary. (one- to six-inches thick)

**AC** - 3 to 9 inches; grayish brown (10YR 5/2) sandy clay loam, dark grayish brown (10YR 4/2) moist; weak fine granular structure; soft, very friable; nonsticky and nonplastic; common fine and very fine, and few medium roots throughout; noneffervescent; slightly alkaline (pH 7.6); gradual smooth boundary.

**C1** - 9 to 22 inches; light brownish gray (10YR 6/2) weakly stratified sandy loam to sandy clay loam, dark grayish brown (10YR 4/2) moist; massive; thin stratifications; soft, very friable, nonsticky and nonplastic; common fine and very fine, and few medium roots throughout; slightly effervescent; moderately alkaline (pH 8.2); abrupt wavy boundary.

**C2** - 22 to 25 inches; light brownish gray (10YR 6/2) and pale brown (10YR 6/3) stratified sandy clay loam, grayish brown (10YR 5/2) moist; massive; thin stratifications; slight hard, friable, nonsticky and nonplastic; few fine and very fine roots; moderately effervescent; moderately alkaline (pH 8.4); abrupt wavy boundary.

**Cn** - 25 to 29 inches; light brownish gray (10YR 6/2) sandy clay loam, grayish brown (10YR 5/2) moist; single grain; loose, nonsticky and nonplastic; few fine roots; sodium disseminated throughout; slightly effervescent; moderately alkaline (pH 8.4); abrupt smooth boundary.

**C3** - 29 to 48 inches; grayish brown (10YR 5/2) loamy coarse sand, dark grayish brown (10YR 4/2) moist; massive; thin stratifications; slightly hard, friable, nonsticky and nonplastic; few fine roots; noneffervescent; moderately alkaline (pH 8.4).

Type Location - Niobrara County, Wyoming; refer to waypoint 100 on map included in this report.

Range in Soil Characteristics (According to Official Series Description) – This soil typically lacks horizons of continuous carbonate accumulation. Depth to carbonates ranges from 0 to 8 inches. Rock fragments are typically less than 5 percent but may range to 15 percent. Organic matter content decreases irregularly with depth; and thin, highly variable textural strata usually occur between 6 and 24 inches. The particle-size control section contains from 5 to 18 percent clay and is sandy loam, fine sandy loam or loam when averaged. The soil is dry in the moisture control section more than half the time cumulative that the soil temperature at a depth of 20 inches is 41 degrees F and is never moist in all parts for as long as 60 consecutive days when the soil temperature at a depth of 20 inches is 41 degrees F, which occurs about April 21-27, but is dry in all parts of the moisture control section for at least 60 consecutive days from July 15 to October 25 and for at least 90 cumulative days during this period. The mean annual soil temperature is 47 to 52 degrees F, and the soil temperature at a depth of 20 inches is 41 degrees F or more for 175 to 192 days.

The A horizon has hue of 10YR or 2.5Y, value of 4 to 7 dry and 3 to 6 moist, and chroma of 2 to 4. Texture typically is sandy loam or fine sandy loam but may range from loamy sand to clay loam depending upon the most recent deposition. Reaction ranges from neutral to moderately alkaline. It has an EC of 0 to 4 mmhos/cm. Nitrogen and phosphorus levels are not abnormally enriched. Some pedons have an AC horizon up to 8 inches thick.

The C horizon has hue of 7.5YR, 10YR or 2.5Y, value of 5 to 7 dry and 4 to 6 moist, and chroma of 2 to 4. Texture centers on sandy loam, fine sandy loam or loam, but strata of very fine sandy loam, loam, silt loam, loamy fine sand, loamy sand, fine sand or sand of varying thickness occur. Skeletal material may occur below 40 inches in some pedons. Reaction ranges from slightly alkaline to strongly alkaline. EC is typically 4 mmhos/cm or less but may range up to 8 when irrigated or where it receives saline discharge from surrounding shale beds.

Range in Characteristics (according to field observations, lab analysis): This profile has a natric C horizon, which is not typical of the series. Sandy clay loam is not a typical texture for the C horizons.

Taxonomic Class - Coarse-loamy, mixed, superactive, calcareous, mesic Ustic Torrifuvents

Suitability for Topsoil (According to WDEQ Guideline 1) – Saturation percentage was marginal from 29-48 inches. Estimated stripping depth is 25 inches.

Geographic Setting (According to Official Series Description) – Clarkelen soils are on flood plains and terraces adjacent to floodplains. Slopes are 0 to 6 percent. The soils formed in stratified but dominantly moderately coarse textured recent stream alluvium originally weathered from sedimentary rock. Elevation is 3,500 to 6,200 feet. The average annual precipitation is 12 inches with over half falling in April, May, and June and less than one inch falling in each month of July, August, September, and October. Precipitation ranges from 10 to 14 inches. The mean annual air temperature ranges from 44 to 49 degrees F. The frost-free season is about 105 to 130 days.

**ADDENDUM 2.6-E**  
**SOIL LABORATORY ANALYSIS**

LABORATORY ANALYTICAL REPORT

Client: BKS Environmental Associates Inc  
Project: 539A Ludeman Uranium  
Workorder: C08100869

Report Date: 12/17/08  
Date Received: 10/17/08



| Sample ID     | Client Sample ID | Depth   | Analysis | EC      | Saturation | pH      | Ca      | Mg      | Na      | SAR     | Sand    | Silt     | Clay    | Texture | Coarse  | Se-       |
|---------------|------------------|---------|----------|---------|------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|-----------|
|               |                  |         | Units    | SatPst  | SatPst     | SatPst  | SatPst  | SatPst  | SatPst  | SatPst  | SatPst  | unitless | %       | %       | %       | Results   |
|               |                  |         | mmhos/cm | %       | %          | s_u_    | meq/L   | meq/L   | meq/L   |         |         |          |         |         | %       | mg/kg-dry |
|               |                  | Results | Results  | Results | Results    | Results | Results | Results | Results | Results | Results | Results  | Results | Results | Results | Results   |
| C08100869-001 | 137              | 0-5     | 0.52     | 30.4    | 8.6        | 2.94    | 1.55    | 0.32    | 0.21    | 0.21    | 30      | 36       | 34      | CL      | < 1     | 0.018     |
| C08100869-002 | 137              | 5-12    | 0.43     | 38.5    | 8.8        | 2.26    | 1.23    | 0.38    | 0.28    | 0.28    | 20      | 28       | 52      | C       | < 1     | 0.004     |
| C08100869-003 | 137              | 12-19   | 0.77     | 31.8    | 7.0        | 4.61    | 2.3     | 0.5     | 0.26    | 0.26    | 26      | 36       | 36      | CL      | < 1     | 0.005     |
| C08100869-004 | 138              | 0-4     | 0.48     | 31.0    | 7.2        | 3.11    | 1.14    | 0.31    | 0.21    | 0.21    | 72      | 12       | 16      | SL      | < 1     | < 0.002   |
| C08100869-005 | 138              | 4-15    | 0.37     | 35.2    | 7.4        | 2.40    | 0.82    | 0.24    | 0.19    | 0.19    | 68      | 16       | 14      | SL      | < 1     | < 0.002   |
| C08100869-006 | 139              | 0-7     | 4.08     | 73.3    | 7.2        | 27.0    | 17.7    | 9.7     | 2.06    | 38      | 32      | 30       | CL      | < 1     | 0.081   |           |
| C08100869-007 | 139              | 7-20    | 1.98     | 45.1    | 7.4        | 10.8    | 8.4     | 4.8     | 1.65    | 42      | 34      | 24       | L       | < 1     | 0.013   |           |
| C08100869-008 | 139              | 20-36   | 1.23     | 50.3    | 7.6        | 6.05    | 3.62    | 3.38    | 1.54    | 30      | 36      | 32       | CL      | < 1     | 0.012   |           |
| C08100869-009 | 139              | 30-46   | 1.08     | 87.4    | 7.7        | 5.27    | 3.20    | 3.25    | 1.59    | 12      | 36      | 50       | C       | < 1     | 0.046   |           |
| C08100869-010 | 139              | 48-60   | 1.05     | 67.3    | 7.7        | 5.70    | 3.07    | 2.23    | 1.07    | 18      | 44      | 38       | SiCL    | < 1     | 0.693   |           |
| C08100869-011 | 140              | 0-9     | 0.63     | 54.1    | 7.0        | 4.58    | 1.78    | 0.16    | 0.09    | 52      | 22      | 26       | SCL     | < 1     | 0.005   |           |
| C08100869-012 | 140              | 9-20    | 0.38     | 52.9    | 7.4        | 2.75    | 0.94    | 0.20    | 0.15    | 70      | 14      | 16       | SL      | > 1     | 0.005   |           |
| C08100869-013 | 140              | 20-35   | 0.39     | 33.9    | 7.5        | 1.65    | 0.86    | 1.05    | 0.94    | 64      | 22      | 14       | SL      | > 1     | 0.004   |           |
| C08100869-014 | 140              | 35-45   | 0.90     | 74.3    | 7.6        | 2.55    | 1.8     | 3.9     | 2.66    | 16      | 24      | 58       | C       | > 1     | 0.033   |           |
| C08100869-015 | 140              | 45-55   | 1.69     | 87.2    | 7.9        | 6.83    | 4.8     | 8.5     | 2.71    | 26      | 20      | 54       | C       | > 1     | 0.155   |           |
| C08100869-016 | 140              | 55-60   | 4.02     | 68.5    | 7.6        | 27.9    | 16.2    | 10.0    | 2.13    | 14      | 16      | 70       | C       | 16      | 0.288   |           |
| C08100869-017 | 141              | 0-11    | 0.85     | 19.3    | 7.2        | 4.30    | 2.14    | 0.30    | 0.17    | 62      | 12      | 26       | SCL     | 5       | 0.005   |           |
| C08100869-018 | 141              | 11-21   | 0.46     | 27.0    | 7.7        | 2.68    | 1.50    | 0.26    | 0.16    | 64      | 14      | 22       | SCL     | 4       | 0.003   |           |
| C08100869-019 | 142              | 0-8     | 0.59     | 25.8    | 7.8        | 3.81    | 1.16    | 0.23    | 0.15    | 82      | 6       | 12       | SL      | > 1     | < 0.002 |           |
| C08100869-020 | 142              | 8-16    | 0.58     | 22.3    | 7.9        | 3.88    | 1.10    | 0.25    | 0.16    | 78      | 10      | 12       | SL      | 1       | < 0.002 |           |
| C08100869-021 | 146              | 0-9     | 0.73     | 47.2    | 7.4        | 5.63    | 1.36    | 0.59    | 0.32    | 25      | 20      | 55       | C       | 4       | 0.026   |           |
| C08100869-022 | 146              | 9-24    | 3.42     | 62.4    | 7.8        | 28.6    | 15.2    | 6.4     | 1.19    | 19      | 28      | 53       | C       | 16      | 0.038   |           |
| C08100869-023 | 148              | 0-9     | 1.19     | 38.2    | 7.0        | 8.13    | 4.88    | 0.53    | 0.21    | 53      | 25      | 22       | SCL     | 3       | 0.007   |           |
| C08100869-024 | 148              | 9-17    | 0.59     | 25.1    | 7.3        | 2.76    | 1.68    | 0.55    | 0.37    | 51      | 23      | 26       | SCL     | 4       | 0.007   |           |
| C08100869-025 | 148              | 17-24   | 0.53     | 37.5    | 8.1        | 2.44    | 1.69    | 0.78    | 0.54    | 43      | 30      | 27       | CL-L    | 5       | 0.005   |           |
| C08100869-026 | 148              | 24-37   | 0.35     | 29.5    | 8.2        | 1.25    | 1.07    | 1.02    | 0.95    | 63      | 15      | 22       | SCL     | 5       | 0.004   |           |
| C08100869-027 | 148              | 37-60   | 1.09     | 35.2    | 8.3        | 2.32    | 2.35    | 5.25    | 3.45    | 53      | 24      | 23       | SCL     | 3       | 0.038   |           |
| C08100869-028 | 150              | 0-5     | 0.36     | 28.8    | 7.3        | 2.22    | 0.86    | 0.34    | 0.26    | 73      | 12      | 15       | SL      | 2       | 0.006   |           |
| C08100869-029 | 150              | 5-12    | 0.24     | 27.1    | 7.7        | 1.62    | 0.49    | 0.15    | 0.15    | 75      | 11      | 14       | SL      | 2       | 0.003   |           |
| C08100869-030 | 150              | 12-20   | 0.33     | 26.6    | 8.3        | 2.08    | 0.67    | 0.22    | 0.19    | 83      | 6       | 9        | LS      | 2       | 0.005   |           |
| C08100869-031 | 150              | 20-35   | 0.92     | 16.8    | 8.4        | 5.91    | 2.34    | 1.33    | 0.68    | 81      | 10      | 9        | LS      | 2       | 0.003   |           |
| C08100869-032 | 151              | 0-7     | 2.74     | 55.7    | 7.6        | 24.7    | 8.65    | 3.02    | 0.74    | 33      | 29      | 38       | CL      | 3       | 0.009   |           |
| C08100869-033 | 151              | 7-24    | 0.39     | 28.1    | 7.7        | 1.65    | 1.10    | 1.01    | 0.87    | 11      | 39      | 50       | C       | 11      | 0.029   |           |
| C08100869-034 | 152              | 0-9     | 0.58     | 33.6    | 7.6        | 3.90    | 1.42    | 0.33    | 0.21    | 53      | 23      | 24       | SCL     | 3       | 0.011   |           |
| C08100869-035 | 152              | 9-19    | 0.38     | 39.9    | 7.6        | 1.72    | 0.93    | 0.78    | 0.68    | 51      | 19      | 30       | SCL     | 3       | 0.016   |           |
| C08100869-036 | 152              | 19-39   | 0.52     | 44.6    | 8.1        | 1.50    | 1.30    | 2.15    | 1.82    | 45      | 24      | 31       | CL      | 2       | 0.008   |           |
| C08100869-037 | 152              | 39-55   | 0.85     | 37.4    | 8.3        | 1.59    | 1.40    | 5.10    | 4.19    | 49      | 23      | 28       | SCL     | 1       | 0.014   |           |
| C08100869-038 | 152              | 55-60   | 1.00     | 52.7    | 8.3        | 1.23    | 1.43    | 7.03    | 6.11    | 53      | 13      | 34       | SCL     | 3       | 0.025   |           |
| C08100869-039 | 153              | 0-6     | 0.33     | 36.7    | 7.3        | 1.96    | 1.02    | 0.28    | 0.23    | 67      | 16      | 17       | SL      | < 1     | 0.008   |           |
| C08100869-040 | 153              | 5-16    | 0.30     | 30.5    | 7.5        | 1.84    | 0.92    | 0.21    | 0.18    | 63      | 20      | 17       | SL      | < 1     | 0.005   |           |

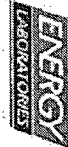
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LABORATORY ANALYTICAL REPORT

Client: BKS Environmental Associates Inc  
Project: S39A Ludeman Uranium  
Workorder: C08100889

Report Date: 12/17/08  
Date Received: 10/17/08

| Sample ID     | Client Sample ID | Analysis<br>Units | B-CACL2<br>mg/kg-dry | Organic<br>Matter<br>% |
|---------------|------------------|-------------------|----------------------|------------------------|
|               |                  |                   |                      |                        |
| C08100889-001 | 137              | 0-5               | 0.54                 | 1.8                    |
| C08100889-002 | 137              | 5-12              | 0.84                 | < 0.2                  |
| C08100889-003 | 137              | 12-19             | 0.48                 | 0.8                    |
| C08100889-004 | 138              | 0-4               | < 0.43               | 0.9                    |
| C08100889-005 | 138              | 4-15              | < 0.44               | 0.6                    |
| C08100889-006 | 139              | 0-7               | 3.5                  | 5.6                    |
| C08100889-007 | 139              | 7-20              | 1.3                  | 1.5                    |
| C08100889-008 | 139              | 20-36             | 1.2                  | 1.6                    |
| C08100889-009 | 139              | 36-46             | 1.1                  | 1.0                    |
| C08100889-010 | 139              | 46-60             | 0.78                 | 0.6                    |
| C08100889-011 | 140              | 0-9               | 0.45                 | 2.1                    |
| C08100889-012 | 140              | 9-20              | < 0.43               | 1.1                    |
| C08100889-013 | 140              | 20-35             | < 0.43               | 0.6                    |
| C08100889-014 | 140              | 35-45             | 0.61                 | 0.7                    |
| C08100889-015 | 140              | 45-55             | 1.1                  | 0.6                    |
| C08100889-016 | 140              | 55-60             | 1.7                  | 0.8                    |
| C08100889-017 | 141              | 0-11              | < 0.44               | 0.8                    |
| C08100889-018 | 141              | 11-21             | < 0.44               | 0.5                    |
| C08100889-019 | 142              | 0-8               | < 0.43               | 0.4                    |
| C08100889-020 | 142              | 8-16              | < 0.43               | 0.5                    |
| C08100889-021 | 146              | 0-9               | 0.70                 | 2.1                    |
| C08100889-022 | 146              | 9-24              | 0.54                 | 0.9                    |
| C08100889-023 | 148              | 0-9               | < 0.43               | 1.2                    |
| C08100889-024 | 148              | 9-17              | < 0.44               | 0.9                    |
| C08100889-025 | 148              | 17-24             | < 0.43               | 0.7                    |
| C08100889-026 | 148              | 24-37             | < 0.43               | 0.5                    |
| C08100889-027 | 148              | 37-60             | 1.3                  | 0.5                    |
| C08100889-028 | 150              | 0-5               | < 0.44               | 1.1                    |
| C08100889-029 | 150              | 5-12              | < 0.43               | 0.9                    |
| C08100889-030 | 150              | 12-20             | < 0.43               | 0.7                    |
| C08100889-031 | 150              | 20-35             | < 0.43               | 0.3                    |
| C08100889-032 | 151              | 0-7               | < 0.43               | 1.4                    |
| C08100889-033 | 151              | 7-24              | < 0.43               | 0.8                    |
| C08100889-034 | 152              | 0-9               | 0.61                 | 1.5                    |
| C08100889-035 | 152              | 9-19              | 0.70                 | 1.1                    |
| C08100889-036 | 152              | 19-29             | 0.83                 | 0.7                    |
| C08100889-037 | 152              | 39-55             | 1.3                  | 0.4                    |
| C08100889-038 | 152              | 55-60             | 2.5                  | 0.4                    |
| C08100889-039 | 153              | 0-5               | < 0.43               | 1.4                    |
| C08100889-040 | 153              | 5-16              | < 0.43               | 0.7                    |



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LABORATORY ANALYTICAL REPORT

Client: BKS Environmental Associates Inc  
Project: 539A Ludeman Uranium  
Workorder: C08100869

Report Date: 12/17/08  
Date Received: 10/17/08

| Sample ID     | Client Sample ID | Analysis | EC SatPat | Saturation SatPat | pH SatPat | Ca SatPst | Mg SatPst | Na SatPst | SAR      | Sand | Silt | Clay | Texture  | Coarse Frags | Se-ABDTPA |
|---------------|------------------|----------|-----------|-------------------|-----------|-----------|-----------|-----------|----------|------|------|------|----------|--------------|-----------|
|               |                  | Units    | mmhos/cm  | %                 | s_u_      | meq/L     | meq/L     | meq/L     | unitless | %    | %    | %    | Results  | Results      | Results   |
| C08100869-041 | 153              | 16-31    | 0.58      | 32.8              | 8.2       | 2.45      | 1.54      | 1.56      | 1.11     | 65   | 8    | 27   | SCL      | 2            | 0.004     |
| C08100869-042 | 153              | 31-46    | 0.80      | 34.5              | 8.4       | 1.14      | 1.08      | 3.07      | 2.92     | 59   | 11   | 30   | SCL      | 4            | 0.012     |
| C08100869-043 | 153              | 46-60    | 2.01      | 34.4              | 8.4       | 4.53      | 4.79      | 9.87      | 4.59     | 53   | 15   | 32   | SCL      | 1            | 0.050     |
| C08100869-044 | 154              | 0-7      | 0.88      | 33.2              | 7.6       | 2.92      | 2.43      | 2.94      | 1.80     | 49   | 18   | 33   | SCL      | 2            | 0.018     |
| C08100869-045 | 154              | 7-18     | 0.83      | 43.1              | 7.7       | 1.33      | 1.02      | 1.65      | 1.52     | 47   | 15   | 38   | SC       | 7            | 0.009     |
| C08100869-046 | 154              | 18-24    | 2.37      | 40.1              | 7.9       | 2.16      | 1.85      | 1.32      | 0.88     | 41   | 20   | 39   | CL       | 3            | 0.032     |
| C08100869-047 | 154              | 24-36    | 2.76      | 53.7              | 8.0       | 8.88      | 7.68      | 7.31      | 2.57     | 29   | 23   | 48   | C        | 6            | 0.050     |
| C08100869-048 | 155              | 0-11     | 0.23      | 33.3              | 7.8       | 1.15      | 0.73      | 0.32      | 0.33     | 48   | 18   | 34   | SCL      | 6            | 0.506     |
| C08100869-049 | 155              | 11-19    | 0.32      | 51.8              | 7.3       | 1.77      | 1.08      | 0.27      | 0.23     | 51   | 14   | 35   | SCL - SC | 4            | 0.004     |
| C08100869-050 | 155              | 19-28    | 0.77      | 40.7              | 8.0       | 3.67      | 1.83      | 1.80      | 1.09     | 53   | 17   | 30   | SCL      | 2            | 0.005     |
| C08100869-051 | 155              | 28-37    | 0.54      | 35.7              | 8.2       | 1.58      | 1.17      | 2.52      | 2.15     | 65   | 8    | 27   | SCL      | 3            | 0.006     |
| C08100869-052 | 155              | 37-46    | 0.39      | 35.6              | 8.7       | 0.64      | 0.41      | 0.48      | 0.66     | 63   | 13   | 24   | SCL      | 4            | 0.016     |
| C08100869-053 | 155              | 46-50    | 1.34      | 46.3              | 8.1       | 5.40      | 3.91      | 4.15      | 1.93     | 71   | 7    | 22   | SCL      | 2            | 0.078     |
| C08100869-054 | 158              | 0-12     | 0.58      | 37.0              | 6.5       | 2.24      | 1.44      | 2.54      | 1.88     | 53   | 17   | 30   | SCL      | 3            | 0.009     |
| C08100869-055 | 160              | 12-29    | 1.65      | 65.0              | 7.7       | 5.59      | 3.80      | 8.42      | 3.94     | 13   | 27   | 60   | C        | 8            | 0.106     |
| C08100869-056 | 158              | 29-37    | 4.63      | 58.6              | 7.8       | 30.4      | 16.9      | 16.0      | 3.31     | 11   | 35   | 54   | C        | 6            | 0.327     |
| C08100869-057 | 158              | 37-53    | 3.62      | 45.1              | 7.6       | 23.3      | 12.2      | 12.0      | 2.85     | 33   | 22   | 45   | C        | 6            | 0.229     |
| C08100869-058 | 158              | 53-60    | 2.83      | 45.2              | 7.7       | 14.4      | 7.63      | 11.8      | 3.57     | 39   | 24   | 37   | CL       | 3            | 0.159     |
| C08100869-059 | 158              | 0-12     | 1.23      | 44.5              | 7.1       | 8.95      | 3.57      | 0.53      | 0.21     | 33   | 24   | 43   | C        | 5            | 0.012     |
| C08100869-060 | 158              | 12-25    | 0.81      | 39.8              | 7.6       | 6.11      | 2.57      | 0.50      | 0.24     | 39   | 25   | 36   | CL       | 3            | 0.012     |
| C08100869-061 | 158              | 25-33    | 0.44      | 34.4              | 7.9       | 3.02      | 1.40      | 0.49      | 0.33     | 61   | 19   | 20   | SL - SCL | 5            | 0.010     |
| C08100869-062 | 158              | 33-48    | 0.59      | 27.2              | 8.0       | 2.70      | 1.61      | 1.85      | 1.61     | 83   | 15   | 22   | SCL      | 2            | 0.014     |
| C08100869-063 | 158              | 48-60    | 0.89      | 28.3              | 8.1       | 3.43      | 2.37      | 4.34      | 2.58     | 88   | 2    | 10   | LS       | 1            | 0.000     |
| C08100869-064 | 159              | 0-14     | 0.54      | 41.3              | 7.4       | 2.94      | 1.83      | 1.30      | 0.84     | 27   | 23   | 50   | C        | 3            | 0.010     |
| C08100869-065 | 159              | 14-28    | 1.63      | 44.7              | 7.9       | 6.89      | 5.24      | 5.28      | 2.15     | 31   | 27   | 42   | C        | 4            | 0.031     |
| C08100869-066 | 159              | 28-37    | 2.84      | 42.8              | 8.1       | 14.7      | 11.5      | 7.58      | 2.10     | 45   | 23   | 32   | CL       | 5            | 0.089     |
| C08100869-067 | 159              | 37-60    | 1.93      | 26.6              | 8.1       | 8.22      | 5.55      | 6.50      | 2.48     | 49   | 21   | 30   | SCL      | 5            | 0.111     |
| C08100869-068 | 160              | 0-13     | 0.48      | 39.5              | 7.5       | 3.04      | 1.86      | 0.96      | 0.61     | 33   | 33   | 34   | CL       | 4            | 0.011     |
| C08100869-069 | 160              | 13-21    | 0.69      | 37.9              | 8.1       | 3.00      | 1.88      | 2.70      | 1.73     | 33   | 27   | 40   | C - CL   | 5            | 0.011     |
| C08100869-070 | 160              | 21-33    | 1.92      | 33.4              | 8.1       | 8.86      | 5.76      | 6.63      | 2.46     | 39   | 25   | 36   | CL       | 3            | 0.060     |
| C08100869-071 | 160              | 33-65    | 1.71      | 42.3              | 8.1       | 7.14      | 4.31      | 8.03      | 2.53     | 25   | 33   | 42   | C        | 4            | 0.103     |
| C08100869-072 | 160              | 55-60    | 1.30      | 44.1              | 8.1       | 4.98      | 2.96      | 4.83      | 2.43     | 33   | 27   | 40   | C - CL   | 4            | 0.086     |
| C08100869-073 | 161              | 0-12     | 0.48      | 43.4              | 7.7       | 2.15      | 1.51      | 1.93      | 1.43     | 41   | 21   | 38   | CL       | 3            | 0.010     |
| C08100869-074 | 161              | 12-26    | 2.43      | 40.8              | 7.4       | 8.84      | 6.8       | 9.8       | 3.54     | 31   | 20   | 43   | C        | 4            | 0.099     |
| C08100869-075 | 161              | 26-46    | 5.44      | 41.3              | 7.6       | 21.5      | 14.4      | 10.8      | 2.50     | 27   | 29   | 44   | C        | 6            | 0.265     |
| C08100869-076 | 161              | 46-60    | 4.23      | 25.2              | 7.6       | 25.0      | 15.3      | 14.3      | 3.20     | 61   | 15   | 24   | SCL      | 3            | 0.069     |
| C08100869-077 | 162              | 0-12     | 0.47      | 35.9              | 7.2       | 2.68      | 1.40      | 0.85      | 0.50     | 28   | 31   | 40   | C - CL   | 4            | 0.018     |
| C08100869-078 | 163              | 0-7      | 1.22      | 38.5              | 7.4       | 8.84      | 3.97      | 1.08      | 0.43     | 25   | 35   | 40   | C - CL   | 4            | 0.013     |
| C08100869-079 | 163              | 7-20     | 3.73      | 39.8              | 7.8       | 20.9      | 15.1      | 13.5      | 3.19     | 23   | 41   | 36   | CL       | 7            | 0.027     |
| C08100869-080 | 163              | 20-29    | 7.98      | 38.9              | 8.2       | 17.1      | 38.8      | 55.0      | 10.5     | 22   | 58   | 20   | SIL      | 8            | 0.074     |



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LABORATORY ANALYTICAL REPORT

Client: BKS Environmental Associates Inc  
Project: 539A Ludeman Uranium  
Workorder: C08100869

Report Date: 12/17/08  
Date Received: 10/17/08



| Sample ID     | Client Sample ID | Analysis<br>Units | B-CACL2<br>mg/kg-dry | Organic<br>Matter<br>% |
|---------------|------------------|-------------------|----------------------|------------------------|
|               |                  |                   |                      |                        |
| C08100869-041 | 153              | 16-31             | < 0.43               | 0.7                    |
| C08100869-042 | 153              | 31-46             | 0.58                 | 0.4                    |
| C08100869-043 | 153              | 46-60             | 1.7                  | 0.4                    |
| C08100869-044 | 154              | 0-7               | 0.59                 | 1.0                    |
| C08100869-045 | 154              | 7-18              | 0.59                 | 0.7                    |
| C08100869-046 | 154              | 18-24             | 0.70                 | 0.5                    |
| C08100869-047 | 154              | 24-36             | 0.95                 | 0.4                    |
| C08100869-048 | 155              | 0-11              | < 0.43               | 1.0                    |
| C08100869-049 | 155              | 11-19             | 0.45                 | 0.8                    |
| C08100869-050 | 155              | 19-26             | 0.65                 | 0.7                    |
| C08100869-051 | 155              | 26-37             | 0.73                 | 0.5                    |
| C08100869-052 | 155              | 37-48             | 1.2                  | 0.4                    |
| C08100869-053 | 155              | 48-60             | 0.92                 | 0.2                    |
| C08100869-054 | 158              | 0-12              | < 0.44               | 0.9                    |
| C08100869-055 | 158              | 12-29             | 1.4                  | 0.8                    |
| C08100869-056 | 158              | 29-37             | 1.8                  | 0.5                    |
| C08100869-057 | 158              | 37-53             | 0.92                 | 0.4                    |
| C08100869-058 | 158              | 53-60             | 0.55                 | 0.4                    |
| C08100869-059 | 158              | 0-12              | 0.87                 | 1.4                    |
| C08100869-060 | 158              | 12-25             | 0.78                 | 0.8                    |
| C08100869-061 | 158              | 25-33             | < 0.44               | 0.4                    |
| C08100869-062 | 158              | 33-48             | 0.45                 | 0.5                    |
| C08100869-063 | 158              | 48-60             | < 0.44               | 0.3                    |
| C08100869-064 | 159              | 0-14              | 0.63                 | 1.1                    |
| C08100869-065 | 159              | 14-28             | 1.4                  | 0.8                    |
| C08100869-066 | 159              | 28-37             | 1.3                  | 0.5                    |
| C08100869-067 | 159              | 37-60             | 0.63                 | 0.4                    |
| C08100869-068 | 160              | 0-13              | < 0.43               | 1.3                    |
| C08100869-069 | 160              | 13-21             | 0.61                 | 0.8                    |
| C08100869-070 | 160              | 21-33             | 0.90                 | 0.6                    |
| C08100869-071 | 160              | 33-55             | 0.76                 | 0.4                    |
| C08100869-072 | 160              | 55-60             | 0.64                 | 0.5                    |
| C08100869-073 | 161              | 0-12              | 0.54                 | 0.9                    |
| C08100869-074 | 161              | 12-28             | 1.5                  | 0.7                    |
| C08100869-075 | 161              | 28-46             | 1.5                  | 0.2                    |
| C08100869-076 | 161              | 46-60             | 0.49                 | < 0.2                  |
| C08100869-077 | 162              | 0-12              | < 0.43               | 0.8                    |
| C08100869-078 | 163              | 0-7               | 0.53                 | 1.0                    |
| C08100869-079 | 163              | 7-20              | 0.50                 | 0.9                    |
| C08100869-080 | 163              | 20-29             | 2.1                  | 0.2                    |

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**LABORATORY ANALYTICAL REPORT**

Client: BKS Environmental Associates Inc  
Project: 539A Ludeman Uranium  
Workorder: C08100889

Report Date: 12/17/08  
Date Received: 10/17/08



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| Sample ID     | Client Sample ID | Analysis | EC SatPst | Saturation SatPst | pH SatPst | Ca SatPst | Mg SatPst | Na SatPst | SAR     | Sand     | Silt    | Clay    | Texture  | Coarse Frags | Se-ABDTPA |
|---------------|------------------|----------|-----------|-------------------|-----------|-----------|-----------|-----------|---------|----------|---------|---------|----------|--------------|-----------|
|               |                  | Units    | mmhos/cm  | %                 | p_u_      | meq/L     | meq/L     | meq/L     | meq/L   | unitless | %       | %       | %        | Results      | %         |
|               |                  | Depth    | Results   | Results           | Results   | Results   | Results   | Results   | Results | Results  | Results | Results | Results  | Results      | Results   |
| C08100889-091 | 163              | 29-37    | 12.1      | 41.0              | 8.3       | 19.8      | 65.4      | 93.6      | 14.4    | 61       | 19      | 20      | SL - SCL | 4            | 0.055     |
| C08100889-092 | 163              | 37-50    | 15.0      | 35.0              | 8.3       | 24.8      | 86.3      | 121       | 18.3    | 63       | 15      | 22      | SCL      | 5            | 0.045     |
| C08100889-093 | 163              | 50-60    | 14.6      | 34.2              | 8.3       | 22.8      | 84.5      | 118       | 16.2    | 88       | 2       | 10      | LS       | 5            | 0.035     |
| C08100889-094 | 164              | 0-10     | 1.62      | 32.0              | 7.3       | 10.8      | 6.41      | 1.96      | 0.67    | 27       | 23      | 50      | C        | 2            | 0.012     |
| C08100889-095 | 164              | 10-20    | 0.53      | 28.9              | 7.9       | 2.76      | 1.98      | 1.02      | 0.66    | 31       | 27      | 42      | C        | 3            | 0.008     |
| C08100889-096 | 164              | 20-34    | 0.95      | 39.4              | 8.0       | 1.99      | 2.51      | 4.97      | 3.32    | 45       | 23      | 32      | CL       | 8            | 0.077     |
| C08100889-097 | 165              | 0-17     | 0.66      | 36.5              | 7.9       | 4.36      | 2.97      | 0.60      | 0.31    | 49       | 21      | 30      | SCL      | 4            | 0.010     |
| C08100889-098 | 165              | 17-27    | 0.64      | 37.1              | 8.4       | 1.80      | 2.88      | 2.43      | 1.59    | 33       | 33      | 34      | CL       | 4            | 0.017     |
| C08100889-099 | 165              | 27-36    | 1.24      | 29.8              | 8.4       | 1.67      | 4.34      | 6.96      | 4.04    | 33       | 27      | 40      | C - CL   | 3            | 0.024     |
| C08100889-090 | 165              | 38-48    | 5.12      | 31.6              | 8.2       | 19.5      | 32.5      | 20.3      | 4.01    | 39       | 25      | 36      | CL       | 9            | 0.125     |
| C08100889-091 | 165              | 48-60    | 6.11      | 31.6              | 8.2       | 20.0      | 40.5      | 27.9      | 5.09    | 25       | 33      | 42      | C        | < 1          | 0.276     |
| C08100889-092 | 166              | 0-7      | 0.91      | 21.1              | 7.6       | 6.42      | 2.98      | 0.55      | 0.26    | 33       | 27      | 40      | C - CL   | 4            | 0.008     |
| C08100889-093 | 166              | 7-21     | 0.48      | 26.8              | 7.9       | 3.56      | 1.06      | 0.37      | 0.24    | 41       | 21      | 38      | CL       | 4            | 0.005     |
| C08100889-094 | 168              | 21-36    | 0.49      | 21.4              | 8.2       | 3.14      | 1.22      | 0.72      | 0.49    | 31       | 26      | 43      | C        | 4            | 0.008     |
| C08100889-095 | 168              | 38-48    | 0.69      | 20.1              | 7.6       | 4.21      | 2.32      | 0.60      | 0.50    | 27       | 29      | 44      | C        | 2            | 0.066     |
| C08100889-096 | 168              | 0-9      | 0.40      | 35.7              | 8.2       | 2.72      | 1.17      | 0.23      | 0.17    | 61       | 15      | 24      | SCL      | 3            | 0.007     |
| C08100889-097 | 168              | 9-29     | 0.22      | 29.0              | 6.6       | 0.87      | 0.37      | 0.11      | 0.13    | 29       | 31      | 40      | C - CL   | 3            | 0.009     |
| C08100889-098 | 168              | 29-41    | 0.23      | 27.0              | 6.9       | 1.58      | 0.85      | 0.21      | 0.20    | 25       | 35      | 40      | C - CL   | 3            | 0.003     |
| C08100889-099 | 168              | 41-51    | 0.30      | 26.3              | 7.0       | 1.86      | 0.66      | 0.39      | 0.34    | 23       | 41      | 36      | CL       | 1            | 0.006     |
| C08100889-100 | 168              | 51-60    | 0.20      | 25.8              | 7.0       | 1.15      | 0.54      | 0.30      | 0.33    | 22       | 59      | 20      | SL       | 3            | 0.008     |
| C08100889-101 | 170              | 0-9      | 0.58      | 31.3              | 6.9       | 3.18      | 2.34      | 0.68      | 0.41    | 63       | 3       | 34      | SCL      | 4            | 0.008     |
| C08100889-102 | 170              | 9-29     | 0.67      | 33.7              | 7.8       | 2.65      | 2.68      | 1.87      | 1.15    | 33       | 37      | 30      | CL       | 3            | 0.008     |
| C08100889-103 | 170              | 29-40    | 1.27      | 31.1              | 8.1       | 3.77      | 4.88      | 5.35      | 2.58    | 45       | 23      | 32      | CL       | 4            | 0.028     |
| C08100889-104 | 170              | 40-60    | 3.90      | 35.4              | 7.9       | 20.3      | 18.5      | 12.6      | 2.86    | 39       | 29      | 32      | CL       | 4            | 0.130     |
| C08100889-105 | 171              | 0-7      | 0.74      | 36.2              | 7.6       | 5.02      | 2.80      | 0.66      | 0.34    | 33       | 31      | 38      | CL       | 5            | 0.009     |
| C08100889-106 | 172              | 0-12     | 0.40      | 21.4              | 7.1       | 3.12      | 1.46      | 0.21      | 0.14    | 61       | 17      | 22      | SCL      | 2            | 0.009     |
| C08100889-107 | 172              | 12-19    | 0.30      | 23.6              | 7.5       | 2.06      | 1.00      | 0.24      | 0.19    | 71       | 11      | 18      | SL       | 2            | 0.008     |
| C08100889-108 | 172              | 19-29    | 0.46      | 34.5              | 7.6       | 2.94      | 1.63      | 0.93      | 0.62    | 81       | 5       | 14      | SL       | 4            | 0.007     |
| C08100889-109 | 173              | 0-15     | 0.52      | 29.8              | 7.6       | 4.32      | 1.50      | 0.15      | 0.09    | 65       | 11      | 24      | SCL      | < 1          | 0.006     |
| C08100889-110 | 173              | 15-31    | 0.42      | 31.9              | 8.0       | 2.20      | 2.01      | 0.15      | 0.10    | 59       | 17      | 24      | SCL      | < 1          | 0.004     |
| C08100889-111 | 173              | 31-37    | 0.57      | 30.7              | 7.9       | 2.32      | 3.09      | 0.20      | 0.12    | 53       | 27      | 20      | SL - SCL | < 1          | 0.004     |
| C08100889-112 | 173              | 37-55    | 0.43      | 29.4              | 7.8       | 1.81      | 2.29      | 0.20      | 0.14    | 69       | 13      | 18      | SL       | 1            | 0.004     |
| C08100889-113 | 173              | 55-60    | 0.65      | 28.4              | 7.2       | 2.53      | 2.69      | 0.20      | 0.12    | 39       | 39      | 22      | L        | 5            | 0.005     |
| C08100889-114 | 174              | 0-3      | 0.51      | 38.4              | 7.1       | 3.88      | 1.50      | 0.28      | 0.17    | 33       | 35      | 32      | CL       | 3            | 0.008     |
| C08100889-115 | 174              | 3-10     | 0.43      | 40.5              | 7.5       | 2.58      | 0.79      | 1.24      | 0.98    | 26       | 27      | 44      | C        | 3            | 0.008     |
| C08100889-116 | 174              | 10-20    | 0.62      | 48.0              | 7.8       | 1.48      | 0.57      | 4.43      | 4.40    | 27       | 27      | 46      | C        | 3            | 0.006     |
| C08100889-117 | 174              | 20-36    | 5.45      | 48.3              | 7.6       | 32.4      | 13.6      | 22.9      | 4.78    | 26       | 21      | 50      | C        | 3            | 0.132     |
| C08100889-118 | 174              | 36-48    | 7.30      | 43.5              | 7.6       | 42.4      | 18.1      | 30.5      | 5.56    | 27       | 41      | 32      | CL       | 3            | 0.716     |
| C08100889-119 | 175              | 0-4      | 7.24      | 24.5              | 6.7       | 8.98      | 2.8       | 1.4       | 0.58    | 92       | < 1     | 8       | S        | < 1          | 0.710     |
| C08100889-120 | 175              | 4-17     | 1.24      | 32.0              | 6.9       | 3.67      | 1.71      | 0.56      | 0.34    | 51       | 17      | 32      | SCL      | 10           | 0.009     |

LABORATORY ANALYTICAL REPORT

Client: BKS Environmental Associates Inc  
Project: 539A Ludeman Uranium  
Workorder: C08100869

Report Date: 12/17/08  
Date Received: 10/17/08

| Sample ID     | Client Sample ID | Analysis<br>Units | B-CACL2<br>mg/kg-dry | Organic<br>Matter<br>% |
|---------------|------------------|-------------------|----------------------|------------------------|
|               |                  |                   |                      |                        |
| C08100869-081 | 183              | 29-37             | 2.4                  | < 0.2                  |
| C08100869-082 | 183              | 37-59             | 1.2                  | < 0.2                  |
| C08100869-083 | 183              | 50-60             | 1.1                  | < 0.2                  |
| C08100869-084 | 164              | 0-10              | 0.44                 | 0.8                    |
| C08100869-085 | 164              | 10-20             | < 0.43               | 1.0                    |
| C08100869-086 | 164              | 20-34             | 0.59                 | 0.6                    |
| C08100869-087 | 165              | 0-17              | < 0.43               | 1.2                    |
| C08100869-088 | 165              | 17-27             | 0.52                 | 0.5                    |
| C08100869-089 | 165              | 27-36             | 0.89                 | 0.4                    |
| C08100869-090 | 165              | 36-48             | 2.2                  | 0.4                    |
| C08100869-091 | 165              | 48-60             | 2.8                  | 0.4                    |
| C08100869-092 | 166              | 0-7               | < 0.44               | 1.0                    |
| C08100869-093 | 166              | 7-21              | < 0.43               | 0.8                    |
| C08100869-094 | 166              | 21-36             | < 0.43               | 0.4                    |
| C08100869-095 | 166              | 36-48             | < 0.43               | 0.3                    |
| C08100869-096 | 168              | 0-9               | < 0.43               | 4.0                    |
| C08100869-097 | 168              | 9-29              | < 0.43               | 1.4                    |
| C08100869-098 | 168              | 29-41             | < 0.43               | 1.1                    |
| C08100869-099 | 168              | 41-51             | < 0.43               | < 0.2                  |
| C08100869-100 | 168              | 51-60             | < 0.43               | 0.5                    |
| C08100869-101 | 170              | 0-9               | < 0.43               | 1.4                    |
| C08100869-102 | 170              | 9-29              | 0.75                 | 0.8                    |
| C08100869-103 | 170              | 29-40             | 0.82                 | 0.4                    |
| C08100869-104 | 170              | 40-60             | 1.8                  | 0.4                    |
| C08100869-105 | 171              | 0-7               | 0.57                 | 2.2                    |
| C08100869-106 | 172              | 0-12              | < 0.44               | 1.1                    |
| C08100869-107 | 172              | 12-19             | < 0.43               | 0.7                    |
| C08100869-108 | 172              | 19-29             | < 0.43               | 0.6                    |
| C08100869-109 | 173              | 0-15              | 0.46                 | 0.9                    |
| C08100869-110 | 173              | 15-31             | < 0.44               | 0.5                    |
| C08100869-111 | 173              | 31-37             | < 0.43               | 0.8                    |
| C08100869-112 | 173              | 37-55             | < 0.43               | 0.5                    |
| C08100869-113 | 173              | 55-60             | < 0.44               | 0.5                    |
| C08100869-114 | 174              | 0-3               | 0.51                 | 2.5                    |
| C08100869-115 | 174              | 3-10              | < 0.43               | 1.4                    |
| C08100869-116 | 174              | 10-20             | 0.59                 | 1.0                    |
| C08100869-117 | 174              | 20-36             | 1.5                  | 0.8                    |
| C08100869-118 | 174              | 36-48             | 1.2                  | 0.8                    |
| C08100869-119 | 175              | 0-4               | 0.69                 | 1.1                    |
| C08100869-120 | 175              | 4-17              | 0.75                 | 1.2                    |



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LABORATORY ANALYTICAL REPORT

Client: BKS Environmental Associates Inc  
Project: 539A Ludeman Uranium  
Workorder: C08100869

Report Date: 12/17/08  
Date Received: 10/17/08

| Sample ID     | Client Sample ID | Depth | Analysis | EC SatPst | Saturation SatPst | pH SatPst | Ca SatPst | Mg SatPst | Na SatPst | SAR      | Sand | Silt | Clay     | Texture | Coarse Frags | Se-ABDTPA |
|---------------|------------------|-------|----------|-----------|-------------------|-----------|-----------|-----------|-----------|----------|------|------|----------|---------|--------------|-----------|
|               |                  |       | Units    | mmhos/cm  | %                 | u_u_      | meq/L     | meq/L     | meq/L     | unitless | %    | %    | %        | %       | mg/kg-dry    |           |
| C08100869-121 | 175              | 17-33 | 0.59     | 40.9      | 7.3               | 1.81      | 0.87      | 0.68      | 0.59      | 53       | 15   | 32   | SCL      | 6       | 0.009        |           |
| C08100869-122 | 175              | 33-41 | 0.32     | 40.6      | 7.7               | 1.30      | 0.65      | 1.81      | 1.84      | 69       | 11   | 20   | SL - SCL | 3       | < 0.002      |           |
| C08100869-123 | 175              | 41-48 | 0.62     | 39.6      | 8.0               | 1.67      | 0.85      | 3.55      | 3.17      | 51       | 15   | 34   | SCL      | 11      | < 0.002      |           |
| C08100869-124 | 177              | 0-2   | 0.33     | 28.9      | 7.0               | 2.20      | 1.05      | 0.29      | 0.23      | 47       | 23   | 30   | SCL      | 8       | 0.009        |           |
| C08100869-125 | 177              | 2-15  | 0.19     | 31.5      | 6.8               | 1.25      | 0.51      | 0.22      | 0.24      | 41       | 25   | 34   | CL       | 6       | 0.006        |           |
| C08100869-126 | 178              | 0-2   | 0.30     | 29.1      | 6.8               | 1.70      | 0.85      | 0.11      | 0.10      | 69       | 19   | 12   | SL       | 3       | 0.002        |           |
| C08100869-127 | 178              | 2-12  | 0.32     | 24.7      | 7.2               | 1.91      | 0.92      | 0.16      | 0.13      | 71       | 11   | 18   | SL       | 3       | 0.003        |           |
| C08100869-128 | 178              | 12-18 | 0.15     | 24.3      | 7.2               | 1.02      | 0.48      | 0.16      | 0.10      | 63       | 19   | 18   | SL       | 4       | 0.004        |           |
| C08100869-129 | 178              | 18-29 | 0.28     | 25.0      | 7.7               | 1.81      | 0.79      | 0.28      | 0.24      | 73       | 3    | 24   | SCL      | 2       | < 0.002      |           |
| C08100869-130 | 178              | 29-35 | 0.29     | 24.9      | 7.0               | 1.58      | 0.90      | 0.32      | 0.29      | 81       | 4    | 15   | SL       | 2       | < 0.002      |           |
| C08100869-131 | 178              | 35-60 | 0.47     | 23.5      | 8.0               | 2.56      | 1.66      | 0.56      | 0.56      | 78       | 6    | 16   | SL       | 3       | < 0.002      |           |
| C08100869-132 | 180              | 0-2   | 0.53     | 51.2      | 8.1               | 4.14      | 1.80      | 0.11      | 0.07      | 21       | 33   | 46   | C        | 3       | 0.007        |           |
| C08100869-133 | 180              | 2-12  | 0.39     | 40.4      | 6.8               | 2.90      | 0.95      | 0.26      | 0.19      | 37       | 23   | 40   | C - CL   | 5       | 0.018        |           |
| C08100869-134 | 180              | 12-19 | 0.72     | 49.8      | 6.8               | 6.18      | 2.03      | 0.71      | 0.35      | 33       | 29   | 38   | CL       | 3       | 0.008        |           |
| C08100869-135 | 180              | 19-37 | 1.22     | 34.4      | 7.2               | 9.57      | 3.44      | 0.89      | 0.35      | 41       | 23   | 36   | CL       | 3       | 0.010        |           |
| C08100869-136 | 181              | 0-2   | 0.51     | 30.8      | 6.7               | 3.94      | 1.60      | 0.50      | 0.30      | 63       | 13   | 24   | SCL      | 1       | 0.006        |           |
| C08100869-137 | 181              | 2-9   | 0.29     | 28.5      | 6.8               | 2.21      | 0.77      | 0.19      | 0.15      | 71       | 11   | 18   | SL       | 3       | 0.004        |           |
| C08100869-138 | 181              | 9-21  | 0.34     | 25.0      | 7.2               | 2.60      | 0.93      | 0.22      | 0.16      | 73       | 7    | 20   | SL - SCL | 3       | 0.002        |           |
| C08100869-139 | 182              | 0-2   | 0.58     | 26.8      | 6.8               | 4.99      | 1.89      | 0.10      | 0.06      | 79       | 7    | 14   | SL       | > 1     | 0.005        |           |
| C08100869-140 | 182              | 2-15  | 0.21     | 27.0      | 7.2               | 1.10      | 0.46      | 0.28      | 0.31      | 82       | 2    | 16   | SL       | > 1     | 0.003        |           |
| C08100869-141 | 182              | 15-30 | 0.23     | 29.0      | 7.8               | 1.58      | 0.63      | 0.16      | 0.15      | 80       | 8    | 12   | SL       | > 1     | < 0.002      |           |
| C08100869-142 | 182              | 39-44 | 0.23     | 31.3      | 7.9               | 0.96      | 0.59      | 0.47      | 0.54      | 74       | 12   | 14   | SL       | > 1     | 0.002        |           |
| C08100869-143 | 183              | 0-6   | 0.81     | 39.0      | 7.2               | 6.94      | 2.19      | 1.17      | 0.55      | 38       | 32   | 30   | CL       | 3       | 0.012        |           |
| C08100869-144 | 183              | 8-22  | 1.04     | 44.4      | 7.6               | 4.25      | 2.15      | 5.46      | 3.06      | 26       | 50   | 24   | SiL - L  | 5       | 0.021        |           |
| C08100869-145 | 184              | 0-6   | 0.33     | 34.8      | 7.1               | 2.85      | 0.72      | 0.22      | 0.17      | 54       | 25   | 20   | SL - SCL | 4       | 0.012        |           |
| C08100869-146 | 184              | 8-17  | 0.44     | 35.7      | 7.2               | 3.81      | 1.18      | 0.29      | 0.19      | 42       | 28   | 30   | CL       | 4       | 0.010        |           |
| C08100869-147 | 185              | 0-2   | 0.60     | 31.0      | 7.2               | 4.30      | 1.98      | 0.23      | 0.13      | 62       | 24   | 14   | SL       | 2       | 0.008        |           |
| C08100869-148 | 185              | 2-19  | 0.35     | 29.7      | 7.0               | 2.25      | 1.13      | 0.22      | 0.17      | 61       | 17   | 22   | SCL      | 2       | 0.006        |           |
| C08100869-149 | 185              | 19-31 | 0.51     | 30.1      | 7.5               | 2.72      | 1.61      | 0.97      | 0.86      | 60       | 14   | 26   | SCL      | 3       | 0.005        |           |
| C08100869-150 | 185              | 31-40 | 0.68     | 23.4      | 7.6               | 2.64      | 1.72      | 2.41      | 1.64      | 70       | 10   | 20   | SL - SCL | 2       | 0.008        |           |
| C08100869-151 | 186              | 0-8   | 0.67     | 25.7      | 7.6               | 2.73      | 1.72      | 2.33      | 1.56      | 28       | 42   | 30   | CL       | 3       | 0.023        |           |
| C08100869-152 | 186              | 8-18  | 0.40     | 34.1      | 7.0               | 4.01      | 1.81      | 0.28      | 0.40      | 48       | 20   | 32   | SCL      | 5       | 0.015        |           |
| C08100869-153 | 186              | 18-31 | 0.52     | 32.0      | 6.9               | 3.88      | 1.39      | 0.28      | 0.17      | 34       | 34   | 32   | CL       | 5       | 0.016        |           |
| C08100869-154 | 186              | 31-43 | 0.81     | 30.4      | 7.5               | 4.85      | 1.45      | 0.80      | 0.34      | 52       | 22   | 26   | SCL      | 3       | 0.022        |           |
| C08100869-155 | 186              | 43-60 | 0.79     | 32.2      | 7.0               | 6.20      | 2.30      | 0.63      | 0.31      | 50       | 20   | 30   | SCL      | 3       | 0.027        |           |
| C08100869-156 | 187              | 0-8   | 0.55     | 43.8      | 7.2               | 2.57      | 0.90      | 2.61      | 1.99      | 24       | 26   | 50   | C        | 6       | 0.016        |           |
| C08100869-157 | 187              | 8-17  | 2.08     | 55.1      | 7.5               | 10.1      | 4.00      | 9.70      | 3.68      | 18       | 30   | 52   | C        | 6       | 0.052        |           |
| C08100869-158 | 187              | 17-22 | 0.63     | 30.8      | 7.1               | 5.12      | 1.80      | 0.46      | 0.25      | 12       | 38   | 50   | C        | 20      | 0.087        |           |
| C08100869-159 | 188              | 0-9   | 0.35     | 29.6      | 7.6               | 2.64      | 1.14      | 0.19      | 0.14      | 62       | 18   | 20   | SL - SCL | 3       | 0.005        |           |
| C08100869-160 | 188              | 9-21  | 0.37     | 29.4      | 8.0               | 1.96      | 1.45      | 0.56      | 0.43      | 72       | 8    | 20   | SL - SCL | 4       | < 0.002      |           |



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LABORATORY ANALYTICAL REPORT

Client: BKS Environmental Associates Inc  
Project: 539A Ludeman Uranium  
Workorder: C08100869

Report Date: 12/17/08  
Date Received: 10/17/08

| Sample ID     | Client Sample ID | Analysis<br>Units | B-CACL2<br>mg/kg-dry<br>Results | Organic<br>Matter<br>%<br>Results |
|---------------|------------------|-------------------|---------------------------------|-----------------------------------|
|               |                  |                   |                                 |                                   |
| C08100869-121 | 175              | 17-33             | < 0.44                          | 0.7                               |
| C08100869-122 | 175              | 33-41             | < 0.43                          | 0.5                               |
| C08100869-123 | 175              | 41-48             | < 0.43                          | 0.2                               |
| C08100869-124 | 177              | 0-2               | < 0.43                          | 2.5                               |
| C08100869-125 | 177              | 2-15              | < 0.43                          | 1.4                               |
| C08100869-126 | 178              | 0-2               | < 0.43                          | 2.6                               |
| C08100869-127 | 178              | 2-12              | < 0.44                          | 1.2                               |
| C08100869-128 | 178              | 12-18             | 0.51                            | 0.9                               |
| C08100869-129 | 178              | 18-29             | < 0.44                          | 0.6                               |
| C08100869-130 | 178              | 29-35             | < 0.43                          | 0.3                               |
| C08100869-131 | 178              | 35-60             | < 0.43                          | 0.5                               |
| C08100869-132 | 180              | 0-2               | 0.62                            | 5.1                               |
| C08100869-133 | 180              | 2-12              | 0.58                            | 1.7                               |
| C08100869-134 | 180              | 12-19             | 0.75                            | 1.1                               |
| C08100869-135 | 180              | 19-37             | 0.76                            | 1.1                               |
| C08100869-136 | 181              | 0-2               | < 0.44                          | 1.6                               |
| C08100869-137 | 181              | 2-9               | < 0.43                          | 1.0                               |
| C08100869-138 | 181              | 9-21              | 0.51                            | 0.5                               |
| C08100869-139 | 182              | 0-2               | < 0.44                          | 1.6                               |
| C08100869-140 | 182              | 2-15              | < 0.43                          | 0.3                               |
| C08100869-141 | 182              | 15-30             | < 0.43                          | 0.2                               |
| C08100869-142 | 182              | 30-44             | < 0.43                          | < 0.2                             |
| C08100869-143 | 183              | 0-8               | 0.47                            | 2.3                               |
| C08100869-144 | 183              | 8-22              | 0.64                            | 1.3                               |
| C08100869-145 | 184              | 0-8               | < 0.43                          | 1.2                               |
| C08100869-140 | 184              | 8-17              | < 0.43                          | 0.9                               |
| C08100869-147 | 185              | 0-2               | < 0.43                          | 2.4                               |
| C08100869-148 | 185              | 2-19              | < 0.43                          | 0.8                               |
| C08100869-149 | 185              | 19-31             | < 0.43                          | 0.9                               |
| C08100869-150 | 185              | 31-48             | 0.44                            | 0.3                               |
| C08100869-151 | 186              | 0-8               | 0.64                            | 2.4                               |
| C08100869-152 | 186              | 8-18              | 0.49                            | 1.2                               |
| C08100869-153 | 186              | 18-31             | 0.57                            | 1.1                               |
| C08100869-154 | 186              | 31-43             | < 0.43                          | 1.0                               |
| C08100869-155 | 186              | 43-60             | < 0.43                          | 0.9                               |
| C08100869-156 | 187              | 0-8               | 0.54                            | 1.2                               |
| C08100869-157 | 187              | 9-17              | 0.70                            | 1.0                               |
| C08100869-158 | 187              | 17-22             | < 0.43                          | 0.8                               |
| C08100869-159 | 188              | 0-9               | < 0.43                          | 1.0                               |
| C08100869-160 | 188              | 9-21              | < 0.43                          | 0.6                               |

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LABORATORY ANALYTICAL REPORT

Client: BKS Environmental Associates Inc  
Project: 539A Ludeman Uranium  
Workorder: C08100869

Report Date: 12/17/08  
Date Received: 10/17/08



| Sample ID     | Client Sample ID | Depth | Analysis | EC SatPst | Saturation SatPst | pH SatPst | Ca SatPst | Mg SatPst | Na SatPst | SAR      | Sand | Silt | Clay     | Texture | Coarse Frags | Se-ABDTPA |
|---------------|------------------|-------|----------|-----------|-------------------|-----------|-----------|-----------|-----------|----------|------|------|----------|---------|--------------|-----------|
|               |                  |       | Units    | mmhos/cm  | %                 | s_u_      | meq/L     | meq/L     | meq/L     | unitless | %    | %    | %        | %       | mg/kg-dry    |           |
| C08100869-181 | 188              | 21-30 | 1.11     | 28.2      | 8.2               | 0.56      | 0.27      | 11.3      | 17.7      | 61       | 9    | 30   | SCL      | 3       | < 0.002      |           |
| C08100869-182 | 188              | 30-48 | 0.57     | 37.4      | 7.0               | 0.67      | 1.55      | 4.40      | 4.19      | 65       | 7    | 28   | SCL      | 5       | < 0.002      |           |
| C08100869-183 | 189              | 0-8   | 1.73     | 40.2      | 7.8               | 0.29      | 0.97      | 18.8      | 23.9      | 40       | 13   | 38   | SC       | 5       | 0.006        |           |
| C08100869-184 | 189              | 8-18  | 0.58     | 38.2      | 8.0               | 0.42      | 1.26      | 4.15      | 4.55      | 51       | 19   | 30   | SCL      | 4       | 0.004        |           |
| C08100869-185 | 189              | 18-24 | 2.17     | 26.7      | 7.3               | 0.31      | 2.39      | 23.9      | 20.7      | 33       | 33   | 34   | CL       | 7       | 0.003        |           |
| C08100869-186 | 190              | 0-3   | 1.14     | 39.6      | 7.3               | 0.31      | 0.93      | 11.4      | 14.6      | 69       | 19   | 12   | SL       | 3       | 0.004        |           |
| C08100869-187 | 190              | 3-14  | 0.81     | 28.9      | 7.9               | 0.49      | 0.93      | 7.18      | 8.54      | 61       | 11   | 28   | SCL      | 3       | 0.003        |           |
| C08100869-188 | 190              | 14-38 | 3.34     | 28.2      | 7.8               | 5.69      | 12.9      | 18.1      | 5.97      | 69       | 9    | 22   | SCL      | 5       | 0.007        |           |
| C08100869-189 | 190              | 38-48 | 0.50     | 31.5      | 7.4               | 0.54      | 0.96      | 4.08      | 4.73      | 61       | 17   | 22   | SCL      | 2       | 0.075        |           |
| C08100869-190 | 191              | 0-3   | 0.41     | 30.7      | 7.5               | 0.42      | 0.32      | 2.57      | 4.24      | 69       | 11   | 20   | SL - SCL | 1       | < 0.002      |           |
| C08100869-191 | 191              | 3-11  | 0.40     | 20.7      | 7.6               | 0.32      | 0.31      | 3.23      | 5.82      | 77       | 7    | 16   | SL       | 3       | 0.007        |           |
| C08100869-192 | 191              | 11-18 | 0.38     | 27.8      | 8.1               | 0.31      | 0.32      | 3.04      | 5.41      | 71       | 13   | 16   | SL       | 1       | 0.008        |           |
| C08100869-193 | 191              | 18-34 | 0.37     | 26.3      | 8.1               | 0.42      | 0.33      | 2.77      | 4.52      | 73       | 7    | 20   | SL - SCL | 6       | 0.008        |           |
| C08100869-194 | 192              | 0-1   | 0.42     | 31.2      | 7.1               | 0.59      | 0.41      | 3.45      | 4.96      | 43       | 25   | 32   | CL       | 6       | 0.008        |           |
| C08100869-195 | 192              | 1-8   | 0.47     | 46.7      | 7.3               | 0.39      | 0.34      | 4.00      | 6.67      | 19       | 35   | 46   | C        | 12      | 0.008        |           |
| C08100869-196 | 193              | 0-3   | 2.12     | 27.8      | 6.6               | 5.68      | 2.79      | 0.44      | 0.21      | 45       | 25   | 30   | CL       | 3       | 0.005        |           |
| C08100869-197 | 193              | 3-10  | 0.45     | 36.5      | 7.5               | 3.10      | 1.59      | 0.61      | 0.40      | 25       | 31   | 44   | C        | 6       | 0.009        |           |
| C08100869-198 | 193              | 10-18 | 0.60     | 40.7      | 7.9               | 2.06      | 1.47      | 3.20      | 2.42      | 31       | 39   | 30   | CL       | 4       | 0.010        |           |
| C08100869-199 | 193              | 18-36 | 2.64     | 38.2      | 8.0               | 5.70      | 4.89      | 17.3      | 7.55      | 29       | 38   | 32   | CL       | 5       | 0.173        |           |
| C08100869-200 | 193              | 36-60 | 7.32     | 43.5      | 7.8               | 28.0      | 28.7      | 43.3      | 8.17      | 29       | 21   | 50   | C        | 6       | 0.565        |           |
| C08100869-181 | 194              | 0-8   | 0.92     | 37.1      | 7.5               | 6.35      | 2.96      | 1.31      | 0.61      | 36       | 22   | 40   | C - CL   | 7       | 0.011        |           |
| C08100869-182 | 194              | 8-17  | 0.48     | 39.2      | 8.0               | 3.28      | 2.21      | 0.42      | 0.26      | 24       | 42   | 34   | CL       | 5       | 0.010        |           |
| C08100869-183 | 194              | 17-32 | 0.72     | 35.7      | 8.4               | 1.64      | 2.32      | 3.87      | 2.78      | 28       | 38   | 36   | CL       | 9       | 0.008        |           |
| C08100869-184 | 194              | 32-44 | 7.09     | 37.6      | 8.1               | 28.9      | 44.6      | 30.6      | 5.07      | 30       | 30   | 40   | C - CL   | 7       | 0.242        |           |
| C08100869-185 | 195              | 0-9   | 1.54     | 21.4      | 7.3               | 9.67      | 5.61      | 1.87      | 0.88      | 74       | 16   | 10   | SL       | 3       | 0.006        |           |
| C08100869-186 | 195              | 9-18  | 0.52     | 21.0      | 7.4               | 3.76      | 1.55      | 0.29      | 0.18      | 72       | 12   | 16   | SL       | 5       | 0.005        |           |
| C08100869-187 | 195              | 18-37 | 0.55     | 21.2      | 7.8               | 4.16      | 1.46      | 0.35      | 0.21      | 74       | 14   | 12   | SL       | 4       | 0.004        |           |
| C08100869-188 | 195              | 37-48 | 0.55     | 21.7      | 8.0               | 3.06      | 1.93      | 0.31      | 0.20      | 73       | 13   | 14   | SL       | 5       | 0.009        |           |
| C08100869-189 | 197              | 0-4   | 0.85     | 22.3      | 7.1               | 2.47      | 1.12      | 0.08      | 0.06      | 64       | 22   | 14   | SL       | 4       | 0.013        |           |
| C08100869-190 | 197              | 4-10  | 0.26     | 24.0      | 7.3               | 1.73      | 0.82      | 0.18      | 0.16      | 70       | 6    | 24   | SCL      | 9       | 0.013        |           |
| C08100869-191 | 197              | 10-19 | 0.28     | 21.9      | 7.5               | 1.51      | 0.83      | 0.25      | 0.23      | 74       | 10   | 16   | SL       | 3       | 0.008        |           |
| C08100869-192 | 197              | 19-38 | 0.38     | 19.6      | 8.2               | 2.00      | 1.09      | 0.37      | 0.30      | 90       | < 1  | 10   | LS       | 2       | 0.007        |           |
| C08100869-193 | 197              | 30-48 | 0.47     | 18.5      | 8.3               | 2.13      | 1.75      | 1.01      | 0.73      | 92       | 2    | 6    | S        | 2       | 0.010        |           |
| C08100869-194 | 198              | 0-6   | 0.34     | 21.2      | 6.6               | 1.95      | 1.08      | 0.44      | 0.36      | 66       | 20   | 14   | SL       | 3       | 0.013        |           |
| C08100869-195 | 198              | 6-22  | 0.50     | 24.7      | 7.4               | 2.76      | 1.97      | 0.49      | 0.32      | 54       | 26   | 20   | SL - SCL | 2       | 0.013        |           |
| C08100869-196 | 199              | 0-3   | 0.72     | 28.7      | 8.0               | 3.86      | 1.72      | 0.13      | 0.08      | 52       | 28   | 22   | SCL      | 4       | 0.015        |           |
| C08100869-197 | 199              | 3-14  | 0.70     | 42.9      | 8.8               | 2.11      | 0.85      | 0.14      | 0.12      | 58       | 28   | 16   | SL       | 4       | 0.016        |           |
| C08100869-198 | 199              | 14-26 | 0.27     | 24.0      | 7.1               | 1.67      | 0.76      | 0.20      | 0.18      | 64       | 18   | 26   | SCL      | 3       | 0.009        |           |
| C08100869-199 | 199              | 26-43 | 0.17     | 30.3      | 7.2               | 1.00      | 0.45      | 0.23      | 0.27      | 56       | 14   | 30   | SCL      | 2       | 0.010        |           |
| C08100869-200 | 199              | 43-60 | 0.25     | 24.2      | 7.4               | 1.55      | 0.72      | 0.28      | 0.27      | 52       | 26   | 22   | SCL      | 3       | 0.007        |           |

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LABORATORY ANALYTICAL REPORT

Client: BKS Environmental Associates Inc  
Project: 539A Ludeman Uranium  
Workorder: C08100869

Report Date: 12/17/08  
Date Received: 10/17/08



ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (R2601) • P.O. Box 3258 • Casper, WY 82602  
Tel: 307.236.2353 • Fax: 307.234.1639 • casper@energylab.com • www.energylab.com

| Sample ID     | Client Sample ID | Depth | Analysis | B-CACL2   | Organic Matter |
|---------------|------------------|-------|----------|-----------|----------------|
|               |                  |       | Units    | mg/kg-dry | %              |
| C08100869-161 | 188              | 21-30 | < 0.43   | 0.5       |                |
| C08100869-162 | 188              | 30-48 | < 0.44   | 0.4       |                |
| C08100869-163 | 189              | 0-8   | < 0.43   | 1.8       |                |
| C08100869-164 | 189              | 8-18  | < 0.44   | 1.0       |                |
| C08100869-165 | 189              | 18-24 | < 0.43   | 0.6       |                |
| C08100869-166 | 190              | 0-3   | < 0.43   | 2.6       |                |
| C08100869-167 | 190              | 3-14  | < 0.43   | 0.9       |                |
| C08100869-168 | 190              | 14-38 | 0.50     | 0.8       |                |
| C08100869-169 | 190              | 38-48 | 1.2      | 0.3       |                |
| C08100869-170 | 191              | 0-3   | < 0.44   | 2.4       |                |
| C08100869-171 | 191              | 3-11  | < 0.43   | 0.9       |                |
| C08100869-172 | 191              | 11-18 | < 0.43   | 0.5       |                |
| C08100869-173 | 191              | 18-34 | < 0.43   | 0.4       |                |
| C08100869-174 | 192              | 0-1   | < 0.44   | 1.2       |                |
| C08100869-175 | 192              | 1-8   | < 0.44   | 1.0       |                |
| C08100869-176 | 193              | 0-3   | < 0.43   | 1.7       |                |
| C08100869-177 | 193              | 3-10  | < 0.43   | 1.1       |                |
| C08100869-178 | 193              | 10-18 | 0.51     | 0.7       |                |
| C08100869-179 | 193              | 18-36 | 1.1      | 0.5       |                |
| C08100869-180 | 193              | 36-60 | 0.74     | 0.4       |                |
| C08100869-181 | 194              | 0-8   | < 0.43   | 2.4       |                |
| C08100869-182 | 194              | 8-17  | < 0.43   | 1.8       |                |
| C08100869-183 | 194              | 17-32 | 0.45     | 0.7       |                |
| C08100869-184 | 194              | 32-44 | 2.0      | 0.6       |                |
| C08100869-185 | 195              | 0-9   | < 0.43   | 0.8       |                |
| C08100869-186 | 195              | 9-18  | < 0.43   | 0.7       |                |
| C08100869-187 | 195              | 18-37 | < 0.43   | 0.5       |                |
| C08100869-188 | 195              | 37-48 | 0.64     | 0.3       |                |
| C08100869-189 | 197              | 0-4   | 0.49     | 1.7       |                |
| C08100869-190 | 197              | 4-10  | 0.68     | 0.8       |                |
| C08100869-191 | 197              | 10-19 | < 0.43   | 0.8       |                |
| C08100869-192 | 197              | 19-36 | < 0.43   | 0.2       |                |
| C08100869-193 | 197              | 36-48 | 0.83     | < 0.2     |                |
| C08100869-194 | 198              | 0-6   | 0.58     | 0.9       |                |
| C08100869-195 | 198              | 6-22  | 0.72     | 1.1       |                |
| C08100869-196 | 199              | 0-3   | 0.44     | 5.1       |                |
| C08100869-197 | 199              | 3-14  | < 0.43   | 1.5       |                |
| C08100869-198 | 199              | 14-26 | < 0.43   | 1.1       |                |
| C08100869-199 | 199              | 26-43 | < 0.43   | 0.7       |                |
| C08100869-200 | 199              | 43-60 | < 0.44   | 1.0       |                |



**LABORATORY ANALYTICAL REPORT**

**Client:** BKS Environmental Associates Inc  
**Project:** 539A Ludeman Uranium  
**Workorder:** C08100869

**Report Date:** 12/17/08  
**Date Received:** 10/17/08



| Sample ID     | Client Sample ID | Depth | Analysis | EC     | Saturation | pH     | Ca     | Mg     | Na     | SAR    | Sand  | Silt  | Clay     | Texture  | Coarse | Se-       |
|---------------|------------------|-------|----------|--------|------------|--------|--------|--------|--------|--------|-------|-------|----------|----------|--------|-----------|
|               |                  |       | Units    | SatPst | SatPst     | SatPst | SatPst | SatPst | SatPst | SatPst | meq/L | meq/L | meq/L    | unitless | %      | %         |
|               |                  |       | mmhos/cm | %      | %          | u      | meq/L  | meq/L  | meq/L  |        | %     | %     | %        |          | %      | mg/kg-dry |
| C08100869-201 | 201              | 0-2   | 0.51     | 27.4   | 7.1        | 3.18   | 2.08   | 0.14   | 0.09   | 60     | 20    | 20    | SL - SCL | 6        | 0.009  |           |
| C08100869-202 | 201              | 2-10  | 0.50     | 37.2   | 7.5        | 2.94   | 2.22   | 0.45   | 0.28   | 62     | < 1   | 38    | SC       | 8        | 0.012  |           |
| C08100869-203 | 201              | 10-31 | 0.49     | 30.7   | 8.2        | 2.23   | 2.75   | 2.06   | 1.31   | 40     | 26    | 34    | CL       | 4        | 0.010  |           |
| C08100869-204 | 201              | 31-42 | 1.09     | 29.9   | 8.3        | 2.68   | 3.47   | 4.96   | 2.84   | 44     | 28    | 30    | CL       | 4        | 0.034  |           |
| C08100869-205 | 201              | 42-48 | 4.20     | 32.1   | 8.1        | 23.2   | 21.3   | 13.0   | 2.78   | 46     | 22    | 32    | SCL      | 4        | 0.094  |           |
| C08100869-206 | 202              | 0-4   | 0.65     | 40.7   | 7.1        | 4.58   | 2.33   | 0.47   | 0.25   | 20     | 36    | 44    | C        | 1        | 0.005  |           |
| C08100869-207 | 202              | 4-17  | 0.58     | 46.4   | 7.6        | 4.24   | 1.43   | 0.65   | 0.50   | 14     | 42    | 44    | SiC      | 12       | 0.007  |           |
| C08100869-208 | 202              | 17-27 | 1.52     | 40.2   | 8.0        | 9.82   | 3.73   | 3.42   | 1.32   | 48     | 30    | 24    | L        | 8        | 0.044  |           |
| C08100869-209 | 202              | 27-36 | 3.02     | 38.8   | 7.4        | 22.2   | 11.2   | 6.35   | 1.56   | 48     | 28    | 28    | SCL      | 9        | 0.218  |           |
| C08100869-210 | 202              | 36-48 | 3.17     | 25.6   | 7.6        | 23.2   | 13.2   | 5.68   | 1.33   | 62     | 18    | 20    | SL - SCL | 3        | 0.151  |           |
| C08100869-211 | 203              | 0-2   | 0.56     | 38.5   | 7.6        | 2.88   | 1.81   | 1.58   | 1.03   | 40     | 22    | 38    | CL       | 4        | 0.012  |           |
| C08100869-212 | 203              | 2-8   | 0.44     | 41.7   | 7.6        | 2.29   | 1.36   | 1.07   | 0.80   | 46     | 18    | 36    | SC       | 6        | 0.007  |           |
| C08100869-213 | 203              | 8-21  | 0.97     | 47.6   | 8.0        | 2.84   | 1.99   | 5.24   | 3.38   | 30     | 26    | 44    | C        | 4        | 0.034  |           |
| C08100869-214 | 203              | 21-40 | 5.59     | 48.6   | 7.9        | 28.8   | 20.6   | 24.4   | 4.93   | 28     | 46    | 26    | L        | 9        | 0.347  |           |
| C08100869-215 | 204              | 0-9   | 0.81     | 34.8   | 7.6        | 5.78   | 2.56   | 0.74   | 0.38   | 54     | 24    | 22    | SCL      | 5        | 0.008  |           |
| C08100869-216 | 204              | 9-22  | 0.57     | 31.4   | 8.2        | 3.10   | 1.86   | 1.11   | 0.70   | 60     | 20    | 20    | SL - SCL | 10       | 0.007  |           |
| C08100869-217 | 204              | 22-29 | 3.68     | 32.3   | 8.4        | 22.3   | 14.6   | 11.3   | 2.63   | 62     | 14    | 24    | SCL      | 3        | 0.073  |           |
| C08100869-218 | 204              | 29-48 | 1.59     | 22.4   | 8.4        | 7.89   | 4.00   | 4.83   | 1.99   | 88     | < 1   | 12    | LS       | > 1      | 0.018  |           |

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LABORATORY ANALYTICAL REPORT

Client: BKS Environmental Associates Inc  
Project: 539A Ludeman Uranium  
Workorder: C08100869

Report Date: 12/17/08  
Date Received: 10/17/08

| Sample ID     | Client Sample ID | Analysis |           | Organic Matter |
|---------------|------------------|----------|-----------|----------------|
|               |                  | Units    | B-CACL2   |                |
|               |                  | Depth    | mg/kg-dry | %              |
| C08100869-201 | 201              | 0-2      | < 0.43    | 2.3            |
| C08100869-202 | 201              | 2-10     | < 0.43    | 1.2            |
| C08100869-203 | 201              | 10-31    | < 0.43    | 0.8            |
| C08100869-204 | 201              | 31-42    | 0.72      | 0.5            |
| C08100869-205 | 201              | 42-48    | 1.2       | 0.3            |
| C08100869-206 | 202              | 0-4      | 0.52      | 2.4            |
| C08100869-207 | 202              | 4-17     | < 0.43    | 1.6            |
| C08100869-208 | 202              | 17-27    | 0.48      | 1.0            |
| C08100869-209 | 202              | 27-36    | 0.97      | 1.2            |
| C08100869-210 | 202              | 36-46    | 0.48      | 0.8            |
| C08100869-211 | 203              | 0-2      | 0.74      | 1.3            |
| C08100869-212 | 203              | 2-8      | 0.52      | 1.2            |
| C08100869-213 | 203              | 8-21     | 1.9       | 0.9            |
| C08100869-214 | 203              | 21-40    | 1.9       | 0.7            |
| C08100869-215 | 204              | 0-9      | 0.45      | 1.4            |
| C08100869-216 | 204              | 9-22     | 0.68      | 0.4            |
| C08100869-217 | 204              | 22-29    | 1.8       | 0.7            |
| C08100869-218 | 204              | 29-43    | 0.65      | 0.9            |



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| <b>PSA Texture</b>          |             |                |             |                |         |      |      |          |          |      |      |          |  |
|-----------------------------|-------------|----------------|-------------|----------------|---------|------|------|----------|----------|------|------|----------|--|
| Method: ASA mono # 9 15-5.2 |             |                |             |                |         |      |      |          |          |      |      |          |  |
| Batch ID:                   | 1.00        | Test Code:     |             | PSA-TEXTURE-S  |         |      |      |          |          |      |      |          |  |
| Date Started:               | 12/24/08    | Analyst:       |             | CAYLAH         |         |      |      |          |          |      |      |          |  |
| Sample #                    | 40 Sec Read | 40 Sec Temp °C | 8 Hour Read | 8 Hour Temp °C | Recheck |      |      |          | Original |      |      |          |  |
|                             |             |                |             |                | Sand    | Silt | Clay | Texture  | Sand     | Silt | Clay | Texture  |  |
| 1                           | 6.00        | 17.0           | 5.00        | 22.5           |         |      |      |          |          |      |      |          |  |
| 1                           |             |                |             |                |         |      |      |          |          |      |      |          |  |
| C08100869-001 A             | 41.5        | 17.0           | 22.0        | 22.5           | 29      | 37   | 34   | CL       | 30       | 36   | 34   | CL       |  |
| C08100869-002 A             | 54.0        | 17.0           | 36.0        | 22.5           | 4       | 34   | 62   | C        | 20       | 28   | 52   | C        |  |
| C08100869-003 A             | 50.0        | 17.0           | 31.0        | 22.5           | 12      | 36   | 52   | C        | 26       | 38   | 36   | CL       |  |
| C08100869-088 A             | 42.0        | 17.0           | 27.0        | 22.5           | 28      | 28   | 44   | C        | 45       | 25   | 30   | CL       |  |
| C08100869-090 A             | 40.5        | 17.0           | 25.5        | 22.5           | 31      | 28   | 41   | C        | 33       | 37   | 30   | CL       |  |
| C08100869-091 A             | 32.0        | 17.0           | 20.0        | 22.5           | 48      | 22   | 30   | SCL      | 43       | 21   | 36   | C        |  |
| C08100869-092 A             | 23.0        | 17.0           | 17.0        | 22.5           | 66      | 10   | 24   | SCL      | 81       | 9    | 10   | C - CL   |  |
| C08100869-094 A             | 18.0        | 17.0           | 15.0        | 22.5           | 76      | 4    | 20   | SL - SCL | 83       | 3    | 14   | C        |  |
| C08100869-095 A             | 21.0        | 17.0           | 16.5        | 22.5           | 70      | 7    | 23   | SCL      | 87       | 1    | 12   | C        |  |
| C08100869-097 A             | 35.0        | 17.0           | 19.5        | 22.5           | 42      | 29   | 29   | CL       | 51       | 31   | 18   | C - CL   |  |
| C08100869-098 A             | 32.0        | 17.0           | 13.0        | 22.5           | 48      | 36   | 16   | L        | 51       | 33   | 16   | C - CL   |  |
| C08100869-103 A             | 37.0        | 17.0           | 27.0        | 22.5           | 38      | 18   | 44   | C        | 45       | 23   | 32   | CL       |  |
| C08100869-104 A             | 39.0        | 17.0           | 27.0        | 22.5           | 34      | 22   | 44   | C        | 39       | 29   | 32   | CL       |  |
| C08100869-129 A             | 21.0        | 17.0           | 16.0        | 22.5           | 70      | 8    | 22   | SCL      | 73       | 3    | 24   | SGL      |  |
| C08100869-138 A             | 23.0        | 17.0           | 19.0        | 22.5           | 66      | 6    | 28   | SCL      | 73       | 7    | 20   | SL - SCL |  |
| C08100869-165 A             | 43.0        | 17.0           | 22.0        | 22.5           | 26      | 40   | 34   | CL       | 33       | 33   | 34   | CL       |  |
| C08100869-168 A             | 27.0        | 17.0           | 22.0        | 22.5           | 58      | 8    | 34   | SCL      | 69       | 9    | 22   | SCL      |  |
| C08100869-210 A             | 26.0        | 17.0           | 12.0        | 22.5           | 60      | 26   | 14   | SL       | 62       | 18   | 20   | SL - SCL |  |

| <b>PSA Texture</b>          |             |                          |             |                |      | <b>Recheck</b> |      |          |      | <b>Original</b> |      |          |  |
|-----------------------------|-------------|--------------------------|-------------|----------------|------|----------------|------|----------|------|-----------------|------|----------|--|
| Method: ASA mono # 9 15-5.2 |             |                          |             |                |      |                |      |          |      |                 |      |          |  |
| Batch ID: 1.00              |             | Test Code: PSA-TEXTURE-S |             |                |      |                |      |          |      |                 |      |          |  |
| Date Started: 12/31/08      |             | Analyst: Missy Linda     |             |                |      |                |      |          |      |                 |      |          |  |
| Sample #                    | 40 Sec Read | 40 Sec Temp °C           | 8 Hour Read | 8 Hour Temp °C | Sand | Silt           | Clay | Texture  | Sand | Silt            | Clay | Texture  |  |
| 1                           | 6.00        | 19.0                     | 5.00        | 23.0           |      |                |      |          |      |                 |      |          |  |
| 1                           |             |                          |             |                |      |                |      |          |      |                 |      |          |  |
| C08100869-017 A             | 25.0        | 19.0                     | 18.0        | 23.0           | 62   | 12             | 26   | SCL      | 62   | 12              | 26   | SCL      |  |
| C08100869-018 A             | 24.5        | 19.0                     | 15.5        | 23.0           | 66   | 13             | 21   | SCL      | 64   | 14              | 22   | SCL      |  |
| C08100869-024 A             | 33.0        | 19.0                     | 17.0        | 23.0           | 49   | 27             | 24   | SCL      | 51   | 23              | 26   | SCL      |  |
| C08100869-025 A             | 36.5        | 19.0                     | 20.0        | 23.0           | 42   | 28             | 30   | CL       | 43   | 30              | 27   | CL - L   |  |
| C08100869-026 A             | 27.0        | 19.0                     | 15.0        | 23.0           | 61   | 19             | 20   | SL - SCL | 63   | 15              | 22   | SCL      |  |
| C08100869-027 A             | 32.0        | 19.0                     | 17.5        | 23.0           | 51   | 24             | 25   | SCL      | 53   | 24              | 23   | SCL      |  |
| C08100869-053 A             | 23.0        | 19.0                     | 15.0        | 23.0           | 69   | 11             | 20   | SL - SCL | 71   | 7               | 23   | SCL      |  |
| C08100869-061 A             | 29.5        | 19.0                     | 16.0        | 23.0           | 56   | 22             | 22   | SCL      | 61   | 19              | 20   | SL - SCL |  |
| C08100869-062 A             | 31.0        | 19.0                     | 15.0        | 23.0           | 53   | 27             | 20   | SL - SCL | 63   | 15              | 22   | SCL      |  |
| C08100869-076 A             | 27.0        | 19.0                     | 16.0        | 23.0           | 61   | 17             | 22   | SCL      | 61   | 15              | 24   | SCL      |  |
| C08100869-078 A             | 47.0        | 19.0                     | 23.0        | 23.0           | 21   | 43             | 36   | CL       | 25   | 35              | 40   | C - CL   |  |
| C08100869-079 A             | 46.5        | 19.0                     | 22.5        | 23.0           | 22   | 43             | 35   | CL       | 23   | 41              | 36   | CL       |  |
| C08100869-084 A             | 34.0        | 19.0                     | 19.5        | 23.0           | 47   | 24             | 29   | SCL      | 27   | 23              | 50   | C        |  |
| C08100869-085 A             | 38.0        | 19.0                     | 20.0        | 23.0           | 39   | 31             | 30   | CL       | 31   | 27              | 42   | C        |  |
| C08100869-086 A             | 39.5        | 19.0                     | 13.0        | 23.0           | 36   | 48             | 16   | L        | 45   | 23              | 32   | CL       |  |
| C08100869-099 A             | 28.5        | 19.0                     | 13.5        | 23.0           | 58   | 25             | 17   | SL       | 23   | 41              | 36   | CL       |  |
| C08100869-100 A             | 27.5        | 19.0                     | 13.0        | 23.0           | 60   | 24             | 16   | SL       | 22   | 58              | 20   | SL       |  |
| C08100869-106 A             | 26.5        | 19.0                     | 15.0        | 23.0           | 62   | 18             | 20   | SL - SCL | 61   | 17              | 22   | SCL      |  |
| C08100869-109 A             | 26.0        | 19.0                     | 14.5        | 23.0           | 63   | 18             | 19   | SL       | 65   | 11              | 24   | SCL      |  |
| C08100869-110 A             | 26.0        | 19.0                     | 15.0        | 23.0           | 63   | 17             | 20   | SL - SCL | 59   | 17              | 24   | SCL      |  |

LABORATORY ANALYTICAL REPORT

Client: Uranium One Americas  
Project: 539A Ludeman Uranium  
Workorder: C08100869

Report Date: 12/17/08  
Date Received: 10/17/08

| Sample ID     | Client Sample ID | Analysis | Sand    | Silt    | Clay    | Texture | Coarse<br>Frag |
|---------------|------------------|----------|---------|---------|---------|---------|----------------|
|               |                  | Units    | %       | %       | %       | Results | %              |
|               |                  | Depth    | Results | Results | Results | Results | Results        |
| C08100869-001 | 137              | 0-5      | 30      | 36      | 34      | CL      | < 1            |
| C08100869-002 | 137              | 5-12     | 20      | 28      | 52      | C       | < 1            |
| C08100869-003 | 137              | 12-19    | 26      | 38      | 36      | CL      | < 1            |
| C08100869-004 | 139              | 0-4      | 72      | 12      | 16      | SL      | < 1            |
| C08100869-005 | 139              | 4-15     | 68      | 18      | 14      | SL      | < 1            |
| C08100869-006 | 139              | 0-7      | 38      | 32      | 30      | CL      | < 1            |
| C08100869-007 | 139              | 7-20     | 42      | 34      | 24      | L       | < 1            |
| C08100869-008 | 139              | 20-36    | 30      | 38      | 32      | CL      | < 1            |
| C08100869-009 | 139              | 36-46    | 12      | 39      | 50      | C       | < 1            |
| C08100869-010 | 139              | 46-60    | 18      | 44      | 38      | SiCL    | < 1            |
| C08100869-011 | 140              | 0-9      | 52      | 22      | 26      | SCL     | < 1            |
| C08100869-012 | 140              | 9-20     | 70      | 14      | 16      | SL      | < 1            |
| C08100869-013 | 140              | 20-35    | 64      | 22      | 14      | SL      | < 1            |
| C08100869-014 | 140              | 35-45    | 18      | 24      | 59      | C       | < 1            |
| C08100869-015 | 140              | 45-55    | 26      | 20      | 54      | C       | < 1            |
| C08100869-016 | 140              | 55-60    | 14      | 16      | 70      | C       | 16             |
| C08100869-017 | 141              | 0-11     | 62      | 12      | 26      | SCL     | 5              |
| C08100869-018 | 141              | 11-21    | 64      | 14      | 22      | SCL     | 4              |
| C08100869-019 | 142              | 0-8      | 82      | 6       | 12      | SL      | < 1            |
| C08100869-020 | 142              | 8-16     | 78      | 10      | 12      | SL      | 1              |
| C08100869-021 | 146              | 0-9      | 25      | 20      | 55      | C       | 4              |
| C08100869-022 | 146              | 9-24     | 19      | 28      | 53      | C       | 16             |
| C08100869-023 | 148              | 0-9      | 53      | 25      | 22      | SCL     | 3              |
| C08100869-024 | 148              | 9-17     | 51      | 23      | 26      | SCL     | 4              |
| C08100869-025 | 148              | 17-24    | 43      | 30      | 27      | CL - L  | 5              |
| C08100869-026 | 148              | 24-37    | 63      | 15      | 22      | SCL     | 5              |
| C08100869-027 | 148              | 37-60    | 53      | 24      | 23      | SCL     | 3              |
| C08100869-028 | 150              | 0-5      | 73      | 12      | 15      | SL      | 2              |
| C08100869-029 | 150              | 5-12     | 75      | 11      | 14      | SL      | 2              |
| C08100869-030 | 150              | 12-20    | 83      | 8       | 9       | LS      | 2              |
| C08100869-031 | 150              | 20-35    | 81      | 10      | 9       | LS      | 2              |
| C08100869-032 | 151              | 0-7      | 33      | 29      | 38      | CL      | 3              |
| C08100869-033 | 151              | 7-24     | 11      | 39      | 50      | C       | 11             |
| C08100869-034 | 152              | 0-9      | 53      | 23      | 24      | SCL     | 3              |
| C08100869-035 | 152              | 9-19     | 51      | 19      | 30      | SCL     | 3              |
| C08100869-036 | 152              | 19-39    | 45      | 24      | 31      | CL      | 2              |
| C08100869-037 | 152              | 39-55    | 49      | 23      | 28      | SCL     | 1              |
| C08100869-038 | 152              | 55-60    | 53      | 13      | 34      | SCL     | 3              |
| C08100869-039 | 153              | 0-5      | 67      | 16      | 17      | SL      | < 1            |
| C08100869-040 | 153              | 5-16     | 63      | 20      | 17      | SL      | < 1            |

LABORATORY ANALYTICAL REPORT

Client: Uranium One Americas  
Project: 539A Ludeman Uranium  
Workorder: C08100869

Report Date: 12/17/08  
Date Received: 10/17/08

| Sample ID     | Client Sample ID | Analysis |                      |                      |                      |                    |                                |
|---------------|------------------|----------|----------------------|----------------------|----------------------|--------------------|--------------------------------|
|               |                  | Depth    | Sand<br>%<br>Results | Silt<br>%<br>Results | Clay<br>%<br>Results | Texture<br>Results | Coarse<br>Frag<br>%<br>Results |
| C08100869-041 | 153              | 16-31    | 65                   | 8                    | 27                   | SCL                | 2                              |
| C08100869-042 | 153              | 31-46    | 59                   | 11                   | 30                   | SCL                | 4                              |
| C08100869-043 | 153              | 46-60    | 53                   | 15                   | 32                   | SCL                | 1                              |
| C08100869-044 | 154              | 0-7      | 49                   | 18                   | 33                   | SCL                | 2                              |
| C08100869-045 | 154              | 7-18     | 47                   | 15                   | 38                   | SC                 | 7                              |
| C08100869-046 | 154              | 18-24    | 41                   | 20                   | 39                   | CL                 | 9                              |
| C08100869-047 | 154              | 24-36    | 29                   | 23                   | 48                   | C                  | 6                              |
| C08100869-048 | 155              | 0-11     | 48                   | 18                   | 34                   | SCL                | 6                              |
| C08100869-049 | 155              | 11-19    | 51                   | 14                   | 35                   | SCL - SC           | 4                              |
| C08100869-050 | 155              | 19-26    | 53                   | 17                   | 30                   | SCL                | 2                              |
| C08100869-051 | 155              | 26-37    | 65                   | 8                    | 27                   | SCL                | 3                              |
| C08100869-052 | 155              | 37-48    | 63                   | 19                   | 24                   | SCL                | 4                              |
| C08100869-053 | 155              | 48-60    | 71                   | 7                    | 22                   | SCL                | 2                              |
| C08100869-054 | 156              | 0-12     | 53                   | 17                   | 30                   | SCL                | 3                              |
| C08100869-055 | 156              | 12-29    | 13                   | 27                   | 60                   | C                  | 8                              |
| C08100869-056 | 156              | 29-37    | 11                   | 35                   | 54                   | C                  | 6                              |
| C08100869-057 | 156              | 37-53    | 33                   | 22                   | 45                   | C                  | 6                              |
| C08100869-058 | 156              | 53-60    | 39                   | 24                   | 37                   | CL                 | 3                              |
| C08100869-059 | 158              | 0-12     | 33                   | 24                   | 49                   | C                  | 5                              |
| C08100869-060 | 158              | 12-25    | 39                   | 25                   | 36                   | CL                 | 3                              |
| C08100869-061 | 158              | 25-33    | 61                   | 19                   | 20                   | SL - SCL           | 5                              |
| C08100869-062 | 158              | 33-48    | 63                   | 15                   | 22                   | SCL                | 2                              |
| C08100869-063 | 158              | 48-60    | 88                   | 2                    | 10                   | LS                 | 1                              |
| C08100869-064 | 158              | 0-14     | 27                   | 23                   | 50                   | C                  | 3                              |
| C08100869-065 | 158              | 14-28    | 31                   | 27                   | 42                   | C                  | 4                              |
| C08100869-066 | 158              | 28-37    | 45                   | 23                   | 32                   | CL                 | 5                              |
| C08100869-067 | 158              | 37-60    | 49                   | 21                   | 30                   | SCL                | 5                              |
| C08100869-068 | 160              | 0-13     | 33                   | 39                   | 34                   | CL                 | 4                              |
| C08100869-069 | 160              | 13-21    | 33                   | 27                   | 40                   | C - CL             | 5                              |
| C08100869-070 | 160              | 21-33    | 39                   | 25                   | 36                   | CL                 | 3                              |
| C08100869-071 | 160              | 33-55    | 25                   | 33                   | 42                   | C                  | 4                              |
| C08100869-072 | 160              | 55-60    | 33                   | 27                   | 40                   | C - CL             | 4                              |
| C08100869-073 | 161              | 0-12     | 41                   | 21                   | 38                   | CL                 | 3                              |
| C08100869-074 | 161              | 12-28    | 31                   | 26                   | 43                   | C                  | 4                              |
| C08100869-075 | 161              | 28-46    | 27                   | 29                   | 44                   | C                  | 6                              |
| C08100869-076 | 161              | 46-60    | 61                   | 15                   | 24                   | SCL                | 3                              |
| C08100869-077 | 162              | 0-12     | 29                   | 31                   | 40                   | C - CL             | 4                              |
| C08100869-078 | 163              | 0-7      | 25                   | 35                   | 40                   | C - CL             | 4                              |
| C08100869-079 | 163              | 7-20     | 23                   | 41                   | 36                   | CL                 | 7                              |
| C08100869-080 | 163              | 20-29    | 22                   | 58                   | 20                   | SIL                | 6                              |

LABORATORY ANALYTICAL REPORT

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| Sample ID     | Client Sample ID | Analysis | Sand    | Silt    | Clay    | Texture  | Coarse<br>Frgs |
|---------------|------------------|----------|---------|---------|---------|----------|----------------|
|               |                  | Units    | %       | %       | %       | Results  | %              |
|               |                  | Depth    | Results | Results | Results | Results  | Results        |
| C08100869-081 | 163              | 29-37    | 29      | 41      | 30      | CL       | 4              |
| C08100869-082 | 163              | 37-50    | 31      | 39      | 30      | CL       | 5              |
| C08100869-083 | 163              | 50-60    | 33      | 33      | 34      | CL       | 5              |
| C08100869-084 | 164              | 0-10     | 47      | 25      | 28      | SCL      | 2              |
| C08100869-085 | 164              | 10-20    | 41      | 27      | 32      | CL       | 3              |
| C08100869-086 | 164              | 20-34    | 39      | 25      | 36      | CL       | 8              |
| C08100869-087 | 165              | 0-17     | 31      | 37      | 32      | CL       | 4              |
| C08100869-088 | 165              | 17-27    | 45      | 25      | 30      | CL       | 4              |
| C08100869-089 | 165              | 27-36    | 42      | 26      | 32      | CL       | 3              |
| C08100869-090 | 165              | 36-48    | 33      | 37      | 30      | CL       | 8              |
| C08100869-091 | 165              | 48-60    | 43      | 21      | 36      | CL       | < 1            |
| C08100869-092 | 166              | 0-7      | 81      | 9       | 10      | LS       | 4              |
| C08100869-093 | 166              | 7-21     | 73      | 11      | 16      | SL       | 4              |
| C08100869-094 | 166              | 21-36    | 83      | 3       | 14      | SL       | 4              |
| C08100869-095 | 166              | 36-48    | 87      | 1       | 12      | LS       | 2              |
| C08100869-096 | 168              | 0-9      | 39      | 37      | 24      | L        | 3              |
| C08100869-097 | 168              | 9-29     | 51      | 31      | 18      | L        | 3              |
| C08100869-098 | 168              | 29-41    | 51      | 33      | 16      | L        | 3              |
| C08100869-099 | 168              | 41-51    | 62      | 18      | 20      | SL - SCL | 1              |
| C08100869-100 | 168              | 51-60    | 63      | 19      | 18      | SL       | 3              |
| C08100869-101 | 170              | 0-9      | 63      | 3       | 34      | SCL      | 4              |
| C08100869-102 | 170              | 9-29     | 33      | 37      | 30      | CL       | 3              |
| C08100869-103 | 170              | 29-40    | 45      | 23      | 32      | CL       | 4              |
| C08100869-104 | 170              | 40-60    | 39      | 29      | 32      | CL       | 4              |
| C08100869-105 | 171              | 0-7      | 33      | 31      | 36      | CL       | 5              |
| C08100869-106 | 172              | 0-12     | 81      | 17      | 22      | SCL      | 2              |
| C08100869-107 | 172              | 12-19    | 71      | 11      | 18      | SL       | 2              |
| C08100869-108 | 172              | 19-29    | 81      | 5       | 14      | SL       | 4              |
| C08100869-109 | 173              | 0-15     | 65      | 11      | 24      | SCL      | < 1            |
| C08100869-110 | 173              | 15-31    | 59      | 17      | 24      | SCL      | < 1            |
| C08100869-111 | 173              | 31-37    | 53      | 27      | 20      | SL - SCL | < 1            |
| C08100869-112 | 173              | 37-55    | 69      | 13      | 18      | SL       | 1              |
| C08100869-113 | 173              | 55-60    | 39      | 39      | 22      | L        | 5              |
| C08100869-114 | 174              | 0-3      | 33      | 35      | 32      | CL       | 3              |
| C08100869-115 | 174              | 3-10     | 29      | 27      | 44      | C        | 3              |
| C08100869-116 | 174              | 10-20    | 27      | 27      | 46      | C        | 3              |
| C08100869-117 | 174              | 20-36    | 29      | 21      | 50      | C        | 3              |
| C08100869-118 | 174              | 36-48    | 27      | 41      | 32      | CL       | 3              |
| C08100869-119 | 175              | 0-4      | 92      | < 1     | 8       | S        | < 1            |
| C08100869-120 | 175              | 4-17     | 51      | 17      | 32      | SCL      | 10             |

LABORATORY ANALYTICAL REPORT

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| Sample ID     | Client Sample ID | Analysis | Sand    | Silt    | Clay    | Texture  | Coarse<br>Frgs |
|---------------|------------------|----------|---------|---------|---------|----------|----------------|
|               |                  | Units    | %       | %       | %       | Results  | %              |
|               |                  | Depth    | Results | Results | Results | Results  | Results        |
| C08100869-121 | 175              | 17-33    | 53      | 15      | 32      | SCL      | 6              |
| C08100869-122 | 175              | 33-41    | 69      | 11      | 20      | SL - SCL | 3              |
| C08100869-123 | 175              | 41-48    | 51      | 15      | 34      | SCL      | 11             |
| C08100869-124 | 177              | 0-2      | 47      | 23      | 30      | SCL      | 8              |
| C08100869-125 | 177              | 2-15     | 41      | 25      | 34      | CL       | 6              |
| C08100869-126 | 178              | 0-2      | 69      | 19      | 12      | SL       | 3              |
| C08100869-127 | 178              | 2-12     | 71      | 11      | 18      | SL       | 3              |
| C08100869-128 | 178              | 12-18    | 63      | 19      | 18      | SL       | 4              |
| C08100869-129 | 178              | 18-29    | 73      | 3       | 24      | SCL      | 2              |
| C08100869-130 | 178              | 29-35    | 81      | 4       | 15      | SL       | 2              |
| C08100869-131 | 179              | 35-60    | 78      | 6       | 16      | SL       | 3              |
| C08100869-132 | 180              | 0-2      | 21      | 33      | 46      | C        | 3              |
| C08100869-133 | 180              | 2-12     | 37      | 23      | 40      | C - CL   | 5              |
| C08100869-134 | 180              | 12-19    | 33      | 29      | 38      | CL       | 3              |
| C08100869-135 | 180              | 19-37    | 41      | 23      | 36      | CL       | 3              |
| C08100869-136 | 181              | 0-2      | 63      | 13      | 24      | SCL      | 1              |
| C08100869-137 | 181              | 2-9      | 71      | 11      | 18      | SL       | 3              |
| C08100869-138 | 181              | 9-21     | 73      | 7       | 20      | SL - SCL | 3              |
| C08100869-139 | 182              | 0-2      | 70      | 7       | 14      | SL       | < 1            |
| C08100869-140 | 182              | 2-15     | 82      | 2       | 16      | SL       | < 1            |
| C08100869-141 | 182              | 15-30    | 80      | 8       | 12      | SL       | < 1            |
| C08100869-142 | 182              | 30-44    | 74      | 12      | 14      | SL       | < 1            |
| C08100869-143 | 183              | 0-8      | 38      | 32      | 30      | CL       | 3              |
| C08100869-144 | 183              | 8-22     | 26      | 50      | 24      | SIL - L  | 5              |
| C08100869-145 | 184              | 0-8      | 54      | 28      | 20      | SL - SCL | 4              |
| C08100869-148 | 184              | 8-17     | 42      | 28      | 30      | CL       | 4              |
| C08100869-147 | 185              | 0-2      | 62      | 24      | 14      | SL       | 2              |
| C08100869-148 | 185              | 2-19     | 61      | 17      | 22      | SCL      | 2              |
| C08100869-149 | 185              | 19-31    | 60      | 14      | 26      | SCL      | 3              |
| C08100869-150 | 185              | 31-48    | 70      | 10      | 20      | SL - SCL | 2              |
| C08100869-151 | 186              | 0-8      | 28      | 42      | 30      | CL       | 3              |
| C08100869-152 | 186              | 8-18     | 48      | 20      | 32      | SCL      | 5              |
| C08100869-153 | 186              | 18-31    | 34      | 34      | 32      | CL       | 5              |
| C08100869-154 | 186              | 31-43    | 52      | 22      | 26      | SCL      | 3              |
| C08100869-155 | 186              | 43-60    | 50      | 20      | 30      | SCL      | 3              |
| C08100869-156 | 187              | 0-8      | 24      | 26      | 50      | C        | 6              |
| C08100869-157 | 187              | 8-17     | 18      | 30      | 52      | C        | 6              |
| C08100869-158 | 187              | 17-22    | 12      | 38      | 50      | C        | 20             |
| C08100869-159 | 188              | 0-9      | 62      | 18      | 20      | SL - SCL | 3              |
| C08100869-160 | 188              | 9-21     | 72      | 8       | 20      | SL - SCL | 4              |



LABORATORY ANALYTICAL REPORT

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| Sample ID     | Client Sample ID | Analysis | Sand    | Silt    | Clay    | Texture  | Coarse<br>Frag |
|---------------|------------------|----------|---------|---------|---------|----------|----------------|
|               |                  | Units    | %       | %       | %       | Results  | %              |
|               |                  | Depth    | Results | Results | Results | Results  | Results        |
| C08100869-161 | 188              | 21-30    | 61      | 0       | 30      | SCL      | 3              |
| C08100869-162 | 188              | 30-48    | 65      | 7       | 28      | SCL      | 5              |
| C08100869-163 | 189              | 0-8      | 49      | 13      | 39      | SC       | 5              |
| C08100869-164 | 189              | 8-18     | 51      | 19      | 30      | SCL      | 4              |
| C08100869-165 | 189              | 18-24    | 33      | 33      | 34      | CL       | 7              |
| C08100869-166 | 190              | 0-3      | 69      | 19      | 12      | SL       | 3              |
| C08100869-167 | 190              | 3-14     | 61      | 11      | 28      | SCL      | 3              |
| C08100869-168 | 190              | 14-38    | 69      | 9       | 22      | SCL      | 5              |
| C08100869-169 | 190              | 38-48    | 61      | 17      | 22      | SCL      | 2              |
| C08100869-170 | 191              | 0-3      | 69      | 11      | 20      | SL - SCL | 1              |
| C08100869-171 | 191              | 3-11     | 77      | 7       | 16      | SL       | 3              |
| C08100869-172 | 191              | 11-18    | 71      | 13      | 16      | SL       | 1              |
| C08100869-173 | 191              | 18-34    | 73      | 7       | 20      | SL - SCL | 6              |
| C08100869-174 | 192              | 0-1      | 43      | 25      | 32      | CL       | 6              |
| C08100869-175 | 192              | 1-8      | 19      | 35      | 46      | C        | 12             |
| C08100869-176 | 193              | 0-3      | 45      | 25      | 30      | CL       | 3              |
| C08100869-177 | 193              | 3-10     | 25      | 31      | 44      | C        | 6              |
| C08100869-178 | 193              | 10-18    | 31      | 39      | 30      | CL       | 4              |
| C08100869-179 | 193              | 18-36    | 29      | 39      | 32      | CL       | 5              |
| C08100869-180 | 193              | 36-60    | 29      | 21      | 50      | C        | 8              |
| C08100869-181 | 194              | 0-8      | 38      | 22      | 40      | C - CL   | 7              |
| C08100869-182 | 194              | 8-17     | 24      | 42      | 34      | CL       | 5              |
| C08100869-183 | 194              | 17-32    | 26      | 39      | 36      | CL       | 9              |
| C08100869-184 | 194              | 32-44    | 30      | 30      | 40      | C - CL   | 7              |
| C08100869-185 | 195              | 0-9      | 74      | 16      | 10      | SL       | 3              |
| C08100869-186 | 195              | 9-18     | 72      | 12      | 16      | SL       | 5              |
| C08100869-187 | 195              | 18-37    | 74      | 14      | 12      | SL       | 4              |
| C08100869-188 | 195              | 37-48    | 73      | 13      | 14      | SL       | 5              |
| C08100869-189 | 197              | 0-4      | 64      | 22      | 14      | SL       | 4              |
| C08100869-190 | 197              | 4-10     | 70      | 6       | 24      | SCL      | 9              |
| C08100869-191 | 197              | 10-19    | 74      | 10      | 16      | SL       | 3              |
| C08100869-192 | 197              | 19-36    | 90      | < 1     | 10      | LS       | 2              |
| C08100869-193 | 197              | 36-48    | 92      | 2       | 6       | S        | 2              |
| C08100869-194 | 198              | 0-6      | 66      | 20      | 14      | SL       | 3              |
| C08100869-195 | 198              | 6-22     | 54      | 26      | 20      | SL - SCL | 2              |
| C08100869-196 | 199              | 0-3      | 52      | 26      | 22      | SCL      | 4              |
| C08100869-197 | 199              | 3-14     | 58      | 26      | 16      | SL       | 4              |
| C08100869-198 | 199              | 14-26    | 54      | 18      | 28      | SCL      | 3              |
| C08100869-199 | 199              | 26-43    | 56      | 14      | 30      | SCL      | 2              |
| C08100869-200 | 199              | 43-60    | 52      | 26      | 22      | SCL      | 3              |

LABORATORY ANALYTICAL REPORT

Client: Uranium One Americas  
Project: 539A Ludeman Uranium  
Workorder: C08100869

Report Date: 12/17/08  
Date Received: 10/17/08

| Sample ID     | Client Sample ID | Analysis | Sand    | Silt    | Clay    | Texture  | Coarse<br>Frgs |
|---------------|------------------|----------|---------|---------|---------|----------|----------------|
|               |                  | Units    | %       | %       | %       |          | %              |
|               |                  | Depth    | Results | Results | Results | Results  | Results        |
| C08100869-201 | 201              | 0-2      | 60      | 20      | 20      | SL - SCL | 6              |
| C08100869-202 | 201              | 2-10     | 62      | < 1     | 38      | SC       | 8              |
| C08100869-203 | 201              | 10-31    | 40      | 26      | 34      | CL       | 4              |
| C08100869-204 | 201              | 31-42    | 44      | 26      | 30      | CL       | 4              |
| C08100869-205 | 201              | 42-48    | 46      | 22      | 32      | SCL      | 4              |
| C08100869-206 | 202              | 0-4      | 20      | 36      | 44      | C        | 1              |
| C08100869-207 | 202              | 4-17     | 14      | 42      | 44      | SIC      | 12             |
| C08100869-208 | 202              | 17-27    | 46      | 30      | 24      | L        | 6              |
| C08100869-209 | 202              | 27-36    | 48      | 26      | 26      | SCL      | 9              |
| C08100869-210 | 202              | 36-48    | 62      | 18      | 20      | SL - SCL | 9              |
| C08100869-211 | 203              | 0-2      | 40      | 22      | 38      | CL       | 4              |
| C08100869-212 | 203              | 2-8      | 46      | 18      | 36      | SC       | 6              |
| C08100869-213 | 203              | 8-21     | 30      | 26      | 44      | C        | 4              |
| C08100869-214 | 203              | 21-40    | 28      | 46      | 26      | L        | 9              |
| C08100869-215 | 204              | 0-9      | 54      | 24      | 22      | SCL      | 5              |
| C08100869-216 | 204              | 9-22     | 60      | 20      | 20      | SL - SCL | 10             |
| C08100869-217 | 204              | 22-29    | 62      | 14      | 24      | SCL      | 3              |
| C08100869-219 | 204              | 29-48    | 88      | < 1     | 12      | LS       | < 1            |

**ADDENDUM 2.6-F**

**PRIME FARMLAND DESIGNATION**

**United States Department of Agriculture**



Natural Resources Conservation Service  
1954 E. Richards, #10  
Douglas, Wyoming 82633

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November 24, 2008

Adam Beilke  
BKS Environmental Associates Inc.  
P.O. Box 3467  
Gillette, WY 82717

Adam,

No prime farmland exists on the previously identified legal descriptions you provided for the proposed uranium mine area north of Glenrock. The enclosed maps and descriptions are that verification.



Tim Schroeder  
District Conservationist  
Douglas NRCS

*Helping People Help the Land*

An Equal Opportunity Provider and Employer

### Farmland Classification

Aggregation Method: No Aggregation Necessary  
Tie-break Rule: Lower

Converse County, Wyoming, Southern Part  
Survey Area Version and Date: 6 - 09/15/2008

| Map symbol | Map unit name   | Rating             |
|------------|---|--------------------|
| 122        | Clarkston fine sandy loam, overflow, 0 to 3 percent slopes                  | Not prime farmland |
| 123        | Clarkston fine sandy loam, wet, 0 to 3 percent slopes                       | Not prime farmland |
| 125        | Clarkston, wet-Haverdad, wet-Bigwinder complex, 0 to 3 percent slopes       | Not prime farmland |
| 127        | Clarkston-Draknab complex, wet, 0 to 3 percent slopes                       | Not prime farmland |
| 128        | Clarkston-Dwyer-Orpha association, 0 to 10 percent slopes                   | Not prime farmland |
| 129        | Clarkston-Haverdad-Bigwinder complex, 0 to 3 percent slopes                 | Not prime farmland |
| 138        | Draknab loamy fine sand, wet, 0 to 3 percent slopes                         | Not prime farmland |
| 140        | Duno land-Orpha complex, 10 to 30 percent slopes                            | Not prime farmland |
| 141        | Dwyer-Orpha loamy sands, 3 to 15 percent slopes                             | Not prime farmland |
| 152        | Forkwood-Cambria loams, 0 to 6 percent slopes                               | Not prime farmland |
| 154        | Forkwood-Cambria-Cushman loams, 6 to 15 percent slopes                      | Not prime farmland |
| 155        | Forkwood-Ulm complex, 0 to 6 percent slopes                                 | Not prime farmland |
| 158        | Gravel pits and quarries  | Not prime farmland |
| 164        | Haverdad loam, wet, 0 to 3 percent slopes                                   | Not prime farmland |
| 165        | Haverdad-Clarkston complex, lowlands, 0 to 3 percent slopes, rarely flooded | Not prime farmland |
| 167        | Haverdad-Clarkston complex, wet, 0 to 3 percent slopes                      | Not prime farmland |
| 171        | Hiland-Bowbac sandy loams, 0 to 6 percent slopes                            | Not prime farmland |
| 172        | Hiland-Bowbac fine sandy loams, 0 to 6 percent slopes                       | Not prime farmland |
| 173        | Hiland-Bowbac fine sandy loams, 6 to 15 percent slopes                      | Not prime farmland |
| 175        | Hiland-Bowbac complex, 6 to 15 percent slopes                               | Not prime farmland |
| 179        | Keeline fine sandy loam, 0 to 6 percent slopes                              | Not prime farmland |
| 182        | Keeline-Kishona complex, 0 to 6 percent slopes                              | Not prime farmland |
| 183        | Keeline-Kishona-Theedle complex, 6 to 30 percent slopes                     | Not prime farmland |
| 184        | Keeline-Tumorcross fine sandy loams, 3 to 10 percent slopes                 | Not prime farmland |
| 186        | Keyner-Abstad-Slickspots complex, 0 to 6 percent slopes                     | Not prime farmland |
| 187        | Kishona-Cambria loams, 0 to 6 percent slopes                                | Not prime farmland |
| 189        | Kishona-Cambria-Theedle loams, 3 to 20 percent slopes                       | Not prime farmland |
| 225        | Samday-Shingle-Worf complex, 3 to 15 percent slopes                         | Not prime farmland |
| 226        | Samday-Shingle-Worf, loamy complex, 3 to 15 percent slopes                  | Not prime farmland |
| 230        | Shingle-Badland-Samday complex, 10 to 30 percent slopes                     | Not prime farmland |
| 233        | Shingle-Taluco-Badland complex, 10 to 40 percent slopes                     | Not prime farmland |
| 237        | Sunup-Threotop-Rock outcrop complex, 10 to 40 percent slopes                | Not prime farmland |
| 238        | Taluco-Badland-Tumorcross complex, 6 to 50 percent slopes                   | Not prime farmland |
| 239        | Taluco-Shingle complex, 6 to 30 percent slopes                              | Not prime farmland |
| 243        | Taluco-Tullock-Vonalee association, 6 to 30 percent slopes                  | Not prime farmland |
| 244        | Taluco-Tumorcross-Keeline fine sandy loams, 3 to 20 percent slopes          | Not prime farmland |
| 245        | Tassel-Shingle complex, 2 to 30 percent slopes                              | Not prime farmland |
| 246        | Tassel-Tullock-Vonalee association, 6 to 30 percent slopes                  | Not prime farmland |
| 250        | Theedle-Kishona loams, 6 to 15 percent slopes                               | Not prime farmland |
| 251        | Theedle-Kishona-Shingle loams, 3 to 30 percent slopes                       | Not prime farmland |
| 256        | Ulm loam, 0 to 6 percent slopes   | Not prime farmland |
| 257        | Ulm-Bldman complex, 0 to 6 percent slopes                                   | Not prime farmland |
| 258        | Ulm-Forkwood loams, 0 to 6 percent slopes                                   | Not prime farmland |
| 259        | Ulm-Reno Hill clay loams, 0 to 6 percent slopes                             | Not prime farmland |
| 260        | Ulm-Reno Hill clay loams, 6 to 15 percent slopes                            | Not prime farmland |
| 263        | Utic Tomforthents, gullied, 3 to 45 percent slopes                          | Not prime farmland |
| 264        | Vonalee fine sandy loam, 0 to 6 percent slopes                              | Not prime farmland |

### Farmland Classification

Aggregation Method: No Aggregation Necessary  
Tie-break Rule: Lower

Converse County, Wyoming, Southern Part  
Survey Area Version and Date: 6 - 09/15/2008

| Map symbol | Map unit name  | Rating             |
|------------|--|--------------------|
| 265        | Vonalee-Terro fine sandy loams, 0 to 6 percent slopes  | Not prime farmland |
| 266        | Vonalee-Terro fine sandy loams, 6 to 15 percent slopes | Not prime farmland |
| 267        | Water  | Not prime farmland |
| 269        | Worf-Shingle-Taluce complex, 3 to 30 percent slopes    | Not prime farmland |
| 270        | Worf-Shingle-Tassel complex, 3 to 30 percent slopes    | Not prime farmland |

## Farmland Classification

### Rating Options

Attribute Name: Farmland Classification

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Aggregation Method: No Aggregation Necessary

Aggregation is the process by which a set of component attribute values is reduced to a single value to represent the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. The components in the map unit name represent the major soils within a map unit delineation. Minor components make up the balance of the map unit. Great differences in soil properties can occur between map unit components and within short distances. Minor components may be very different from the major components. Such differences could significantly affect use and management of the map unit. Minor components may or may not be documented in the database. The results of aggregation do not reflect the presence or absence of limitations of the components which are not listed in the database. An on-site investigation is required to identify the location of individual map unit components.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

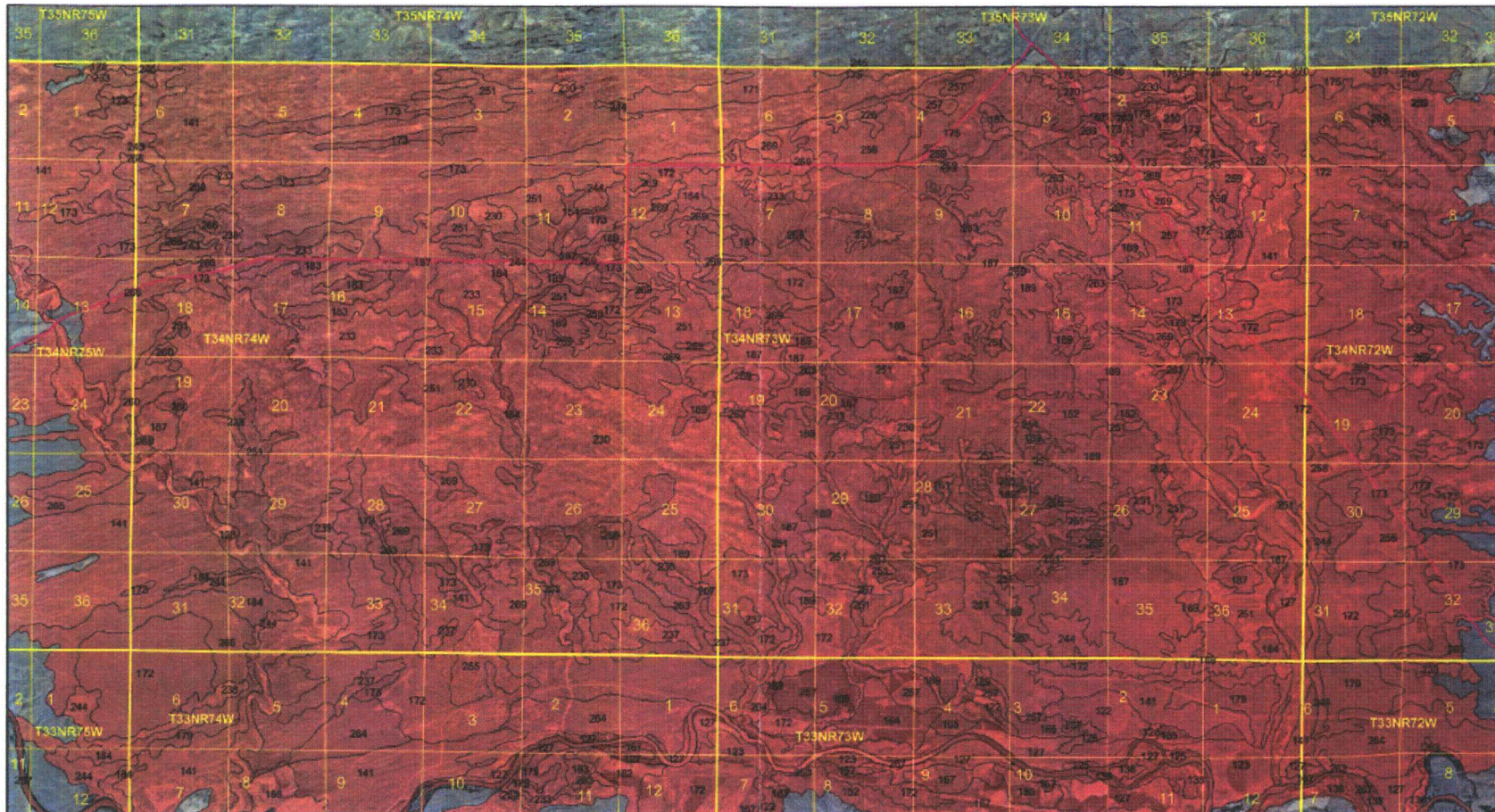
For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be generated. Aggregation must be done because, on any soil map, map units are delineated but components are not. The majority of soil attributes are associated with a component of a map unit, and such an attribute has to be aggregated to the map unit level before a thematic map can be rendered. Map units, however, also have their own attributes. An attribute of a map unit does not have to be aggregated in order to render a corresponding thematic map. Therefore, the "aggregation method" for any attribute of a map unit is referred to as "No Aggregation Necessary".

Tie-break Rule: Lower

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

## Glenrock, WY Uranium Project Area

November 14, 2008



### South Converse County, Wyoming Soil Survey Area

Red Polygons - Not prime farmland

1:60,000



**ADDENDUM 2.6-G**

**SOILS MAP**

**The 1 Drawings  
specifically referenced in  
the Table of Contents have  
been processed into  
ADAMS.**

**These drawings can be  
accessed within the  
ADAMS package or by  
performing a search on the  
Document/Report Number.**

**D30**

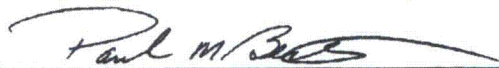
**ADDENDUM 2.6-H**  
**PROFESSIONAL CERTIFICATIONS**


**ARCPACS**  
A Federation of Certifying Boards in Agriculture,  
Biology, Earth and Environmental Sciences  
Certifies that  
**Brenda K. Schladweiler, BS**

Subscribes to the Code of Ethics and has met the requirements  
established for the certification of

as a  
**Certified Professional Soil Scientist**

Certification effective from:  
1/1/2009 to 12/31/2010  
Number: 15269

  
SSSA President

  
Soils Certifying Board Chair

*ARCPACS is a membership service of the American Society of Agronomy*