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12/02



**U.S. Environmental
Protection Agency**

**Supplemental Site Investigations/
Site Characterization Report
Himco Dump Superfund Site
Elkhart, Indiana**

Final

**Volume 2 of 4
Appendix A - H**

December 2002

Appendix A

**1998 Supplemental Site Investigation
Soil Boring Logs**

HTRW DRILLING LOG		DISTRICT OMAHA			HOLE NUMBER SB03	
1. COMPANY NAME US ARMY CORPS OF ENGINEERS		2. DRILL SUBCONTRACTOR OMAHA DISTRICT			SHEET SHEETS 1 OF 2	
3. PROJECT HIMCO DUMP SUPERFUND SITE				4. LOCATION ELKHART, INDIANA		
5. NAME OF DRILLER AL OAKS				6. MANUFACTURER'S DESIGNATION OF DRILL GUS PECH GP-750		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		4 1/4" ID HOLLOW STEM CAS AUGERS CAS		8. HOLE LOCATION SEE BELOW		
3" OD stainless steel split spoons CAS		4 1/4" ID stainless hollow stem augers		9. SURFACE ELEVATION		
bullet bit on augers		CME Continuous Sampler		10. DATE STARTED 10/12/98		11. DATE COMPLETED 10/12/98
12. OVERBURDEN THICKNESS 3.0 ft		15. DEPTH GROUNDWATER ENCOUNTERED not encountered				
13. DEPTH DRILLED INTO ROCK 0		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED				
14. TOTAL DEPTH OF HOLE 3.0 ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)				
18. GEOTECHNICAL SAMPLES		DISTURBED 0	UNDISTURBED 0	19. TOTAL NUMBER OF CORE BOXES		
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC 2	TAL METALS 2	OTHER (SPECIFY) SVOCs - 2	OTHER (SPECIFY) Cyanide - 2	OTHER (SPECIFY)
22. DISPOSITION OF HOLE		BACKFILLED <input checked="" type="checkbox"/>	MONITORING WELL	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY	
					23. SIGNATURE OF INSPECTOR <i>Cawthon Strafel</i>	
LOCATION SKETCH/COMMENTS		VOCs - 2 x 4oz. SVOCs - 1 x 4oz. Metals - 1 x 8oz. Cyanide - 1 x 8oz.			SCALE: not to scale	
PROJECT HIMCO DUMP SUPERFUND SITE				HOLE NO. SB03		

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER
SB-03

PROJECT
HIMCO DUMP
SUPERFUND SITE

INSPECTOR
Caryn Semel

SHEET 2 OF 2 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	SP, poorly graded sand, brown, loose dry, very fine trace gravel.	PID calib with 100 ppm isobutylene BZ=0.0 HS=0.0		ECMKZ 2x4ae VOA 1xBOE SVOCs MEBQZ 1xBOE CN 1xBOE metals SB03-0.5 0.5		shovel 0-0.5' 10/12/98 use CME Continuous Sampler from 0.5-1.0 ft poor recovery ~1 ft, encountered tin can, move over and sand
	3	plastcc BOTTOM OF HOLE = 3.0ft	HS=0.0		SB03-2 2.0		drill from 1-1.5ft, recovery = 2ft, refusal @ 3ft.
	4						
	5						
	6						
	7						
	8						
	9						
	10						

PROJECT HIMCO DUMP SUPERFUND SITE

HOLE NO. SB03

HTRW DRILLING LOG		DISTRICT OMAHA		HOLE NUMBER SB04	
1. COMPANY NAME US ARMY CORPS OF ENGINEERS		2. DRILL SUBCONTRACTOR OMAHA DISTRICT		SHEET SHEETS 1 OF 2	
3. PROJECT HIMCO DUMP SUPERFUND SITE			4. LOCATION ELKHART, INDIANA		
5. NAME OF DRILLER AL OAKS			6. MANUFACTURER'S DESIGNATION OF DRILL GUS PECH GP-750		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		4 1/4" ID Hollow Stem Cas Augers Cas		8. HOLE LOCATION SEE BELOW	
3" OD stainless steel split spoons				9. SURFACE ELEVATION	
		10. DATE STARTED 10/19/98		11. DATE COMPLETED 10/19/98	
12. OVERBURDEN THICKNESS 6.0 ft		15. DEPTH GROUNDWATER ENCOUNTERED not encountered			
13. DEPTH DRILLED INTO ROCK 0		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED			
14. TOTAL DEPTH OF HOLE 6.0 ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)			
18. GEOTECHNICAL SAMPLES		DISTURBED 0		UNOBTAINED 0	
19. TOTAL NUMBER OF CORE BOXES					
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC 3	TAL METALS 3	OTHER (SPECIFY) SVOCs - 3	OTHER (SPECIFY) Cyanide - 3
21. TOTAL CORE RECOVERY					
22. DISPOSITION OF HOLE		BACKFILLED ✓		MONITORING WELL	
				23. SIGNATURE OF INSPECTOR Calvin S. ...	
LOCATION SKETCH/COMMENTS VOCs - 2 x 4 oz. SVOCs - 1 x 4 oz. Metals - 1 x 8 oz. Cyanide - 1 x 8 oz. SCALE: not to scale					
PROJECT HIMCO DUMP SUPERFUND SITE				HOLE NO. SB04	

TRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER

SB04

PROJECT **HIMCO DUMP SUPERFUND SITE**

INSPECTOR

Carwyn Smarke

SHEET

2 of 2

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH. SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	Poorly graded sand (SP) with silt, fine sand, dry, dark brown	HS=0.0 BZ=0.0		ECML6 MEBQES		10/19/98 Collect soil 0-0.5' with shovel
	1				ECML7 MEBQES 0.5-2'	8	N=25 Recovery=1.4'
						10	
			15				
	2	SP with silt same as above	HS=0.0 BZ=0.0			12	N=33 Recovery=1.7'
						15	
	3					18	
						14	
	4	Poorly graded sand (SP) fine grained sand, tan, dry, plastic sheeting encountered	HS=0.0 BZ=0.0		ECML8 MEBQES 2-6'	21	N=37 Recovery=1.6'
	5					22	
						15	
						13	
	6	BOTTOM OF HOLE	=6.0	ft			
	7						
	8						
	9						
	10						

PROJECT **HIMCO DUMP SUPERFUND SITE**

HOLE NO. **SB04**

HTRW DRILLING LOG		DISTRICT OMAHA		HOLE NUMBER SB05	
1. COMPANY NAME US ARMY CORPS OF ENGINEERS		2. DRILL SUBCONTRACTOR OMAHA DISTRICT		SHEET SHEETS 1 OF 2	
3. PROJECT HIMCO DUMP SUPERFUND SITE			4. LOCATION ELKHART, INDIANA		
5. NAME OF DRILLER AL OAKS			6. MANUFACTURER'S DESIGNATION OF DRILL GUS PECH GP-750		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" OD stainless steel split spoons		4 1/4" ID HOLLOW STEM GAS AUGERS GAS		8. HOLE LOCATION SEE BELOW	
12. OVERBURDEN THICKNESS 6.0'			15. DEPTH GROUNDWATER ENCOUNTERED not encountered		
13. DEPTH DRILLED INTO ROCK 0			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED		
14. TOTAL DEPTH OF HOLE 6.0'			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)		
18. GEOTECHNICAL SAMPLES		DISTURBED 0	UNDISTURBED 0	19. TOTAL NUMBER OF CORE BOXES	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC 2	TAL METALS 2	OTHER (SPECIFY) SVOCs - 2	OTHER (SPECIFY) Cyanide - 2
22. DISPOSITION OF HOLE		BACKFILLED ✓	MONITORING WELL	21. SIGNATURE OF INSPECTOR <i>Calvin Sines</i>	
LOCATION SKETCH/COMMENTS VOCs - 2 x 4 oz. SVOCs - 1 x 4 oz. Metals - 1 x 8 oz. Cyanide - 1 x 8 oz.					
<p>SB05</p> <p>fenced yard</p>					
PROJECT HIMCO DUMP SUPERFUND SITE				HOLE NO. SB05	

ITRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER
SB 05

PROJECT
HIMCO DUMP
SUPERFUND SITE

INSPECTOR

Carolyn Swartz

SHEET 2 OF 2 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH. SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	Poorly graded sand (SP) with silt, dry, dark brown, fine sand	HS=0.0 BZ=0.0		ECML4 MEBQE1 + MS/MSD		10/19/98 collect sample with shovel
	1	Poorly graded sand (SP), fine sand, dry, tan			ECML5 MEBQE2	3	N=11 Recovery=1.3'
						6	
						5	
	2	Plastic fragments and wood, some sand as above	HS=0.0 BZ=0.0		not enough soil	11	N=38 Recovery=1.0'
	3					28	
						10	
						24	
	4	wood fragments, some sand	HS=0.0 BZ=0.0		not enough soil	18	N=6 Recovery=1.0' not enough soil for sample 2-6' offset, no recovery refusal @ 2'
	5					3	
						3	
						2	
	6	BOTTOM OF BORING = 6.0ft					an offset hole
	7						
	8						
	9						
	10						

PROJECT HIMCO DUMP SUPERFUND SITE

HOLE NO. SB05

HTRW DRILLING LOG

DISTRICT: OMAHA
 1 COMPANY NAME: US ARMY CORPS OF ENGINEERS
 2 DRILL SUBCONTRACTOR: OMAHA DISTRICT
 HOLE NUMBER: SB 06
 SHEET 1 OF 2 SHEETS

3 PROJECT: HIMCO DUMP SUPERFUND SITE
 4 LOCATION: ELKHART, INDIANA

5 NAME OF DRILLER: AL OAKS
 6 MANUFACTURER'S DESIGNATION OF DRILL: GUS PECH GP-750

7 SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: ~~4 1/4" ID HOLLOW STEM CAS~~
 AUGERS - CAS
 8 HOLE LOCATION: SEE BELOW

3" OD stainless steel split spoons
 9 SURFACE ELEVATION:

10 DATE STARTED: 10/19/98
 11 DATE COMPLETED: 10/19/98

12 OVERBURDEN THICKNESS: 4.2'
 15 DEPTH GROUNDWATER ENCOUNTERED: not encountered

13 DEPTH DRILLED INTO ROCK: \emptyset
 16 DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED:

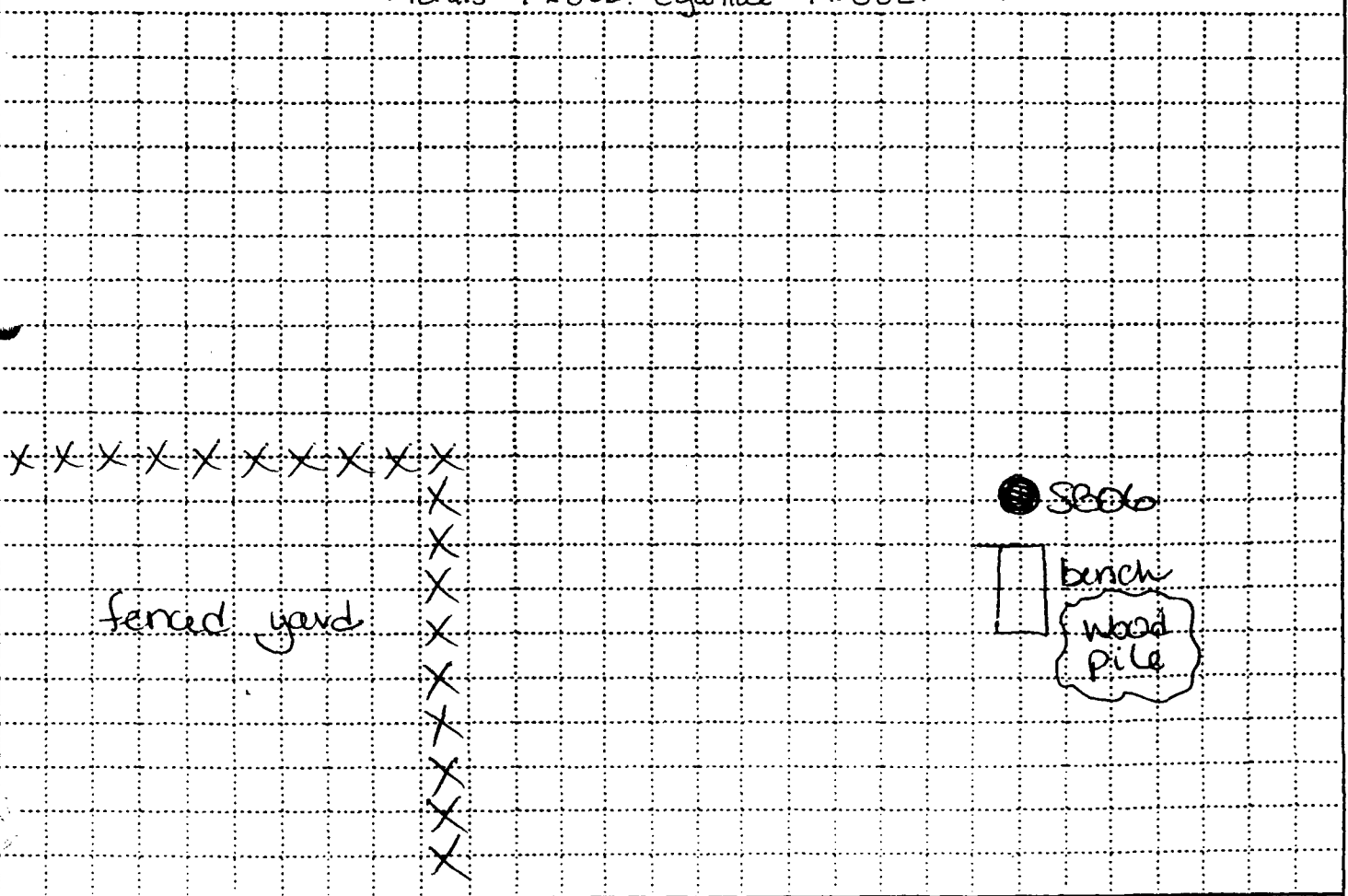
14 TOTAL DEPTH OF HOLE: 4.2'
 17 OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

18 GEOTECHNICAL SAMPLES: DISTURBED \emptyset UNDISTURBED \emptyset
 19 TOTAL NUMBER OF CORE BOXES:

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC: 3	TAL METALS: 3	OTHER (SPECIFY): SVOCs - 3	OTHER (SPECIFY): Cyanide - 3	OTHER (SPECIFY):	21. TOTAL CORE RECOVERY %:
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22 DISPOSITION OF HOLE: BACKFILLED MONITORING WELL
 23 SIGNATURE OF INSPECTOR: Carolyn Schaefer

LOCATION SKETCH/COMMENTS: VOCs - 2 x 4 oz. SVOCs - 1 x 4 oz. Metals - 1 x 8 oz. Cyanide - 1 x 8 oz. SCALE: not to scale



PROJECT: HIMCO DUMP SUPERFUND SITE
 HOLE NO.: SB 06

TRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER
SB06
SHEET 2 OF 2 SHEETS

PROJECT HIMO DUMP SUPERFUND SITE

INSPECTOR *Carroll*

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)	
	0	Poorly graded Sand (SP) with silt, roots, clay, fine sand, dark brown	HS=0.0 BZ=0.0	field sample duplicate	ECML9/ MEBGF4 ECMM6/ MEBGF7	5	10/19/98 collected soil sample 0-0.5' with shovel	
	1						4	N=7 Recovery=1.2'
	2						3	
	3	SP with silt same as above plastic sheeting, wood fragments	HS=0.0 BZ=0.0		not enough soil	10	N=22 Recovery=1.0'	
	4	plastic sheeting			11			
	5				11			
	6					12		
	4.2	BOTTOM OF HOLE=4.2ft	HS=0.0 BZ=0.0			60	N=NA Recovery = ϕ refusal @ 4.2'	
	5				not enough soil			
	6							
	7							
	8							
	9							
	10							

PROJECT HIMO DUMP SUPERFUND SITE

HOLE NO. SB06

HTRW DRILLING LOG		DISTRICT OMAHA			HOLE NUMBER SB07	
1. COMPANY NAME US ARMY CORPS OF ENGINEERS		2. DRILL SUBCONTRACTOR OMAHA DISTRICT			SHEET SHEETS 1 OF 2	
3. PROJECT HIMCO DUMP SUPERFUND SITE			4. LOCATION ELKHART, INDIANA			
5. NAME OF DRILLER AL OAKS			6. MANUFACTURER'S DESIGNATION OF DRILL GUS PECH GP-750			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		4 1/4" ID HOLLOW STEM CAS AUGERS CAS		8. HOLE LOCATION SEE BELOW		
3" OD stainless steel split spoons		9. SURFACE ELEVATION				
		10. DATE STARTED 10/21/98		11. DATE COMPLETED 10/21/98		
12. OVERBURDEN THICKNESS 3.1ft		15. DEPTH GROUNDWATER ENCOUNTERED not encountered				
13. DEPTH DRILLED INTO ROCK Ø		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED				
14. TOTAL DEPTH OF HOLE 3.1ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)				
18. GEOTECHNICAL SAMPLES		DISTURBED Ø	UNDISTURBED Ø	19. TOTAL NUMBER OF CORE BOXES		
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC 2	TAL METALS 2	OTHER (SPECIFY) SVOCs - 2	OTHER (SPECIFY) Cyanide - 2	OTHER (SPECIFY)
22. DISPOSITION OF HOLE		BACKFILLED ✓	MONITORING WELL	OTHER (SPECIFY)	21. SIGNATURE OF INSPECTOR Carolyn Swaffel	
LOCATION SKETCH/COMMENTS		VOCs - 2 x 4 oz. SVOCs - 1 x 4 oz. Metals - 1 x 8 oz. Cyanide - 1 x 8 oz.			SCALE: not to scale	
PROJECT HIMCO DUMP SUPERFUND SITE				HOLE NO. SB07		

ITRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER
SB07

PROJECT **HIMCO DUMP SUPERFUND SITE**

INSPECTOR *Carolyn Swafel*

SHEET **2** OF **2** SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEO TECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	Poorly graded sand (SP), fine grained sand, tan, dry, loose, glass fragments	HS=0.0 BZ=0.0		ECHP9 MEBQH6 + MS/MSD	1 5 3	10/21/98 Collect 0-0.5' with shovel
	1				ECHQ6 MEBQH7		N=8 Rec=1.3ft
	2						N=63+ Rec=0.5ft refusal @ 3' not
	3	Poorly graded sand (SP), same as above with plastic debris	HS=0.0 BZ=0.0			2 3	
	3	BOTTOM OF HOLE = 3.1ft				60	enough for sample
	4						
	5						
	6						
	7						
	8						
	9						
	10						

PROJECT **HIMCO DUMP SUPERFUND SITE**

HOLE NO. **SB07**

HTRW DRILLING LOG		DISTRICT		HOLE NUMBER	
1. COMPANY NAME US ARMY CORPS OF ENGINEERS		OMAHA		SB 08	
3. PROJECT HIMCO DUMP SUPERFUND SITE		2. DRILL SUBCONTRACTOR OMAHA DISTRICT		SHEET SHEETS 1 OF 2	
5. NAME OF DRILLER AL OAKS		4. LOCATION ELKHART, INDIANA		6. MANUFACTURER'S DESIGNATION OF DRILL GUS PECH GP-750	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" OD stainless steel split spoons		4 1/4" ID HOLLOW STEM AUGERS - AS		8. HOLE LOCATION SEE BELOW	
12. OVERBURDEN THICKNESS 6.0ft		9. SURFACE ELEVATION		10. DATE STARTED 10/20/98	
13. DEPTH DRILLED INTO ROCK 0		15. DEPTH GROUNDWATER ENCOUNTERED		11. DATE COMPLETED 10/20/98	
14. TOTAL DEPTH OF HOLE 6.0ft		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	
18. GEOTECHNICAL SAMPLES		DISTURBED 0		UNDISTURBED 0	
19. TOTAL NUMBER OF CORE BOXES		20. SAMPLES FOR CHEMICAL ANALYSIS		21. TOTAL CORE RECOVERY	
VOC 2		TAL METALS 2		OTHER (SPECIFY) SVOCs - 2	
OTHER (SPECIFY) Cyanide - 2		OTHER (SPECIFY)		OTHER (SPECIFY)	
22. DISPOSITION OF HOLE BACKFILLED ✓		MONITORING WELL		OTHER (SPECIFY)	
23. SIGNATURE OF INSPECTOR <i>Carwyn S. ...</i>		LOCATION SKETCH/COMMENTS VOCs - 2 x 4 oz. SVOCs - 1 x 4 oz. Metals - 1 x 8 oz. Cyanide - 1 x 8 oz.		SCALE: not to scale	
SB08		AN			
PROJECT HIMCO DUMP SUPERFUND SITE				HOLE NO. SB08	

ITRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER
SB 08

PROJECT
HIMCO DUMP
SUPERFUND SITE

INSPECTOR
Carolyn S. Swartz

SHEET 2 OF 2

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEO TECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLDG COUNT (g)	REMARKS (h)
	0	Poorly graded sand with silt (SP), dry, dk brown, fine sand	HS=0.0 BZ=0.0		MEBQF5 ECMM8		10/20/98 Collect soil 0-0.5' with a shovel
	1				ECMM9 MEBQF6	1	N=4 Recovery=1.3'
						2	
	2	Poorly graded sand (SP), dry, fine grained, tan, wood fragments and shingles + tar paper	HS=0.0 BZ=0.0			2	
	3					1	N=6 Recovery=1.0'
						3	
						3	
	4	Same as above with wood fragments				4	
	5		HS=0.0 BZ=0.0			4	N=11 Recovery=0.5' not enough soil from 2'-6" for a sample, too much debris
						5	
						6	
	6					2	
		BOTTOM OF HOLE = 6.0 ft					
	7						
	8						
	9						
	10						

PROJECT HIMCO DUMP SUPERFUND SITE

HOLE NO. SB08

HTRW DRILLING LOG		DISTRICT OMAHA			HOLE NUMBER SB09	
1 COMPANY NAME US ARMY CORPS OF ENGINEERS		2 DRILL SUBCONTRACTOR OMAHA DISTRICT			SHEET SHEETS 1 OF 2	
3 PROJECT HIMCO DUMP SUPERFUND SITE			4 LOCATION ELKHART, INDIANA			
5 NAME OF DRILLER AL OAKS			6 MANUFACTURER'S DESIGNATION OF DRILL GUS PECH GP-750			
7 SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		4 1/4" ID HOLLOW STEM CAS AUGERS-CAS		8 HOLE LOCATION SEE BELOW		
3" OD stainless steel split spoons		9 SURFACE ELEVATION				
		10. DATE STARTED 10/21/98		11. DATE COMPLETED 10/21/98		
12. OVERBURDEN THICKNESS 2.5'		15. DEPTH GROUNDWATER ENCOUNTERED not encountered				
13. DEPTH DRILLED INTO ROCK 0		18. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED				
14. TOTAL DEPTH OF HOLE 2.5'		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)				
18. GEOTECHNICAL SAMPLES		DISTURBED 0	UNDISTURBED 0	19. TOTAL NUMBER OF CORE BOXES		
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC 3	TAL METALS 3	OTHER (SPECIFY) SVOCs-3	OTHER (SPECIFY) Cyanide-3	OTHER (SPECIFY) ---
22. DISPOSITION OF HOLE BACKFILLED ✓		MONITORING WELL	OTHER (SPECIFY)	21. SIGNATURE OF INSPECTOR <i>Carlynn Strafle</i>		
LOCATION SKETCH/COMMENTS VOCs - 2 x 4 oz. SVOCs - 1 x 4 oz. Metals - 1 x 8 oz. Cyanide - 1 x 8 oz. SCALE: not to scale 						
PROJECT HIMCO DUMP SUPERFUND SITE				HOLE NO. SB09		

TRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER
SB 09

PROJECT
HIMCO DUMP
SUPERFUND SITE

INSPECTOR
C. Schwartz

SHEET 2 of 2 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	Poorly graded sand (SP), loose, dry, fine grained sand, brown	HS=0.0 BZ=0.0	field sample field duplicate	ECMP01 MEBQ13	/	10/21/98 Collect 0-0.5' sample with shovel
	1				ECMP11 MEBQ14		
	2				ECMPB MEBQ15		N=7 Recovery=1.4'
	3				1		
	4				2		
	5				5		
	6	Same as above with wall board and particle board				6	
	3	BOTTOM OF HOLE = 2.5 ft	HS=0.0 BZ=0.0			60	N=60+ refusal @ 2.5' not enough for sample
	4						
	5						
	6						
	7						
	8						
	9						
	10						

PROJECT HIMCO DUMP SUPERFUND SITE

HOLE NO. SB09

HTRW DRILLING LOG		DISTRICT			HOLE NUMBER	
1. COMPANY NAME US ARMY CORPS OF ENGINEERS		OMAHA			SB10	
2 DRILL SUBCONTRACTOR OMAHA DISTRICT					SHEET SHEETS 1 OF 2	
3 PROJECT HIMCO DUMP SUPERFUND SITE				4 LOCATION ELKHART, INDIANA		
5 NAME OF DRILLER AL OAKS				6. MANUFACTURER'S DESIGNATION OF DRILL GUS PECH GP-750		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		4 1/4" ID HOLLOW STEM CAS AUGERS - CAS 3" OD stainless steel split spoons		8. HOLE LOCATION SEE BELOW		9. SURFACE ELEVATION
12. OVERBURDEN THICKNESS 6.0ft				10. DATE STARTED 10/20/98		11. DATE COMPLETED 10/20/98
13. DEPTH DRILLED INTO ROCK 0				15. DEPTH GROUNDWATER ENCOUNTERED not encountered		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED
14. TOTAL DEPTH OF HOLE 6.0ft				17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)		
18. GEOTECHNICAL SAMPLES		DISTURBED 0	UNDISTURBED 0	19. TOTAL NUMBER OF CORE BOXES		
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC 4	TAL METALS 4	OTHER (SPECIFY) SVOCs - 4	OTHER (SPECIFY) Cyanide - 4	OTHER (SPECIFY)
22. DISPOSITION OF HOLE		BACKFILLED ✓	MONITORING WELL	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %	
23. SIGNATURE OF INSPECTOR		Carwyn Strain				
LOCATION SKETCH/COMMENTS VOCs - 2 x 4 oz. SVOCs - 1 x 4 oz. Metals - 1 x 8 oz. Cyanide - 1 x 8 oz. SCALE: not to scale						
PROJECT HIMCO DUMP SUPERFUND SITE					HOLE NO. SB10	

TRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER

SB 10

PROJECT **HIMCO DUMP SUPERFUND SITE**

INSPECTOR

Carwyn Smayel

SHEET

SHEETS

2 of 2

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	Poorly graded sand with silt (SP), dry, fine grained, dark brown	HS=0.0 BZ=0.0	Field sample dupe	MEBQFF1 ECMN0 MEBQFF2 ECMN1		10/20/98 Collect soil 0-0.5' with shovel
	1	SP same as above with glass fragments			ECMN2 MEBQFF9	1 2 4	N=6 Recovery=1.2'
	2	same as above				2	
	3		HS=0.0 BZ=0.0			3 2	N=5 Recovery=1.8'
	4					3	
	5	Poorly graded sand (SP), fine, dry, tan, with wood fragments and particle board	HS=0.0 BZ=6.0		ECMN3 MEBQFF0	6 4 2 2	N=6 Recovery=1.6'
	6	BOTTOM OF HOLE = 6.0'					
	7						
	8						
	9						
	10						

PROJECT **HIMCO DUMP SUPERFUND SITE**

HOLE NO. **SB10**

HTRW DRILLING LOG		DISTRICT OMAHA			HOLE NUMBER SB11	
1. COMPANY NAME US ARMY CORPS OF ENGINEERS		2. DRILL SUBCONTRACTOR OMAHA DISTRICT			SHEET SHEETS 1 OF 2	
3. PROJECT HIMCO DUMP SUPERFUND SITE			4. LOCATION ELKHART, INDIANA			
5. NAME OF DRILLER AL OAKS			6. MANUFACTURER'S DESIGNATION OF DRILL GUS PECH GP-750			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		4 1/4" ID HOLLOW STEEL AUGERS - CAS		8. HOLE LOCATION SEE BELOW		
3" OD stainless steel split spoons		9. SURFACE ELEVATION				
				10. DATE STARTED 10/21/98		11. DATE COMPLETED 10/21/98
12. OVERBURDEN THICKNESS 3.0ft			15. DEPTH GROUNDWATER ENCOUNTERED not encountered			
13. DEPTH DRILLED INTO ROCK 0			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED			
14. TOTAL DEPTH OF HOLE 3.0ft			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)			
18. GEOTECHNICAL SAMPLES		DISTURBED 0		UNDISTURBED 0		19. TOTAL NUMBER OF CORE BOXES
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC 3	TAL METALS 3	OTHER (SPECIFY) SVOCs - 3	OTHER (SPECIFY) Cyanide - 3	OTHER (SPECIFY) -
22. DISPOSITION OF HOLE		BACKFILLED ✓	MONITORING WELL	OTHER (SPECIFY)	21. SIGNATURE OF INSPECTOR <i>Carough Smaful</i>	
LOCATION SKETCH/COMMENTS VOCs - 2 x 4 oz. SVOCs - 1 x 4 oz. Metals - 1 x 8 oz. Cyanide - 1 x 8 oz. SCALE: not to scale						
PROJECT HIMCO DUMP SUPERFUND SITE					HOLE NO. SB11	

ITRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER
SB11

PROJECT **HIMCO DUMP SUPERFUND SITE**

INSPECTOR **Carolyn Swartz**

SHEET **2** OF **2** SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOLOGY SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)	
	0	Poorly graded gravel with sand (GP), fine rounded gravel, fine sand, brown, dry, glass fragments	HS=0.0 BZ=0.0		ECMP3 MEBQH4	/	10/21/98 use shovel to collect 0-0.5' sample	
	1				ECMP4 MEBQH1		15	N=10 Recovery=1.2ft
							5	
	2	Poorly graded sand (SP) with rounded gravel, dry, fine sand, brown Concrete	HS=0.0 BZ=0.0		ECMP5 MEBQH2	40	N=100+ Recovery=1.0'	
	3					40		
	3	BOTTOM OF HOLE=3.0ft				60	refusal @ 3.0' collect 2-6' sample from 2-3'	
	4					/		
	5		HS=0.0 GAS BZ=0.6 GAS			/		
	6					/		
	7					/		
	8					/		
	9					/		
	10					/		

PROJECT **HIMCO DUMP SUPERFUND SITE**

HOLE NO. **SB11**

HTRW DRILLING LOG		DISTRICT			HOLE NUMBER	
1 COMPANY NAME US ARMY CORPS OF ENGINEERS		OMAHA			SB 12	
3 PROJECT HIMCO DUMP SUPERFUND SITE		2 DRILL SUBCONTRACTOR OMAHA DISTRICT			SHEET SHEETS 1 OF 2	
5 NAME OF DRILLER AL OAKS		4 LOCATION ELKHART, INDIANA				
7 SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" OD stainless steel split spoons		8 MANUFACTURER'S DESIGNATION OF DRILL GUS PECH GP-750				
8 HOLE LOCATION SEE BELOW		9 SURFACE ELEVATION				
10 DATE STARTED 10/20/98		11 DATE COMPLETED 10/20/98				
12 OVERBURDEN THICKNESS 6.0ft		15 DEPTH GROUNDWATER ENCOUNTERED not encountered				
13 DEPTH DRILLED INTO ROCK 0		16 DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED				
14 TOTAL DEPTH OF HOLE 6.0ft		17 OTHER WATER LEVEL MEASUREMENTS (SPECIFY)				
18 GEOTECHNICAL SAMPLES		DISTURBED 0		UNDISTURBED 0		19 TOTAL NUMBER OF CORE BOXES
20 SAMPLES FOR CHEMICAL ANALYSIS		VOC 3	TAL METALS 3	OTHER (SPECIFY) SVOCs-3	OTHER (SPECIFY) Cyanide-3	OTHER (SPECIFY)
21 TOTAL CORE RECOVERY						
22 DISPOSITION OF HOLE BACK FILLED		MONITORING WELL	OTHER (SPECIFY)	23 SIGNATURE OF INSPECTOR C. S. [Signature]		
LOCATION SKETCH/COMMENTS VOCs - 2 x 4 oz. SVOCs - 1 x 4 oz. Metals - 1 x 8 oz. Cyanide - 1 x 8 oz. SCALE: not to scale						
PROJECT HIMCO DUMP SUP. RFUND SITE					HOLE NO. SB12	

TRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER
SB12

PROJECT
HIMCO DUMP
SUPERFUND SITE

INSPECTOR
Caryn Smith

SHEET 2 OF 2 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEO TECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)			
	0	poorly graded sand (SP) with silt, dry, fine sand, brown, dense	HS=0.0 BZ=0.0		MEB067 ECMP0 MS/MSD	5	10/20/98 collect 0-0.5' with shovel			
	1							ECMP1 MEB068	10	N=20 Recovery=1.2'
	2								10	
	3	poorly graded sand (SP) with silt (same as above)	HS=0.0 BZ=0.0			5	N=21 Recovery=1.8'			
	4	plastic fragments, duct tape, wood fragments				9				
	5					12				
	6	poorly graded sand (SP), fine grained sand, dry, loose, tan	HS=0.0 BZ=0.0		MEB069 ECMP2	15	N=5 Recovery=1.7'			
	7					4				
	8					3				
	9					2				
	10	BOTTOM OF HOLE = 6.0'				5				

PROJECT HIMCO DUMP SUPERFUND SITE

HOLE NO. SB12

HTRW DRILLING LOG		DISTRICT		HOLE NUMBER	
1. COMPANY NAME US ARMY CORPS OF ENGINEERS		OMAHA		SB 13	
2 DRILL SUBCONTRACTOR		OMAHA DISTRICT		SHEET SHEETS 1 OF 2	
3 PROJECT HIMCO DUMP SUPERFUND SITE			4 LOCATION ELKHART, INDIANA		
5 NAME OF DRILLER AL OAKS			6 MANUFACTURER'S DESIGNATION OF DRILL GUS PECH GP-750		
7 SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		4 1/4" ID HOLLOW STEM CAS AUGERS CAS		8 HOLE LOCATION SEE BELOW	
3" OD stainless steel split spoons				9 SURFACE ELEVATION	
				10. DATE STARTED 10/20/98	
				11. DATE COMPLETED 10/20/98	
12. OVERBURDEN THICKNESS 4.7ft		15. DEPTH GROUNDWATER ENCOUNTERED not encountered		18. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	
13. DEPTH DRILLED INTO ROCK 0		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)			
14. TOTAL DEPTH OF HOLE 4.7ft CAS 4.7ft					
18. GEOTECHNICAL SAMPLES		DISTURBED 0		UNDISTURBED 0	
19. TOTAL NUMBER OF CORE BOXES					
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC 3		TAL METALS 3	
		OTHER (SPECIFY) SVOCs-3		OTHER (SPECIFY) Cyanide-3	
21. TOTAL CORE RECOVERY %					
22. DISPOSITION OF HOLE		BACKFILLED ✓		MONITORING WELL	
		OTHER (SPECIFY)		21. SIGNATURE OF INSPECTOR Carolyn Plunje	
LOCATION SKETCH/COMMENTS VOCs - 2 x 4 oz. SVOCs - 1 x 4 oz. Metals - 1 x 8 oz. Cyanide - 1 x 8 oz. SCALE: not to scale					
PROJECT HIMCO DUMP SUPERFUND SITE				HOLE NO. SB13	

ITRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER
SB13

PROJECT HIMCO DUMP
SUPERFUND SITE

INSPECTOR *Carwyn Smeal*

SHEET 2 of 2 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	Poorly graded sand with silt (SP), dry, fine sand, brown	HS=0.0 BZ=0.0		ECMN7 MEBQ64 0-0.5'	/	10/20/98 Collect 0-0.5' Sample with shoe
	1				ECMN8 MEBQ65 0.5-2'		3 10 5
	2	Poorly graded sand (SP), dense, fine grained sand, dry, tan concrete rubble, wood, glass	HS=0.0 BZ=0.0		MEBQ66 ECMN9 2-4'	15	N=42 Recovery=1.8'
	3				20	32	
	4				7		
	5	Poorly graded sand same as above with concrete rubble, wood, glass	HS=0.0 BZ=0.0	BOTTOM OF HOLE=4.7'		57	refusal @ 4.7'
	6					60	N=60 Recovery=0.7'
	7						
	8						
	9						
	10						

PROJECT HIMCO DUMP SUPERFUND SITE

HOLE NO. SB13

HTRW DRILLING LOG		DISTRICT OMAHA			HOLE NUMBER SB14	
1. COMPANY NAME US ARMY CORPS OF ENGINEERS		2. DRILL SUBCONTRACTOR OMAHA DISTRICT			SHEET SHEETS 1 of 2	
3. PROJECT HIMCO DUMP SUPERFUND SITE			4. LOCATION ELKHART, INDIANA			
5. NAME OF DRILLER AL OAKS			6. MANUFACTURER'S DESIGNATION OF DRILL GUS PECH GP-750			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" OD stainless steel split spoons		4 1/4" ID HOLLOW STEM CASE AUGERS - CAS		8. HOLE LOCATION SEE BELOW		
				8. SURFACE ELEVATION		
				10. DATE STARTED 10/20/98		11. DATE COMPLETED 10/20/98
12. OVERBURDEN THICKNESS 5.0ft		15. DEPTH GROUNDWATER ENCOUNTERED not encountered				
13. DEPTH DRILLED INTO ROCK 0		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED				
14. TOTAL DEPTH OF HOLE 5.0ft		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)				
18. GEOTECHNICAL SAMPLES		DISTURBED 0	UNDISTURBED 0	19. TOTAL NUMBER OF CORE BOXES		
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC 3	TAL METALS 3	OTHER (SPECIFY) SVOCs - 3	OTHER (SPECIFY) Cyanide - 3	OTHER (SPECIFY)
22. DISPOSITION OF HOLE		BACKFILLED ✓	MONITORING WELL	OTHER (SPECIFY)	21. SIGNATURE OF INSPECTOR Caroleyn S. ...	
21. TOTAL CORE RECOVERY						
LOCATION SKETCH/COMMENTS VOCs - 2 x 4 oz. SVOCs - 1 x 4 oz. Metals - 1 x 8 oz. Cyanide - 1 x 8 oz.						
PROJECT HIMCO DUMP SUPERFUND SITE				HOLE NO. SB14		

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER

SB 14

PROJECT **HIMCO DUMP SUPERFUND SITE**

INSPECTOR

Carolyn Sima

SHEET

SHEETS

2 OF 2

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEO TECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	Poorly graded sand (SP) with silt, clay, brown, fine sand	HS=0.0 BZ=0.0		ECMN4 MEBQG1		10/20/98 use shovel to collect soil 0-0.5'
	1				ECMN5 MEBQG2	4	N=14 Recovery=1.2'
						7	
			7				
	2	Poorly graded sand (SP) with fine sand, clay, tan	HS=0.0 BZ=0.0		ECMN6 MEBQG3	15	N=68 Recovery=1.7'
	3					50	
						18	
			37				
	4	Poorly graded sand (SP), same as above, plastic, wood fragments, metal	HS=0.0 BZ=0.0			46	N=77+ Recovery=0.9'
	5					17	
		BOTTOM OF HOLE = 5.0'				60	refusal @ 5.0' not enough soil for sample
	6						use soil from 2-4' for sample 2-6'
	7						
	8						
	9						
	10						

PROJECT **HIMCO DUMP SUPERFUND SITE**

HOLE NO. **SB14**

HTRW DRILLING LOG			DISTRICT			HOLE NUMBER		
1 COMPANY NAME US ARMY CORPS OF ENGINEERS			2 DRILL SUBCONTRACTOR OMAHA DISTRICT			HOLE NUMBER SB15		
3 PROJECT HIMCO DUMP SUPERFUND SITE			4 LOCATION ELKHART, INDIANA			SHEET SHEETS 1 OF 2		
5 NAME OF DRILLER AL OAKS			6 MANUFACTURER'S DESIGNATION OF DRILL GUS PECH GP-750					
7 SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 4 1/4" ID HOLLOW STEM GAS - AUGERS GAS 3" OD stainless steel split spoons			8 HOLE LOCATION SEE BELOW					
			9 SURFACE ELEVATION					
			10. DATE STARTED 10/19/98			11. DATE COMPLETED 10/19/98		
12. OVERBURDEN THICKNESS 6.0ft			15. DEPTH GROUNDWATER ENCOUNTERED not encountered					
13. DEPTH DRILLED INTO ROCK 0			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED					
14. TOTAL DEPTH OF HOLE 6.0ft			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)					
18. GEOTECHNICAL SAMPLES		DISTURBED 0		UNDISTURBED 0		19. TOTAL NUMBER OF CORE BOXES		
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC 3	TOTAL METALS 3	OTHER (SPECIFY) SVOCs-3	OTHER (SPECIFY) Cyanide-3	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY	
22. DISPOSITION OF HOLE BACKFILLED		MONITORING WELL		OTHER (SPECIFY)		23. SIGNATURE OF INSPECTOR C. A. Smith		
LOCATION SKETCH/COMMENTS VOCs - 2 x 4 oz. SVOCs - 1 x 4 oz. Metals - 1 x 8 oz. Cyanide - 1 x 8 oz. SCALE: not to scale								
PROJECT HIMCO DUMP SUPERFUND SITE						HOLE NO. SB15		

TRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER
SB15
SHEET 2 OF 2 SHEETS

PROJECT **HIMCO DUMP SUPERFUND SITE**

INSPECTOR *Carolyn Grapel*

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH. SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	Poorly graded sand with silt (SP), fine sand, dry, dark brown	HS=0.0 BZ=0.0		ECMK8 MEBQD5	4	10/19/98 Collect soil 0-0.5' with shovel
	1				ECMK9 MEBQD6		N=8 Recovery=1.1'
	2						
	3	SP with silt same as above with glass fragments	HS=0.0 BZ=0.0			9	N=26 Recovery=1.5'
	4				11		
	5				15		
	6	Poorly graded sand (SP), black, moist, plastic and glass fragments	HS=0.0 BZ=0.0		ECMK10 ECML0 MEBQD7	3	N=11 Recovery=1.7'
	7				5		
	8				7		
	9				4		
	10				8		
		BOTTOM OF HOLE = 6.0'					

PROJECT **HIMCO DUMP SUPERFUND SITE**

HOLE NO. **SB15**

HTRW DRILLING LOG

DISTRICT: OMAHA
 1. COMPANY NAME: US ARMY CORPS OF ENGINEERS
 2. DRILL SUBCONTRACTOR: OMAHA DISTRICT
 HOLE NUMBER: SB16
 SHEET: 1 OF 2 SHEETS

3. PROJECT: HIMCO DUMP SUPERFUND SITE
 4. LOCATION: ELKHART, INDIANA

5. NAME OF DRILLER: AL OAKS
 6. MANUFACTURER'S DESIGNATION OF DRILL: GUS PECH GP-750

7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: ~~4 1/4" ID HOLLOW STEM CASE AUGERS CAS~~
 8. HOLE LOCATION: SEE BELOW

3" OD stainless steel split spoons
 9. SURFACE ELEVATION:

10. DATE STARTED: 10/15/98
 11. DATE COMPLETED: 10/15/98

12. OVERBURDEN THICKNESS: 6.0ft
 15. DEPTH GROUNDWATER ENCOUNTERED: not encountered

13. DEPTH DRILLED INTO ROCK: \emptyset
 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED:

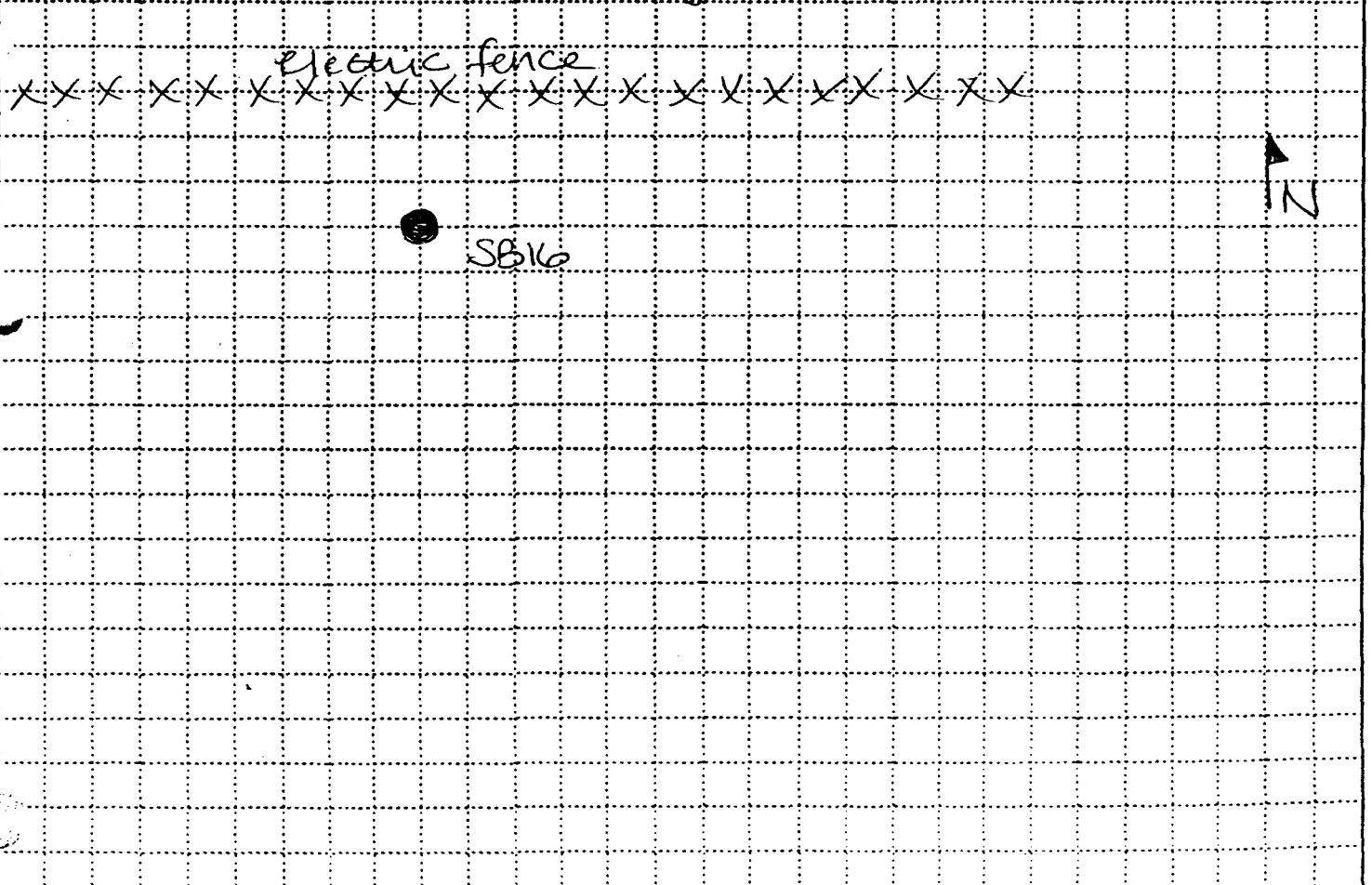
14. TOTAL DEPTH OF HOLE: 6.0ft
 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

18. GEOTECHNICAL SAMPLES: DISTURBED \emptyset UNDISTURBED \emptyset
 19. TOTAL NUMBER OF CORE BOXES:

20. SAMPLES FOR CHEMICAL ANALYSIS: VOC: 4 TAL METALS: 4 OTHER (SPECIFY): SVOCs - 4 OTHER (SPECIFY): Cyanide - 4 OTHER (SPECIFY):
 21. TOTAL CORE RECOVERY:

22. DISPOSITION OF HOLE: BACKFILLED MONITORING WELL OTHER (SPECIFY):
 23. SIGNATURE OF INSPECTOR: Carolyn Sumner

LOCATION SKETCH/COMMENTS: VOCs - 2 x 4 oz. SVOCs - 1 x 4 oz. Metals - 1 x 8 oz. Cyanide - 1 x 8 oz. SCALE: not to scale



PROJECT: HIMCO DUMP SUPERFUND SITE
 HOLE NO.: SB16

ATRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER
SB16
SHEET 2 OF 2 SHEETS

PROJECT **HIMCO DUMP SUPERFUND SITE**

INSPECTOR *Caroline Senefle*

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEO TECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	Silty sand, dry, dk brown, fine sand	HS=0.0 Bz=0.0		MEBQD1 ECMK9	12	10/15/98
	1				MEBQD2 metals, ca ECMK5	10	N=20 Rec=1.6'
					VDA's, SWCS 0.5-2'	10	
	2					10	
	3	Silty sand, same as above	HS=0.0 Bz=0.0		MEBQD3 metals, ca ECMK6	12	N=22 Rec=1.8'
	4	Poorly graded (SP) sand, dry, tan fine sand			VDA's, SWCS	11	
	5		field dupe: MEBQD4	11			
	6		ECMK7	12			
	7	Poorly graded gravel (GP), wet, loose, black	HS=0.0 Bz=0.0		2'-6'	8	N=6 Rec=1.5'
	8				4		
	9				2		
	10				3		
		BOTTOM OF HOLE = 6.0'					

PROJECT **HIMCO DUMP SUPERFUND SITE**

HOLE NO. **SB16**

HTRW DRILLING LOG

DISTRICT **OMAHA** HOLE NUMBER **SB17**

1 COMPANY NAME **US ARMY CORPS OF ENGINEERS** 2 DRILL SUBCONTRACTOR **OMAHA DISTRICT** SHEET **1** SHEETS **OF 2**

3 PROJECT **HIMCO DUMP SUPERFUND SITE** 4 LOCATION **ELKHART, INDIANA**

5 NAME OF DRILLER **AL OAKS** 6. MANUFACTURER'S DESIGNATION OF DRILL **GUS PECH GP-750**

7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT **4 1/4" ~~ID~~ HOLLOW STEM CAS AUGERS CAS** 8. HOLE LOCATION **SEE BELOW**

3" OD stainless steel split spoons 9. SURFACE ELEVATION

10. DATE STARTED **10/15/98** 11. DATE COMPLETED **10/15/98**

12. OVERBURDEN THICKNESS **2.2 ft** 15. DEPTH GROUNDWATER ENCOUNTERED **not encountered**

13. DEPTH DRILLED INTO ROCK **0** 16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED

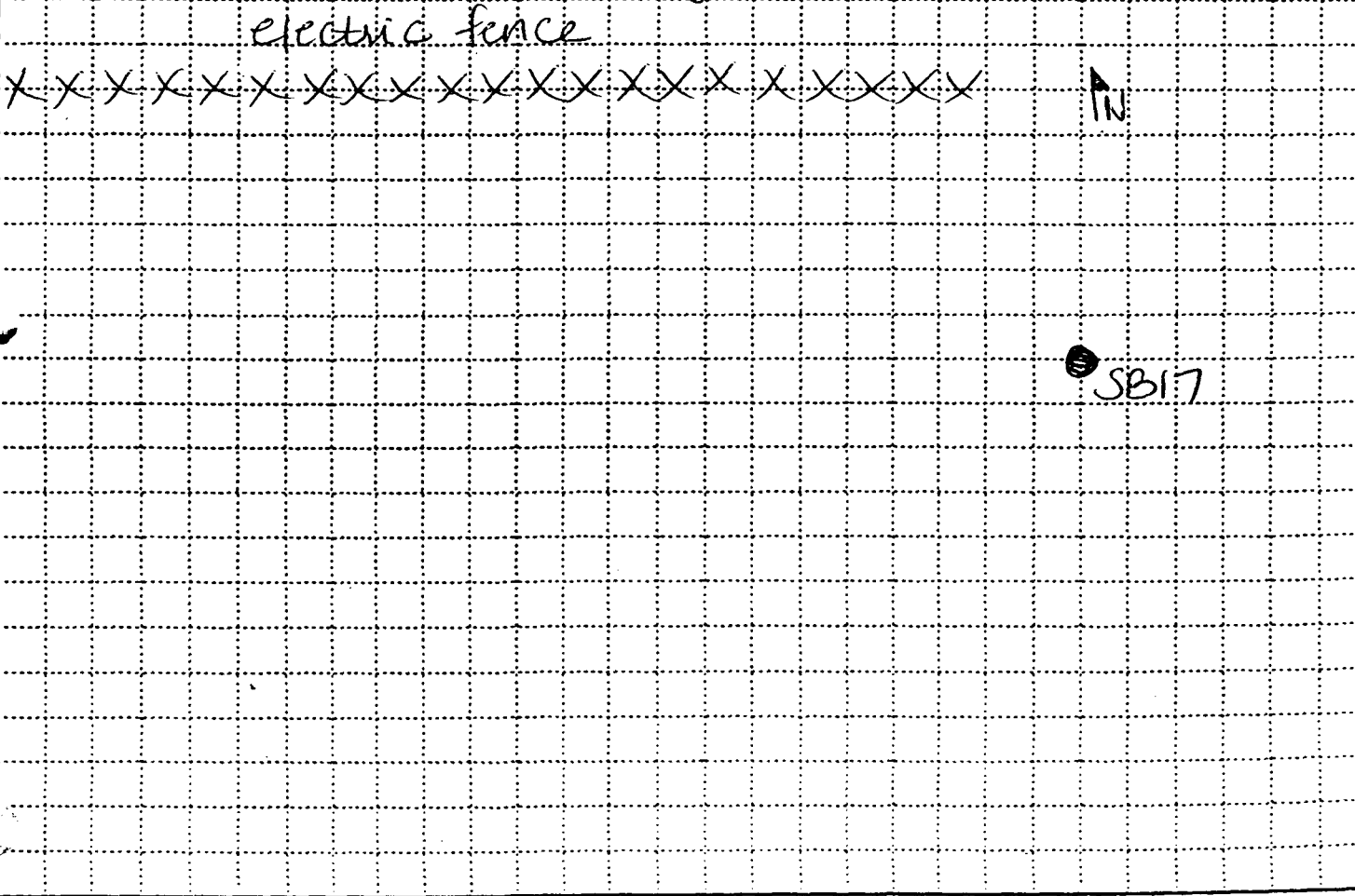
14. TOTAL DEPTH OF HOLE **2.2 ft** 17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)

18. GEOTECHNICAL SAMPLES DISTURBED **0** UNDISTURBED **0** 19. TOTAL NUMBER OF CORE BOXES

20. SAMPLES FOR CHEMICAL ANALYSIS VOC **2** TAL METALS **2** OTHER (SPECIFY) **SVOCs - 2** OTHER (SPECIFY) **Cyanide - 2** OTHER (SPECIFY) **---** 21. TOTAL CORE RECOVERY

22. DISPOSITION OF HOLE BACKFILLED **✓** MONITORING WELL OTHER (SPECIFY) 23. SIGNATURE OF INSPECTOR **Carloun Schaefer**

LOCATION SKETCH/COMMENTS **VOCs - 2 x 4 oz. SVOCs - 1 x 4 oz. Metals - 1 x 8 oz. Cyanide - 1 x 8 oz. SCALE: Not to Scale**



PROJECT **HIMCO DUMP SUPERFUND SITE** HOLE NO. **SB17**

ITRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER
SB17
SHEET 2 OF 2 SHEETS

PROJECT HIMCO DUMP SUPERFUND SITE

INSPECTOR Carolyn Senafel

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)		
	0	Silty sand dk brown, loose, dry, fine sand brick and concrete debris	HS=0.0 BZ=0.0		ECMJ7	4	10/15/98 collect 0-0.5' with shovel		
	1				MEBQ9			ECMJ8	6
	2				DDAS			3	
	3				SUBCS			3	
	4					20	N=60+ Rec=∅ refusal @ 2.2'		
	5					60			
	6								
	7								
	8								
	9								
	10								

PROJECT HIMCO DUMP SUPERFUND SITE

HOLE NO. SB17

HTRW DRILLING LOG		DISTRICT OMAHA		HOLE NUMBER SB18	
1. COMPANY NAME US ARMY CORPS OF ENGINEERS		2. DRILL SUBCONTRACTOR OMAHA DISTRICT		SHEET 1 OF 2 SHEETS	
3. PROJECT HIMCO DUMP SUPERFUND SITE			4. LOCATION ELKHART, INDIANA		
5. NAME OF DRILLER AL OAKS			6. MANUFACTURER'S DESIGNATION OF DRILL GUS PECH GP-750		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" OD stainless steel split spoons		4 1/4" ID HOLLOW STEM CAS AUGERS CAS		8. HOLE LOCATION SEE BELOW	
12. OVERBURDEN THICKNESS 6.0ft			10. DATE STARTED 10/19/98		11. DATE COMPLETED 10/19/98
13. DEPTH DRILLED INTO ROCK Ø			15. DEPTH GROUNDWATER ENCOUNTERED 4.0ft		
14. TOTAL DEPTH OF HOLE 6.0ft			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED		
18. GEOTECHNICAL SAMPLES			19. TOTAL NUMBER OF CORE BOXES		
		DISTURBED Ø	UNDISTURBED Ø		
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC 3	TAL METALS 3	OTHER (SPECIFY) SVOCs-3	OTHER (SPECIFY) Cyanide-3
22. DISPOSITION OF HOLE		BACKFILLED ✓	MONITORING WELL	21. SIGNATURE OF INSPECTOR C. Brown	
LOCATION SKETCH/COMMENTS VOCs - 2 x 4 oz. SVOCs - 1 x 4 oz. Metals - 1 x 8 oz. Cyanide - 1 x 8 oz. SCALE: not to scale					
PROJECT HIMCO DUMP SUPERFUND SITE				HOLE NO. SB18	

TRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER

SB18

SHEET

2 OF 2

PROJECT **HIMCO DUMP SUPERFUND SITE**

INSPECTOR

Carwyn Strafel

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	Poorly graded sand with silt, (SP), fine sand, dry, dark brown	HS=0.0 BZ=0.0		ECML1 MEB008		10/19/98 Collect soil from 0-0.5' with shovel
	1				ECML2 MEB009	15	N=34 Recovery=1.2'
						24	
			10				
	2	Poorly graded sand with silt same as above	HS=0.0 BZ=0.0			15	N=40 Recovery=1.8'
	3					20	
						20	
						22	
	4	Poorly graded sand (SP) with gravel, medium grained sand, saturated, black, wood and plastic fragments	HS=0.0 BZ=0.0		ECML3 MEB009	15	N=30 Recovery=1.6'
	5					16	
						14	
	6					3	
	6	BOTTOM OF HOLE = 6.0'					
	7						
	8						
	9						
	10						

PROJECT **HIMCO DUMP SUPERFUND SITE**

HOLE NO. **SB18**

HTRW DRILLING LOG			DISTRICT OMAHA			HOLE NUMBER SB19	
1 COMPANY NAME US ARMY CORPS OF ENGINEERS			2 DRILL SUBCONTRACTOR OMAHA DISTRICT			SHEET SHEETS 1 OF 2	
3 PROJECT HIMCO DUMP SUPERFUND SITE				4 LOCATION ELKHART, INDIANA			
5 NAME OF DRILLER AL OAKS				6 MANUFACTURER'S DESIGNATION OF DRILL GUS PECH GP-750			
7 SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" OD stainless steel split spoons			8 HOLE LOCATION SEE BELOW			9 SURFACE ELEVATION	
			10. DATE STARTED 10/15/98		11. DATE COMPLETED 10/15/98		
12. OVERBURDEN THICKNESS 6.0ft			15. DEPTH GROUNDWATER ENCOUNTERED 4.5ft				
13. DEPTH DRILLED INTO ROCK Ø			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED				
14. TOTAL DEPTH OF HOLE 6.0ft			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)				
18. GEOTECHNICAL SAMPLES		DISTURBED Ø	UNDISTURBED Ø	19. TOTAL NUMBER OF CORE BOXES			
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC 3	TAL METALS 3	OTHER (SPECIFY) SVOCs-3	OTHER (SPECIFY) Cyanide-3	OTHER (SPECIFY) ---	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE		BACKFILLED ✓	MONITORING WELL	OTHER (SPECIFY)	22. SIGNATURE OF INSPECTOR Cawlyn Smayda		
LOCATION SKETCH/COMMENTS VOCs - 2 x 4 oz. SVOCs - 1 x 4 oz. Metals - 1 x 8 oz. Cyanide - 1 x 8 oz. SCALE: not to scale							
PROJECT HIMCO DUMP SUPERFUND SITE					HOLE NO. SB19		

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER
SB19

PROJECT
HIMCO DUMP
SUPERFUND SITE

INSPECTOR
Cameron Serrano

SHEET 2 OF 2 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	Silty sand, dense, dry, fine sand, dk brown	headspace= 0.0		MEBQCB metals, SVOCs, VOA	4	10/15/98 collect 0-0.5' with shovel
	1	brick and concrete debris	Breathing Zone= 0.0		ECMJS VOA, SVOCs	14	N=28 RCC=1.8'
	2				MEBQCB metals, VOA	14	
	3	Silty sand same as above	HS=0.0 BZ=0.0		MEBQCB metals, VOA	8	
	4	brick and concrete debris			ECMJS VOA, SVOCs	18	
	5	Poorly graded gravel with sand (GP), wet, sewer odor, black, rounded fine gravel	Sewer odor HS=0.0 BZ=0.0			21	N=39 Rec=1.5'
	6					21	
	7					18	
	8					40	N=64 Rec=1.6'
	9					24	
	10					45	
		BOTTOM OF HOLE = 6.0'					

4.5' ∇

PROJECT HIMCO DUMP SUPERFUND SITE

HOLE NO. SB19

HTRW DRILLING LOG			DISTRICT OMAHA			HOLE NUMBER SB20	
1. COMPANY NAME US ARMY CORPS OF ENGINEERS			2. DRILL SUBCONTRACTOR OMAHA DISTRICT			SHEET 1 OF 2 SHEETS	
3. PROJECT HIMCO DUMP SUPERFUND SITE				4. LOCATION ELKHART, INDIANA			
5. NAME OF DRILLER AL OAKS				6. MANUFACTURER'S DESIGNATION OF DRILL GUS PECH GP-750			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 3" OD stainless steel split spoons			4 1/4" ID HOLLOW STEM GAS AUGERS GAS		8. HOLE LOCATION SEE BELOW		
12. OVERBURDEN THICKNESS 5.3 ft				15. DEPTH GROUNDWATER ENCOUNTERED not encountered			
13. DEPTH DRILLED INTO ROCK 0				16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED			
14. TOTAL DEPTH OF HOLE 5.3 ft				17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)			
18. GEOTECHNICAL SAMPLES		DISTURBED 0	UNDISTURBED 0	19. TOTAL NUMBER OF CORE BOXES			
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC 3	TAL METALS 3	OTHER (SPECIFY) SVOCs - 3	OTHER (SPECIFY) Cyanide - 3	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
22. DISPOSITION OF HOLE		BACKFILLED ✓	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR Cavlyn Sureski		
LOCATION SKETCH/COMMENTS VOCs - 2 x 4 oz. SVOCs - 1 x 4 oz. Metals - 1 x 8 oz. Cyanide - 1 x 8 oz. SCALE: not to scale							
PROJECT HIMCO DUMP SUPERFUND SITE						HOLE NO. SB20	

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER
SB20

PROJECT
HIMCO DUMP
SUPERFUND SITE

INSPECTOR
Carolyn Smay

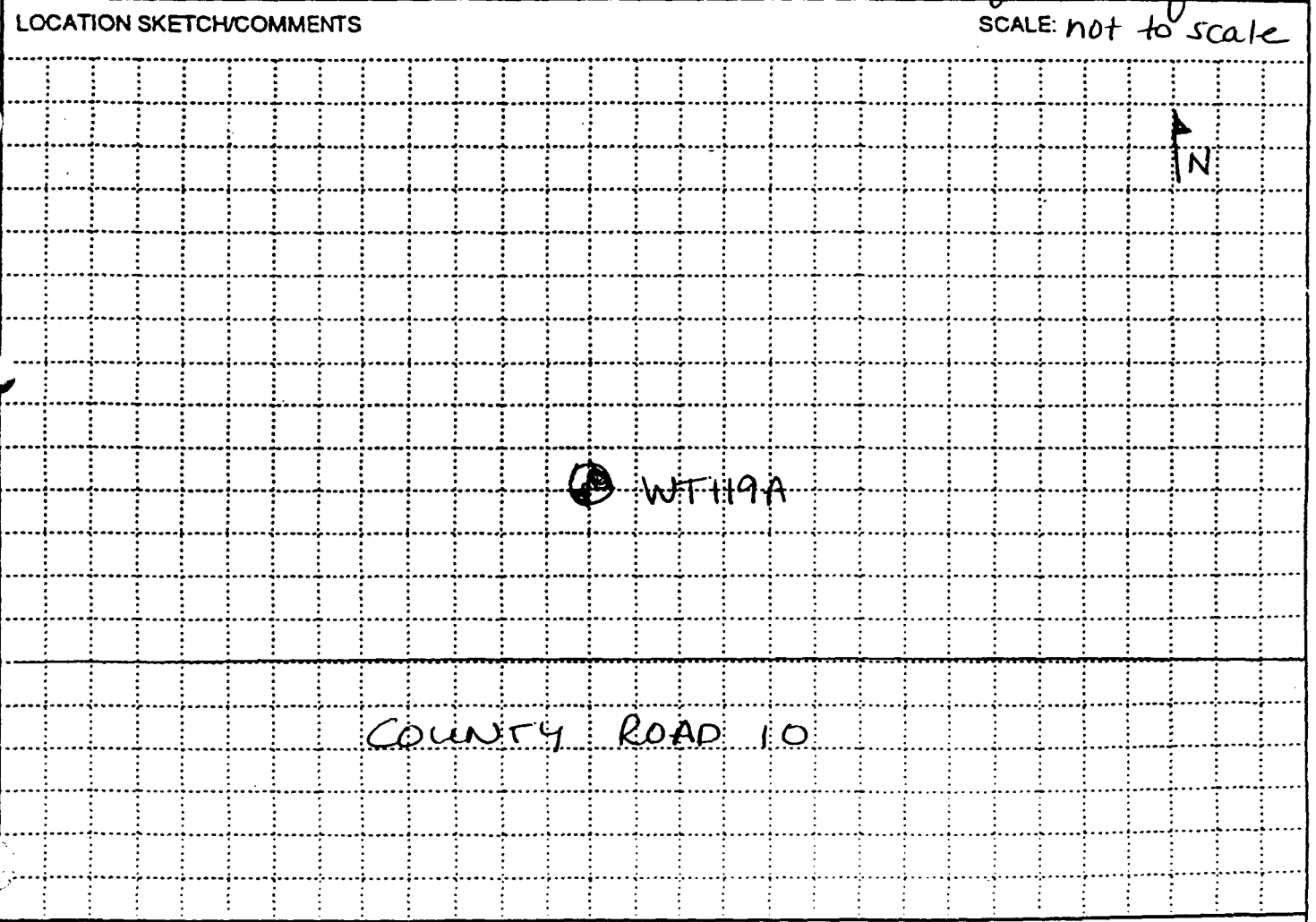
SHEET SHEETS
2 OF 2

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH/SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	Silty sand, loose, dry, dk brown, fine sand	Headspace = HS=0.0 Breathing Zone = BZ=0.0		MEB003 metals, CN ECMK4 VOA, SVOCs	2	10/15/98 N=6 Recovery=1.8'
	1				ECMK4 VOA, SVOCs	2	
					MEB004 metals, CN	4	
					0.5-2'	10	
	2	Poorly graded sand (SP) with silt, dk brown, dry, fine sand, glass fragments	HS=0.0 BZ=0.0			14	N=24 Recovery=1.7'
	3					8	
						16	
	4					6	
	5	Same as above refusal @ 5.3'	HS=0.0 BZ=0.0		2-5.3	13	N=74+ Recovery=1.0'
					ECMK1 VOAS, SVOCs	14	
		Bottom of hole = 5.3'				60	refusal @ 5.3' concrete?
	6						
	7						
	8						
	9						
	10						

PROJECT HIMCO DUMP SUPERFUND SITE

HOLE NO. SB20

HTRW DRILLING LOG		DISTRICT OMAHA		HOLE NUMBER WT119A	
1. COMPANY NAME US ARMY CORPS OF ENGINEERS		2. DRILL SUBCONTRACTOR OMAHA DISTRICT		SHEET SHEETS 1 OF 3	
3. PROJECT HIMCO DUMP SUPERFUND SITE			4. LOCATION ELKHART, INDIANA		
5. NAME OF DRILLER AL OAKS			6. MANUFACTURER'S DESIGNATION OF DRILL GUS PECH GP-750		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		4 1/4" ID HOLLOW STEM AUGERS		8. HOLE LOCATION SEE BELOW	
2" & 3" stainless steel augers CAS		split spoons		9. SURFACE ELEVATION	
bullet bit on augers		10. DATE STARTED 10/14/98		11. DATE COMPLETED 10/19/98	
12. OVERBURDEN THICKNESS 18.0'		13. DEPTH DRILLED INTO ROCK Ø		15. DEPTH GROUNDWATER ENCOUNTERED 9.5'	
14. TOTAL DEPTH OF HOLE 18.0ft		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED 9.4'		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	
18. GEOTECHNICAL SAMPLES		DISTURBED Ø	UNDISTURBED Ø	19. TOTAL NUMBER OF CORE BOXES Ø	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC Ø	TAL METALS Ø	OTHER (SPECIFY) SVOCs - Ø	OTHER (SPECIFY) Cyanide - Ø
22. DISPOSITION OF HOLE		BACKFILLED	MONITORING WELL ✓	21. SIGNATURE OF INSPECTOR <i>Cawthron Sweeney</i>	



PROJECT HIMCO DUMP SUPERFUND SITE	HOLE NO. WT119A
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HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER
WT 119A
SHEET 2 OF 3 SHEETS

PROJECT HIMCO DUMP SUPERFUND SITE

INSPECTOR Carolyn Swartz

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEO TECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	Sandy silt (sm)				2	10/14/98
		dry, brown, trace gravel, fine sand					1015
	1	roots, rounded gravel	B2=0.0			3	2" split spoons
						3	Rec=1.8'
							N=6
	2	Poorly graded sand				4	
		Sandy silt with silt				5	
		fine sand, dry (SP)					
	3	dk brown	B2=0.0			11	Rec=2.0'
		Color change to				13	N=24
	4	reddish brown				15	
	5	Poorly graded sand	B2=0.0			10	
		same as above				10	Rec=1.8'
		becoming more coarse, reddish brown				11	N=21
	6					10	
	7	Poorly graded sand	B2=0.0			9	
		fine sand, medium grained, dry				8	N=15
		tan				7	Rec=2.0
						7	
	8	Poorly graded sand				3	
		(SP), tan				4	N=7
	9		B2=0.0			3	Rec=2.0'
						4	
	10	wet					

1330
9.4'
1045
9.5'
D
=

PROJECT HIMCO DUMP SUPERFUND SITE

HOLE NO. WT 119A

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER
WT119A
SHEET 2 OF 3 SHEETS

PROJECT **HIMCO DUMP SUPERFUND SITE**

INSPECTOR **Carolyn Smadell**

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)	
10.5 11	10	Poorly graded sand (SP), saturated, loose, tan, medium grained sand, rounded	BZ=0.0			1	N=2 Rec=2.0'	
	11					1		
						1		
						3		
	12					2		
13		Poorly graded sand (SP), saturated tan, fine sand	BZ=0.0			2	N=5 Rec=2'	
						3		
						3		
14		SP same as above	BZ=0.0			2	1225 Water level @ 9.4' N=2 Rec=1.0ft	
15						1		
						1		
16		SP same as above	BZ=0.0			2	N=2 Rec=1.5' added 15 gallons of water to auger	
17		Well graded sand with gravel, loose, rounded gravel, fine to coarse sand, saturated, brown						1
								1
18		BOTTOM OF HOLE = 18.0'					remove inner bit, add 35 gallons water monitoring well installed see well installation diagram	
19								
20								

PROJECT **HIMCO DUMP SUPERFUND SITE**

HOLE NO. **WT119A**

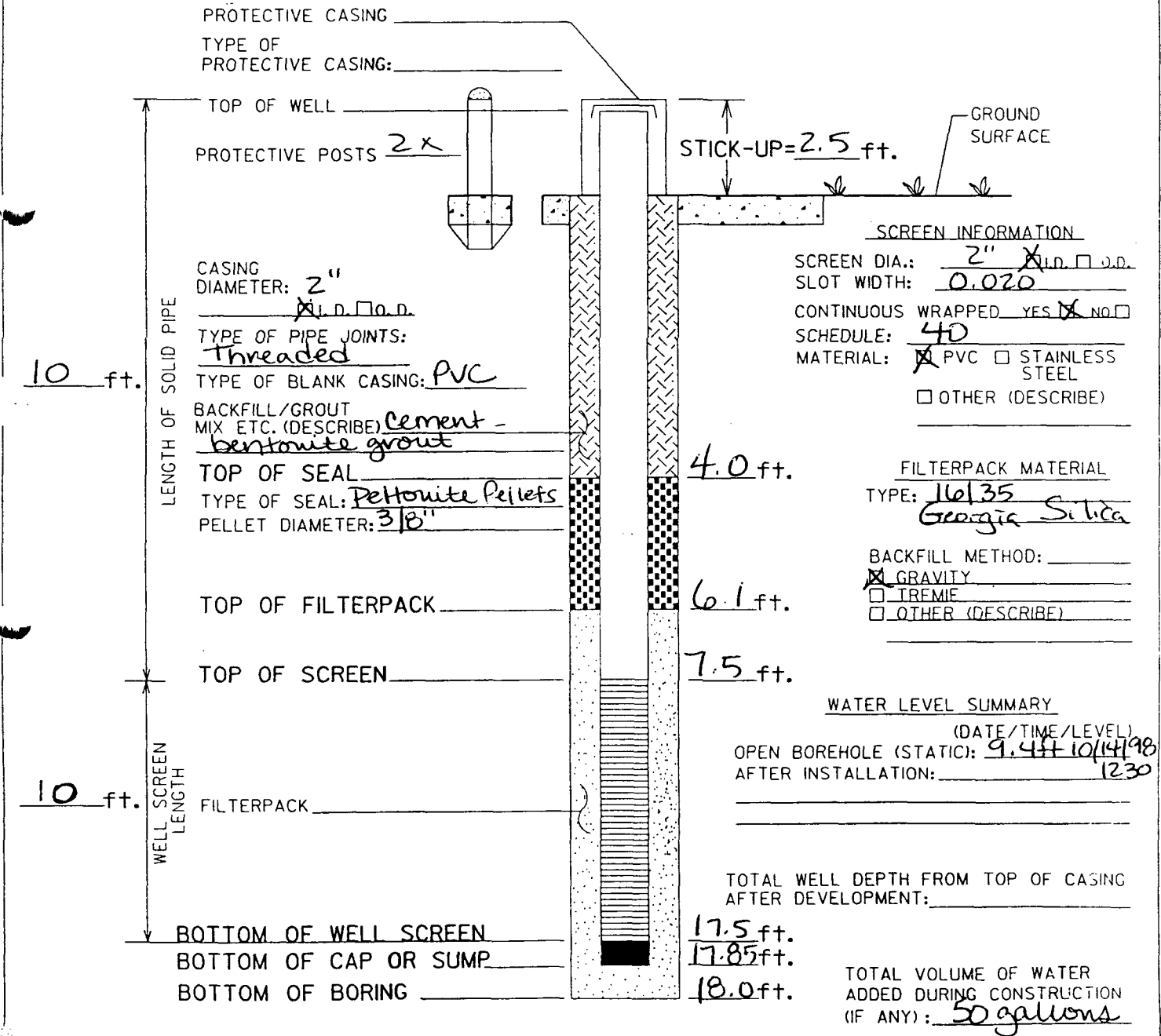
Appendix B

**1998 Supplemental Site Investigation
Monitoring Well Construction Diagram**

PROJECT Himco Dump SUPERFUND SITE		WELL NUMBER WT 119A	
DATE INSTALLED	STARTED Oct 14	COMPLETED Oct 19, 1998	LOCATION (Coordinates or Station)
SIGNATURE OF INSPECTOR/INSTALLER <i>Carolyn S. [Signature]</i>		ELEVATION OF HOLE	
TOTAL DEPTH OF BOREHOLE 18.0 ft	BORING DIAMETER 8"	ELEVATION OF GROUND WATER IN WELL (DATE)	

MONITORING WELL CONSTRUCTION DIAGRAM

NO SCALE
(ALL MEASUREMENTS FROM GROUND SURFACE)



Appendix C

**1998 and 2000 Supplemental Site Investigation
Monitoring Well Development Records and Photos**

1998 Supplemental Site Investigation Records

WELL DEVELOPMENT LOG

PROJECT NAME: Himco Dump Superfund Site

WELL NUMBER: WT116A

OPENED: DATE	10/14/98	TIME	0925	CLOSED: DATE	10/14/98	TIME	1323
Water Level (TOC)	9.49		ft	Water Level (TOC)	11.60		ft
Well Depth (TOC)	14.85		ft	Well Depth (TOC)	16.36		ft
Design Depth (TOC)	15.0		ft	Design Depth (TOC)	15.0		ft
Est. Sed. In Well	0.15		ft	Est. Sed. In Well	0		ft
Depth to Floating Product (TOC)	N/A		ft	Depth to Floating Product (TOC)	N/A		ft
Floating Product Thickness	N/A		ft	Total Water Removed	24		gals

SURGING/BAILING DATA

METHOD/EQUIPMENT OF DEVELOPMENT: QED Well Wizard without Wipers

TIME		TOTAL GAL.	WATER CLARITY	REMARKS (Amt./Type of Sediment, etc.)
SURGING	PUMPING			
0938-0948		0	-	-
	0948-1020	4	Black	Slight petroleum or organic smell, some filter pack sand.
1020-1050		4	-	-
	1050-1103	8	Black	Slight petroleum or organic smell, some filter pack sand.
1112-1132		8	-	-

CONTINUOUS PUMPING DATA

PUMPING METHOD: QED Well Wizard

TIME	TOTAL GAL.	pH	TEMP. (°C)	SP. COND. (mV)	TURB. (NTU)	REMARKS
1153	12	7.45	16.0	-34.0	>200	Black Colored
1158	13	7.40	15.9	-29.7	>200	Visibly clearing
1203	14	7.40	15.5	-29.9	-	Turbidity meter not working
1209	15	7.42	15.3	-31.2	-	"
1214	16	7.40	15.1	-30.0	-	"
1218	17	7.37	15.1	-28.5	-	"
1225	18	7.38	14.9	-28.6	23.7	Turbidity meter placed on AC jack

* Total includes water removed during surging and bailing.

COMMENTS: Well cap opened at 0820 and allowed to vent prior to starting work. Slight petroleum or organic smell. PID readings at 0923 = 0.0 ppm background; 0.0 ppm at top of well casing. One well volume = (15.0-9.49) * 0.17 = 0.9 gals.

INSPECTOR: Richard J. Grabowski

WELL DEVELOPMENT LOG (CONTINUED)

PROJECT NAME: Himco Dump Superfund Site

WELL NUMBER: WT116A

TIME	TOTAL GAL.	pH	TEMP. (°C)	SP. COND. (mV)	TURB. (NTU)	REMARKS
1230	19	7.36	14.9	-28.1	21.9	
1237	20	7.37	14.8	-28.0	13.4	
1241	21	7.37	14.8	-28.5	18.8	
1245	22	7.38	14.8	-28.9	13.9	
1251	23	7.37	14.7	-28.3	15.9	
1259	24	7.37	14.6	-28.2	15.1	Pump shut down. End of development

COMMENTS: _____

INSPECTOR: Richard J Grabowski

WELL DEVELOPMENT LOG

PROJECT NAME: Himco Dump Superfund SiteWELL NUMBER: WT119A

OPENED: DATE	<u>10/15/98</u>	TIME	<u>0732</u>	CLOSED: DATE	<u>10/15/98</u>	TIME	<u>1350</u>
Water Level (TOC)	11.52		ft	Water Level (TOC)	11.60		ft
Well Depth (TOC)	18.34		ft	Well Depth (TOC)	20.32		ft
Design Depth (TOC)	20.4		ft	Design Depth (TOC)	20.4		ft
Est. Sed. In Well	2.06		ft	Est. Sed. In Well	0.08		ft
Depth to Floating Product (TOC)	N/A		ft	Depth to Floating Product (TOC)	N/A		ft
Floating Product Thickness	N/A		ft	Total Water Removed	63		gals

SURGING/BAILING DATA

METHOD/EQUIPMENT OF DEVELOPMENT: QED Well Wizard without Wipers

TIME		TOTAL GAL.	WATER CLARITY	REMARKS (Amt./Type of Sediment, etc.)
SURGING	PUMPING			
	0830-0834	3	Brown	Large amount of fine sand.
0836-0856		3	-	-
	0900-0920	12	Brown	Large amount of fine sand.
0927-0947		12	-	-
	1002-1007	15	Brown	Some fine sand.
1009-1059		21	Brown	Some fine sand.

CONTINUOUS PUMPING DATA

PUMPING METHOD: QED Well Wizard

TIME	TOTAL GAL.	pH	TEMP. (°C)	SP. COND. (mV)	TURB. (NTU)	REMARKS
1138	21	-	-	-	-	Begin continuous pumping.
1145	24	6.81	14.0	-3.2	>200	
1153	27	6.82	14.1	-2.2	>200	
1200	30	6.87	14.0	-6.0	54.2	
1207	33	6.95	14.1	-9.7	38.8	
1213	36	6.95	14.2	-9.3	34.1	
1220	39	6.92	15.6	-8.2	53.4	

* Total includes water removed during surging and bailing.

COMMENTS: One well volume = (20.4-11.52) * 0.17 = 1.5 gals.INSPECTOR: Richard J. Grabowski

WELL DEVELOPMENT LOG (CONTINUED)

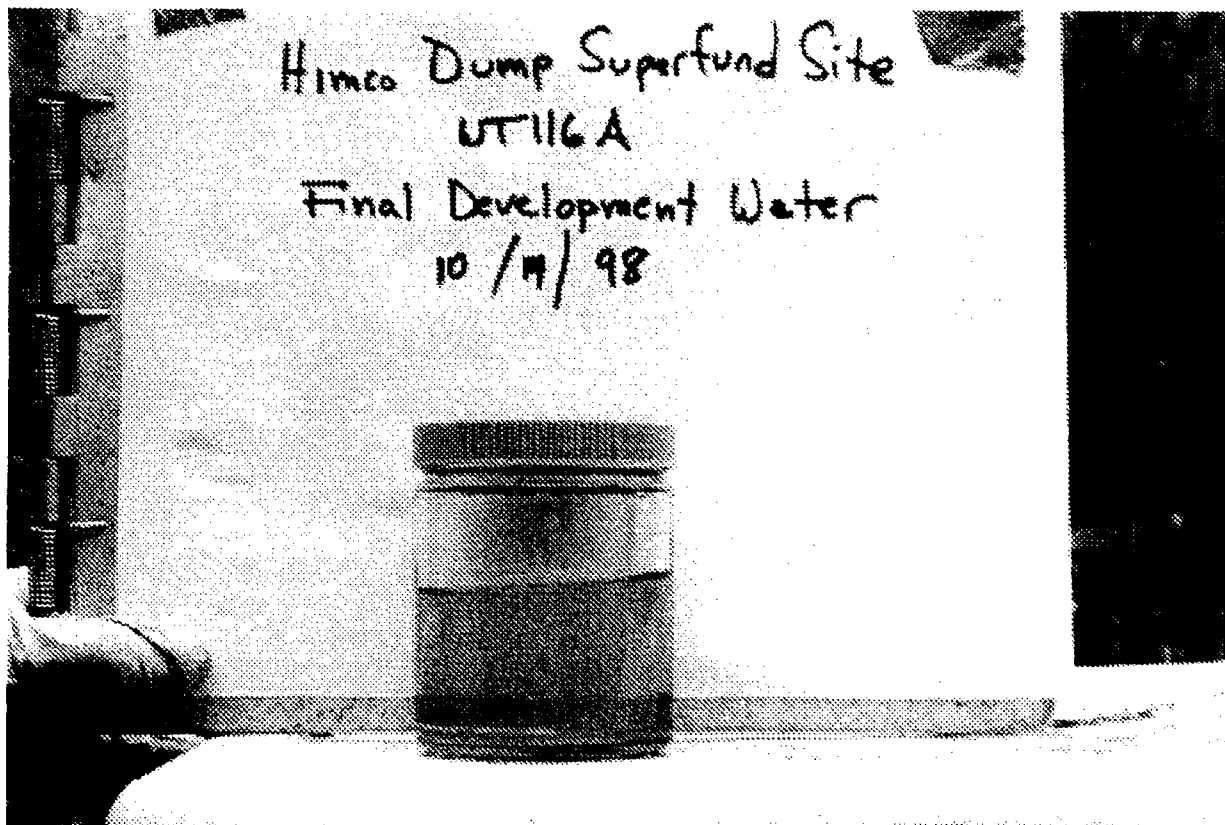
PROJECT NAME: Himco Dump Superfund Site

WELL NUMBER: WT119A

TIME	TOTAL GAL.	pH	TEMP. (°C)	SP. COND. (mV)	TURB. (NTU)	REMARKS
1228	42	7.00	15.1	-12.7	38.1	
1236	45	6.99	15.8	-11.8	28.8	
1243	48	6.97	15.5	-10.8	24.8	
1250	51	6.92	15.4	-7.6	21.5	
1300	54	6.89	15.6	-10.8	18.8	
1306	57	6.94	16.1	-10.8	17.6	
1314	60	6.99	16.0	-11.6	16.9	
1320	63	6.98	16.0	-11.3	16.0	Development complete.

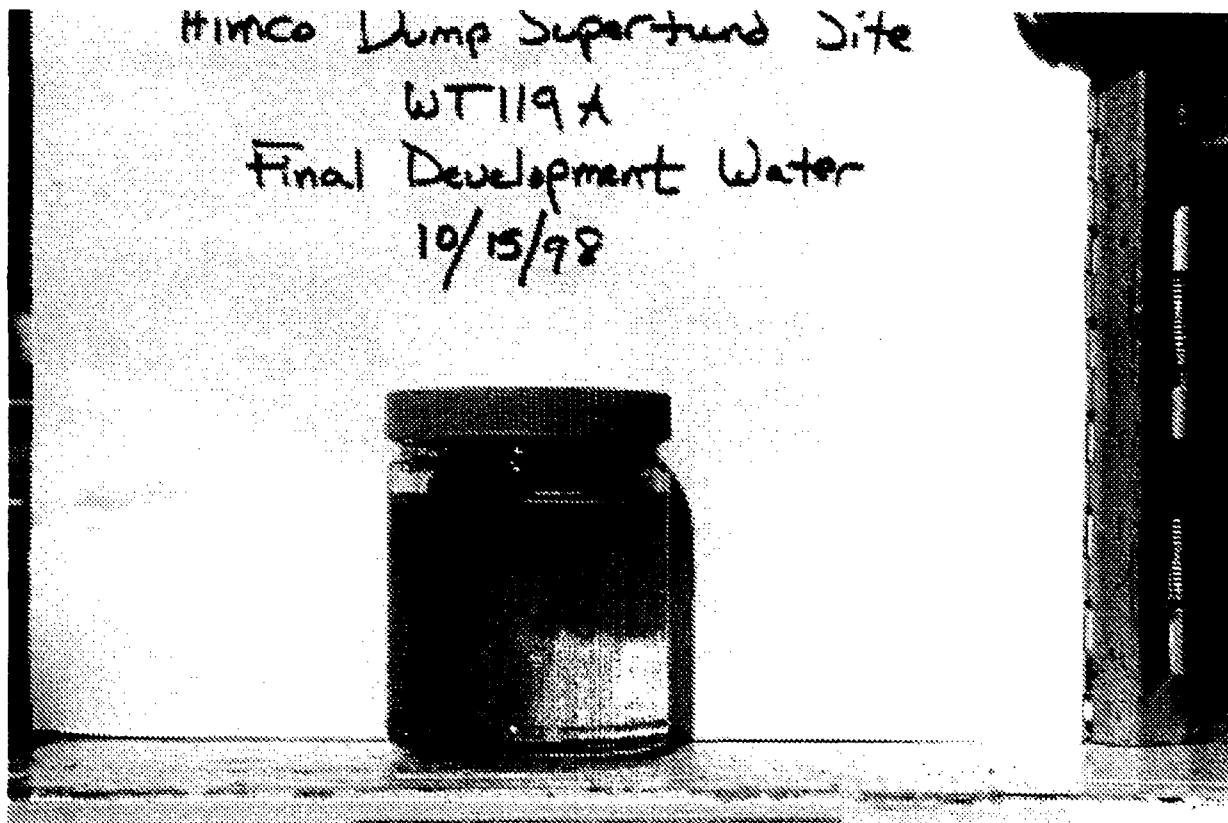
COMMENTS:

INSPECTOR: Richard J Grabowski



Himco Dump Superfund Site
WT116A
Final Development Water
10 / 11 / 98

Monitoring Well WT116A Final Development Water Sample



Himco Dump Superfund Site
WT119A
Final Development Water
10 / 15 / 98

Monitoring Well WT119A Final Development Water Sample

2000 Supplemental Site Investigation Records

**HIMCO DUMP SUPERFUND SITE
WELL DEVELOPMENT RECORD**

SITE & WELL DATA

Project: <u>Himco</u>	Well Number: <u>B-1</u>
Location: <u>Elkhart, IN</u>	TOC Elevation:
Well Coordinates:	Ground Elevation:
Date Well Installed: <u>10/6/77</u>	Installed Well Depth (TOC): <u>473'</u>
Date Well Developed: <u>03/15/00</u>	Screened Interval (TOC): <u>467-473'</u>
Fluid Losses During Drilling:	Casing Diameter: <u>5" PVC</u>

DEVELOPMENT DATA

<input type="checkbox"/> Initial Development	<input checked="" type="checkbox"/> Redevelopment	Weather Conditions: <u>ptly sunny</u>
Static Water Level (TOC): Initial: <u>8.35</u> Time: _____ Final: _____ Time: _____		Sounded Depth (TOC): Initial: <u>471</u> Time: <u>21028 3/15/00</u> Final: <u>472.3</u> Time: <u>1450 3/15/00</u>
Development Start: Date: <u>3/15/00</u> Time: <u>1123</u>		Development Finish: Date: _____ Time: _____
Post Development Water: Jar Photographed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No *Measured Sediment Thickness in Jar: _____		

Development Method (Completely describe development method to include all equipment and procedures):

H₁ capacity pump @ ≈ 30 gpm
5 gal in 5 sec = 37.5 gal/min @ 1146
5 gal in 5 sec @ 1235

Misc. Notes:

Submerged Volume Calculation:	One Submerged Volume: <u>~482 gal</u>
--------------------------------------	---

Time	Pump Rate (gpm)	Volume Removed (gal)	pH	Temp. (°C)	Turb. (ntu)	Cond. (mV)	D.O. (mg/L)	Eh (mV)	Remarks (Color, odor, etc.)
11:23									
11:28			7.53	11.82	11.8	645	1.07	157	≈ Clear D.T.W. 27.23
11:47			7.61	12.86	11.8	645	0.56	3	Cl = 1.11? D.T.W. 27.61
12:25			7.64	15.42	9.3?	643	0.55	-22	27.70
12:35	~37 gpm	2664 gal	7.58	13.74	3.4?	626	0.13	-100	Cl = 1.11 H ₂ O = 0 w/ 16.2ev in 27.72 21 NTU w/ Hach
12:40		2849							

Name: <u>L.R. Watson</u> <u>Doug Yeskis</u>	Firm: <u>USGS</u> <u>USEPA</u>
Signature: <u>L.R. Watson</u> <u>Doug Yeskis</u>	Date: <u>03/05/00</u> Page <u>1 of 2</u>

SITE & WELL DATA

Project:

Well Number:

Location:

TOC Elevation:

DEVELOPMENT DATA (CONT.)

Misc. Notes: B-3 8.01 , B-4 7.09 , Depth to water prior to B-1 development

B-3 8.01 @ 12:37

B-4 7.10 @ 12:38

B-3 8.01 @ 13:52

B-1 7.03 @ 13:53

Time	Pump Rate (gpm)	Volume Removed (gal)	pH	Temp. (°C)	Turb. (ntu)	Cond. (mV)	D.O. ()	Eh ()	Remarks (Color, odor, etc.)
1250		2849							
1255			7.60	13.30	1.7	626	0.27	-111	CI = 1.10? DTW = 27.19
13:09	37.5 gal	3	7.60	13.33	16	626	0.11	-131	CI = 1.11 DTW = 27.72
1333			7.63	13.34	12.3	626	0.11	-137	CI = 1.10
1335		47 min 4351-4514							
1340		4514							
1346			7.67	13.30	12.2	625	0.11	-141	CI = 1.10?
1352			7.66	13.34	29.2	626	0.11	-142	CI = 1.10 DTW = 28.00
1401		5291 pulled							
		for	VOA						
			SVOc						FDCK9 - OTR#
			Br						
			Sox						
			metals						
			checked pH for						VOA + Metals
			both						pH = 1
			when pulled the weight (partially sealed pipe) from bottom						
			of well (used in sounding the well bottom) a strong chemical						
			odor was observed. No readings detected on H/Ni (10.24/11.7eV)						

pump on

stopped pump OK

Name: Lee Watson

Doug Yeskis

Firm: USGS

USEPA

(amps used)

Signature:

Doug Yeskis

Date: 3/14/00

Page 2 of 2

HIMCO DUMP SUPERFUND SITE
WELL DEVELOPMENT RECORD

SITE & WELL DATA

Project: <u>Himco</u>	Well Number: <u>B-3</u>
Location: <u>Elkhart, IN</u>	TOC Elevation:
Well Coordinates:	Ground Elevation:
Date Well Installed: <u>10/17/77</u>	Installed Well Depth (TOC): <u>135'</u>
Date Well Developed:	Screened Interval (TOC): <u>125-135'</u>
Fluid Losses During Drilling:	Casing Diameter: <u>5" PVC</u>

DEVELOPMENT DATA

<input type="checkbox"/> Initial Development	<input checked="" type="checkbox"/> Redevelopment	Weather Conditions: <u>Partly Sunny, Pleasant</u>
Static Water Level (TOC): Initial: <u>8.01</u> Time: _____ Final: _____ Time: _____	Sounded Depth (TOC): Initial: <u>128.90</u> Time: _____ Final: _____ Time: _____	Post Development Water: Jar Photographed <input type="checkbox"/> Yes <input type="checkbox"/> No
Development Start: Date: <u>03/15/00</u> Time: <u>1445</u>	Development Finish: Date: <u>3/15/00</u> Time: <u>1600</u>	*Measured Sediment Thickness in Jar: _____

Development Method (Completely describe development method to include all equipment and procedures):

Hi-Cap Submersible
B4-DTW @ 1509 = 7.10
B-1-DTW @ 1510 = 8.31

Misc. Notes: 5 gal 8.5 sec
≈ 10 vols 1525

Submerged Volume Calculation:

One Submerged Volume:

Time	Pump Rate (gpm)	Volume Removed (gal)	pH	Temp. (°C)	Turb. (ntu)	Cond. (mV)	D.O. ()	Eh ()	Remarks (Color, odor, etc.)
<u>1445</u>	<u>on</u>								
<u>1447</u>									<u>DTW 10.12</u>
<u>1450</u>	<u>35</u>		<u>7.63</u>	<u>11.68</u>	<u>77.9</u>	<u>688.7</u>	<u>0.68</u>	<u>15</u>	<u>DTW 10.11</u>
<u>1500</u>		<u>525</u>	<u>7.54</u>	<u>11.45</u>	<u>10.8</u>	<u>685.6</u>	<u>0.14</u>	<u>-73</u>	<u>DTW 10.17</u>
<u>1508</u>			<u>7.53</u>	<u>11.65</u>	<u>11.1</u>	<u>683.4</u>	<u>0.13</u>	<u>-87</u>	<u>DTW 10.15</u>
<u>1510</u>	<u>off</u>	<u>805</u>							

Name: <u>LR Watson</u> <u>Doug Yeskis</u>	Firm: <u>USGS</u>
Signature: <u>LR Watson</u> <u>Doug</u>	Date: _____ Page <u>1</u> of <u>2</u>

SITE & WELL DATA

Project: Himco Landfill	Well Number: B-3
Location: Elkhart, IN	TOC Elevation:

DEVELOPMENT DATA (CONT.)

Misc. Notes: 138 gal/vol

Time	Pump Rate (gpm)	Volume Removed (gal)	pH	Temp. (°C)	Turb. (ntu)	Cond. (mV)	D.O. ()	Eh ()	Remarks (Color, odor, etc.)
1515	ON	805							
1520			7.54	11.71	3.4	685.2	0.15	-83	
1525	35		7.54	11.73	2.8	686.6	0.14	-88	DTW 10.15
1525	off	1155							
1530									Bubbles in flow thru chamber
1537			7.54	11.62	4.1	686.4	0.23	-64	
1541	off	1330							
1546	on	1330							
1555			7.54	11.61	5.8	6.84	0.13	-99	DTW 10.18
1600	off	2870							
									pulled sample for:
									VOC
									SVOC
									EDCL
									Br ⁻
									SO ₄ ⁻²
									Metals

Name: Doug Yeski's	Firm: USEPA
Signature: Doug Yeski's	Date: 3/15/00
	Page 2 of 2

**HIMCO DUMP SUPERFUND SITE
WELL DEVELOPMENT RECORD**

SITE & WELL DATA

Project: <u>Himco</u>	Well Number: <u>B-4</u>
Location: <u>Elkhart, IN</u>	TOC Elevation:
Well Coordinates:	Ground Elevation:
Date Well Installed: <u>10/7/77</u>	Installed Well Depth (TOC): <u>173'</u>
Date Well Developed:	Screened Interval (TOC): <u>168-173'</u>
Fluid Losses During Drilling:	Casing Diameter: <u>5" PVC</u>

DEVELOPMENT DATA

<input type="checkbox"/> Initial Development	<input checked="" type="checkbox"/> Redevelopment	Weather Conditions: <u>Nearly sunny</u>
Static Water Level (TOC): Initial: _____ Time: _____ Final: _____ Time: _____		Post Development Water: Jar Photographed <input type="checkbox"/> Yes <input type="checkbox"/> No
Sounded Depth (TOC): Initial: _____ Time: _____ Final: _____ Time: _____		
Development Start: Date: <u>3/15/00</u> Time: <u>1634</u>		*Measured Sediment Thickness in Jar: _____
Development Finish: Date: _____ Time: _____		

Development Method (Completely describe development method to include all equipment and procedures):

Submersible Hi-Cap

Misc. Notes: 176 gal/vol 7.5 sec. to fill 5 gal bucket
4 gal/min

Submerged Volume Calculation:

One Submerged Volume:

Time	Pump Rate (gpm)	Volume Removed (gal)	pH	Temp. (°C)	Turb. (ntu)	Cond. (mV)	D.O. ()	Eh ()	Remarks (Color, odor, etc.)
1634	on								
1647			7.53	11.75	3.9	500	0.18	-111	CI = 1.09? DTW 4.85'
1655		840	7.54	11.77	2.7	503	0.14	-120	CI = 1.09
1656									
1701									
1703		960	7.61	11.78	2.9	502	0.16	-122	CI = 1.09?

Name: Doug Yestis

Firm: USEPA

Signature: Doug Yestis

Date: 3/15/00

Page 1 **of** 2

HIMCO DUMP SUPERFUND SITE
WELL DEVELOPMENT RECORD

SITE & WELL DATA

Project: Himco Landfill

Well Number: B-4

Location: Elkhart, IN

TOC Elevation:

DEVELOPMENT DATA (CONT.)

Misc. Notes:

Time	Pump Rate (gpm)	Volume Removed (gal)	pH	Temp. (°C)	Turb. (ntu)	Cond. (mV)	D.O. ()	Eh ()	Remarks (Color, odor, etc.)
1705			7.58	11.81	131	502	0.14	-122	
1706		1040	"	11.82	5.5	504	0.14	-122	
1707	off								
1712	on								
1713			7.63	11.86	4.2	504	0.16	-126	
1716		1200	7.60	11.79	10.0	503	0.14	-126	CI=1.09 DTW=8.91
1721			7.59	11.82	3.5	508	0.07	-128	CI=1.09 DTW=8.90
1723									Starting Light Blue
1726			sampled sulfate						began sampling
1727	off	1640							

Name: Doug Yeskis

Firm: USEPA

Signature: Doug Yeskis

Date: 3/15/00

Page 2 of 2

**HIMCO DUMP SUPERFUND SITE
WELL DEVELOPMENT RECORD**

SITE & WELL DATA

Project: <u>Himco</u>	Well Number: <u>E-3</u>
Location: <u>Elkhart, IA</u>	TOC Elevation:
Well Coordinates:	Ground Elevation:
Date Well Installed: <u>10/11/77</u>	Installed Well Depth (TOC): <u>176</u>
Date Well Developed:	Screened Interval (TOC): <u>171-176</u>
Fluid Losses During Drilling:	Casing Diameter: <u>175.02 + 0.65 =</u>

DEVELOPMENT DATA

174.98 + 0.65

<input type="checkbox"/> Initial Development	<input checked="" type="checkbox"/> Redevelopment	Weather Conditions: <u>Cloudy ≈ 32°F</u>
Static Water Level (TOC): Initial: <u>13.36</u> Time: <u>10:03</u> Final: _____ Time: _____	Sounded Depth (TOC): Initial: <u>175.63</u> Time: <u>1002</u> Final: <u>175.67</u> Time: _____	Post Development Water: Jar Photographed <input type="checkbox"/> Yes <input type="checkbox"/> No
Development Start: Date: _____ Time: _____	Development Finish: Date: _____ Time: _____	*Measured Sediment Thickness in Jar: _____

Development Method (Completely describe development method to include all equipment and procedures):

Well near road 53.48
#8

Misc. Notes: E-1 DTW @ 0955 13.73
180 gal/vol.

Submerged Volume Calculation:

One Submerged Volume:

~180

Time	Pump Rate (gpm)	Volume Removed (gal)	pH	Temp. (°C)	Turb. (ntu)	Cond. (mV)	D.O. ()	Eh ()	Remarks (Color, odor, etc.)
1042	ON								
1046	OFF								
1048	ON								
1051			7.18	11.45	44.5	754.3	0.71	67	
1055	37.5	412	7.39	11.48	34.6	701.3	0.17	-17	
1105			7.46	11.49	41.7	677.2	0.10	-107	

Name: L R Watson

Firm: USGS

Signature: L R Watson

Date: 03/16/00

Page 1 of 2

HIMCO DUMP SUPERFUND SITE
WELL DEVELOPMENT RECORD

SITE & WELL DATA

Project: Himco Landfill

Well Number: E-3

Location: Elkhart, IN

TOC Elevation:

DEVELOPMENT DATA (CONT.)

Misc. Notes: DTW on E-1 @ 1145 = 13.73

Time	Pump Rate (gpm)	Volume Removed (gal)	pH	Temp. (°C)	Turb. (ntu)	Cond. (mV)	D.O. ()	Eh ()	Remarks (Color, odor, etc.)
1112									10.2 H ₂ O ≈ 1-2 above back
1115		1162	7.50	11.49	48.1	667.5	0.09	-128	DTW 56.31
1120	off		7.52	11.48	47.7	662.0	0.09	-131	
1130	ON	1350							
1135			7.51	11.45	18.2	658.0	0.12	-146	DTW 54.00
1140			7.55	11.49	19.4	654.6	0.10	-150	Many bubbles going into H-lab chamber
1145			7.56	11.48	23.6	647.2	0.10	-153	DTW 56.36
1147		1800							Sample Collected
1155	off								
				VOA's	EDCL 4				

Name: Lee Watson

Firm: USGS

Signature:

Date:

Page 2 of 2

**HIMCO DUMP SUPERFUND SITE
WELL DEVELOPMENT RECORD**

SITE & WELL DATA

Project: Himco Landfill	Well Number: G-1
Location: G-1 Elkhart, IN	TOC Elevation:
Well Coordinates:	Ground Elevation:
Date Well Installed: 10/17/77	Installed Well Depth (TOC): 43'
Date Well Developed:	Screened Interval (TOC): 38-43'
Fluid Losses During Drilling:	Casing Diameter: 5" PVC

DEVELOPMENT DATA

<input type="checkbox"/> Initial Development		<input checked="" type="checkbox"/> Redevelopment	Weather Conditions: Mostly Sunny, warm
Static Water Level (TOC): Initial: 13.58 Time: 15:25 Final: _____ Time: _____		Sounded Depth (TOC): Initial: 46.82 Time: 3/13/00 Final: 46.89 Time: _____	
Development Start: Date: 16-13 Time: 3/14/00		Development Finish: Date: _____ Time: _____	
Post Development Water: Jar Photographed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
*Measured Sediment Thickness in Jar: _____			

Development Method (Completely describe development method to include all equipment and procedures):

Grind fcs, 4-inch pump w/ Franklin Motor
air pump w/ occasionally turning off

Misc. Notes:

Sampled at 1710 EDCL2
for VOA + sulfate

Submerged Volume Calculation:

One Submerged Volume:
~ 44 gal.

Time	Pump Rate (gpm)	Volume Removed (gal)	pH	Temp. (°C)	Turb. (ntu)	Cond. (mV)	D.O. (mg/L)	Eh (mV)	Remarks <small>W/L Readings (Color, odor, etc.)</small>
1616	~300	~270 gal	7.8	12.21	0.7	637	0.52	-101	38.1
1655									
1701	~30 gpm	270 gal	7.44	12.07	1.57 / 6.97	631	0.97	-105	37.5 DTW 15.99
1707	~30 gpm	450 gal	7.40	11.99	Hydralab 6.5 2.92	631	0.38	-110	38.7 PT 14.03
1715		690 gal							
All flow rates 50 gpm ?? Calc by 5 gal. bucket									

Name: Doug Yeskis

Firm: USEPA

Signature: Doug Yeskis

Date: 3/14/00

Page 1 **of** 1

**HIMCO DUMP SUPERFUND SITE
WELL DEVELOPMENT RECORD**

SITE & WELL DATA

Project: <u>Himco Landfill</u>	Well Number: <u>W-3</u>
Location: <u>Elkhart, IN</u>	TOC Elevation:
Well Coordinates:	Ground Elevation:
Date Well Installed: <u>10/17/77</u>	Installed Well Depth (TOC): <u>172'</u>
Date Well Developed:	Screened Interval (TOC): <u>162-172'</u>
Fluid Losses During Drilling:	Casing Diameter: <u>5" PVC</u>

DEVELOPMENT DATA

<input type="checkbox"/> Initial Development	<input checked="" type="checkbox"/> Redevelopment	Weather Conditions: <u>Mostly Sunny, Warm</u>
Static Water Level (TOC): Initial: <u>1598.1373</u> Time: <u>1748</u> Final: _____ Time: _____		Post Development Water: Jar Photographed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Sounded Depth (TOC): Initial: <u>169.05</u> Time: <u>3/14/00</u> Final: <u>169.17</u> Time: <u>3/14/00</u>		
Development Start: Date: <u>1749</u> Time: <u>3/14/00</u>		Development Finish: Date: _____ Time: _____
*Measured Sediment Thickness in Jar: _____		

Development Method (Completely describe development method to include all equipment and procedures):

Misc. Notes:

Submerged Volume Calculation:

One Submerged Volume:
~175 gal.

Time	Pump Rate (gpm)	Volume Removed (gal)	pH	Temp. (°C)	Turb. (ntu)	Cond. (mV)	D.O. ()	Eh ()	Remarks
1752									24.70
1753									23.00
1756	30 gpm	120 gal	7.47	11.75	7100	537.3	1.71	-48	4.5 units above base 3605 21.90
1810		540 gal	7.45	10.75	7100	620.9	0.68	-69	13 59.9 21.34
1819		810 gal							spring hose leak
1830	30 gpm								

Name: <u>Lee Watson</u>	<u>Doug Yeski's</u>	Firm: <u>USGS</u>	<u>USEPA</u>
Signature:	<u>Doug Yeski's</u>	Date: <u>3/14/00</u>	Page <u>1</u> of <u>2</u>

HIMCO DUMP SUPERFUND SITE
WELL DEVELOPMENT RECORD

SITE & WELL DATA

Project: Himco Landfill Well Number: G-3
 Location: Elkhart, IN TOC Elevation:

DEVELOPMENT DATA (CONT.)

Misc. Notes:

13.60 G-1 @ 1836

Time	Pump Rate (gpm)	Volume Removed (gal)	pH	Temp. (°C)	Turb. (ntu)	Cond. (mV)	D.O. ()	Eh ()	Remarks
1835	30 gpm	960 gal	7.45	11.32	92.27 ^{Hash}	659.2	0.45	-46	Handwritten: 74.5, 23, 2345
1844		1230 gal							
Discharge Hose keeps breaking									
1854 pulled sample of VOA's + sulfate									
ran pump for ~1 min to fill bottles only.									

stopped pump

**HIMCO DUMP SUPERFUND SITE
WELL DEVELOPMENT RECORD**

SITE & WELL DATA

Project:	Well Number: J1
Location: Elkhart, IN	TOC Elevation:
Well Coordinates:	Ground Elevation:
Date Well Installed: 10/12/77	Installed Well Depth (TOC): 40'
Date Well Developed:	Screened Interval (TOC): 35-40'
Fluid Losses During Drilling:	Casing Diameter: 5" PVC

DEVELOPMENT DATA

<input type="checkbox"/> Initial Development	<input checked="" type="checkbox"/> Redevelopment	Weather Conditions: cd overcast
Static Water Level (TOC): Initial: 18.54 Time: _____ Final: _____ Time: _____	Sounded Depth (TOC): Initial: _____ Time: _____ Final: _____ Time: _____	Post Development Water: Jar Photographed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Development Start: Date: _____ Time: _____	Development Finish: Date: _____ Time: _____	*Measured Sediment Thickness in Jar: _____

Development Method (Completely describe development method to include all equipment and procedures):

high Q pump Grundfos

Misc. Notes:

Submerged Volume Calculation:	One Submerged Volume: ~41 gal.
--------------------------------------	--

Time	Pump Rate (gpm)	Volume Removed (gal)	pH	Temp. (°C)	Turb. (ntu)	Cond. (mV)	D.O. (ppm)	Eh (mV)	Remarks H/W CL (Color, odor, etc.)
1610	30gpm								
1617			7.27	10.84	24.17	892	6.57	123	81.29 5ppm
1618	off	2-40							pump dewatered well
1621	on lower pump rate	15							
1625	15gpm		7.28	13.22	52.6	882	5.07	102	87.5
1627		330	7.30	13.26	39.4	878	6.41	94	94.7

Name: Doug Teskis	Firm: USEPA
Signature: Doug Teskis	Date: 3/16/02
	Page 1 of 2

HIMCO DUMP SUPERFUND SITE
WELL DEVELOPMENT RECORD

SITE & WELL DATA

Project: Himco Landfill Well Number: J1
 Location: Elkhart, IN TOC Elevation:

DEVELOPMENT DATA (CONT.)

Misc. Notes:

Time	Pump Rate (gpm)	Volume Removed (gal)	pH	Temp. (°C)	Turb. (ntu)	Cond. (mV)	D.O. ()	Eh ()	Remarks Cl ⁻ (Color, odor, etc.)
1629		360	7.30	13.22	38	878	6.47	92	94.6
	off								
1633	on								
1634			7.29	13.14	34.6	877	5.80	92	94.2
1635		⁴⁰⁵ started pulling		air					
1636									
1636	off	turned							
1641	on								
1647		sampled		for:					
1648	off	495							

Name: Doug Yeskis Firm: USEPA
 Signature: Doug Yeskis Date: 3/16/00 Page 2 of 2

Appendix D

**1996, 1998, and 2000 Supplemental Site Investigation
Monitoring Well Sampling Records**

1996 Supplemental Site Investigation Records

GROUND-WATER SAMPLING RECORD

Well ID: WT105A
 Station #: _____

Facility Name: HIMCO DUMP Date: 11 / 13 / 96

Well Depth: 17.88 + 18? Depth to Water: 12.1 Well Diameter: 2"

Casing Material: FF 55 Volume Of Water per Well Volume: 1.05

Sampling Crew: R. Duwelius T. Willoughby A. Baumann

Type of Pump: Fultz Tubing Material: Teflon Pump set at 14 ft.

Weather Conditions: P. Cloudy, Flurries, Cold NOTES: _____

GROUND-WATER SAMPLING PARAMETERS

Starte

Time	Water Level	Volume Pumped	Pumping Rate	D.O. (ppm)	Temp. (°C)	S.C. (m/cm)	pH	Eh (mV)	Turbidity (NTU)
1247									
1249	12.15	1.5		4.29	11.54	306	7.29		69.8
Pump off	1250								
1252	12.15	3.0		4.54	11.45	307	7.69		35.5
1255	12.15	4		4.88	12.03	301	7.81		21.0
1257	12.15	5		5.04	12.08	300	7.87		9.30
1258 1/2	12.16	6		5.09	12.18	302	7.87		7.17
1300	12.16	7		5.07	12.26	303	7.89		3.54
1302	12.16	8		5.12	12.18	304	7.89		.08

Filtered: Y or (N) Filter Size: _____ m Filter Capacity: _____ Brand: _____

Sampled at: 1302 Parameters taken with: Hydrolab

Sample delivered to L. Vanderpool by R. Duwelius at 1330

Sample CRL #: _____ OTR #: _____ ITR #: _____ SAS #: _____

Parameters Collected	Number of Bottles	Bottle Lot Number
VOA's	<u>2</u>	<u>B4026030</u>
SVOC's	<u>2</u>	<u>A1085030</u>
Metals	<u>1</u>	<u>C3156040</u>

FA XX 9
 ME AX N 2

GROUND-WATER SAMPLING RECORD

Well ID: INT 106A
 Station #: _____

Facility Name: Himco Dump Date: 11 / 13 / 96

Well Depth: 18.48 Depth to Water: 11.15 Well Diameter: 2"

Casing Material: SS Volume Of Water per Well Volume: 1.19

Sampling Crew: R. Duwelius, T. Willoughby, A. Baumann

Type of Pump: Fultz Tubing Material: Teflon Pump set at 14.5 ft.

Weather Conditions: P. Cloudy, Cold NOTES: _____

GROUND-WATER SAMPLING PARAMETERS

Time	Water Level	Volume Pumped	Pumping Rate	D.O. (ppm)	Temp. (°C)	S.C. (m.Scm)	pH	Eh (mV)	Turbidity (NTU)
<u>Start Time @ 1418</u>									
<u>1420</u>	<u>11.21</u>	<u>1</u>		<u>1.91</u>	<u>10.9</u>	<u>906</u>	<u>7.13</u>		<u>Red Color</u>
<u>1422</u>	<u>11.20</u>	<u>2.5</u>		<u>1.20</u>	<u>11.36</u>	<u>918</u>	<u>7.18</u>		<u>Red Color</u>
<u>1427</u>	<u>11.20</u>	<u>5</u>		<u>1.24</u>	<u>11.41</u>	<u>960</u>	<u>7.18</u>		
<u>1429</u>	<u>11.20</u>	<u>6</u>		<u>1.29</u>	<u>11.41</u>	<u>964</u>	<u>7.18</u>		<u>98.5</u>
<u>1431</u>	<u>11.20</u>	<u>8</u>		<u>1.24</u>	<u>11.50</u>	<u>968</u>	<u>7.19</u>		<u>37.4</u>
<u>1434</u>	<u>11.20</u>	<u>10</u>		<u>1.28</u>	<u>11.47</u>	<u>977</u>	<u>7.18</u>		<u>21.3</u>
<u>1437</u>	<u>11.21</u>	<u>12</u>		<u>1.27</u>	<u>11.45</u>	<u>973</u>	<u>7.17</u>		<u>11.10</u>
<u>1441</u>	<u>11.21</u>	<u>14</u>		<u>1.20</u>	<u>11.44</u>	<u>979</u>	<u>7.17</u>		<u>5.6</u>
<u>1446</u>	<u>11.21</u>	<u>16</u>		<u>1.18</u>	<u>11.45</u>	<u>982</u>	<u>7.17</u>		<u>4.88</u>
<u>1453</u>	<u>11.21</u>			<u>1.19</u>	<u>11.5</u>	<u>987</u>	<u>7.16</u>		<u>2.79</u>
<u>1454</u>	<u>Pump Off</u>								

Filtered: Y or (N) Filter Size: _____ :m Filter Capacity: _____ Brand: _____

Sampled at: _____ Parameters taken with: HydroLab

Sample delivered to _____ by R. Duwelius at 1447

Sample CRL #: _____ OTR #: _____ ITR #: _____ SAS #: _____

Parameters Collected	Number of Bottles	Bottle Lot Number
VOA's	<u>2</u>	<u>B4206030</u>
SVOC's	<u>2</u>	<u>A1134020</u>
Metals	<u>1</u>	<u>C3156040</u>

EAXY2
MEAXN3

GROUND-WATER SAMPLING RECORD

Well ID: WT111A
 Station #: _____

Facility Name: HIMCO DUMP Date: 11/13/96

Well Depth: 21.14' Depth to Water: 14.55 Well Diameter: _____
 1:04pm

Casing Material: _____ Volume Of Water per Well Volume: 1.18

Sampling Crew: _____

Type of Pump: _____ Tubing Material: _____ Pump set at _____ ft.

Weather Conditions: _____ NOTES: _____

GROUND-WATER SAMPLING PARAMETERS

Time	Water Level	Volume Pumped	Pumping Rate	D.O. (ppm)	Temp. (°C)	S.C. (m.L/cm)	pH	opt EH (mV)	Turbidity (NTU)
1:04pm									
1:23	14.75	3.0	low	.58	12.39	114	5.7		4.05
1:26.7	14.77	4.0		.50	12.43	115	5.67		3.10
1:37		5 1/2		.55	12.44	113	5.65		2.68
1:41	empty	off.							

pH strip 5-6

Filtered: Y or N Filter Size: _____:m Filter Capacity: _____ Brand: _____

Sampled at: _____ Parameters taken with: _____

Sample delivered to _____ by _____ at _____

Sample CRL #: _____ OTR #: _____ ITR #: _____ SAS #: _____

DUP

Parameters Collected	Number of Bottles	Bottle Lot Number
VOA's	2, 2	
SVOC's	2, 2	A1085030
Metals	1, 1	C31506040
EAXX9 EAXY1		
MEAXN3 MEAKN4		

GROUND-WATER SAMPLING RECORD

Well ID: WT115A

Station #: _____

Facility Name: Himco Dump Date: / /

Well Depth: 19.22' Depth to Water: 14.75 Well Diameter: 2

Casing Material: PVC Volume Of Water per Well Volume: .84

Sampling Crew: _____

Type of Pump: Fultz Tubing Material: _____ Pump set at 17 ft.

Weather Conditions: _____ NOTES: _____

flush started 3:22

GROUND-WATER SAMPLING PARAMETERS

Time	Water Level	Volume Pumped	Pumping Rate	D.O. (ppm)	Temp. (°C)	S.C. (m/1cm)	pH	Eh (mV)	Turbidity (NTU)
3:25	14.89	2.5		.35	11.97	1.422	6.8		4.3
3:28	14.91	4.0		.20	12.28	1.462	6.8		7.4
3:31	14.90	6.0		.21	12.36	1.464	6.8		3.9
3:34	14.91	8.5		.21	12.38	1.468	6.79		3.6
SAMPLE 3:35 VOA									
3:40 SVOC									
3:44 METALS									

Filtered: Y or (N) Filter Size: _____ m Filter Capacity: _____ Brand: _____

Sampled at: _____ Parameters taken with: HydroLab Scout 2

Sample delivered to _____ by _____ at _____

Sample CRL #: _____ OTR #: _____ ITR #: _____ SAS #: _____

Parameters Collected	Number of Bottles	Bottle Lot Number
VOA's	<u>2x3</u>	_____
SVOC's	<u>2x2</u>	_____
Metals	<u>1x2</u>	_____

MSD

*EAXY4
MEAKNB*

GROUND-WATER SAMPLING RECORD

Well ID: WT116A
 Station #: _____

Facility Name: HIMCO DUMP Date: 1/1

Well Depth: 14.3' Depth to Water: 8.08 Well Diameter: 2

Casing Material: pvc Volume Of Water per Well Volume: 1.12

Sampling Crew: Bellari, Vanderpool, Duwehaus

Type of Pump: Fultz Tubing Material: _____ Pump set at _____ ft.

Weather Conditions: _____ NOTES: _____

GROUND-WATER SAMPLING PARAMETERS (others 10%) (opt)

Time	Water Level	Volume Pumped	Pumping Rate	D.O. (ppm)	Temp. (°C)	S.C. (m./cm)	±, 2 pH	Eh (mV)	Turbidity (NTU)
1545									
1556		142		3.19	8.46	3070	7.14		
1600	12'	2		0.45	10.01	3100	7.12		
Pump off at 1604									
ow/1612									
1613		5		1.09	10.49	3100	7.15		
Pump off at 1614									

Filtered: Y or N Filter Size: _____ m Filter Capacity: _____ Brand: _____

Sampled at: _____ Parameters taken with: _____

Sample delivered to _____ by _____ at _____

Sample CRL #: _____ OTR #: _____ ITR #: _____ SAS #: _____

Parameters Collected	Number of Bottles	Bottle Lot Number
VOA's <u>EAXYS</u>	<u>2-40ml</u>	<u>B4206030</u> ← only
SVOC's	<u>2-80's</u>	<u>A1134020</u> ← not collect
Metals	<u>2-1L</u>	<u>C3156040</u> ← not collect

After 1 gallon fuel to lower pump
 Pump off 1548 Pump off at 1604

GROUND-WATER SAMPLING RECORD

Well ID: 77F 603A
 Station #: _____

Facility Name: Himco Dump Date: / /

Well Depth: _____ Depth to Water: _____ Well Diameter: _____

Casing Material: _____ Volume Of Water per Well Volume: _____

Sampling Crew: _____

Type of Pump: _____ Tubing Material: _____ Pump set at _____ ft.

Weather Conditions: _____ NOTES: _____

GROUND-WATER SAMPLING PARAMETERS

<u>Time</u>	<u>Water Level</u>	<u>Volume Pumped</u>	<u>Pumping Rate</u>	<u>D.O. (ppm)</u>	<u>Temp. (°C)</u>	<u>S.C. (m /cm)</u>	<u>pH</u>	<u>Ex (mV)</u>	<u>Turbidity (NTU)</u>

Filtered: Y or N Filter Size: _____ :m Filter Capacity: _____ Brand: _____

Sampled at: 1500 (11/12/96) Parameters taken with: _____

Sample delivered to _____ by _____ at _____

Sample CRL #: _____ OTR #: _____ ITR #: _____ SAS #: _____

<u>Parameters Collected</u>	<u>Number of Bottles</u>	<u>Bottle Lot Number</u>
VOA's	<u>2</u>	<u>B4206030</u>
SVOC's	_____	_____
Metals	_____	_____

EAXX8

GROUND-WATER SAMPLING RECORD

Well ID: Field 500A
 Station #: _____

Facility Name: Home Dump Date: 11/13/96

Well Depth: _____ Depth to Water: _____ Well Diameter: _____

Casing Material: _____ Volume Of Water per Well Volume: _____

Sampling Crew: Tina, Richard, Alan, LV

Type of Pump: Fultz Tubing Material: _____ Pump set at _____ ft.

Weather Conditions: _____ NOTES: _____

GROUND-WATER SAMPLING PARAMETERS

Time	Water Level	Volume Pumped	Pumping Rate	D.O. (ppm)	Temp. (°C)	S.C. (m/cm)	pH	ORP (mV)	Turbidity (NTU)

Filtered: Y or N Filter Size: _____ m Filter Capacity: _____ Brand: _____

Sampled at: 1530 Parameters taken with: _____

Sample delivered to _____ by _____ at _____

Sample CRL #: _____ OTR #: _____ ITR #: _____ SAS #: _____

Parameters Collected	Number of Bottles	Bottle Lot Number
VOA's	<u>2</u>	<u>AMB4206030</u>
SVOC's	<u>2</u>	<u>A1134020</u>
Metals	<u>1</u>	<u>C3156040</u>

EAXY3
MEAKN6

1998 Supplemental Site Investigation Records

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site

WELL NUMBER: WT101A

OPENED: DATE <u>10/21/98</u> TIME <u>0749</u>		CLOSED: DATE <u>10/21/98</u> TIME <u>0900</u>			
Water Level (TOC)	12.96	ft	Water Level (TOC)	12.96	ft
Well Depth (TOC)	18.64	ft	Well Depth (TOC)	18.64	ft
Design Depth (TOC)	See note below	ft	Design Depth (TOC)	See note below	ft
Est. Sed. In Well	See note below	ft	Est. Sed. In Well	See note below	ft
Depth to Floating Product (TOC)	N/A	ft	Depth to Floating Product (TOC)	N/A	ft
Floating Product Thickness	N/A	ft	Total Water Removed	6	gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
0805	0	-	-	-	-	-	-	Begin Pumping
0809	1	6.77	14.15	3445	-77.0	-	58.8	Water Level = 12.47 ft TOC
0814	2	6.59	15.69	3489	-85.6	-	18.1	
0819	3	6.59	16.06	3536	-91.1	-	7.4	
0826	4	6.59	16.79	3537	-95.9	-	4.2	Water Level = 12.97 ft TOC
0830	5	6.59	15.99	3547	-96.6	-	3.5	
0833	6	6.59	15.86	3548	-98.6	-	2.6	
0835								Begin Sampling
0852								End Sampling

COMMENTS: No well construction diagram available. Bottom of well measured using a ORS oil water interface probe. Bottom feels solid. No significant sediment in the well. One well volume = $(18.64-12.96) * 0.17 = 1$ gallon.

INSPECTOR: Richard J. Grabowski

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund SiteWELL NUMBER: WT102A

OPENED: DATE <u>10/19/98</u> TIME <u>1327</u>	CLOSED: DATE <u>10/19/98</u> TIME <u>1602</u>
Water Level (TOC) <u>12.69</u> ft	Water Level (TOC) <u>12.56</u> ft
Well Depth (TOC) <u>18.12</u> ft	Well Depth (TOC) <u>18.12</u> ft
Design Depth (TOC) <u>See note below</u> ft	Design Depth (TOC) <u>See note below</u> ft
Est. Sed. In Well <u>See note below</u> ft	Est. Sed. In Well <u>See note below</u> ft
Depth to Floating Product (TOC) <u>N/A</u> ft	Depth to Floating Product (TOC) <u>N/A</u> ft
Floating Product Thickness <u>N/A</u> ft	Total Water Removed <u>8</u> gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
1421	0	-	-	-	-	-	-	Begin Pumping
1424	1	6.01	15.32	2443	65.3	-	144.1	
1430	2	6.66	17.46	2215	44.9	-	24.0	Water Level = 12.59 ft TOC
1437	3	6.90	17.14	2219	48.8	-	9.8	
1442	4	7.01	16.81	2204	19.9	-	6.2	
1447	5	7.05	16.87	2198	18.2	-	3.1	Water Level = 12.59 ft TOC
1453	6	7.09	17.82	2185	18.0	-	9.6	
1500	7	7.12	18.43	2192	14.5	-	10.3	
1506	8	7.12	17.44	2196	17.9	-	7.2	
1509								Begin Sampling
1528								End Sampling

COMMENTS: No well construction diagram available. Bottom of well measured using an ORS oil water interface probe. Bottom feels solid. No significant sediment in bottom of well. One well volume = (18.12-12.69) *0.17=0.9 gal. Observed roots or other organic matter on pump when pump was pulled.

INSPECTOR: Richard J. Grabowski

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund SiteWELL NUMBER: WT112A

OPENED: DATE	<u>10/20/98</u>	TIME	<u>0847</u>	CLOSED: DATE	<u>10/20/98</u>	TIME	<u>1000</u>
Water Level (TOC)	<u>11.68</u>		<u>ft</u>	Water Level (TOC)	<u>11.68</u>		<u>ft</u>
Well Depth (TOC)	<u>17.88</u>		<u>ft</u>	Well Depth (TOC)	<u>17.88</u>		<u>ft</u>
Design Depth (TOC)	<u>17.9</u>		<u>ft</u>	Design Depth (TOC)	<u>17.9</u>		<u>ft</u>
Est. Sed. In Well	<u>0.02</u>		<u>ft</u>	Est. Sed. In Well	<u>0.02</u>		<u>ft</u>
Depth to Floating Product (TOC)	<u>N/A</u>		<u>ft</u>	Depth to Floating Product (TOC)	<u>N/A</u>		<u>ft</u>
Floating Product Thickness	<u>N/A</u>		<u>ft</u>	Total Water Removed	<u>5</u>		<u>gals</u>

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
0915	0	-	-	-	-	-	-	Begin Pumping
0918	1	7.53	13.56	1941	107.2	-	60.8	Water Level = 11.68 ft TOC
0923	2	7.37	15.43	1950	109.4	-	18.7	
0928	3	7.39	15.76	1918	107.2	-	3.4	
0934	4	7.41	16.12	1889	103.2	-	1.1	
0939	5	7.42	16.22	1882	100.1	-	0.7	
0942								Begin Sampling
0949								End Sampling

COMMENTS: One well volume = $(17.9 - 11.68) * 0.17 = 1.1$ gals. Observed roots or other organic matter on pump when pump was pulled out of the well after sampling was completed.

INSPECTOR: Richard J. Grabowski

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site

WELL NUMBER: WT114A

OPENED: DATE <u>10/20/98</u> TIME <u>1355</u>	CLOSED: DATE <u>10/20/98</u> TIME <u>1515</u>
Water Level (TOC) <u>17.94</u> ft	Water Level (TOC) <u>17.94</u> ft
Well Depth (TOC) <u>24.68</u> ft	Well Depth (TOC) <u>24.68</u> ft
Design Depth (TOC) <u>24.7</u> ft	Design Depth (TOC) <u>24.7</u> ft
Est. Sed. In Well <u>0.02</u> ft	Est. Sed. In Well <u>0.02</u> ft
Depth to Floating Product (TOC) <u>N/A</u> ft	Depth to Floating Product (TOC) <u>N/A</u> ft
Floating Product Thickness <u>N/A</u> ft	Total Water Removed <u>7</u> gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
1415	0	-	-	-	-	-	-	Begin Pumping
1421	1	7.04	15.32	3520	-138.3	-	89.3	Water Level = 17.96 ft TOC
1425	2	6.96	16.16	3590	-136.9	-	34.0	
1429	3	6.93	16.40	3679	-132.5	-	19.2	
1433	4	6.92	16.42	3909	-130.0	-	11.1	
1439	5	6.90	16.41	3998	-128.5	-	7.5	
1444	6	6.90	16.19	4007	-118.7	-	4.3	cleaned flow-through cell out
1448	7	6.89	16.49	4021	-122.7	-	3.4	
1450								Begin Sampling
1458								End Sampling

COMMENTS: One well volume = (24.7-17.94) * 0.17 = 1.1 gals.

INSPECTOR: Richard J. Grabowski

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site

WELL NUMBER: WT115A

OPENED: DATE	10/21/98	TIME	1028	CLOSED: DATE	10/21/98	TIME	1200
Water Level (TOC)	14.46		ft	Water Level (TOC)	14.46		ft
Well Depth (TOC)	19.79		ft	Well Depth (TOC)	19.79		ft
Design Depth (TOC)	19.9		ft	Design Depth (TOC)	19.9		ft
Est. Sed. In Well	0.11		ft	Est. Sed. In Well	0.11		ft
Depth to Floating Product (TOC)	N/A		ft	Depth to Floating Product (TOC)	N/A		ft
Floating Product Thickness	N/A		ft	Total Water Removed	15		gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
1039	0	-	-	-	-	-	-	Begin Pumping
1048	3	7.21	15.13	2605	-49.0	-	163.1	
1052	4	6.88	15.20	2668	-65.7	-	108.9	
1057	5	6.77	15.60	2666	-82.8	-	59.9	Water Level = 14.50 ft TOC
1101	6	6.73	15.57	2645	-92.8	-	30.9	
1105	7	6.72	15.73	2653	-99.9	-	28.6	
1109	8	-	-	-	-	-	-	YSI shut down, low battery
1112	9	6.67	15.24	2677	-80.7	-	8.9	
1115	10	6.70	15.28	2676	-100.3	-	5.7	
1119	11	6.71	15.36	2678	-108.2	-	3.1	
1123	12	6.71	16.09	2707	-117.0	-	2.3	
1127	13	6.70	16.02	2706	-118.7	-	1.9	
1132	14	6.70	15.97	2703	-122.9	-	1.4	
1138	15	6.70	15.96	2706	-127.3	-	1.7	
1140								Begin Sampling
1148								End Sampling

COMMENTS: One well volume = (19.9-14.46) * 0.17 = 0.9 gals.

INSPECTOR: Richard J. Grabowski

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site

WELL NUMBER: WT116A

OPENED: DATE <u>10/21/98</u> TIME <u>1430</u>	CLOSED: DATE _____ TIME _____
Water Level (TOC) <u>11.74</u> ft	Water Level (TOC) _____ ft
Well Depth (TOC) <u>16.36</u> ft	Well Depth (TOC) _____ ft
Design Depth (TOC) <u>15.0</u> ft	Design Depth (TOC) _____ ft
Est. Sed. In Well <u>0</u> ft	Est. Sed. In Well _____ ft
Depth to Floating Product (TOC) <u>N/A</u> ft	Depth to Floating Product (TOC) _____ ft
Floating Product Thickness <u>N/A</u> ft	Total Water Removed _____ gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
1444	0	-	-	-	-	-	-	Begin Pumping
1449	1	6.79	16.10	6540	-138.4	-	2.9	
1453	2	6.83	16.72	6675	-153.5	-	2.1	
1458	3	6.84	17.40	6673	-161.7	-	2.3	
1502	4	6.84	16.72	6729	-169.0	-	2.0	
1505	5	6.84	16.88	6717	-172.1	-	4.4	
1508	6	6.84	16.41	6744	-175.8	-	2.0	
1512								Begin Sampling
1525								End Sampling

COMMENTS: One well volume = (16.36-11.74) * 0.17 = 0.8 gals.

INSPECTOR: Richard J. Grabowski

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site

WELL NUMBER: WT119A

OPENED: DATE <u>10/22/98</u> TIME <u>0805</u>	CLOSED: DATE _____ TIME _____
Water Level (TOC) <u>11.65</u> ft	Water Level (TOC) _____ ft
Well Depth (TOC) <u>20.33</u> ft	Well Depth (TOC) _____ ft
Design Depth (TOC) <u>20.4</u> ft	Design Depth (TOC) _____ ft
Est. Sed. In Well <u>0.06</u> ft	Est. Sed. In Well _____ ft
Depth to Floating Product (TOC) <u>N/A</u> ft	Depth to Floating Product (TOC) _____ ft
Floating Product Thickness <u>N/A</u> ft	Total Water Removed _____ gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
0818	0	-	-	-	-	-	-	Begin Pumping
0822	1.5	6.90	14.59	2276	-33.2	-	7.9	
0826	3	6.77	14.96	2222	-33.7	-	5.5	
0833	4.5	6.68	15.35	2245	-35.4	-	2.3	Water Level = 11.69 ft TOC
0838	6	6.67	15.14	2228	-37.2	-	1.8	
0844	7.5	6.66	15.32	2256	-38.8	-	1.7	
0848	9	6.65	15.57	2285	-40.3	-	2.0	
0854	10.5	6.65	15.26	2246	-40.2	-	2.0	
0857								Begin Sampling
0927								End Sampling

COMMENTS: One well volume = (20.4-11.65) * 0.17 = 1.5 gals.

INSPECTOR: Richard J. Grabowski



2000 Supplemental Site Investigation Records

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WTB3

OPENED: DATE <u>4/26/00</u>	TIME _____	CLOSED: DATE <u>4/26/00</u>	TIME _____
Water Level (TOC)	ft	Water Level (TOC)	ft
Well Depth (TOC) 130	ft	Well Depth (TOC)	ft
Design Depth (TOC)	ft	Design Depth (TOC)	ft
Est. Sed. In Well	ft	Est. Sed. In Well	ft
Depth to Floating Product (TOC)	ft	Depth to Floating Product (TOC)	ft
Floating Product Thickness	ft	Total Water Removed 35	gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
1358	0	-	-	-	-	-	-	Begin Pumping
1406	5	7.48	12.62	607	100	0.98	18	Clear, Colorless
1414	10	7.48	12.59	622	98	0.56	5.4	Clear, Colorless
1424	15	7.50	12.74	621	62	0.51	3.6	Clear, Colorless
1432	20	7.50	12.69	621	40	0.44	0.0	Clear, Colorless
1441	25	7.52	12.96	620	27	0.42	5.2	Clear, Colorless
1450	30	7.53	12.94	620	28	0.37	5.2	Clear, Colorless
1459	35	7.56	13.08	619	31	0.36	5.5	Clear, Colorless
1500								Collect Samples

COMMENTS: Organic sample number - EDCG4; inorganic sample number - SO31.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WTB4

OPENED: DATE <u>4/26/00</u> TIME _____	CLOSED: DATE <u>4/26/00</u> TIME _____
Water Level (TOC) <u>6.20</u> ft	Water Level (TOC) _____ ft
Well Depth (TOC) <u>174</u> ft	Well Depth (TOC) _____ ft
Design Depth (TOC) _____ ft	Design Depth (TOC) _____ ft
Est. Sed. In Well _____ ft	Est. Sed. In Well _____ ft
Depth to Floating Product (TOC) _____ ft	Depth to Floating Product (TOC) _____ ft
Floating Product Thickness _____ ft	Total Water Removed <u>25</u> gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
1508	0	-	-	-	-	-	-	Begin Pumping
1516	5	7.58	11.72	440	44	0.48	5.5	
1524	10	7.58	11.74	437	18	0.36	4.9	
1531	15	7.58	11.69	437	11	0.32	4.5	
1540	20	7.59	11.70	436	7	0.28	4.3	
1547	25	7.59	11.74	434	5	0.26	4.3	
1549								Begin Sampling
1553								End Sampling

COMMENTS: Organic sample number - EDCG5; inorganic sample number - SO32.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WTE1

OPENED: DATE <u>5/2/00</u> TIME <u>0942</u>	CLOSED: DATE <u>5/2/00</u> TIME _____
Water Level (TOC) <u>12.66</u> ft	Water Level (TOC) _____ ft
Well Depth (TOC) <u>81.20</u> ft	Well Depth (TOC) _____ ft
Design Depth (TOC) _____ ft	Design Depth (TOC) _____ ft
Est. Sed. In Well _____ ft	Est. Sed. In Well _____ ft
Depth to Floating Product (TOC) _____ ft	Depth to Floating Product (TOC) _____ ft
Floating Product Thickness _____ ft	Total Water Removed <u>5.5</u> gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
1023	0	-	-	-	-	-	-	Begin Pumping
1026	0.5	7.06	12.12	1038	99.6	-	10.04	
1028	1	7.05	12.15	1035	72.2	-	9.5	Water Level = 12.66 ft TOC
1031	1.5	7.04	12.34	1040	8.1	-	12.6	
1033	2	7.03	12.46	1048	-48.1	0.39	14.0	
1035	2.5	7.01	12.57	1058	-83.1	0.50	11.5	
1037	3	7.01	12.58	1066	-96.0	0.61	9.1	
1040	3.5	7.01	12.58	1073	-104.7	0.76	7.5	
1042	4	7.01	12.55	1077	-108.7	0.82	6.8	
1046	4.5	7.01	12.54	1081	-113.0	0.91	5.2	
1049	5	7.01	12.55	1082	-114.5	0.94	4.6	
1051	5.5	7.01	12.61	1081	-115.7	0.95	3.9	
1052								Begin Sampling
1058								End Sampling

COMMENTS: Dissolved oxygen measurements are reading negative. No readings will be obtained until it goes positive. Verification will be performed at end of sampling. D.O. field verified as okay.
Organic sample number - EOOFH; Inorganic sample number - SO45.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WTE3

OPENED: DATE <u>5/2/00</u> TIME <u>1114</u>	CLOSED: DATE <u>5/2/00</u> TIME _____
Water Level (TOC) <u>12.24</u> ft	Water Level (TOC) _____ ft
Well Depth (TOC) <u>178</u> ft	Well Depth (TOC) _____ ft
Design Depth (TOC) _____ ft	Design Depth (TOC) _____ ft
Est. Sed. In Well _____ ft	Est. Sed. In Well _____ ft
Depth to Floating Product (TOC) _____ ft	Depth to Floating Product (TOC) _____ ft
Floating Product Thickness _____ ft	Total Water Removed <u>9.5</u> gals

PURGE METHOD: Grundfos Redi-Flo Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
1121	0	-	-	-	-	-	-	Begin Pumping
1126	1	7.31	11.98	589	32.4	1.91	15.7	
1128	1.5	7.33	11.86	579	-10.9	1.22	23.7	
1129	2	7.33	11.92	579	-46.1	0.91	26.6	
1131	2.5	7.34	12.01	579	-61.8	0.84	29.9	
1133	3	7.34	12.05	579	-70.6	0.79	31.5	
1135	3.5	7.34	12.12	574	-89.6	0.74	37.6	
1137	4	7.34	12.10	566	-105.8	0.68	42.5	Water level = 12.46 ft TOC
1140	4.5	7.35	12.11	558	-119.2	0.64	40.2	
1142	5	7.36	12.07	550	-128.8	0.62	31.4	
1144	5.5	7.37	12.07	544	-131.9	0.59	27.3	Water level = 12.47 ft TOC
1145	6	7.37	12.12	539	-135.7	0.57	25.2	
1147	6.5	7.43	12.11	532	-140.8	0.53	21.9	
1149	7	7.39	12.12	524	-144.2	0.51	18.2	
1151	7.5	7.39	12.13	521	-147.7	0.49	16.8	
1153	8	7.39	12.19	518	-148.6	0.48	15.5	
1155	8.5	7.39	12.13	509	-153.4	0.44	12.6	
1158	9	7.40	12.11	504	-155.6	0.43	11.9	
1200	9.5	7.40	12.11	495	-159.5	0.40	9.5	
1201								Begin Sampling
1205								End Sampling

COMMENTS: Organic sample number - E00FJ; inorganic sample number - SO46.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WTG1

OPENED: DATE <u>4/27/00</u> TIME _____	CLOSED: DATE <u>4/27/00</u> TIME _____
Water Level (TOC) <u>12.90</u> ft	Water Level (TOC) _____ ft
Well Depth (TOC) <u>52.8</u> ft	Well Depth (TOC) _____ ft
Design Depth (TOC) _____ ft	Design Depth (TOC) _____ ft
Est. Sed. In Well _____ ft	Est. Sed. In Well _____ ft
Depth to Floating Product (TOC) _____ ft	Depth to Floating Product (TOC) _____ ft
Floating Product Thickness _____ ft	Total Water Removed <u>20</u> gals

PURGE METHOD: Grundfos Redi-Flow 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
1353	0	-	-	-	-	-	-	Begin Pumping
1359	5	7.55	13.56	448	-71	0.52	0.9	Clear, colorless
1404	10	7.58	13.44	456	-96	0.35	0.7	Clear, colorless
1409	15	7.57	13.42	457	-96	0.31	0.7	
1414	20	7.55	13.47	458	-98	0.27	0.7	
1416								Collect Samples

COMMENTS: Organic sample number - E00F8; inorganic sample number - SO37.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WTG3

OPENED: DATE <u>4/27/00</u> TIME _____	CLOSED: DATE <u>4/27/00</u> TIME _____
Water Level (TOC) <u>13.73</u> ft	Water Level (TOC) _____ ft
Well Depth (TOC) <u>172</u> ft	Well Depth (TOC) _____ ft
Design Depth (TOC) _____ ft	Design Depth (TOC) _____ ft
Est. Sed. In Well _____ ft	Est. Sed. In Well _____ ft
Depth to Floating Product (TOC) _____ ft	Depth to Floating Product (TOC) _____ ft
Floating Product Thickness _____ ft	Total Water Removed <u>30</u> gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
1256	0	-	-	-	-	-	-	Begin Pumping
1300	5	7.62	13.19	396	-53	0.81	2.3	
1308	10	7.66	13.36	402	-83	0.41	40.8	Cloudy
1315	15	7.67	13.27	401	-90	0.33	8.7	Cloudy
1322	20	7.68	13.32	403	-90	0.29	2.4	
1329	25	7.69	13.32	404	-89	0.27	1.8	
1335	30	7.71	13.33	400	-95	0.27	-	
1336								Begin Sampling
1338								End Sampling

COMMENTS: Organic sample number - EDCG9; inorganic sample number - SO36.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, IndianaWELL NUMBER: WT101A

OPENED: DATE	<u>5/3/00</u>	TIME	<u>0900</u>	CLOSED: DATE	<u>5/3/00</u>	TIME	<u></u>
Water Level (TOC)	<u>11.17</u>		ft	Water Level (TOC)			ft
Well Depth (TOC)	<u>18.76</u>		ft	Well Depth (TOC)			ft
Design Depth (TOC)			ft	Design Depth (TOC)			ft
Est. Sed. In Well			ft	Est. Sed. In Well			ft
Depth to Floating Product (TOC)			ft	Depth to Floating Product (TOC)			ft
Floating Product Thickness			ft	Total Water Removed	<u>8.5</u>		gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
0906	0	-	-	-	-	-	-	Begin Pumping
0911	1	6.76	12.79	1739	-133.4	2.29	65.8	Water Level = 11.18 ft TOC
0914	1.5	6.76	13.39	1742	-135.8	2.32	50.4	
0916	2	6.76	13.17	1741	-136.7	2.48	41.7	Water Level = 11.18 ft TOC
0919	2.5	6.76	13.18	1736	-137.0	2.61	33.0	
0921	3	6.76	13.19	1731	-137.1	2.70	26.9	
0923	3.5	6.76	13.22	1731	-137.3	3.01	22.8	
0926	4	6.76	13.30	1729	-137.4	3.32	19.8	
0930	4.5	6.77	13.34	1727	-137.5	3.49	15.1	
0932	5	6.77	13.23	1726	-137.4	3.73	17.0	
0935	5.5	6.77	13.21	1723	-137.3	3.96	10.0	
0936	6	6.77	13.26	1723	-137.2	4.02	9.8	
0938	6.5	6.77	13.15	1724	-137.0	4.41	7.9	Water Level = 11.18 ft TOC
0941	7	6.77	13.12	1722	-136.8	4.65	7.0	
0943	7.5	6.77	13.13	1725	-136.7	4.83	6.0	
0945	8	6.77	13.11	1721	-136.6	4.87	5.2	
0948	8.5	6.77	13.14	1722	-136.6	5.02	4.6	
0950								Begin Sampling
1000								End Sampling

COMMENTS: Organic sample number - EECFN2; inorganic sample number - SO50. Duplicate organic sample number - EECFN3; duplicate inorganic sample number - SO51.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, IndianaWELL NUMBER: WT101B

OPENED: DATE <u>5/3/00</u>	TIME <u>1013</u>	CLOSED: DATE <u>5/3/00</u>	TIME _____
Water Level (TOC) <u>11.04</u>	ft	Water Level (TOC)	ft
Well Depth (TOC) <u>100.8</u>	ft	Well Depth (TOC)	ft
Design Depth (TOC)	ft	Design Depth (TOC)	ft
Est. Sed. In Well	ft	Est. Sed. In Well	ft
Depth to Floating Product (TOC)	ft	Depth to Floating Product (TOC)	ft
Floating Product Thickness	ft	Total Water Removed <u>7</u>	gals

PURGE METHOD: Grunfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
1022	0	-	-	-	-	-	-	Begin Pumping
1028	1.5	7.87	13.27	881	-300.7	2.07	3.8	
1031	2	7.85	13.03	880	-310.7	1.93	2.6	Water Level = 11.53 ft TOC
1035	2.5	7.83	13.24	881	-319.0	1.94	1.2	Water Level = 11.45 ft TOC
1038	3	7.79	13.28	883	-325.0	2.01	1.8	Water Level = 11.43 ft TOC
1042	3.5	7.62	13.41	913	-325.4	2.15	1.7	
1045	4	7.41	13.41	1001	-320.8	2.39	1.7	
1049	4.5	7.18	13.50	1103	-310.0	3.00	1.2	
1053	5	7.10	13.58	1150	-307.1	3.57	1.4	
1057	5.5	7.06	13.53	1167	-304.1	3.97	1.3	Water Level = 11.44 ft TOC
1100	6	7.05	13.56	1169	-305.4	4.20	1.6	
1103	6.5	7.04	13.46	1176	-304.4	4.12	1.2	
1106	7	7.04	13.45	1182	-295.5	4.14	1.2	
1107								Begin Sampling
1112								End Sampling

COMMENTS: Hydrogen Sulfide odor. Organic sample number - EECFN4; inorganic sample number - SO52.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, IndianaWELL NUMBER: WT101C

OPENED: DATE <u>5/3/00</u>	TIME <u>0713</u>	CLOSED: DATE <u>5/3/00</u>	TIME _____
Water Level (TOC) <u>10.85</u>	ft	Water Level (TOC)	ft
Well Depth (TOC) <u>167.5</u>	ft	Well Depth (TOC)	ft
Design Depth (TOC)	ft	Design Depth (TOC)	ft
Est. Sed. In Well	ft	Est. Sed. In Well	ft
Depth to Floating Product (TOC)	ft	Depth to Floating Product (TOC)	ft
Floating Product Thickness	ft	Total Water Removed <u>10</u>	gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
0728	0	-	-	-	-	-	-	Begin Pumping
0733	1	8.94	11.69	493	191.7	1.98	>200	Water Level = 11.35 ft TOC
0735	1.5	8.92	11.74	490	147.3	0.99	>200	Reduced Flow Rate
0738	2	8.84	11.83	485	103.3	0.89	>200	Water Level = 11.24 ft TOC
0741	2.5	8.50	11.91	485	-212.3	0.91	168	Water Level = 11.29 ft TOC
0745	3	8.27	11.94	487	-235.3	0.99	>200	
0748	3.5	8.00	11.93	492	-225.1	0.95	>200	
0751	4	7.82	11.98	493	-214.5	0.95	>200	Water Level = 11.21 ft TOC
0755	4.5	7.75	12.04	493	-208.4	0.99	>200	
0759	5	7.71	12.00	492	-203.2	1.08	>200	
0802	5.5	7.72	12.05	492	-203.8	1.10	>200	Water Level = 11.13 ft TOC
0806	6	7.72	12.31	492	-198.6	1.26	>200	
0809	6.5	7.72	12.37	491	-192.7	1.27	65.6	
0812	7	7.71	12.35	492	-200.5	1.30	52.2	
0816	7.5	7.71	12.17	492	-201.8	1.30	40.2	
0820	8	7.70	12.16	491	-202.0	1.29	31.8	
0825	8.5	7.69	12.39	490	-202.6	1.37	30.7	
0829	9	7.69	12.25	792	-197.3	1.37	22.0	
0834	9.5	7.67	12.44	492	-191.3	1.39	20.5	
0838	10	7.66	12.50	491	-193.2	1.39	20.9	
0839								Begin Sampling
0846								End Sampling

COMMENTS: Turbidity meter set at improper scale until 0809. Organic sample number - E00F5; inorganic sample number S049.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WT102A

OPENED: DATE <u>4/25/00</u> TIME <u>1526</u>	CLOSED: DATE <u>4/25/00</u> TIME _____
Water Level (TOC) <u>11.41</u> ft	Water Level (TOC) _____ ft
Well Depth (TOC) <u>18.22</u> ft	Well Depth (TOC) _____ ft
Design Depth (TOC) _____ ft	Design Depth (TOC) _____ ft
Est. Sed. In Well _____ ft	Est. Sed. In Well _____ ft
Depth to Floating Product (TOC) _____ ft	Depth to Floating Product (TOC) _____ ft
Floating Product Thickness _____ ft	Total Water Removed <u>16</u> gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
1536	0	-	-	-	-	-	-	Begin Pumping
1542	5	7.26	13.27	1131	92	3.40	96.1	
1548	10	7.29	12.82	1122	97	3.25	7.1	
1551	12	7.33	12.84	1119	97	3.10	6.1	
1554	14	7.33	13.45	1116	99	3.14	3.7	
1557	16	7.34	13.50	1119	101	3.13	9.0	
1558								Collect Samples

COMMENTS: Organic sample number - EDPN4; inorganic sample number - SO20.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WT102B

OPENED: DATE <u>4/25/00</u>	TIME _____	CLOSED: DATE <u>4/25/00</u>	TIME _____
Water Level (TOC) <u>11.10</u>	ft	Water Level (TOC)	ft
Well Depth (TOC) <u>67.62</u>	ft	Well Depth (TOC)	ft
Design Depth (TOC)	ft	Design Depth (TOC)	ft
Est. Sed. In Well	ft	Est. Sed. In Well	ft
Depth to Floating Product (TOC)	ft	Depth to Floating Product (TOC)	ft
Floating Product Thickness	ft	Total Water Removed <u>20</u>	gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
1423	0	-	-	-	-	-	-	Begin Pumping
1433	5	7.82	14.48	489	29	0.74	2.7	Hydrogen Sulfide Odor?
1444	9	7.73	14.71	496	29	0.42	1.4	Clear, colorless
1451	12	7.72	14.81	499	24	0.34	1.3	Clear, colorless
1501	16	7.71	14.91	500	17	0.29	3.2	Clear, colorless
1510	20	7.71	14.77	501	11	0.29	1.2	Clear, colorless
1512								Collect Samples

COMMENTS: _____

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WF102C

OPENED: DATE	4/25/00	TIME	CLOSED: DATE	4/25/00	TIME
Water Level (TOC)		ft	Water Level (TOC)		ft
Well Depth (TOC)	161.96	ft	Well Depth (TOC)		ft
Design Depth (TOC)		ft	Design Depth (TOC)		ft
Est. Sed. In Well		ft	Est. Sed. In Well		ft
Depth to Floating Product (TOC)		ft	Depth to Floating Product (TOC)		ft
Floating Product Thickness		ft	Total Water Removed	36	gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
1256	0	-	-	-	-	-	-	Begin Pumping
1303	4	-	-	-	-	-	-	Turbid now
1307	5	9.22	13.72	357	169	0.44	>1000	
1310								Muddy!
1315	10	8.70	13.31	413	74	0.32	>1000	
1317								
1319	15							
1320								Low flow rate again
1327	20	8.16	13.44	440	123	0.33	2.2	Turbidity questionable
1331	22	8.12	13.45	442	121	0.29	2.2	Turbidity questionable
1334	24	8.10	13.45	443	120	0.29	2.0	Turbidity questionable
1338	26	8.08	13.42	444	118	0.27	2.3	Turbidity questionable
1342	28	8.06	13.43	444	110	0.27	2.1	Turbidity questionable
1348	32	8.04	13.45	445	98	0.25	2.1	Turbidity questionable
1351	34	8.03	13.50	445	92	0.24	1.9	Turbidity questionable
1355	36	8.02	13.53	446	88	0.24	2.3	Turbidity questionable
1356								Collect Samples
1400								Pump Shut off

COMMENTS: Organic sample number - EDPN1; inorganic sample number - SO18.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WT105A

OPENED: DATE <u>5/2/00</u>	TIME <u>1252</u>	CLOSED: DATE <u>5/2/00</u>	TIME _____
Water Level (TOC) <u>11.27</u>	ft	Water Level (TOC)	ft
Well Depth (TOC) <u>18.62</u>	ft	Well Depth (TOC)	ft
Design Depth (TOC)	ft	Design Depth (TOC)	ft
Est. Sed. In Well	ft	Est. Sed. In Well	ft
Depth to Floating Product (TOC)	ft	Depth to Floating Product (TOC)	ft
Floating Product Thickness	ft	Total Water Removed <u>7.5</u>	gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
1300	0	-	-	-	-	-	-	Begin Pumping
1304	1	7.13	11.34	488	-47.1	8.51	>200	Water Level = 11.30 ft TOC
1307	1.5	7.20	11.79	473	-48.1	7.52	127.1	
1309	2	7.26	12.04	460	-59.6	7.40	54.0	
1312	2.5	7.30	12.14	456	-68.8	7.47	22.6	Water Level = 11.29 ft TOC
1315	3	7.32	12.28	454	-72.9	7.63	10.6	
1318	3.5	7.34	12.20	452	-79.4	7.65	7.4	
1321	4	7.34	12.45	450	-81.4	7.55	5.7	Flo-Thru Cell - Battery low
1324	4.5	-	-	-	-	-	4.4	Water shut off
1327	5	6.62	12.20	448	32.7	7.64	3.2	Flo-Thru Cell plugged into
1329	5.5	7.00	12.03	448	-49.1	7.87	3.7	generator
1331	6	7.18	12.07	447	-62.9	7.88	2.4	
1333	6.5	7.23	12.06	447	-66.8	7.92	2.5	
1335	7	7.29	12.11	446	-70.5	7.67	1.8	
1337	7.5	7.32	12.13	446	-69.8	7.97	2.0	
1338								Begin Sampling
1342								End Sampling

COMMENTS: Organic sample number - E00FK; inorganic sample number - SO47.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WT106A

OPENED: DATE <u>5/2/00</u> TIME <u>1520</u>	CLOSED: DATE <u>5/2/00</u> TIME _____
Water Level (TOC) <u>9.18</u> ft	Water Level (TOC) _____ ft
Well Depth (TOC) <u>18.56</u> ft	Well Depth (TOC) _____ ft
Design Depth (TOC) _____ ft	Design Depth (TOC) _____ ft
Est. Sed. In Well _____ ft	Est. Sed. In Well _____ ft
Depth to Floating Product (TOC) _____ ft	Depth to Floating Product (TOC) _____ ft
Floating Product Thickness _____ ft	Total Water Removed <u>6</u> gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
1529	0	-	-	-	-	-	-	Begin Pumping
1534	1.5	6.84	11.52	1090	-103.0	4.02	>200	Brown colored
1536	2	6.83	11.57	1084	-103.4	4.48	>200	Water Level = 9.22 ft TOC
1538	2.5	6.83	11.69	1092	-104.9	4.90	>200	
1540	3	6.83	11.81	1086	-106.3	4.99	171	
1543	3.5	6.84	11.83	1089	-107.5	5.25	184	
1546	4	6.84	11.90	1096	-108.0	5.50	174	
1549	4.5	6.84	11.84	1101	-109.0	6.11	180	
1552	5	6.84	11.96	1100	-109.6	6.40	170	
1554	5.5	6.84	11.80	1100	-109.6	6.49	185	
1555	6	6.84	11.77	1104	-109.5	6.43	177	
1558								Begin Sampling
1604								End Sampling

COMMENTS: Organic sample number - E00F4; inorganic sample number - SO48.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WT111A

OPENED: DATE <u>4/28/00</u> TIME _____	CLOSED: DATE <u>4/28/00</u> TIME _____
Water Level (TOC) <u>13.01</u> ft	Water Level (TOC) _____ ft
Well Depth (TOC) <u>21.71</u> ft	Well Depth (TOC) _____ ft
Design Depth (TOC) _____ ft	Design Depth (TOC) _____ ft
Est. Sed. In Well _____ ft	Est. Sed. In Well _____ ft
Depth to Floating Product (TOC) _____ ft	Depth to Floating Product (TOC) _____ ft
Floating Product Thickness _____ ft	Total Water Removed <u>32</u> gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
0922	0	-	-	-	-	-	-	Begin Pumping
0927	5	5.86	11.38	694	89	2.89	24.2	
0932	10	5.90	11.14	728	56	2.35	6.0	
0934	12	5.91	11.10	735	52	2.29	4.8	
0936	14	5.92	11.07	745	43	2.18	4.1	
0938	16	5.94	11.06	752	40	2.13	3.8	
0940	18	5.95	11.11	761	35	2.07	3.4	
0942	20	5.94	11.12	763	34	2.03	3.1	
0944	22	5.94	11.14	769	30	1.97	2.7	
0946	24	5.94	11.14	773	29	1.96	2.8	
0948	26	5.95	11.15	780	28	1.95	2.7	
0951	28	5.95	11.18	785	27	1.92	2.1	
0954	30	5.96	11.19	787	26	1.92	2.4	Hydrogen Sulfide Odor?
0957	32	5.96	11.21	792	26	1.89	2.5	
0958								Collect Samples

COMMENTS: Organic sample numbers - EOOFB; inorganic sample numbers - SO40.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WT112A

OPENED: DATE <u>4/27/00</u>	TIME <u>0745</u>	CLOSED: DATE <u>4/27/00</u>	TIME _____
Water Level (TOC) <u>10.16</u>	ft	Water Level (TOC)	ft
Well Depth (TOC) <u>17.86</u>	ft	Well Depth (TOC)	ft
Design Depth (TOC)	ft	Design Depth (TOC)	ft
Est. Sed. In Well	ft	Est. Sed. In Well	ft
Depth to Floating Product (TOC)	ft	Depth to Floating Product (TOC)	ft
Floating Product Thickness	ft	Total Water Removed <u>73</u>	gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
0905	0	-	-	-	-	-	-	Begin Pumping
0911	5	7.48	9.74	817	71	5.08	10.8	Slightly cloudy
0916	10	7.53	9.53	804	80	4.78	2.0	Clear, colorless
0922	15	7.55	9.50	807	87	4.76	1.1	Clear, colorless
0929	20	7.55	9.62	807	93	4.70	1.1	Clear, colorless
0935	25	7.56	9.60	806	96	4.68	1.5	Clear, colorless
0942	30	7.56	9.77	804	100	4.73	1.6	Clear, colorless
0949	35	7.57	9.79	806	102	4.70	1.0	Clear, colorless
0955	40	7.57	9.80	803	104	4.70	4.1	Clear, colorless
1002	45	7.57	9.83	805	106	4.73	2.0	Clear, colorless
1008	50	7.57	9.81	808	109	4.74	2.7	Clear, colorless
1015	55	7.57	9.65	808	112	4.77	0.9	Clear, colorless
1023	60	7.57	9.75	815	113	4.80	1.8	Clear, colorless
1031	65	7.57	9.90	811	116	4.83	1.2	Clear, colorless
1035	70	7.57	9.87	814	118	4.87	0.8	Clear, colorless
1041	73	7.57	9.86	817	119	4.89	3.1	Clear, colorless
1048								Collect Samples

COMMENTS: Organic sample number - EDCG8; inorganic sample number - SO35; metals sample number - SO36.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WT112B

OPENED: DATE	<u>4/27/00</u>	TIME	<u>0745</u>	CLOSED: DATE	<u>4/27/00</u>	TIME	_____
Water Level (TOC)	<u>10.34</u>		ft	Water Level (TOC)			ft
Well Depth (TOC)	<u>62.23</u>		ft	Well Depth (TOC)			ft
Design Depth (TOC)			ft	Design Depth (TOC)			ft
Est. Sed. In Well			ft	Est. Sed. In Well			ft
Depth to Floating Product (TOC)			ft	Depth to Floating Product (TOC)			ft
Floating Product Thickness			ft	Total Water Removed	<u>35</u>		gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
0809	0	-	-	-	-	-	-	Begin Pumping
0814	5	7.50	11.26	432	59	1.27	2.6	Clear, colorless
0818	10	7.61	11.45	433	0	0.77	4.9	Clear, colorless
0823	15	7.66	11.48	433	-19	0.49	1.4	Clear, colorless
0828	20	7.68	11.47	434	-24	0.38	1.7	Clear, colorless
0833	25	7.69	11.52	434	-30	0.32	1.6	Clear, colorless
0838	30	7.70	11.52	435	-34	0.30	1.6	Clear, colorless
0843	35	7.70	11.52	436	-37	0.28	1.6	Clear, colorless
0844								Collect Samples

COMMENTS: Organic sample number - EDCG6; inorganic sample number - SO33. Duplicate organic sample number - EDCG7; duplicate inorganic sample number - SO34.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WT113A

OPENED: DATE <u>4/26/00</u> TIME <u>0857</u>	CLOSED: DATE <u>4/26/00</u> TIME _____
Water Level (TOC) <u>16.88</u> ft	Water Level (TOC) _____ ft
Well Depth (TOC) <u>24.54</u> ft	Well Depth (TOC) _____ ft
Design Depth (TOC) _____ ft	Design Depth (TOC) _____ ft
Est. Sed. In Well _____ ft	Est. Sed. In Well _____ ft
Depth to Floating Product (TOC) _____ ft	Depth to Floating Product (TOC) _____ ft
Floating Product Thickness _____ ft	Total Water Removed <u>17</u> gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
1001	0	-	-	-	-	-	-	Begin Pumping
1008	5	7.55	11.72	394	136	10.58	95.8	
1010	7	7.60	11.31	407	133	9.73	14.3	
1012	9	7.62	11.24	412	132	9.47	5.0	
1014	11	7.63	11.18	415	132	9.24	1.2	
1017	13	7.63	11.18	416	132	9.12	0.4	
1019	15	7.63	11.20	417	133	9.03	0.4	
1020	17	7.64	11.21	418	133	8.93	0.1	
1025								Collect Samples

COMMENTS: Organic sample number - EDCG2; inorganic sample number - SO29.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, IndianaWELL NUMBER: WT113B

OPENED: DATE <u>4/26/00</u> TIME <u>0850</u>	CLOSED: DATE <u>4/26/00</u> TIME _____
Water Level (TOC) <u>17.13</u> ft	Water Level (TOC) _____ ft
Well Depth (TOC) <u>70.14</u> ft	Well Depth (TOC) _____ ft
Design Depth (TOC) _____ ft	Design Depth (TOC) _____ ft
Est. Sed. In Well _____ ft	Est. Sed. In Well _____ ft
Depth to Floating Product (TOC) _____ ft	Depth to Floating Product (TOC) _____ ft
Floating Product Thickness _____ ft	Total Water Removed <u>38</u> gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
0858	0	-	-	-	-	-	-	Begin Pumping
0904	4	7.23	12.04	599	167	0.97	33.6	
0907	7	7.33	12.01	601	104	0.66	4.3	
0910	10	7.37	12.08	601	85	0.56	4.9	
0913	12	7.39	12.12	602	75	0.50	4.1	
0915	14	7.40	12.13	602	68	0.46	3.5	
0918	16	7.41	12.14	602	59	0.46	3.8	
0921	18	7.42	12.19	602	48	0.41	3.5	
0923	20	7.43	12.22	602	38	0.42	3.2	
0925	22	7.43	12.22	601	34	0.40	2.9	
0927	24	7.44	12.22	602	26	0.40	3.5	
0930	26	7.44	12.25	601	19	0.39	3.3	
0934	30	7.45	12.25	601	12	0.35	3.3	
0936	32	7.45	12.26	602	8	0.36	3.5	
0938	34	7.45	12.30	602	5	0.33	3.5	
0940	36	7.45	12.33	602	3	0.32	3.7	
0943	38	7.46	12.35	602	2	0.31	3.5	
0945								Collect Samples

COMMENTS: Organic sample number - EDCG0; inorganic sample number - SO28.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WT114A

OPENED: DATE <u>5/3/00</u> TIME <u>1625</u>	CLOSED: DATE <u>5/3/00</u> TIME _____
Water Level (TOC) <u>16.00</u> ft	Water Level (TOC) _____ ft
Well Depth (TOC) <u>24.66</u> ft	Well Depth (TOC) _____ ft
Design Depth (TOC) _____ ft	Design Depth (TOC) _____ ft
Est. Sed. In Well _____ ft	Est. Sed. In Well _____ ft
Depth to Floating Product (TOC) _____ ft	Depth to Floating Product (TOC) _____ ft
Floating Product Thickness _____ ft	Total Water Removed <u>9</u> gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
1635	0	-	-	-	-	-	-	Begin Pumping
1642	1.5	6.76	14.78	1603	-100.5	-	>200	Water Level = 16.01 ft TOC
1644	2	6.77	15.30	1606	-100.6	-	125.1	
1646	2.5	6.77	15.41	1605	-101.5	-	77.7	
1650	3	6.78	15.11	1603	-101.3	-	65.2	
1653	3.5	6.78	15.05	1595	-103.0	-	44.8	
1656	4	6.78	15.08	1592	-103.9	-	35.3	Water Level = 16.01 ft TOC
1659	4.5	6.79	15.08	1591	-104.5	-	25.8	
1702	5	6.79	15.05	1592	-104.6	-	22.1	
1705	5.5	6.79	14.86	1590	-103.6	-	19.7	
1707	6	6.79	14.73	1593	-104.4	-	16.0	
1710	6.5	6.79	14.71	1590	-105.3	-	13.7	
1712	7	6.79	14.72	1591	-105.9	-	12.7	Water Level = 16.01 ft TOC
1714	7.5	6.80	14.72	1590	-106.4	-	13.4	
1716	8	6.80	14.86	1593	-107.0	-	10.5	
1719	8.5	6.80	14.84	1594	-107.8	-	9.4	
1721	9	6.80	14.83	1595	-108.2	-	8.5	
1722								Begin Sampling
1732								End Sampling

COMMENTS: Could not calibrate turbidity meter to standards. Turbidity meter is reading high. Organic sample number - EECFN10; inorganic sample number - SO56.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WT114B

OPENED: DATE <u>5/3/00</u> TIME <u>1735</u>	CLOSED: DATE <u>5/3/00</u> TIME _____
Water Level (TOC) <u>16.04</u> ft	Water Level (TOC) _____ ft
Well Depth (TOC) <u>69.2</u> ft	Well Depth (TOC) _____ ft
Design Depth (TOC) _____ ft	Design Depth (TOC) _____ ft
Est. Sed. In Well _____ ft	Est. Sed. In Well _____ ft
Depth to Floating Product (TOC) _____ ft	Depth to Floating Product (TOC) _____ ft
Floating Product Thickness _____ ft	Total Water Removed <u>6.5</u> gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
1745	0	-	-	-	-	-	-	Begin Pumping
1748	1	7.02	13.62	732	-162.6	-	115.6	
1751	1.5	7.05	13.83	730	-165.7	-	70.5	
1754	2	7.07	13.97	730	-168.3	-	53.6	Water Level = 16.05 ft TOC
1756	2.5	7.08	14.00	729	-170.2	-	38.0	
1757	3	7.08	13.99	729	-171.0	-	32.0	
1759	3.5	7.09	14.00	729	-171.8	-	24.4	
1801	4	7.09	14.00	729	-172.4	-	20.1	Water Level = 16.04 ft TOC
1803	4.5	7.09	14.07	729	-173.5	-	13.0	
1806	5	7.09	14.07	729	-173.7	-	12.2	
1807	5.5	7.10	14.03	730	-174.0	-	10.4	
1809	6	7.10	14.03	729	-174.3	-	8.2	
1811	6.5	7.10	14.07	729	-174.5	-	8.2	
1812								Begin Sampling
1817								End Sampling

COMMENTS: Organic sample number - EECFN11; inorganic sample number - SO57.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WT115A

OPENED: DATE	<u>4/28/00</u>	TIME	<u>1325</u>	CLOSED: DATE	<u>5/1/00</u>	TIME	<u> </u>
Water Level (TOC)	12.83		ft	Water Level (TOC)			ft
Well Depth (TOC)	19.79		ft	Well Depth (TOC)			ft
Design Depth (TOC)			ft	Design Depth (TOC)			ft
Est. Sed. In Well			ft	Est. Sed. In Well			ft
Depth to Floating Product (TOC)			ft	Depth to Floating Product (TOC)			ft
Floating Product Thickness			ft	Total Water Removed	8.5		gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL.	pH	TEMP.	SP. COND.	Eh	D.O.	TURB.	REMARKS
<u>4/28/00</u>	REM.		(°C)	(µS/cm)	(mv)	(mg/L)	(NTU)	
1335	0	-	-	-	-	-	-	Begin Pumping
1342	1	-	-	-	-	-	>200	Gray-brown colored
1348	2	-	-	-	-	-	>200	Gray-brown colored
1354				Pumping		Stopped		QED not working
<u>5/1/00</u>								Water Level = 12.80 ft TOC
1148	0	-	-	-	-	-	-	Begin Pumping
1152	1	6.58	10.64	1462	9.5	0.99	>200	Cloudy
1156	2	-	-	-	-	-	-	Stopped Pumping - Rain
1250	2	-	-	-	-	-	-	Resume Pumping
1251	3	6.62	11.18	1491	-31.7	3.41	>200	
1253	3.5	6.62	10.69	1365	-32.0	2.70	120.5	Water Level = 12.87 ft TOC
1255	4	6.61	10.89	1341	-31.6	2.86	113.4	
1257	4.5	6.61	11.01	1325	-33.3	3.15	149.7	
1259	5	6.61	11.14	1330	-34.9	3.15	148.6	Water Level = 12.87 ft TOC
1301	5.5	6.61	11.19	1340	-36.8	3.26	137.2	
1303	6	6.62	11.21	1348	-37.3	3.27	135.5	
1304	6.5	6.62	11.22	1357	-38.5	3.26	130.7	
1305	7	6.62	11.23	1361	-39.8	3.27	123.3	
1307	7.5	6.62	11.23	1361	-39.8	3.27	113.8	
1309	8	6.62	11.20	1374	-41.1	3.32	110.2	Water Level = 12.88 ft TOC
1311	8.5	6.62	11.21	1382	-41.8	3.28	106.3	
1313								Begin Sampling
1318								End Sampling

COMMENTS: Organic sample number - EOOFF; inorganic sample number - SO43. Trip blank sample number - EOOFL.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WT116A

OPENED: DATE <u>5/3/00</u> TIME <u>1340</u>	CLOSED: DATE <u>5/3/00</u> TIME _____
Water Level (TOC) <u>10.25</u> ft	Water Level (TOC) _____ ft
Well Depth (TOC) <u>16.32</u> ft	Well Depth (TOC) _____ ft
Design Depth (TOC) _____ ft	Design Depth (TOC) _____ ft
Est. Sed. In Well _____ ft	Est. Sed. In Well _____ ft
Depth to Floating Product (TOC) _____ ft	Depth to Floating Product (TOC) _____ ft
Floating Product Thickness _____ ft	Total Water Removed <u>6.5</u> gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
1351	0	-	-	-	-	-	-	Begin Pumping
1359	2	6.59	12.45	3570	-158.8	-	50.3	Water Level = 10.50 ft TOC
1402	2.5	6.59	12.55	3573	-157.8	-	33.9	
1405	3	6.59	12.50	3565	-155.4	-	22.8	
1408	3.5	6.60	12.52	3565	-151.8	-	15.1	
1411	4	6.60	12.45	3564	-148.5	-	10.2	Water Level = 10.44 ft TOC
1414	4.5	6.60	12.62	3559	-144.8	-	8.3	
1417	5	6.61	13.10	3558	-139.4	-	7.5	
1420	5.5	6.61	12.53	3566	-138.7	-	6.8	
1422	6	6.61	12.50	3567	-139.8	-	6.6	
1424	6.5	6.61	12.45	3565	-139.8	-	6.2	
1425								Begin Sampling
1434								End Sampling

COMMENTS: Dissolved Oxygen probe not working. Organic sample number - EECFN5; inorganic sample number - SO53. Duplicate organic sample number - EECFN6; inorganic sample number SO54.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WT116B

OPENED: DATE <u>5/3/00</u>	TIME <u>1437</u>	CLOSED: DATE <u>5/3/00</u>	TIME _____
Water Level (TOC) <u>10.12</u>	ft	Water Level (TOC)	ft
Well Depth (TOC) <u>59.76</u>	ft	Well Depth (TOC)	ft
Design Depth (TOC)	ft	Design Depth (TOC)	ft
Est. Sed. In Well	ft	Est. Sed. In Well	ft
Depth to Floating Product (TOC)	ft	Depth to Floating Product (TOC)	ft
Floating Product Thickness	ft	Total Water Removed <u>5</u>	gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
1447	0	-	-	-	-	-	-	Begin Pumping
1454	3.5	6.78	13.66	1071	-99.6	-	5.4	Water Level = 10.12 ft TOC
1457	4	6.79	13.59	1087	-101.0	-	3.2	
1500	4.5	6.79	13.63	1088	-102.0	-	3.4	
1503	5	6.79	13.66	1075	-102.7	-	4.4	
1504								Begin Sampling
1509								End Sampling

COMMENTS: Organic sample number - EEFCN8; inorganic sample number SO55.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WT117A

OPENED: DATE <u>4/27/00</u> TIME <u>1503</u>	CLOSED: DATE <u>4/27/00</u> TIME _____
Water Level (TOC) <u>13.35</u> ft	Water Level (TOC) _____ ft
Well Depth (TOC) <u>18.28</u> ft	Well Depth (TOC) _____ ft
Design Depth (TOC) _____ ft	Design Depth (TOC) _____ ft
Est. Sed. In Well _____ ft	Est. Sed. In Well _____ ft
Depth to Floating Product (TOC) _____ ft	Depth to Floating Product (TOC) _____ ft
Floating Product Thickness _____ ft	Total Water Removed <u>25</u> gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
1515	0	-	-	-	-	-	-	Begin Pumping
1519	2.5	7.64	10.73	80	50	9.88	19.9	Water Level = 13.58 ft TOC
1522	5	7.52	10.59	119	52	8.62	15.1	Colorless
1525	7.5	7.41	10.51	159	53	7.36	14.2	Colorless
1528	10	7.37	10.46	188	51	6.35	14.1	Colorless
1532	12.5	7.36	10.48	211	46	5.24	13.6	
1536	15	7.37	10.47	238	48	4.49	13.2	
1539	17.5	7.37	10.44	258	49	4.03	13.0	
1542	20	7.38	10.45	270	50	3.62	12.7	
1546	22.5	7.38	10.47	284	50	3.28	12.3	
1548		7.38	10.45	290	51	3.12	12.0	
1549	25	7.38	10.47	290	51	3.10	12.0	
1550								Collect Samples

COMMENTS: Organic sample number - E00F9; inorganic sample number - SO38.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WT117B

OPENED: DATE 4/27/00	TIME _____	CLOSED: DATE 4/27/00	TIME _____
Water Level (TOC)	12.76 ft	Water Level (TOC)	ft
Well Depth (TOC)	ft	Well Depth (TOC)	ft
Design Depth (TOC)	ft	Design Depth (TOC)	ft
Est. Sed. In Well	ft	Est. Sed. In Well	ft
Depth to Floating Product (TOC)	ft	Depth to Floating Product (TOC)	ft
Floating Product Thickness	ft	Total Water Removed	30 gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
1606	0	-	-	-	-	-	-	Begin Pumping
1612	5	7.48	14.18	664	-59	1.31	1.4	
1618	10	7.51	13.51	711	-93	0.49	1.2	
1625	15	7.23	13.28	715	-102	0.38	1.0	
1630	20	7.54	13.17	716	-108	0.30	1.2	
1636	25	7.55	13.10	715	-113	0.27	1.1	
1638	28	7.56	13.09	715	-114	0.25	1.1	
1641	30	7.56	13.11	715	-115	0.23	1.0	
1642								Collect Samples

COMMENTS: Organic sample number - EOOFA; inorganic sample number - SO39.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WT118B

OPENED: DATE	<u>4/28/00</u>	TIME		CLOSED: DATE	<u>4/28/00</u>	TIME	
Water Level (TOC)	<u>12.99</u>	ft		Water Level (TOC)		ft	
Well Depth (TOC)	<u>64.9</u>	ft		Well Depth (TOC)		ft	
Design Depth (TOC)		ft		Design Depth (TOC)		ft	
Est. Sed. In Well		ft		Est. Sed. In Well		ft	
Depth to Floating Product (TOC)		ft		Depth to Floating Product (TOC)		ft	
Floating Product Thickness		ft		Total Water Removed	<u>29</u>	gals	

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
0829	0	-	-	-	-	-	-	Begin Pumping
0832	5	7.00	11.91	972	9	1.19	1.5	Decrease flow rate
0837	10	7.07	12.26	973	-50	0.60	1.2	
0842	15	7.10	12.41	974	-67	0.40	1.2	
0847	20	7.11	12.52	974	-74	0.31	1.3	
0852	25	7.11	12.54	974	-80	0.27	1.3	
0855	27	7.11	12.53	973	-82	0.27	1.4	
0857	29	7.11	12.56	973	-84	0.26	1.4	
0858								Collect Samples

COMMENTS: Organic sample number - EOFC; Inorganic sample number - SO41 & MS/MSD.

INSPECTOR: _____

WATER SAMPLING LOG

PROJECT NAME: Himco Dump Superfund Site, Elkhart, Indiana

WELL NUMBER: WT119A

OPENED: DATE	4/28/00	TIME	0830	CLOSED: DATE	4/28/00	TIME	
Water Level (TOC)	10.14	ft		Water Level (TOC)		ft	
Well Depth (TOC)	20.30	ft		Well Depth (TOC)		ft	
Design Depth (TOC)		ft		Design Depth (TOC)		ft	
Est. Sed. In Well		ft		Est. Sed. In Well		ft	
Depth to Floating Product (TOC)		ft		Depth to Floating Product (TOC)		ft	
Floating Product Thickness		ft		Total Water Removed	4.5		gals

PURGE METHOD: Grundfos Redi-Flo 2 Submersible Pump

TIME	GAL. REM.	pH	TEMP. (°C)	SP. COND. (µS/cm)	Eh (mv)	D.O. (mg/L)	TURB. (NTU)	REMARKS
0931	0	-	-	-	-	-	-	Begin Pumping
0935	1	5.85	10.82	1592	51.1	1.70	3.3	Water Level = 10.2 ft TOC
0940	2	6.28	11.67	1595	-40.0	0.42	2.2	Yellowish Tinge
0943	2.5	6.37	11.88	1595	-49.8	0.37	2.0	Yellowish Tinge
0945	3	6.42	12.07	1592	-54.9	0.35	1.5	Yellowish Tinge
0948	3.5	6.45	12.06	1589	-57.4	0.32	1.6	Yellowish Tinge
0951	4	6.48	12.05	1587	-59.5	0.31	1.0	Yellowish Tinge
0954	4.5	6.49	12.09	1588	-60.7	0.30	1.0	Yellowish Tinge
0955								Begin Sampling
1000								End Sampling

COMMENTS: Organic sample number - EOOFE; inorganic sample number - SO42. Hydrogen Sulfide odor from purge water.

INSPECTOR:

PAGE · A · DAY · CALENDAR NOTES

20. 44	R 111520A	41 42 19.5275 86 00 08.3698
20. 44	R 111521A	41. 42 18.078 86 00 11.8550
116	R 111620A	41 42 19.2177 86 00 28.7666
116	R 111618A	41 42 16.1112 86 00 17.5977

~~IBI GRP~~

~~FAA NAME~~
~~IBI~~
~~IBI GRP~~
 NAME LIST
 SPECIES

365 BOTTLES OF BEER CALENDAR • WORKMAN PUBLISHING
 The author has independently reviewed the beers referred to. No endorsement or sponsorship of this calendar by any beer manufacturer has been given or is implied. All trademarks and trade names of beers and beer manufacturers are the property of their respective owners or licensors.

19/11/57				L.R. / RTK, 11m			
59271 North Wood							
Samples collected @ 1500							
Sample at R. Soil							
Slight Open @ 1445							
Hib on e. 1454							
Trap Black							
VOA SVOC Ref PCB							
Metals							
C.R.I. de							
C.R.B.							
Temp		0.0		7H		SC	
13.4N		15.9		7.51		6.91	
13.40		13.1		0.0		7.51	
13.39		8.5		0.0		7.51	
13.39		8.5		0.0		7.51	
1505							
1459							
1502							
1505							
K111570A							
K111570A							

11 DRAINAGE CONTROL NETWORK NO. 342

11/5/00 MPR RTK, Tim Green

54305 westward

Samples collected @ 1630

Sample site SO2

Sample site for "EC" 54305 westward

Sort on @ 1618

Lab on @ 1618

NIS MSD

VOA

SOC Rest PCB

the fols

Cyanide

Amions

ECs

Temp	orp	Tur	pH	Sc	DO	Time
13.95	-119	0.00	7.29	712	41	1624
13.99	-158	0.0	7.31	711	25	1632
13.57	-149	0.0	7.24	711	22	1637
11521A						
13.58	-150	0.0	7.24	711	22	1640
13.63	-152	0.0	7.24	711	22	1643

1. ANALOG OUTPUT
MAGNIFY 10X
NO. 342

1116100 HRW, RTK
RTK 1116100

EPA Himco TOTA 116A

Blank sample collected @ 1030

Samples Collected @ HTS 1049

EPA Samples 1045 127K

Sample site S03 903 11161

Sample site for "EC" = Himco TOTA 1161
D1

Pump On 1040 1035 RTK 1116100

Pump Off

Temp	ORP	Tur	PH	Sc	DO	Time
11.83	171	23.7	6.67	339	.38	10:11
12.57	23	7.8	6.65	338	.47	1041
12.71	-35	2.0	6.68	338	.48	1042
12.74	-67	1.1	6.69	338	.43	1042
12.79	-101	.8	6.70	338	.54	1043
12.79	-110	.6	6.70	338	.35	1043
12.84	-120	.5	6.70	338	.33	1044

Purge 5 gallons, Swell volumes
take sample @ 1049

Rever File R011620A

File Blank 1000

TD 14.8

w/c 11.35 ^{DTW} ≈ w/c ≈ 5'

Stock-up 116B

≈ 1.81 above USD

with 1299 = 1.61 = 11.38

Stock-up 116A

≈ 1.91 above USD

116100 LRU, RTK

EPA Himeco H6A 101A 11/16/16

Samples collected @ 1320

Sample site 504

Sample site for "EC" = Himeco 116A

Pump On 1316

Pump Off

Temp	Orp	Turb	pH	Si	DO	Time
12.25	-139	12.9	7.00	1230	.69	1320
12.75	-147	3.0	7.01	1224	.53	1322
12.90	-150	0.6	7.01	1222	.46	1326
12.01	-153	0.1	7.01	1221	.40	1329
13.06	-155	0.1	7.01	1220	.38	1332

Rover Eye R 111618A

DTW 17.45 / TIC

TD 19.8

Appendix E

**1998 and 1999 Supplemental Site Investigation
Soil Gas Survey Forms**

1998 Supplemental Site Investigation Records

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/13/98

Site: Himes Dump Superfund Site Station Location: TT-11

Sampling Team: Rich Grubowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 12.3 °C (t_A)

Barometric Pressure: 763.9 mm Hg at 1412 AM/PM (P_A)

Weather: Partly cloudy, calm

Sample Depth: 4.5 ft/in

H₂S Reading: 0 ppm

CH₄ Reading: — ppm % LEL sensor not working.

PID Reading: 17.0 ppm

FID Reading: 0 ppm %

Air Sampling Pump Mfg./Model: MST Escort EL5

Calibrator Mfg./Model: Buch M-5

Calibrator Readings (L/min): 1576 1773 1676 1777

1775 1673 1570

Ave. Cal. Reading (L/min): 1.69 (Q_A) Flow Readout (L/min): 1.94

Tenax Tube Number: 7124 A Tenax/Charcoal Tube Number: 7124 B

Start Time: 1416 Flow Readout (L/min): 1.94

Stop Time: 1428 Flow Readout (L/min): 1.94

Elapsed Time: 12 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: $V_m = T \times Q_A = 12 \times 1.67 = 20.28$ Liters

Standardized Volume (@ 25° C and 760 mm Hg): $V_s = V_m \times (P_A/760) \times ((298/(273 + t_A))$

$= 20.28 \times 1.01 \times 1.04 = 21.30$ Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/13/98

Site: Hinck Dump Superfund Site Station Location: TT-12

Sampling Team: Rick Grubowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 10.4 °C (t_A)

Barometric Pressure: 765.3 mm Hg at 1305 AM/PM (P_A)

Weather: Partly cloudy, calm

Sample Depth: 4.5 @/in

H₂S Reading: 0 ppm CH₄ Reading: — ppm % LEL Sensor not working

PID Reading: 18.7 ppm FID Reading: 0 ppm %

Air Sampling Pump Mfg./Model: USA Escort ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1531 1510 1453 1516

1519 1450 1509

Ave. Cal. Reading (L/min): 150 (Q_A) Flow Readout (L/min): 1.81

Tenax Tube Number: 72194 Tenax/Charcoal Tube Number: 72195

Start Time: 1309 Flow Readout (L/min): 1.81

Stop Time: 1323 Flow Readout (L/min): 1.81

Elapsed Time: 14 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.50 = 21 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))

= 21 x 1.01 x 1.05 = 22.27 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/13/98

Site: Hince Dump Superfund Site Station Location: TT-12

Sampling Team: Rick Grabowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 10.4 °C (t_A)

Barometric Pressure: 765.6 mm Hg at 1214 AM/PM (P_A)

Weather: Partly cloudy, calm

Sample Depth: 0 ft/in (Ambient Air Blank)

H₂S Reading: - ppm CH₄ Reading: - ppm

PID Reading: - ppm FID Reading: - ppm

Air Sampling Pump Mfg./Model: MST Escort ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min):	<u>1426</u>	<u>1412</u>	<u>1347</u>	<u>1404</u>
	<u>1408</u>	<u>1410</u>	<u>1407</u>	

Ave. Cal. Reading (L/min): 1.40 (Q_A) Flow Readout (L/min): 1.74

Tenax Tube Number: 7107A Tenax/Charcoal Tube Number: 7107B

Start Time: 1214 Flow Readout (L/min): 1.74

Stop Time: 1229 Flow Readout (L/min): 1.74

Elapsed Time: 15 Min. (T) % Difference Flow Readout: ∅

Volumetric Flow Calculation: V_m = T X Q_A = 15 x 1.40 = 21.00 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 21.00 x 1.01 x 1.05 = 22.27 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/13/98

Site: Hince Dump Superfund Site Station Location: TT-12

Sampling Team: Rich Grubowski, Marc Andersen

Temperature: _____ (°F - 32)/1.8 = 10.3 °C (t_A)

Barometric Pressure: 765.5 mm Hg at 1233 AM/PM (P_A)

Weather: Partly cloudy, Calm

Sample Depth: 0 ft/in (Rinsate Blank)

H₂S Reading: - ppm CH₄ Reading: - ppm

PID Reading: - ppm FID Reading: - ppm

Air Sampling Pump Mfg./Model: USA Escort ELF

Calibrator Mfg./Model: Beck M-5

Calibrator Readings (L/min): 1436 1414 1510 1417

1417 1421 1361

Ave. Cal. Reading (L/min): 1.43 (Q_A) Flow Readout (L/min): 1.77

Tenax Tube Number: 7120A Tenax/Charcoal Tube Number: 7120B

Start Time: 1234 Flow Readout (L/min): 1.77

Stop Time: 1248 Flow Readout (L/min): 1.78

Elapsed Time: 14 Min. (T) % Difference Flow Readout: <1

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.43 = 20.02 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 20.02 x 1.01 x 1.05 = 21.23 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/13/98

Site: Himesa Dump Superfund Site Station Location: TT-13

Sampling Team: Rich Grubowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 8.7 °C (t_A)

Barometric Pressure: 766.7 mm Hg at 1057 AM/PM (P_A)

Weather: Partly cloudy, calm

Sample Depth: 4.3 (ft/in)

H₂S Reading: 901 ppm CH₄ Reading: - ppm % LEL Sensor not working.

PID Reading: 39.5 ppm FID Reading: - ppm % FID Flame out.

Air Sampling Pump Mfg./Model: MSA Excel ELF

Calibrator Mfg./Model: Beck M-5

Calibrator Readings (L/min): 1611 1667 1669 1664
1667 1692 1584

Ave. Cal. Reading (L/min): 1.65 (Q_A) Flow Readout (L/min): 1.85

Tenax Tube Number: 7209 A Tenax/Charcoal Tube Number: 7209 B

Start Time: 1106 Flow Readout (L/min): 1.85

Stop Time: 1118 Flow Readout (L/min): 1.85

Elapsed Time: 12 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 12 x 1.65 = 19.80 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 19.80 x 1.01 x 1.06 = 21.20 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 1/13/98

Site: Hince Dump Superfund Site Station Location: T-14

Sampling Team: Rick Czombowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 5.9 °C (tA)

Barometric Pressure: 767.4 mm Hg at 0928 AM/PM (PA)

Weather: Cloudy, no breeze

Sample Depth: 4.5 ft/in

H₂S Reading: 0 ppm CH₄ Reading: - ppm % LEL Sensor not working

PID Reading: 10.6 ppm FID Reading: - ppm % FID flame out.

Air Sampling Pump Mfg./Model: M&S Escort ELF

Calibrator Mfg./Model: Bach M-5

Calibrator Readings (L/min): 1566 1560 1557 1555
1619 1633 1560

Ave. Cal. Reading (L/min): 1.58 (QA) Flow Readout (L/min): 1.84

Tenax Tube Number: 7102A Tenax/Charcoal Tube Number: 7102B

Start Time: 09134 Flow Readout (L/min): 1.84

Stop Time: 0947 Flow Readout (L/min): 1.84

Elapsed Time: 13 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.58 = 20.54 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 20.54 x 1.01 x 1.06 = 21.99 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/13/98

Site: Himes Dump Superfund Site Station Location: IT-14 Duplicate

Sampling Team: Rich Grubowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 7.8 °C (tA)

Barometric Pressure: 767.3 mm Hg at 0755 AM/PM (PA)

Weather: Cloudy, no breeze

Sample Depth: 4.5 (ft/in)

H₂S Reading: - ppm CH₄ Reading: - ppm

PID Reading: - ppm FID Reading: - ppm

Air Sampling Pump Mfg./Model: MSA Escort ELF

Calibrator Mfg./Model: Bell M-5

Calibrator Readings (L/min): 1519 1516 1593 1610
1612 1602 1596

Ave. Cal. Reading (L/min): 1.58 (QA) Flow Readout (L/min): 1.84

Tenax Tube Number: 720A Tenax/Charcoal Tube Number: 720B

Start Time: 0953 Flow Readout (L/min): 1.84

Stop Time: 1006 Flow Readout (L/min): 1.84

Elapsed Time: 13 Min. (T) % Difference Flow Readout: ∅

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.58 = 20.54 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 20.54 x 1.01 x 1.06 = 21.99 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/12/98

Site: Himco Dump Superfund Site Station Location: TT-15

Sampling Team: Rick Grabowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 8.7 °C (t_A)

Barometric Pressure: 764.5 mm Hg at 1600 AM/PM (P_A)

Weather: Cloudy, slightly breezy

Sample Depth: 3.5 (ft) in

H₂S Reading: 0 ppm

CH₄ Reading: — ppm % LEL sensor not working

PID Reading: 32.9 ppm

FID Reading: — ppm % FID Flame out

Air Sampling Pump Mfg./Model: Teledyne TVA 1000 (Air sampling pump inlet broken.

Calibrator Mfg./Model: Buck M-5 Substituting pump in PID/FID to draw air out)

Calibrator Readings (L/min): 346.0 347.9 328.6 336.7

345.6 333.7 329.8

Ave. Cal. Reading (L/min): 0.39 (Q_A) Flow Readout (L/min): N/A

Tenax Tube Number: 7112A Tenax/Charcoal Tube Number: 7112B

Start Time: 1654 Flow Readout (L/min): N/A

Stop Time: 1745 Flow Readout (L/min): N/A

Elapsed Time: 51 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 51 x 0.39 = 19.89 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 19.89 x 1.01 x 1.06 = 21.29 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/17/98

Site: Himco Dump Superfund Site Station Location: TT-16

Sampling Team: Rich Grabowski

Temperature: _____ (°F - 32)/1.8 = 7.9 °C (t_A)

Barometric Pressure: 765.3 mm Hg at 1021 AM/PM (P_A)

Weather: Cloudy, sprinkles, calm

Sample Depth: 3.0 (ft/in)

H₂S Reading: 4 ppm CH₄ Reading: > 5 ppm %

PID Reading: 28.4 ppm FID Reading: — ppm % Flame out.

Air Sampling Pump Mfg./Model: MSA Escort ELF

Calibrator Mfg./Model: Berk M-5

Calibrator Readings (L/min): 1517 1516 1517 1523
1520 1516 1515

Ave. Cal. Reading (L/min): 1.53 (Q_A) Flow Readout (L/min): 1.75

Tenax Tube Number: 7213 A Tenax/Charcoal Tube Number: 7213 B

Start Time: 1042 Flow Readout (L/min): 1.75

Stop Time: 1055 Flow Readout (L/min): 1.76

Elapsed Time: 13 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.53 = 19.89 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))

= 19.89 x 1.01 x 1.06 = 21.29 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/12/98

Site: Himco Dump Superfund Site Station Location: T-17

Sampling Team: Rick Grabowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 9.8 °C (t_A)

Barometric Pressure: 770.1 mm Hg at 1232 AM/PM (P_A)

Weather: Cloudy, slightly breezy

Sample Depth: 4.0 ft/in

H₂S Reading: 4 ppm CH₄ Reading: — ppm % LE Sensor not working

PID Reading: 5.04 ppm FID Reading: — ppm % FID Flame out.

Air Sampling Pump Mfg./Model: Foxboro TWA 1000 (Air sampling pump inlet broken substituting pump on PID/FID to draw air in)

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 426.7 522.1 492.7 547.6
410.1 616.5 531.9

Ave. Cal. Reading (L/min): 0.51 (Q_A) Flow Readout (L/min): N/A

Tenax Tube Number: 7121A Tenax/Charcoal Tube Number: 7121B

Start Time: 1230 start Flow Readout (L/min): N/A
1237 stop

Stop Time: 1240 start Flow Readout (L/min): N/A
1315 stop

Elapsed Time: 39 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 39 x 0.51 = 19.89 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298)/(273 + t_A))

= 19.89 x 1.01 x 1.05 = 21.09 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/12/95

Site: Himes Dump Superfund Site Station Location: TT-18

Sampling Team: Rick Grabowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 9.9 °C (t_A)

Barometric Pressure: 770.7 mm Hg at 1049 AM/PM (P_A)

Weather: Cloudy, breezy

Sample Depth: 4.5 (ft/in)

H₂S Reading: — ppm

CH₄ Reading: — ppm ⁷ Detected H₂O using nose.

PID Reading: 130 ppm

FID Reading: 0.12^e ppm % Will not put CGL on line.

Air Sampling Pump Mfg./Model: Foxboro TVA 1000 (for sampling pump inlet broken. Sketched by pump on PID/FID to draw air out)

Calibrator Mfg./Model: Buck H-5

Calibrator Readings (L/min): 638.3 648.4 662.6 669.5
664.1 689.6 645.1

Ave. Cal. Reading (L/min): 0.66 (Q_A) Flow Readout (L/min): N/A

Tenax Tube Number: 7211A Tenax/Charcoal Tube Number: 7211B

Start Time: 1101 Flow Readout (L/min): N/A

Stop Time: 1132 Flow Readout (L/min): N/A

Elapsed Time: 31 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 31 x 0.66 = 20.46 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))

= 20.46 x 1.01 x 1.05 = 21.70 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/12/98

Site: Home Dump Superfund Site Station Location: TT-19

Sampling Team: Rich Grambow, Uwe Andersson

Temperature: _____ (°F - 32)/1.8 = 5.4 °C (t_A)

Barometric Pressure: 771.4 mm Hg at 0848 AM/PM (P_A)

Weather: Partly cloudy, breezy

Sample Depth: 4.5 (ft/in)

H₂S Reading: 7919 ppm CH₄ Reading: 4.4 ppm %

PID Reading: 240 ppm FID Reading: 1 ppm % Note: FID blowing out due to oxygen deficiency

Air Sampling Pump Mfg./Model: Forbes Tvd 1000 (Air sampling pump inlet broken, Sustaining pump on FID/FID to draw air out)

Calibrator Mfg./Model: Buck U-5

Calibrator Readings (L/min): 517.3 604.0 600.0 595.6
603.4 623.8 511.0

Ave. Cal. Reading (L/min): 0.60 (Q_A) Flow Readout (L/min): N/A

Tenax Tube Number: 7125A Tenax/Charcoal Tube Number: 7125B

Start Time: 0905 Flow Readout (L/min): N/A

Stop Time: 0938 Flow Readout (L/min): N/A

Elapsed Time: 33 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 33 x 0.60 = 19.8 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))

= 19.8 x 1.02 x 1.07 = 21.61 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5

Date: 11/7/98

Site: Himco Dump Superfund Site

Station Location: TT-20

Sampling Team: Rich Grabowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 7.3 °C (tA)

Barometric Pressure: 30.21 ⁱⁿ Hg at 1213 AM/PM (P_A)

Weather: Cloudy, slightly breezy, occasional sprinkles

Sample Depth: 4.5 (ft) in

H₂S Reading: 0 ppm

CH₄ Reading: 0 ppm %

PID Reading: 0 ppm

FID Reading: 0 ppm %

Air Sampling Pump Mfg./Model: MSA Escort ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1.62 1.43 1.54 1.29

1.45 1.44 1.53

Ave. Cal. Reading (L/min): 1.47 (Q_A) Flow Readout (L/min): 1.96

Tenax Tube Number: 7110 A Tenax/Charcoal Tube Number: 7110 B

Start Time: 1215 Flow Readout (L/min): 2.00

Stop Time: 1225 Flow Readout (L/min): 2.00

Elapsed Time: 10 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 10 x 1.47 = 14.70 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 14.70 x 1.01 x 1.06 = 15.73 Liters

Trip Blank 7119A, 7119B 0700

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/9/98

Site: Himeo Dump Superfund Site Station Location: IT-20

Sampling Team: Rick Grabowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 7.3 °C (t_A)

Barometric Pressure: 30.21 ⁱⁿ Hg at 1213 AM/PM (P_A)

Weather: Cloudy, slightly breezy, occasional sprinkles

Sample Depth: 4.5 (ft) in

H₂S Reading: 0 ppm CH₄ Reading: 0 ~~ppm~~ %

PID Reading: 0 ppm FID Reading: 0 ~~ppm~~ %

Air Sampling Pump Mfg./Model: MSA Escote ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): - - - -
- - - -

Ave. Cal. Reading (L/min): 1.47 (Q_A) Flow Readout (L/min): 1.96

Tenax Tube Number: 7105A Tenax/Charcoal Tube Number: 7105B

Start Time: 1230 Flow Readout (L/min): 2.00

Stop Time: 1251 Flow Readout (L/min): 2.00

Elapsed Time: 21 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 21 x 1.47 = 30.87 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))

= 30.87 x 1.01 x 1.06 = 33.05 Liters

Trip Blank 7119A, 7119B 0700

SOIL GAS SURVEY FORM

Client: U.S. EPA Regions Date: 11/1/98

Site: Himco Dump Superfund Site Station Location: TT-2c

Sampling Team: Rick Grabowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 8.1 °C (t_A)

Barometric Pressure: 30.19 ~~mm~~^{in.} Hg at 1259 AM/PM (P_A)

Weather: Cloudy, slightly breezy, occasional sprinkles

Sample Depth: 4.5 (ft/in)

H₂S Reading: 0 ppm CH₄ Reading: 0 ~~ppm~~ %

PID Reading: 0 ppm FID Reading: 0 ~~ppm~~ %

Air Sampling Pump Mfg./Model: MSA Escort ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): - - - -
- - - -

Ave. Cal. Reading (L/min): 1.47 (Q_A) Flow Readout (L/min): 1.96

Tenax Tube Number: 7115A Tenax/Charcoal Tube Number: 7115B

Start Time: 1259 Flow Readout (L/min): 2.00

Stop Time: 1329 Flow Readout (L/min): 2.00

Elapsed Time: 30 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 30 x 1.47 = 44.10 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 44.10 x 1.01 x 1.06 = 47.21 Liters

Trip Blank 7119A, 7119B 0700

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/1/98

Site: Hume Dump Superfund Site Station Location: T1-21

Sampling Team: Rick Grubowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 10.1 °C (t_A)

Barometric Pressure: 30.16 ~~in~~ Hg at 1544 AM/PM (P_A)

Weather: Sunny, breezy

Sample Depth: 4.5 ft/in

H₂S Reading: >999 ppm

CH₄ Reading: 41 %

PID Reading: 302.0 ppm

FID Reading: 0.68 %

Air Sampling Pump Mfg./Model: Fisher TVA1000 (Air sampling pump inlet broken. Substituting pump on T20/FID to draw air out).

Calibrator Mfg./Model: Berk U-5

Calibrator Readings (L/min): 234.6 247.6 250.7 316.8

235.6 249.8 285.5

Ave. Cal. Reading (L/min): 0.26 (Q_A) Flow Readout (L/min): N/A

Tenax Tube Number: 7208A Tenax/Charcoal Tube Number: 7208B

Start Time: 1602 Flow Readout (L/min): N/A

Stop Time: 1805 Flow Readout (L/min): N/A

Elapsed Time: 128 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 123 x 0.26 = 31.98 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 31.98 x 1.01 x 1.05 = 33.91 Liters

Note: Tenax sorbent tube turned black - have a black condensate forming in talcogard sorbent tube.

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/11/98

Site: Homer Dump Superfund Site Station Location: IT-22

Sampling Team: Rick Grubowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 9.1 °C (t_A)

Barometric Pressure: 30.12 ~~mm~~ ^{in.} Hg at 1408 AM/PM (P_A)

Weather: Sunny, breezy

Sample Depth: 4.5 (ft/in)

H₂S Reading: 0 ppm CH₄ Reading: 0 ppm %

PID Reading: 17.02 ppm FID Reading: 0 ppm %

Air Sampling Pump Mfg./Model: Foxboro TVA 1000 (Air sampling pump inlet broken. Substituting pump on PID/FID to draw air out).

Calibrator Mfg./Model: Buch N-9

Calibrator Readings (L/min): 741.1 715.8 711.1 720.3
738.8 711.6 731.6

Ave. Cal. Reading (L/min): 0.72 (Q_A) Flow Readout (L/min): N/A

Tenax Tube Number: ~~720A~~ Tenax/Charcoal Tube Number: ~~720B~~

Start Time: 1418 Flow Readout (L/min): N/A

Stop Time: 1514 Flow Readout (L/min): N/A

Elapsed Time: 56 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 56 x 0.72 = 40.32 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 40.32 x 1.01 x 1.06 = 43.12 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/11/88

Site: Himeco Dump Superfund Site Station Location: TT-23

Sampling Team: Rick Grabowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 8.9 °C (t_A)

Barometric Pressure: 30.68 ^{in.} ~~mm~~ Hg at 1218 AM/PM (P_A)

Weather: Sunny, breezy

Sample Depth: 4.5 (ft) in

H₂S Reading: 0 ppm CH₄ Reading: 0 ~~ppm~~ %

PID Reading: 2.01 ppm FID Reading: 0 ~~ppm~~ %

Air Sampling Pump Mfg./Model: Foxboro TVA 1000 (Air Sampling Pump failed broken. Substituting pump on PID/FID to draw air out).

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 574.5 617.0 582.0 618.9

623.7 574.8 581.4

Ave. Cal. Reading (L/min): 0.60 (Q_A) Flow Readout (L/min): N/A

Tenax Tube Number: 7218A Tenax/Charcoal Tube Number: 7218B

Start Time: 1226 Flow Readout (L/min): N/A

Stop Time: 1343 Flow Readout (L/min): N/A

Elapsed Time: 67 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 67 x 0.60 = 40.20 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))

= 40.20 x 1.01 x 1.06 = 43.04 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/1/98

Site: Hance Dump Superfund Site Station Location: TT-24

Sampling Team: Rick Grabowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 6.3 °C (t_A)

Barometric Pressure: 30.05 ~~mm~~^{in.} Hg at 1026 AM/PM (P_A)

Weather: Partly cloudy, breezy

Sample Depth: 4.5 (ft/in)

H₂S Reading: 0 ppm CH₄ Reading: 0 ppm %

PID Reading: 36.05 ppm FID Reading: 0 ppm %

Possible moisture interference.
Air Sampling Pump Mfg./Model: Fabco TVA 1000 (Air sampling pump inlet broken. Substituting pump on PID/FID to draw air out).

Calibrator Mfg./Model: Bach M-5

Calibrator Readings (L/min): 709.7 709.7 704.7 743.7
714.0 924.9 121.0

Ave. Cal. Reading (L/min): 0.73 (Q_A) Flow Readout (L/min): N/A

Tenax Tube Number: 7220A Tenax/Charcoal Tube Number: 7220B

Start Time: 1056 Flow Readout (L/min): N/A

Stop Time: 1151 Flow Readout (L/min): N/A

Elapsed Time: 55 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 55 x 0.73 = 40.15 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 40.15 x 1.06 x 1.07 = 42.96 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/11/98

Site: Home Depot Superfund Site Station Location: TT-25

Sampling Team: Rick Grabowski, Matt Anderson

Temperature: _____ (°F - 32)/1.8 = 2.4 °C (t_A)

Barometric Pressure: 29.98 ^{in.} Hg at 08:25 AM/PM (P_A)

Weather: Cloudy, occasional snow/ice showers, breezy

Sample Depth: 4.5 ft/in

H₂S Reading: 0 ppm CH₄ Reading: 0 ~~ppm~~ %

PID Reading: 1.17 ppm FID Reading: 0 ~~ppm~~ %

Air Sampling Pump Mfg./Model: Fairbairn TVA1000 (Air sampling pump inlet broken. Substituted pump in PID/FID to draw air out).

Calibrator Mfg./Model: Buch M-5

Calibrator Readings (L/min): 580.2 573.9 403.4 572.4

669.4 579.0 502.5

Ave. Cal. Reading (L/min): 0.60 (Q_A) Flow Readout (L/min): N/A

Tenax Tube Number: 7212A Tenax/Charcoal Tube Number: 7212B

Start Time: 9:04 Flow Readout (L/min): N/A

Stop Time: 10:11 Flow Readout (L/min): N/A

Elapsed Time: 67 ~~67~~ Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 67 x 0.60 = 40.20 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 40.20 x 1.00 x 1.08 = 43.42 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/16/98

Site: Hanna Dump Superfund Site Station Location: TT-2C

Sampling Team: Rich Grubowski, Marie Anderson

Temperature: _____ (°F - 32)/1.8 = 4.9 °C (t_A)

Barometric Pressure: 756.6 mm Hg at 0833 AM/PM (P_A)

Weather: Partly cloudy, breezy

Sample Depth: 4.5 (ft/in)

H₂S Reading: 7999 ppm CH₄ Reading: - ppm % Nit read due to high H₂S.

PID Reading: 129 ppm FID Reading: - ppm % Flame out.

Air Sampling Pump Mfg./Model: M&S Escal ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1641 1636 1623 1628
1628 1644 1643

Ave. Cal. Reading (L/min): 1.63 (Q_A) Flow Readout (L/min): 1.71

Tenax Tube Number: 7113 A Tenax/Charcoal Tube Number: 7113 B

Start Time: 0840 Flow Readout (L/min): 1.71

Stop Time: 0953 Flow Readout (L/min): 1.69

Elapsed Time: 13 Min. (T) % Difference Flow Readout: 1%

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.63 = 21.19 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 21.19 x 1.06 x 1.07 = 22.67 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/16/98

Site: Hinner Dump Superfund Site Station Location: IT-26

Sampling Team: Rich Grabowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 4.7 °C (t_A)

Barometric Pressure: 74.5 mm Hg at 0850 AM/PM (P_A)

Weather: Partly cloudy, breezy

Sample Depth: 4.5 ft/in

H₂S Reading: - ppm

CH₄ Reading: - ppm

PID Reading: - ppm

FID Reading: - ppm

} Duplicate sample. Field screening not needed.

Air Sampling Pump Mfg./Model: HSA Escort ELF

Calibrator Mfg./Model: Buch U-5

Calibrator Readings (L/min): ~~1600~~ 1603 1609 1615 1600

1603 1613 1608

Ave. Cal. Reading (L/min): 1.61 (Q_A) Flow Readout (L/min): 1.68

Tenax Tube Number: 7116 A Tenax/Charcoal Tube Number: 7116 B

Start Time: 0857 Flow Readout (L/min): 1.68

Stop Time: 0910 Flow Readout (L/min): 1.68

Elapsed Time: 13 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.61 = 20.93 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))

= 20.93 x 1.00 x 1.07 = 22.40 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/16/98

Site: Hanco Dump Superfund Site Station Location: TT-27

Sampling Team: Rick Grabowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 9.7 °C (t_A)

Barometric Pressure: 754.9 mm Hg at 1030 AM/PM (P_A)

Weather: Cloudy, breezy

Sample Depth: 4.5 (ft/in)

H₂S Reading: 15 ppm CH₄ Reading: 0 ppm %

PID Reading: 11.7 ppm FID Reading: 0 ppm %

Air Sampling Pump Mfg./Model: M3A Escort ELF

Calibrator Mfg./Model: Bach M-5

Calibrator Readings (L/min): 1332 1256 1274 1255
1285 1278 1324

Ave. Cal. Reading (L/min): 1.27 (Q_A) Flow Readout (L/min): 1.65

Tenax Tube Number: 7104 A Tenax/Charcoal Tube Number: 7104 B

Start Time: 1039 Flow Readout (L/min): 1.65

Stop Time: 1055 Flow Readout (L/min): 1.66

Elapsed Time: 16 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 16 x 1.27 = 20.32 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

20.32 x 0.99 x 1.05 = 21.12 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/11/98

Site: Hince Dump Superfund Site Station Location: TT-27

Sampling Team: Rich Grabowski, Marc Anderson

Temperature: _____ (°F - 32) / 1.8 = 8.3 °C (t_A)

Barometric Pressure: 755.7 mm Hg at 0940 AM/PM (P_A)

Weather: Partly cloudy, breezy

Sample Depth: 0 (ft/in (Ambient Air Blank))

H₂S Reading: - ppm CH₄ Reading: - ppm %

PID Reading: - ppm FID Reading: - ppm %

Air Sampling Pump Mfg./Model: USA Escort ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1358 1411 1404 1414
1353 1346 1407

Ave. Cal. Reading (L/min): 1.38 (Q_A) Flow Readout (L/min): 1.77

Tenax Tube Number: 7106 A Tenax/Charcoal Tube Number: 7106 B

Start Time: 0945 Flow Readout (L/min): 1.79

Stop Time: 1000 Flow Readout (L/min): 1.78

Elapsed Time: 15 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 15 x 1.38 = 20.70 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 20.70 x 0.99 x 1.06 = 21.77 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/16/98

Site: Homer Dump Superfund Site Station Location: TT-27

Sampling Team: Rock Grabowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 9.5 °C (t_A)

Barometric Pressure: 755.1 mm Hg at 1007 AM/PM (P_A)

Weather: Cloudy, breezy

Sample Depth: 0 ft/in (Raise Blank)

H₂S Reading: — ppm CH₄ Reading: — ppm %

PID Reading: — ppm FID Reading: — ppm %

Air Sampling Pump Mfg./Model: MSA Escal ELF

Calibrator Mfg./Model: Buch M-5

Calibrator Readings (L/min): 1279 1217 1271 1276
1277 1261 1277

Ave. Cal. Reading (L/min): 1.27 (Q_A) Flow Readout (L/min): 1.66

Tenax Tube Number: 71224 Tenax/Charcoal Tube Number: 71223

Start Time: 1005 Flow Readout (L/min): 1.66

Stop Time: 1021 Flow Readout (L/min): 1.66

Elapsed Time: 16 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 16 x 1.27 = 20.32 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 20.32 x 0.99 x 1.05 = 21.12 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/16/98

Site: Hinco Dump Superfund Site Station Location: TT-28

Sampling Team: Rick Grabowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 10.4 °C (t_A)

Barometric Pressure: 754.2 mm Hg at 1128 AM/PM (P_A)

Weather: Cloudy, breezy

Sample Depth: 4.5 ft/in

H₂S Reading: 4 ppm

CH₄ Reading: 0.3 ppm %

PID Reading: 34.4 ppm

FID Reading: - ppm % Flame out.

Air Sampling Pump Mfg./Model: MSA Escort ELF

Calibrator Mfg./Model: Buck M-S

Calibrator Readings (L/min): 1533 1613 1600 1596

1520 1525 1597

Ave. Cal. Reading (L/min): 157 (Q_A) Flow Readout (L/min): 1.81

Tenax Tube Number: 7123 A Tenax/Charcoal Tube Number: 7123 B

Start Time: 1131 Flow Readout (L/min): 1.81

Stop Time: 1144 Flow Readout (L/min): 1.81

Elapsed Time: 13 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 157 = 20.41 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 20.41 x 0.99 x 1.05 = 21.22 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/16/98

Site: Amco Dump Superfund Site Station Location: TT-29

Sampling Team: Rick Grabowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 16.5 °C (t_A)

Barometric Pressure: 752.1 mm Hg at 1409 AM/PM (P_A)

Weather: Cloudy, breezy

Sample Depth: 4.5 (ft/in)

H₂S Reading: 0 ppm CH₄ Reading: 0 ppm %

PID Reading: 45.9 ppm FID Reading: 0 ppm %

Air Sampling Pump Mfg./Model: MSA Escort ELP

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1728 1806 1816 1801
1807 1814 1720

Ave. Cal. Reading (L/min): 1.78 (Q_A) Flow Readout (L/min): 1.98

Tenax Tube Number: 7203A Tenax/Charcoal Tube Number: 7203B

Start Time: 1414 Flow Readout (L/min): 1.98

Stop Time: 1426 Flow Readout (L/min): 2.00

Elapsed Time: 12 Min. (T) % Difference Flow Readout: 1%

Volumetric Flow Calculation: V_m = T X Q_A = 12 x 1.78 = 21.36 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))

= 21.36 x 0.99 x 1.03 = 21.78 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/16/98

Site: Himco Dump Superfund Site Station Location: TT-32

Sampling Team: Rick Grabowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 13.7 °C (t_A)

Barometric Pressure: 7524 mm Hg at 15:18 AM/PM (P_A)

Weather: Cloudy, breezy

Sample Depth: 4.5 (ft/in)

H₂S Reading: 0 ppm

CH₄ Reading: 0 ppm %

PID Reading: 21.6 ppm

FID Reading: 0 ppm %

Air Sampling Pump Mfg./Model: MSA Escort ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1355 1291 1357 1362

1423 1363 1359

Ave. Cal. Reading (L/min): 1.36 (Q_A) Flow Readout (L/min): 1.68

Tenax Tube Number: 7215A Tenax/Charcoal Tube Number: 7215B

Start Time: 1521 Flow Readout (L/min): 1.68

Stop Time: 1536 Flow Readout (L/min): 1.68

Elapsed Time: 15 Min. (T) % Difference Flow Readout: ϕ

Volumetric Flow Calculation: V_m = T X Q_A = 15 x 1.36 = 20.40 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))

= 20.40 x 0.99 x 1.04 = 21.00 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/16/98

Site: Himec Dump Superfund Site Station Location: TT-3.1

Sampling Team: Rick Grabowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 12.5 °C (t_A)

Barometric Pressure: 752.8 mm Hg at 1:55 AM/PM (P_A)

Weather: Cloudy, breezy

Sample Depth: 4.5 (ft/in)

H₂S Reading: 0 ppm CH₄ Reading: 0 ppm %

PID Reading: 19.9 ppm FID Reading: 0 ppm %

Air Sampling Pump Mfg./Model: MSA Escort ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1736 1651 1461 1639

1668 1747 1661

Ave. Cal. Reading (L/min): 1.68 (Q_A) Flow Readout (L/min): 1.97

Tenax Tube Number: 7201 A Tenax/Charcoal Tube Number: 7201 B

Start Time: 1610 Flow Readout (L/min): 1.97

Stop Time: 1622 Flow Readout (L/min): 1.97

Elapsed Time: 12 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 12 x 1.68 = 20.16 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))

= 20.16 x 0.99 x 1.04 = 20.76 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/17/88

Site: Hance Dump Superfund Site Station Location: TT-32

Sampling Team: Rich Grabowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 5.5 °C (t_A)

Barometric Pressure: 763.5 mm Hg at 0810 AM/PM (P_A)

Weather: Cloudy, sprinkles, light breeze

Sample Depth: 4.5 ft/in

H₂S Reading: 4 ppm

CH₄ Reading: 0 ppm %

PID Reading: 3.5 ppm

FID Reading: 0 ppm % Flame out.

Air Sampling Pump Mfg./Model: MSA Escort ELI

Calibrator Mfg./Model: Buck 19-S

Calibrator Readings (L/min): 1380 1386 1389 1452

1443 1441 1453

Ave. Cal. Reading (L/min): 1.42 (Q_A) Flow Readout (L/min): 1.72

Tenax Tube Number: 7207 A Tenax/Charcoal Tube Number: 7207 B

Start Time: 0819 Flow Readout (L/min): 1.72

Stop Time: 0833 Flow Readout (L/min): 1.72

Elapsed Time: 14 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.42 = 19.88 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))

= 19.88 x 1.00 x 1.07 = 21.27 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/17/18

Site: Hince Dump Superfund Site Station Location: TT-33

Sampling Team: Rich Grabowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 5.6 °C (t_A)

Barometric Pressure: 764.5 mm Hg at 0855 AM/PM (P_A)

Weather: Cloudy, sprinkling, calm

Sample Depth: 4.5 (ft/in)

H₂S Reading: 17 ppm

CH₄ Reading: 0.1 ppm %

PID Reading: 20.5 ppm

FID Reading: - ppm % Flame out

Air Sampling Pump Mfg./Model: MSH Escort ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1577 1562 1570 1501
1553 1563 1498

Ave. Cal. Reading (L/min): 1.55 (Q_A) Flow Readout (L/min): 1.83

Tenax Tube Number: 7214 A Tenax/Charcoal Tube Number: 7214 B

Start Time: 0919 Flow Readout (L/min): 1.83

Stop Time: 0932 Flow Readout (L/min): 1.83

Elapsed Time: 13 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.55 = 20.15 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))

= 20.15 x 1.01 x 1.07 = 21.78 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 11/17/98

Site: Himes Dump Superfund Site Station Location: TT-34

Sampling Team: Rich Grabowski, Marc Anderson

Temperature: _____ (°F - 32)/1.8 = 9.8 °C (t_A)

Barometric Pressure: 765.6 mm Hg at 1247 AM/PM (P_A)

Weather: Partly cloudy, slightly breezy

Sample Depth: 4.5 ft/in

H₂S Reading: 129 ppm

CH₄ Reading: 0.7 ppm %

PID Reading: 45.9 ppm

FID Reading: - ppm % Flame out.

Air Sampling Pump Mfg./Model: MSA Escort ELF

Calibrator Mfg./Model: Beck M-5

Calibrator Readings (L/min): 1250 1245 1249 1256
1296 1238 1250

Ave. Cal. Reading (L/min): 1.25 (Q_A) Flow Readout (L/min): 1.64

Tenax Tube Number: 7114A Tenax/Charcoal Tube Number: 7114B

Start Time: 1256 Flow Readout (L/min): 1.64

Stop Time: 1312 Flow Readout (L/min): 1.64

Elapsed Time: 16 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 16 x 1.25 = 20.0 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))

= 20.00 x 1.01 x 1.05 = 21.21 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 12/9/98

Site: Ames Dump Superfund Site Station Location: TT-35

Sampling Team: Rick Grubowski, Jenie Carvey

Temperature: _____ (°F - 32)/1.8 = 6.1 °C (t_A)

Barometric Pressure: 773.6 mm Hg at 1059 AM/PM (P_A)

Weather: Sunny, slightly breezy

Sample Depth: 4.5 ft/in

H₂S Reading: 0 ppm CH₄ Reading: 0 ppm %

PID Reading: 0 ppm FID Reading: — ppm

Air Sampling Pump Mfg./Model: MSA Escorte ELF

Calibrator Mfg./Model: Book M-5

Calibrator Readings (L/min): 1972 1969 1977 1974
2120 1964 2101

Ave. Cal. Reading (L/min): 1.87 (Q_A) Flow Readout (L/min): 2.00

Tenax Tube Number: 7706A Tenax/Charcoal Tube Number: 7706B

Start Time: 1145 Flow Readout (L/min): 2.00

Stop Time: 1156 Flow Readout (L/min): 2.00

Elapsed Time: 11 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 11 x 1.87 = 20.57 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 20.57 x 1.02 x 1.07 = 22.45 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 12/1/88

Site: Hinco Dump Superfund Site Station Location: TT-36

Sampling Team: Rich Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 9.6 °C (t_A)

Barometric Pressure: 772.5 mm Hg at 1320 AM/PM (P_A)

Weather: Sunny, breezy

Sample Depth: 4.5 (ft) in

H₂S Reading: 0 ppm CH₄ Reading: 0 ppm %

PID Reading: 0 ppm FID Reading: — ppm

Air Sampling Pump Mfg./Model: USA Escort ELF

Calibrator Mfg./Model: Boch M-5

Calibrator Readings (L/min): 1797 1791 1696 1691
1787 1794 1696

Ave. Cal. Reading (L/min): 1.75 (Q_A) Flow Readout (L/min): 1.57

Tenax Tube Number: 7703A Tenax/Charcoal Tube Number: 77036

Start Time: 1332 Flow Readout (L/min): 1.57

Stop Time: 1344 Flow Readout (L/min): 1.60

Elapsed Time: 12 Min. (T) % Difference Flow Readout: 2

Volumetric Flow Calculation: V_m = T X Q_A = 12 x 1.75 = 21.00 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 21.00 x 1.02 x 1.05 = 22.49 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 12/9/98

Site: Himeco Dump Superfund Site Station Location: T1-37

Sampling Team: Rick Grabowski, Janie Carney

Temperature: _____ (°F - 32)/1.8 = 11.0 °C (t_A)

Barometric Pressure: 772.4 mm Hg at 1415 AM/PM (P_A)

Weather: Sunny, breezy

Sample Depth: 4.5 (ft/in)

H₂S Reading: 0 ppm CH₄ Reading: 0 ppm %

PID Reading: 0 ppm FID Reading: - ppm

Air Sampling Pump Mfg./Model: MSA Escort ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1753 1798 1756 1712
1755 1795 1534

Ave. Cal. Reading (L/min): 1.78 (Q_A) Flow Readout (L/min): 1.64

Tenax Tube Number: 7708 A Tenax/Charcoal Tube Number: 7708 B

Start Time: 1425 Flow Readout (L/min): 1.64

Stop Time: 1437 Flow Readout (L/min): 1.65

Elapsed Time: 12 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 12 x 1.78 = 21.36 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 21.36 x 1.02 x 1.05 = 22.88 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 12/7/98

Site: Himco Dump Superfund Site Station Location: TT-38

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ ($^{\circ}\text{F} - 32$)/1.8 = 11.2 $^{\circ}\text{C}$ (t_A)

Barometric Pressure: 772.2 mm Hg at 15¹⁰ AM/PM (P_A)

Weather: Sunny, breezy.

Sample Depth: 4.5 (ft/in)

H₂S Reading: 0 ppm CH₄ Reading: 0 ppm %

PID Reading: 0.7 ppm FID Reading: - ppm

Air Sampling Pump Mfg./Model: MSA Escort ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1533 1620 1576 1557

1616 1597 1619

Ave. Cal. Reading (L/min): 1.59 (Q_A) Flow Readout (L/min): 1.41

Tenax Tube Number: 7709 A Tenax/Charcoal Tube Number: 7709 B

Start Time: 1533 Flow Readout (L/min): 1.41

Stop Time: 1546 Flow Readout (L/min): 1.41

Elapsed Time: 13 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: $V_m = T \times Q_A =$ 13 x 1.59 = ~~20.67~~ ^{20.67} Liters

Standardized Volume (@ 25 $^{\circ}$ C and 760 mm Hg): $V_s = V_m \times (P_A/760) \times ((298/(273 + t_A))$

= 20.67 x 1.02 x 1.05 = 22.14 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 12/10/98

Site: Himes Dump Superfund Site Station Location: TT-39

Sampling Team: Rick Grabowski, Janice Carrig

Temperature: _____ (°F - 32)/1.8 = 0.7 °C (t_A)

Barometric Pressure: 773.6 mm Hg at 0939 AM/PM (P_A)

Weather: Sunny, calm

Sample Depth: 4.5 ft/in

H₂S Reading: 0 ppm

CH₄ Reading: 0 ppm %

PID Reading: 0 ppm

FID Reading: — ppm

Air Sampling Pump Mfg./Model: MSA Escort ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1841 1748 1846 1975

1845 1835 1737

Ave. Cal. Reading (L/min): 1.83 (Q_A) Flow Readout (L/min): 1.56

Tenax Tube Number: 7721A Tenax/Charcoal Tube Number: 7721B

Start Time: 0953 Flow Readout (L/min): 1.56

Stop Time: 1004 Flow Readout (L/min): 1.58

Elapsed Time: 11 Min. (T) % Difference Flow Readout: 1

Volumetric Flow Calculation: $V_m = T \times Q_A = \underline{11} \times \underline{1.83} = \underline{20.13}$ Liters

Standardized Volume (@ 25° C and 760 mm Hg): $V_s = V_m \times (P_A/760) \times ((298/(273 + t_A))$

$= \underline{20.13} \times \underline{1.02} \times \underline{1.06} = \underline{22.36}$ Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 12/10/98

Site: Himes Dump Superfund Site Station Location: TT-39

Sampling Team: Rich Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 3.5 °C (t_A)

Barometric Pressure: 773.2 mm Hg at 1010 AM/PM (P_A)

Weather: Sunny, slightly breezy

Sample Depth: 4.5 (ft) in

H₂S Reading: - ppm CH₄ Reading: - ppm Duplicate Sample

PID Reading: - ppm FID Reading: - ppm

Air Sampling Pump Mfg./Model: MSA Escort ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1580 1611 1536 1611
1588 1534 1531

Ave. Cal. Reading (L/min): 1.57 (Q_A) Flow Readout (L/min): 1.33

Tenax Tube Number: 7724A Tenax/Charcoal Tube Number: 7724B

Start Time: 1008 Flow Readout (L/min): 1.33

Stop Time: 1021 Flow Readout (L/min): 1.35

Elapsed Time: 13 Min. (T) % Difference Flow Readout: 1

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.57 = 20.41 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 20.41 x 1.02 x 1.08 = 22.48 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 12/10/98

Site: Himco Dump Superfund Site Station Location: TT-40

Sampling Team: Rick Grabowski, Janie Carney

Temperature: _____ (°F - 32)/1.8 = 5.7 °C (t_A)

Barometric Pressure: 772.7 mm Hg at 1103 AM/PM (P_A)

Weather: Sunny, breezy

Sample Depth: 4.5 (ft) in

H₂S Reading: 0 ppm CH₄ Reading: 0 ppm %

PID Reading: 0 ppm FID Reading: - ppm

Air Sampling Pump Mfg./Model: MSA Escort ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1888 1802 1916 1792

1797 1901 1807

Ave. Cal. Reading (L/min): 1.84 (Q_A) Flow Readout (L/min): 1.52

Tenax Tube Number: 7719 A Tenax/Charcoal Tube Number: 7719 B

Start Time: 1122 Flow Readout (L/min): 1.52

Stop Time: 1133 Flow Readout (L/min): 1.53

Elapsed Time: 11 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 11 x 1.84 = 20.24 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 20.24 x 1.02 x 1.07 = 22.09 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 12/10/98

Site: Hume Dump Superfund Site Station Location: T-41

Sampling Team: Rich Grabowski, Jauri Carrig

Temperature: _____ ($^{\circ}\text{F} - 32$)/1.8 = -3.7 $^{\circ}\text{C}$ (t_A)

Barometric Pressure: 774.1 mm Hg at 0946 AM/PM (P_A)

Weather: Sunny, calm

Sample Depth: 4.5 ft/in

H₂S Reading: 0 ppm CH₄ Reading: 0.1 ppm %

PID Reading: 0 ppm FID Reading: - ppm

Air Sampling Pump Mfg./Model: MDA Model ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1755 1846 1851 1856
1762 1765 1793

Ave. Cal. Reading (L/min): 1.80 (Q_A) Flow Readout (L/min): 1.57

Tenax Tube Number: 7711A Tenax/Charcoal Tube Number: 7711B

Start Time: 0855 Flow Readout (L/min): 1.57

Stop Time: 0907 Flow Readout (L/min): 1.56

Elapsed Time: 12 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: $V_m = T \times Q_A =$ 12 x 1.80 = 21.60 Liters

Standardized Volume (@ 25 $^{\circ}$ C and 760 mm Hg): $V_s = V_m \times (P_A/760) \times ((298/(273 + t_A))$

= 21.60 x 1.02 x 1.11 = 24.46 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 12/10/98

Site: Himes Dump Superfund Site Station Location: TT-42

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 6.8 °C (t_A)

Barometric Pressure: 771.5 mm Hg at 121/ AM/PM (P_A)

Weather: Sunny, breezy

Sample Depth: 4.5 ft/in

H₂S Reading: 0 ppm CH₄ Reading: 0 ppm %

PID Reading: 0 ppm FID Reading: - ppm

Air Sampling Pump Mfg./Model: MSA Escort ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 166 1549 1617 1613
1612 1696 1616

Ave. Cal. Reading (L/min): 1.62 (Q_A) Flow Readout (L/min): 1.42

Tenax Tube Number: 7704 A Tenax/Charcoal Tube Number: 7701 B

Start Time: 1218 Flow Readout (L/min): 1.42

Stop Time: 1231 Flow Readout (L/min): 1.42

Elapsed Time: 13 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.62 = 21.06 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 21.06 x 1.02 x 1.07 = 22.98 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 12/10/98

Site: Hunter Dump Superfund Site Station Location: TT-43

Sampling Team: Rich Grabowski, Janie Curry

Temperature: _____ (°F - 32)/1.8 = 6.3 °C (t_A)

Barometric Pressure: 771.7 mm Hg at 1404 AM/PM (P_A)

Weather: Cloudy, breezy

Sample Depth: 4.5 (ft/in)

H₂S Reading: 0 ppm

CH₄ Reading: 0 ppm%

PID Reading: 0 ppm

FID Reading: - ppm

Air Sampling Pump Mfg./Model: MSA Escort ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1733 1729 1729 1791

1742 1722 1720

Ave. Cal. Reading (L/min): 1.75 (Q_A) Flow Readout (L/min): 1.55

Tenax Tube Number: 7701A Tenax/Charcoal Tube Number: 7701B

Start Time: 1410 Flow Readout (L/min): 1.55

Stop Time: 1422 Flow Readout (L/min): 1.59

Elapsed Time: 12 Min. (T) % Difference Flow Readout: 3

Volumetric Flow Calculation: V_m = T X Q_A = 12 x 1.75 = 21.00 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))

= 21.00 x 1.02 x 1.07 = 22.92 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 12/10/98

Site: Ames Dump Superfund Site Station Location: TT-44

Sampling Team: Rick Grabowski, Janie Carney

Temperature: _____ (°F - 32)/1.8 = 5.4 °C (t_A)

Barometric Pressure: 772.0 mm Hg at 1457 AM/PM (P_A)

Weather: Cloudy, breezy

Sample Depth: 4.5 ft/in

H₂S Reading: 0 ppm CH₄ Reading: 0 ppm %

PID Reading: 0 ppm FID Reading: - ppm

Air Sampling Pump Mfg./Model: USA Escort ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1601 1517 1515 1512
1517 1514 1514

Ave. Cal. Reading (L/min): 1.55 (Q_A) Flow Readout (L/min): 1.33

Tenax Tube Number: 77104 Tenax/Charcoal Tube Number: 77106

Start Time: 1503 Flow Readout (L/min): 1.33

Stop Time: 1516 Flow Readout (L/min): 1.35

Elapsed Time: 13 Min. (T) % Difference Flow Readout: 1

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.55 = 20.15 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 20.15 x 1.02 x 1.07 = 21.99 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 12/10/98

Site: Hince Dump Superfund Site Station Location: TT-45

Sampling Team: Rich Grubowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 4.2 °C (t_A)

Barometric Pressure: 772.7 mm Hg at 16/2 AM/PM (P_A)

Weather: Cloudy, breezy

Sample Depth: 4.5 (ft) in

H₂S Reading: 0 ppm CH₄ Reading: 0 ppm %

PID Reading: 0 ppm FID Reading: - ppm

Air Sampling Pump Mfg./Model: MSA Escort ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1704 1767 1767 1767
1712 1764 1678

Ave. Cal. Reading (L/min): 1.74 (Q_A) Flow Readout (L/min): 1.51

Tenax Tube Number: 7702A Tenax/Charcoal Tube Number: 7702B

Start Time: 1622 Flow Readout (L/min): 1.51

Stop Time: 1634 Flow Readout (L/min): 1.51

Elapsed Time: 12 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 12 x 1.74 = 20.88 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 20.88 x 1.02 x 1.04 = 23.00 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 12/14/98

Site: Himco Dump Superfund Site Station Location: TT-46

Sampling Team: Rick Grabinski

Temperature: _____ (°F - 32)/1.8 = 4.4 °C (t_A)

Barometric Pressure: 771.8 mm Hg at 1232 AM/PM (P_A)

Weather: Sunny, calm

Sample Depth: 4.5 (ft/in)

H₂S Reading: 0 ppm

CH₄ Reading: 0 ppm %

PID Reading: 122 ppm

FID Reading: _____ ppm

Air Sampling Pump Mfg./Model: Industrial Scientific SP400

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1156 1141 1088 1155

1143 1152 1089

Ave. Cal. Reading (L/min): 1.13 (Q_A) Flow Readout (L/min): —

Tenax Tube Number: 7903A Tenax/Charcoal Tube Number: 7905B

Start Time: 1238 Flow Readout (L/min): —

Stop Time: 056 Flow Readout (L/min): —

Elapsed Time: 18 Min. (T) % Difference Flow Readout: —

Volumetric Flow Calculation: V_m = T X Q_A = 18 x 1.13 = 20.34 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))

= 20.34 x 1.02 x 1.07 = 22.20 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 12/14/98

Site: Aimco Dump Superfund Site Station Location: TT-46

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 6.5 °C (t_A)

Barometric Pressure: 771.8 mm Hg at 1203 AM/PM (P_A)

Weather: Sunny, calm

Sample Depth: 4.5 (ft/in)

H₂S Reading: — ppm CH₄ Reading: — ppm Duplicate Sample

PID Reading: — ppm FID Reading: — ppm

Air Sampling Pump Mfg./Model: Industrial Scientific SP400

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1160 1134 1160 1136

1134 1109 1165

Ave. Cal. Reading (L/min): 1.14 (Q_A) Flow Readout (L/min): —

Tenax Tube Number: 7902A Tenax/Charcoal Tube Number: 7902B

Start Time: 1259 Flow Readout (L/min): —

Stop Time: 1317 Flow Readout (L/min): —

Elapsed Time: 18 Min. (T) % Difference Flow Readout: —

Volumetric Flow Calculation: $V_m = T \times Q_A =$ 18 x 1.14 = 20.52 Liters

Standardized Volume (@ 25° C and 760 mm Hg): $V_s = V_m \times (P_A/760) \times ((298)/(273 + t_A))$

= 20.52 x 1.02 x 1.07 = 22.40 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Regions Date: 12/14/98
Site: Himes Dump Superfund Site Station Location: TT-47
Sampling Team: Rich Grabowski, Janie Currie
Temperature: _____ (°F - 32)/1.8 = 2.4 °C (t_A)
Barometric Pressure: 72.5 mm Hg at 1143 AM/PM (P_A)
Weather: Sunny, calm

Sample Depth: 4.5 (ft) in

H₂S Reading: 0 ppm

CH₄ Reading: 0 ppm %

PID Reading: 0 ppm

FID Reading: — ppm

Air Sampling Pump Mfg./Model: Industrial Scientific SP400

Calibrator Mfg./Model: Buck U-5

Calibrator Readings (L/min): 1178 1183 1187 1178
1183 1182 1189

Ave. Cal. Reading (L/min): 1.18 (Q_A) Flow Readout (L/min): —

Tenax Tube Number: 7901 A Tenax/Charcoal Tube Number: 7901 B

Start Time: 1136 Flow Readout (L/min): —

Stop Time: 1153 Flow Readout (L/min): —

Elapsed Time: 17 Min. (T) % Difference Flow Readout: —

Volumetric Flow Calculation: $V_m = T \times Q_A =$ 17 x 1.18 = 20.06 Liters

Standardized Volume (@ 25° C and 760 mm Hg): $V_s = V_m \times (P_A/760) \times ((298/(273 + t_A))$

= 20.06 x 1.02 x 1.08 = 22.10 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 12/12/98

Site: Himes Dump Superfund Site Station Location: TT-48

Sampling Team: Rick Grabowski, Jamie Carrig

Temperature: _____ (°F - 32)/1.8 = -2.7 °C (t_A)

Barometric Pressure: 772.4 mm Hg at 0918 AM/PM (P_A)

Weather: Sunny, calm

Sample Depth: 4.5 (ft) in

H₂S Reading: 0 ppm CH₄ Reading: 0 ppm %

PID Reading: 0 ppm FID Reading: - ppm

Air Sampling Pump Mfg./Model: MSA Exact ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min):	<u>1796</u>	<u>1661</u>	<u>1735</u>	<u>1725</u>
	<u>1726</u>	<u>1695</u>	<u>1729</u>	

Ave. Cal. Reading (L/min): 1.72 (Q_A) Flow Readout (L/min): 1.50

Tenax Tube Number: 7716A Tenax/Charcoal Tube Number: 7716B

Start Time: 0917 Flow Readout (L/min): 1.50

Stop Time: 0929 Flow Readout (L/min): 1.48

Elapsed Time: 12 Min. (T) % Difference Flow Readout: 1

Volumetric Flow Calculation: V_m = T X Q_A = 12 x 1.72 = 20.64 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 20.64 x 1.02 x 1.10 = 23.16 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5

Date: 12/11/98

Site: Hines Dump Superfund Site

Station Location: TT-49

Sampling Team: Rick Grabowski, Jamie Carrig

Temperature: _____ (°F - 32)/1.8 = 9.3 °C (t_A)

Barometric Pressure: 771.7 mm Hg at 1409 AM/PM (P_A)

Weather: Sunny, calm

Sample Depth: 4.5 ft/in

H₂S Reading: 0 ppm

CH₄ Reading: 0 ppm %

PID Reading: 1 ppm

FID Reading: — ppm

Air Sampling Pump Mfg./Model: MSA Escort ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min):	<u>1718</u>	<u>1776</u>	<u>1820</u>	<u>1775</u>
	<u>1776</u>	<u>1814</u>	<u>1821</u>	

Ave. Cal. Reading (L/min): 1.70 (Q_A) Flow Readout (L/min): 1.58

Tenax Tube Number: 7714A Tenax/Charcoal Tube Number: 7714B

Start Time: 1629 Flow Readout (L/min): 1.58

Stop Time: 1641 Flow Readout (L/min): 1.57

Elapsed Time: 12 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 12 x 1.70 = 21.60 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((273 + t_A)/298)

= 21.60 x 1.02 x 1.06 = 23.35 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 12/11/98

Site: Himes Dump Superfund Site Station Location: TT-50

Sampling Team: Rich Grabowski, Janice Carrig

Temperature: _____ (°F - 32)/1.8 = 9.1 °C (t_A)

Barometric Pressure: 711.9 mm Hg at 1515 AM/PM (P_A)

Weather: Sunny, calm

Sample Depth: 4.5 ft/m

H₂S Reading: 0 ppm CH₄ Reading: 0 ppm %

PID Reading: 0 ppm FID Reading: - ppm

Air Sampling Pump Mfg./Model: MSA Escort ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min):	<u>1803</u>	<u>1827</u>	<u>1755</u>	<u>1827</u>
	<u>1831</u>	<u>1799</u>	<u>1827</u>	

Ave. Cal. Reading (L/min): 1.81 (Q_A) Flow Readout (L/min): 1.61

Tenax Tube Number: ~~7713A~~ Tenax/Charcoal Tube Number: ~~7713B~~

Start Time: 1521 Flow Readout (L/min): 1.61

Stop Time: 1533 Flow Readout (L/min): 1.63

Elapsed Time: 12 Min. (T) % Difference Flow Readout: 1

Volumetric Flow Calculation: V_m = T X Q_A = 12 x 1.81 = 21.72 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))

= 21.72 x 1.02 x 1.04 = 23.46 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 12/11/98

Site: Home Dump Superfund Site Station Location: T1-S1

Sampling Team: Rich Grabowski, Janice Carney

Temperature: _____ (°F - 32)/1.8 = 3.2 °C (t_A)

Barometric Pressure: 774.4 mm Hg at 1105 AM/PM (P_A)

Weather: Sunny, calm

Sample Depth: 4.5 (ft/in)

H₂S Reading: 0 ppm CH₄ Reading: 0 ppm %

PID Reading: 0 ppm FID Reading: - ppm

Air Sampling Pump Mfg./Model: MSA Escort ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1793 1874 1875 1795
1834 1734 1821

Ave. Cal. Reading (L/min): 1.83 (Q_A) Flow Readout (L/min): 1.65

Tenax Tube Number: 7718A Tenax/Charcoal Tube Number: 7718B

Start Time: 1112 Flow Readout (L/min): 1.65

Stop Time: 1123 Flow Readout (L/min): 1.65

Elapsed Time: 11 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 11 x 1.83 = 20.13 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))

= 20.13 x 1.02 x 1.08 = 22.18 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5

Date: 12/11/98

Site: Home Dump Superfund Site

Station Location: TT-52

Sampling Team: Rich Grabowski, Janie Caring

Temperature: _____ (°F - 32)/1.8 = 0.2 °C (t_A)

Barometric Pressure: 774.7 mm Hg at 1017 AM/PM (P_A)

Weather: Sunny, calm

Sample Depth: 4.5 (ft/in)

H₂S Reading: 0 ppm CH₄ Reading: 0 ppm %

PID Reading: 0 ppm FID Reading: — ppm

Air Sampling Pump Mfg./Model: MSA Escort ELF

Calibrator Mfg./Model: Buck M-S

Calibrator Readings (L/min):	<u>1779</u>	<u>1748</u>	<u>1834</u>	<u>1751</u>
	<u>1830</u>	<u>1820</u>	<u>1825</u>	

Ave. Cal. Reading (L/min): 1.80 (Q_A) Flow Readout (L/min): 1.61

Tenax Tube Number: 7707 A Tenax/Charcoal Tube Number: 7707 B

Start Time: 1024 Flow Readout (L/min): 1.61

Stop Time: 1035 Flow Readout (L/min): 1.61

Elapsed Time: 11 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 11 x 1.80 = 19.80 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 19.80 x 1.02 x 1.04 = 22.01 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 12/4/98

Site: Himec Dump Superfund Site Station Location: T1-53

Sampling Team: Rick Grabowski, Timmy Conroy

Temperature: _____ (°F - 32)/1.8 = -0.9 °C (t_A)

Barometric Pressure: 774.5 mm Hg at 0910 AM/PM (P_A)

Weather: Sunny, calm

Sample Depth: 4.5 (ft/in)

H₂S Reading: 0 ppm CH₄ Reading: 0 ppm %

PID Reading: 0 ppm FID Reading: _____ ppm

Air Sampling Pump Mfg./Model: MSA Escort ELF

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1748 1752 1754 176
1746 1758 1738

Ave. Cal. Reading (L/min): 1.81 (Q_A) Flow Readout (L/min): 1.58

Tenax Tube Number: 7720A Tenax/Charcoal Tube Number: 7720B

Start Time: 0926 Flow Readout (L/min): 1.58

Stop Time: 0937 Flow Readout (L/min): 1.57

Elapsed Time: 11 Min. (T) % Difference Flow Readout: 0

Volumetric Flow Calculation: V_m = T X Q_A = 11 x 1.81 = 19.91 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 19.91 x 1.02 x 1.10 = 22.34 Liters

Table 1
Summary of Field Screening Results - November 1998
Supplemental Site Investigation/Site Characterization Report
Himco Dump Superfund Site
Elkhart, Indiana

Sample Location	PID (ppm)	FID (%)	Hydrogen Sulfide (ppm)	Methane (% LEL)
TT-11	17	0	0	NR
TT-12	18.7	0	0	NR
TT-13	39.5	NR	101	NR
TT-14	10.6	NR	0	NR
TT-15	32.9	NR	0	NR
TT-16	28.4	NR	4	>5
TT-17	5.84	NR	4	NR
TT-18	130	0.12	NR	NR
TT-19	240	1	>999	4.4
TT-20	0	0	0	0
TT-21	302	0.68	>999	4.1
TT-22	17.02	0	0	0
TT-23	2.01	0	0	0
TT-24	36.05	0	0	0
TT-25	1.17	0	0	0
TT-26	129	NR	>999	NR
TT-27	11.7	0	15	0
TT-28	34.4	NR	4	0.3
TT-29	45.9	0	0	0
TT-30	21.6	0	0	0
TT-31	19.9	0	0	0
TT-32	3.5	NR	4	0
TT-33	20.5	NR	17	0.1
TT-34	45.9	NR	129	0.7
TT-35	0	NR	0	0
TT-36	0	NR	0	0
TT-37	0	NR	0	0
TT-38	0.7	NR	0	0
TT-39	0	NR	0	0
TT-40	0	NR	0	0
TT-41	0	NR	0	0.1
TT-42	0	NR	0	0
TT-43	0	NR	0	0
TT-44	0	NR	0	0
TT-45	0	NR	0	0
TT-46	122	NR	0	0
TT-47	0	NR	0	0
TT-48	0	NR	0	0
TT-49	1	NR	0	0
TT-50	0	NR	0	0
TT-51	0	NR	0	0
TT-52	0	NR	0	0
TT-53	0	NR	0	0

NR = Not Read

1999 Supplemental Site Investigation Records

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/20/77

Site: Hinckley Dump Superfund Site Station Location: TT-54

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 11.8 °C (t_A)

Barometric Pressure: 769.8 mm Hg at 1031 AM/PM (P_A)

Weather: Cloudy, breezy

Sample Depth: 5 ft/in

H₂S Reading: 0 ppm CH₄ Reading: 0 %

O₂ Reading: 20.5 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1501 1916 1506 1480
1510 1913 1573

Ave. Cal. Reading (L/min): 1.51 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11009a Tenax/Charcoal Tube Number: 11009b

Start Time: 1031 Flow Readout (L/min): N/A

Stop Time: 1044 Flow Readout (L/min): N/A

Elapsed Time: 13 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.51 = 19.63 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 19.63 x 1.01 x 1.05 = 20.82 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/21/79

Site: Himco Dump Superfund Site Station Location: TC 55

Sampling Team: Rick Grabowski, Janie Cuning

Temperature: _____ (°F - 32)/1.8 = 2.3 °C (t_A)

Barometric Pressure: 7664 mm Hg at 0814 AM/PM (P_A)

Weather: Sunny, calm

Sample Depth: 5 (ft)in

H₂S Reading: 0 ppm CH₄ Reading: 0 %

O₂ Reading: 20.4 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1478 1532 1468 1436
1470 1491 1437

Ave. Cal. Reading (L/min): 1.47 (Q_A) Flow Readout (L/min): n/a - No Flow Readout on Pump.

Tenax Tube Number: 11014a Tenax/Charcoal Tube Number: 11014b

Start Time: 0814 Flow Readout (L/min): n/a

Stop Time: 0828 Flow Readout (L/min): n/a

Elapsed Time: 14 Min. (T) % Difference Flow Readout: n/a

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.47 = 20.58 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298)/(273 + t_A))
= 20.58 x 1.01 x 1.08 = 22.45 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/20/99

Site: Himco Dump Superfund Site Station Location: TT-56

Sampling Team: Rick Grabowski, Jane Carrig

Temperature: _____ (°F - 32)/1.8 = 14.1 °C (t_A)

Barometric Pressure: 769.1 mm Hg at 1327 AM/PM (P_A)

Weather: Cloudy, breezy

Sample Depth: 5 (ft/in) >999

H₂S Reading: ~~3.5~~ ppm CH₄ Reading: ~~3.5~~ %

O₂ Reading: 6.6 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1399 1422 1428 1494
1474 1504 1467

Ave. Cal. Reading (L/min): 1.46 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11003a Tenax/Charcoal Tube Number: 11003b

Start Time: 1327 Flow Readout (L/min): N/A

Stop Time: 1335 Flow Readout (L/min): N/A

Elapsed Time: 8 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 8 x 1.46 = 11.68 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 11.68 x 1.01 x 1.04 = 12.27 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5

Date: 10/20/99

Site: Himco Dump Superfund Site

Station Location: TT-56 (Duplicate)

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 14.6 °C (t_A)

Barometric Pressure: 768.9 mm Hg at 1350 AM/PM (P_A)

Weather: Partly Sunny, Breezy

Sample Depth: 5 ft/in

H₂S Reading: - ppm CH₄ Reading: - %

O₂ Reading: - % Duplicate Sample - Field Screening Not Required

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Beck M-5

Calibrator Readings (L/min): 1612 1477 1512 1493
1508 1522 1519

Ave. Cal. Reading (L/min): 1.52 (Q_A) Flow Readout (L/min): N/A - No Flow Readout Pump

Tenax Tube Number: 11005a Tenax/Charcoal Tube Number: 11005b

Start Time: 1350 Flow Readout (L/min): N/A

Stop Time: 1357 Flow Readout (L/min): N/A

Elapsed Time: 7 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 7 x 1.57 = 10.64 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 10.64 x 1.01 x 1.04 = 11.18 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/20/99

Site: Himco Dump Superfund Site Station Location: TT-57

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 11.9 °C (t_A)

Barometric Pressure: 769.8 mm Hg at 1127 AM/PM (P_A)

Weather: Cloudy, breezy

Sample Depth: 5 ft/in

H₂S Reading: 0 ppm CH₄ Reading: 0 %

O₂ Reading: 20.5 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1381 1371 1374 1371
1377 1367 1382

Ave. Cal. Reading (L/min): 1.37 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11108a Tenax/Charcoal Tube Number: 11108b

Start Time: 1127 Flow Readout (L/min): N/A

Stop Time: 1142 Flow Readout (L/min): N/A

Elapsed Time: 15 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 15 x 1.37 = 20.55 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 20.55 x 1.01 x 1.05 = 21.79 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/20/99

Site: Himco Dump Superfund Site Station Location: T1-S8

Sampling Team: Rick Grabowski, Janie Curry

Temperature: _____ (°F - 32)/1.8 = 10.1 °C (t_A)

Barometric Pressure: 769.9 mm Hg at 0936 AM/PM (P_A)

Weather: Partly cloudy, breezy

Sample Depth: 5 ft/in

H₂S Reading: 0 ppm CH₄ Reading: 0 %

O₂ Reading: 20.4 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buch M-5

Calibrator Readings (L/min): 1523 1536 1543 1555
1521 1559 1555

Ave. Cal. Reading (L/min): 1.54 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump.

Tenax Tube Number: 11019a Tenax/Charcoal Tube Number: 11019b

Start Time: 0941 Flow Readout (L/min): N/A

Stop Time: 0954 Flow Readout (L/min): N/A

Elapsed Time: 13 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.54 = 20.02 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 20.02 x 1.01 x 1.05 = 21.23 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5

Date: 10/21/99

Site: Hinco Dump Superfund Site

Station Location: TT-59

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 10.6 °C (t_A)

Barometric Pressure: 764.5 mm Hg at 0951 AM/PM (P_A)

Weather: Sunny, breezy

Sample Depth: 5 (ft/in)

H₂S Reading: 0 ppm

CH₄ Reading: 0 %

O₂ Reading: 19.7 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1571 1477 1544 1594

1493 1566 1493

Ave. Cal. Reading (L/min): 1.53 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11105a Tenax/Charcoal Tube Number: 11105b

Start Time: 0951 Flow Readout (L/min): N/A

Stop Time: 1004 Flow Readout (L/min): N/A

Elapsed Time: 13 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.53 = 19.89 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 19.89 x 1.01 x 1.05 = 21.09 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Regions Date: 10/20/99

Site: Hince Dump Superfund Site Station Location: TT-60

Sampling Team: Rich Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 15.6 °C (t_A)

Barometric Pressure: 768.1 mm Hg at 1549 AM/PM (P_A)

Weather: Sunny, breezy

Sample Depth: 5 (ft/in)

H₂S Reading: 0 ppm CH₄ Reading: 0 %

O₂ Reading: 19.7 %

Air Sampling Pump Mfg./Model: Anetech Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min):	<u>1511</u>	<u>1524</u>	<u>1433</u>	<u>1547</u>
	<u>1564</u>	<u>1452</u>	<u>1498</u>	

Ave. Cal. Reading (L/min): 1.50 (Q_A) Flow Readout (L/min): N/A - ^{N₂} Flow Readout on Pump

Tenax Tube Number: 11022a Tenax/Charccal Tube Number: 11022b

Start Time: 1549 Flow Readout (L/min): N/A

Stop Time: 1603 Flow Readout (L/min): N/A

Elapsed Time: 4 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.50 = 21.00 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 21.00 x 1.01 x 1.03 = 21.85 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/20/99

Site: Himco Dump Superfund Site Station Location: IT-61

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: ~~22~~ (°F - 32)/1.8 = 14.1 °C (t_A)

Barometric Pressure: 768.6 mm Hg at 1446 AM/PM (P_A)

Weather: Partly sunny, breezy

Sample Depth: 50 in

H₂S Reading: 0 ppm CH₄ Reading: 0 %

O₂ Reading: 20.1 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buch M-5

Calibrator Readings (L/min): 1577 1561 1570 1573
1563 1571 1523

Ave. Cal. Reading (L/min): 1.56 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11021a Tenax/Charcoal Tube Number: 11021b

Start Time: 1446 Flow Readout (L/min): N/A

Stop Time: 1459 Flow Readout (L/min): N/A

Elapsed Time: 13 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.56 = 20.28 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 20.28 x 1.01 x 1.04 = 21.30 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/21/99

Site: Himco Dump Superfund Site Station Location: TT-62

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 21.4 °C (t_A)

Barometric Pressure: 761.9 mm Hg at 1213 AM/PM (P_A)

Weather: Sunny, breezy

Sample Depth: 5 (ft/in)

H₂S Reading: 0 ppm CH₄ Reading: 0 %

O₂ Reading: 7.5 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1513 1507 1504 1467
1514 1466 1504

Ave. Cal. Reading (L/min): 1.50 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11107a Tenax/Charcoal Tube Number: 11107b

Start Time: 1213 Flow Readout (L/min): N/A

Stop Time: 1227 Flow Readout (L/min): N/A

Elapsed Time: 14 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 1.50 x 14 = 21.00 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))

= 21.00 x 1.00 x 1.01 = 21.21 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/21/99

Site: Himco Dump Superfund Site Station Location: TI-63

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 17.9 °C (t_A)

Barometric Pressure: 760.4 mm Hg at 1335 AM/PM (P_A)

Weather: Partly sunny, breezy.

Sample Depth: 5 (ft/in)

H₂S Reading: 0 ppm CH₄ Reading: 0 %

O₂ Reading: 14.7 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1507 1502 1494 1551
1476 1538 1465

Ave. Cal. Reading (L/min): 1.50 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11104a Tenax/Charcoal Tube Number: 11104b

Start Time: 1335 Flow Readout (L/min): N/A

Stop Time: 1349 Flow Readout (L/min): N/A

Elapsed Time: 14 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.50 = 21.00 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 21.00 x 1.00 x 1.02 = 21.42 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/21/99

Site: Hinco Dump Superfund Site Station Location: TT-64

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 19.2 °C (t_A)

Barometric Pressure: 759.4 mm Hg at 1433 AM/PM (P_A)

Weather: Partly sunny, breezy.

Sample Depth: 5 (ft) in

H₂S Reading: 0 ppm CH₄ Reading: 0 %

O₂ Reading: 11.3 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Berk M-5

Calibrator Readings (L/min): 1499 1479 1493 1518
1506 1492 1500

Ave. Cal. Reading (L/min): 1.50 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11015a Tenax/Charcoal Tube Number: 11015b

Start Time: 1426 Flow Readout (L/min): N/A

Stop Time: 1439 Flow Readout (L/min): N/A

Elapsed Time: 13 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.50 = 19.50 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 19.50 x 1.00 x 1.02 = 19.89 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/21/99

Site: Hinco Dump Superfund Site Station Location: TT-65

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 19.1 °C (t_A)

Barometric Pressure: 758.3 mm Hg at 1545 AM/PM (P_A)

Weather: Sunny, breezy.

Sample Depth: 5 0 ft/in

H₂S Reading: 0 ppm CH₄ Reading: 0 %

O₂ Reading: 20.4 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min):	<u>730</u>	<u>779</u>	<u>737</u>	<u>720</u>
	<u>729</u>	<u>731</u>	<u>727</u>	

Ave. Cal. Reading (L/min): 0.74 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11002a Tenax/Charcoal Tube Number: 11002b

Start Time: 1545 Flow Readout (L/min): N/A

Stop Time: 1612 Flow Readout (L/min): N/A

Elapsed Time: 27 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 27 x 0.74 = 19.98 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))

= 19.98 x 1.00 x 1.02 = 20.38 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Regions Date: 10/22/97

Site: Himco Dump Superfund Site Station Location: IT-66

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 11.1 °C (t_A)

Barometric Pressure: 753.5 mm Hg at 0835 AM/PM (P_A)

Weather: Cloudy, breezy

Sample Depth: 5 (ft/in)

H₂S Reading: 0 ppm CH₄ Reading: 0 %

O₂ Reading: 20.1 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1507 1513 1474 1584
1447 1588 1509

Ave. Cal. Reading (L/min): 1.52 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11024a Tenax/Charcoal Tube Number: 11024b

Start Time: 0835 Flow Readout (L/min): N/A

Stop Time: 0848 Flow Readout (L/min): N/A

Elapsed Time: 13 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.52 = 19.76 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 19.76 x 0.99 x 1.05 = 20.54 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/22/99

Site: Himco Dump Superfund Site Station Location: TT-67

Sampling Team: Rick Grabowski, Janie Carrig.

Temperature: _____ (°F - 32)/1.8 = 10.8 °C (t_A)

Barometric Pressure: 754.4 mm Hg at 1059 AM/PM (P_A)

Weather: Cloudy, breezy

Sample Depth: 5 (ft) in

H₂S Reading: 0 ppm CH₄ Reading: 0 %

O₂ Reading: 18.7 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min):	<u>1413</u>	<u>1421</u>	<u>1425</u>	<u>1469</u>
	<u>1406</u>	<u>1424</u>	<u>1523</u>	

Ave. Cal. Reading (L/min): 1.44 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11017 a Tenax/Charcoal Tube Number: 11017 b

Start Time: 1059 Flow Readout (L/min): N/A

Stop Time: 1113 Flow Readout (L/min): N/A

Elapsed Time: 14 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.44 = 20.16 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 20.16 x 0.99 x 1.05 = 20.96 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/22/99

Site: Hince Dump Superfund Site Station Location: T1-68

Sampling Team: Rick Grabowski, Janie Carriq

Temperature: _____ (°F - 32)/1.8 = 8.7 °C (t_A)

Barometric Pressure: 756.4 mm Hg at 1602 AM/PM (P_A)

Weather: Cloudy, breezy.

Sample Depth: 5 (ft/in)

H₂S Reading: 0 ppm CH₄ Reading: 0 %

O₂ Reading: 19.7 %

Air Sampling Pump Mfg./Model: Anetek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1521 1548 1523 1542
1493 1446 1468

Ave. Cal. Reading (L/min): 1.51 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11110 a Tenax/Charcoal Tube Number: 1110 b

Start Time: 1602 Flow Readout (L/min): N/A

Stop Time: 1615 Flow Readout (L/min): N/A

Elapsed Time: 13 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.51 = 19.63 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 19.63 x 1.00 x 1.06 = 20.81 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5

Date: 10/25/99

Site: Himeco Dump Superfund Site

Station Location: T1-69

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 2.8 °C (t_A)

Barometric Pressure: 767.9 mm Hg at 0830 AM/PM (P_A)

Weather: Sunny, Calm.

Sample Depth: 5 (ft/in)

H₂S Reading: 0 ppm CH₄ Reading: 0 % CGI could not be calibrated.

O₂ Reading: 20.3 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck U-5

Calibrator Readings (L/min): 1468 1462 1457 1396
1466 1462 1460

Ave. Cal. Reading (L/min): 1.45 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11214 a Tenax/Charcoal Tube Number: 11214 b

Start Time: 0830 Flow Readout (L/min): N/A

Stop Time: 0844 Flow Readout (L/min): N/A

Elapsed Time: 14 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.45 = 20.30 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 20.30 x 1.01 x 1.08 = 22.14 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/21/99

Site: Himes Dump Superfund Site Station Location: TT-70

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 17.7 °C (t_A)

Barometric Pressure: 758.0 mm Hg at 1639 AM/PM (P_A)

Weather: Sunny, breezy

Sample Depth: 5 ft/in

H₂S Reading: 0 ppm CH₄ Reading: 0 %

O₂ Reading: 20.4 %

Air Sampling Pump Mfg./Model: Anetech Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1466 1485 1483 1480
1469 1457 1480

Ave. Cal. Reading (L/min): 1.47 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11006 a Tenax/Charcoal Tube Number: 110065

Start Time: 1639 Flow Readout (L/min): N/A

Stop Time: 1652 Flow Readout (L/min): N/A

Elapsed Time: 13 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.47 = 19.11 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 19.11 x 1.00 x 1.02 = 19.49 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/22/99

Site: Hinco Dump Superfund Station Location: TT-71

Sampling Team: Rick Grabowski, Janir Carrig

Temperature: _____ (°F - 32)/1.8 = 11.7 °C (t_A)

Barometric Pressure: 754.0 mm Hg at 1010 AM/PM (P_A)

Weather: Cloudy, breezy

Sample Depth: 5 (ft) in

H₂S Reading: 0 ppm CH₄ Reading: 0 %

O₂ Reading: 20.4 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck 465

Calibrator Readings (L/min): 1267 1262 1290 1282
1290 1262 1272

Ave. Cal. Reading (L/min): 1.28 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11023a Tenax/Charcoal Tube Number: 11023b

Start Time: 1010 Flow Readout (L/min): N/A

Stop Time: 1026 Flow Readout (L/min): N/A

Elapsed Time: 16 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 16 x 1.28 = 20.48 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/750) x ((298/(273 + t_A)))
= 20.48 x 0.99 x 1.05 = 21.29 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/22/99

Site: Himes Dump Superfund Site Station Location: T1-71 (Equipment Block)

Sampling Team: Rich Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 11.8 °C (t_A)

Barometric Pressure: 753.9 mm Hg at 0938 AM/PM (P_A)

Weather: Cloudy, breezy

Sample Depth: - ft/in

H₂S Reading: - ppm CH₄ Reading: - %

O₂ Reading: - %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1345 1307 1388 1385
1384 1378 1347

Ave. Cal. Reading (L/min): 1.36 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump.

Tenax Tube Number: 11109a Tenax/Charcoal Tube Number: 11109b

Start Time: 0942 Flow Readout (L/min): N/A

Stop Time: 0959 Flow Readout (L/min): N/A

Elapsed Time: 17 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 17 x 1.36 = 23.12 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 23.12 x 0.99 x 1.05 = 24.03 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/22/99

Site: Himec Dump Superfund Site Station Location: TT-71 (Ambient Air Blank)

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 11.3 °C (t_A)

Barometric Pressure: 753.9 mm Hg at 0919 AM/PM (P_A)

Weather: Cloudy, breezy

Sample Depth: — ft/in

H₂S Reading: — ppm CH₄ Reading: — %

O₂ Reading: — %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1451 1538 1494 1509
1466 1504 1423

Ave. Cal. Reading (L/min): 1.49 (Q_A) Flow Readout (L/min): N/A - N₂ Flow Readout on Pur

Tenax Tube Number: 11016 a Tenax/Charcoal Tube Number: 11016 b

Start Time: 0919 Flow Readout (L/min): N/A

Stop Time: 0934 Flow Readout (L/min): N/A

Elapsed Time: 15 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 15 x 1.49 = 22.35 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 22.35 x 0.99 x 1.05 = 23.23 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/22/99

Site: Himco Pump Superfund Site Station Location: IT-72

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 8.6 °C (t_A)

Barometric Pressure: 756.2 mm Hg at ~~756.2~~ 1508 AM/PM (P_A)

Weather: Cloudy, breezy, sprinkles.

Sample Depth: 5 ft/in

H₂S Reading: 0 ppm CH₄ Reading: 0 %

O₂ Reading: 20.1 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1506 1510 1550 1511
1452 1526 1505

Ave. Cal. Reading (L/min): 1.51 (Q_A) Flow Readout (L/min): N/A - No. Flow Readout on Pump

Tenax Tube Number: 11013a Tenax/Charcoal Tube Number: 11013b

Start Time: 1508 Flow Readout (L/min): N/A

Stop Time: 1521 Flow Readout (L/min): N/A

Elapsed Time: 13 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.51 = 19.63 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 19.63 x 1.00 x 1.06 = 20.81 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/25/99

Site: Ames Dump Superfund Site Station Location: TI-73

Sampling Team: Rick Grabowski, Janie Curry

Temperature: _____ (°F - 32)/1.8 = 8.8 °C (t_A)

Barometric Pressure: 767.3 mm Hg at 0944 AM/PM (P_A)

Weather: Sunny, slightly breezy.

Sample Depth: 3.5 ft in

H₂S Reading: 0 ppm CH₄ Reading: 0 % CGI could not be calibrated.

O₂ Reading: 20.4 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Bock M-5

Calibrator Readings (L/min): 1551 1514 1552 1525
1562 1515 1512

Ave. Cal. Reading (L/min): 1.53 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump.

Tenax Tube Number: 11008a Tenax/Charcoal Tube Number: 11008b

Start Time: 0944 Flow Readout (L/min): N/A

Stop Time: 0957 Flow Readout (L/min): N/A

Elapsed Time: 13 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.53 = 19.89 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 19.89 x 1.01 x 1.06 = 21.29 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/21/99

Site: Himco Dump Superfund Site Station Location: TT-74

Sampling Team: Rick Grabowski, Janis Carrig

Temperature: _____ (°F - 32)/1.8 = 13.7 °C (t_A)

Barometric Pressure: 763.8 mm Hg at 1027 AM/PM (P_A)

Weather: Sunny, breezy

Sample Depth: 5 ft/in

H₂S Reading: 0 ppm CH₄ Reading: 0 %

O₂ Reading: 20.1 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1495 1539 1530 1538
1499 1493 1506

Ave. Cal. Reading (L/min): 1.51 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 1106a Tenax/Charcoal Tube Number: 1106b

Start Time: 1029 Flow Readout (L/min): N/A

Stop Time: 1042 Flow Readout (L/min): N/A

Elapsed Time: 13 Min. (t) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.51 = 19.63 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 19.63 x 1.01 x 1.04 = 20.67 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/27/99

Site: Hume Dump Superfund Site Station Location: IT-75

Sampling Team: Rich Grabowski, Janice Carrig

Temperature: _____ (°F - 32)/1.8 = 3.0 °C (t_A)

Barometric Pressure: 771.3 mm Hg at 0828 AM/PM (P_A)

Weather: Sunny, calm

Sample Depth: 5 ft/in

H₂S Reading: 4 ppm CH₄ Reading: 0 %

O₂ Reading: 18.9 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1542 1484 1414 1467
1512 1513 1412

Ave. Cal. Reading (L/min): 148 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump.

Tenax Tube Number: 11218a Tenax/Charcoal Tube Number: 11218b

Start Time: 0828 Flow Readout (L/min): N/A

Stop Time: 0842 Flow Readout (L/min): N/A

Elapsed Time: 14 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.48 = 20.72 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 20.72 x 1.01 x 1.08 = 22.60 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/27/99

Site: Himco Dump Superfund Site Station Location: TT-76

Sampling Team: Rick Grabowski, Janie Caring

Temperature: _____ (°F - 32)/1.8 = 1.4 °C (t_A)

Barometric Pressure: 771.4 mm Hg at 0745 AM/PM (P_A)

Weather: Sunny, calm

Sample Depth: 5 ft/in

H₂S Reading: 2 ppm CH₄ Reading: 0 %

O₂ Reading: 19.2 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buch M-5

Calibrator Readings (L/min): 1524 1512 1574 1567

1511 1523 1597

Ave. Cal. Reading (L/min): 1.54 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11206 a Tenax/Charcoal Tube Number: 11206 b

Start Time: 0745 Flow Readout (L/min): N/A

Stop Time: 0758 Flow Readout (L/min): N/A

Elapsed Time: 13 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.54 = 20.02 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 20.02 x 1.02 x 1.09 = 22.26 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/26/99

Site: Himesa Dump Superfund Site Station Location: TT-77

Sampling Team: Rich Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 17.4 °C (t_A)

Barometric Pressure: 764.0 mm Hg at 1434 AM/PM (P_A)

Weather: Sunny, breezy

Sample Depth: 5 (ft) in

H₂S Reading: 0 ppm CH₄ Reading: 0 %

O₂ Reading: 20.2 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1428 1418 1485 1441
1487 1421 1416

Ave. Cal. Reading (L/min): 1.44 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11211a Tenax/Charcoal Tube Number: 11211b

Start Time: 1434 Flow Readout (L/min): N/A

Stop Time: 1448 Flow Readout (L/min): N/A

Elapsed Time: 14 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.44 = 20.16 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 20.16 x 1.01 x 1.03 = 20.97 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/26/99

Site: Hinco Dump Superfund Site Station Location: TT-78

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 17.8 °C (t_A)

Barometric Pressure: 744.2 mm Hg at 1246 AM/PM (P_A)

Weather: Sunny, breezy

Sample Depth: 5 ft/in

H₂S Reading: 0 ppm CH₄ Reading: 0 %

O₂ Reading: 20.3 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min):	<u>1481</u>	<u>1538</u>	<u>1543</u>	<u>1509</u>
	<u>1477</u>	<u>1571</u>	<u>1535</u>	

Ave. Cal. Reading (L/min): 1.52 (Q_A) Flow Readout (L/min): N/A ^{No} Flow Readout on Pump.

Tenax Tube Number: 11225 a Tenax/Charcoal Tube Number: 11225 b

Start Time: 1246 Flow Readout (L/min): N/A

Stop Time: 1259 Flow Readout (L/min): N/A

Elapsed Time: 13 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.52 = 19.76 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 19.76 x 1.01 x 1.02 = 20.36 Liters

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SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5

Date: 10/26/99

Site: Himco Dump Superfund Site

Station Location: TT-80

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 7.9 °C (t_A)

Barometric Pressure: 764.2 mm Hg at 0828 AM/PM (P_A)

Weather: Cloudy, slight breeze.

Sample Depth: 5 (ft) in

H₂S Reading: 0 ppm CH₄ Reading: 0 % (GT could not be calibrated)

O₂ Reading: 20.2 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1496 1478 1486 1506
1506 1485 1526

Ave. Cal. Reading (L/min): 1.50 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11223a Tenax/Charcoal Tube Number: 11223b

Start Time: 0828 Flow Readout (L/min): N/A

Stop Time: 0841 Flow Readout (L/min): N/A

Elapsed Time: 13 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.50 = 19.50 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 19.50 x 1.01 x 1.06 = 20.88 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/25/99

Site: Himco Dump Superfund Site Station Location: TT-81

Sampling Team: Rick Grabowski, Jenie Carrig

Temperature: _____ (°F - 32)/1.8 = 16.7 °C (t_A)

Barometric Pressure: 762.8 mm Hg at 1547 AM/PM (P_A)

Weather: Sunny, breezy.

Sample Depth: 5 (ft) in

H₂S Reading: 0 ppm CH₄ Reading: 0 % CGI could not be calibrated.

O₂ Reading: 20.1 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buch M-5

Calibrator Readings (L/min): 1447 1515 1469 1470
1452 1474 1450

Ave. Cal. Reading (L/min): 1.47 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11201 a Tenax/Charcoal Tube Number: 11201 b

Start Time: 1547 Flow Readout (L/min): N/A

Stop Time: 1601 Flow Readout (L/min): N/A

Elapsed Time: 14 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.47 = 20.58 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 20.58 x 1.00 x 1.03 = 21.20 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/25/79

Site: Hinco Dump Superfund Site Station Location: TT-82

Sampling Team: Rick Grabowski, Janie Parry

Temperature: _____ (°F - 32)/1.8 = 17.8 °C (t_A)

Barometric Pressure: 763.1 mm Hg at 1458 AM/PM (P_A)

Weather: Sunny, breezy

Sample Depth: 5 ft/in

H₂S Reading: 0 ppm CH₄ Reading: 0 % CGI could not be calibrated.

O₂ Reading: 19.8 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buch M-5

Calibrator Readings (L/min): 1480 1449 465 1426
1471 1428 1427

Ave. Cal. Reading (L/min): 1.45 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11004a Tenax/Charcoal Tube Number: 11004b

Start Time: 1458 Flow Readout (L/min): N/A

Stop Time: 1512 Flow Readout (L/min): N/A

Elapsed Time: 14 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.45 = 20.30 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 20.30 x 1.00 x 1.02 = 20.71 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/25/99

Site: Himco Dump Superfund Site Station Location: T1-83

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 14.0 °C (t_A)

Barometric Pressure: 763.9 mm Hg at 1329 AM/PM (P_A)

Weather: Sunny, breezy

Sample Depth: 5 ft in

H₂S Reading: 0 ppm CH₄ Reading: 0 % CGI could not be calibrated

O₂ Reading: 19.7 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1525 1459 1421 1410
1457 1455 1462

Ave. Cal. Reading (L/min): 146 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11111a Tenax/Charcoal Tube Number: 11111b

Start Time: 1329 Flow Readout (L/min): N/A

Stop Time: 1343 Flow Readout (L/min): N/A

Elapsed Time: 14 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.46 = 20.44 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 20.44 x 1.01 x 1.04 = 21.47 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/25/99

Site: Hinca Dump Superfund S.tp Station Location: TT-84

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 12.8 °C (t_A)

Barometric Pressure: 765.1 mm Hg at 1239 AM/PM (P_A)

Weather: Sunny, breezy

Sample Depth: 5 (ft) in

H₂S Reading: 0 ppm CH₄ Reading: 0 % CGI could not be calibrated

O₂ Reading: 20.4 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min):	<u>1217</u>	<u>1216</u>	<u>1218</u>	<u>1191</u>
	<u>1218</u>	<u>1221</u>	<u>1185</u>	

Ave. Cal. Reading (L/min): 1.21 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11102a Tenax/Charcoal Tube Number: 11102b

Start Time: 1239 Flow Readout (L/min): N/A

Stop Time: 1256 Flow Readout (L/min): N/A

Elapsed Time: 17 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 17 x 1.21 = 20.57 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 20.57 x 1.01 x 1.04 = 21.61 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/25/19

Site: Hince Dump Superfund Site Station Location: T1-85

Sampling Team: Rick Grabowski, Janie Curry

Temperature: _____ (°F - 32)/1.8 = 9.5 °C (t_A)

Barometric Pressure: 766.8 mm Hg at 1041 AM/PM (P_A)

Weather: Sunny, breezy

Sample Depth: 5 (ft) in

H₂S Reading: 0 ppm CH₄ Reading: 0 % CGI could not be calibrated

O₂ Reading: 20.1 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buch M-5

Calibrator Readings (L/min):	<u>1450</u>	<u>1499</u>	<u>1487</u>	<u>1448</u>
	<u>1444</u>	<u>1474</u>	<u>1450</u>	

Ave. Cal. Reading (L/min): 1.46 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump.

Tenax Tube Number: 11020a Tenax/Charcoal Tube Number: 11020b

Start Time: 1041 Flow Readout (L/min): N/A

Stop Time: 1055 Flow Readout (L/min): N/A

Elapsed Time: 14 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.46 = 20.44 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 20.44 x 1.01 x 1.05 = 21.68 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Regions Date: 10/27/99

Site: Himco Dump Superfund Site Station Location: T-86

Sampling Team: Rick Gwalowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 11.6 °C (t_A)

Barometric Pressure: 770.8 mm Hg at 1107 AM/PM (P_A)

Weather: Sunny, calm

Sample Depth: 5 (ft/in)

H₂S Reading: 4 ppm CH₄ Reading: 0 %

O₂ Reading: 15.8 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck U-5

Calibrator Readings (L/min): 1534 1432 1521 1431

1428 1434 1425

Ave. Cal. Reading (L/min): 1.46 (Q_A) Flow Readout (L/min): N/A No Flow Readout on Pump

Tenax Tube Number: 1125a Tenax/Charcoal Tube Number: 11215b

Start Time: 1107 Flow Readout (L/min): N/A

Stop Time: 1121 Flow Readout (L/min): N/A

Elapsed Time: 14 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.46 = 20.44 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 20.44 x 1.01 x 1.05 = 21.68 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/27/99

Site: Hinco Dump Superfund Site Station Location: TT-87

Sampling Team: Rick Grabowski, Jenie Carnig

Temperature: _____ (°F - 32)/1.8 = 15.9 °C (t_A)

Barometric Pressure: 768.9 mm Hg at 605 AM/PM (P_A)

Weather: Sunny, partly breezy

Sample Depth: 5 ft/in

H₂S Reading: 2 ppm CH₄ Reading: 0 %

O₂ Reading: 20.6 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1382 1374 1353 1371
1386 1403 1331

Ave. Cal. Reading (L/min): 1.36 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11224 a Tenax/Charcoal Tube Number: 11224 b

Start Time: 1505 Flow Readout (L/min): N/A

Stop Time: 1520 Flow Readout (L/min): N/A

Elapsed Time: 15 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 15 x 1.36 = 20.40 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 20.40 x 1.01 x 1.03 = 21.22 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/29/99

Site: Himco Dump Superfund Site Station Location: T1-89

Sampling Team: Rich Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 10.8 °C (t_A)

Barometric Pressure: 766.9 mm Hg at 0739 AM/PM (P_A)

Weather: Sunny, calm

Sample Depth: 5 6 ft/in

H₂S Reading: 1 ppm CH₄ Reading: 0 %

O₂ Reading: 20.6 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Bach M-5

Calibrator Readings (L/min): 1476 1421 1424 1483
1480 1418 1473

Ave. Cal. Reading (L/min): 1.45 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11313a Tenax/Charcoal Tube Number: 11313b

Start Time: 0739 Flow Readout (L/min): N/A

Stop Time: 0753 Flow Readout (L/min): N/A

Elapsed Time: 14 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.45 = 20.30 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 20.30 x 1.01 x 1.05 = 21.53 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/28/19

Site: Hinco Dump Superfund Site Station Location: TT-90

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 22.6 °C (t_A)

Barometric Pressure: 764.4 mm Hg at 1455 AM/PM (P_A)

Weather: Sunny, breezy

Sample Depth: 5 ft/in

H₂S Reading: 0 ppm CH₄ Reading: 0 %

O₂ Reading: 20.5 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1424 1410 1400 1406
1402 1471 1389

Ave. Cal. Reading (L/min): 141 (Q_A) Flow Readout (L/min): n/a - no flow readout on pump

Tenax Tube Number: 11222a Tenax/Charcoal Tube Number: 11222b

Start Time: 1455 Flow Readout (L/min): n/a

Stop Time: 1509 Flow Readout (L/min): n/a

Elapsed Time: 14 Min. (T) % Difference Flow Readout: n/a

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.41 = 19.74 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 19.74 x 1.01 x 1.01 = 20.14 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Regions Date: 10/29/99

Site: Hinco Dump Superfund Site Station Location: TT-91

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 14.2 °C (t_A)

Barometric Pressure: 767.3 mm Hg at 0900 AM/PM (P_A)

Weather: Sunny, calm

Sample Depth: 5 ft/in

H₂S Reading: 2 ppm CH₄ Reading: 0 %

O₂ Reading: 20.1 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min):	<u>1469</u>	<u>1428</u>	<u>1424</u>	<u>1430</u>
	<u>1371</u>	<u>1435</u>	<u>1500</u>	

Ave. Cal. Reading (L/min): 1.44 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11315a Tenax/Charcoal Tube Number: 11315a

Start Time: 0900 Flow Readout (L/min): N/A

Stop Time: 0914 Flow Readout (L/min): N/A

Elapsed Time: 14 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.44 = 20.16 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 20.16 x 1.01 x 1.04 = 21.18 Liters

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SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/29/99

Site: Himes Dump Superfund Site Station Location: TT-95

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 16.1 °C (t_A)

Barometric Pressure: 767.0 mm Hg at 0953 AM/PM (P_A)

Weather: Sunny, slightly breezy

Sample Depth: 5 ft/in

H₂S Reading: 2 ppm CH₄ Reading: 0 %

O₂ Reading: 20.6 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buch M-5

Calibrator Readings (L/min): 1465 1582 1433 1440
1463 1482 1551

Ave. Cal. Reading (L/min): 1488 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11317a Tenax/Charcoal Tube Number: 11317b

Start Time: 0953 Flow Readout (L/min): N/A

Stop Time: 1007 Flow Readout (L/min): N/A

Elapsed Time: 14 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.48 = 20.72 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 20.72 x 1.01 x 1.03 = 21.56 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5

Date: 10/29/99

Site: Hinco Dump Superfund Site

Station Location: TT-95 (Duplicate)

Sampling Team: Rick Grabowski, Jamie Carrig

Temperature: _____ (°F - 32)/1.8 = 17.6 °C (t_A)

Barometric Pressure: 766.9 mm Hg at 1011 AM/PM (P_A)

Weather: Cloudy, calm

Sample Depth: 5 @ in

H₂S Reading: _____ ppm CH₄ Reading: _____ %

O₂ Reading: _____ %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min):	<u>1357</u>	<u>1375</u>	<u>1379</u>	<u>1374</u>
	<u>1362</u>	<u>1341</u>	<u>1369</u>	

Ave. Cal. Reading (L/min): 1.37 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11304a Tenax/Charcoal Tube Number: 11304b

Start Time: 1012 Flow Readout (L/min): N/A

Stop Time: 1028 Flow Readout (L/min): N/A

Elapsed Time: 16 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 16 x 1.37 = 21.92 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 21.92 x 1.01 x 1.03 = 22.8 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/27/89

Site: Himco Dump Superfund Site Station Location: T-96

Sampling Team: Pete Grabowski, Janie Carney

Temperature: _____ (°F - 32)/1.8 = 12.8 °C (t_A)

Barometric Pressure: 769.5 mm Hg at 1410 AM/PM (P_A)

Weather: Sunny, slightly breezy

Sample Depth: 5 (ft) in

H₂S Reading: 0 ppm CH₄ Reading: 0 %

O₂ Reading: 20.7 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck U-5

Calibrator Readings (L/min):	<u>1373</u>	<u>1435</u>	<u>1341</u>	<u>1440</u>
	<u>1411</u>	<u>1424</u>	<u>1436</u>	

Ave. Cal. Reading (L/min): 1.42 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11217a Tenax/Charcoal Tube Number: 11217b

Start Time: 1413 Flow Readout (L/min): N/A

Stop Time: 1427 Flow Readout (L/min): N/A

Elapsed Time: 14 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.42 = 19.88 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 19.88 x 1.01 x 1.04 = 20.88 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5

Date: 10/27/99

Site: Himeso Dump Superfund Site

Station Location: TT-96 (Equipment Blank)

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: 5 (°F - 32)/1.8 = 13.7 °C (t_A)

Barometric Pressure: 7695 mm Hg at 1343 AM/PM (P_A)

Weather: Sunny, slightly breezy.

Sample Depth: — ft/in

H₂S Reading: — ppm

CH₄ Reading: — %

O₂ Reading: — %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1400 1410 1381 1480

1390 1471 1464

Ave. Cal. Reading (L/min): 1.43 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump.

Tenax Tube Number: 11213a Tenax/Charcoal Tube Number: 11213b

Start Time: 1345 Flow Readout (L/min): N/A

Stop Time: 1359 Flow Readout (L/min): N/A

Elapsed Time: 14 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.43 = 20.02 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 20.02 x 1.01 x 1.04 = 21.03 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5

Date: 10/27/99

Site: Hinco Dump Superfund Site

Station Location: T-96 (Ambient Air Blank)

Sampling Team: Rick Grabowski, Janie Carris

Temperature: _____ (°F - 32)/1.8 = 12.6 °C (t_A)

Barometric Pressure: 769.8 mm Hg at 1313 AM/PM (P_A)

Weather: Sunny, slightly breezy

Sample Depth: — ft/in

H₂S Reading: — ppm

CH₄ Reading: — %

O₂ Reading: — %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck 115

Calibrator Readings (L/min):	<u>1392</u>	<u>1359</u>	<u>1400</u>	<u>1480</u>
	<u>1385</u>	<u>1424</u>	<u>1408</u>	

Ave. Cal. Reading (L/min): 1.41 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11219a Tenax/Charcoal Tube Number: 11219b

Start Time: 1313 Flow Readout (L/min): N/A

Stop Time: 1327 Flow Readout (L/min): N/A

Elapsed Time: 14 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.41 = 19.74 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))

= 19.74 x 1.01 x 1.04 = 20.73 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/28/99

Site: Himco Dump Superfund Site Station Location: TT-97

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 17.4 °C (t_A)

Barometric Pressure: 765.3 mm Hg at 1253 AM/PM (P_A)

Weather: Sunny, breezy

Sample Depth: 5 ft/in

H₂S Reading: 0 ppm CH₄ Reading: 0 %

O₂ Reading: 20.6 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buch M-5

Calibrator Readings (L/min): 1431 1497 1410 1419
1413 1420 1489

Ave. Cal. Reading (L/min): 1.44 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11310a Tenax/Charcoal Tube Number: 11310b

Start Time: 1253 Flow Readout (L/min): N/A

Stop Time: 1307 Flow Readout (L/min): N/A

Elapsed Time: 14 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.44 = 20.16 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 20.16 x 1.01 x 1.02 = 20.77 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5

Date: 10/28/79

Site: Himco Dump Superfund Site

Station Location: TT-97 (Duplicate)

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 18.9 °C (t_A)

Barometric Pressure: 765.2 mm Hg at 1312 AM/PM (P_A)

Weather: Sunny, breezy

Sample Depth: 5 ft/in

H₂S Reading: — ppm

CH₄ Reading: — %

O₂ Reading: — %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck M-5

Calibrator Readings (L/min): 1366 1439 1352 1326

1446 1424 1413

Ave. Cal. Reading (L/min): 1.40 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11205a Tenax/Charcoal Tube Number: 11205b

Start Time: 1312 Flow Readout (L/min): N/A

Stop Time: 1326 Flow Readout (L/min): N/A

Elapsed Time: 14 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.40 = 19.60 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))

= 19.60 x 1.01 x 1.02 = 20.19 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5

Date: 10/28/99

Site: Hinco Dump Superfund Site

Station Location: TT-98

Sampling Team: Rick Grabowski, Janie Carvig

Temperature: _____ (°F - 32)/1.8 = 20.9 °C (t_A)

Barometric Pressure: 7648 mm Hg at 1353 AM/PM (P_A)

Weather: Sunny, breezy

Sample Depth: 5 @/in

H₂S Reading: 0 ppm

CH₄ Reading: 0 %

O₂ Reading: 20.7 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buch M-5

Calibrator Readings (L/min):	<u>1443</u>	<u>1349</u>	<u>1458</u>	<u>1409</u>
	<u>1408</u>	<u>1441</u>	<u>1376</u>	

Ave. Cal. Reading (L/min): 1.41 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on pump.

Tenax Tube Number: 11203a Tenax/Charcoal Tube Number: 11203b

Start Time: 1353 Flow Readout (L/min): N/A

Stop Time: 1407 Flow Readout (L/min): N/A

Elapsed Time: 14 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.41 = 19.74 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 19.74 x 1.01 x 1.01 = 20.14 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/29/99

Site: Himes Dump Superfund Site Station Location: TT-100

Sampling Team: Rick Grabowski, Junior Camig

Temperature: _____ (°F - 32)/1.8 = 10.1 °C (t_A)

Barometric Pressure: 767.2 mm Hg at 0816 AM/PM (P_A)

Weather: Sunny, calm.

Sample Depth: 5 ft/in

H₂S Reading: 1 ppm CH₄ Reading: 0 %

O₂ Reading: 20.5 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck U-5

Calibrator Readings (L/min): 1516 1550 1472 1504
1520 1571 1459

Ave. Cal. Reading (L/min): 151 (Q_A) Flow Readout (L/min): N/A - No Flow Readout Pump.

Tenax Tube Number: 11311a Tenax/Charcoal Tube Number: 11311b

Start Time: 0816 Flow Readout (L/min): N/A

Stop Time: 0829 Flow Readout (L/min): N/A

Elapsed Time: 13 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 151 = 19.63 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))
= 19.63 x 1.01 x 1.05 = 20.82 Liters

SOIL GAS SURVEY FORM

Client: U.S. EPA Region 5 Date: 10/28/99

Site: Hinco Dump Superfund Site Station Location: TT-101

Sampling Team: Rick Grabowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 24.1 °C (t_A)

Barometric Pressure: 764.3 mm Hg at 1540 AM/PM (P_A)

Weather: Sunny, breezy

Sample Depth: 5 ft in

H₂S Reading: 2 ppm CH₄ Reading: 0 %

O₂ Reading: 9.6 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buck US

Calibrator Readings (L/min): 1442 1496 1462 1383

1449 1469 1422

Ave. Cal. Reading (L/min): 1.45 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11212a Tenax/Charcoal Tube Number: 11212b

Start Time: 1540 Flow Readout (L/min): N/A

Stop Time: 1554 Flow Readout (L/min): N/A

Elapsed Time: 14 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 14 x 1.45 = 20.30 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A))

= 20.30 x 1.01 x 1.00 = 20.50 Liters

SOIL GAS SURVEY FORM

Client: US EPA Region 5 Date: 10/27/99

Site: Hince Dump Superfund Site Station Location: TT-102

Sampling Team: Rick Grubowski, Janie Carrig

Temperature: _____ (°F - 32)/1.8 = 8.1 °C (t_A)

Barometric Pressure: 771.2 mm Hg at 0933 AM/PM (P_A)

Weather: Sunny, slightly breezy

Sample Depth: 5 (D) in

H₂S Reading: 3 ppm CH₄ Reading: 0 %

O₂ Reading: 17.9 %

Air Sampling Pump Mfg./Model: Ametek Alpha-1

Calibrator Mfg./Model: Buhl M-5

Calibrator Readings (L/min): 1529 1581 1578 1542
1579 1582 1580

Ave. Cal. Reading (L/min): 1.57 (Q_A) Flow Readout (L/min): N/A - No Flow Readout on Pump

Tenax Tube Number: 11216 a Tenax/Charcoal Tube Number: 11216 b

Start Time: 0933 Flow Readout (L/min): N/A

Stop Time: 0946 Flow Readout (L/min): N/A

Elapsed Time: 13 Min. (T) % Difference Flow Readout: N/A

Volumetric Flow Calculation: V_m = T X Q_A = 13 x 1.57 = 20.41 Liters

Standardized Volume (@ 25° C and 760 mm Hg): V_s = V_m x (P_A/760) x ((298/(273 + t_A)))

= 20.41 x 1.01 x 1.06 = 21.85 Liters

Table 2
Summary of Field Screening Results - October 1999
Supplemental Site Investigation/Site Characterization Report
Himco Dump Superfund Site
Elkhart, Indiana

Sample Location	Hydrogen Sulfide (ppm)	Methane (% LEL)	Oxygen (%)
TT-54	0	0	20.5
TT-55	0	0	20.4
TT-56	>999	3.5	6.6
TT-57	0	0	20.5
TT-58	0	0	20.4
TT-59	0	0	19.7
TT-60	0	0	19.7
TT-61	0	0	20.1
TT-62	0	0	7.5
TT-63	0	0	14.7
TT-64	0	0	11.3
TT-65	0	0	20.4
TT-66	0	0	20.1
TT-67	0	0	18.7
TT-68	0	0	19.7
TT-69	0	0	20.3
TT-70	0	0	20.4
TT-71	0	0	20.4
TT-72	0	0	20.1
TT-73	0	0	20.4
TT-74	0	0	20.1
TT-75	4	0	18.9
TT-76	2	0	19.2
TT-77	0	0	20.2
TT-78	0	0	20.3
TT-79	1	0	20
TT-80	0	0	20.2
TT-81	0	0	20.1
TT-82	0	0	19.8
TT-83	0	0	19.7
TT-84	0	0	20.4
TT-85	0	0	20.1
TT-86	4	0	15.8
TT-87	2	0	20.6
TT-88	ND	ND	ND
TT-89	1	0	20.6
TT-90	0	0	20.5
TT-91	2	0	20.1
TT-92	0	0	20.1
TT-93	ND	ND	ND
TT-94	ND	ND	ND
TT-95	2	0	20.6
TT-96	0	0	20.7

Table 2
Summary of Field Screening Results - October 1999
Supplemental Site Investigation/Site Characterization Report
Himco Dump Superfund Site
Elkhart, Indiana

Sample Location	Hydrogen Sulfide (ppm)	Methane (% LEL)	Oxygen (%)
TT-97	0	0	20.6
TT-98	0	0	20.7
TT-99	ND	ND	ND
TT-100	1	0	20.5
TT-101	2	0	9.6
TT-102	3	0	17.9

ND = No Data Sheet

Appendix F

**2000 Supplemental Site Investigation
Geophysical Logs**



Region 5

Field Services Section

Chicago, Illinois

B1

COMPANY : USEPA
WELL : B1
LOCATION/FIELD : HIMCO
COUNTY : ELKHART
STATE : IN
SECTION : None

OTHER SERVICES:

None
None
None

TOWNSHIP : None RANGE : None

DATE : 03/15/00
DEPTH DRILLER : ~~473~~
LOG BOTTOM : 493.20
LOG TOP : 0.90

PERMANENT DATUM : None
LOG MEASURED FROM: TIC
DRL MEASURED FROM: None

KB : None
DF : None
GL : None

CASING DIAMETER : ~~5~~
CASING TYPE : PVC
CASING THICKNESS: 0

LOGGING UNIT : 1
FIELD OFFICE : None
RECORDED BY : JRJ

BIT SIZE : 6
MAGNETIC DECL. : 0
MATRIX DENSITY : 2.71
NEUTRON MATRIX : Dolomite

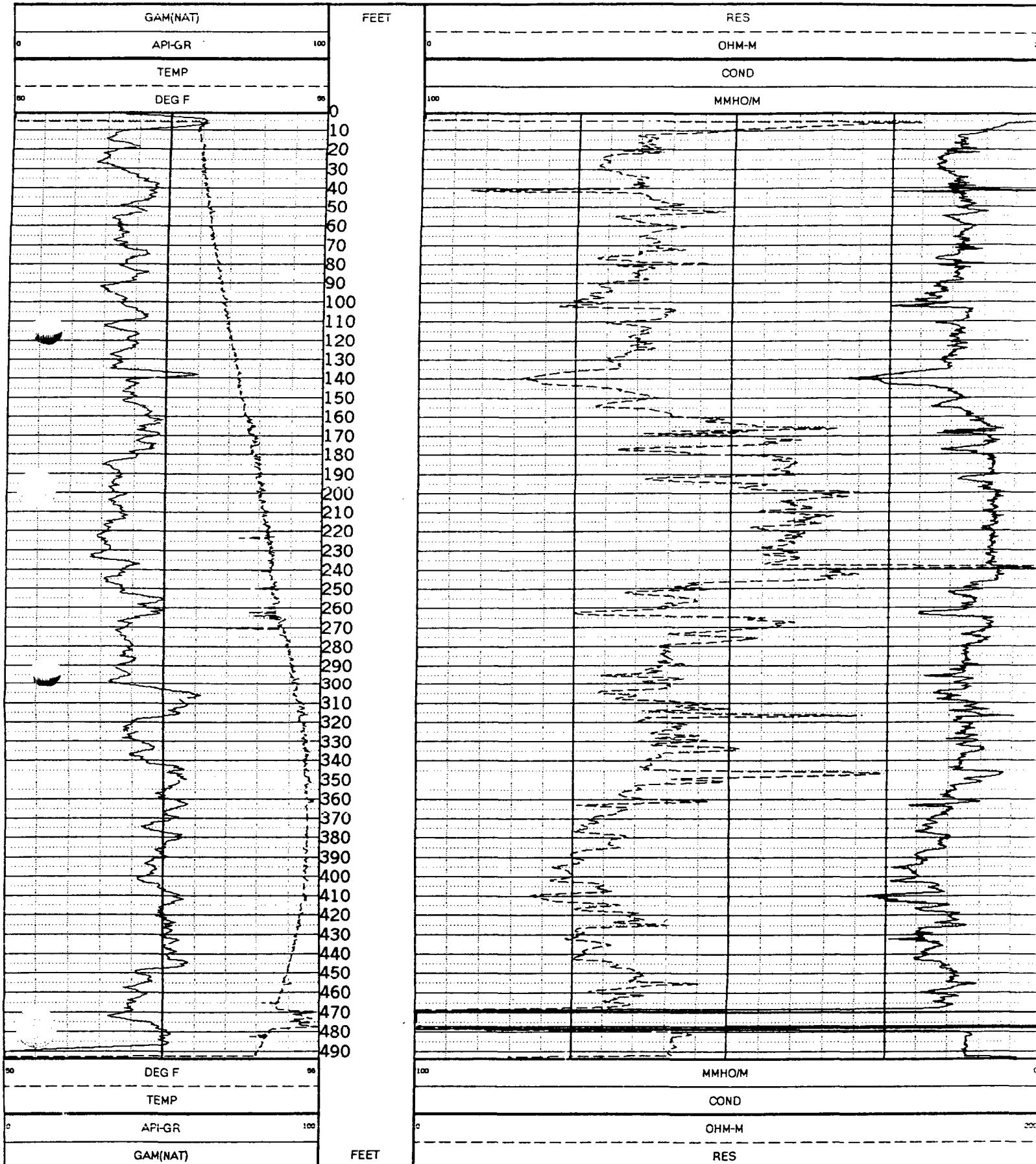
BOREHOLE FLUID : WATER
RM : 0
RM TEMPERATURE : 0
MATRIX DELTA T : 54

FILE : ORIGINAL
TYPE : 9511A

THRESH: 0

~~GW ELEV. 12.89~~
None

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS





Region 5

Field Services Section

Chicago, Illinois

E3

COMPANY : USEPA
WELL : E3
LOCATION/FIELD : HIMCO
COUNTY : ELKHART
STATE : IN
SECTION : None

OTHER SERVICES:

None
None
None

DATE : 03/14/00
DEPTH DRILLER : 169
LOG BOTTOM : 174.40
LOG TOP : 0.80

TOWNSHIP : None RANGE : None

CASING DIAMETER : 5"
CASING TYPE : PVC
CASING THICKNESS: 0

PERMANENT DATUM : None

LOG MEASURED FROM: TOC
DRL MEASURED FROM: None

KB : None
DF : None
GL : None

BIT SIZE : 6
MAGNETIC DECL. : 0
MATRIX DENSITY : 2.71
NEUTRON MATRIX : Dolomite

LOGGING UNIT : 1
FIELD OFFICE : None
RECORDED BY : JRJ

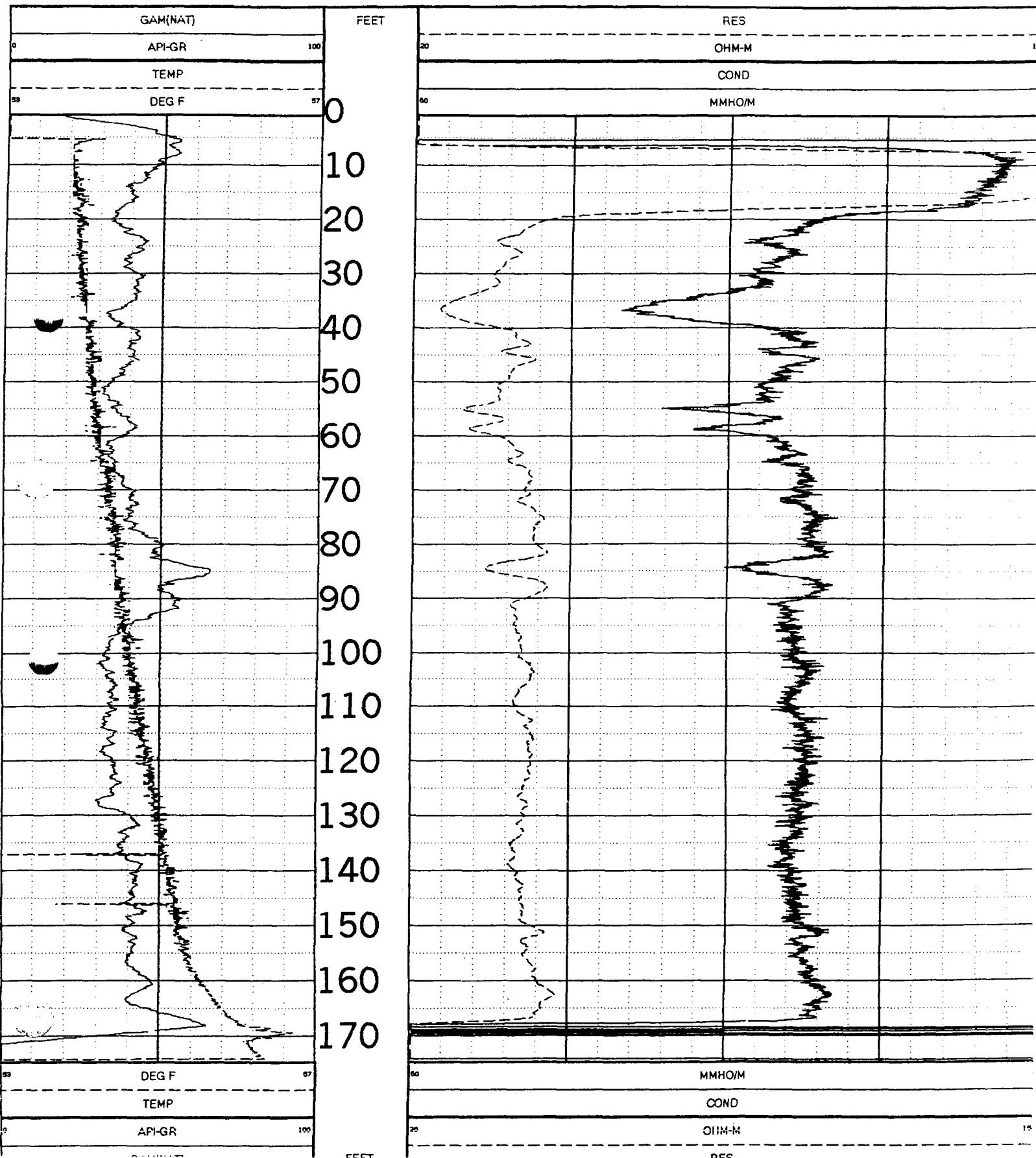
BOREHOLE FLUID : WATER
RM : 0
RM TEMPERATURE : 0
MATRIX DELTA T : 54

FILE : PROCESSED
TYPE : 9511A

THRESH: 0

None

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Region 5

Field Services Section

Chicago, Illinois

G3

COMPANY : USEPA
 WELL : G3
 LOCATION/FIELD : HIMCO
 COUNTY : ELKHART
 STATE : IN
 SECTION : None

OTHER SERVICES:
 None
 None
 None

TOWNSHIP : None RANGE : None

DATE : 03/14/00
 DEPTH DRILLER : 169
 LOG BOTTOM : 158.50
 LOG TOP : 0.70

PERMANENT DATUM : None
 LOG MEASURED FROM: TOC
 DRL MEASURED FROM: None

KB : None
 DF : None
 GL : None

CASING DIAMETER : 5"
 CASING TYPE : PVC
 CASING THICKNESS: 0

LOGGING UNIT : 1
 FIELD OFFICE : None
 RECORDED BY : JRU

BIT SIZE : 6
 MAGNETIC DECL. : 0
 MATRIX DENSITY : 2.71
 NEUTRON MATRIX : Dolomite

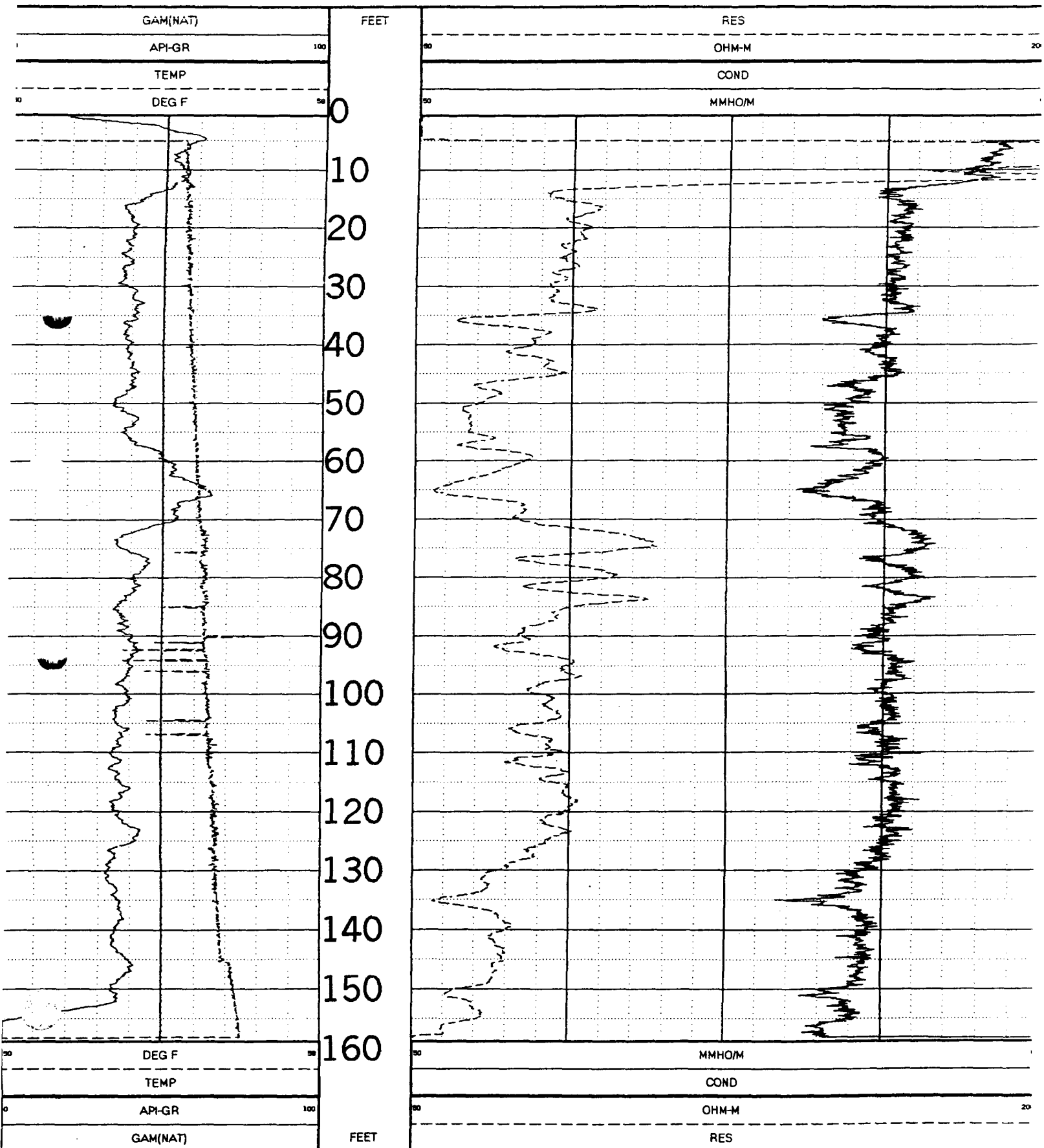
BOREHOLE FLUID : WATER
 RM : 0
 RM TEMPERATURE : 0
 MATRIX DELTA T : 54

FILE : ORIGINAL
 TYPE : 9511A

THRESH: 0

None

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS





Region 5

Field Services Section

Chicago, Illinois

J3

COMPANY : USEPA
WELL : J3
LOCATION/FIELD : HIMCO
COUNTY : ELKHART
STATE : IN
SECTION : None

OTHER SERVICES:

None
None
None

TOWNSHIP : None RANGE : None

DATE : 03/15/00
DEPTH DRILLER : 175
LOG BOTTOM : 150.50
LOG TOP : 0.80

PERMANENT DATUM : None
LOG MEASURED FROM : TOC
DRL MEASURED FROM : None

KB : None
DF : None
GL : None

CASING DIAMETER : 5"
CASING TYPE : PVC
CASING THICKNESS : 0

LOGGING UNIT : 1
FIELD OFFICE : None
RECORDED BY : JRJ

BIT SIZE : 6
MAGNETIC DECL. : 0
MATRIX DENSITY : 2.71
NEUTRON MATRIX : Dolomite

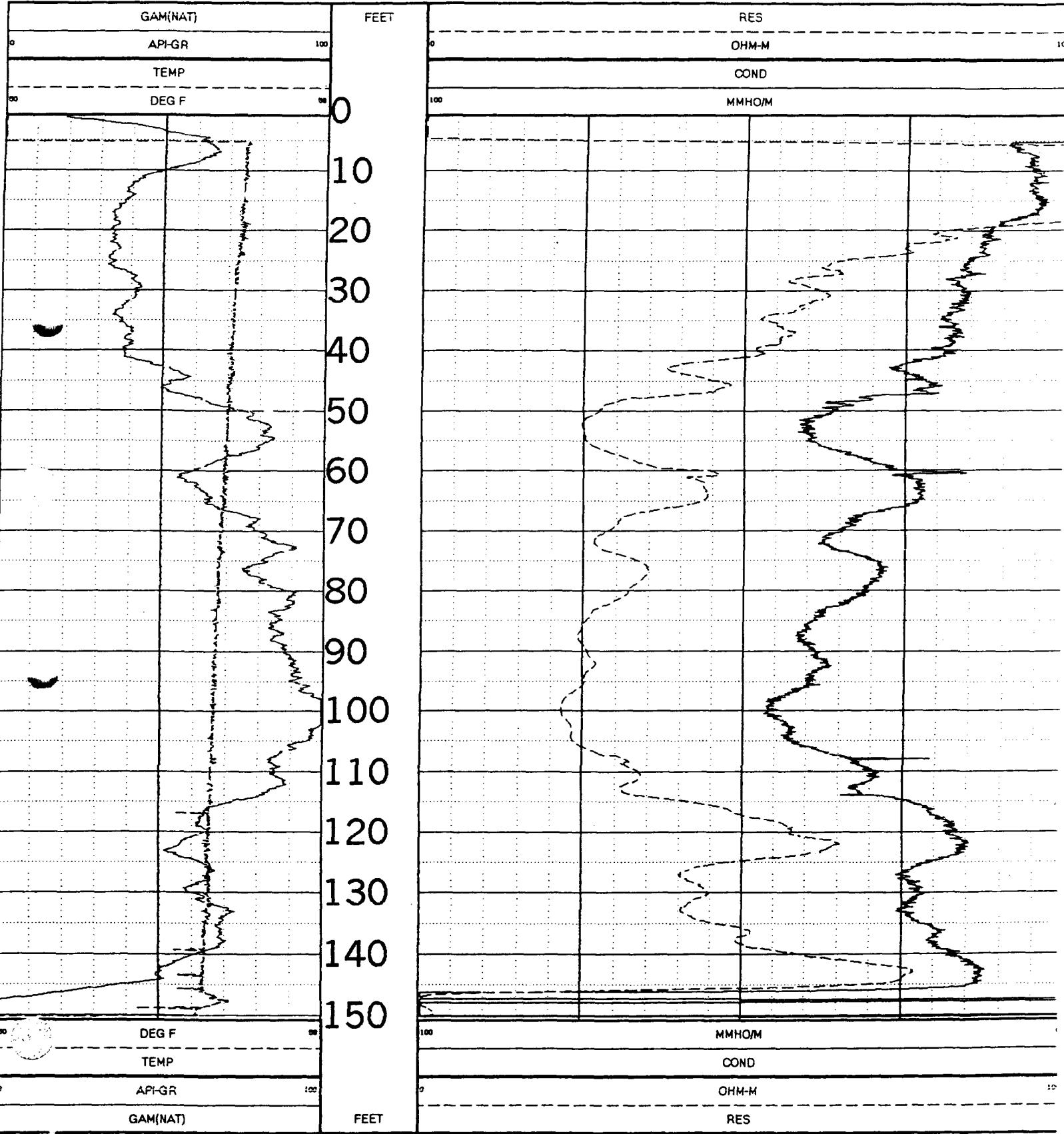
BOREHOLE FLUID : WATER
RM : 0
RM TEMPERATURE : 0
MATRIX DELTA T : 54

FILE : ORIGINAL
TYPE : 9511A

THRESH: 0

None

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS





Region 5

Field Services Section

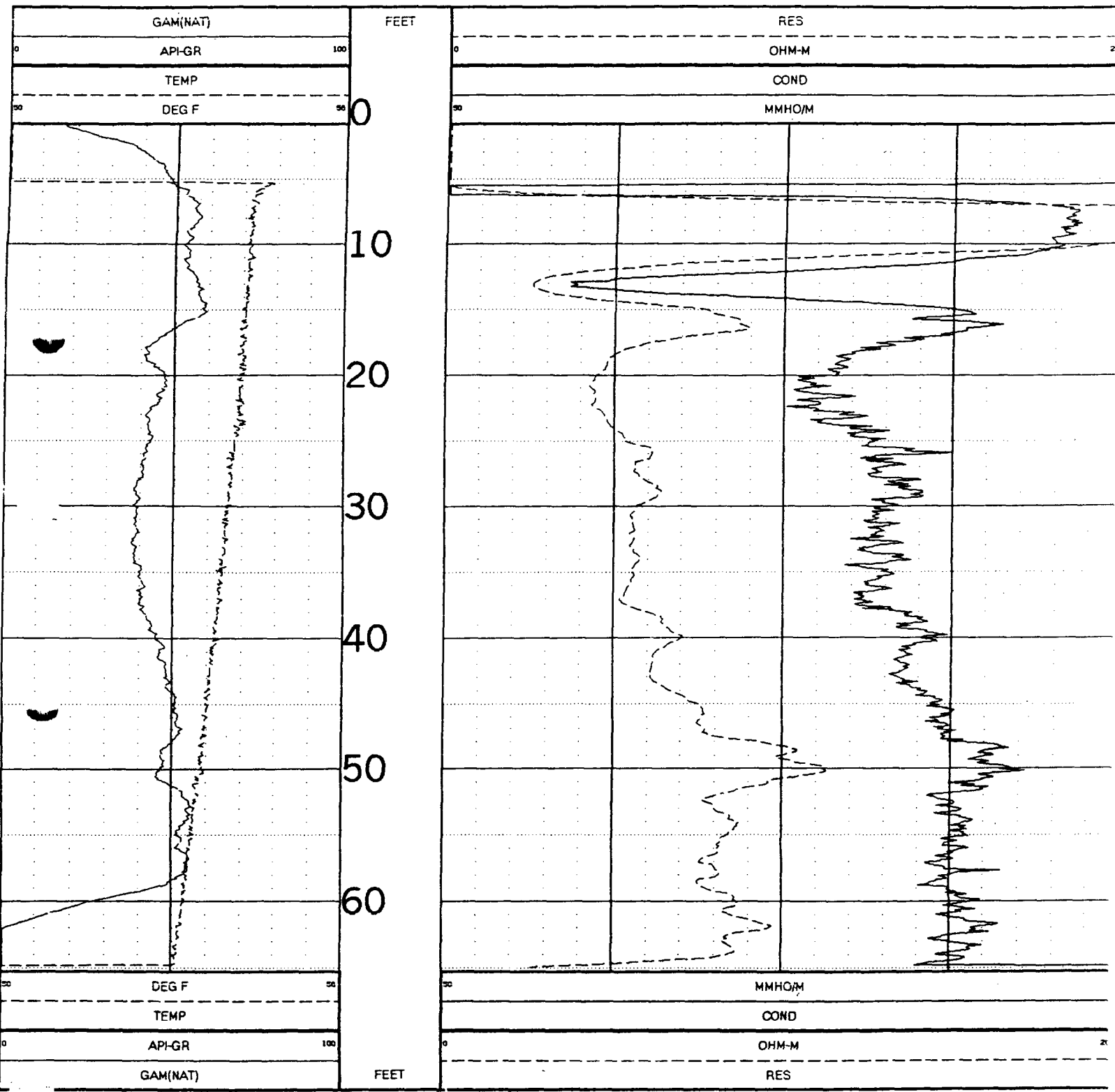
Chicago, Illinois

114B

COMPANY	: USEPA	OTHER SERVICES:	
WELL	: 114B	None	
LOCATION/FIELD	: HIMCO	None	
COUNTY	: ELKHART	None	
STATE	: IN		
SECTION	: None	TOWNSHIP	: None
		RANGE	: None
DATE	: 03/15/00	PERMANENT DATUM	: None
DEPTH DRILLER	: 66	KB	: None
LOG BOTTOM	: 65.10	DF	: None
LOG TOP	: 0.80	DRL MEASURED FROM:	: None
		GL	: None
CASING DIAMETER	: 2"	LOGGING UNIT	: 1
CASING TYPE	: PVC	FIELD OFFICE	: None
CASING THICKNESS:	0	RECORDED BY	: JRU
BIT SIZE	: 6	BOREHOLE FLUID	: WATER
MAGNETIC DECL.	: 0	RM	: 0
MATRIX DENSITY	: 2.71	RM TEMPERATURE	: 0
NEUTRON MATRIX	: Dolomite	MATRIX DELTA T	: 54
		THRESH:	0

~~GW ELEV. 12.89'~~
None

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



Appendix G

**2000 Supplemental Site Investigation
Well Gauging Forms**

WELL GAUGING FORM

Inspector(s): Janie Carrig and Mary Johansen Equipment Used: Electronic water level indicator.
 Date: 19-Apr-00

Well ID No.	Time	Depth to Water ¹	TOC Elev. ²	Water Elev. ²	Depth to Bottom ¹	Comments
WT104A	1146	13.44	765.29	751.85	18.73	Well secured. Reading from mark on casing.
WT105A	1432	11.10	762.58	751.48	18.62	Well secured.
WT106A	1505	9.98	761.50	751.52	18.56	Well secured.
WTG1	1635	13.37	763.23	749.86	52.8	Measured from notch on north side. Red paint on outside of casing is peeling & flaking with potential to enter well. Has atypical marks on the inside of the casing at ground surface. No protective outer casing, bollards or concrete pad.
WTG3	1647	18.09	763.37	745.28	167-172	Red paint on outside of casing is peeling and flaking with potential to enter well. No protective outer casing, bollards or concrete pad.

¹Feet from Top of Casing (TOC)

²Measured in feet Mean Sea Level (MSL)

N/A - Not Available

WELL GAUGING FORM

Inspector(s): Janie Carrig and Mary Johansen **Equipment Used:** Electronic water level indicator.

Date: 20-Apr-00

Well ID No.	Time	Depth to Water ¹	TOC Elev. ²	Water Elev. ²	Depth to Bottom ¹	Comments
WT102A	0800	12.20	769.09	756.89	18.22	
WT102B	0800	12.04	768.82	756.78	67.62	Inner casing spun when removing cap.
WT102C	0800	12.41	769.20	756.79	161.96	Muck at 158'.
WT112A	0920	10.67	765.90	755.23	17.86	Measurements from the north.
WT112B	0920	10.87	766.09	755.22	62.23	Measurements from the north.
WT113A	0941	17.21	771.85	754.64	24.54	Well in good shape.
WT113B	0944	17.43	772.06	754.63	70.14	Well in good shape.
WT104A	1009	13.34	765.29	751.95	Not Measured	Rechecked after ~2" rain.

¹Feet from Top of Casing (TOC)

²Measured in feet Mean Sea Level (MSL)

N/A - Not Available

WELL GAUGING FORM

Inspector(s): Janie Carrig and Mary Johansen **Equipment Used:** Electronic water level indicator.

Date: 20-Apr-00

Well ID No.	Time	Depth to Water ¹	TOC Elev. ²	Water Elev. ²	Depth to Bottom ¹	Comments
WTB1	1302	8.03	763.65	755.62	Not Encountered	All health and safety monitoring is zero except 21% O ₂ .
WTB2	1305	dry	763.18	N/A	7.62	All health and safety monitoring is zero except 21% O ₂ . No lock or steel casing. PVC has holes from gunshots. Some water at bottom.
WTB3	1324	7.72	763.28	755.56	129-130	All health and safety monitoring is zero except 21% O ₂ . Measured from metal casing. Soft bottom.
WTB4	N/A	N/A	762.33	N/A	N/A	Lock damaged and cannot open.
WT103A	1354	7.0	762.61	755.61	18.52	All health and safety monitoring is zero except 20.9% O ₂ . Well in good condition. One protective post removed and on ground.
WT117A	1426	14.20	767.19	752.99	18.28	All health and safety monitoring is zero except 20.9% O ₂ . Measurement taken from TOC (metal) on north side.
WT117B	1430	13.48	766.60	753.12	63.55	All health and safety monitoring is zero except 20.9% O ₂ .
WT111A	1509	13.59	766.45	752.86	21.71	All health and safety monitoring is zero except 20.9% O ₂ .

¹Feet from Top of Casing (TOC)

²Measured in feet Mean Sea Level (MSL)

N/A - Not Available

WELL GAUGING FORM

Inspector(s): Janie Carrig and Mary Johansen Equipment Used: Electronic water level indicator.
 Date: 20-Apr-00

Well ID No.	Time	Depth to Water ¹	TOC Elev. ²	Water Elev. ²	Depth to Bottom ¹	Comments
WT118B	1515	13.57	766.49	752.92	65.1	All health and safety monitoring is zero except 20.9% O ₂ . Measurement taken from PVC casing on north side.
WT116A	1530	10.27	763.86	753.59	16.32	All health and safety monitoring is zero except 20.7% O ₂ . Well in good condition.
WT116B	1530	10.70	763.89	753.19	59.76	All health and safety monitoring is zero except 20.7% O ₂ . Well in good condition.
WT114A	1700	16.63	769.19	752.56	24.66	Measurement taken from PVC riser.
WT114B	1700	16.66	769.37	752.71	69.2	Measurement taken from PVC riser.
WT101A	1743	11.89	764.34	752.45	18.76	All health and safety monitoring is zero. Well in good condition.
WT101B	1743	11.65	764.23	752.58	100.8	All health and safety monitoring is zero. Well in good condition.
WT101C	1743	11.44	764.11	752.67	167.5	All health and safety monitoring is zero. Well in good condition. Bottom is soft.

¹Feet from Top of Casing (TOC)

²Measured in feet Mean Sea Level (MSL)

N/A - Not Available

WELL GAUGING FORM

Inspector(s): Janie Carrig and Mary Johansen **Equipment Used:** Electronic water level indicator.

Date: 20-Apr-00

Well ID No.	Time	Depth to Water ¹	TOC Elev. ²	Water Elev. ²	Depth to Bottom ¹	Comments
WT115A	1806	13.39	765.87	752.48	19.79	All health and safety monitoring is zero. Well in good condition.
WTE1	1816	13.26	765.75	752.49	85.5-86.0	All health and safety monitoring is zero. Cap is not present. Soft @ 81.20'.
WTE3	1826	12.83	765.47	752.64	187	All health and safety monitoring is zero. Cap is not present. Soft @ 178'.
WT119A	1858	10.68	763.26	752.58	20.30	All health and safety monitoring is zero. Well in good condition.
WT01	N/A	N/A	762.83	N/A	N/A	Could not find well.

¹Feet from Top of Casing (TOC)

²Measured in feet Mean Sea Level (MSL)

N/A - Not Available

Appendix H

Summary of 1984 - 2000 Ground Water, Soil and Soil Gas Analytical Data

Ground water data detections presented by monitoring well for the years 1990-2000 and residential locations for the years 1990-2000

followed by a summary of :
ground water, soil, and soil gas data by sampling episode for the years:

1984
1995
1996
1998
1999
2000

1990-2000
Monitoring Well Detections

**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WTB1 473'			
	12/4/1990		4/26/2000	
TOTAL METALS (µg/L)				
Aluminum	347		118	U
Barium	116	B	122	
Calcium	51700		52500	
Chromium	6.0	U	2.4	J
Copper	11.2	B	9.3	U
Iron	903	J	527	
Lead	10.2	J	2	U
Magnesium	20900		20900	
Manganese	51.0		40.1	
Nickel	25.0	U	8.3	J
Potassium	1950	B	2100	
Sodium	51200		55100	
Zinc	71.4	J	36.9	JB
MISC INORGANICS				
Bromide (µg Br ⁻ /L)	200	U	180	J
Sulfate (mg SO ₄ /L)	44	UJ	60	J
VOLATILE ORGANICS (µg/L)				
	ND		ND	
SEMIVOLATILE ORGANICS (µg/L)				
	ND		ND	
PESTICIDES/PCB (µg/L)				
	ND		NS	

U: Analyte was not detected.
 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
 R: Rejected. The value is unusable.

**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WTB2			
	13.9'			
	12/4/1990		9/26/1991	
TOTAL METALS				
Aluminum	695		6930	
Arsenic	3.0	U	5.30	BJ
Barium	22.5	B	124.0	B
Calcium	71100		138000	
Chromium	20.9		24.60	
Cobalt	12.5	U	25.40	B
Copper	8.7	B	31.0	
Iron	1240	J	17200	
Lead	20.0	UJ	91.20	
Magnesium	11000		32900	
Manganese	99.9		1870	
Nickel	25.0	U	47.50	
Potassium	942	U	1730	B
Selenium	2.4	BJ	4.00	U
Sodium	4040	B	5490	
Vanadium	8.5	U	26.8	B
Zinc	13.9	BJ	79.0	
MISC INORGANICS				
Bromide ($\mu\text{g Br}^-/\text{L}$)	100	U	100	U
Sulfate ($\text{mg SO}_4/\text{L}$)	94	J	160	J
VOLATILE ORGANICS ($\mu\text{g/L}$)				
	ND		ND	
SEMIVOLATILE ORGANICS ($\mu\text{g/L}$)				
Naphthalene	10	U	2	J
bis(2-Ethylhexyl)phthalate	10	U	6	J
PESTICIDES/PCB ($\mu\text{g/L}$)				
	ND		ND	

U: Analyte was not detected.
 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
 R: Rejected. The value is unusable.

**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date Sampled		WTB3					
		135'					
		12/5/1990		9/26/1991		4/26/2000	
TOTAL METALS (µg/L)							
	Aluminum	47.9	B	120	B	118	U
	Antimony	48.7	B	13.0	U	2.0	U
	Arsenic	5.8	B	4.0	B	5.0	J
	Barium	63.6	B	57.2	B	60.2	
	Calcium	131000		127000		96800	
	Copper	4.8	B	6.0	U	9.3	U
	Iron	707	J	594		426	
	Lead	20.0	UR	3.5	J	2	U
	Magnesium	41400		38000		27900	
	Manganese	445	J	383		356	
	Potassium	1370	B	755	BJ	1290	
	Selenium	3.1	B	4.0	U	2.0	U
	Silver	7.7	BJ	2.0	U	11.1	U
	Sodium	11600		13400		20300	
	Vanadium	14.1	BJ	2.0	U	5.1	U
	Zinc	19.2	BJ	7.4	B	34.1	U
MISC INORGANICS							
	Bromide (µg Br ⁻ /L)	100	U	100		80	J
	Sulfate (mg SO ₄ /L)	300	R	281	J	132	
VOLATILE ORGANICS (µg/L)							
	Chloromethane	10	U	5	J	1	U
	Acetone	10	UJ	27		5	U
	Chloroform	5	U	26		1	U
	Bromodichloromethane	5	U	7	J	1	U
	Dibromochloromethane	5	U	2	J	1	U
SEMIVOLATILE ORGANICS (µg/L)							
	bis(2-Ethylhexyl)phthalate	2	JBU	2	JBU	6	
PESTICIDES/PCB (µg/L)							
		ND		ND		NS	

U: Analyte was not detected.
 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
 R: Rejected. The value is unusable.

**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WTB4					
	174.2'					
	12/11/1990		9/26/1991		4/26/2000	
TOTAL METALS (µg/L)						
Aluminum	126	B	145	B	118	U
Antimony	36.0	B	13.0	U	2	U
Barium	40.4	B	35	B	37	
Calcium	55500		59900		69400	
Copper	32.1		6.0	U	9.3	U
Iron	802	J	356		415	B
Lead	58.0	J	6.5		2	U
Magnesium	18500		18000		21200	
Manganese	251	J	154		206	
Potassium	1190	B	787	BJ	759	
Silver	9.0	BJ	2.0	U	11.1	U
Sodium	4210	B	4920	B	4600	
Vanadium	8.5	BJ	2.0	U	5.1	U
Zinc	35.4	J	8.8	B	34.1	U
MISC INORGANICS						
Bromide (µg Br/L)	100	U	100	U	110	J
Sulfate (mg SO ₄ /L)	38	J	49.0	J	38	
VOLATILE ORGANICS (µg/L)						
Chloroform	4	J	23		1	U
Bromodichloromethane	2	J	7	J	1	U
Dibromochloromethane	5	U	2	J	1	U
SEMIVOLATILE ORGANICS (µg/L)						
bis(2-Ethylhexyl)phthalate	32		3	J	5	U
PESTICIDES/PCB (µg/L)						
	ND		ND		NS	

U: Analyte was not detected.
 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
 R: Rejected. The value is unusable.

**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

		WTCP1	
Well Depth		20.2'	
Date sampled		12/3/1990	
TOTAL METALS (µg/L)			
Barium	27.8	B	
Calcium	111000		
Iron	284	J	
Magnesium	13700		
Manganese	8.5	B	
Mercury	1.0	J	
Sodium	12000		
Vanadium	5.2	B	
Zinc	219	J	
MISC INORGANICS			
Bromide (µg Br ⁻ /L)	100	U	
Sulfate (mg SO ₄ /L)	190		
VOLATILE ORGANICS (µg/L)		ND	
SEMIVOLATILE ORGANICS (µg/L)		ND	
PESTICIDES/PCB (µg/L)		ND	

U: Analyte was not detected.
 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
 R: Rejected. The value is unusable.

**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WTE1			
	81'			
	1995		5/2/2000	
TOTAL METALS (µg/L)				
Barium	NR		43.5	
Calcium	NR		174000	
Iron	NR		5150	
Lead	NR		3	J
Magnesium	NR		35500	
Manganese	NR		204	J
Potassium	NR		4120	
Sodium	NR		19100	
Cyanide	NR		NS	
MISC INORGANICS				
Bromide (µg Br/L)	NR		120	J
Sulfate (mg SO ₄ /L)	NR		347	
VOLATILE ORGANICS (µg/L)				
Methylene Chloride	2	J	2	U
SEMIVOLATILE ORGANICS (µg/L)				
Diethylphthalate	10	U	3	J
bis(2-Ethylhexyl)phthalate	0.2	JBU	19	
PESTICIDES/PCB (µg/L)				
	ND		NS	

U: Analyte was not detected.
 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WTE2 17.4'	
	12/12/1990	9/25/1991
TOTAL METALS (µg/L)		
Aluminum	113000	25500
Antimony	36.2 B	13.0 U
Arsenic	54.5	4.3 B
Barium	250	116 B
Beryllium	5.4	1.3 B
Calcium	28200	33700
Chromium	133	45
Cobalt	28.6 B	9.6 B
Copper	139	80
Iron	39300 J	5490
Lead	106 J	105
Magnesium	16300	9380
Manganese	265 J	115
Mercury	0.40	0.20 U
Nickel	111	37 B
Potassium	5110	3160 B
Selenium	33.0	4.0 UJ
Silver	18.4 J	2.0 U
Sodium	2400 B	3520 B
Vanadium	106	36 B
Zinc	399 J	162
MISC INORGANICS		
Bromide (µg Br ⁻ /L)	200	4100
Sulfate (mg SO ₄ /L)	13 J	15.3 J
VOLATILE ORGANICS (µg/L)		
Chloroform	5 U	2 J
2-Hexanone	0.7 J	10 UJ
SEMIVOLATILE ORGANICS (µg/L)		
bis(2-Ethylhexyl)phthalate	11 UJ	16
PESTICIDES/PCB (µg/L)		
	ND	ND

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 NR: Not reported
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000**

**Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WTE3			
	176'			
	12/12/1990		5/2/2000	
TOTAL METALS (µg/L)				
Aluminum	138	B	118	U
Antimony	47.9	B	7.0	U
Arsenic	4.7	B	5.0	J
Barium	222		51.3	
Calcium	97100		58300	
Iron	3140	J	2240	
Lead	2.0	UR	3.0	J
Magnesium	38200		23800	
Manganese	21.7	J	21.1	J
Potassium	1790	B	1810	
Selenium	2.5	B	7.0	U
Silver	11.2	J	11.1	U
Sodium	90700		12400	
Vanadium	12.0	BJ	5.1	U
Zinc	17.2	BJ	34.1	U
MISC INORGANICS				
Bromide (µg Br/L)	1900		130	J
Sulfate (mg SO ₄ /L)	110	J	57	
VOLATILE ORGANICS (µg/L)				
Chloroform	10	U	3	
Bromodichloromethane	10	U	2	
Dibromochloromethane	10	U	2	
Bromoform	10	U	1	
2-Hexanone	0.7	J	5	U
SEMIVOLATILE ORGANICS (µg/L)				
Diethylphthalate	10	U	2	J
bis(2-Ethylhexyl)phthalate	10	U	35	
PESTICIDES/PCB (µg/L)				
	ND		NS	

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 NS: Not sampled
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

		WTF1	
Well Depth		31.5'	
Date Sampled		12/13/1990	
TOTAL METALS (µg/L)			
Aluminum	66.1	B	
Barium	26.0	B	
Calcium	26900		
Copper	5.0	B	
Iron	374	J	
Lead	10.2	J	
Magnesium	6100		
Manganese	86.7	J	
Potassium	1240	B	
Silver	9.3	BJ	
Sodium	5740		
Vanadium	6.1	BJ	
Zinc	81.0	J	
MISC INORGANICS			
Bromide (µg Br/L)	200		
Sulfate (mg SO ₄ /L)	15	J	
VOLATILE ORGANICS (µg/L)			
		ND	
SEMIVOLATILE ORGANICS (µg/L)			
		ND	
PESTICIDES/PCB (µg/L)			
		ND	

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 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000**

**Himco Dump Superfund Site
Elkhart, Indiana**

		WTF2	
Well Depth		155'	
Date sampled		12/11/1990	
TOTAL METALS (µg/L)			
Aluminum	140	B	
Antimony	32.2	B	
Arsenic	8.0	B	
Barium	56.3	B	
Calcium	53900		
Iron	2500	J	
Lead	2.0	R	
Magnesium	17900		
Manganese	34.2	J	
Potassium	901	B	
Selenium	2.0	B	
Silver	7.2	BJ	
Sodium	4110	B	
Thallium	3.0	U!	
Vanadium	8.7	BJ	
MISC INORGANICS			
Bromide (µg Br ⁻ /L)	300		
Sulfate (mg SO ₄ /L)	18	J	
VOLATILE ORGANICS (µg/L)			
Trichloroethene	0.6	J	
SEMIVOLATILE ORGANICS (µg/L)			
	ND		
PESTICIDES/PCB (µg/L)			
	ND		

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 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
 R: Rejected. The value is unusable.

**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WTF5 198' 12/13/1990
TOTAL METALS (µg/L)	
Aluminum	267
Antimony	34.6 B
Arsenic	11.7
Barium	84.2 B
Calcium	50800
Iron	555 J
Lead	3.5 J
Magnesium	20700
Manganese	32.0 J
Potassium	1360 B
Silver	10.6 J
Sodium	15500
Vanadium	8.2 BJ
MISC INORGANICS	
Bromide (µg Br ⁻ /L)	200
Sulfate (mg SO ₄ /L)	45.0 UJ
VOLATILE ORGANICS (µg/L)	ND
SEMIVOLATILE ORGANICS (µg/L)	ND
PESTICIDES/PCB (µg/L)	ND

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 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
 R: Rejected. The value is unusable.

**Historical Summary of Monitoring Well Ground Water Detections
1990-2000**

**Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WTGI				
	43'				
	12/4/1990		4/27/2000		
TOTAL METALS (µg/L)					
Aluminum	92.6	B	118	U	
Arsenic	4.1	B	2	U	
Barium	59.0	B	79.1		
Calcium	71000		94300		
Copper	10.4	B	9.3	U	
Iron	1130	J	1010		
Lead	24.0	BJ	2	U	
Magnesium	20500		24300		
Manganese	50.2	J	52.7		
Nickel	25.0	U	7	J	
Potassium	2460	B	1430		
Sodium	6120		13800		
Vanadium	8.0	BJ	5.1	U	
Zinc	25.9	J	34.1	U	
MISC INORGANICS					
Bromide (µg Br ⁻ /L)	100	U	50	J	
Sulfate (mg SO ₄ /L)	64	J	59		
VOLATILE ORGANICS (µg/L)					
Acetone	39	BJ	5	U	
SEMIVOLATILE ORGANICS (µg/L)					
bis(2-Ethylhexyl)phthalate	10	U	4	J	
PESTICIDES/PCB (µg/L)					
	ND		NS		

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 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WTG3			
	172'			
	12/13/1990		4/27/2000	
TOTAL METALS (µg/L)				
Aluminum	NR		36.7	J
Arsenic	NR		10	
Barium	NR		79.4	
Calcium	NR		76400	
Iron	NR		1150	
Magnesium	NR		23500	
Manganese	NR		21.8	
Nickel	NR		8.1	J
Potassium	NR		1260	
Selenium	NR		4.0	J
Sodium	NR		18400	
Cyanide	NR		NS	
MISC INORGANICS				
Bromide (µg Br ⁻ /L)	100		60	M
Sulfate (mg SO ₄ /L)	NR		32	
VOLATILE ORGANICS (µg/L)				
Chloroform	3	J	1	U
Bromodichloromethane	2	J	1	U
Dibromochloromethane	1	J	1	U
4-Methyl-2-pentanone	1	J	5	U
2-Hexanone	1	J	5	U
Tetrachloroethene	0.6	J	1	U
Toluene	0.6	J	1	U
SEMIVOLATILE ORGANICS (µg/L)				
Dimethylphthalate	9	J	5	U
Diethylphthalate	38	J	5	U
bis(2-Ethylhexyl)phthalate	3	J	19	
PESTICIDES/PCB (µg/L)				
	ND		NS	

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 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000**

**Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WTM1			
	103.6'			
	12/5/1990		9/26/1991	
TOTAL METALS (µg/L)				
Antimony	46.8	B	13.0	UJ
Arsenic	5.1	B	2.00	UJ
Barium	75	B	82	B
Cadmium	5.0	U	2.40	BJ
Calcium	145000		163000	
Iron	6300	J	7280	
Lead	2.0	UR	4.00	J
Magnesium	30600		32800	
Manganese	82.2	J	106.00	
Potassium	5750		6520	
Selenium	3.4	B	4.0	UJ
Silver	11.6	J	2.0	U
Sodium	24200		26400	
Vanadium	12.1	BJ	3.5	B
Zinc	538	J	1240	
MISC INORGANICS				
Bromide (µg Br ⁻ /L)	200		200	
Sulfate (mg SO ₄ /L)	240	R	285	J
VOLATILE ORGANICS (µg/L)				
Chloroform	5	U	2	J
SEMIVOLATILE ORGANICS (µg/L)				
bis(2-Ethylhexyl)phthalate	11	UJ	3	J
PESTICIDES/PCB (µg/L)				
	ND		ND	

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 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000**

**Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WTM2			
	25.2'			
	12/3/1990		9/25/1991	
TOTAL METALS (µg/L)				
Aluminum	61.7	B	489	
Arsenic	3.0	U	8.5	B
Barium	164	B	209	
Cadmium	5.0	UJ	3.0	BJ
Calcium	116000		165000	
Chromium	6.0	U	8.8	B
Copper	5.0	B	49	
Iron	8830	J	78500	
Lead	20.0	UJ	96.10	
Magnesium	7230		7930	
Manganese	404		403	
Mercury	0.20	J	0.20	U
Nickel	25.0	U	25.60	B
Potassium	4850	B	5510	
Sodium	44500		53800	
Vanadium	12.2	U	20.20	B
Zinc	25.7	J	148	
MISC INORGANICS				
Bromide (µg Br ⁻ /L)	3500		100	U
Sulfate (mg SO ₄ /L)	6	J	37.6	J
VOLATILE ORGANICS (µg/L)				
Chloromethane	10	UJ	10	R
Bromomethane	10	U	10	R
Vinyl Chloride	10	U	10	R
SEMIVOLATILE ORGANICS (µg/L)				
Phenol	10	U	2	J
bis(2-Ethylhexyl)phthalate	10	U	110	
PESTICIDES/PCB (µg/L)				
	ND		ND	

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 NS: Not sampled
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

		WTN1	
Well Depth		30'	
Date sampled		11/29/1990	
TOTAL METALS			
Aluminum	63	BJ	
Barium	65	B	
Calcium	43000		
Copper	3.7	BJ	
Iron	165	J	
Lead	3.5		
Magnesium	12900		
Manganese	126		
Potassium	3950	B	
Sodium	11400		
Thallium	2.0	UJ	
Cyanide	10	UR	
MISC INORGANICS			
Bromide ($\mu\text{g Br}^-/\text{L}$)	100	U	
Sulfate ($\text{mg SO}_4/\text{L}$)	25		
VOLATILE ORGANICS			
Methylene Chloride	3	BJ	
Acetone	9	J	
SEMIVOLATILE ORGANICS			
		ND	
PESTICIDES/PCB			
		ND	

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 ND: Not detected
 NS: Not sampled
 NR: Not reported
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WT01					
	29.8'					
	12/3/1990		1995		4/26/2000	
TOTAL METALS (µg/L)						
Aluminum	36.0	U	115	J	NS	
Antimony	48.5	B	12.8	U	NS	
Barium	54.0	B	74.3	J	NS	
Calcium	88000		104000		NS	
Iron	122	J	21.6	J	NS	
Magnesium	24300		26100		NS	
Manganese	147		205		NS	
Potassium	1170	U	1950	J	NS	
Selenium	2.3	BJ	3.6	U	NS	
Sodium	8680		12500	J	NS	
Vanadium	6.4	U	6.9	J	NS	
Zinc	10.0	UJ	2.1	J	NS	
MISC INORGANICS						
Bromide (µg Br ⁻ /L)	100	U	NR		NS	
Sulfate (mg SO ₄ /L)	140	J	NR		NS	
VOLATILE ORGANICS (µg/L)						
Methylene Chloride	5	U	5	J	NS	
SEMIVOLATILE ORGANICS (µg/L)						
bis(2-Ethylhexyl)phthalate	10	U	13		NS	
PESTICIDES/PCB (µg/L)						
	ND		ND		NS	

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 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000**

**Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WTP1			
	25'			
	9/23/1991		9/26/1991	
TOTAL METALS (µg/L)				
Aluminum	3130.00	J	362	J
Arsenic	24.20		2.00	U
Barium	113.00	B	41.20	B
Cadmium	1.00	U	2.20	BJ
Calcium	213000.00		182000	
Chromium	10.30		3.5	B
Cobalt	5.00	B	3.00	U
Copper	6.00	U	46.50	
Iron	13100.00		1910	
Lead	32.10		210.00	J
Magnesium	16700.00		17500	
Manganese	447.00		39.70	
Potassium	8640.00		2530	B
Sodium	52300.00	J	13900	
Thallium	3.00	U	5.00	UJ
Vanadium	11.00	B	5.50	B
Zinc	24.70		13600	
MISC INORGANICS				
Bromide (µg Br/L)	870		210	
Sulfate (mg SO ₄ /L)	214	J	284	J
VOLATILE ORGANICS (µg/L)				
Chloromethane	10	R	10	U
Bromomethane	10	R	10	U
Vinyl Chloride	10	R	10	U
1,1-Dichloroethane	3	J	10	U
Chloroform	10	U	6	J
Benzene	1	J	10	U
SEMIVOLATILE ORGANICS (µg/L)				
bis(2-Ethylhexyl)phthalate	3	J	29	
PESTICIDES/PCB (µg/L)				
	ND		ND	

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 NS: Not sampled
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

		WTQ1	
Well Depth		25'	
Date sampled		11/29/1990	
TOTAL METALS (µg/L)			
Aluminum	1630	J	
Arsenic	1.0	B	
Barium	510		
Beryllium	1.2	B	
Calcium	106000		
Copper	14.50	BJ	
Iron	6250	J	
Lead	8.8		
Magnesium	41400		
Manganese	173		
Potassium	12800		
Silver	5.0	U	
Sodium	76000		
Vanadium	4.7	B	
Zinc	28.4	J	
Cyanide	10	R	
MISC INORGANICS			
Bromide (µg Br/L)	1100		
Sulfate (mg SO ₄ /L)	160		
VOLATILE ORGANICS (µg/L)			
Acetone	17	B	
SEMIVOLATILE ORGANICS (µg/L)			
ND			
PESTICIDES/PCB (µg/L)			
ND			

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 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WT101A													
	18.5'													
	11/28/1990	09/23/91		1995	10/21/1998	5/3/2000	5/3/2000 Dup		11/15/2000					
TOTAL METALS (µg/L)	Total													
Aluminum	29	BJ	2190	J	321	26	U	118	U	118	U	112		
Arsenic	9.0	B	11.2		7.8	J	4	J	5.0	J	14	UD	6.4	
Beryllium	1.0	U	1.0	U	0.4	U	0.6	U	2.0	U	2.0	U	0.6	J
Barium	49	B	71	J	116	J	91	J	83		82		79	
Cadmium	3.00	U	1.3	J	1.10	J	4.60	U	0.30	U	0.30	U	0.6	U
Calcium	202000		242000		249000		377000		258000		242000		227000	
Chromium	5.0	U	8.4	J	4.0	U	13.1		6.7	U	6.7	U	3	U
Cobalt	7.0	U	11	J	11	J	7.8	U	13		4.0	J	1	U
Copper	4.0	BJ	6.0	U	1.7	U	4.1	U	9.3	U	9.3	U	2	U
Iron	24600	J	33000		12700		28100		16300		16100		9490	
Lead	2	U	33		1.7	U	1	U	7	U	7	U	2	U
Magnesium	7440		23300		25200		14700		27300		27500		20200	
Manganese	1950		3590		1060		3080		1610	J	1540	J	929	
Nickel	6.0	U	24	J	23.8	J	28	U	21	U	21	U	2.3	BJ
Potassium	5000	B	4920	J	8060		3630	J	6730		6810		10100	
Selenium	2.0	UJ	4.0	UJ	3.6	U	3.0	R	7.0	U	7.0	U	4	U
Sodium	35400		21400	J	44100	J	35800		66800		65200		36700	
Vanadium	3.0	U	11.9	J	21	J	12	U	4.0	U	5.1	U	5	JB
Zinc	9.0	J	81		1.8	J	3.2	U	4.0	U	34.1	U	14.9	JB
Cyanide	10	UR	10.0	U	10	U	17.9	J	NS		NS		8	u
MISC INORGANICS														
Bromide (µg Br/L)	1000		NS		NR		NR		520	J	530	J	320	M
Sulfate (mg SO ₄ /L)	150		NS		NR		NR		218	D	215	D	177	D
Chloride (mg Cl/L)	NS		NS		NS		NS		NS		NS		27	D
VOLATILE ORGANICS (µg/L)														
Ethyl ether	NA		6	JN	NA		NA		NA		NA		49	
Dichlorofluoromethane	NA		NA		NA		NA		NA		NA		6	
Chloroethane	10	U	10	UJ	10	U	10	U	1	U	2		1	U
Methylene Chloride	2	BJ	10	UJ	0.7	J	10	U	2	U	2	U	1	U
1,1-Dichloroethane	3	J	3	J	5	J	10	U	8		8		14	
Benzene	3	J	3	J	10	U	10	U	2		2		2	
SEMIVOLATILE ORGANICS (µg/L)														
Di-n-butylphthalate	10	U	10	U	10	U	10	U	10	U	10	U	4	BJ
Dimethylphthalate	10	U	10	U	10	U	7	J	5	U	5	U	5	U
Diethylphthalate	2	J	20		11	U	19	J	3	J	4	J	5	U
bis(2-Ethylhexyl)phthalate	10	U	4	J	5	JB	10	UJ	8		4	J	5	U
PESTICIDES/PCB (µg/L)														
	ND		ND		ND		ND		NS		NS		NS	

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 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date Sampled	WT101B							
	100.5'							
	1/9/1991		9/23/1991		1995		5/3/2000	
TOTAL METALS (µg/L)								
Aluminum	516		168	BJ	206		118	U
Arsenic	7.1	B	3.8	B	3.8	U	7.0	U
Barium	192	B	218		184	J	72.3	
Beryllium	2.8	BJ	1.00	U	1.1	J	2.0	U
Calcium	88100		83500		126000		137000	
Chromium	4.0	U	2.8	B	20.6		6.7	U
Cobalt	5.0	U	3.0	U	9.6	J	13.2	U
Copper	8.8	BJ	6.00	BJ	16.0	J	9.3	U
Iron	592		1400		3080		2850	
Lead	1.1	BJ	1.0	UJ	1.7	U	7.0	U
Magnesium	31000		33000		47300		52800	
Manganese	87.4		76.4		49.3		36	J
Nickel	20.0	U	7.0	U	14.4	J	21	U
Potassium	28900		13900		5110		6280	
Selenium	4.0	UJ	4.0	UJ	3.6	U	7.0	U
Silver	5.0	UJ	2.0	UJ	18.2		11.1	U
Sodium	76100		43100	J	47400	J	43100	
Vanadium	11.2	B	2.0	U	17.8	J	5.1	U
Zinc	13.4	BJ	6.0	U	2.6	J	34.1	U
MISC INORGANICS								
Bromide (µg Br ⁻ /L)	400		480		NR		340	J
Sulfate (mg SO ₄ /L)	140	J	124	J	NR		211	
VOLATILE ORGANICS (µg/L)								
Chloroethane	12		16	J	6	J	2	
Methylene Chloride	10	U	10	U	1	J	2	U
SEMIVOLATILE ORGANICS (µg/L)								
Dimethylphthalate	10	U	NR		10	U	5	U
Diethylphthalate	10	U	NR		10	U	2	J
bis(2-Ethylhexyl)phthalate	10	U	NR		0.6	JBU	5	U
PESTICIDES/PCB (µg/L)								
	ND		ND		ND		NS	

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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WT101C 167.5'			
	1/9/1991	9/23/1991	1/1/1995	5/3/2000
TOTAL METALS (µg/L)				
Aluminum	6980	758	J NS	152
Arsenic	3.0 U	9.1	BJ NS	10
Barium	170 B	116	B NS	77.6
Beryllium	2.1 BJ	1.0	U NS	2 U
Calcium	121000	101000	NS	47900
Chromium	14.0 J	7.7	B NS	7.7 J
Cobalt	5.2 B	3.0	U NS	4 J
Copper	10.7 BJ	6.0	U NS	9.3 U
Iron	7890	3200	NS	1380
Lead	4.5 J	2.9	B NS	7 U
Magnesium	50400	41500.0	NS	20100
Manganese	279	193	NS	20.5 J
Nickel	21.1 B	7.0	U NS	7 J
Potassium	4300 B	1640	B NS	4130
Sodium	33100	36200	J NS	36100
Vanadium	8.4 B	3.0	B NS	5.1 U
Zinc	70.3	32.8	U NS	34.1 U
Cyanide	10.0 U	10.0	U NS	
MISC INORGANICS				
Bromide (µg Br ⁻ /L)	900	940	NS	880 J
Sulfate (mg SO ₄ /L)	810 J	10.0	UJ NS	0.42 J
VOLATILE ORGANICS (µg/L)				
Chloroethane	10 U	10	UJ NS	1 U
Methylene Chloride	10 U	10	U NS	2 U
SEMIVOLATILE ORGANICS (µg/L)				
Dimethylphthalate	10 U	NR	NS	5 U
Diethylphthalate	10 U	NR	NS	5 U
bis(2-Ethylhexyl)phthalate	10 U	NR	NS	2 J
PESTICIDES/PCB (µg/L)				
	ND	ND	NS	NS

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 NS: Not sampled
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000**

**Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled		WT102A											
		18.4'											
		11/28/1990		1/7/1991		9/24/1991		1995		10/19/1998		4/25/2000	
TOTAL METALS (µg/L)													
	Aluminum	32.7	BJ	81.8	B	165	BJ	268		27.6	J	118	U
	Antimony	30.0	U	37.0	U	13.00	U	21.7	J	42.2	UJ	2	U
	Barium	66	B	60.3	B	57	B	53.3	J	47.3	J	46.7	
	Beryllium	1.20	B	3.1	BJ	1.00	U	1.3	J	0.60	UJ	2	U
	Calcium	211000		181000		165000		157000		17100	J	173000	
	Chromium	5.0	U	6.5	BJ	2.80	B	23.9		20.3	J	17.8	J
	Cobalt	7.0	U	5.0	U	3.00	U	13.1	J	7.8	UJ	4.1	J
	Copper	6.9	BJ	16.7	BJ	6.00	U	17.9	J	4.1	UJ	9.3	U
	Iron	57	BJ	123		60.80	B	39.0	J	96.8	J	115	B
	Lead	2.2	BJ	1.0	UJ	1.00	U	1.7	U	0.50	UJ	2	U
	Magnesium	25100		22500		20300		15900		16600	J	18800	J
	Manganese	38.1		23.0		9.20	B	30.2		61.5	J	86.7	
	Nickel	6.0	U	20.0	U	7.00	U	40.6		73.0	J	45.4	J
	Potassium	2110.0	B	2000	B	2120	B	2070	J	1610	J	2060	
	Silver	5.0	U	5.0	UJ	2.00	UJ	19.5		6.1	J	11.1	U
	Sodium	48600		41900		50700	J	52300	J	48000	J	100000	
	Vanadium	3.0	U	4.0	U	2.00	U	26.5	J	12.3	UJ	5.1	U
	Zinc	9.0	U	24.1	J	6.00	U	4.1	J	3.2	UJ	34.1	U
	Cyanide	10.0	R	10.0	U	10.00	U	10.0	U	8.5	J	NS	
MISC INORGANICS													
	Bromide (µg Br/L)	100	U	100		100	U	NS		NS		60	J
	Sulfate (mg SO ₄ /L)	430		360	J	338	J	NS		NS		202	
VOLATILE ORGANICS (µg/L)													
	Methylene Chloride	1	BJ	19	J	10	U	10	U	10	U	2	U
	Acetone	2	BJ	10	UJ	10	UJ	10	U	10	U	5	U
SEMIVOLATILE ORGANICS (µg/L)													
	bis(2-Ethylhexyl)phthalate	NS		NS		NS		0.4	JBU	3	J	5	U
PESTICIDES/PCB (µg/L)													
		ND		ND		ND		ND		NS		NS	

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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

		WT102B							
		67.9'							
Well Depth Date sampled		1/7/1991		9/24/1991		1995		4/25/2000	
TOTAL METALS (µg/L)									
	Aluminum	25.0	U	139	BJ	161	J	118	U
	Antimony	37.0	U	13.0	U	29.7	J	2	U
	Arsenic	3.0	U	2.0	UJ	4.8	J	6	J
	Barium	103	B	85	B	91.0	J	103	
	Calcium	68700		62400		61200		75800	
	Chromium	4.0	U	2.0	U	4.0	U	24.2	J
	Cobalt	5.0	U	3.0	U	12.4	J	13.2	U
	Copper	4.9	BJ	6.00	U	1.7	U	9.3	U
	Iron	15.0	U	71	B	490		1580	
	Lead	1.2	BJ	1.0	UJ	1.7	U	2	U
	Magnesium	21300		19400		20400		22300	
	Manganese	124		118		87.3		91.9	
	Nickel	20.0	U	7.0	U	9.5	U	8.1	J
	Potassium	1420	B	1690	B	1870	J	1840	
	Silver	5.0	UJ	2.0	UJ	2.5	U	3.4	J
	Sodium	26100		26900	J	27800	J	25900	
	Thallium	3.0	U	3.0	U	5.7	J	1	U
	Vanadium	4.0	U	2.0	U	13.2	J	1.9	J
	Zinc	12.1	BJ	6.0	U	3.5	J	34.1	U
MISC INORGANICS									
	Bromide (µg Br ⁻ /L)	200		100	U	NS		80	J
	Sulfate (mg SO ₄ /L)	64	J	430		NS		58	
VOLATILE ORGANICS (µg/L)									
	Methylene Chloride	16	J	1	BJ	10	U	2	U
	Acetone	10	U	2	BJ	10	U	5	U
SEMIVOLATILE ORGANICS (µg/L)									
	bis(2-Ethylhexyl)phthalate	3	J	NR		0.4	JBU	5	U
PESTICIDES/PCB (µg/L)									
		ND		ND		ND		NS	

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 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000**

**Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WT102C					
	162'					
	1/9/1991		9/24/1991		4/25/2000	
TOTAL METALS (µg/L)						
Aluminum	1130		171	BJ	500	
Arsenic	3.0	U	2.0	UJ	3	J
Barium	100	B	63	B	104	
Beryllium	4.5	BJ	1.0	U	2	U
Calcium	71400		50700		129000	
Chromium	23.8	J	2.0	U	26.8	J
Cobalt	7.3	B	3.0	U	13.2	U
Copper	8.8	BJ	6.0	U	4	JB
Iron	1680		89	B	2210	
Lead	1.8	BJ	1.0	UJ	2	J
Magnesium	24800		16200		45600	
Manganese	231		170		288	
Nickel	20.0	U	7.0	U	23.7	J
Potassium	1290	B	902	B	1970	
Sodium	3180	B	7230	J	6060	
Vanadium	7.5	B	2.0	U	3.2	J
Zinc	24.7	J	6.0	U	13.5	JB
MISC INORGANICS						
Bromide (µg Br/L)	100		110		140	J
Sulfate (mg SO ₄ /L)	35	J	50.0	J	36	
VOLATILE ORGANICS (µg/L)						
	ND		ND		ND	
SEMIVOLATILE ORGANICS (µg/L)						
	NS		NS		2	J
PESTICIDES/PCB (µg/L)						
	ND		ND		NS	

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 NS: Not sampled
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000**

**Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WT103A			
	18.4'			
	11/28/1990		9/24/1991	
TOTAL METALS (µg/L)				
Aluminum	56	BJ	1710	J
Arsenic	2.2	B	3.9	B
Barium	33	B	80	B
Calcium	86400		361000	
Chromium	5.0	U	7.9	B
Cobalt	7.0	U	9.5	B
Copper	10.7	BJ	16.6	B
Iron	126	J	6890	
Lead	2.0	U	28.1	
Magnesium	21300		78000	
Manganese	95		759	
Nickel	6.0	U	9.9	B
Potassium	1380	B	2100	B
Silver	6.9	B	2.0	UJ
Sodium	12000		12900	J
Vanadium	3.0	U	12.5	B
Zinc	9.0	U	60	
MISC INORGANICS				
Bromide (µg Br/L)	100	U	210	
Sulfate (mg SO ₄ /L)	170		199	J
VOLATILE ORGANICS (µg/L)				
Chloromethane	10	U	10	R
Bromomethane	10	U	10	R
Vinyl Chloride	10	U	10	R
Methylene Chloride	1	BJ	10	U
SEMIVOLATILE ORGANICS (µg/L)				
	ND		NS	
PESTICIDES/PCB (µg/L)				
	ND		ND	

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B: Analyte also present in blank sample.

ND: Not detected

NS: Not sampled

NR: Not reported

NA: Not analyzed

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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000**

**Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WT104A			
	18.7'			
	11/28/1990		9/24/1991	
TOTAL METALS (µg/L)				
Aluminum	669	J	1460	J
Barium	14	B	24	B
Calcium	17100		30600	
Chromium	5.0	U	3.4	B
Cobalt	7.0	U	3.1	B
Iron	664	J	2100	
Lead	2.0	U	6.8	J
Magnesium	3550	B	6720	
Manganese	15		66	
Nickel	6.0	U	7.1	B
Potassium	639	B	1090	B
Sodium	1970	B	3380	BJ
Vanadium	3.0	U	3.8	B
Zinc	9.0	U	2.6	
MISC INORGANICS				
Bromide (µg Br/L)	100	U	110	
Sulfate (mg SO ₄ /L)	5.9		11.7	J
VOLATILE ORGANICS (µg/L)				
Chloromethane	10	U	10	R
Bromomethane	10	U	10	R
Vinyl Chloride	10	U	10	R
Methylene Chloride	2.0	BJ	10	U
SEMIVOLATILE ORGANICS (µg/L)				
bis(2-Ethylhexyl)phthalate	10	U	10	
PESTICIDES/PCB (µg/L)				
	ND		ND	

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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000**

**Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WT105A									
	18.5'									
	11/29/1990		1/8/1991		9/25/1991		11/26/1996		5/2/2000	
TOTAL METALS (µg/L)										
Aluminum	81	BJ	224		114	B	17.0	U	112	J
Barium	18.2	B	22.0	U	8.2	B	5.4		8.1	
Beryllium	1.0	U	3.1	BJ	1.0	U	1.00	U	2	U
Calcium	39900		37200		32800		38000		57400	
Chromium	5.0	U	13.0	J	2.0	U	1.0	U	23.9	J
Cobalt	7.0	U	5.7	B	3.0	U	1.0	U	4.1	J
Copper	8.0	BJ	9.8	BJ	6.0	U	0	U	9.3	U
Iron	196	J	555		29.4	BJ	13.1		407	
Lead	2.0	U	1.1	BJ	1.3	B	1.00	U	7	U
Magnesium	11900		10700		8650		10200		16500	J
Manganese	63.8		50.4		26.5		5.0		160	J
Nickel	6.0	U	20.0	U	7.0	U	1	U	73.3	
Potassium	2860	B	2490	B	1580	B	1760		1360	
Sodium	10300		8010		3930	B	4460	J	7720	
Zinc	9.5	BJ	23.6	J	6.0	U	3.6	J	34.1	U
MISC INORGANICS										
Bromide (µg Br ⁻ /L)	200		100	U	480		NS		110	J
Sulfate (mg SO ₄ /L)	30		22	J	26.7	J	NS		36	
VOLATILE ORGANICS (µg/L)										
Methylene Chloride	1	BJ	7	U	10	U	10	U	2	U
SEMIVOLATILE ORGANICS (µg/L)										
Diethylphthalate	10	U	10	U	10	U	10	U	3	J
bis(2-Ethylhexyl)phthalate	10	U	10	U	10	U	10	U	17	
PESTICIDES/PCB (µg/L)										
	ND		ND		ND		NR		NS	

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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WT106A											
	18.6'											
	11/27/1990		1/8/1991		9/23/1991		9/25/1991		11/13/1996		5/2/2000	
TOTAL METALS (µg/L)												
Aluminum	31.0	BJ	256		2190	J	132	B	51		3090	
Arsenic	4.5	B	3.0	U	11.2		3.9	B	5.6		46.0	D
Barium	128	B	118	B	71	B	110	B	101		160	
Beryllium	1.0	U	4.2	BJ	1.0	U	1.0	U	1.0	U	2.0	U
Cadmium	3.0	U	4.0	U	1.3	B	1.0	U	1.0	U	0.1	J
Calcium	111000		112000		242000		102000		146000		175000	
Chromium	5.0	U	5.4	BJ	8.4	B	2.0	U	1.0	U	21.6	J
Cobalt	7.0	U	6.3	B	11.4	B	3.0	U	1.0	U	13.2	U
Copper	4.7	BJ	9.8	BJ	6.0	U	6.0	U	1.0	U	11.0	
Iron	4070	J	3820		33000		3610		6080		27600	
Lead	2.0	U	6.5	J	33.0		1.0	UJ	1.0	U	6.0	J
Magnesium	19200		20000		23300		17800		18100		26800	
Manganese	238.0		220		3590.0		247.0		394		559	J
Nickel	6.0	U	20.0	U	24.2	B	7.0	U	1.8		11.7	J
Potassium	4810	B	3620	B	4920	B	4540		4280		4200	
Selenium	2.6	BJ	4.0	UJ	4.0	UJ	4.0	U	4.0	U	7.0	U
Sodium	37200		32800		21400	J	27700		25800	J	29300	
Thallium	10.0	UJ	3.0	U	3.0	U	5.0	UJ	2.9		4.0	U
Vanadium	3.0	U	4.0	U	11.9	B	2.0	U	1.0	U	5.1	U
Zinc	9.0	U	28.9	J	81.4		6.0	J	2.9	J	31.7	JB
MISC INORGANICS												
Bromide (µg Br ⁻ /L)	800		600		790		120.0		NR		420	J
Sulfate (mg SO ₄ /L)	56		54	J	225	J	108	J	NR		146	
VOLATILE ORGANICS (µg/L)												
Chloroethane	2	J	10	U	10	UJ	10	UJ	10	U	0.6	J
Methylene Chloride	3	BJ	7	U	10	U	10	U	10	U	2	U
1,1-Dichloroethane	5	U	5	U	3	J	10	U	10	U	0.9	J
cis-1,2-Dichloroethene	NR		NR		NR		NR		NR		1	
total 1,2-Dichloroethene	6		5	J	10	UJ	5	J	3	J	NR	
Trichloroethene	5	U	5	U	10	U	10	U	10	U	0.6	J
Benzene	5	U	5	U	3	J	10	U	10	U	1	U
SEMIVOLATILE ORGANICS (µg/L)												
Diethylphthalate	10	U	10	U	20		10	U	10	U	3	J
bis(2-Ethylhexyl)phthalate	10	U	10	U	10	U	10	U	10	U	47	
PESTICIDES/PCB (µg/L)												
	ND		ND		ND		ND		NS		NS	

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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

		WT111A						
		21.9'						
Well Depth	Date sampled	9/25/1991	1995	11/13/1996	4/28/2000			
TOTAL METALS (µg/L)								
Aluminum		421	450	280.0	463			
Arsenic		4.0	BJ	3.8	U	3.7	7	U
Barium		109	B	103	J	105	256	
Cadmium		1.0	U	1.1	U	1	0.2	J
Calcium		15400		6170		8160	113000	
Chromium		2.0	U	4.0	U	1.8	2.3	J
Cobalt		3.9	B	11.9	J	6.4	12.2	J
Copper		6.0	U	1.7	U	3.3	9.3	U
Iron		3650		1760		4470	12600	
Lead		1.5	BJ	1.7	U	1.00	7	U
Magnesium		6350		2520	J	2980	19100	J
Manganese		498		201		335	1440	J
Nickel		12.1	B	16.0	J	7.2	8.7	J
Potassium		3210	B	1690	J	1600	8380	
Sodium		19600		2560	J	3200	39400	
Thallium		5.0	UJ	4.7	U	3.0	4	U
Vanadium		5.3	BJ	11.9	J	2.4	5.1	U
Zinc		17.0	B	17.5	J	22.2	18	JB
MISC INORGANICS								
Bromide (µg Br ⁻ /L)		100	U	NS		NS	400	J
Sulfate (mg SO ₄ /L)		91	J	NS		NS	264	
VOLATILE ORGANICS (µg/L)								
Methylene Chloride		10	R	5	J	ND	2	U
1,1-Dichloroethane		10	R	10	U	10	1	U
Benzene		1	J	10	U	10	1	U
SEMIVOLATILE ORGANICS (µg/L)								
bis(2-Ethylhexyl)phthalate		10	U	0.3	J	10	5	U
PESTICIDES/PCB (µg/L)								
alpha-BHC		ND		0.012	JP	NS	NS	

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 R: Rejected. The value is unusable.

**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WT112A					
	17.7'					
	1995		10/20/1998		4/27/2000	
TOTAL METALS(µg/L)						
Aluminum	169	J	26	UJ	118	U
Barium	35.1	J	36.6	J	28.6	
Calcium	179000.0		19000	J	247000	
Chromium	4.0	U	7.5	J	6.7	U
Iron	15.0	J	11.7	UJ	23.3	JB
Magnesium	15200		14000	J	17000	J
Manganese	4.0	J	6.7	J	0.7	J
Nickel	10	J	23.8	UJ	21	U
Potassium	2000.0	J	1330	J	1700	
Sodium	12300.0	J	13300	J	13800	
Thallium	4.7	J	0.4	UJ	1	U
Vanadium	9.6	J	12.3	UJ	2.3	J
Zinc	7.7	J	3.2	UJ	34.1	U
Cyanide	10.0	U	7.3	J	NS	
MISC INORGANICS						
Bromide (µg Br/L)	NS		NR		40	J
Sulfate (mg SO ₄ /L)	NS		NR		434	
VOLATILE ORGANICS (µg/L)						
	ND		ND		ND	
SEMIVOLATILE ORGANICS (µg/L)						
Diethylphthalate	0.4	JBU	10	U	5	U
bis(2-Ethylhexyl)phthalate	0.8	JBU	10	U	39	
PESTICIDES/PCB (µg/L)						
	ND		NR		NS	

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 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000**

**Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WT112B					
	62.1'					
	1995		4/27/2000		4/27/2000 Dup	
TOTAL METALS (µg/L)						
Aluminum	169	J	118	U	118	U
Arsenic	3.8	U	5	J	4	J
Barium	35.1	J	86.7		86	
Calcium	179000		81800		79900	
Iron	15.0	J	1180		1220	
Magnesium	15200		21000		20900	
Manganese	4.0	J	93.1		94.5	
Nickel	10	J	21	U	21	U
Potassium	2000	J	1320		1380	
Sodium	12300	J	22800		23300	
Vanadium	9.6	J	5.1	U	5.1	U
Zinc	7.7	J	34.1	U	34.1	U
MISC INORGANICS						
Bromide (µg Br/L)	NS		70	J	70	J
Sulfate (mg SO ₄ /L)	NS		56		56	
VOLATILE ORGANICS (µg/L)						
	ND		ND		ND	
SEMIVOLATILE ORGANICS (µg/L)						
bis(2-Ethylhexyl)phthalate	2	JBU	5	U	5	U
PESTICIDES/PCB (µg/L)						
	ND		NS		NS	

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 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WT113A				
	24.4'				
	1995		4/26/2000		
TOTAL METALS (µg/L)					
Aluminum	161	J	118	U	
Barium	14.3	J	13.8		
Cadmium	1.1	U	0.1	J	
Calcium	45700		64300		
Cobalt	6.9	J	13.2	U	
Copper	1.7	U	4.2	JB	
Iron	4.7	J	59.8	B	
Magnesium	11400		16500	J	
Manganese	2.3	J	3.1		
Potassium	1200	J	1210		
Sodium	6340	J	14200		
Vanadium	11.1	J	5.1	U	
Zinc	5.0	J	34.1	U	
MISC INORGANICS					
Bromide (µg Br/L)	NS		14	U	
Sulfate (mg SO ₄ /L)	NS		24		
VOLATILE ORGANICS (µg/L)					
	ND		ND		
SEMIVOLATILE ORGANICS (µg/L)					
Diethylphthalate	0.6	JBU	5	U	
bis(2-Ethylhexyl)phthalate	0.3	JBU	5	U	
PESTICIDES/PCB (µg/L)					
	ND		NS		

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 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WT113B			
	70.0'			
	1995		4/26/2000	
TOTAL METALS (µg/L)				
Aluminum	80.5	J	118	U
Arsenic	3.8	U	3	J
Barium	78.1	J	68.4	
Calcium	93300		101000	
Chromium	5.6	J	6.7	U
Copper	3.7	J	9.3	U
Iron	703		1210	
Magnesium	23000		21400	
Manganese	148		97.6	
Potassium	1900	J	2040	
Silver	4.9	J	11.1	U
Sodium	13300	J	15300	
Thallium	5.0	J	1	U
Zinc	3.5	J	34.1	U
MISC INORGANICS				
Bromide (µg Br ⁻ /L)	NS		60	J
Sulfate (mg SO ₄ /L)	NS		131	
VOLATILE ORGANICS (µg/L)				
	ND		ND	
SEMIVOLATILE ORGANICS (µg/L)				
Diethylphthalate	0.4	JBU	5	U
bis(2-Ethylhexyl)phthalate	0.2	JBU	5	U
PESTICIDES/PCB (µg/L)				
	ND		NS	

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 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000**

**Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WT114A							
	24.5'							
	1/1/1995		10/20/1998		5/3/2000		5/3/2000 - Split	
TOTAL METALS (µg/L)								
Aluminum	145	J	26.0	UJ	118	U	44.0	J
Arsenic	23.3		24.3	J	9		10.0	J
Barium	237		238	J	101		115	
Beryllium	0.40	U	0.60	J	2	U	2.00	U
Cadmium	1.7	J	4.6	UJ	0.3	U	2.5	U
Calcium	243000		27000	J	192000		203000	
Chromium	4.0	U	12.0	J	6.7	U	10.0	U
Cobalt	13.8	J	11.9	J	5.9	J	5.8	J
Iron	19000		17900	J	6510		6290	
Magnesium	23400		24800	J	18600	J	21000	
Manganese	393		306	J	276	J	288	
Nickel	19.0	J	23.8	UJ	21	U	4.8	J
Potassium	5110		6640	J	3390		3750	
Sodium	122000	J	47100	J	123000		125000	
Thallium	6.7	J	0.40	UJ	4	U	30.00	U
Vanadium	10.4	J	12.3	UJ	5.1	U	20	U
Zinc	7.6	J	3.2	J	34.1	U	10	U
Cyanide	10.0	U	7.8	J	NS		NS	
MISC INORGANICS								
Bromide (µg Br/L)	NS		NS		170	J	NS	
Sulfate (mg SO ₄ /L)	NS		NS		177		NS	
VOLATILE ORGANICS (µg/L)								
Carbon Disulfide	0.7	J	10	U	1	U	2	U
1,1-Dichloroethane	5	J	4	J	3		2.6	
Benzene	2	J	10	UJ	1	U	0.9	J
SEMIVOLATILE ORGANICS (µg/L)								
Diethylphthalate	2	JBU	2	J	1	J	NS	
bis(2-Ethylhexyl)phthalate	0.9	JBU	10	U	2	J	NS	
PESTICIDES/PCB (µg/L)								
	ND		NS		NS		NS	

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 NS: Not sampled
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

		WT114B			
		67.8'			
		1995		5/3/2000	
Well Depth	Date sampled				
TOTAL METALS					
Aluminum		230		118	U
Arsenic		18.5		9	
Barium		194	J	69.4	
Calcium		219000		108000	
Chromium		4.0	U	3	J
Cobalt		11.1	J	13.2	U
Iron		13300		6320	
Magnesium		30500		17500	J
Manganese		182		92.5	J
Nickel		19.7	J	21	U
Potassium		5110		2700	
Sodium		30100	J	14100	
Vanadium		23.2	J	5.1	U
Zinc		4.5	J	34.1	U
Cyanide		11.4		NS	
MISC INORGANICS					
Bromide ($\mu\text{g Br/L}$)		NS		70	J
Sulfate ($\text{mg SO}_4/\text{L}$)		NS		156	
VOLATILE ORGANICS					
Carbon Disulfide		2	J	1	U
1,1-Dichloroethane		1	J	1	U
cis-1,2-Dichloroethene		NR		1	U
total 1,2-Dichloroethene		1	J	NR	
SEMIVOLATILE ORGANICS					
Butylbenzylphthalate		0.2	J	5	U
bis(2-Ethylhexyl)phthalate		0.6	JBU	1	J
PESTICIDES/PCB					
alpha-BHC		0.012	J	NS	

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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000**

**Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WT115A							
	19.7'							
	1/1/1995		11/13/1996		10/21/1998		5/1/2000	
TOTAL METALS (µg/L)								
Aluminum	132	J	32.0		94.1	J	8860	
Barium	50.1	J	33.3		33.5	J	105	
Cadmium	1.1	U	1	U	4.6	U	0.1	J
Calcium	197000		215000		293000		241000	
Chromium	4.0	U	2.9		10.4		12.8	J
Cobalt	5.9	U	1.6		7.8	U	13.2	U
Copper	1.7	U	1.8		4.1	U	19.7	
Iron	1360		2220		4590		6500	
Lead	1.7	U	1.00	U	0.50	U	11	
Magnesium	27200		36000		20300		12400	J
Manganese	413		276		513		380	J
Nickel	9.5	U	3.8		28.3	U	11.5	J
Potassium	5580		6520		3580	J	4440	
Sodium	43600	J	33600	J	12100		24600	
Thallium	5.3	J	2.20		0.40	U	4	U
Vanadium	4.5	U	7.6		12.3	U	14.5	
Zinc	31.1	B	4.1	J	3.7	J	37.7	JB
Cyanide	10.0	U	NR		12.4	J	NS	
MISC INORGANICS								
Bromide (µg Br/L)	NS		NS		NS		600	J
Sulfate (mg SO ₄ /L)	NS		NS		NS		254	
VOLATILE ORGANICS								
Methylene Chloride	1	J	10	U	10	U	2	U
cis-1,2-Dichloroethene	NR		NR		NR		0.5	J
total 1,2-Dichloroethene	10	U	10	U	10	U	NR	
Trichloroethene	10	U	10	U	10	U	0.6	J
Benzene	1	J	2	J	10	U	1	
Tetrachloroethene	10	U	10	U	10	U	0.8	J
SEMIVOLATILE ORGANICS								
Diethylphthalate							2	J
bis(2-Ethylhexyl)phthalate	0.4	J	10	U	10	UJ	18	
PESTICIDES/PCB (µg/L)								
	ND		NS		NS		NS	

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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WT116A							
	14.8'							
	9/21/1995	9/21/1995	11/13/1996	10/21/1998	5/3/2000	5/3/2000	11/15/2000	
TOTAL METALS (µg/L)								
Aluminum	393	259	NS	58.0 J	118 U	118 U	335	
Antimony	12.8 U	20.4 J	NS	42.2 UJ	7 U	7 U	16 UD	
Arsenic	3.8 U	3.8 U	NS	1.0 J	7 U	7 U	10 UD	
Barium	136 J	148 J	NS	192 J	79.9	79.6	133	
Beryllium	0.40	0.40 U	NS	0.60 UJ	2 U	2 U	1 BJ	
Cadmium	1.1	1.1 U	NS	4.6 UJ	0.1 J	0.1 J	0.9 UD	
Calcium	518000	546000	NS	60900 J	666000	685000	745000	
Chromium	7.1 J	4.0 U	NS	7.0 UJ	6.7 U	6.7 U	3 U	
Cobalt	5.9 U	5.9 U	NS	7.8 UJ	11.2 J	11.5 J	1.1	
Copper	1.7 U	1.7 U	NS	4.1 UJ	15.8	15.5	2.1 U	
Iron	5710	6130	NS	4490 J	31900	32400	8200	
Lead	1.7 U	1.7 U	NS	0.50 UJ	6 J	13 JD	2.00 MJ	
Magnesium	53500	55400	NS	52700 J	66900	66100	60000	
Manganese	670	696	NS	662 NS	1810 J	1800 J	1240	
Mercury	0.20 U	0.20 U	NS	0.10 J	0.1 UJ	0.1 UJ	0.5 U	
Nickel	9.5 U	9.7 J	NS	28.3 UJ	13.3 J	12.2 J	4.2 BJ	
Potassium	36000	38000	NS	25200 J	19600	18900	30800	
Selenium	3.6 U	3.6 U	NS	6.0 R	14 DU	14 UD	40 UD	
Sodium	195000 J	201000 J	NS	179000 J	161000	160000	214000	
Thallium	4.7 J	5.5 J	NS	0.40 UJ	4 U	4 U	20 UD	
Vanadium	4.5 U	11.5 J	NS	12.30 UJ	5.1 U	5.1 U	9 JB	
Zinc	45.4	4.3 J	NS	3.2 UJ	178 J	194 J	85.5 J	
MISC INORGANICS								
Bromide (µg Br/L)	NS	NS	NS	NS	2380 D	2420 D	3750 J	
Sulfate (mg SO ₄ /L)	NS	NS	NS	NS	1260 D	1250 D	1020 D	
Chloride (mg Cl/L)	NS	NS	NS	NS	NS	NS	26.0 D	
VOLATILE ORGANICS (µg/L)								
Ethyl ether	NA	NA	NA	NA	NA	NA	100 D	
Dichlorofluoromethane	NA	NA	NA	NA	NA	NA	10	
Vinyl Chloride	10 U	10 U	10 U	10 U	1	1	1 U	
1,1-Dichloroethane	7 J	7 J	5 J	5 J	8	7	9	
cis-1,2-Dichloroethene	NR	NR	NR	NR	1	1	1 U	
total 1,2-Dichloroethene	1 J	1 J	0.4 J	10 U	NR	NR	NR	
1,2-Dichloropropane	4 J	4 J	2 J	10 U	1	1	2	
Trichloroethene	0.9	0.8 J	0.5 J	10 U	1 U	1 U	1 U	
Benzene	15	14	7 J	10 U	1 U	1 U	8	
Ethylbenzene	0.7 J	0.7 J	10 U	10 U	1 U	1 U	1 U	
SEMIVOLATILE ORGANICS (µg/L)								
Naphthalene	0.4 J	10 U	NS	10 U	5 U	5 U	5 U	
2-Methylnaphthalene	10 U	0.5 J	NS	10 U	5 U	5 U	5 U	
Acenaphthene	10 U	3 J	NS	10 U	5 U	5 U	5 U	
Acenaphthylene	3 J	10 U	NS	10 U	5 U	5 U	5 U	
Dibenzofuran	2 J	2 J	NS	10 U	5 U	5 U	5 U	
Di-n-butylphthalate	10 U	10 U	NS	10 U	10 U	10 U	4 BJ	
Diethylphthalate	10 U	0.2 JBU	NS	10 U	5 U	4 J	5 U	
Fluorene	3 J	3 J	NS	10 U	5 U	5 U	5 U	
Anthracene	0.3 J	10 U	NS	10 U	5 U	5 U	5 U	
phenanthrene	10 U	0.2 J	NS	10 U	5 U	5 U	5 U	
bis(2-Ethylhexyl)phthalate	15 B	1 JBU	NS	2 J	7	2 J	5 U	
2-Hydroxybenzothiazole	NS	NS	NS	NS	NS	NS	23 J	
Carbazole	6 J	6 J	NS	10 U	5 U	5 U	5 U	
PESTICIDES/PCB (µg/L)								
	ND		NS	NS	NS	NS	NS	

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 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WT116B			
	60.4'			
	1995		5/3/2000	
TOTAL METALS (µg/L)				
Aluminum	40.4	J	118	U
Barium	174	J	135	
Calcium	184000		203000	
Iron	2740		3710	
Magnesium	35200		22900	
Manganese	203		206	J
Potassium	7080	J	5780	
Silver	2.5		11.1	U
Sodium	43200	J	23500	
Vanadium	4.5	J	5.1	U
MISC INORGANICS				
Bromide (µg Br/L)	NR		320	J
Sulfate (mg SO ₄ /L)	NR		143	
VOLATILE ORGANICS (µg/L)				
Carbon Disulfide	2	J	1	U
SEMIVOLATILE ORGANICS (µg/L)				
Diethylphthalate			2	J
bis(2-Ethylhexyl)phthalate	2	JBU	2	J
PESTICIDES/PCB (µg/L)				
	ND		NS	

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 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WT117A 17.9'	
	1995	4/27/2000
TOTAL METALS (µg/L)		
Aluminum	NR	827
Barium	NR	41.3
Calcium	NR	70900
Chromium	NR	9.3 J
Copper	NR	3.2 JB
Iron	NR	508
Magnesium	NR	12000 J
Manganese	NR	206
Nickel	NR	7.5 J
Potassium	NR	2180
Selenium	NR	4 U
Sodium	NR	5110
Vanadium	NR	3.1 J
Cyanide	NR	NS
MISC INORGANICS		
Bromide (µg Br ⁻ /L)	NR	60 J
Sulfate (mg SO ₄ /L)	NR	169
VOLATILE ORGANICS (µg/L)		
Methylene Chloride	1 J	2 U
SEMIVOLATILE ORGANICS (µg/L)		
bis(2-Ethylhexyl)phthalate	0.3 JBU	7
PESTICIDES/PCB (µg/L)		
	ND	NS

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 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
 R: Rejected. The value is unusable.

**Historical Summary of Monitoring Well Ground Water Detections
1990-2000
Himco Dump Superfund Site
Elkhart, Indiana**

		WT117B			
		63.5'			
Well Depth		1995		4/27/2000	
Date sampled					
TOTAL METALS (µg/L)					
	Barium	NR		35.9	
	Calcium	NR		179000	
	Iron	NR		2280	
	Magnesium	NR		24200	
	Manganese	NR		71.7	
	Potassium	NR		1790	
	Sodium	NR		17100	
	Cyanide	NR		NS	
MISC INORGANICS					
	Bromide (µg Br/L)	NR		70	J
	Sulfate (mg SO ₄ /L)	NR		318	
VOLATILE ORGANICS (µg/L)					
	Methylene Chloride	1	J	2	U
SEMIVOLATILE ORGANICS (µg/L)					
	bis(2-Ethylhexyl)phthalate	0.8	JBU	5	U
PESTICIDES/PCB (µg/L)					
		ND		NS	

U: Analyte was not detected.
 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
 R: Rejected. The value is unusable.

**Historical Summary of Monitoring Well Ground Water Detections
1990-2000**

**Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WT118B			
	64.9'			
	1995		4/28/2000	
TOTAL METALS (µg/L)				
Aluminum	229		118	U
Barium	347		93.4	
Beryllium	0.92	J	2	U
Calcium	306000		193000	
Chromium	14.4		6.7	U
Cobalt	12.9	J	13.2	U
Copper	7.9	J	9.3	U
Iron	8680		5790	
Magnesium	29600		20000	
Manganese	76.9		126	J
Nickel	20.2	J	21	U
Potassium	16300		7800	
Silver	10.9		11.1	U
Sodium	69900	J	18700	
Thallium	8.0	J	4	U
Vanadium	18.8	J	5.1	U
Zinc	6.3	J	34.1	U
MISC INORGANICS				
Bromide (µg Br ⁻ /L)	NR		200	J
Sulfate (mg SO ₄ /L)	NR		351	
VOLATILE ORGANICS (µg/L)				
Methylene Chloride	0.9	J	2	U
1,1-Dichloroethane	10	U	2	
SEMIVOLATILE ORGANICS (µg/L)				
bis(2-Ethylhexyl)phthalate	3	J	5	U
PESTICIDES/PCB (µg/L)				
	ND		NS	

U: Analyte was not detected.
 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
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**Historical Summary of Monitoring Well Ground Water Detections
1990-2000**

**Himco Dump Superfund Site
Elkhart, Indiana**

Well Depth Date sampled	WT119A			
	20.4'			
	10/22/1998		4/28/2000	
TOTAL METALS (µg/L)				
Aluminum	258	J	38.3	J
Antimony	43.2	BJ	7	U
Arsenic	5.8	J	6	J
Barium	78.3		94	
Calcium	143000		215000	
Chromium	7.8		2	J
Copper	5.4		9.3	U
Iron	1690		2650	
Lead	3.4	J	7	U
Magnesium	44800		70800	
Manganese	279		318	J
Potassium	11500	J	22200	
Selenium	6.0	J	14	U
Sodium	69100		61100	
Cyanide	12	J	NS	
MISC INORGANICS				
Bromide (µg Br/L)	NR		460	J
Sulfate (mg SO ₄ /L)	NR		420	
VOLATILE ORGANICS (µg/L)				
1,1-Dichloroethane	10	U	3	
SEMIVOLATILE ORGANICS (µg/L)				
	ND		ND	
PESTICIDES/PCB (µg/L)				
	NR		NS	

U: Analyte was not detected.
 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
 R: Rejected. The value is unusable.

2000
Residential Well Detections

**Historical Summary of Residential Well Ground Water Detections
Himco Dump Superfund Site
Elkhart, Indiana**

Date sampled	RW12			
	3/16/2000		4/18/2000	
TOTAL METALS (µg/L)				
Arsenic	2	J	3	J
Barium	108		109	
Calcium	100000	JB	99000	
Chromium	3.6	JB	6.7	U
Cobalt	10.1	UJ	9.3	UJ
Copper	5.8	JB	1130	J
Iron	885		2.0	U
Magnesium	21500		21500	
Manganese	284		299	
Nickel	19.4	U	9.8	J
Potassium	1790		1760	
Sodium	17600		19000	J
Zinc	10.3	U	12.5	JB
MISC INORGANICS				
Bromide (µg Br ⁻ /L)	NS		70	J
Sulfate (mg SO ₄ /L)	NS		132	U
VOLATILE ORGANICS (µg/L)				
No volatile compounds detected	1	U	1	U
SEMIVOLATILE ORGANICS (µg/L)				
No semivolatile compounds detected	5	U	5	U

U: Analyte was not detected.
 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
 R: Rejected. The value is unusable.

**Historical Summary of Residential Well Ground Water Detections
Himco Dump Superfund Site
Elkhart, Indiana**

Date sampled	RW13			
	3/15/2000		4/17/2000	
TOTAL METALS (µg/L)				
Arsenic	4	U	2	J
Barium	32.8		29.1	
Calcium	91800	JB	83000	
Chromium	3.4	UJ	6.7	U
Cobalt	10.1	UJ	13.3	J
Copper	14.2	J	45.3	JB
Iron	22.4	U	2.0	U
Magnesium	19800		19400	
Manganese	3.2	U	0.6	J
Nickel	21.4	J	21	U
Potassium	4650		4000	
Sodium	126000		116000	J
Zinc	95.6	J	128	B
MISC INORGANICS				
Bromide (µg Br/L)	NS		60	J
Sulfate (mg SO ₄ /L)	NS		127	
VOLATILE ORGANICS (µg/L)				
No volatile compounds detected	1	U	1	U
SEMIVOLATILE ORGANICS (µg/L)				
No semivolatile compounds detected	5	U	5	U

U: Analyte was not detected. §
 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
 R: Rejected. The value is unusable.

**Historical Summary of Residential Well Ground Water Detections
Himco Dump Superfund Site
Elkhart, Indiana**

Date sampled	RW14			
	3/15/2000		4/17/2000	
TOTAL METALS (µg/L)				
Arsenic	2	U	2	U
Barium	43.5		43.9	
Calcium	115000	JB	106000	
Chromium	3.4	UJ	6.7	U
Cobalt	14	J	7.9	J
Copper	66.1	J	27.8	JB
Iron	25.3	JB	2.0	U
Magnesium	20800		21600	
Manganese	3.2	U	1.9	U
Nickel	19.4	U	21	U
Potassium	4300		3850	
Sodium	82500		84700	J
Zinc	160	J	173	B
MISC INORGANICS				
Bromide (µg Br/L)	NS		60	J
Sulfate (mg SO ₄ /L)	NS		134	
VOLATILE ORGANICS (µg/L)				
No Volatile Compounds Detected	1	U	1	U
SEMIVOLATILE ORGANICS (µg/L)				
No semivolatile compounds detected	5	U	5	U

U: Analyte was not detected.
 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
 R: Rejected. The value is unusable.

**Historical Summary of Residential Well Ground Water Detections
Himco Dump Superfund Site
Elkhart, Indiana**

Date sampled	RW15	
	3/15/2000	4/17/2000
TOTAL METALS (µg/L)		
Arsenic	5 J	5 J
Barium	128	131
Calcium	91500 JB	90000
Chromium	3.4 UJ	2 J
Cobalt	10.1 UJ	34.8 J
Copper	7.3 J	1710 J
Iron	1670	2.0 U
Magnesium	26500	27600
Manganese	213	223
Nickel	19.4 U	21 U
Potassium	1330	1280
Sodium	14500	15200 J
Zinc	44.3 J	28.3 JB
MISC INORGANICS		
Bromide (µg Br/L)	60 J	60 J
Sulfate (mg SO ₄ /L)	154	153
VOLATILE ORGANICS (µg/L)		
1,2-Dichloroethane	0.6 J	1 U
SEMIVOLATILE ORGANICS (µg/L)		
No semivolatile compounds detected	5 U	5 U

U: Analyte was not detected.
 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
 R: Rejected. The value is unusable.

**Historical Summary of Residential Well Ground Water Detections
Himco Dump Superfund Site
Elkhart, Indiana**

Date sampled	RW16			
	3/15/2000		4/17/2000	
TOTAL METALS (µg/L)				
Arsenic	2	U	2	U
Barium	50.4		57.6	
Calcium	101000	JB	110000	
Chromium	3.4	UJ	6.7	U
Cobalt	10.1	UJ	14.7	J
Copper	7.3	J	86	JB
Iron	104	BJ	2.0	U
Magnesium	21700		24000	
Manganese	359		380	
Nickel	19.4	U	21	U
Potassium	1790		1880	
Sodium	22600	J	30300	J
Zinc	17.4	J	13.1	JB
MISC INORGANICS				
Bromide (µg Br/L)	50	J	60	J
Sulfate (µg SO ₄ -L)	138		130	
VOLATILE ORGANICS (µg/L)				
1,1-Dichloroethane	0.6	J	0.8	U
SEMIVOLATILE ORGANICS (µg/L)				
No semivolatile compounds detected	5	U	5	U

U: Analyte was not detected.
 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
 R: Rejected. The value is unusable.

**Historical Summary of Residential Well Ground Water Detections
Himco Dump Superfund Site
Elkhart, Indiana**

Date sampled	RW17			
	3/15/2000		4/19/2000	
TOTAL METALS (µg/L)				
Arsenic	6	J	7	J
Barium	113		106	
Calcium	113000	JB	112000	
Chromium	3.4	UJ	6.7	U
Cobalt	10.1	UJ	9.3	UJ
Copper	11.9	J	5870	J
Iron	5860		2.0	U
Magnesium	16100	J	15700	
Manganese	73		72	
Nickel	19.4	U	21	U
Potassium	2610		2340	
Sodium	13500	J	14800	J
Zinc	19	J	12	JB
MISC INORGANICS				
Bromide (µg Br/L)	NS		60	J
Sulfate (mg SO ₄ /L)	NS		148	
VOLATILE ORGANICS (µg/L)				
1,1-Dichloroethane	2		3	
cis-1,2-Dichloroethene	0.8	J	1	
SEMIVOLATILE ORGANICS (µg/L)				
No semivolatile compounds detected	5	U	5	U

U: Analyte was not detected.
 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
 R: Rejected. The value is unusable.

**Historical Summary of Residential Well Ground Water Detections
Himco Dump Superfund Site
Elkhart, Indiana**

Date sampled	RW18			
	3/15/2000		4/19/2000	
TOTAL METALS (µg/L)				
Arsenic	7		8	
Barium	102		92.3	
Calcium	122000	JB	97500	
Chromium	3.5	J	6.7	U
Cobalt	10.1	UJ	62.1	J
Copper	4.1	J	5530	J
Iron	6120		2.0	U
Magnesium	16000	J	13600	
Manganese	72.3		65.2	
Nickel	19.4	U	21	U
Potassium	2870		2590	
Sodium	33200		35100	J
Zinc	30.1	J	31.1	JB
MISC INORGANICS				
Bromide (µg Br ⁻ /L)	60	J	60	J
Sulfate (mg SO ₄ /L)	146		142	
VOLATILE ORGANICS (µg/L)				
1,1-Dichloroethane	2		2	
cis-1,2-Dichloroethene	1		1	
SEMIVOLATILE ORGANICS (µg/L)				
No semivolatile compounds detected	5		5	U

U: Analyte was not detected.
 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
 R: Rejected. The value is unusable.

**Historical Summary of Residential Well Ground Water Detections
Himco Dump Superfund Site
Elkhart, Indiana**

Date sampled	RW19			
	3/15/2000		4/17/2000	
TOTAL METALS (µg/L)				
Arsenic	2	U	2	U
Barium	72.8		70.4	
Calcium	105000	JB	102000	
Chromium	3.4	UJ	6.7	U
Cobalt	10.1	UJ	11.4	J
Copper	26.1	J	19.6	JB
Iron	22.4	U	2.0	U
Magnesium	20200		20000	
Manganese	355		325	
Nickel	19.4	U	21	U
Potassium	2580		2430	
Sodium	65400		63200	J
Zinc	31.5	J	20.5	JB
MISC INORGANICS				
Bromide (µg Br/L)	60	J	60	J
Sulfate (mg SO ₄ /L)	133		130	
VOLATILE ORGANICS (µg/L)				
No volatile compounds detected	1	U	1	U
SEMIVOLATILE ORGANICS (µg/L)				
No semivolatile compounds detected	5		5	U

U: Analyte was not detected.
 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
 R: Rejected. The value is unusable.

**Historical Summary of Residential Well Ground Water Detections
Himco Dump Superfund Site
Elkhart, Indiana**

Date sampled	RW20			
	3/15/2000		4/18/2000	
TOTAL METALS (µg/L)				
Arsenic	2	U	2	U
Barium	28.1		39.3	
Calcium	103000	JB	132000	
Chromium	3.4	UJ	2.1	J
Cobalt	10.1	UJ	13.3	J
Copper	9	J	100	JB
Iron	51.1	JB	2.0	U
Magnesium	19000	J	24900	
Manganese	146		202	
Nickel	19.4	U	21	U
Potassium	3660		4140	
Sodium	56700	J	81000	J
Zinc	20.5	J	26.5	JB
MISC INORGANICS				
Bromide (µg Br ⁻ /L)	60	J	60	J
Sulfate (mg SO ₄ /L)	132		109	
VOLATILE ORGANICS (µg/L)				
1,1-Dichloroethane	0.5	J	0.8	J
cis-1,2-Dichloroethene	0.6	J	0.7	J
chloroform	0.4	J	1	U
SEMIVOLATILE ORGANICS (µg/L)				
No semivolatile compounds detected	5	U	5	U

U: Analyte was not detected.
 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
 R: Rejected. The value is unusable.

**Historical Summary of Residential Well Ground Water Detections
Himco Dump Superfund Site
Elkhart, Indiana**

Date sampled	RW21			
	3/16/2000		4/17/2000	
TOTAL METALS (µg/L)				
Arsenic	7.0		7.0	
Barium	64		67	
Calcium	93300	JB	881000	
Chromium	3.4	UJ	6.7	U
Cobalt	10.5	J		U
Copper	7.3	J	31.3	J
Iron	5050		5780	J
Magnesium	21500		20600	
Manganese	63.1		59	
Nickel	19.4	U	21.0	U
Potassium	1150		1100	
Sodium	14900		15400	J
Zinc	18.9	J	34.0	JB
MISC INORGANICS				
Bromide (µg Br/L)	NS		60	J
Sulfate (mg SO ₄ /L)	NS		142	
VOLATILE ORGANICS (µg/L)				
methylene chloride	1	U	6	
1,1-Dichloroethane	7		12	
cis-1,2-Dichloroethene	0.5	J	0.8	J
chloroform	1	U	5	J
1,2-Dichloroethane	0.7	J	1	U
1,2-Dichloropropane	1	U	1	U
Benzene	0.4	J	1	U
SEMIVOLATILE ORGANICS (µg/L)				
No semivolatile compounds detected	10	U	10	U

U: Analyte was not detected.
 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
 R: Rejected. The value is unusable.

**Historical Summary of Residential Well Ground Water Detections
Himco Dump Superfund Site
Elkhart, Indiana**

Date sampled	RW22					
	3/16/2000		4/18/2000		11/15-11/16/2000	
TOTAL METALS (µg/L)						
Aluminum	1/26/1900	U	4/27/1900		58.2	
Arsenic	4	U	2	U	4	U
Barium	60.4		76.6		46.9	
Calcium	177000	JB	205000		129000	
Chromium	3.4	UJ	6.7	U		
Cobalt	10.1	UJ	15.2	J	0.8	J
Copper	4	U	2790	J	1	J
Iron	2170		2.0	J	1840	
Magnesium	18200	J	21700		24800	
Manganese	1560		1880		103	
Nickel	19.4	U	21	U	2.9	JB
Potassium	5270		6920		2790	
Sodium	44400		92200	J	53100	
Zinc	17.4	J	39.1	B	21.7	J
MISC INORGANICS						
Bromide (µg Br/L)	70	J	70	J	14	U
Sulfate (mg SO ₄ /L)	171		152		105	
Chloride (mg Cl/L)	NS		NS		99.9	
VOLATILE ORGANICS (µg/L)						
ethyl ether	NA		NA		26	
vinyl chloride	0.9	J	1	U	1	U
1,1-Dichloroethane	3		3		4	
cis-1,2-Dichloroethene	2		2		2	
1,2-Dichloroethane	0.6	J	1	U	1	
1,2-Dichloropropane	10		8		8	
Benzene	0.4	J	1	U	1	U
SEMIVOLATILE ORGANICS (µg/L)						
No semivolatile compounds detected	5	U	5	U	5	U

U: Analyte was not detected.
 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
 R: Rejected. The value is unusable.

**Historical Summary of Residential Well Ground Water Detections
Himco Dump Superfund Site
Elkhart, Indiana**

	RW23
Date sampled	4/18/2000
TOTAL METALS (µg/L)	
Arsenic	2 U
Barium	35.8
Calcium	99800
Chromium	6.7 U
Cobalt	10.7 J
Copper	46.5 UJ
Iron	2.0 U
Magnesium	21500
Manganese	30
Nickel	21 U
Potassium	3700
Sodium	91800 J
Zinc	87.3 B
MISC INORGANICS	
Bromide (µg Br ⁻ /L)	60 J
Sulfate (mg SO ₄ /L)	105
VOLATILE ORGANICS (µg/L)	
No volatile compounds detected	1 U
SEMIVOLATILE ORGANICS (µg/L)	
No semivolatile compounds detected	10 U

U: Analyte was not detected.
 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
 R: Rejected. The value is unusable.

**Historical Summary of Residential Well Ground Water Detections
Himco Dump Superfund Site
Elkhart, Indiana**

		RW24	
Date sampled		11/15-11/16/2000	
TOTAL METALS (µg/L)			
Aluminum	35.9	J	
Arsenic	2	U	
Barium	48.1		
Calcium	102000		
Chromium	1	U	
Cobalt	2.3		
Copper	60.2		
Iron	2	U	
Magnesium	24800		
Manganese	103		
Nickel	2.9	JB	
Potassium	2790		
Sodium	53100		
Zinc	21.7	J	
MISC INORGANICS			
Bromide (µg Br/L)	40	J	
Sulfate (mg SO ₄ /L)	79.3		
Chloride (mg Cl/L)	96.5		
VOLATILE ORGANICS (µg/L)			
No volatile compounds detected	1	U	
SEMIVOLATILE ORGANICS (µg/L)			
No semivolatile compounds detected	5	U	

U: Analyte was not detected.
 J: The reported value is estimated.
 B: Analyte also present in blank sample.
 ND: Not detected
 NS: Not sampled
 NR: Not reported
 NA: Not analyzed
 R: Rejected. The value is unusable.

1984

Monitoring Well Ground Water Analytical Results - August 1984
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Sample number Date sampled Units	M2		E3		E2		I3		I1		M2(DUP)		D2	
	ME3203 8/2/1984 ug/L		ME3204 8/2/1984 ug/L		ME3205 8/2/1984 ug/L		ME3207 8/2/1984 ug/L		ME3209 8/2/1984 ug/L		ME3206 8/31/1984 ug/L		ME2487 8/1/1984 ug/L	
	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
TOTAL METALS														
Aluminum	296		200	U	350000		1890		200	U	269		200	U
Antimony	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Arsenic	10	U	10	U	200		10	U	10	U	10	U	10	U
Barium	172		165		803		414		66		175		100	U
Beryllium	5	U	5	U	11		5	U	5	U	5	U	5	U
Cadmium	1	U	1	U	10		1	U	2	U	1	U	1	U
Calcium	NR		NR		NR		NR		NR		NR		NR	
Chromium	16		10	U	461		10	U	10	U	12		10	U
Cobalt	50	U	50	U	132		50	U	50	U	50	U	50	U
Copper	50	U	50	U	555		50	U	50	U	50	U	50	U
Iron	12300		1580		146000		5520		507		14800		1230	
Lead	7.7		5	U	401		5	U	5	U	9		5	U
Magnesium	NR		NR		NR		NR		NR		NR		NR	
Manganese	331		41		2150		133		24		320		158	
Mercury	0.2	U	0.2	U	1.4		0.2	U	0.2	U	0.2	U	0.2	U
Nickel	40	U	40	U	422		40	U	40	U	40	U	40	U
Potassium	NR		NR		NR		NR		NR		NR		NR	
Selenium	2	U	2	U	14		2	U	2	U	2	U	2	
Silver	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Sodium	NR		NR		NR		NR		NR		NR		NR	
Thallium	10	U	10		10	U	10	U	10	U	10	U	10	U
Tin	20	UB	32	C	20	U	20	UB	55	C	20	UB	20	U
Vanadium	200	U	200	U	326		200	U	200	U	200	U	200	U
Zinc	224		44		1630		18		55		309		38	
Cyanide	10	U	10	U	10	U	10	U	10	U	10	U	10	U

U: Not detected
B: Analyte detected in blank
C: Blank corrected
NDB: Not detected due to blank
NR: Not reported
NA: Not available

Monitoring Well Ground Water Analytical Results - August 1984
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Sample number Date sampled Units	D1 ME3201 8/1/1984 ug/L		P ME3202 8/1/1984 ug/L	
	Result	Qual	Result	Qual
TOTAL METALS				
Aluminum	12500		175	
Antimony	20	U	20	U
Arsenic	26		26	
Barium	121		97	
Beryllium	5	U	5	U
Cadmium	1	U	1	U
Calcium	NR		NR	
Chromium	370		10	U
Cobalt	50	U	50	U
Copper	73		50	U
Iron	67400		11400	
Lead	73		6.7	
Magnesium	NR		NR	
Manganese	1630		182	
Mercury	0.21		0.2	U
Nickel	103		40	U
Potassium	NR		NR	
Selenium	2	U	4.7	
Silver	10	U	10	U
Sodium	NR		NR	
Thallium	10	U	10	U
Tin	20	U	20	U
Vanadium	200	U	200	U
Zinc	164		58	
Cyanide	10	U	10	U

U: Not detected
 B: Analyte detected in blank
 C: Blank corrected
 NDB: Not detected due to blank
 NR: Not reported
 NA: Not available

Monitoring Well Ground Water Analytical Results - August 1984
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	M2		E3		E2		I3		I1		M2(DUP)		D2	
Sample number	ME3203		ME3204		ME3205		ME3207		ME3209		ME3206		ME2487	
Date sampled	8/2/1984		8/2/1984		8/2/1984		8/2/1984		8/2/1984		8/31/1984		8/1/1984	
Units	ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
VOLATILE ORGANICS														
Sample number	E4790		E4791		E4792		E4794		E4796		E4793		E4771	
Acrolein	100	U	100	U	100	U	100	U	100	U	100	U	100	U
Acrylonitrile	100	U	100	U	100	U	100	U	100	U	100	U	100	U
Benzene	5	K	5	K	5	U	5	K	5	U	5	K	5	K
Carbon Tetrachloride	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chlorobenzene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dichloroethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1-Dichloroethane	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1,2-Trichloroethane	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chloroethane	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-chloroethylvinyl ether	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chloroform	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1-Dichloroethene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
trans-1,2-Dichloroethene	9	U	8	U	5	U	5	U	5	U	7	U	5	U
1,2-Dichloropropane	10	U	10	U	10	U	10	U	10	U	10	U	10	U
trans-1,3-Dichloropropene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
cis-1,3-Dichloropropene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Ethylbenzene	5	U	5	U	5	U	5	K	5	U	5	U	5	U
Methylene Chloride	NDB		5	K	5	K	5	K	NDB		NDB		NDB	
Chloromethane	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromomethane	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromoform	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bromodichloromethane	5	U	5	U	5	U	5	U	5	U	5	U	5	U
fluorotrichloromethane	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Dibromochloromethane	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Tetrachloroethene	5	U	5	U	5	U	5	U	5	U	5	U	5	U

U: Not detected
 B: Analyte detected in blank
 C: Blank corrected
 NDB: Not detected due to blank
 NR: Not reported
 NA: Not available

Monitoring Well Ground Water Analytical Results - August 1984
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Sample number Date sampled Units	D1		P	
	ME3201		ME3202	
	8/1/1984		8/1/1984	
	ug/L		ug/L	
	Result	Qual	Result	Qual
VOLATILE ORGANICS				
Sample number	E4788		E4789	
Acrolein	100	U	100	U
Acrylonitrile	100	U	100	U
Benzene	5	K	4	U
Carbon Tetrachloride	5	U	5	U
Chlorobenzene	5	U	5	U
1,2-Dichloroethane	1	U	1	U
1,1,1-Trichloroethane	5	U	5	U
1,1-Dichloroethane	5	U	15	U
1,1,2-Trichloroethane	5	U	5	U
1,1,2,2-Tetrachloroethane	10	U	10	U
Chloroethane	10	U	13	U
2-chloroethylvinyl ether	10	U	10	U
Chloroform	5	U	5	U
1,1-Dichloroethene	5	U	5	U
trans-1,2-Dichloroethene	5	U	5	U
1,2-Dichloropropane	10	U	10	U
trans-1,3-Dichloropropene	5	U	5	U
cis-1,3-Dichloropropene	5	U	5	U
Ethylbenzene	5	U	5	U
Methylene Chloride	NDB		NDB	
Chloromethane	10	U	10	U
Bromomethane	10	U	10	U
Bromoform	10	U	10	U
Bromodichloromethane	5	U	5	U
fluorotrichloromethane	5	U	5	U
Dibromochloromethane	5	U	5	U
Tetrachloroethene	5	U	5	U

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 NDB: Not detected due to blank
 NR: Not reported
 NA: Not available

Monitoring Well Ground Water Analytical Results - August 1984
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Sample number Date sampled Units	M2		E3		E2		I3		I1		M2(DUP)		D2	
	ME3203		ME3204		ME3205		ME3207		ME3209		ME3206		ME2487	
	8/2/1984		8/2/1984		8/2/1984		8/2/1984		8/2/1984		8/31/1984		8/1/1984	
	ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Toluene	3		5	K	5	K	5	K	5	K	5	K	NDB	
Trichloroethene	5	U	5	K	5	U	5	U	5	U	5	K	5	U
Vinyl Chloride	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	60		164		5	U	5	U	5	U	100		39	
2-Butanone	5	U	106		5	U	5	U	5	U	79		5	U
Carbon Disulfide	1	U	1	U	1	U	NA		1	U	NDB		1	U
2-Hexanone	5	U	5	U	5	U	5	K	5	U	5	U	5	U
4-Methyl-2-pentanone	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Styrene	5	U	5	U	5	U	5	U	5	U	5	U	NA	
vinyl acetate	5	U	NA		NA		5	U	5	U	5	U	NA	
total xylenes	NA		NA		NA		NA		NA		NA		NA	
SEMIVOLATILE ORGANICS														
Sample number	E4790		E4791?		E4792		E4794		E4796		E4793		E4771	
2,4,6-Trichlorophenol	10	U	10	U	10	U	10	U	10	U	10	U	10	U
p-chloro-m-cresol	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Chlorophenol	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Nitrophenol	20	U	20	U	20	U	20	U	20	U	20	U	20	U
4-Nitrophenol	50	U	50	U	50	U	50	U	50	U	50	U	50	U
2,4-Dinitrophenol	50	U	50	U	50	U	50	U	50	U	50	U	50	U
4,6-Dinitro-2-methylphenol	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Pentachlorophenol	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Phenol	62		10	U	10	U	10	U	10	U	76		10	U
benzoic acid	100	U	100	U	100	U	100	U	100	U	100	U	100	U
2-Methylphenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Methylphenol	197		5	U	5	U	5	U	5	U	235		5	U
2,4,5-Trichlorophenol	100	U	100	U	100	U	100	U	100	U	100	U	100	U
Acenaphthene	10	U	25	K	10	U	10	U	10	U	10	U	10	U

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 NA: Not available

Monitoring Well Ground Water Analytical Results - August 1984
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	D1		P	
Sample number	ME3201		ME3202	
Date sampled	8/1/1984		8/1/1984	
Units	ug/L		ug/L	
	Result	Qual	Result	Qual
Toluene	NDB		5	K
Trichloroethene	5	U	5	K
Vinyl Chloride	10	U	10	U
Acetone	39		230	
2-Butanone	5	U	5	U
Carbon Disulfide	1	U	1	U
2-Hexanone	5	U	5	U
4-Methyl-2-pentanone	5	U	5	?
Styrene	5	U	NA	
vinyl acetate	NA		NA	
total xylenes	NA		NA	
SEMIVOLATILE ORGANICS				
Sample number	E4788		E4789	
2,4,6-Trichlorophenol	10	U	10	U
p-chloro-m-cresol	10	U	10	U
2-Chlorophenol	10	U	10	U
2,4-Dichlorophenol	10	U	10	U
2,4-Dimethylphenol	10	U	10	U
2-Nitrophenol	20	U	20	U
4-Nitrophenol	50	U	50	U
2,4-Dinitrophenol	50	U	50	U
4,6-Dinitro-2-methylphenol	20	U	20	U
Pentachlorophenol	10	U	10	U
Phenol	10	U	10	U
benzoic acid	100	U	100	U
2-Methylphenol	5	U	5	U
4-Methylphenol	5	U	5	U
2,4,5-Trichlorophenol	100	U	100	U
Acenaphthene	10	U	10	U

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 C: Blank corrected
 NDB: Not detected due to blank
 NR: Not reported
 NA: Not available

Monitoring Well Ground Water Analytical Results - August 1984
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Sample number Date sampled Units	M2		E3		E2		I3		I1		M2(DUP)		D2	
	ME3203 8/2/1984 ug/L	Qual	ME3204 8/2/1984 ug/L	Qual	ME3205 8/2/1984 ug/L	Qual	ME3207 8/2/1984 ug/L	Qual	ME3209 8/2/1984 ug/L	Qual	ME3206 8/31/1984 ug/L	Qual	ME2487 8/1/1984 ug/L	Qual
benzidine	40	U	40	U	40	U	40	U	40	U	40	U	40	U
1,2-4-Trichlorobenzene	10	U	10	K	10	U	10	U	10	U	10	U	10	U
Hexachlorobenzene	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Hexachloroethane	10	U	10	U	10	U	10	U	10	U	10	U	10	U
bis(2-Chloroethyl)ether	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichlorobenzene	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,3-Dichlorobenzene	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,4-Dichlorobenzene	10	U	7		10	U	10	U	10	U	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U	20	U	20	U	20	U	20	U	20	U
2,4-Dinitrotoluene	20	U	20	K	20	U	20	U	20	U	20	U	20	U
2,6-Dinitrotoluene	20	U	20	U	20	U	20	U	20	U	20	U	20	U
1,2-diphenylhydrazine	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Fluoranthene	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorophenyl-phenyl ether	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Bromophenyl-phenyl ether	10	U	10	U	10	U	10	U	10	U	10	U	10	U
bis(2-chloroisopropyl) ether	20	U	20	U	20	U	20	U	20	U	20	U	20	U
bis(2-Chloroethoxy)methane	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Hexachlorobutadiene	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Isophorone	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Naphthalene	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Nitrobenzene	10	U	10	U	10	U	10	U	10	U	10	U	10	U
N-Nitrosodimethylamine	10	U	10	U	10	U	10	U	10	U	10	U	10	U
N-Nitrosodiphenylamine	10	U	10	U	10	U	10	U	10	U	10	U	10	U
N-Nitrosodipropylamine	10	U	9		10	U	10	U	10	U	10	U	10	U
bis(2-Ethylhexyl)phthalate	10	K	10	U	10	U	10	U	10	U	266	?	10	U
Butylbenzylphthalate	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Di-n-butylphthalate	10	K	15		10	K	10	K	10	K	10	U	10	K

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 NDB: Not detected due to blank
 NR: Not reported
 NA: Not available

Monitoring Well Ground Water Analytical Results - August 1984
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Sample number Date sampled Units	D1 ME3201 8/1/1984 ug/L		P ME3202 8/1/1984 ug/L	
	Result	Qual	Result	Qual
benzidine	40	U	40	U
1,2-4-Trichlorobenzene	10	U	10	U
Hexachlorobenzene	10	U	10	U
Hexachloroethane	10	U	10	U
bis(2-Chloroethyl)ether	10	U	10	U
2-Chloronaphthalene	10	U	10	U
1,2-Dichlorobenzene	10	U	10	U
1,3-Dichlorobenzene	10	U	10	U
1,4-Dichlorobenzene	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U
2,4-Dinitrotoluene	20	U	20	U
2,6-Dinitrotoluene	20	U	20	U
1,2-diphenylhydrazine	20	U	20	U
Fluoranthene	10	U	10	U
4-Chlorophenyl-phenyl ether	10	U	10	U
4-Bromophenyl-phenyl ether	10	U	10	U
bis(2-chloroisopropyl) ether	20	U	20	U
bis(2-Chloroethoxy)methane	NA		20	U
Hexachlorobutadiene	10	U	10	U
Hexachlorocyclopentadiene	10	U	10	U
Isophorone	10	U	10	U
Naphthalene	10	U	10	U
Nitrobenzene	10	U	10	U
N-Nitrosodimethylamine	10	U	10	U
N-Nitrosodiphenylamine	10	U	10	U
N-Nitrosodipropylamine	10	U	10	U
bis(2-Ethylhexyl)phthalate	10	U	20	
Butylbenzylphthalate	10	U	10	U
Di-n-butylphthalate	10	K	10	K

U: Not detected
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 C: Blank corrected
 NDB: Not detected due to blank
 NR: Not reported
 NA: Not available

Monitoring Well Ground Water Analytical Results - August 1984
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Sample number Date sampled Units	M2		E3		E2		I3		I1		M2(DUP)		D2	
	ME3203		ME3204		ME3205		ME3207		ME3209		ME3206		ME2487	
	8/2/1984		8/2/1984		8/2/1984		8/2/1984		8/2/1984		8/31/1984		8/1/1984	
	ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Di-n-octylphthalate	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Diethylphthalate	10	U	10	U	10	K	10	K	10	U	10	U	10	U
Dimethylphthalate	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(a)pyrene	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Benzo(b)fluoranthene	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Benzo(k)fluoranthene	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Chrysene	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Acenaphthylene	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(g,h,i)perylene	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Fluorene	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Phenanthrene	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Dibenzo(a,h)anthracene	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Indeno(1,2,3-cd)pyrene	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Pyrene	10	U	13		10	U	10	U	10	U	10	U	10	U
aniline	5	U	5	U	5	U	5	U	5	U	5	U	5	U
benzyl alcohol	20	U	20	U	20	U	20	U	20	U	20	U	20	U
4-Chloroaniline	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Dibenzofuran	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Methylnaphthalene	20	U	20	U	20	U	20	U	20	U	20	U	20	U
2-Nitroaniline	100	U	100	U	100	U	100	U	100	U	100	U	100	U
3-Nitroaniline	100	U	100	U	100	U	100	U	100	U	100	U	100	U
4-Nitroaniline	NA		NA		100	U	100	U	100	U	100	U	NA	
Pesticides	All samples nondetect													

U: Not detected
B: Analyte detected in blank
C: Blank corrected
NDB: Not detected due to blank
NR: Not reported
NA: Not available

Monitoring Well Ground Water Analytical Results - August 1984
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Sample number Date sampled Units	D1		P	
	ME3201 8/1/1984 ug/L		ME3202 8/1/1984 ug/L	
	Result	Qual	Result	Qual
Di-n-octylphthalate	10	U	10	U
Diethylphthalate	10	U	10	U
Dimethylphthalate	10	U	10	U
Benzo(a)anthracene	10	U	10	U
Benzo(a)pyrene	20	U	20	U
Benzo(b)fluoranthene	20	U	20	U
Benzo(k)fluoranthene	20	U	20	U
Chrysene	20	U	20	U
Acenaphthylene	10	U	10	U
Anthracene	10	U	10	U
Benzo(g,h,i)perylene	20	U	20	U
Fluorene	10	U	10	U
Phenanthrene	10	U	10	U
Dibenzo(a,h)anthracene	20	U	20	U
Indeno(1,2,3-cd)pyrene	20	U	20	U
Pyrene	10	U	10	U
aniline	5	U	5	U
benzyl alcohol	20	U	20	U
4-Chloroaniline	50	U	50	U
Dibenzofuran	10	U	10	U
2-Methylnaphthalene	20	U	20	U
2-Nitroaniline	100	U	100	U
3-Nitroaniline	NA		100	U
4-Nitroaniline	NA		100	U
Pesticides	All samples nondetect			

U: Not detected
 B: Analyte detected in blank
 C: Blank corrected
 NDB: Not detected due to blank
 NR: Not reported
 NA: Not available

1995

Monitoring Well Ground Water Analytical Results - September 1995
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Date Sampled Units	WTE1 9/26/1995 µg/L			WT01 9/22/1995 µg/L			WT101A 9/25/1995 µg/L			WT101B 9/25/1995 µg/L			WT101B-dup 9/25/1995 µg/L			WT102B 9/20/1995 µg/L		
	Results	RL	Qual.	Results	RL	Qual.	Results	RL	Qual.	Results	RL	Qual.	Results	RL	Qual.	Results	RL	Qual.
TOTAL METALS																		
Aluminum	NR			115		J	321			206			236			161		J
Antimony	NR			<	12.8		<	12.8		<	12.8		45.5		J	29.7		J
Arsenic	NR			<	3.8		7.8		J	<	3.8		<	3.8	U	4.8		J
Barium	NR			74.3		J	116		J	184		J	187		J	91.0		J
Beryllium	NR			<	0.40		<	0.40	U	1.1		J	0.63		J	<	0.40	
Cadmium	NR			<	1.1		1.1		J	<	1.1		<	1.1		<	1.1	
Calcium	NR			104000			249000			126000			127000			61200		
Chromium	NR			<	4.0		<	4.0		20.6			8.9		J	<	4.0	
Cobalt	NR			<	5.9		10.9		J	9.6		J	11.4		J	12.4		J
Copper	NR			<	1.7		<	1.7		16.0		J	4.2		J	<	1.7	
Iron	NR			21.6		J	12700			3080			3090			490		
Lead	NR			<	1.7		<	1.7		<	1.7		<	1.7		<	1.7	
Magnesium	NR			26100			25200			47300			47500			20400		
Manganese	NR			205			1060			49.3			51.0			87.3		
Mercury	NR			<	0.20		<	0.20		<	0.20		<	0.20		<	0.20	
Nickel	NR			<	9.5		23.8		J	14.4		J	23.8		J	<	9.5	
Potassium	NR			1950		J	8060			5110			5220			1870		J
Silver	NR			<	2.5		<	2.5		18.2			7.2		J	<	2.5	
Sodium	NR			12500		J	44100		J	47400		J	47100		J	27800		J
Thallium	NR			<	4.7		<	4.7		<	4.7		<	4.7		5.7		J
Vanadium	NR			6.9		J	20.9		J	17.8		J	22.3		J	13.2		J
Zinc	NR			2.1		J	1.8		J	2.6		J	5.7		J	3.5		J
Cyanide	NR			<	10.0		<	10.0		<	10.0		<	10.0		<	10.0	

J: Estimated value
 RL: Reporting Limit
 B: Analyte also detected in method blank
 U: Analyte not detected
 NR: Not reported

Monitoring Well Ground Water Analytical Results - September 1995
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Date Sampled Units	WT102A 9/20/1995			WT111A 9/22/1995			WT112A 9/19/1995			WT112B 9/19/1995			WT113A 9/18/1995			WT113B 9/18/1995			
	Results	µg/L RL	Qual.	Results	µg/L RL	Qual.	Results	µg/L RL	Qual.	Results	µg/L RL	Qual.	Results	µg/L RL	Qual.	Results	µg/L RL	Qual.	
TOTAL METALS																			
Aluminum	268			450			169		J	65.2		J	161		J	80.5		J	
Antimony	21.7		J	<	12.8		<	12.8		<	12.8		<	12.8		<	12.8		J
Arsenic	<	3.8		<	3.8		<	3.8		<	3.8		<	3.8		<	3.8		J
Barium	53.3		J	103		J	35.1		J	92.5		J	14.3		J	78.1		J	
Beryllium	1.3		J	<	0.40		<	0.40		<	0.40		<	0.4		0.50		J	
Cadmium	<	1.1		<	1.1		<	1.1		<	1.1		<	1.1		<	1.1		J
Calcium	157000			6170			179000			65800			45700			93300			
Chromium	23.9			<	4.0		<	4.0		<	4.0		<	4.0		5.6		J	
Cobalt	13.1		J	11.9		J	<	5.9		<	5.9		6.9		J	<	5.9		J
Copper	17.9		J	<	1.7		<	1.7		<	1.7		<	1.7		3.7		J	
Iron	39.0		J	1760			15.0			774			4.7		J	703			
Lead	<	1.7		<	1.7		<	1.7		<	1.7		<	1.7		<	1.7		J
Magnesium	15900			2520			15200			21100			11400			23000			
Manganese	30.2			201			4.0		J	119			2.3		J	148			
Mercury	<	0.20		<	0.20		<	0.20		<	0.20		<	0.20		<	0.20		J
Nickel	40.6			16.0		J	10		J	<	9.5		<	9.5		<	9.5		J
Potassium	2070		J	1690		J	2000		J	1330		J	1200		J	1900		J	
Silver	19.5			<	2.5		<	2.5		<	2.5		<	2.5		4.9			
Sodium	52300		J	2560		J	12300		J	21200		J	6340		J	13300		J	
Thallium	4.7			<	4.7		4.7			4.7			4.7			5.0		J	
Vanadium	26.5		J	11.9		J	9.6		J	<	4.5		11.1		J	<	4.5		J
Zinc	4.1		J	17.5		J	7.7		J	2.1		J	5.0		J	3.5		J	
Cyanide	<	10.0		<	10.0		<	10.0		<	10.0		<	10.0		<	10.0		J

J: Estimated value
 RL: Reporting Limit
 B: Analyte also detected in method blank
 U: Analyte not detected
 NR: Not reported

Monitoring Well Ground Water Analytical Results - September 1995
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Date Sampled Units	WT114B 9/21/1995 µg/L			WT114A 9/21/1995 µg/L			WT115A 9/25/1995 µg/L			WT116A 9/21/1995 µg/L			WT116A-dup 9/21/1995 µg/L			WT116B 9/21/1995 µg/L		
	Results	RL	Qual.	Results	RL	Qual.	Results	RL	Qual.	Results	RL	Qual.	Results	RL	Qual.	Results	RL	Qual.
TOTAL METALS																		
Aluminum	230			145		J	132		J	393			259			40.4		J
Antimony	<	12.8		<	12.8		<	12.8		<	12.8		20.4		J	<	12.8	
Arsenic	18.5			23.3			<	3.8		<	3.8		<	3.8		<	3.8	
Barium	194		J	237			50.1		J	136		J	148		J	174		J
Beryllium	<	0.40		<	0.40		<	0.40		0.40			<	0.40		<	0.40	
Cadmium	<	1.1		1.7		J	<	1.1		1.1			<	1.1		<	1.1	
Calcium	219000			243000			197000			518000			546000			184000		
Chromium	<	4.0		<	4.0		<	4.0		7.1		J	<	4.0		<	4.0	
Cobalt	11.1		J	13.8		J	<	5.9		<	5.9		<	5.9		<	5.9	
Copper	<	1.7		<	1.7		<	1.7		1.7			<	1.7		<	1.7	
Iron	13300			19000			1360			5710			6130			2740		
Lead	<	1.7		<	1.7		<	1.7		<	1.7		<	1.7		<	1.7	
Magnesium	30500			23400			27200			53500			55400			35200		
Manganese	182			393			413			670			696			203		
Mercury	<	0.20		<	0.20		<	0.20		<	0.20		<	0.20		<	0.20	
Nickel	19.7		J	<	19.0	J	<	9.5		<	9.5		9.7		J	<	9.5	
Potassium	5110			5110			5580			36000			38000			7080		
Silver	<	2.5		<	2.5		<	2.5		2.5			<	2.5		<	2.5	
Sodium	30100		J	122000		J	43600		J	195000		J	201000		J	43200		J
Thallium	<	4.7		6.7		J	5.3		J	<	4.7		5.5		J	<	4.7	
Vanadium	23.2		J	10.4		J	<	4.5		<	4.5		11.5		J	<	4.5	
Zinc	4.5		J	7.6		J	31.1			45.4			4.3		J	<	0.90	
Cyanide	11.4			<	10.0		<	10.0		<	10.0		<	10.0		<	10.0	

J: Estimated value
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U: Analyte not detected
NR: Not reported

Monitoring Well Ground Water Analytical Results - September 1995
Himco Dump Superfund Site
Eikhart, Indiana

Sample location Date Sampled Units	WT117A 9/26/1995 µg/L			WT117B 9/26/1995 µg/L			WT118B 9/25/1995 µg/L		
	Results	RL	Qual.	Results	RL	Qual.	Results	RL	Qual.
	TOTAL METALS								
Aluminum	NR			NR			229		
Antimony	NR			NR			<	12.8	
Arsenic	NR			NR			<	3.8	
Barium	NR			NR			347		
Beryllium	NR			NR			0.92		J
Cadmium	NR			NR			<	1.1	
Calcium	NR			NR			306000		
Chromium	NR			NR			14.4		
Cobalt	NR			NR			12.9		J
Copper	NR			NR			7.9		J
Iron	NR			NR			8680		
Lead	NR			NR			<	1.7	
Magnesium	NR			NR			29600		
Manganese	NR			NR			76.9		
Mercury	NR			NR			<	0.20	
Nickel	NR			NR			20.2		J
Potassium	NR			NR			16300		
Silver	NR			NR			10.9		
Sodium	NR			NR			69900		J
Thallium	NR			NR			8.0		J
Vanadium	NR			NR			18.8		J
Zinc	NR			NR			6.3		J
Cyanide	NR			NR			<	10.0	

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NR: Not reported

Monitoring Well Ground Water Analytical Results - September 1995
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Date Sampled Units	WTE1 9/26/1995 µg/L			WT01 9/22/1995 µg/L			WT101A 9/25/1995 µg/L			WT101B 9/25/1995 µg/L			WT101B-dup 9/25/1995 µg/L			WT102B 9/20/1995 µg/L		
	Results	RL	Qual.	Results	RL	Qual.	Results	RL	Qual.	Results	RL	Qual.	Results	RL	Qual.	Results	RL	Qual.
VOLATILE ORGANICS																		
Chloroethane	<	10		<	10		<	10		6		J	7		J	<	10	
Methylene Chloride	2		J	8		J	0.7		J	1		J	2		J	<	10	
Carbon Disulfide	<	10		<	10		<	10		<	10	U	<	10		<	10	
1,1-Dichloroethane	<	10		<	10		5		J	<	10	U	<	10		<	10	
total 1,2-Dichloroethene	<	10		<	10		<	10		<	10	U	<	10		<	10	
1,2-Dichloropropane	<	10		<	10		<	10		<	10	U	<	10		<	10	
Trichloroethene	<	10		<	10		<	10		<	10	U	<	10		<	10	
Benzene	<	10		<	10		<	10		<	10	U	<	10		<	10	
Ethylbenzene	<	10		<	10		<	10		<	10	U	<	10		<	10	
SEMIVOLATILE ORGANICS																		
Naphthalene	<	10		<	10		<	10		<	10		<	10		<	10	
2-Methylnaphthalene	<	10		<	10		<	10		<	10		<	10		<	10	
Acenaphthene	<	10		<	10		<	10		<	10		<	10		<	10	
Dibenzofuran	<	10		<	10		<	10		<	10		<	10		<	10	
2,4-Dinitrotoluene	<	10		<	10		<	10		<	10		<	10		<	10	
Diethylphthalate	<	10		<	10		<	11		<	10		<	10		<	10	
Fluorene	<	10		<	10		<	10		<	10		<	10		<	10	
Phenanthrene	<	10		<	10		<	10		<	10		<	10		<	10	
Anthracene	<	10		<	10		<	10		<	10		<	10		<	10	
Carbazole	<	10		<	10		<	10		<	10		<	10		<	10	
Butylbenzylphthalate	<	10		<	10		<	10		<	10		<	10		<	10	
bis(2-Ethylhexyl)phthalate	<	0.2	UJB	13			5		JB	<	0.6	UJB	<	0.6	UJB	<	0.4	UJB
PESTICIDES/PCBS																		
No pesticides or PCBs detected																		

J: Estimated value
RL: Reporting Limit
B: Analyte also detected in method blank
U: Analyte not detected
NR: Not reported

Monitoring Well Ground Water Analytical Results - September 1995
Himco Dump Superfund Site
Eikhart, Indiana

Sample location Date Sampled Units	WT102A 9/20/1995 µg/L			WT111A 9/22/1995 µg/L			WT112A 9/19/1995 µg/L			WT112B 9/19/1995 µg/L			WT113A 9/18/1995 µg/L			WT113B 9/18/1995 µg/L		
	Results	RL	Qual.	Results	RL	Qual.	Results	RL	Qual.	Results	RL	Qual.	Results	RL	Qual.	Results	RL	Qual.
VOLATILE ORGANICS																		
Chloroethane	<	10		<	10		<	10		<	10		<	10		<	10	
Methylene Chloride	<	10		5	10	J	<	10		<	10		<	10		<	10	
Carbon Disulfide	<	10		<	10		<	10		<	10		<	10		<	10	
1,1-Dichloroethane	<	10		<	10		<	10		<	10		<	10		<	10	
total 1,2-Dichloroethene	<	10		<	10		<	10		<	10		<	10		<	10	
1,2-Dichloropropane	<	10		<	10		<	10		<	10		<	10		<	10	
Trichloroethene	<	10		<	10		<	10		<	10		<	10		<	10	
Benzene	<	10		<	10		<	10		<	10		<	10		<	10	
Ethylbenzene	<	10		<	10		<	10		<	10		<	10		<	10	
SEMIVOLATILE ORGANICS																		
Naphthalene	<	10		<	10		<	10		<	10		<	10		<	10	
2-Methylnaphthalene	<	10		<	10		<	10		<	10		<	10		<	10	
Acenaphthene	<	10		<	10		<	10		<	10		<	10		<	10	
Dibenzofuran	<	10		<	10		<	10		<	10		<	10		<	10	
2,4-Dinitrotoluene	<	10		<	10		<	10		<	10		<	10		<	10	
Diethylphthalate	<	10		<	10		<	0.4	UJB	<	10		<	0.6	UJB	<	0.4	UJB
Fluorene	<	10		<	10		<	10		<	10		<	10		<	10	
Phenanthrene	<	10		<	10		<	10		<	10		<	10		<	10	
Anthracene	<	10		<	10		<	10		<	10		<	10		<	10	
Carbazole	<	10		<	10		<	10		<	10		<	10		<	10	
Butylbenzylphthalate	<	10		<	10		<	10		<	10		<	10		<	10	
bis(2-Ethylhexyl)phthalate	<	0.4	UJB	0.3	10	J	<	0.8	UJB	<	2	UJB	<	0.3	UJB	<	0.2	UJB
PESTICIDES/PCBS																		
No pesticides or PCBs detected																		

J: Estimated value
RL: Reporting Limit
B: Analyte also detected in method blank
U: Analyte not detected
NR: Not reported

Monitoring Well Ground Water Analytical Results - September 1995
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Date Sampled Units	WT114B 9/21/1995			WT114A 9/21/1995			WT115A 9/25/1995			WT116A 9/21/1995			WT116A-dup 9/21/1995			WT116B 9/21/1995		
	Results	RL	Qual.	Results	RL	Qual.	Results	RL	Qual.	Results	RL	Qual.	Results	RL	Qual.	Results	RL	Qual.
VOLATILE ORGANICS																		
Chloroethane	<	10		<	10		<	10		<	10		<	10		<	10	
Methylene Chloride	<	10		<	10		1		J	<	10		<	10		<	10	
Carbon Disulfide	2		J	0.7		J	<	10		<	10		<	10		2		J
1,1-Dichloroethane	1		J	5		J	<	10		7		J	7		J	<	10	
total 1,2-Dichloroethene	1		J	<	10		<	10		1		J	1		J	<	10	
1,2-Dichloropropane	<	10		<	10		<	10		4		J	4		J	<	10	
Trichloroethene	<	10		<	10		<	10		0.9		J	0.8		J	<	10	
Benzene	<	10		2		J	1		J	15			14			<	10	
Ethylbenzene	<	10		<	10		<	10		0.7		J	0.7		J	<	10	
SEMIVOLATILE ORGANICS																		
Naphthalene	<	10		<	10		<	10		0.4		J	<	10		<	10	
2-Methylnaphthalene	<	10		<	10		<	10		<	10		0.5		J	<	10	
Acenaphthene	<	10		<	10		<	10		3		J	3		J	<	10	
Dibenzofuran	<	10		<	10		<	10		2		J	2		J	<	10	
2,4-Dinitrotoluene	<	10		<	10		<	10		<	10		<	10		<	10	
Diethylphthalate	<	10		<	2	UJB	<	10		<	10		<	0.2	UJB	<	10	
Fluorene	<	10		<	10		<	10		3		J	3		J	<	10	
Phenanthrene	<	10		<	10		<	10		<	10		0.2		J	<	10	
Anthracene	<	10		<	10		<	10		0.3		J	<	10		<	10	
Carbazole	<	10		<	10		<	10		6		J	6		J	<	10	
Butylbenzylphthalate	0.2		J	<	10		<	10		<	10		<	10		<	10	
bis(2-Ethylhexyl)phthalate	<	0.6	UJB	<	0.9	UJB	0.4		J	15		B	<	1.0	UJB	<	2	UJB
PESTICIDES/PCBS																		
No pesticides or PCBs detected																		

J: Estimated value
 RL: Reporting Limit
 B: Analyte also detected in method blank
 U: Analyte not detected
 NR: Not reported

Monitoring Well Ground Water Analytical Results - September 1995
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Date Sampled Units	WT117A 9/26/1995 µg/L			WT117B 9/26/1995 µg/L			WT118B 9/25/1995 µg/L		
	Results	RL	Qual.	Results	RL	Qual.	Results	RL	Qual.
	VOLATILE ORGANICS								
Chloroethane	<	10		<	10		<	10	
Methylene Chloride	1		J	1		J	0.9		J
Carbon Disulfide	<	10		<	10		<	10	
1,1-Dichloroethane	<	10		<	10		<	10	
total 1,2-Dichloroethene	<	10		<	10		<	10	
1,2-Dichloropropane	<	10		<	10		<	10	
Trichloroethene	<	10		<	10		<	10	
Benzene	<	10		<	10		<	10	
Ethylbenzene	<	10		<	10		<	10	
SEMIVOLATILE ORGANICS									
Naphthalene	<	10		<	10		<	10	
2-Methylnaphthalene	<	10		<	10		<	10	
Acenaphthene	<	10		<	10		<	10	
Dibenzofuran	<	10		<	10		<	10	
2,4-Dinitrotoluene	<	10		<	10		<	10	
Diethylphthalate	<	10		<	10		<	10	
Fluorene	<	10		<	10		<	10	
Phenanthrene	<	10		<	10		<	10	
Anthracene	<	10		<	10		<	10	
Carbazole	<	10		<	10		<	10	
Butylbenzylphthalate	<	10		<	10		<	10	
bis(2-Ethylhexyl)phthalate	<	0.3	UJB	<	10		3		J
PESTICIDES/PCBS									
No pesticides or PCBs detected									

J: Estimated value
 RL: Reporting Limit
 B: Analyte also detected in method blank
 U: Analyte not detected
 NR: Not reported

1996

Monitoring Well Ground Water Analytical Results - November 1996
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	WT105A	WT111A	WT111A Dup	WT106A	WT115A	WT116A
Sample number	MEAKN2	MEAKN3	MEAKN4	MEAKN5	MEAKN7	
Date sampled	11/13/1996	11/13/1996	11/13/1996	11/13/1996	11/13/1996	11/13/1996
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
TOTAL METALS						
Aluminum	17.0 U	280.0	267	50.8	32.0	NS
Antimony	3.0 U	3.0 U	3.0 U	3.0 U	3.0 UJ	NS
Arsenic	3.0 U	3.7	3.10	5.60	3.0 U	NS
Barium	5.4	105	107	101	33.3	NS
Beryllium	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NS
Cadmium	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NS
Calcium	38000	8160	8220	146000	215000	NS
Chromium	1.0 U	1.8	1.5	1.0 U	2.9	NS
Cobalt	1.0 U	6.4	6.5	1.0 U	1.6	NS
Copper	1.0 U	3.3	3.0	1.0 U	1.8	NS
Iron	13.1	4470	4360	6080	2220	NS
Lead	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NS
Magnesium	10200	2980	2980	18100	36000	NS
Manganese	5.0	335	333	394	276	NS
Mercury	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NS
Nickel	1.0 U	7.2	7.2	1.8	3.8	NS
Potassium	1760	1600	1620	4280	6520	NS
Selenium	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	NS
Silver	1.0 U	1 U	1.0 U	1.0 U	1.0 U	NS
Sodium	4460 J	3200	3270 J	25800 J	33600 J	NS
Thallium	20.00 U	3.00	2.60	2.90	2.20	NS
Vanadium	1.0 U	2.4	2.4	1 U	7.6	NS
Zinc	3.6 J	22.2 J	21.2 J	2.9 J	4.1 J	NS
Cyanide	NS	NS	NS	NS	NS	NS
VOLATILE ORGANICS						
Sample number	EAXX9	EAXY0	EAXY1	EAXY2	EAXY4	EAXY5
Chloromethane	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Carbon Disulfide	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	10 U	10 U	10 U	10 U	10 U	5 J
total 1,2-Dichloroethene	10 U	10 U	10 U	3 J	10 U	0.4 J
Chloroform	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2-Butanone	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
1,1,1-Trichloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	10 U	10 U	10 U	10 U	10 U	2 J
cis-1,3-Dichloropropene	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	10 U	10 U	10 U	10 U	10 U	0.5 J
Dibromochloromethane	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	10 U	10 U	10 U	10 U	2 J	7 J
trans-1,3-Dichloropropene	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2-Hexanone	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Tetrachloroethene	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	10 U	10 U	10 U	10 U	10 U	10 U

U: Analyte not detected
J: Value is estimated
NS: Not sampled

Monitoring Well Ground Water Analytical Results - November 1996
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	WT105A	WT111A	WT111A Dup	WT106A	WT115A	WT116A
SEMIVOLATILE ORGANICS						
Sample number	EAXX9	EAXY0	EAXY1	EAXY2	EAXY4	EAXY5
Phenol	10 U	10 U	10 U	10 U	10 U	NS
bis(2-Chloroethyl)ether	10 U	10 U	10 U	10 U	10 U	NS
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	NS
1,3-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	NS
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	NS
1,2-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	NS
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	NS
2,2'-Oxybis(1-chloropropane)	10 U	10 U	10 U	10 U	10 U	NS
4-Methylphenol	10 U	10 U	10 U	10 U	10 U	NS
N-Nitroso-di-n-propylamine	10 U	10 U	10 U	10 U	10 U	NS
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	NS
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	NS
Isophorone	10 U	10 U	10 U	10 U	10 U	NS
2-Nitrophenol	10 U	10 U	10 U	10 U	10 U	NS
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	NS
bis(2-Chloroethoxy)methane	10 U	10 U	10 U	10 U	10 U	NS
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	NS
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	NS
Naphthalene	10 U	10 U	10 U	10 U	10 U	NS
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	NS
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U	NS
4-Chloro-3-methylphenol	10 U	10 U	10 U	10 U	10 U	NS
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	NS
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	NS
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	NS
2,4,5-Trichlorophenol	25 U	25 U	25 U	25 U	25 U	NS
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 U	NS
2-Nitroaniline	25 U	25 U	25 U	25 U	25 U	NS
Dimethylphthalate	10 U	10 U	10 U	10 U	10 U	NS
Acenaphthylene	10 U	10 U	10 U	10 U	10 U	NS
2,6-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	NS
3-Nitroaniline	25 U	25 U	25 U	25 U	25 U	NS
Acenaphthene	10 U	10 U	10 U	10 U	10 U	NS
2,4-Dinitrophenol	25 U	25 U	25 U	25 U	25 U	NS
4-Nitrophenol	25 U	25 U	25 U	25 U	25 U	NS
Dibenzofuran	10 U	10 U	10 U	10 U	25 U	NS
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	NS
Diethylphthalate	10 U	10 U	10 U	10 U	10 U	NS
4-Chlorophenyl-phenylether	10 U	10 U	10 U	10 U	10 U	NS
Fluorene	10 U	10 U	10 U	10 U	10 U	NS
4-Nitroaniline	25 U	25 U	25 U	25 U	25 U	NS
4,6-Dinitro-2-methylphenol	25 U	25 U	25 U	25 U	25 U	NS
N-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	NS
4-Bromophenyl-phenylether	10 U	10 U	10 U	10 U	10 U	NS
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	NS
Pentachlorophenol	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ	NS
Phenanthrene	10 U	10 U	10 U	10 U	10 U	NS
Anthracene	10 U	10 U	10 U	10 U	10 U	NS
Carbazole	10 U	10 U	10 U	10 U	10 U	NS
Di-n-butylphthalate	10 U	10 U	10 U	10 U	10 U	NS
Fluoranthene	10 U	10 U	10 U	10 U	10 U	NS
Pyrene	10 U	10 U	10 U	10 U	10 U	NS
Butylbenzylphthalate	10 U	10 U	10 U	10 U	10 U	NS
3,3'-Dichlorobenzidine	10 U	10 U	10 U	10 U	10 U	NS
Benzo(a)anthracene	10 U	10 U	10 U	10 U	10 U	NS
Chrysene	10 U	10 U	10 U	10 U	10 U	NS
bis(2-Ethylhexyl)phthalate	10 U	10 U	10 U	J	10 U	NS
Di-n-octylphthalate	10 U	10 U	10 U	10 U	10 U	NS
Benzo(b)fluoranthene	10 U	10 U	10 U	10 U	10 U	NS
Benzo(k)fluoranthene	10 U	10 U	10 U	10 U	10 U	NS
Benzo(a)pyrene	10 U	10 U	10 U	10 U	10 U	NS
Indeno(1,2,3-cd)pyrene	10 U	10 U	10 U	10 U	10 U	NS
Dibenz(a,h)anthracene	10 U	10 U	10 U	10 U	10 U	NS
Benzo(g,h,i)perylene	10 U	10 U	10 U	10 U	10 U	NS

U: Analyte not detected
 J: Value is estimated
 NS: Not sampled

1998

Monitoring Well Ground Water Analytical Results - October 1998
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	WT101A	WT101A dup	WT102A	WT112A	WT114A	WT115A	WT118A	WT118A dup	WT119A dup
Sample number	MEBQF2	MEBQF1	MEBQEB	MEBQEP	MEBQF0	MEBQF3	MEBQJ2	MEBQJ3	MEBQJ4
Date sampled	10/21/1998	10/21/1998	10/19/1998	10/20/1998	10/20/1998	10/21/1998	10/21/1998	10/22/1998	10/22/1998
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
TOTAL METALS									
Aluminum	26.0 U	26.0 U	27.6 J	26.0 UJ	26.0 UJ	94.1 J	58.0 J	258 J	249 J
Antimony	42.2 U	42.2 U	42.2 UJ	42.2 UJ	42.2 UJ	42.2 U	42.2 UJ	43.2 UB	42.2 U
Arsenic	3.6 J	3.3 J	0.90 UJ	0.90 UJ	24.3 J	0.90 U	1.0 J	5.8 J	5.3
Barium	91.2 J	85.5 J	47.3 J	36.6 J	238 J	33.5 J	192 J	78.3	76.0
Beryllium	0.60 U	0.60 U	0.60 UJ	0.60 UJ	0.60 J	0.60 U	0.60 UJ	0.60 UJ	0.60 UJ
Cadmium	4.6 U	4.6 U	4.6 UJ	4.6 UJ	4.6 UJ	4.6 U	4.6 UJ	4.6 U	4.6 U
Calcium	377000	361000	17100 J	19000 J	27000 J	293000	60900 J	143000	142000
Chromium	13.1	11.3	20.3 J	7.5 J	12.0 J	10.4	7.0 UJ	7.9	7.0 U
Cobalt	7.8 U	7.8 U	7.8 UJ	7.8 UJ	11.9 J	7.8 U	7.8 UJ	7.8 U	7.8 U
Copper	4.1 U	4.1 U	4.1 UJ	4.1 UJ	4.1 UJ	4.1 U	4.1 UJ	5.4	4.9
Iron	28100	26900	96.8 J	11.7 UJ	17900 J	4590	4490 J	1690	1690
Lead	0.50 U	0.50 U	0.50 UJ	0.50 UJ	0.50 UJ	0.50 U	0.50 UJ	3.4 J	2.4 J
Magnesium	14700	13900	16600 J	14000 J	24800 J	20300	52700 J	44800	44500
Manganese	3080	2940	61.5 J	6.7 J	306 J	513	662 J	279	278
Mercury	0.10 U	0.10 U	0.10 J	0.10 UJ	0.10 UJ	0.10 U	0.10 J	0.10 U	0.10 U
Nickel	28.3 U	28.3 U	73.0 J	23.8 UJ	23.8 UJ	28.3 U	28.3 UJ	28.3 U	28.3 U
Potassium	3630 J	3630 J	1610 J	1330 J	6640 J	3580 J	25200 J	11500 J	11200 J
Selenium	3.0 R	3.0 R	6.0 UJ	6.0 UJ	6.0 UJ	3.0 R	6.0 R	6.0 J	6.0 J
Silver	5.3 U	5.3 U	6.1 J	5.3 UJ	5.3 UJ	5.3 U	5.3 UJ	5.3 U	5.3 U
Sodium	35800	33100	48000 J	13300 J	47100 J	12100	179000 J	69100	68200
Thallium	0.40 U	0.40 U	0.40 UJ	0.40 UJ	0.40 UJ	0.40 U	0.40 UJ	0.40 U	0.40 U
Vanadium	12.3 U	12.3 U	12.3 UJ	12.3 UJ	12.3 UJ	12.3 U	12.3 UJ	12.3 U	12.3 U
Zinc	3.2 U	3.2 U	3.2 UJ	3.2 UJ	3.2 J	3.7 J	3.2 UJ	4.9 U	4.9 U
Cyanide	17.9 J	14.4 J	9.5 J	7.3 J	7.8 J	12.4 UB	31.9	*2 J	*5.2
VOLATILE ORGANICS									
Sample number	ECMM5	ECMQ0	ECMM0	ECMM2	ECMM4	ECMQ2	ECMQ4	ECMQ5	ECMQ9
Chloromethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Vinyl Chloride	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	10 U	10 U	10 U	10 U	4 J	10 U	5 J	10 U	10 U
total 1,2-Dichloroethene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
1,1,1-Trichloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	10 UJ	10 UJ	10 UJ	10 U	10 U	10 UJ	10 UJ	10 U	10 U
Toluene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Construction Debris Area Soil Analytical Results - October 1998
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Date sampled Sample Number Units	SB03-0.5 10/12/1998 MEBQC1 mg/kg			SB03-2 10/12/1998 MEBQC2 mg/kg			SB04-0.5 10/19/1998 MEBQE3 mg/kg			SB04-2 10/19/1998 MEBQE4 mg/kg			SB04-6 10/19/1998 MEBQE5 mg/kg			SB05-0.5 10/19/1998 MEBQE1 mg/kg			SB05-2 10/19/1998 MEBQE2 mg/kg		
	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.
TOTAL METALS																					
Aluminum	4080			3960			3340			5130			3340			2580			3070		
Antimony	<	11.5	J	<	11.3	J	<	9.0		<	9.0		<	10.3		<	8.9		<	8.8	
Arsenic	1.6			1.3			1.00		J	1.1		J	0.60		J	1.2		J	0.60		J
Barium	27.9			21.9			21.2			39.5			18.7			44.7			34.5		
Beryllium	<	0.20		<	0.20		0.10		J	0.20		J	<	0.10		0.20		J	0.30		J
Cadmium	<	1.0		1.0			<	1.0		<	1.0		<	1.1		1.1			<	1.0	
Calcium	1670		J	480		J	1020			1530			2070			5460			4180		
Chromium	5.2		J	5.3		J	4.8			6.4			5.1			7.0			8.3		
Cobalt	<	3.4		<	3.4		<	1.7		<	1.7		<	1.9		3.2		J	3.1		J
Copper	15.9		J	4.3			3.8		J	3.3		J	3.1		J	16.4			17.1		
Iron	3450			2530			4120			5070			2570			4590			4360		
Lead	9.8			11.7			8.1		J	7.8		J	6.2		J	56.9			22.3		
Magnesium	697		J	333		J	724			833			346			2390			2050		
Manganese	58.7			14.8			69.9			86.2			58.1			109			66.4		
Mercury	<	0.06		<	0.06		0.05		J	0.05		J	<	0.06		0.08		J	0.06		J
Nickel	<	8.4		<	8.2		<	6.1		<	6.0		<	6.9		6.2		J	12.3		J
Potassium	253		J	<	127		<	198		288		J	<	227		<	195		419		J
Selenium	0.80		J	0.90		J	<	0.10		<	0.10		<	0.10		<	0.10		<	0.10	
Silver	<	0.90		<	0.90		<	1.1		<	1.1		<	1.3		<	1.1		<	1.1	
Sodium	20.4		J	39.0		J	34.5		J	525			110		J	50.2		J	50.6		J
Thallium	<	0.40		<	0.40		<	0.08		<	0.08		<	0.1		<	0.08		<	0.08	
Vanadium	7.8			5.7		J	7.0		J	9.4		J	3.7		J	8.3		J	9.2		J
Zinc	26.0			14.4			15.6			17.3			10.0			72.9			52.4		
Cyanide	0.05		J	0.2		J	<	0.10		0.10		J	0.20		J	0.30		J	0.20		J
VOLATILE ORGANICS																					
Sample Number Units	ECMK2 µg/kg			ECMK3 µg/kg			ECML6 µg/kg			ECML7 µg/kg			ECML8 µg/kg			ECML4 µg/kg			ECML5 µg/kg		
Methylene Chloride	34			<	18		<	11		<	11		<	13		<	11		<	10	
Acetone	2		J	2		J	<	11		<	11		<	13		<	11		<	10	
Carbon Disulfide	<	11		<	11		<	11		<	11		<	13		<	11		<	10	
1,1-Dichloroethane	<	11		<	11		<	11		<	11		<	13		<	11		<	10	
Benzene	<	11		<	11		<	11		<	11		<	13		<	11		<	10	
Ethylbenzene	<	11		<	11		<	11		<	11		<	13		<	11		<	10	
Xylene (total)	<	11		<	11		<	11		<	11		<	13		<	11		<	10	

RL = Reporting Limit (For this data set the Reporting Limit is the Contract Required Quantitation Limit)
 J= Estimated Value
 R=Rejected Value (The data is unusable.)

Construction Debris Area Soil Analytical Results - October 1998
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Date sampled Sample Number Units	SB06-0.5 10/19/1998 MEBQE6 mg/kg			SB06-0.5 Dup 10/19/1998 MEBQE7 mg/kg			SB06-2 10/19/1998 MEBQF4 mg/kg			SB07-0.5 10/21/1998 MEBQH6 mg/kg			SB07-2 10/21/1998 MEBQH7 mg/kg			SB08-0.5 10/20/1998 MEBQF5 mg/kg			SB08-2 10/20/1998 MEBQF6 mg/kg					
	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.			
TOTAL METALS																								
Aluminum	4220			3000			2770			3100			1730			3150			1900					
Antimony	<	9.4		<	9.4		<	9.0		13.1		J	<	8.7	J	<	8.7		<	8.6				
Arsenic	2.1		J	1.4		J	1.1		J	2.3		J	0.70		J	1.1		J	0.55		J			
Barium	51.8			47.7			40.4			13.0			7.8			14.8		J	126					
Beryllium	<	0.10		<	0.10		0.30		J	0.20		J	0.10		J	<	0.12		<	0.12				
Cadmium	<	1.0		<	1.0		<	1.0		<	1.0		<	0.90		<	0.95		<	0.94				
Calcium	1750			1660			728			1320			2140			953		J	<	6060				
Chromium	4.5			5.5			4.6			6.0			5.1			5.3			5.3					
Cobalt	3.3		J	1.9		J	2.8		J	4.0			1.9			3.3		J	1.9		J			
Copper	20.4			19.9			22.6			7.4			6.4			5.3			5.1		J			
Iron	6200			4800			3660			5240			4390			4680			2590					
Lead	13.4		J	17.2		J	9.4		J	5.2			6.5		S*	5.4			6.9		J			
Magnesium	746			598			470			1140			1160			919		J	1040					
Manganese	337			296			227			133			44.7			105			35.8					
Mercury	<	0.06		<	0.06		<	0.05		<	0.05		<	0.05		0.05		J	<	0.05				
Nickel	9.6		J	7.0		J	<	6.0		6.0			<	5.8		<	5.9		6.7		J			
Potassium	219		J	<	205		227		J	234			226			<	192		<	190				
Selenium	<	0.10		<	0.10		<	0.10		<	0.10	J	<	0.10	J	<	0.12		<	0.12				
Silver	<	1.2		<	1.2		<	1.1		<	1.1		<	1.1		<	1.1		<	1.1				
Sodium	24.8		J	<	18.1		32.6		J	41.6			<	16.8		29.9		J	32.7		J			
Thallium	<	0.09		<	0.09		<	0.08		0.10		J	<	0.08	J	<	0.08		<	0.08				
Vanadium	8.5		J	7.0		J	5.2		J	8.1			4.7			10.0		J	5.7		J			
Zinc	52.3			45.0			41.0			20.2			40.0			15.5			14.9					
Cyanide	0.30		J	<	0.10		<	0.10		0.20		J	<	0.10	J	0.92		J	0.40		J			
VOLATILE ORGANICS																								
Sample Number Units		ECML9 µg/kg			ECMM6 µg/kg			ECMM7 µg/kg			ECMP9 µg/kg			ECMQ6 µg/kg			ECMM8 µg/kg			ECMM9 µg/kg				
Methylene Chloride	<	11		<	11		<	11		<	10		<	10		<	10		<	10				
Acetone	<	11		<	11		<	11		<	10		<	10		<	10		<	10				
Carbon Disulfide	<	11		<	11		<	11		<	10		<	10		<	10		<	10				
1,1-Dichloroethane	<	11		<	11		<	11		<	10		<	10		<	10		<	10				
Benzene	<	11		<	11		<	11		<	10		<	10		<	10		<	10				
Ethylbenzene	<	11		<	11		<	11		<	10		<	10		<	10		<	10				
Xylene (total)	<	11		<	11		<	11		<	10		<	10		<	10		<	10				

RL = Reporting Limit (For this data set the Reporting Limit is the Contract Required Quantitation Limit)
 J= Estimated Value
 R=Rejected Value (The data is unusable.)

Construction Debris Area Soil Analytical Results - October 1998
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Date sampled Sample Number Units	SB09-0.5 10/21/1998 MEBQH3 mg/kg			SB09-0.5 Dup 10/21/1998 MEBQH4 mg/kg			SB09 10/21/1998 MEBQH5 mg/kg			SB10-0.5 10/20/1998 MEBQF7 mg/kg			SB10-0.5 Dup 10/20/1998 MEBQF8 mg/kg			SB10-2 10/20/1998 MEBQF9 mg/kg			SB10-6 10/20/1998 MEBQG0 mg/kg				
	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.		
TOTAL METALS																							
Aluminum	2480			2500			2120			4230			5670			3610			3320				
Antimony	<	9.0		<	8.9		<	8.8		<	9.1		<	9.2		<	8.9		<	9.0			
Arsenic	1.1		J	1.7		J	0.80		J	1.5		J	1.4		J	1.2		J	0.64		J		
Barium	14.1		J	13.4		J	12.1		J	51.7		J	55.1		J	48.7		J	24.7		J		
Beryllium	<	0.13		<	0.13		<	0.13		<	0.13		<	0.13		<	0.13		<	0.13			
Cadmium	<	0.98		<	0.97		<	0.96		<	0.99		1.2			<	0.97		<	0.99			
Calcium	19600			2650			12600			586		J	710		J	361		J	535		J		
Chromium	5.7			5.4			5.2			5.5			7.0			5.5			7.6				
Cobalt	3.1		J	2.8		J	2.8		J	3.4		J	3.3		J	3.1		J	<	1.7			
Copper	9.2			9.1			8.0			35.1			37.2			38.1			12.7				
Iron	4750			4610			3620			4780			5330			4290			1330				
Lead	6.7			6.7			6.0		J	21.1		J	28.9		J	16.3		J	8.0		S		
Magnesium	2380			1410			3500			559		J	766		J	503		J	678		J		
Manganese	172			144			62.6			317			319			169			86.6				
Mercury	<	0.05		0.06		J	<	0.05		<	0.05		0.07		J	<	0.05		<	0.05			
Nickel	7.0		J	9.5			<	5.9		8.1		J	8.1		J	<	6.0		<	6.1			
Potassium	264		J	<	196		<	194		<	200		297		J	238		J	<	198			
Selenium	<	0.13		<	0.13	J	<	0.13	J	<	0.13	J	<	0.13		<	0.13		<	0.13			
Silver	<	1.1		<	1.1		<	1.1		<	1.1		<	1.1		<	1.1		<	1.1			
Sodium	36.2		J	37.6		J	32.6		J	34.3		J	45.5		J	39.3		J	29.8		J		
Thallium	<	0.09		<	0.08		<	0.08		<	0.09		<	0.09		<	0.08		0.09				
Vanadium	7.2		J	8.8		J	7.6		J	10.1		J	10.4		J	9.5		J	<	10.9			
Zinc	26.2			22.2			24.1			58.3			68.9			50.1			24.9				
Cyanide	0.56		J	0.37		J	0.58		J	4.2			0.58		J	4.9			0.16		J		
VOLATILE ORGANICS																							
Sample Number Units		ECMP6 µg/kg			ECMP7 µg/kg			ECMP8 µg/kg			ECMN0 µg/kg			ECMN1 µg/kg			ECMN2 µg/kg			ECMN3 µg/kg			
Methylene Chloride	<	11		<	10		<	10		<	11		<	11		<	10		<	11			
Acetone	<	11		<	10		<	10		<	11		<	11		<	10		<	11			
Carbon Disulfide	<	11		<	10		<	10		<	11		<	11		<	10		<	11			
1,1-Dichloroethane	<	11		<	10		<	10		<	11		<	11		<	10		<	11			
Benzene	<	11		<	10		<	10		<	11		<	11		<	10		<	11			
Ethylbenzene	<	11		<	10		<	10		<	11		<	11		<	10		<	11			
Xylene (total)	<	11		<	10		<	10		<	11		<	11		<	10		<	11			

RL = Reporting Limit (For this data set the Reporting Limit is the Contract Required Quantitation Limit)
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Construction Debris Area Soil Analytical Results - October 1998
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Date sampled Sample Number Units	SB11-0.5 10/21/1998 MEBQH0 mg/kg			SB11-2 10/21/1998 MEBQH1 mg/kg			SB11-6 10/21/1998 MEBQH2 mg/kg			SB12-0.5 10/20/1998 MEBQG7 mg/kg			SB12-2 10/20/1998 MEBQG8 mg/kg			SB12-6 10/20/1998 MEBQG9 mg/kg			SB13-0.5 10/20/1998 MEBQG4 mg/kg		
	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.
TOTAL METALS																					
Aluminum	4740			3360			4270			2260			1360			2280			3900		
Antimony	<	8.9	J	9.2		J	<	8.8	J	<	8.8	J	<	8.7	J	<	8.8	J	<	9.4	J
Arsenic	12.5		J	4.7		J	2.8		J	1.1		J	0.70		J	0.9		J	2.1		J
Barium	102			57.0			55.8			13.8		J	8.0		J	14.2		J	65.8		
Beryllium	0.50		J	0.20		J	0.20		J	0.25		J	<	0.12		<	0.13		0.30		J
Cadmium	1.1			<	1.0		<	1.0		<	0.96		<	0.95		<	0.96		1.2		
Calcium	21900			26400			7620			1060			2990			1510			9970		
Chromium	12.6			9.2			17.2			5.1			3.3			6.3			8.5		
Cobalt	3.2			3.4			6.8			2.8		J	3.5		J	3.4		J	3.2		J
Copper	149			46.1			45.9			6.2			4.6		J	12.5			18.9		
Iron	11100			8820			21200			4080			2470			4570			5970		
Lead	160		J	92.9		J	186		J	6.1		J	5.4		J	7.1		J	167		
Magnesium	5950			11400			2580			853		J	1920			1140			1550		
Manganese	492			278			398			128			47.4			52.9			326		
Mercury	0.20			0.20			0.20		0.05			<	0.05		<	0.05			0.10		J
Nickel	12.0			<	5.9		10.0			<	5.9		<	5.9		<	5.9		8.8		J
Potassium	462			287			377			<	193		<	192		<	194		423		J
Selenium	<	0.10	J	<	0.10	J	<	0.10	J	<	0.12	J	<	0.12	J	0.13			<	0.10	
Silver	<	1.1		<	1.1		<	1.1		<	1.1		<	1.1		<	1.1		<	1.2	
Sodium	127			54.7			49.1			38.2		J	30.5		J	61.5		J	48.6		J
Thallium	0.10			<	0.08		<	0.08		<	0.08		<	0.08		<	0.08		<	0.09	
Vanadium	11.3			8.9			11.3			6.5		J	5.6		J	9.2		J	8.5		J
Zinc	294			136			109			22.8			15.1			38.9			109		
Cyanide	0.40		J	<	0.10	J	0.30		J	0.17		J	0.18		J	0.25		J	0.50		J
VOLATILE ORGANICS																					
Sample Number Units	ECMP3 µg/kg			ECMP4 µg/kg			ECMP5 µg/kg			ECMP0 µg/kg			ECMP1 µg/kg			ECMP2 µg/kg			ECMN7 µg/kg		
Methylene Chloride	<	11		<	10		<	10		<	10		<	10		<	10		<	11	J
Acetone	<	11		<	10		<	10		<	10		<	10		<	10		<	11	J
Carbon Disulfide	<	11		<	10		<	10		<	10		<	10		<	10		<	11	J
1,1-Dichloroethane	<	11		<	10		<	10		<	10		<	10		<	10		<	11	J
Benzene	<	11		<	10		<	10		<	10		<	10		<	10		<	11	J
Ethylbenzene	<	11		<	10		<	10		<	10		<	10		<	10		<	11	R
Xylene (total)	<	11		<	10		<	10		<	10		<	10		<	10		<	11	R

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Construction Debris Area Soil Analytical Results - October 1998
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Date sampled Sample Number Units	SB13-2 10/20/1998 MEBQG5 mg/kg			SB13-6 10/20/1998 MEBQG6 mg/kg			SB14-0.5 10/20/1998 mg/kg			SB14-2 10/20/1998 mg/kg			SB14-6 10/20/1998 mg/kg			SB15-0.5 10/19/1998 mg/kg			SB15-2 10/19/1998 mg/kg					
	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.			
TOTAL METALS																								
Aluminum	3980			3220			4120			4500			2630			3470			2860					
Antimony	< 9.2			< 9.1			< 11.2			< 8.8			< 9.5			< 9.8			< 9.1					
Arsenic	0.90		J	0.90		J	0.83		J	1.1		J	0.60		J	6.0		J	4.4		J			
Barium	35.7			33.6			115			36.2		J	43.7		J	102			133					
Beryllium	0.20		J	0.30		J	0.33		J	< 71.3			< 0.14			0.60		J	0.50		J			
Cadmium	1.3			< 1.0			< 1.2			< 106.4			< 1.0			1.1			1.2					
Calcium	9300			12000			32700			2840			9350			16400			26800					
Chromium	14.2			12.9			14.6			6.7			15.5			12.9			14.0					
Cobalt	3.9		J	3.3		J	4.3		J	3.0		J	3.0		J	5.1		J	5		J			
Copper	14.4			17.0			2110			18.7			25.3			113			283					
Iron	9180			11300			9410			4680			3920			26000			19400					
Lead	58.7			45.6		J	191		J	19.6		J	127		J	695		J	287					
Magnesium	3060			3000			3880			1180			1650			4810			5420					
Manganese	203			220			539			170			184			514			399					
Mercury	0.08		J	0.10		J	0.25		J	0.06		J	0.11		J	0.40			0.50					
Nickel	12.0		J	15.4		J	8.0		J	< 5.9			9.8			21.0		J	23.7		J			
Potassium	310		J	279		J	278		J	277		J	210		J	363		J	385		J			
Selenium	< 0.10		J	0.10			< 0.16		J	< 0.13			< 0.14			< 0.10			< 0.10					
Silver	< 1.1			< 1.1			< 1.4			< 1.1			< 1.2			1.2			2.0					
Sodium	54.7		J	74.3		J	83.7		J	40.5		J	43.0		J	< 65.0		J	60.9		J			
Thallium	< 0.09			< 0.09			< 0.11			< 0.08			< 0.09			0.10			< 0.08					
Vanadium	9.8		J	6.0		J	11.3		J	9.9		J	8.0		J	11.1		J	10.2		J			
Zinc	175			90.9			161			49.8			249			427			465					
Cyanide	0.30		J	0.90		J	0.14		J	0.12		J	< 0.11			1.1		J	0.90		J			
VOLATILE ORGANICS																								
Sample Number Units		ECMN8 µg/kg			ECMN9 µg/kg			µg/kg			µg/kg			µg/kg			µg/kg			µg/kg			µg/kg	
Methylene Chloride	< 10			< 11			< 12			< 10			< 11			< 11			< 11			< 11		
Acetone	< 10			< 11			< 12			< 10			< 11			< 11			22			< 11		
Carbon Disulfide	< 10			< 11			< 12			< 10			< 11			< 11			< 11			< 11		
1,1-Dichloroethane	< 10			< 11			< 12			< 10			< 11			< 11			< 11			< 11		
Benzene	< 10			< 11			< 12			< 10			< 11			< 11			< 11			< 11		
Ethylbenzene	< 10			< 11			< 12			< 10			< 11			< 11			< 11			< 11		
Xylene (total)	< 10			< 11			< 12			< 10			< 11			< 11			< 11			< 11		

RL = Reporting Limit (For this data set the Reporting Limit is the Contract Required Quantitation Limit)
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Construction Debris Area Soil Analytical Results - October 1998
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Date sampled Sample Number Units	SB15-6 10/19/1998			SB16-05 10/15/1998			SB16-2 10/15/1998			SB16-6 10/15/1998			SB16-6 Dup 10/15/1998			SB17-0.5 10/15/1998			SB17-2 10/15/1998			
	Result	mg/kg RL	Qual.	Result	mg/kg RL	Qual.	Result	mg/kg RL	Qual.	Result	mg/kg RL	Qual.	Result	mg/kg RL	Qual.	Result	mg/kg RL	Qual.	Result	mg/kg RL	Qual.	
TOTAL METALS																						
Aluminum	8750			3340			4600			4820			8860			3230			5110			
Antimony	<	9.4		<	10.7	J	<	10.7	J	<	12.8	J	<	13.3	J	<	11.0	J	<	10.9	J	
Arsenic	7.0		J	3.9			3.8			4.7			5.5			1.5			2.7			
Barium	112			32.5			55.5			54.3			95.7			29.7			37.4			
Beryllium	0.80		J	<	0.20		<	0.20		0.80		J	0.90		J	<	0.20		<	0.20		
Cadmium	2.0			<	0.90		<	0.90		<	1.10		<	1.10		1.0			<	0.90		
Calcium	31700			14000		J	14800		J	41200			85900		J	6220		J	<	18900	J	
Chromium	17.9			7.9		J	9.6		J	13.1		J	11.3			6.3		J	9.5			
Cobalt	10.8			4.8		J	4.3		J	3.8		J	<	4.0		<	3.3		4.3			J
Copper	2220			16.4			49.0			18.3			18.9			63.9			11.9			
Iron	13500			8530			7460			10800			16600			3760			6680			
Lead	231		J	17.6			32.2			28.2			26.6			19.9			10.9			
Magnesium	22600			4860		J	3530		J	5460		J	7860		J	1440		J	4450		J	
Manganese	1410			298			294			228			588			73.3			192			
Mercury	0.10		J	<	0.05		<	0.05		<	0.06		<	0.06		<	0.05		<	0.05		
Nickel	298			10.8			8.8			11.8			12.1			<	8.1		8.0			
Potassium	566		J	289		J	318		J	283		J	450		J	<	125		283		J	
Selenium	<	0.10	J	0.60		J	0.70		J	1.4		J	1.3		J	0.80		J	0.80		J	
Silver	<	1.2		<	0.80		<	0.80		<	1.0		<	1.1		<	0.90		<	0.90		
Sodium	184		J	29.8		J	78.0			219			378			27.4		J	65.4			
Thallium	<	0.09		<	0.40		0.50			0.50			<	0.50		<	0.40		<	0.40		
Vanadium	17.1			9.9			11.9			<	14.4		15.1			6.9			10.4			
Zinc	1120			66.5			109			78.0			78.6			54.0			26.6			
Cyanide	4.7			0.10		J	0.08		J	1.0			0.50			0.06		J	0.60			
VOLATILE ORGANICS																						
Sample Number Units		µg/kg			µg/kg			µg/kg			µg/kg			µg/kg			µg/kg			µg/kg		
Methylene Chloride	<	10		<	18		<	24		<	13		<	25		<	20		<	10		
Acetone	<	10		2		J	<	10	J	<	12	J	<	14		3		J	<	10	J	
Carbon Disulfide	<	10		<	11		<	10		<	12		2		J	<	11		<	10		
1,1-Dichloroethane	<	10		<	11		<	10		1		J	2		J	<	11		<	10		
Benzene	<	10		<	11		<	10		3		J	4		J	<	11		<	10		
Ethylbenzene	<	10		<	11		<	10		12			14			<	11		<	10		
Xylene (total)	<	10		<	11		<	10		7		J	9		J	<	11		<	10		

RL = Reporting Limit (For this data set the Reporting Limit is the Contract Required Quantitation Limit)
 J= Estimated Value
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Construction Debris Area Soil Analytical Results - October 1998
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Date sampled Sample Number Units	SB18-0.5 10/19/1998			SB18-2 10/19/1998			SB18-6 10/19/1998			SB19-0.5 10/15/1998			SB19-2 10/15/1998			SB19-6 10/15/1998			SB20-0.5 10/15/1998		
	Result	mg/kg RL	Qual.	Result	mg/kg RL	Qual.	Result	mg/kg RL	Qual.	Result	mg/kg RL	Qual.	Result	mg/kg RL	Qual.	Result	mg/kg RL	Qual.	Result	mg/kg RL	Qual.
TOTAL METALS																					
Aluminum	4320			6200			5540			4120			4090			5210			3950		
Antimony	<	9.5		<	9.2		<	10.6		<	11.2	J	<	11.4	J	<	13.8	J	<	11.1	J
Arsenic	1.5		J	4.8		J	3.4		J	3.4			6.1			4.6			5.8		
Barium	81.1			89.8			130			53.5			444			168			172		
Beryllium	0.40		J	0.20		J	0.30		J	<	0.20		<	0.20		<	0.20		<	0.20	
Cadmium	1.0			1.2			<	1.2		<	1.0		<	1.0		<	1.2		<	1.0	
Calcium	4230			13000			14300			5070		J	21700		J	70500		J	69200		J
Chromium	10.5			19.8			11.1			6.9		J	13.1		J	14.3			25.1		
Cobalt	4.5		J	5.9		J	5.7		J	5.0		J	4.9		J	5.4		J	4.9		J
Copper	41.7			25.6			36.0			50.6			113			48.8			242		
Iron	8960			15000			7950			6700			9130			11200			8700		
Lead	67.4			83.4			88.9			49.8			172			131			161		
Magnesium	1810			4440			3470		J	2050		J	5220		J	12600		J	9940		J
Manganese	474			513			312			373			286			250			592		
Mercury	0.30			0.10		J	0.09		J	0.06			0.20			0.10			27.9		
Nickel	<	6.4		15.0		J	9.4		J	13.5			14.7			11.3			<	16.5	
Potassium	539		J	210		J	328		J	210		J	370		J	586		J	404		J
Selenium	<	0.10		<	0.10		<	0.20		1.0		J	1.6		J	<	0.60		0.60		J
Silver	<	1.2		<	1.2		<	1.3		<	0.90		1.0			<	1.1		1.9		
Sodium	75.7		J	78.2		J	87.1		J	36.2		J	86.3			344			105		
Thallium	<	0.09		<	0.09		<	0.10		<	0.40		<	0.40		<	0.50		<	0.40	
Vanadium	11.2		J	18.0			16.1			<	10.1		12.7			12.7			12.8		
Zinc	103			160			182			81.6			434			307			324		
Cyanide	0.50		J	1.5		J	0.40		J	0.10		J	0.90			0.60			3.3		
VOLATILE ORGANICS																					
Sample Number Units		µg/kg			µg/kg			µg/kg			µg/kg			µg/kg			µg/kg			µg/kg	
Methylene Chloride	<	11		<	11		<	11		<	19		75			57			<	13	
Acetone	<	11		<	11		<	11		2		J	4		J	7		J	<	11	J
Carbon Disulfide	<	11		<	11		<	11		<	11		<	11		<	15		<	11	
1,1-Dichloroethane	<	11		<	11		<	11		<	11		<	11		<	15		<	11	
Benzene	<	11		<	11		<	11		<	11		<	11		<	15		<	11	
Ethylbenzene	<	11		<	11		<	11		<	11		<	11		<	15		<	11	
Xylene (total)	<	11		<	11		<	11		<	11		<	11		<	15		<	11	

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Construction Debris Area Soil Analytical Results - October 1998
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Sample location Date sampled Sample Number Units	SB20-2 10/15/1998			SB20-6 10/16/1998		
	Result	mg/kg RL	Qual.	Result	mg/kg RL	Qual.
TOTAL METALS						
Aluminum	4870			3420		
Antimony	<	11.1	J	<	10.9	J
Arsenic	10.8			8.1		
Barium	201			72.2		
Beryllium	<	0.70		0.7		J
Cadmium	1.1			<	0.9	
Calcium	24900		J	28700		J
Chromium	14.0			11.1		
Cobalt	5.4		J	6		J
Copper	664			54.4		
Iron	20600			11500		
Lead	238			105		
Magnesium	7730		J	8990		J
Manganese	454			200		
Mercury	4.5			1.2		
Nickel	22.3			11		
Potassium	483		J	339		J
Selenium	1.3		J	0.7		J
Silver	3.1			1.1		
Sodium	184			92.5		
Thallium	0.50			<	0.4	
Vanadium	15.8			12.9		
Zinc	537			121		
Cyanide	4.3			1.2		
VOLATILE ORGANICS						
Sample Number Units		µg/kg			µg/kg	
Methylene Chloride	<	17		<	11	
Acetone	2		J	2		J
Carbon Disulfide	<	11		<	11	
1,1-Dichloroethane	<	11		<	11	
Benzene	<	11		<	11	
Ethylbenzene	<	11		<	11	
Xylene (total)	<	11		<	11	

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Construction Debris Area Soil Analytical Results - October 1998
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Sample location Date sampled Sample Number	SB03-0.5 10/12/1998 ECMK2			SB03-2 10/12/1998 ECMK3			SB04-0.5 10/19/1998 ECML6			SB04-2 10/19/1998 ECML7			SB04-6 10/19/1998 ECML8			SB05-0.5 10/19/1998 ECML4			SB05-2 10/19/1998 ECML5			
	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	
SEMIVOLATILE ORGANICS																						
Units		µg/kg			µg/kg			µg/kg			µg/kg			µg/kg			µg/kg			µg/kg		
1,2-Dichlorobenzene	<	360		<	360		<	350		<	350		<	420		<	350		<	340		
4-Methylphenol	<	360		<	360		<	350		<	350		<	420		<	350		<	340		
Naphthalene	<	360		<	360		<	350		<	350		<	420		<	350		<	340		
2-Methylnaphthalene	<	360		<	360		<	350		<	350		<	420		<	350		<	340		
Acenaphthylene	<	360		<	360		<	350		<	350		<	420		<	350		<	340		
Acenaphthene	<	360		<	360		<	350		<	350		<	420		<	350	J	<	340		
Dibenzofuran	<	360		<	360		<	350		<	350		<	420		<	350		<	340		
Diethylphthalate	<	360		<	360		<	350		<	350		<	420		<	350		<	340		
Fluorene	<	360		<	360		<	350		<	350		<	420		<	350		<	340		
Phenanthrene	<	360		<	360		<	350		<	350		<	420		46		J	140		J	
Anthracene	<	360		<	360		<	350		<	350		<	420		<	350		<	340		
Carbazole	<	360	J	<	360	J	<	350		<	350		<	420		<	350		<	340		
Di-n-butylphthalate	<	360		<	360		<	350		<	350		<	420	J	<	350		<	340		
Fluoranthene	<	360		<	360		<	350		<	350		<	420		130		J	210		J	
Pyrene	<	360		<	360		<	350		<	350		<	420		140		J	210		J	
Butylbenzylphthalate	<	360		<	360		<	350		<	350		<	420		<	350		<	340		
Benzo(a)anthracene	<	360		<	360		<	350		<	350		<	420		75	75	J	120		J	
Chrysene	<	360		<	360		<	350		<	350		<	420		84	84	J	110		J	
bis(2-Ethylhexyl)phthalate	140		J	<	360	J	<	350		<	350		<	420		<	350		<	420		
Di-n-octylphthalate	<	360		<	360		<	350		<	350		<	420		<	350		<	340		
Benzo(b)fluoranthene	<	360		<	360		<	350		<	350		<	420		110		J	140		J	
Benzo(k)fluoranthene	<	360		<	360		<	350		<	350		<	420		<	350		<	38		J
Benzo(a)pyrene	<	360		<	360		<	350		<	350		<	420		89	89	J	110		J	
Indeno(1,2,3-cd)pyrene	<	360		<	360		<	350		<	350		<	420		79		J	62		J	
Dibenz(a,h)anthracene	<	360		<	360		<	350		<	350		<	420		<	350		<	340		
Benzo(g,h,i)perylene	<	360		<	360		61		J	50		J	74		J	110		J	78		J	

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Sample location Date sampled Sample Number	SB06-0.5 10/19/1998 ECML9			SB06-0.5 Dup 10/19/1998 ECMM6			SB06-2 10/19/1998 ECMM7			SB07-0.5 10/21/1998 ECMP9			SB07-2 10/21/1998 ECMQ6			SB08-0.5 10/20/1998 ECMM8			SB08-2 10/20/1998 ECMM9		
	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.
SEMIVOLATILE ORGANICS																					
Units	µg/kg			µg/kg			µg/kg			µg/kg			µg/kg			µg/kg			µg/kg		
1,2-Dichlorobenzene	<	360		<	370		<	350		<	340		<	340		<	350		<	340	
4-Methylphenol	<	360		<	370		<	350		<	340		<	340		<	350		<	340	
Naphthalene	<	360		<	370		<	350		<	340		<	340		<	350		<	340	
2-Methylnaphthalene	<	360		<	370		<	350		<	340		<	340		<	350		<	340	
Acenaphthylene	<	360		<	370		<	350		<	340		<	340		<	350		<	340	
Acenaphthene	<	360		<	370		<	350		<	340	J	<	340		<	350		<	340	
Dibenzofuran	<	360		<	370		<	350		<	340		<	340		<	350		<	340	
Diethylphthalate	<	360		<	370		<	350		<	340		<	340		<	350		<	340	
Fluorene	<	360		<	370		<	350		<	340		<	340		<	350		<	340	
Phenanthrene	<	360		<	370		<	350		<	340		<	340		<	350		<	340	
Anthracene	<	360		<	370		<	350		<	340		<	340		<	350		<	340	
Carbazole	<	360		<	370		<	350		<	340		<	340		<	350		<	340	
Di-n-butylphthalate	<	360	J	<	370	J	<	350	J	<	340	J	<	340	J	<	350		<	340	
Fluoranthene	<	360		<	370		<	350		<	340		<	340		<	350		<	340	
Pyrene	<	360		<	370		<	350		<	340	J	<	340		<	350		<	340	
Butylbenzylphthalate	<	360		<	370		<	350		<	340		<	340		<	350		<	340	
Benzo(a)anthracene	<	360		<	370		<	350		<	340		<	340		<	350		<	340	
Chrysene	<	360		<	370		<	350		<	340		<	340		<	350		<	340	
bis(2-Ethylhexyl)phthalate	<	360		<	370		460			690	J		700	J		<	360		<	1500	
Di-n-octylphthalate	<	360		<	370		<	350		<	340	J	<	340	J	<	350		<	340	
Benzo(b)fluoranthene	<	360		<	370		<	350		<	340		<	340		<	350		<	340	
Benzo(k)fluoranthene	<	360		<	370		<	350		<	340		<	340		<	350		<	340	
Benzo(a)pyrene	<	360		<	370		<	350		<	340		<	340		<	350		<	340	
Indeno(1,2,3-cd)pyrene	<	360		<	370		<	350		<	340		<	340		<	350		<	340	
Dibenz(a,h)anthracene	<	360		<	370		<	350		<	340		<	340		<	350		<	340	
Benzo(g,h,i)perylene	<	360		250		J	<	350		<	340		<	340		<	350		<	340	

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Sample location Date sampled Sample Number	SB09-0.5 10/21/1998 ECMP6			SB09-0.5 Dup 10/21/1998 ECMP7			SB09 10/21/1998 ECMP8			SB10-0.5 10/20/1998 ECMN0			SB10-0.5 Dup 10/20/1998 ECMN1			SB10-2 10/20/1998 ECMN2			SB10-6 10/20/1998 ECMN3		
	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.
SEMIVOLATILE ORGANICS																					
Units		µg/kg			µg/kg			µg/kg			µg/kg			µg/kg			µg/kg			µg/kg	
1,2-Dichlorobenzene	<	350		<	350		<	350		<	360		<	360		<	340		<	350	
4-Methylphenol	<	350		<	350		<	350		<	360		<	360		<	340		<	350	
Naphthalene	<	350		<	350		<	350		<	360		<	360		<	340		<	350	
2-Methylnaphthalene	<	350		<	350		<	350		<	360		<	360		<	340		<	350	
Acenaphthylene	<	350		<	350		<	350		<	360		<	360		<	340		<	350	
Acenaphthene	<	350		<	350		<	350		<	360		<	360		<	340		<	350	
Dibenzofuran	<	350		<	350		<	350		<	360		<	360		<	340		<	350	
Diethylphthalate	<	350		<	350		<	350		<	360		<	360		<	340		<	350	
Fluorene	<	350		<	350		<	350		<	360		<	360		<	340		<	350	
Phenanthrene	<	350		<	350		<	350		<	360		<	360		<	340		<	350	
Anthracene	<	350		<	350		<	350		<	360		<	360		<	340		<	350	
Carbazole	<	350		<	350		<	350		<	360		<	360		<	340		<	350	
Di-n-butylphthalate	<	350	J	<	350	J	<	350	J	<	360		<	360		<	340		<	350	
Fluoranthene	<	350		<	350		<	350		<	360		<	360		<	340		<	350	
Pyrene	<	350		<	350		<	350		<	360		<	360		<	340		<	350	
Butylbenzylphthalate	<	350		<	350		<	350		<	360		<	360		<	340		<	350	
Benzo(a)anthracene	<	350		<	350		<	350		<	360		<	360		<	340		<	350	
Chrysene	<	350		<	350		<	350		<	360		<	360		<	340		<	350	
bis(2-Ethylhexyl)phthalate	440		J	470		J	2600		J	140		J	150		J	71		J	<	350	
Di-n-octylphthalate	<	350	J	<	350	J	<	350	J	56		J	70		J	<	340		<	350	
Benzo(b)fluoranthene	<	350		<	350		<	350		<	360		<	360		<	340		<	350	
Benzo(k)fluoranthene	<	350		<	350		<	350		<	360		<	360		<	340		<	350	
Benzo(a)pyrene	<	350		<	350		<	350		<	360		<	360		<	340		<	350	
Indeno(1,2,3-cd)pyrene	<	350		<	350		<	350		<	360		<	360		<	340		<	350	
Dibenz(a,h)anthracene	<	350		<	350		<	350		<	360		<	360		<	340		<	350	
Benzo(g,h,i)perylene	<	350		<	350		<	350		<	360		<	360		<	340		<	350	

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Construction Debris Area Soil Analytical Results - October 1998
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Sample location Date sampled Sample Number	SB11-0.5 10/21/1998 ECMP3			SB11-2 10/21/1998 ECMP4			SB11-6 10/21/1998 ECMP5			SB12-0.5 10/20/1998 ECMP0			SB12-2 10/20/1998 ECMP1			SB12-6 10/20/1998 ECMP2			SB13-0.5 10/20/1998 ECMN7		
	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.
SEMIVOLATILE ORGANICS																					
Units		µg/kg			µg/kg			µg/kg			µg/kg			µg/kg			µg/kg			µg/kg	
1,2-Dichlorobenzene	<	360		<	340		<	340		<	350		<	340		<	690		<	370	
4-Methylphenol	<	360		<	340		<	340		<	350		<	340		<	690		<	370	
Naphthalene	<	360		<	340		<	340		<	350		<	340		<	690		<	370	
2-Methylnaphthalene	<	360		<	340		<	340		<	350		<	340		<	690		<	370	
Acenaphthylene	<	360		<	340		<	340		<	350		<	340		<	690		<	370	
Acenaphthene	<	360		160		J	<	340		<	350		<	340		<	690		<	370	
Dibenzofuran	<	360		78		J	<	340		<	350		<	340		<	690		<	370	
Diethylphthalate	<	360		<	340		<	340		<	350		<	340		<	690		<	370	
Fluorene	<	360		160		J	<	340		<	350		<	340		<	690		<	370	
Phenanthrene	<	200	J	3300			<	340		<	350		<	340		<	690		<	370	
Anthracene	<	360		460			<	340		<	350		<	340		<	690		<	370	
Carbazole	<	360		210		J	<	340		<	350		<	340		<	690		<	370	
Di-n-butylphthalate	<	360	J	<	340		<	340	J	<	350		<	340		<	690		<	370	
Fluoranthene	400			4600			51		J	<	350		<	340		<	690		100		J
Pyrene	470			3800			<	340		<	350		<	340		<	690		110		J
Butylbenzylphthalate	<	360		<	340		<	340		<	350		<	340		<	690		<	370	
Benzo(a)anthracene	280		J	1500			42		J	<	350		<	340		<	690		64		J
Chrysene	320		J	1400			51		J	<	350		<	340		<	690		72		J
bis(2-Ethylhexyl)phthalate	42		J	74		J	39		J	440		290		J	3400			160		J	
Di-n-octylphthalate	<	360	J	<	340	J	<	340	J	<	350		<	340		<	690		<	370	
Benzo(b)fluoranthene	560			1900			75		J	<	350		<	340		<	690		93		J
Benzo(k)fluoranthene	150		J	560			<	340		<	350		<	340		<	690		370		
Benzo(a)pyrene	430			1500			57		J	<	350		<	340		<	690		66		J
Indeno(1,2,3-cd)pyrene	540			490			48		J	<	350		<	340		<	690		57		J
Dibenz(a,h)anthracene	140		J	130		J	<	340		<	350		<	340		<	690		370		
Benzo(g,h,i)perylene	710			470			63		J	<	350		<	340		<	690		81		J

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Sample location Date sampled Sample Number	SB13-2 10/20/1998 ECMN8			SB13-6 10/20/1998 ECMN9			SB14-0.5 10/20/1998			SB14-2 10/20/1998			SB14-6 10/20/1998			SB15-0.5 10/19/1998			SB15-2 10/19/1998		
	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.
SEMIVOLATILE ORGANICS																					
Units	µg/kg			µg/kg			µg/kg			µg/kg			µg/kg			µg/kg			µg/kg		
1,2-Dichlorobenzene	<	350		<	360		<	400		<	340		<	370		<	370		<	350	
4-Methylphenol	<	350		<	360		<	400		<	340		<	370		<	370		<	350	
Naphthalene	<	350		<	360		<	400		<	340		120		J	<	370		<	350	
2-Methylnaphthalene	<	350		<	360		<	400		<	340		<	370		<	370		<	350	
Acenaphthylene	<	350		<	360		<	400		<	340		<	370		<	370		<	350	
Acenaphthene	<	350		<	360		<	400		<	340		<	370		73		J	<	350	
Dibenzofuran	<	350		<	360		<	400		<	340		<	370		<	370		<	350	
Diethylphthalate	<	350		<	360		<	400		<	340		<	370		<	370		<	350	
Fluorene	<	350		<	360		<	400		<	340		<	370		<	370		<	350	
Phenanthrene	<	350		<	360		<	400		<	340		<	370		360		J	280		J
Anthracene	<	350		<	360		<	400		<	340		<	370		63		J	53		J
Carbazole	<	350		<	360		<	400		<	340		<	370		37		J	<	350	
Di-n-butylphthalate	<	350		<	360		<	400		<	340		<	370		<	370	J	<	350	J
Fluoranthene	<	350		43		J	59		J	<	340		44		J	730		J	450		J
Pyrene	<	350		44		J	64		J	40		J		53	J	900		J	540		J
Butylbenzylphthalate	<	350		<	360		54		J	<	340		<	370		<	370		<	350	
Benzo(a)anthracene	<	350		<	360		41		J	<	340		<	370		620		J	260		J
Chrysene	<	350		<	360		59		J	<	340		<	370		760		J	270		J
bis(2-Ethylhexyl)phthalate	150		J	960		J	190		J	2900		J	30000		J	<	370		<	350	
Di-n-octylphthalate	<	350		<	360		<	400		<	340		<	370		<	370		<	350	
Benzo(b)fluoranthene	<	350		38		J	82		J	<	340		52		J	1600		J	390		J
Benzo(k)fluoranthene	<	350		<	360		400		J	<	340		<	370		400		J	140		J
Benzo(a)pyrene	<	350		<	360		53		J	<	340		<	370		1000		J	290		J
Indeno(1,2,3-cd)pyrene	<	350		<	360		48		J	<	340		<	370		1200		J	230		J
Dibenz(a,h)anthracene	<	350		<	360		400		J	<	340		<	370		320		J	57		J
Benzo(g,h,i)perylene	<	350		<	360		86		J	<	340		38		J	1500		J	310		J

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Himco Dump Superfund Site
Elkhart, Indiana

Sample location Date sampled Sample Number	SB15-6 10/19/1998			SB16-05 10/15/1998			SB16-2 10/15/1998			SB16-6 10/15/1998			SB16-6 Dup 10/15/1998			SB17-0.5 10/15/1998			SB17-2 10/15/1998			
	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	
SEMIVOLATILE ORGANICS																						
Units		µg/kg			µg/kg			µg/kg			µg/kg			µg/kg			µg/kg			µg/kg		
1,2-Dichlorobenzene	<	330		<	350		<	350		98		J	63		J	<	360		<	350		
4-Methylphenol	<	330		<	350		<	350		<	410		<	390		<	360		<	350		
Naphthalene	38		J	<	350		<	350		120		J	130		J	<	360		<	350		
2-Methylnaphthalene	<	330		<	350		<	350		<	410		<	390		<	360		<	350		
Acenaphthylene	67		J	<	350		<	350		<	410		<	390		<	360		<	350		
Acenaphthene	<	330		<	350		<	350		<	410		<	390		<	360	J	<	350		
Dibenzofuran	<	330		<	350		<	350		<	410		<	390		<	360		<	350		
Diethylphthalate	<	330		<	350		<	350		64		J	46		J	<	360		<	350		
Fluorene	<	330		<	350		<	350		<	410		<	390		<	360		<	350		
Phenanthrene	170		J	37		J	100		J	270		J	250		J	380			83		J	
Anthracene	41		J	<	350		<	350		53		J	57		J	59		J	<	350		
Carbazole	<	330		<	350		<	350		<	410		<	390		64		J	<	350		
Di-n-butylphthalate	<	330		<	350		<	350		<	410		390			<	360		<	350		
Fluoranthene	360			91		J	210		J	710			<	660		760			150		J	
Pyrene	430			78		J	190		J	670			610			510		J	120		J	
Butylbenzylphthalate	<	330		<	350	J	<	350	J	60		J	<	390	J	<	360	J	<	350	J	
Benzo(a)anthracene	250		J	39		J	100		J	400		J	350		J	260		J	66		J	
Chrysene	260		J	47		J	110		J	450		J	400		J	330		J	76		J	
bis(2-Ethylhexyl)phthalate	<	330		410		J	160		J	270		J	120		J	51		J	36		J	
Di-n-octylphthalate	<	330		<	350	J	<	350	J	<	410	J	<	390	J	<	360	J	<	350	J	
Benzo(b)fluoranthene	490			44		J	120		J	750			430			280		J	55		J	
Benzo(k)fluoranthene	140		J	50		J	120		J	900			440			340		J	77		J	
Benzo(a)pyrene	430			53		J	120		J	530			450			280		J	62		J	
Indeno(1,2,3-cd)pyrene	400			41		J	82		J	380		J	360		J	270		J	58		J	
Dibenz(a,h)anthracene	99		J	350			43		J	160		J	150		J	120		J	350		J	
Benzo(g,h,i)perylene	550			39		J	89		J	280		J	250		J	220		J	47		J	

RL = Reporting Limit (For this data set the Reporting Limit is the Contract Required Quantitation Limit)
 J= Estimated Value
 R=Rejected Value (The data is unusable.)

Construction Debris Area Soil Analytical Results - October 1998
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Elkhart, Indiana

Sample location Date sampled Sample Number	SB18-0.5 10/19/1998			SB18-2 10/19/1998			SB18-6 10/19/1998			SB19-0.5 10/15/1998			SB19-2 10/15/1998			SB19-6 10/15/1998			SB20-0.5 10/15/1998		
	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.	Result	RL	Qual.
SEMIVOLATILE ORGANICS																					
Units		µg/kg			µg/kg			µg/kg			µg/kg			µg/kg			µg/kg			µg/kg	
1,2-Dichlorobenzene	<	370		<	360		<	370		<	360		<	370		<	490		<	360	
4-Methylphenol	<	370		<	360		<	370		<	360		<	370		<	490		<	360	
Naphthalene	<	370		50		J	<	370		<	360		<	370		<	490		<	360	
2-Methylnaphthalene	<	370		48		J	<	370		<	360		<	370		<	490		<	360	
Acenaphthylene	<	370		83		J	<	370		96		J	290		J	<	490		<	360	
Acenaphthene	<	370		37		J	<	370		<	360		<	370		<	490		180		J
Dibenzofuran	<	370		<	360		<	370		<	360		<	370		<	490		<	360	
Diethylphthalate	<	370		<	360		<	370		<	360		<	370		<	490		<	360	
Fluorene	<	370		44		J	<	370		<	360		71		J	<	490		<	360	
Phenanthrene	320		J	590			86		J	160		J	450			190		J	460		
Anthracene	67		J	130		J	<	370		76		J	170		J	<	490		110		J
Carbazole	46		J	49		J	<	370		<	360		49		J	<	490		58		J
Di-n-butylphthalate	<	370		<	360		<	370		95		J	37		J	<	490		<	360	
Fluoranthene	510			1200			130		J	490			1700			490			1200		
Pyrene	470			1500			170		J	530			1900			420		J	1200		
Butylbenzylphthalate	<	370		<	360		<	370		<	360	J	<	370	J	<	490	J	<	360	J
Benzo(a)anthracene	<	270		770			77		J	310		J	1100			330		J	780		
Chrysene	<	270		780			100		J	300		J	970			380		J	880		
bis(2-Ethylhexyl)phthalate	<	370		<	360		<	370		73		J	160		J	170		J	90		J
Di-n-octylphthalate	<	370		<	360		<	370		<	360	J	<	370	J	130		J	120		J
Benzo(b)fluoranthene	410			1000			100		J	380			1700			690			1200		
Benzo(k)fluoranthene	89		J	340		J	370			360			2100			830			1200		
Benzo(a)pyrene	280		J	900			89		J	430			1400			480		J	1300		
Indeno(1,2,3-cd)pyrene	200		J	720			54		J	370			1100			410		J	1200		
Dibenz(a,h)anthracene	58		J	200		J	370			130		J	360		J	140		J	450		
Benzo(g,h,i)perylene	240		J	820			93		J	340		J	940			400		J	1000		

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J= Estimated Value
R=Rejected Value (The data is unusable.)

Construction Debris Area Soil Analytical Results - October 1998
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Date sampled Sample Number	SB20-2 10/15/1998			SB20-6 10/16/1998		
	Result	RL	Qual.	Result	RL	Qual.
SEMIVOLATILE ORGANICS						
Units		µg/kg			µg/kg	
1,2-Dichlorobenzene	<	360		<	350	
4-Methylphenol	50		J	<	350	
Naphthalene	290		J	2200		
2-Methylnaphthalene	160		J	1000		
Acenaphthylene	140		J	2300		
Acenaphthene	220		J	890		
Dibenzofuran	170		J	1500		
Diethylphthalate	<	360		<	350	
Fluorene	250		J	2500		
Phenanthrene	1900			18000		
Anthracene	450			4900		J
Carbazole	280		J	1500		
Di-n-butylphthalate	<	360		<	350	
Fluoranthene	2100			29000		
Pyrene	2500			21000		
Butylbenzylphthalate	<	360	J	<	350	J
Benzo(a)anthracene	1700			9700		
Chrysene	1400			9700		
bis(2-Ethylhexyl)phthalate	62		J	81		J
Di-n-octylphthalate	<	360		<	350	J
Benzo(b)fluoranthene	2800			9700		
Benzo(k)fluoranthene	1200			10000		
Benzo(a)pyrene	1700			11000		
Indeno(1,2,3-cd)pyrene	1200			6400		
Dibenz(a,h)anthracene	450			2000		
Benzo(g,h,i)perylene	1100			7100		

RL = Reporting Limit (For this data set the Reporting Limit is the Contract Required Quantitation Limit)
 J= Estimated Value
 R=Rejected Value (The data is unusable.)

Soil Gas Analytical Results - November 1998
Himco Dump Superfund Site
Elkhart, Indiana

Sample Location Units	TT-11		TT-12		TT-13		TT-14			TT-14 Duplicate		TT-15	
	Result	RL	Result	RL	Result	RL	Result	RL	Qual	Result	RL	Result	RL
Analyte													
Vinyl Chloride	<	0.26	<	0.24	<	33	77		J	100		<	0.47
Bromomethane	<	0.52	<	0.48	<	66	1.0			<	64	<	0.94
Chloroethane	<	0.26	<	0.24	200		36			<	32	<	0.47
1,1-Dichloroethene	<	0.26	<	0.24	<	33	6.8			<	32	<	0.47
Carbon Disulfide	1.2		<	0.24	<	33	86		J	130		<	2.8
Acetone	<	2.6	<	2.4	<	330	<	2.30		<	320	<	4.70
Methylene Chloride	<	0.26	<	0.24	<	33	6.8		J	<	32	<	0.47
trans-1,2-Dichloroethene	<	0.26	<	0.24	<	33	12			<	32	<	0.47
1,1-Dichloroethane	<	0.26	<	0.24	470		590		J	2400		<	0.47
2-Butanone	<	2.6	<	2.4	<	330	<	2.30		<	320	<	4.70
Chloroform	<	0.26	<	0.24	<	33	<	0.23		<	32	<	0.47
1,1,1-Trichloroethane	<	0.26	<	0.24	<	33	250		J	300		<	0.47
Carbon Tetrachloride	<	0.26	<	0.24	<	33	40			<	32	<	0.47
Benzene	1.8		1.4		470		180		J	200		<	2.07
1,2-Dichloroethane	<	0.26	<	0.24	<	33	<	0.23		<	32	<	0.47
Trichloroethene	<	0.26	<	0.24	<	33	270		J	270		<	0.47
1,2-Dichloropropane	<	0.26	<	0.24	<	33	25			<	32	<	0.47
trans-1,3-Dichloropropene	<	0.26	<	0.24	<	33	<	0.23		<	32	<	0.47
Toluene	<	0.26	<	0.24	230		95		J	91		0.89	
cis-1,3-Dichloropropene	<	0.26	<	0.24	<	33	<	0.23		<	32	<	0.47
Tetrachloroethene	<	0.26	<	0.24	<	33	230		J	260		<	0.47
2-Hexanone	<	0.26	<	0.24	<	33	<	0.23		<	32	<	0.47
Chlorobenzene	<	0.26	<	0.24	<	33	11			<	32	<	0.47
Ethyl Benzene	<	0.26	0.54		3100		420		J	340		1.1	
m,p-Xylene	<	0.26	1.3		7100		730		J	400		1.4	
o-Xylene	<	0.26	<	0.24	220		390		J	320		0.52	
Styrene	<	0.26	<	0.24	<	33	13			<	32	<	0.47
cis-1,2-Dichloroethene	<	0.26	<	0.24	<	33	290		J	250		<	0.47

J= Estimated Value
NR= Not measured
R= Rejected Value (The data is unusable.)

Soil Gas Analytical Results - November 1998
Himco Dump Superfund Site
Eikhart, Indiana

Sample Location Units	TT-16			TT-17		TT-18		TT-19			TT-20		TT-21	
	Result	RL	Qual	Result	RL	Result	RL	Result	RL	Qual	Result	RL	Result	RL
Analyte														
Vinyl Chloride	61			20		180		18000		J	<	0.15		NR
Bromomethane	<	1.8		<	16	<	60	<	160		<	0.3		NR
Chloroethane	<	3.6		<	8.1	<	30	<	79		<	0.15		NR
1,1-Dichloroethene	<	1.8		<	8.1	69		130			<	0.15		NR
Carbon Disulfide	4.7			19		920		2800			<	0.15		NR
Acetone	<	18		<	81	<	300	<	790		1.5			NR
Methylene Chloride	<	1.8		<	8.1	<	30	790			0.57			NR
trans-1,2-Dichloroethene	4.6			<	8.1	<	30	<	79		<	0.15		NR
1,1-Dichloroethane	89			57		<	30	<	79		<	0.15		NR
2-Butanone	<	18		<	81	<	300	<	790		<	1.5		NR
Chloroform	<	1.8		<	8.1	<	30	<	79		<	0.15		NR
1,1,1-Trichloroethane	<	1.8		40	8.1	<	30	<	79		<	0.15		NR
Carbon Tetrachloride	<	1.8		<	8.1	<	30	<	79		<	0.15		NR
Benzene	190			37	8.1	200	30	<	79		0.36	0.15		NR
1,2-Dichloroethane	<	1.8		<	8.1	<	30	<	79		<	0.15		NR
Trichloroethene	14			9.5	8.1	340	30	<	79		<	0.15		NR
1,2-Dichloropropane	18			14		<	30	<	79		<	0.15		NR
trans-1,3-Dichloropropene	<	1.8		<	8.1	<	30	<	79		<	0.15		NR
Toluene	5.6			35		240		<	79		1.3			NR
cis-1,3-Dichloropropene	<	1.8		<	8.1	<	30	<	79		<	0.15		NR
Tetrachloroethene	<	1.8		NR		460		<	79		<	0.15		NR
2-Hexanone	<	1.8		NR		<	30	<	79		<	0.15		NR
Chlorobenzene	<	1.8		NR		51		<	79		<	0.15		NR
Ethyl Benzene	<	1.8		NR		3200		150			0.16			NR
m,p-Xylene	2.4		B	NR		1700		93			0.54			NR
o-Xylene	<	1.8		NR		600		<	79		0.18			NR
Styrene	<	1.8		NR		<	30	<	79		0.54			NR
cis-1,2-Dichloroethene	17			<	8.1	65		560			<	0.15		NR

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 NR= Not measured
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Soil Gas Analytical Results - November 1998
Himco Dump Superfund Site
Elkhart, Indiana

Sample Location Units	TT-22			TT-23		TT-24		TT-25		TT-26			TT-26 (Duplicate)	
	Result	$\mu\text{a}/\text{m}^3$ RL	Qual	Result	$\mu\text{a}/\text{m}^3$ RL	Result	$\mu\text{a}/\text{m}^3$ RL	Result	$\mu\text{a}/\text{m}^3$ RL	Result	$\mu\text{a}/\text{m}^3$ RL	Qual	Result	$\mu\text{a}/\text{m}^3$ RL
Analyte														
Vinyl Chloride	0.15			<	0.12	<	0.12	<	0.12	22000		J	23000	
Bromomethane	<	0.26		<	0.24	<	0.24	<	0.23	<	150		<	850
Chloroethane	0.56			<	0.12	<	0.12	<	0.12	<	75		<	420
1,1-Dichloroethene	<	0.13		<	0.12	<	0.12	<	0.12	310			<	420
Carbon Disulfide	0.30			<	0.12	<	0.12	0.12		3000			6200	
Acetone	3.7			1.5		1.2		2.5		<	750		<	4200
Methylene Chloride	<	0.13		<	0.12	<	0.12	<	0.12	<	75		<	420
trans-1,2-Dichloroethene	0.39			<	0.12	<	0.12	<	0.12	<	75		<	420
1,1-Dichloroethane	46		J	<	0.12	<	0.12	<	0.12	440			<	420
2-Butanone	<	1.3		<	1.17	<	1.16	<	1.15	<	750		<	4200
Chloroform	1.5	0.13		0.30	0.12	0.61	0.12	<	0.12	280			<	420
1,1,1-Trichloroethane	4.9	0.13		0.28	0.12	0.22	0.12	0.25	0.12	<	75		<	420
Carbon Tetrachloride	0.13	0.13		0.12	0.12	<	0.12	<	0.12	<	75		<	420
Benzene	0.93	0.13		<	0.12	<	0.12	<	0.12	220	75		<	420
1,2-Dichloroethane	<	0.13		<	0.12	<	0.12	<	0.12	<	75		<	420
Trichloroethene	3.5	0.13		<	0.12	<	0.12	<	0.12	15000	75	J	21000	420
1,2-Dichloropropane	<	0.13		<	0.12	<	0.12	<	0.12	<	75		<	420
trans-1,3-Dichloropropene	0.18	0.13		<	0.12	<	0.12	<	0.12	<	75		<	420
Toluene	0.28			<	0.12	<	0.12	<	0.12	11000			13000	
cis-1,3-Dichloropropene	0.14			<	0.12	<	0.12	<	0.12	<	75		<	420
Tetrachloroethene	300		J	12		0.20		1.1		44000		J	80000	
2-Hexanone	<	0.13		<	0.12	<	0.12	<	0.12	<	75		<	420
Chlorobenzene	<	0.13		<	0.12	<	0.12	<	0.12	<	75		<	420
Ethyl Benzene	<	0.13		<	0.12	<	0.12	<	0.12	10000			15000	
m,p-Xylene	0.30			<	0.12	<	0.12	<	0.12	5700			8500	
o-Xylene	<	0.13		<	0.12	<	0.12	<	0.12	1400			2000	
Styrene	0.67			<	0.12	<	0.12	<	0.12	360.0			<	420
cis-1,2-Dichloroethene	<	0.13		<	0.12	<	0.12	<	0.12	1900			1700	

J= Estimated Value
 NR= Not measured
 R= Rejected Value (The data is unusable.)

Soil Gas Analytical Results - November 1998
Himco Dump Superfund Site
Elkhart, Indiana

Sample Location	TT-27		TT-28		TT-29		TT-30		TT-31		TT-32		Qual
	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	
Analyte													
Vinyl Chloride	<	31	<	2.4	<	0.30	<	0.31	<	0.31	18		
Bromomethane	66		<	4.7	<	0.60	<	0.62	<	0.62	<	1.9	
Chloroethane	<	31	<	2.4	<	0.30	<	0.31	<	0.31	2.7		
1,1-Dichloroethene	<	31	<	2.4	<	0.30	0.45		0.31	0.31	1.8		
Carbon Disulfide	<	31	7.1	2.4	<	1.5	<	0.95	<	1.1	9.9		
Acetone	<	310	<	23.6	<	3.0	<	3.1	<	3.1	<	9.4	
Methylene Chloride	<	31	<	2.4	<	0.30	<	0.31	<	0.3	<	0.94	
trans-1,2-Dichloroethene	<	31	<	2.4	<	0.30	0.52		0.31	0.45	4.0		
1,1-Dichloroethane	<	31	<	2.4	<	0.30	<	0.31	<	0.3	360		J
2-Butanone	<	310	<	23.6	<	2.98	<	3.1	<	3.1	<	9.4	
Chloroform	<	31	<	2.4	<	0.30	<	0.31	<	0.31	<	0.94	
1,1,1-Trichloroethane	<	31	<	2.4	7.3	0.30	<	0.31	<	0.31	<	0.94	
Carbon Tetrachloride	<	31	<	2.4	<	0.30	<	0.31	<	0.31	<	0.94	
Benzene	<	31	100		1.5		1.9		2.0		41		
1,2-Dichloroethane	<	31	<	2.4	<	0.30	<	0.31	<	0.31	1.7		R
Trichloroethene	90	31	14		<	0.30	<	0.31	<	0.31	16		
1,2-Dichloropropane	<	31	<	2.4	<	0.30	<	0.31	<	0.31	9.9		
trans-1,3-Dichloropropene	<	31	<	2.4	<	0.30	<	0.31	<	0.31	<	0.94	
Toluene	<	31	6.6		0.33		0.67		0.67		4.0		
cis-1,3-Dichloropropene	<	31	<	2.4	<	0.30	<	0.31	<	0.31	<	0.94	
Tetrachloroethene	4000		61		230		<	0.31	<	0.31	1.7		B
2-Hexanone	<	31	<	2.4	<	0.30	<	0.31	<	0.31	<	0.94	
Chlorobenzene	<	31	<	2.4	<	0.30	<	0.31	<	0.31	11		
Ethyl Benzene	<	31	52		<	0.30	0.81		0.63		1.8	0.94	
m,p-Xylene	<	31	52		0.51	0.30	1.5		1.3		4.5	0.94	
o-Xylene	<	31	31		<	0.30	0.76		0.53		4.7	0.94	
Styrene	<	31	2.6		<	0.30	<	0.31	<	0.31	<	0.94	
cis-1,2-Dichloroethene	<	31	5.7		<	0.30	0.44		0.33		8.9	0.94	

J= Estimated Value
NR= Not measured
R= Rejected Value (The data is unusable.)

Soil Gas Analytical Results - November 1998
Himco Dump Superfund Site
Elkhart, Indiana

Sample Location Units	TT-33		TT-34			TT-35		TT-36		TT-37			TT-38	
	Result	RL	Result	RL	Qual	Result	RL	Result	RL	Result	RL	Qual	Result	RL
Analyte														
Vinyl Chloride	<	3.4	220			<	0.22	<	0.22	<	0.22		<	0.23
Bromomethane	<	6.9	<	9.0		<	0.44	<	0.44	<	0.44		<	0.45
Chloroethane	3.8		5.7			<	0.22	<	0.22	<	0.22		<	0.23
1,1-Dichloroethene	<	3.4	<	4.5		<	0.22	<	0.22	<	0.22		<	0.23
Carbon Disulfide	7.3		29			1.2		<	0.22	0.61			0.63	
Acetone	<	34.0	<	45		<	2.2	<	2.2	<	2.2		<	2.3
Methylene Chloride	<	3.4	<	4.5		<	0.22	<	0.22	<	0.22		<	0.23
trans-1,2-Dichloroethene	6.9		21			<	0.22	<	0.22	<	0.22		<	0.23
1,1-Dichloroethane	9.2		47			<	0.22	<	0.22	<	0.22		<	0.23
2-Butanone	<	34	<	45		<	2.2	<	2.2	<	2.2		<	2.3
Chloroform	<	3.4	<	4.5		<	0.22	<	0.22	<	0.22		<	0.23
1,1,1-Trichloroethane	<	3.4	<	4.5		<	0.22	0.32		0.83			0.68	
Carbon Tetrachloride	<	3.4	<	4.5		<	0.22	<	0.22	<	0.22		<	0.23
Benzene	210		750			<	0.22	<	0.22	<	0.22		<	0.23
1,2-Dichloroethane	<	3.4	<	4.5		<	0.22	<	0.22	<	0.22		<	0.23
Trichloroethene	8.7		43			<	0.22	<	0.22	<	0.22		<	0.23
1,2-Dichloropropane	<	3.4	<	4.5		<	0.22	<	0.22	<	0.22		<	0.23
trans-1,3-Dichloropropene	<	3.4	<	4.5		<	0.22	<	0.22	<	0.22		<	0.23
Toluene	20		190			<	0.45	<	0.23	<	0.41		<	0.35
cis-1,3-Dichloropropene	<	3.4	<	4.5		<	0.22	<	0.22	<	0.22		<	0.23
Tetrachloroethene	<	3.4	380			0.76		2.7		130		J	14	
2-Hexanone	<	3.4	<	4.5		1.8		<	0.22	<	0.22		<	0.23
Chlorobenzene	18		<	4.5		<	0.22	<	0.22	<	0.22		<	0.23
Ethyl Benzene	22		1000		J	<	0.22	<	0.22	<	0.22		<	0.23
m,p-Xylene	64		900			<	0.22	<	0.22	<	0.22		<	0.23
o-Xylene	4.6		340			<	0.22	<	0.22	<	0.22		<	0.23
Styrene	<	3.4	<	4.5		<	0.22	<	0.22	<	0.22		<	0.23
cis-1,2-Dichloroethene	9.2		38			<	0.22	<	0.22	<	0.22		<	0.23

J= Estimated Value
NR= Not measured
R= Rejected Value (The data is unusable.)

Soil Gas Analytical Results - November 1998
Himco Dump Superfund Site
Elkhart, Indiana

Sample Location Units	TT-39			TT-39 (Dup)			TT-40			TT-41		TT-42		TT-43	
	Result	$\mu\text{a}/\text{m}^3$ RL	Qual	Result	$\mu\text{a}/\text{m}^3$ RL	Qual	Result	$\mu\text{a}/\text{m}^3$ RL	Qual	Result	$\mu\text{a}/\text{m}^3$ RL	Result	$\mu\text{a}/\text{m}^3$ RL	Result	$\mu\text{a}/\text{m}^3$ RL
Analyte															
Vinyl Chloride	<	0.22		<	0.22		<	0.23		<	0.2	<	0.22	<	0.22
Bromomethane	<	0.44		<	0.44		<	0.45		<	0.41	0.61		<	0.44
Chloroethane	<	0.22		<	0.22		<	0.23		<	0.2	<	0.22	<	0.22
1,1-Dichloroethene	<	0.22		<	0.22		0.50			<	0.2	<	0.22	<	0.22
Carbon Disulfide	0.45			0.26			0.72			1.3		0.23		0.61	
Acetone	<	2.2		<	2.2		<	2.3		<	2.0	<	2.2	<	2.2
Methylene Chloride	<	0.22		<	0.22		1.4			<	0.2	<	0.22	<	0.22
trans-1,2-Dichloroethene	<	0.22		<	0.22		2.5			<	0.2	<	0.22	<	0.22
1,1-Dichloroethane	<	0.22		<	0.22		4.2			<	0.2	<	0.22	<	0.22
2-Butanone	<	2.2		<	2.2		<	2.3		<	2.0	<	2.2	<	2.2
Chloroform	<	0.22		<	0.22		2.9			<	0.2	1.6		<	0.22
1,1,1-Trichloroethane	0.76			0.67			9.1			0.26		0.25		0.22	
Carbon Tetrachloride	<	0.22		<	0.22		<	0.23		<	0.2	<	0.22	<	0.22
Benzene	<	0.22		<	0.22		1.1			<	0.2	<	0.22	<	0.22
1,2-Dichloroethane	<	0.22		<	0.22		<	0.23		<	0.2	<	0.22	<	0.22
Trichloroethene	<	0.22		<	0.22		77		J	<	0.2	<	0.22	<	0.22
1,2-Dichloropropane	<	0.22		<	0.22		<	0.23		<	0.2	<	0.22	<	0.22
trans-1,3-Dichloropropene	<	0.22		<	0.22		<	0.23		<	0.2	<	0.22	<	0.22
Toluene	2.4			0.71			2.5			0.36		0.87		0.70	
cis-1,3-Dichloropropene	<	0.22		<	0.22		<	0.23		<	0.2	<	0.22	<	0.22
Tetrachloroethene	110		J	89		J	1100		J	<	0.2	1.0		10	
2-Hexanone	<	0.22		<	0.22		<	0.23		<	0.2	<	0.22	<	0.22
Chlorobenzene	<	0.22		<	0.22		<	0.23		<	0.2	<	0.22	<	0.22
Ethyl Benzene	<	0.22		<	0.22		0.63			<	0.2	<	0.22	<	0.22
m,p-Xylene	<	0.22		<	0.22		0.91			<	0.2	<	0.22	<	0.22
o-Xylene	<	0.22		<	0.22		0.38			<	0.2	<	0.22	<	0.22
Styrene	<	0.22		<	0.22		<	0.23		<	0.2	<	0.22	<	0.22
cis-1,2-Dichloroethene	<	0.22		<	0.22		7.7			<	0.2	<	0.22	<	0.22

J= Estimated Value
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R= Rejected Value (The data is unusable.)

Soil Gas Analytical Results - November 1998
Himco Dump Superfund Site
Elkhart, Indiana

Sample Location Units	TT-44		TT-45			TT-46		TT-46 (Duplicate)		TT-47			TT-48	
	Result	RL	Result	RL	Qual	Result	RL	Result	RL	Result	RL	Qual	Result	RL
Analyte														
Vinyl Chloride	<	0.23	<	0.22		<	0.22	<	0.22	<	0.23		<	0.22
Bromomethane	<	0.45	<	0.43		<	0.45	<	0.45	0.63			<	0.43
Chloroethane	<	0.23	<	0.22		<	0.22	<	0.22	<	0.23		<	0.22
1,1-Dichloroethene	<	0.23	<	0.22		<	0.22	<	0.22	<	0.23		<	0.22
Carbon Disulfide	0.28		0.57			1.4		0.63		1.2			1.1	
Acetone	<	2.3	<	2.2		2.3		<	2.2	<	2.3		<	2.2
Methylene Chloride	<	0.23	<	0.22		<	0.22	<	0.22	<	0.23		<	0.22
trans-1,2-Dichloroethene	<	0.23	<	0.22		<	0.22	<	0.22	<	0.23		<	0.22
1,1-Dichloroethane	<	0.23	2.6			1.5		0.94		6.8			4.7	
2-Butanone	<	2.3	<	2.2		<	2.25	<	2.2	<	2.3		<	2.2
Chloroform	<	0.23	1.0			1.7		1.0		2.4			0.22	
1,1,1-Trichloroethane	<	0.23	100		J	5.9		3.4		68		J	6.0	
Carbon Tetrachloride	<	0.23	<	0.22		<	0.22	<	0.22	<	0.23		<	0.22
Benzene	<	0.23	<	0.22		0.27		<	0.22	<	0.23		0.99	
1,2-Dichloroethane	<	0.23	<	0.22		<	0.22	<	0.22	<	0.23		<	0.22
Trichloroethene	<	0.23	1.6			0.28		<	0.22	<	0.23		2.8	
1,2-Dichloropropane	<	0.23	<	0.22		<	0.22	<	0.22	<	0.23		<	0.22
trans-1,3-Dichloropropene	<	0.23	<	0.22		<	0.22	<	0.22	<	0.23		<	0.22
Toluene	0.73		0.42			3.6		0.80		1.2			6.9	
cis-1,3-Dichloropropene	<	0.23	<	0.22		<	0.22	<	0.22	<	0.23		<	0.22
Tetrachloroethene	1.4		1.2			7.2		5.4		2.0			4.7	
2-Hexanone	<	0.23	<	0.22		<	0.22	<	0.22	<	0.23		<	0.22
Chlorobenzene	<	0.23	<	0.22		<	0.22	<	0.22	<	0.23		<	0.22
Ethyl Benzene	<	0.23	<	0.22		0.30		<	0.22	<	0.23		0.37	
m,p-Xylene	<	0.23	<	0.22		0.54		<	0.22	<	0.23		<	0.22
o-Xylene	<	0.23	<	0.22		<	0.22	<	0.22	<	0.23		<	0.22
Styrene	<	0.23	<	0.22		<	0.22	<	0.22	<	0.23		<	0.22
cis-1,2-Dichloroethene	<	0.23	<	0.22		<	0.22	<	0.22	<	0.23		<	0.22

J= Estimated Value
NR= Not measured
R= Rejected Value (The data is unusable.)

Soil Gas Analytical Results - November 1998
Himco Dump Superfund Site
Elkhart, Indiana

Sample Location Units	TT-49			TT-50		TT-51		TT-52		TT-53	
	Result	$\mu\text{a}/\text{m}^3$ RL	Qual	Result	$\mu\text{a}/\text{m}^3$ RL	Result	$\mu\text{a}/\text{m}^3$ RL	Result	$\mu\text{a}/\text{m}^3$ RL	Result	$\mu\text{a}/\text{m}^3$ RL
Analyte											
Vinyl Chloride	<	0.21		<	0.21	<	0.23	<	0.23	<	0.22
Bromomethane	0.81			<	0.43	<	0.45	<	0.45	<	0.45
Chloroethane	4.3			<	0.21	<	0.23	<	0.45	<	0.22
1,1-Dichloroethene	0.56			<	0.21	<	0.23	<	0.23	<	0.22
Carbon Disulfide	1.2			0.25		0.44		0.50		<	0.22
Acetone	<	2.1		<	2.1	<	2.3	<	2.3	<	2.2
Methylene Chloride	<	0.21		<	0.21	<	0.23	<	0.23	<	0.22
trans-1,2-Dichloroethene	0.51			<	0.21	<	0.23	<	0.23	<	0.22
1,1-Dichloroethane	280		J	0.32		9.0		<	0.23	<	0.22
2-Butanone	<	2.1		<	2.1	<	2.3	<	2.3	<	2.2
Chloroform	<	0.21		<	0.21	<	0.23	<	0.23	<	0.22
1,1,1-Trichloroethane	7.3			0.27		0.37		<	0.23	<	0.22
Carbon Tetrachloride	<	0.21		<	0.21	<	0.23	<	0.23	<	0.22
Benzene	6.0			0.22		0.45		<	0.23	<	0.22
1,2-Dichloroethane	0.38			<	0.21	<	0.23	<	0.23	<	0.22
Trichloroethene	40			1.0		<	0.23	<	0.23	<	0.22
1,2-Dichloropropane	4.7			<	0.21	<	0.23	<	0.23	<	0.22
trans-1,3-Dichloropropene	<	0.21		<	0.21	<	0.23	<	0.23	<	0.22
Toluene	1.2			0.40		0.45		<	0.23	<	0.22
cis-1,3-Dichloropropene	<	0.21		<	0.21	<	0.23	<	0.23	<	0.22
Tetrachloroethene	39			2.1		1.8		<	0.23	<	0.22
2-Hexanone	<	0.21		<	0.21	<	0.23	<	0.23	<	0.22
Chlorobenzene	<	0.21		<	0.21	<	0.23	<	0.23	<	0.22
Ethyl Benzene	6.0			<	0.21	<	0.23	<	0.23	<	0.22
m,p-Xylene	9.4			<	0.21	<	0.23	<	0.23	<	0.22
o-Xylene	3.6			<	0.21	<	0.23	<	0.23	<	0.22
Styrene	<	0.21		<	0.21	<	0.23	<	0.23	<	0.22
cis-1,2-Dichloroethene	2.8			<	0.21	<	0.23	<	0.23	<	0.22

J= Estimated Value
 NR= Not measured
 R= Rejected Value (The data is unusable.)

1999

Soil Gas Analytical Results - October 1999
Himco Dump Superfund Site
Elkhart, Indiana

Sample Location Sample Tube Numbers Compound - Units	TT-54 11009A			TT-61/TT-54 11021A&11009B			TT-55 11014A&B			TT-56 11003A&B			TT-56 Duplicate 11005A&B			TT-57 11108A&B		
	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual
	Chloromethane	<	0.48		<	0.47		<	0.44		<	0.81		<	0.89		<	0.46
Vinyl Chloride	<	0.48		<	0.47		<	0.44		20000	0.81		16000	0.89		<	0.46	
Bromomethane	<	0.48		<	0.47		<	0.44		11	0.81		<	0.89		<	0.46	
Chloroethane	<	0.48		<	0.47		<	0.44		530	0.81		<	0.89		<	0.46	
Freon 11	<	0.48		3.8	0.47	J	0.85	0.44		370	0.81		<	0.89		1.1	0.46	
1,1-Dichloroethene	<	0.48		<	0.47		<	0.44		1900	0.81		<	0.89		<	0.46	
Carbon Disulfide	1.1	0.48	J	0.71	0.47	J	0.71	0.44		19000	0.81		9800	0.89		<	0.46	
Acetone	<	2.4		3.3	2.4	J	<	2.2		<	4.1		<	4.5		4.6	2.3	
Methylene Chloride	<	0.48		<	0.47		<	0.44		<	0.81		<	0.89		<	0.46	
trans-1,2-Dichloroethene	<	0.48		<	0.47		<	0.44		<	0.81		<	0.89		<	0.46	
1,1-Dichloroethane	<	0.48		<	0.47		<	0.44		1500	0.81		<	0.89		<	0.46	
Vinyl Acetate	<	0.48		<	0.5		<	0.44		<	0.81		<	0.89		<	0.46	
2-Butanone	<	2.4		<	2.4		<	0.44		<	4.1		<	4.5		2.7	2.3	
Chloroform	<	0.48		<	0.47		<	0.44		110	0.81		<	0.89		<	0.46	
1,1,1-Trichloroethane	<	0.48		0.57	0.47	J	<	0.44		<	0.81		<	0.89		<	0.46	
Carbon Tetrachloride	<	0.48		<	0.47		<	0.44		<	0.81		<	0.89		<	0.46	
Benzene	<	0.48		<	0.47		<	0.44		380	0.81		<	0.89		<	0.46	
1,2-Dichloroethane	<	0.48		<	0.47		<	0.44		<	0.81		<	0.89		<	0.46	
Trichloroethene	<	0.48		<	0.47		<	0.44		6600	0.81		14000	0.89		<	0.46	
1,2-Dichloropropane	<	0.48		<	0.47		<	0.44		<	0.81		<	0.89		<	0.46	
Bromodichloromethane	<	0.48		<	0.47		<	0.44		<	0.81		<	0.89		<	0.46	
trans-1,3-Dichloropropene	<	0.48		<	0.47		<	0.44		<	0.81		<	0.89		<	0.46	
4-Methyl-2-pentanone	<	2.4		<	2.4		<	2.2		<	4.1		<	4.5		<	2.3	
Toluene	0.58	0.48	J	0.57	0.47	J	<	0.44		2800	0.81		6800	0.89		<	0.46	
cis-1,3-Dichloropropene	<	0.48		<	0.47		<	0.44		<	0.81		<	0.89		<	0.46	
1,1,2-Trichloroethane	<	0.48		<	0.47		<	0.44		<	0.81		<	0.89		<	0.46	
Tetrachloroethene	<	0.48		76	0.47	JE	<	0.44		6000	0.81		34884	0.89		<	0.46	
2-Hexanone	<	0.48		<	0.47		<	0.44		<	0.81		<	0.89		<	0.46	
Dibromochloromethane	<	0.48		<	0.47		<	0.44		<	0.81		<	0.89		<	0.46	
Chlorobenzene	<	0.48		<	0.47		<	0.44		<	0.81		<	0.89		<	0.46	
Ethyl Benzene	<	0.48		<	0.47		<	0.44		1400	0.81		6400	0.89		<	0.46	
m,p-Xylene	<	0.48		<	0.47		<	0.44		900	0.81		4500	0.89		<	0.46	
o-Xylene	<	0.48		<	0.47		<	0.44		270	0.81		980	0.89		<	0.46	
Styrene	<	0.48		<	0.47		<	0.44		90	0.81		<	0.89		<	0.46	
Bromoform	<	0.48		<	0.47		<	0.44		<	0.81		<	0.89		<	0.46	
1,1,1,2-Tetrachloroethane	<	0.48		<	0.47		<	0.44		<	0.81		<	0.89		<	0.46	
1,3-Dichlorobenzene	<	0.48		<	0.47		<	0.44		<	0.81		<	0.89		<	0.46	
1,4-Dichlorobenzene	<	0.48		<	0.47		<	0.44		50	0.81		<	0.89		<	0.46	
1,2-Dichlorobenzene	<	0.48		<	0.47		<	0.44		3.4	0.81		<	0.89		<	0.46	
cis-1,2-Dichloroethene	<	0.48		<	0.47		<	0.44		4200	0.81		2200	0.89		<	0.46	

E: Exceeds instrument calibration
S: Peak Saturation
RL: Reporting Limit
NS: Not Sampled
NR: Not Reported
NA: Not Applicable
<: Not detected.

Soil Gas Analytical Results - October 1999
Himco Dump Superfund Site
Elkhart, Indiana

Sample Location Sample Tube Numbers Compound - Units	TT-58 11019A&B			TT-59 11105A&B			TT-60 11022A&B			TT-61 11021B			TT-62 11107 A&B			TT-63 11104A&B		
	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual
	Chloromethane	<	0.47		<	0.47		<	0.46		<	0.47		<	0.47		<	0.47
Vinyl Chloride	<	0.47		<	0.47		<	0.46		<	0.47		<	0.47		<	0.47	
Bromomethane	<	0.47		<	0.47		<	0.46		<	0.47		<	0.47		<	0.47	
Chloroethane	<	0.47		<	0.47		<	0.46		<	0.47		<	0.47		<	0.47	
Freon 11	3.1	0.47		0.76	0.47		0.78	0.46		1.1	0.47	J	90	0.47		190	0.47	
1,1-Dichloroethene	<	0.47		<	0.47		<	0.46		<	0.47		<	0.47		<	0.47	
Carbon Disulfide	0.66	0.47		4.7	0.47		0.96	0.46		<	0.47		1.2	0.47		0.84	0.47	
Acetone	2.9	2.4		4.4	2.4		4.3	2.3		<	2.3		7.1	2.4		<	2.3	
Methylene Chloride	<	0.47		<	0.47		0.59	0.46		<	0.47		4.7	0.47		<	0.47	
trans-1,2-Dichloroethene	<	0.47		<	0.47		<	0.46		<	0.47		7.1	0.47		<	0.47	
1,1-Dichloroethane	<	0.47		<	0.47		<	0.46		<	0.47		5.7	0.47		3.4	0.47	
Vinyl Acetate	<	0.47		<	0.47		<	0.46		<	0.47		<	0.47		<	0.47	
2-Butanone	<	2.4		2.8	2.4		2.5	2.3		<	2.3		6.1	2.4		<	2.3	
Chloroform	<	0.47		<	0.47		<	0.46		<	0.47		3.1	0.47		1.4	0.47	
1,1,1-Trichloroethane	<	0.47		<	0.47		<	0.46		<	0.47		12	0.47		2.2	0.47	
Carbon Tetrachloride	<	0.47		<	0.47		<	0.46		<	0.47		<	0.47		<	0.47	
Benzene	<	0.47		0.62	0.47		<	0.46		<	0.47		1.8	0.47		<	0.47	
1,2-Dichloroethane	<	0.47		<	0.47		<	0.46		<	0.47		<	0.47		<	0.47	
Trichloroethene	<	0.47		<	0.47		<	0.46		<	0.47		40	0.47		0.75	0.47	
1,2-Dichloropropane	<	0.47		<	0.47		<	0.46		<	0.47		1.2	0.47		<	0.47	
Bromodichloromethane	<	0.47		<	0.47		<	0.46		<	0.47		<	0.47		<	0.47	
trans-1,3-Dichloropropene	<	0.47		<	0.47		<	0.46		<	0.47		<	0.47		<	0.47	
4-Methyl-2-pentanone	<	2.4		<	2.4		<	2.3		<	2.3		3.1	2.4		<	2.3	
Toluene	<	0.47		0.85	0.47		<	0.46		<	0.47		20	0.47		5.1	0.47	
cis-1,3-Dichloropropene	<	0.47		<	0.47		<	0.46		<	0.47		<	0.47		<	0.47	
1,1,2-Trichloroethane	<	0.47		<	0.47		<	0.46		<	0.47		<	0.47		<	0.47	
Tetrachloroethene	<	0.47		<	0.47		0.50	0.46		1.6	0.47	J	990	0.47		120	0.47	
2-Hexanone	<	0.47		<	0.47		<	0.46		<	0.47		<	0.47		<	0.47	
Dibromochloromethane	<	0.47		<	0.47		<	0.46		<	0.47		<	0.47		<	0.47	
Chlorobenzene	<	0.47		<	0.47		<	0.46		<	0.47		<	0.47		<	0.47	
Ethyl Benzene	<	0.47		0.52	0.47		<	0.46		<	0.47		14	0.47		<	0.47	
m,p-Xylene	<	0.47		<	0.47		<	0.46		<	0.47		3.9	0.47		<	0.47	
o-Xylene	<	0.47		<	0.47		<	0.46		<	0.47		1.3	0.47		<	0.47	
Styrene	<	0.47		0.57	0.47		<	0.46		<	0.47		57	0.47		<	0.47	
Bromoform	<	0.47		<	0.47		<	0.46		<	0.47		<	0.47		<	0.47	
1,1,2,2-Tetrachloroethane	<	0.47		<	0.47		<	0.46		<	0.47		<	0.47		<	0.47	
1,3-Dichlorobenzene	<	0.47		<	0.47		<	0.46		<	0.47		<	0.47		<	0.47	
1,4-Dichlorobenzene	<	0.47		<	0.47		<	0.46		<	0.47		2.7	0.47		<	0.47	
1,2-Dichlorobenzene	<	0.47		<	0.47		<	0.46		<	0.47		<	0.47		<	0.47	
cis-1,2-Dichloroethene	<	0.47		<	0.47		<	0.46		<	0.47		24	0.47		<	0.47	

E: Exceeds instrument calibration
S: Peak Saturation
RL: Reporting Limit
NS: Not Sampled
NR: Not Reported
NA: Not Applicable
<: Not detected.

Soil Gas Analytical Results - October 1999
Himco Dump Superfund Site
Elkhart, Indiana

Sample Location Sample Tube Numbers Compound - Units	TT-64 11015A&B			TT-65 11002A&B			TT-66 11024A&B			TT-67 11017A&B			TT-68 11110A&B			TT-69 11214A&B		
	µg/m ³	RL	Qual	µg/m ³	RL	Qual	µg/m ³	RL	Qual	µg/m ³	RL	Qual	µg/m ³	RL	Qual	µg/m ³	RL	Qual
Chloromethane	<	0.50		<	0.49		<	0.49		<	0.48		3.0	0.48		<	0.45	
Vinyl Chloride	<	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
Bromomethane	<	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
Chloroethane	<	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
Freon 11	110	0.50		0.59	0.49		0.68	0.49		1.3	0.48		1.1	0.48		0.77	0.45	
1,1-Dichloroethene	<	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
Carbon Disulfide	1.7	0.50		1.4	0.49		<	0.49		<	0.48		0.53	0.48		0.45	0.45	
Acetone	9.0	2.5		<	2.4		<	2.4		4.5	2.4		6.2	2.4		<	2.3	
Methylene Chloride	<	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
trans-1,2-Dichloroethene	<	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
1,1-Dichloroethane	22	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
Vinyl Acetate	<	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
2-Butanone	3.0	2.5		<	2.4		1.7	2.4		2.7	2.4		3.0	2.4		<	2.3	
Chloroform	7.5	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
1,1,1-Trichloroethane	0.65	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
Carbon Tetrachloride	<	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
Benzene	0.50	0.50		0.64	0.49		<	0.49		<	0.48		1.06	0.48		<	0.45	
1,2-Dichloroethane	<	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
Trichloroethene	29	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
1,2-Dichloropropane	<	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
Bromodichloromethane	<	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
trans-1,3-Dichloropropene	<	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
4-Methyl-2-pentanone	<	2.5		<	2.4		<	2.4		<	2.4		<	2.4		<	2.3	
Toluene	6.5	0.50		4.9	0.49		<	0.49		<	0.48		0.86	0.48		<	0.45	
cis-1,3-Dichloropropene	<	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
1,1,2-Trichloroethane	<	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
Tetrachloroethene	140	0.50		<	0.49		<	0.49		0.57	0.48		0.48	0.48		0.45	0.45	
2-Hexanone	<	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
Dibromochloromethane	<	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
Chlorobenzene	<	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
Ethyl Benzene	1.4	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
m,p-Xylene	1.6	0.50		1.7	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
o-Xylene	1.1	0.50		0.54	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
Styrene	<	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
Bromoform	<	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
1,1,2,2-Tetrachloroethane	<	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
1,3-Dichlorobenzene	<	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
1,4-Dichlorobenzene	16	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
1,2-Dichlorobenzene	<	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	
cis-1,2-Dichloroethene	0.75	0.50		<	0.49		<	0.49		<	0.48		<	0.48		<	0.45	

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Soil Gas Analytical Results - October 1999
Himco Dump Superfund Site
Elkhart, Indiana

Sample Location Sample Tube Numbers Compound - Units	TT-70 11006A&B			TT-71 11023A&B			TT-72 11013A&B			TT-73 11008A&B			TT-74 11106A&B			TT-75 11218A&B		
	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual
	Chloromethane	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44
Vinyl Chloride	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
Bromomethane	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
Chloroethane	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
Freon 11	0.62	0.51		0.85	0.47		0.86	0.48		0.61	0.47		0.68	0.48		0.71	0.44	
1,1-Dichloroethene	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
Carbon Disulfide	0.82	0.51		1.1	0.47		1.2	0.48		<	0.47		<	0.48		0.49	0.44	
Acetone	3.0	2.6		4.7	2.3		<	2.4		<	2.3		<	2.4		5.3	2.2	
Methylene Chloride	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
trans-1,2-Dichloroethene	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
1,1-Dichloroethane	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
Vinyl Acetate	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
2-Butanone	<	2.6		<	2.3		<	2.4		<	2.3		<	2.4		<	2.2	
Chloroform	<	0.51		<	0.47		<	0.48		0.66	0.47		<	0.48		1.4	0.44	
1,1,1-Trichloroethane	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		0.80	0.44	
Carbon Tetrachloride	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
Benzene	<	0.51		0.47	0.47		<	0.48		2.2	0.47		<	0.48		<	0.44	
1,2-Dichloroethane	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
Trichloroethene	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
1,2-Dichloropropane	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
Bromodichloromethane	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
trans-1,3-Dichloropropene	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
4-Methyl-2-pentanone	<	2.6		<	2.3		<	2.4		<	2.3		<	2.4		<	2.2	
Toluene	<	0.51		0.89	0.47		0.77	0.48		4.6	0.47		<	0.48		<	0.44	
cis-1,3-Dichloropropene	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
1,1,2-Trichloroethane	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
Tetrachloroethene	<	0.51		32	0.47		25	0.48		<	0.47		<	0.48		<	0.44	
2-Hexanone	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
Dibromochloromethane	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
Chlorobenzene	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
Ethyl Benzene	<	0.51		0.66	0.47		<	0.48		1.5	0.47		<	0.48		<	0.44	
m,p-Xylene	0.62	0.51		<	0.47		<	0.48		2.3	0.47		<	0.48		<	0.44	
o-Xylene	<	0.51		<	0.47		<	0.48		0.85	0.47		<	0.48		<	0.44	
Styrene	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
Bromoform	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
1,1,2,2-Tetrachloroethane	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
1,3-Dichlorobenzene	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
1,4-Dichlorobenzene	<	0.51		<	0.47		<	0.46		<	0.47		<	0.48		<	0.44	
1,2-Dichlorobenzene	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	
cis-1,2-Dichloroethene	<	0.51		<	0.47		<	0.48		<	0.47		<	0.48		<	0.44	

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Soil Gas Analytical Results - October 1999
Himco Dump Superfund Site
Elkhart, Indiana

Sample Location Sample Tube Numbers Compound - Units	TT-76 11206A&B			TT-77 11211A&B			TT-78 11225A&B			TT-79 11210A&B			TT-80 11223A&B			TT-81 11201A&B		
	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual
	Chloromethane	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47
Vinyl Chloride	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
Bromomethane	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
Chloroethane	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
Freon 11	0.90	0.45		1.6	0.48		1.4	0.49		5.6	0.47		1.7	0.48		0.75	0.47	
1,1-Dichloroethene	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
Carbon Disulfide	0.99	0.45		0.86	0.48		1.6	0.49		<	0.47		0.53	0.48		1.2	0.47	
Acetone	<	2.4		<	2.4		4.0	2.5		<	2.3		<	2.4		<	2.4	
Methylene Chloride	<	0.45		<	0.48		0.64	0.49		<	0.47		0.53	0.48		0.47	0.47	
trans-1,2-Dichloroethene	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
1,1-Dichloroethane	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
Vinyl Acetate	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
2-Butanone	<	2.4		<	2.4		<	2.5		<	2.3		<	2.4		<	2.4	
Chloroform	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
1,1,1-Trichloroethane	<	0.45		<	0.48		<	0.49		0.51	0.47		<	0.48		<	0.47	
Carbon Tetrachloride	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
Benzene	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
1,2-Dichloroethane	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
Trichloroethene	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
1,2-Dichloropropane	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
Bromodichloromethane	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
trans-1,3-Dichloropropene	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
4-Methyl-2-pentanone	<	2.4		<	2.4		<	2.5		<	2.3		<	2.4		<	2.4	
Toluene	<	0.45		<	0.48		8.8	0.49		<	0.47		<	0.48		<	0.47	
cis-1,3-Dichloropropene	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
1,1,2-Trichloroethane	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
Tetrachloroethene	<	0.45		5.7	0.48		30	0.49		19	0.47		1.2	0.48		0.52	0.47	
2-Hexanone	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
Dibromochloromethane	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
Chlorobenzene	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
Ethyl Benzene	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
m,p-Xylene	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
o-Xylene	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
Styrene	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
Bromoform	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
1,1,2,2-Tetrachloroethane	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
1,3-Dichlorobenzene	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
1,4-Dichlorobenzene	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
1,2-Dichlorobenzene	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	
cis-1,2-Dichloroethene	<	0.45		<	0.48		<	0.49		<	0.47		<	0.48		<	0.47	

E: Exceeds instrument calibration

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Soil Gas Analytical Results - October 1999
Himco Dump Superfund Site
Elkhart, Indiana

Sample Location Sample Tube Numbers Compound - Units	TT-82 11004A&B			TT-83 11111A&B			TT-84 11102A&B			TT-85		TT-86 11215A&B			TT-87 11224A&B		
	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual
	Chloromethane	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47
Vinyl Chloride	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
Bromomethane	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
Chloroethane	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
Freon 11	0.72	0.48		0.51	0.47		0.65	0.46		NR	NA	3.3	0.46		1.2	0.47	
1,1-Dichloroethene	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
Carbon Disulfide	2.2	0.48		2.7	0.47		1.8	0.46		NR	NA	3.7	0.46		0.94	0.47	
Acetone	<	2.4		<	2.3		<	2.3		NR	NA	4.3	2.3		<	2.4	
Methylene Chloride	0.53	0.48		0.51	0.47		1.8	0.46		NR	NA	<	0.46		<	0.47	
trans-1,2-Dichloroethene	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
1,1-Dichloroethane	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
Vinyl Acetate	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
2-Butanone	<	2.4		<	2.3		<	2.3		NR	NA	<	2.3		<	2.4	
Chloroform	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
1,1,1-Trichloroethane	<	0.48		<	0.47		<	0.46		NR	NA	2.4	0.46		<	0.47	
Carbon Tetrachloride	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
Benzene	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
1,2-Dichloroethane	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
Trichloroethene	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
1,2-Dichloropropane	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
Bromodichloromethane	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
trans-1,3-Dichloropropene	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
4-Methyl-2-pentanone	<	2.4		<	2.3		<	2.3		NR	NA	<	2.3		<	2.4	
Toluene	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
cis-1,3-Dichloropropene	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
1,1,2-Trichloroethane	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
Tetrachloroethene	<	0.48		<	0.47		<	0.46		NR	NA	0.69	0.46		0.61	0.47	
2-Hexanone	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
Dibromochloromethane	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
Chlorobenzene	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
Ethyl Benzene	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
m,p-Xylene	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
o-Xylene	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
Styrene	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
Bromoform	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
1,1,2,2-Tetrachloroethane	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
1,3-Dichlorobenzene	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
1,4-Dichlorobenzene	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
1,2-Dichlorobenzene	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	
cis-1,2-Dichloroethene	<	0.48		<	0.47		<	0.46		NR	NA	<	0.46		<	0.47	

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Soil Gas Analytical Results - October 1999
Himco Dump Superfund Site
Elkhart, Indiana

Sample Location Sample Tube Numbers Compound - Units	TT-88		TT-89			TT-90			TT-91			TT-92			TT-93		TT-94	
	NS		11313A&B			11222A&B			11315A&B			11207A&B			NS		NS	
	µg/m ³	RL	µg/m ³	RL	Qual	µg/m ³	RL	Qual	µg/m ³	RL	Qual	µg/m ³	RL	Qual	µg/m ³	RL	µg/m ³	RL
Chloromethane	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
Vinyl Chloride	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
Bromomethane	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
Chloroethane	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
Freon 11	NS	NA	1.5	0.46		1.7	0.50		1.0	0.47		2.1	0.47		NS	NA	NS	NA
1,1-Dichloroethene	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
Carbon Disulfide	NS	NA	<	0.46		1.9	0.50		<	0.47		1.4	0.47		NS	NA	NS	NA
Acetone	NS	NA	<	2.3		2.8	2.5		<	2.4		<	2.4		NS	NA	NS	NA
Methylene Chloride	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
trans-1,2-Dichloroethene	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
1,1-Dichloroethane	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
Vinyl Acetate	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
2-Butanone	NS	NA	<	2.3		<	2.5		<	2.4		<	2.4		NS	NA	NS	NA
Chloroform	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
1,1,1-Trichloroethane	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
Carbon Tetrachloride	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
Benzene	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
1,2-Dichloroethane	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
Trichloroethene	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
1,2-Dichloropropane	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
Bromodichloromethane	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
trans-1,3-Dichloropropene	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
4-Methyl-2-pentanone	NS	NA	<	2.3		<	2.5		<	2.4		<	2.4		NS	NA	NS	NA
Toluene	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
cis-1,3-Dichloropropene	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
1,1,2-Trichloroethane	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
Tetrachloroethene	NS	NA	<	0.46		0.65	0.50		0.90	0.47		<	0.47		NS	NA	NS	NA
2-Hexanone	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
Dibromochloromethane	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
Chlorobenzene	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
Ethyl Benzene	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
m,p-Xylene	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
o-Xylene	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
Styrene	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
Bromoform	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
1,1,2,2-Tetrachloroethane	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
1,3-Dichlorobenzene	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
1,4-Dichlorobenzene	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
1,2-Dichlorobenzene	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA
cis-1,2-Dichloroethene	NS	NA	<	0.46		<	0.50		<	0.47		<	0.47		NS	NA	NS	NA

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Soil Gas Analytical Results - October 1999
Himco Dump Superfund Site
Elkhart, Indiana

Sample Location Sample Tube Numbers Compound - Units	TT-95 11317A&B			TT-95 Duplicate 11304A&B			TT-96 11217A&B			TT-97 11310A&B			TT-97 Duplicate 11205A&B			TT-98 11203A&B		
	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual
	Chloromethane	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50
Vinyl Chloride	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
Bromomethane	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
Chloroethane	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
Freon 11	0.70	0.46		0.61	0.44		1.5	0.48		1.3	0.48		2.0	0.49		0.99	0.50	
1,1-Dichloroethene	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
Carbon Disulfide	<	0.46		1.4	0.44		1.1	0.48		4.4	0.48		2.7	0.49		3.3	0.50	
Acetone	<	2.2		<	2.3		2.7	2.4		<	2.4		3.2	2.5		<	2.5	
Methylene Chloride	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
trans-1,2-Dichloroethene	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
1,1-Dichloroethane	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
Vinyl Acetate	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
2-Butanone	<	2.2		<	2.3		<	2.4		<	2.4		<	2.5		<	2.5	
Chloroform	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
1,1,1-Trichloroethane	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
Carbon Tetrachloride	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
Benzene	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
1,2-Dichloroethane	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
Trichloroethene	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
1,2-Dichloropropane	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
Bromodichloromethane	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
trans-1,3-Dichloropropene	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
4-Methyl-2-pentanone	<	2.2		<	2.3		<	2.4		<	2.4		<	2.5		<	2.5	
Toluene	0.83	0.46		0.48	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
cis-1,3-Dichloropropene	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
1,1,2-Trichloroethane	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
Tetrachloroethene	1.3	0.46		1.6	0.44		<	0.48		0.82	0.48		0.69	0.49		<	0.50	
2-Hexanone	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
Dibromochloromethane	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
Chlorobenzene	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
Ethyl Benzene	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
m,p-Xylene	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
o-Xylene	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
Styrene	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
Bromoform	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
1,1,2,2-Tetrachloroethane	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
1,3-Dichlorobenzene	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
1,4-Dichlorobenzene	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
1,2-Dichlorobenzene	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	
cis-1,2-Dichloroethene	<	0.46		<	0.44		<	0.48		<	0.48		<	0.49		<	0.50	

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Soil Gas Analytical Results - October 1999
Himco Dump Superfund Site
Elkhart, Indiana

Sample Location Sample Tube Numbers Compound - Units	TT-99		TT-100			TT-101			TT-102		
	NS		11311A&B			11212A&B			11216A&B		
	$\mu\text{g}/\text{m}^3$	RL	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual	$\mu\text{g}/\text{m}^3$	RL	Qual
Chloromethane	NS	NA	<	0.48		<	0.49		<	0.46	
Vinyl Chloride	<		<	0.48		<	0.49		<	0.46	
Bromomethane	<		<	0.48		<	0.49		<	0.46	
Chloroethane	<		<	0.48		<	0.49		<	0.46	
Freon 11	<		0.72	0.48		0.98	0.49		1.1	0.46	
1,1-Dichloroethene	<		<	0.48		<	0.49		<	0.46	
Carbon Disulfide	<		<	0.48		1.1	0.49		0.87	0.46	
Acetone	<		<	2.4		6.8	2.4		<	2.3	
Methylene Chloride	<		<	0.48		<	0.49		<	0.46	
trans-1,2-Dichloroethene	<		<	0.48		<	0.49		<	0.46	
1,1-Dichloroethane	<		<	0.48		<	0.49		<	0.46	
Vinyl Acetate	<		<	0.48		<	0.49		<	0.46	
2-Butanone	<		<	2.4		<	2.4		<	2.3	
Chloroform	<		<	0.48		<	0.49		<	0.46	
1,1,1-Trichloroethane	<		<	0.48		<	0.49		0.82	0.46	
Carbon Tetrachloride	<		<	0.48		<	0.49		<	0.46	
Benzene	<		<	0.48		<	0.49		<	0.46	
1,2-Dichloroethane	<		<	0.48		<	0.49		<	0.46	
Trichloroethene	<		<	0.48		<	0.49		<	0.46	
1,2-Dichloropropane	<		<	0.48		<	0.49		<	0.46	
Bromodichloromethane	<		<	0.48		<	0.49		<	0.46	
trans-1,3-Dichloropropene	<		<	0.48		<	0.49		<	0.46	
4-Methyl-2-pentanone	<		<	2.4		<	2.4		<	2.3	
Toluene	<		<	0.48		<	0.49		<	0.46	
cis-1,3-Dichloropropene	<		<	0.48		<	0.49		<	0.46	
1,1,2-Trichloroethane	<		<	0.48		<	0.49		<	0.46	
Tetrachloroethene	<		<	0.48		<	0.49		<	0.46	
2-Hexanone	<		<	0.48		<	0.49		<	0.46	
Dibromochloromethane	<		<	0.48		<	0.49		<	0.46	
Chlorobenzene	<		<	0.48		<	0.49		<	0.46	
Ethyl Benzene	<		<	0.48		<	0.49		<	0.46	
m,p-Xylene	<		<	0.48		<	0.49		<	0.46	
o-Xylene	<		<	0.48		<	0.49		<	0.46	
Styrene	<		<	0.48		<	0.49		<	0.46	
Bromoform	<		<	0.48		<	0.49		<	0.46	
1,1,2,2-Tetrachloroethane	<		<	0.48		<	0.49		<	0.46	
1,3-Dichlorobenzene	<		<	0.48		<	0.49		<	0.46	
1,4-Dichlorobenzene	<		<	0.48		<	0.49		<	0.46	
1,2-Dichlorobenzene	<		<	0.48		<	0.49		<	0.46	
cis-1,2-Dichloroethene	<		<	0.48		<	0.49		<	0.46	

E: Exceeds instrument calibration
S: Peak Saturation
RL: Reporting Limit
NS: Not Sampled
NR: Not Reported
NA: Not Applicable
<: Not detected.

2000

Residential Well Ground Water Analytical Results - March 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	Westwood		Westwood		Westwood		Westwood		Westwood		Westwood		Westwood		
Sample number	S12		R12		S09		S04		S05		S03		S10		
Date sampled	3/16/2000		3/16/2000		3/15/2000		3/15/2000		3/15/2000		3/15/2000		3/15/2000		
Units	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		
TOTAL METALS															
Dilution factor															
Aluminum	26	U	26	U	26	U	26	U	26	U	26	U	26	U	
Antimony	2	U	2	U	2	U	2	U	2	U	2	U	2	U	
Arsenic	7		8	DM	2	U	2	U	4	UD	5	M	2	U	
Barium	63.8		64.5		72.8		50.4		32.8		128		43.5		
Beryllium	1.6	UJ	1.6	UJ	1.6	UJ	1.6	UJ	1.6	UJ	1.6	UJ	1.6	UJ	
Cadmium	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	
Calcium	93300	UJ	92300	UJ	105000	UJ	101000	UJ	91800	UJ	91500	UJ	115000	UJ	
Chromium	3.4	UJ	3.4	UJ	3.4	UJ	3.4	UJ	3.4	UJ	3.4	UJ	3.4	UJ	
Cobalt	10.5	MJ	10.1	UJ	10.1	UJ	10.1	UJ	10.1	UJ	10.1	UJ	14	MJ	
Copper	7.3	M	4	U	26.1	M	7.3	M	14.2	M	7.3	M	66.1	M	
Iron	5050		5030		22.4	U	104	BJ	22.4	U	1670		25.3	MBJ	
Lead	2	U	2	U	2	U	2	U	2	U	2	U	2	U	
Magnesium	21500		22000		20200		21700		19800		26500		20800		
Manganese	63.1		59.6		355		359		3.2	U	213		3.2	U	
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	
Nickel	19.4	U	19.4	U	19.4	U	19.4	U	21.4	M	19.4	U	19.4	U	
Potassium	1150		1160		2580		1790		4650		1330		4300		
Selenium	2	U	2	U	2	U	2	U	2	U	2	U	2	U	
Silver	6.8	U	6.8	U	6.8	U	11.1	U	6.8	U	6.8	U	6.8	U	
Sodium	14900		14700		65400		22600	J	126000		14500		82500		
Thallium	1	U	1	U	1	U	1	U	1	U	1	U	1	U	
Vanadium	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	
Zinc	18.9	MJ	14.2	MJ	31.5	MJ	17.4	MJ	95.6	J	44.3	MJ	160	J	
MISC. INORGANICS															
Bromide (µg Br/L)	NS		NS		60	J	50	J	NS		60	J	NS		
Sulfate (mg SO ₄ /L)	NS		NS		133	D	138	D	NS		154	D	NS		

U: Not detected

M (Inorganic), J (Organic): Estimated above method detection limit and below reporting limit

B: Analyte also present in blank

J (Inorganic): Estimated due to quality control limits being exceeded.

NS: Not Sampled

Partial Well Ground Water Analytical Results - March 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	Westwood		Westwood		Westwood		Westwood	
Sample number	S11		S08		S06		S07	
Date sampled	3/16/2000		3/15/2000		3/15/2000		3/15/2000	
Units	µg/L		µg/L		µg/L		µg/L	
TOTAL METALS								
Dilution factor								
Aluminum	26	U	26	U	26	U	26	U
Antimony	2	U	2	U	2	U	2	U
Arsenic	4	UD	2	U	6	DM	7	
Barium	60.4		28.1		113		102	
Beryllium	1.6	UJ	1.6	UJ	1.6	U	1.6	UJ
Cadmium	0.1	U	0.1	U	0.1	U	0.1	U
Calcium	177000	UJ	103000	UJ	113000	UJ	122000	UJ
Chromium	3.4	UJ	3.4	UJ	3.4	UJ	3.5	MJ
Cobalt	10.1	UJ	10.1	UJ	10.1	UJ	10.1	UJ
Copper	4	U	9	M	11.9	M	4.1	M
Iron	2170		51.1	MBJ	5860		6120	
Lead	2	U	2	U	2	U	2	U
Magnesium	18200	J	19000	J	16100	J	16000	J
Manganese	1560		146		73		72.3	
Mercury	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	19.4	U	19.4	U	19.4	U	19.4	U
Potassium	5270		3660		2610		2870	
Selenium	2	U	2	U	2	U	2	U
Silver	6.8	U	6.8	U	6.8	U	6.8	U
Sodium	44400		56700	J	13500	J	33200	
Thallium	1	U	1	U	1	U	1	U
Vanadium	3.9	U	3.9	U	3.9	U	3.9	U
Zinc	17.4	MJ	20.5	MJ	19	MJ	30.1	MJ
MISC. INORGANICS								
Bromide (µg Br/L)	70	J	60	J	NS		60	J
Sulfate (mg SO ₄ /L)	171	D	132	D	NS		146	D

U: Not detected

M (Inorganic), J (Organic): Estimated above method detection limit and below reporting limit

B: Analyte also present in blank

J (Inorganic): Estimated due to quality control limits being exceeded.

NS: Not Sampled

Initial Well Ground Water Analytical Results - March 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	Westwood		Westwood		Westwood		Westwood		Westwood		Westwood		Westwood			
VOLATILE ORGANICS																
Sample number	EDCJ5		EDCJ9		EDCK3		EDCK0		EDCK6		EDCK1		EDCJ8		EDCJ4	
Chloromethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromomethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Acetone	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Carbon Disulfide	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	7		7		1	U	0.6	J	1	U	1	U	1	U	1	U
cis-1,2-Dichloroethene	0.5	J	0.5	J	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroform	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	0.7	J	1	U	1	U	1	U	1	U	0.6	J	1	U	1	U
2-Butanone	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Bromochloromethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon Tetrachloride	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
cis-1,3-Dichloropropene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Trichloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dibromochloromethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Benzene	0.4	J	0.4	J	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,3-Dichloropropene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromoform	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-pentanone	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Tetrachloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Toluene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Ethylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Styrene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Xylene (total)	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U

U: Not detected
M (Inorganic), J (Organic): Estimated above method detection limit and below reporting limit
B: Analyte also present in blank
J (Inorganic): Estimated due to quality control limits being exceeded.
NS: Not Sampled

Regional Well Ground Water Analytical Results - March 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	Westwood	Westwood	Westwood	Westwood
VOLATILE ORGANICS				
Sample number	EDCK8	EDCK4	EDCK5	EDCK2
Chloromethane	1 U	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U	1 U
Vinyl Chloride	0.9 J	1 U	1 U	0.7 J
Chloroethane	1 U	1 U	1 U	1 U
Methylene Chloride	2 U	2 U	2 U	2 U
Acetone	5 U	5 U	5 U	5 U
Carbon Disulfide	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U
1,1-Dichloroethane	3	0.5 J	2	2
cis-1,2-Dichloroethene	2	0.6 J	0.8 J	1
trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U
Chloroform	1 U	0.4 J	1 U	1 U
1,2-Dichloroethane	0.6 J	1 U	1 U	1 U
2-Butanone	5 U	5 U	5 U	5 U
Bromochloromethane	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U
Bromodichloromethane	1 U	1 U	1 U	1 U
1,2-Dichloropropane	10	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U
Benzene	0.4 J	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U
Bromoform	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone	5 U	5 U	5 U	5 U
2-Hexanone	5 U	5 U	5 U	5 U
Tetrachloroethene	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U
Toluene	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U
Ethylbenzene	1 U	1 U	1 U	1 U
Styrene	1 U	1 U	1 U	1 U
Xylene (total)	1 U	1 U	1 U	1 U

U: Not detected

M (Inorganic), J (Organic): Estimated above method detection limit and below reporting limit

B: Analyte also present in blank

J (Inorganic): Estimated due to quality control limits being exceeded.

NS: Not Sampled

Regional Well Ground Water Analytical Results - March 2000
 Himco Dump Superfund Site
 Elkhart, Indiana

Sample location	Westwood	Westwood	Westwood	Westwood	Westwood	Westwood	Westwood	Westwood	Westwood
1,3-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SEMIVOLATILE ORGANICS									
Sample number	EDCJ5	EDCJ9	EDCK3	EDCK0	EDCK6	EDCK1	EDCJ8	EDCJ4	
Phenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
bis(2-Chloroethyl)ether	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Chlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Methylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,2'-Oxybis(1-chloropropane)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
N-Nitroso-di-n-propylamine	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Nitrobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Isophorone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dimethylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
bis(2-Chloroethoxy)methane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dichlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Chloroaniline	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobutadiene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Chloro-3-methylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Methylnaphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorocyclopentadiene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,6-Trichlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,5-Trichlorophenol	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2-Chloronaphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Nitroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Dimethylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acenaphthylene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,6-Dinitrotoluene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3-Nitroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acenaphthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dinitrophenol	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U

U: Not detected
 M (Inorganic), J (Organic): Estimated above method detection limit and below reporting limit
 B: Analyte also present in blank
 J (Inorganic): Estimated due to quality control limits being exceeded.
 NS: Not Sampled

Regional Well Ground Water Analytical Results - March 2000
 Himco Dump Superfund Site
 Elkhart, Indiana

Sample location	Westwood	Westwood	Westwood	Westwood
1,3-Dichlorobenzene	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	1 U	1 U	1 U	1 U
SEMIVOLATILE ORGANICS				
Sample number	EDCK8	EDCK4	EDCK5	EDCK2
Phenol	5 U	5 U	5 U	5 U
bis(2-Chloroethyl)ether	5 U	5 U	5 U	5 U
2-Chlorophenol	5 U	5 U	5 U	5 U
2-Methylphenol	5 U	5 U	5 U	5 U
2,2'-Oxybis(1-chloropropane)	5 U	5 U	5 U	5 U
4-Methylphenol	5 U	5 U	5 U	5 U
N-Nitroso-di-n-propylamine	5 U	5 U	5 U	5 U
Hexachloroethane	5 U	5 U	5 U	5 U
Nitrobenzene	5 U	5 U	5 U	5 U
Isophorone	5 U	5 U	5 U	5 U
2-Nitrophenol	5 U	5 U	5 U	5 U
2,4-Dimethylphenol	5 U	5 U	5 U	5 U
bis(2-Chloroethoxy)methane	5 U	5 U	5 U	5 U
2,4-Dichlorophenol	5 U	5 U	5 U	5 U
Naphthalene	5 U	5 U	5 U	5 U
4-Chloroaniline	5 U	5 U	5 U	5 U
Hexachlorobutadiene	5 U	5 U	5 U	5 U
4-Chloro-3-methylphenol	5 U	5 U	5 U	5 U
2-Methylnaphthalene	5 U	5 U	5 U	5 U
Hexachlorocyclopentadiene	5 U	5 U	5 U	5 U
2,4,6-Trichlorophenol	5 U	5 U	5 U	5 U
2,4,5-Trichlorophenol	20 U	20 U	20 U	20 U
2-Chloronaphthalene	5 U	5 U	5 U	5 U
2-Nitroaniline	20 U	20 U	20 U	20 U
Dimethylphthalate	5 U	5 U	5 U	5 U
Acenaphthylene	5 U	5 U	5 U	5 U
2,6-Dinitrotoluene	5 U	5 U	5 U	5 U
3-Nitroaniline	20 U	20 U	20 U	20 U
Acenaphthene	5 U	5 U	5 U	5 U
2,4-Dinitrophenol	20 U	20 U	20 U	20 U

U: Not detected
 M (Inorganic), J (Organic): Estimated above method detection limit and below reporting limit
 B: Analyte also present in blank
 J (Inorganic): Estimated due to quality control limits being exceeded.
 NS: Not Sampled

Residential Well Ground Water Analytical Results - March 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	Westwood	Westwood	Westwood	Westwood	Westwood	Westwood	Westwood	Westwood	Westwood
4-Nitrophenol	20	U	20	U	20	U	20	U	20
Dibenzofuran	5	U	5	U	5	U	5	U	5
2,4-Dinitrotoluene	5	U	5	U	5	U	5	U	5
Diethylphthalate	5	U	5	U	5	U	5	U	5
4-Chlorophenyl-phenylether	5	U	5	U	5	U	5	U	5
Fluorene	5	U	5	U	5	U	5	U	5
4-Nitroaniline	20	U	20	U	20	U	20	U	20
4,6-Dinitro-2-methylphenol	20	U	20	U	20	U	20	U	20
N-Nitrosodiphenylamine	5	U	5	U	5	U	5	U	5
4-Bromophenyl-phenylether	5	U	5	U	5	U	5	U	5
Hexachlorobenzene	5	U	5	U	5	U	5	U	5
Pentachlorophenol	20	U	20	U	20	U	20	U	20
Phenanthrene	5	U	5	U	5	U	5	U	5
Anthracene	5	U	5	U	5	U	5	U	5
Carbazole	5	U	5	U	5	U	5	U	5
Di-n-butylphthalate	5	U	5	U	5	U	5	U	5
Fluoranthene	5	U	5	U	5	U	5	U	5
Pyrene	5	U	5	U	5	U	5	U	5
Butylbenzylphthalate	5	U	5	U	5	U	5	U	5
3,3'-Dichlorobenzidine	5	U	5	U	5	U	5	U	5
Benzo(a)anthracene	5	U	5	U	5	U	5	U	5
Chrysene	5	U	5	U	5	U	5	U	5
bis(2-Ethylhexyl)phthalate	5	U	5	U	5	U	5	U	5
Di-n-octylphthalate	5	U	5	U	5	U	5	U	5
Benzo(b)fluoranthene	5	U	5	U	5	U	5	U	5
Benzo(k)fluoranthene	5	U	5	U	5	U	5	U	5
Benzo(a)pyrene	5	U	5	U	5	U	5	U	5
Indeno(1,2,3-cd)pyrene	5	U	5	U	5	U	5	U	5
Dibenz(a,h)anthracene	5	U	5	U	5	U	5	U	5
Benzo(g,h,i)perylene	5	U	5	U	5	U	5	U	5

U: Not detected

M (Inorganic), J (Organic): Estimated above method detection limit and below reporting limit

B: Analyte also present in blank

J (Inorganic): Estimated due to quality control limits being exceeded.

NS: Not Sampled

Re (ntial Well Ground Water (ical Results - Marc (00
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	Westwood	Westwood	Westwood	Westwood
4-Nitrophenol	20 U	20 U	20 U	20 U
Dibenzofuran	5 U	5 U	5 U	5 U
2,4-Dinitrotoluene	5 U	5 U	5 U	5 U
Diethylphthalate	5 U	5 U	5 U	5 U
4-Chlorophenyl-phenylether	5 U	5 U	5 U	5 U
Fluorene	5 U	5 U	5 U	5 U
4-Nitroaniline	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	20 U	20 U	20 U	20 U
N-Nitrosodiphenylamine	5 U	5 U	5 U	5 U
4-Bromophenyl-phenylether	5 U	5 U	5 U	5 U
Hexachlorobenzene	5 U	5 U	5 U	5 U
Pentachlorophenol	20 U	20 U	20 U	20 U
Phenanthrene	5 U	5 U	5 U	5 U
Anthracene	5 U	5 U	5 U	5 U
Carbazole	5 U	5 U	5 U	5 U
Di-n-butylphthalate	5 U	5 U	5 U	5 U
Fluoranthene	5 U	5 U	5 U	5 U
Pyrene	5 U	5 U	5 U	5 U
Butylbenzylphthalate	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	5 U	5 U	5 U	5 U
Benzo(a)anthracene	5 U	5 U	5 U	5 U
Chrysene	5 U	5 U	5 U	5 U
bis(2-Ethylhexyl)phthalate	5 U	5 U	5 U	5 U
Di-n-octylphthalate	5 U	5 U	5 U	5 U
Benzo(b)fluoranthene	5 U	5 U	5 U	5 U
Benzo(k)fluoranthene	5 U	5 U	5 U	5 U
Benzo(a)pyrene	5 U	5 U	5 U	5 U
Indeno(1,2,3-cd)pyrene	5 U	5 U	5 U	5 U
Dibenz(a,h)anthracene	5 U	5 U	5 U	5 U
Benzo(g,h,i)perylene	5 U	5 U	5 U	5 U

U: Not detected

M (Inorganic), J (Organic): Estimated above method detection limit and below reporting limit

B: Analyte also present in blank

J (Inorganic): Estimated due to quality control limits being exceeded.

NS: Not Sampled

Residential Well Ground Water Analytical Results - April 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	Westwood		Westwood		Westwood		Westwood		Westwood		Westwood		Westwood			
Sample number	SO1		SO2		SO3		SO6		SO4		SO5		SO7			
Date sampled	4/17/2000		4/17/2000		4/17/2000		4/17/2000		4/17/2000		4/17/2000		4/18/2000			
Units	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L			
TOTAL METALS																
Dilution factor																
Aluminum	118	U	118	U	118	U	118	U	118	U	118	U	118	U	118	U
Antimony	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Arsenic	7		2	U	2	U	2	M	5	M	2	U	3	M	2	U
Barium	66.6		70.4		57.6		29.1		131		43.9		109		76.6	
Beryllium	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Cadmium	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Calcium	88100		102000		110000		83000		90000		106000		99000		205000	
Chromium	6.7	U	6.7	U	6.7	U	6.7	U	2	M	6.7	U	6.7	U	6.7	U
Cobalt	13.2	UJ	13.2	UJ	13.2	UJ	13.2	UJ	13.2	UJ	13.2	UJ	13.2	UJ	13.2	UJ
Copper	31.3	J	11.4	J	14.7	J	13.3	J	34.8	J	7.9	MJ	9.3	UJ	15.2	J
Iron	5780	J	19.6	MJB	86	JB	45.3	MJB	1710	J	27.8	MJB	1130	J	2790	J
Lead	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	M
Magnesium	20600		20000		24000		19400		27600		21600		21500		21700	
Manganese	58.7		325		380		0.6	M	223		1.9	U	299		1880	
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	21	U	21	U	21	U	21	U	21	U	21	U	9.8	M	21	U
Potassium	1100		2430		1880		4000		1280		3850		1760		6920	
Selenium	2	U	2	U	2	U	2	U	2	U	4	UD	2	U	2	U
Silver	11.1	U	11.1	U	11.1	U	11.1	U	11.1	U	11.1	U	11.1	U	11.1	U
Sodium	15400	J	63200	J	30300	J	116000	J	15200	J	84700	J	19000	J	92200	J
Thallium	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Vanadium	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U
Zinc	34	MB	20.5	MB	13.1	MB	128	B	28.3	MB	173	B	12.5	MB	39.1	B
MISC. INORGANICS																
Bromide (µg Br/L)	60	M	60	M	60	M	60	M	60	M	60	M	70	M	70	M
Sulfate (mg SO ₄ /L)	142	D	130	D	130	D	127	D	153	D	134	D	132	U	152	D

U: Not detected
M (Inorganic), J (Organic): Estimated value between the reporting limit and method detection limit
B: Analyte also present in blank
D: Dilution required

Residential Well Ground Water Analytical Results - April 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	Westwood Dup		Westwood		Westwood		Westwood		Westwood	
Sample number	SO11		SO8		SO9		SO12		SO13	
Date sampled	4/18/2000		4/18/2000		4/18/2000		4/19/2000		4/19/2000	
Units	µg/L		µg/L		µg/L		µg/L		µg/L	
TOTAL METALS										
Dilution factor										
Aluminum	118	U	118	U	118	U	118	U	118	U
Antimony	2	U	2	U	2	U	2	U	2	U
Arsenic	2	U	2	U	2	U	7	M	8	
Barium	63.2		39.3		35.8		106		92.3	
Beryllium	2	U	2	U	2	U	2	U	2	U
Cadmium	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Calcium	173000		132000		99800		112000		97500	
Chromium	6.7	U	2.1	M	6.7	U	6.7	U	6.7	U
Cobalt	13.2	UJ	13.2	UJ	13.2	UJ	13.2	UJ	13.2	UJ
Copper	10.7	J	13.3	J	10.7	J	9.3	UJ	62.1	J
Iron	2270	J	100	JB	46.5	UJ	5870	J	5530	J
Lead	2	U	2	U	2	U	2	U	2	U
Magnesium	18200		24900		21500		15700		13600	
Manganese	1560		202		30		72		65.2	
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	21	U	21	U	21	U	21	U	21	U
Potassium	5170		4140		3700		2340		2590	
Selenium	4	UD	2	U	2	U	4	UD	2	U
Silver	11.1	U	11.1	U	11.1	U	11.1	U	11.1	U
Sodium	73400	J	81000	J	91800	J	14800	J	35100	J
Thallium	1	U	1	U	1	U	1	U	1	U
Vanadium	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U
Zinc	26.9	MB	26.5	MB	87.3	B	12	MB	31.1	MB
MISC. INORGANICS										
Bromide (µg Br/L)	70	M	60	M	60	M	60	M	60	M
Sulfate (mg SO ₄ /L)	152	D	109	D	105	D	148	D	142	D

U: Not detected

M (Inorganic), J (Organic): Estimated value between the reporting limit and method detection limit

B: Analyte also present in blank

D: Dilution required

Residential Well Ground Water Analytical Results - April 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	Westwood SO1		Westwood SO2		Westwood SO3		Westwood SO6		Westwood SO4		Westwood SO5		Westwood SO7		Westwood SO10	
Sample number	4/17/2000		4/17/2000		4/17/2000		4/17/2000		4/17/2000		4/17/2000		4/18/2000		4/18/2000	
Date sampled	4/17/2000		4/17/2000		4/17/2000		4/17/2000		4/17/2000		4/17/2000		4/18/2000		4/18/2000	
Units	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
VOLATILE ORGANICS																
Sample number	EDPK9		EDPL0		EDPL1		EDPL4		EDPL2		EDPL3		EDPL5		EDPL8	
Chloromethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromomethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	6	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Acetone	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Carbon Disulfide	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	12	U	1	U	0.8	J	1	U	1	U	1	U	1	U	3	U
cis-1,2-Dichloroethene	0.8	J	1	U	1	U	1	U	1	U	1	U	1	U	2	U
trans-1,2-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroform	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Bromochloromethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon Tetrachloride	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	8	U
cis-1,3-Dichloropropene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Trichloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dibromochloromethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Benzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,3-Dichloropropene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromoform	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-pentanone	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Tetrachloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Toluene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Ethylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U

U: Not detected

M (Inorganic), J (Organic): Estimated value between the reporting limit and method detection limit

B: Analyte also present in blank

D: Dilution required

Residential Well Ground Water Analytical Results - April 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	Westwood Dup	Westwood	Westwood	Westwood	Westwood
Sample number	SO11	SO8	SO9	SO12	SO13
Date sampled	4/18/2000	4/18/2000	4/18/2000	4/19/2000	4/19/2000
Units	µg/L	µg/L	µg/L	µg/L	µg/L
VOLATILE ORGANICS					
Sample number	EDPM0	EDPL6	EDPL7	EDPM1	EDPM2
Chloromethane	1 U	1 U	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	2 U	2 U	2 U	UJ	2 U
Acetone	5 U	5 U	5 U	5 U	5 U
Carbon Disulfide	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	4	0.8 J	1 U	3	2
cis-1,2-Dichloroethane	2	0.7 J	1 U	1	1
trans-1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U
2-Butanone	5 U	5 U	5 U	5 U	5 U
Bromochloromethane	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	9	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U
Benzene	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U
Bromoform	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone	5 U	5 U	5 U	5 U	5 U
2-Hexanone	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U
Toluene	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	1 U	1 U	1 U	1 U	1 U

U: Not detected

M (Inorganic), J (Organic): Estimated value between the reporting limit and method detection limit

B: Analyte also present in blank

D: Dilution required

Residential Well Ground Water Analytical Results - April 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	Westwood		Westwood		Westwood		Westwood		Westwood		Westwood		Westwood	
Sample number	SO1		SO2		SO3		SO6		SO4		SO5		SO7	
Date sampled	4/17/2000		4/17/2000		4/17/2000		4/17/2000		4/17/2000		4/17/2000		4/18/2000	
Units	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
Styrene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Xylene (total)	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-chloropropane	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SEMIVOLATILE ORGANICS														
Sample number	EDPK9		EDPL0		EDPL1		EDPL4		EDPL2		EDPL3		EDPL5	
Phenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U
bis(2-Chloroethyl)ether	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Chlorophenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Methylphenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,2'-Oxybis(1-chloropropane)	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Methylphenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N-Nitroso-di-n-propylamine	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Hexachloroethane	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Nitrobenzene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Isophorone	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Nitrophenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,4-Dimethylphenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U
bis(2-Chloroethoxy)methane	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,4-Dichlorophenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Naphthalene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Chloroaniline	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Hexachlorobutadiene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Chloro-3-methylphenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Methylnaphthalene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Hexachlorocyclopentadiene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,4,6-Trichlorophenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,4,5-Trichlorophenol	20	U	20	U	20	U	20	U	20	U	20	U	20	U
2-Chloronaphthalene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Nitroaniline	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Dimethylphthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Acenaphthylene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,6-Dinitrotoluene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
3-Nitroaniline	20	U	20	U	20	U	20	U	20	U	20	U	20	U

U: Not detected

M (Inorganic), J (Organic): Estimated value between the reporting limit and method detection limit

B: Analyte also present in blank

D: Dilution required

Residential Well Ground Water Analytical Results - April 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	Westwood Dup		Westwood		Westwood		Westwood		Westwood	
Sample number	SO11		SO8		SO9		SO12		SO13	
Date sampled	4/18/2000		4/18/2000		4/18/2000		4/19/2000		4/19/2000	
Units	µg/L		µg/L		µg/L		µg/L		µg/L	
Styrene	1	U	1	U	1	U	1	U	1	U
Xylene (total)	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-chloropropane	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	1	U	1	U	1	U	1	U	1	U
SEMIVOLATILE ORGANICS										
Sample number	EDPM0		EDPL6		EDPL7		EDPM1		EDPM2	
Phenol	5	U	5	U	5	U	5	U	5	U
bis(2-Chloroethyl)ether	5	U	5	U	5	U	5	U	5	U
2-Chlorophenol	5	U	5	U	5	U	5	U	5	U
2-Methylphenol	5	U	5	U	5	U	5	U	5	U
2,2'-Oxybis(1-chloropropane)	5	U	5	U	5	U	5	U	5	U
4-Methylphenol	5	U	5	U	5	U	5	U	5	U
N-Nitroso-di-n-propylamine	5	U	5	U	5	U	5	U	5	U
Hexachloroethane	5	U	5	U	5	U	5	U	5	U
Nitrobenzene	5	U	5	U	5	U	5	U	5	U
Isophorone	5	U	5	U	5	U	5	U	5	U
2-Nitrophenol	5	U	5	U	5	U	5	U	5	U
2,4-Dimethylphenol	5	U	5	U	5	U	5	U	5	U
bis(2-Chloroethoxy)methane	5	U	5	U	5	U	5	U	5	U
2,4-Dichlorophenol	5	U	5	U	5	U	5	U	5	U
Naphthalene	5	U	5	U	5	U	5	U	5	U
4-Chloroaniline	5	U	5	U	5	U	5	U	5	U
Hexachlorobutadiene	5	U	5	U	5	U	5	U	5	U
4-Chloro-3-methylphenol	5	U	5	U	5	U	5	U	5	U
2-Methylnaphthalene	5	U	5	U	5	U	5	U	5	U
Hexachlorocyclopentadiene	5	U	5	U	5	U	5	U	5	U
2,4,6-Trichlorophenol	5	U	5	U	5	U	5	U	5	U
2,4,5-Trichlorophenol	20	U	20	U	20	U	20	U	20	U
2-Chloronaphthalene	5	U	5	U	5	U	5	U	5	U
2-Nitroaniline	20	U	20	U	20	U	20	U	20	U
Dimethylphthalate	5	U	5	U	5	U	5	U	5	U
Acenaphthylene	5	U	5	U	5	U	5	U	5	U
2,6-Dinitrotoluene	5	U	5	U	5	U	5	U	5	U
3-Nitroaniline	20	U	20	U	20	U	20	U	20	U

U: Not detected

M (Inorganic), J (Organic): Estimated value between the reporting limit and method detection limit

B: Analyte also present in blank

D: Dilution required

Residential Well Ground Water Analytical Results - April 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	Westwood		Westwood		Westwood		Westwood		Westwood		Westwood		Westwood	
Sample number	SO1		SO2		SO3		SO6		SO4		SO5		SO7	
Date sampled	4/17/2000		4/17/2000		4/17/2000		4/17/2000		4/17/2000		4/17/2000		4/18/2000	
Units	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
Acenaphthene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,4-Dinitrophenol	20	U	20	U	20	U	20	U	20	U	20	U	20	U
4-Nitrophenol	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Dibenzofuran	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,4-Dinitrotoluene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Diethylphthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Chlorophenyl-phenylether	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Fluorene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Nitroaniline	20	U	20	U	20	U	20	U	20	U	20	U	20	U
4,6-Dinitro-2-methylphenol	20	U	20	U	20	U	20	U	20	U	20	U	20	U
N-Nitrosodiphenylamine	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Bromophenyl-phenylether	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Hexachlorobenzene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Pentachlorophenol	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Phenanthrene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Anthracene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Carbazole	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Di-n-butylphthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Fluoranthene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Pyrene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Butylbenzylphthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U
3,3'-Dichlorobenzidine	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(a)anthracene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chrysene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
bis(2-Ethylhexyl)phthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Di-n-octylphthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(b)fluoranthene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(k)fluoranthene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(a)pyrene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Indeno(1,2,3-cd)pyrene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Dibenz(a,h)anthracene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(g,h,i)perylene	5	U	5	U	5	U	5	U	5	U	5	U	5	U

U: Not detected

M (Inorganic), J (Organic): Estimated value between the reporting limit and method detection limit

B: Analyte also present in blank

D: Dilution required

Residential Well Ground Water Analytical Results - April 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	Westwood Dup		Westwood		Westwood		Westwood		Westwood	
Sample number	SO11		SO8		SO9		SO12		SO13	
Date sampled	4/18/2000		4/18/2000		4/18/2000		4/19/2000		4/19/2000	
Units	µg/L		µg/L		µg/L		µg/L		µg/L	
Acenaphthene	5	U	5	U	5	U	5	U	5	U
2,4-Dinitrophenol	20	U	20	U	20	U	20	U	20	U
4-Nitrophenol	20	U	20	U	20	U	20	U	20	U
Dibenzofuran	5	U	5	U	5	U	5	U	5	U
2,4-Dinitrotoluene	5	U	5	U	5	U	5	U	5	U
Diethylphthalate	5	U	5	U	5	U	5	U	5	U
4-Chlorophenyl-phenylether	5	U	5	U	5	U	5	U	5	U
Fluorene	5	U	5	U	5	U	5	U	5	U
4-Nitroaniline	20	U	20	U	20	U	20	U	20	U
4,6-Dinitro-2-methylphenol	20	U	20	U	20	U	20	U	20	U
N-Nitrosodiphenylamine	5	U	5	U	5	U	5	U	5	U
4-Bromophenyl-phenylether	5	U	5	U	5	U	5	U	5	U
Hexachlorobenzene	5	U	5	U	5	U	5	U	5	U
Pentachlorophenol	20	U	20	U	20	U	20	U	20	U
Phenanthrene	5	U	5	U	5	U	5	U	5	U
Anthracene	5	U	5	U	5	U	5	U	5	U
Carbazole	5	U	5	U	5	U	5	U	5	U
Di-n-butylphthalate	5	U	5	U	5	U	5	U	5	U
Fluoranthene	5	U	5	U	5	U	5	U	5	U
Pyrene	5	U	5	U	5	U	5	U	5	U
Butylbenzylphthalate	5	U	5	U	5	U	5	U	5	U
3,3'-Dichlorobenzidine	5	U	5	U	5	U	5	U	5	U
Benzo(a)anthracene	5	U	5	U	5	U	5	U	5	U
Chrysene	5	U	5	U	5	U	5	U	5	U
bis(2-Ethylhexyl)phthalate	5	U	5	U	5	U	5	U	5	U
Di-n-octylphthalate	5	U	5	U	5	U	5	U	5	U
Benzo(b)fluoranthene	5	U	5	U	5	U	5	U	5	U
Benzo(k)fluoranthene	5	U	5	U	5	U	5	U	5	U
Benzo(a)pyrene	5	U	5	U	5	U	5	U	5	U
Indeno(1,2,3-cd)pyrene	5	U	5	U	5	U	5	U	5	U
Dibenz(a,h)anthracene	5	U	5	U	5	U	5	U	5	U
Benzo(g,h,i)perylene	5	U	5	U	5	U	5	U	5	U

U: Not detected

M (Inorganic), J (Organic): Estimated value between the reporting limit and method detection limit

B: Analyte also present in blank

D: Dilution required

Monitoring Well Ground Water Analytical Results - April/May 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	WTB1	WTB3	WTB4	WTE1	WTE3	WTG1	WTG3	WT101A	WT101A Dup	WT101B	WT101C	WT102A
Sample number	S030	S031	S032	S045	S046	S037	S038	S050	S051	S052	S049	S020
Date sampled	4/28/2000	4/28/2000	4/28/2000	5/2/2000	5/2/2000	4/27/2000	4/27/2000	5/3/2000	5/3/2000	5/3/2000	5/3/2000	4/25/2000
Screened Interval (Feet BGS)	468.9-474.9	127.2-137.2	169.2-174.2	73.9-83.9	173.9-178.9	38.0-43.0	162-172	8.5-18.5	8.5-18.5	95.5-100.5	162.5-167.5	8.4-18.4
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
TOTAL METALS												
Dilution factor												
Aluminum	118 U	118 U	118 U	118 U	118 U	118 U	36.7 M	118 U	118 U	118 U	152	118 U
Antimony	2 U	2 U	2 U	7 U	7 U	2 U	2 U	7 U	7 U	7 U	7 U	2 U
Arsenic	2 U	5 M	2 U	7 U	5 M	2 U	10	5 M	14 UD	7 U	10	2 U
Barium	122	60 2	37	43.5	51.3	79.1	79.4	83.1	82.4	72.3	77.6	46.7
Beryllium	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Cadmium	0.1 U	0.1 U	0.1 U	0.3 U	0.3 U	0.1 U	0.1 U	0.3 U	0.3 U	0.3 U	0.3 U	0.1 U
Calcium	52500	96800	69400	174000	58300	94300	76400	258000	242000	137000	47900	173000
Chromium	2.4 MJ	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	7.7 J	17.8 J
Cobalt	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	4 M	13.2 U	4 M	4.1 MJ
Copper	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
Iron	527 BJ	426 BJ	415 BJ	5150	2240	1010 BJ	1150 BJ	16300	16100	2850	1380	115 BJ
Lead	2 U	2 U	2 U	3 M	3 M	2 U	2 U	7 U	7 U	7 U	7 U	2 U
Magnesium	20900	27900 J	21200 J	35500	23800	24300 J	23500 J	27300	27500	52800	20100	18800 J
Manganese	40.1	356	206	204 J	21.1 J	52.7	21.8	1610 J	1540 J	36 J	20.5 J	86.7
Mercury	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U
Nickel	8.3 MJ	21 UJ	21 UJ	21 UJ	21 U	7 MJ	8.1 MJ	21 U	21 U	21 U	7 M	45.4 J
Potassium	2100	1290	759	4120	1810	1430	1260	6730	6810	6280	4130	2060
Selenium	2 U	2 U	2 U	14 UD	7 U	2 U	4 JM	7 U	7 U	7 U	7 U	2 U
Silver	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U
Sodium	55100	20300	4600	19100	12400	13800	18400	66800	65200	43100	36100	100000
Thallium	1 U	1 U	1 U	4 U	4 U	1 U	1 U	4 U	4 U	4 U	4 U	1 U
Vanadium	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
Zinc	36.9 JB	34.1 U	34.1 U	34.1 U	34.1 U	34.1 U	34.1 U	34.1 U	34.1 U	34.1 U	34.1 U	34.1 U
MISC. INORGANICS												
Bromide (µg Br/L)	180 M	80 M	110 M	120 M	130 M	50 M	60 M	520 M	530 M	340 M	880 M	60 M
Sulfate (mg SO ₄ /L)	60 M	132 JD	38 JD	347 D	57 D	59 D	32 J	218 D	215 D	211 D	0.42 MJ	202 JD

BGS: Below Ground Surface
NS: Not sampled
U: Not detected
M (Inorganic), J (Organic): Estimated value between the reporting limit and method detection limit
B: Analyte also present in blank
D: Dilution required

Monitoring Well Ground Water Analytical Results - April/May 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	WT102B	WT102C	WT105A	WT106A	WT111A	WT112A	WT112B	WT112B Dup	WT113A	WT113B	WT114A	WT114A - Split
Sample number	S019	S018	S047	S048	S040	S035	S033	S034	S029	S028	S058	S058
Date sampled	4/25/2000	4/25/2000	5/2/2000	5/2/2000	4/28/2000	4/27/2000	4/27/2000	4/27/2000	4/26/2000	4/26/2000	5/3/2000	5/3/2000
Screened interval (Feet BGS)	62.9-67.9	157-162	8.5-18.5	8.6-18.6	11.9-21.9	7.7-17.7	57.1-62.1	57.1-62.1	14.4-24.4	65.0-70.0	14.5-24.5	14.5-24.5
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
TOTAL METALS												
Dilution factor												
Aluminum	118 U	500	112 M	3090	463	118 U	118 U	118 U	118 U	118 U	118 U	44 J
Antimony	2 U	2 U	7 U	7 U	7 U	6 UD	2 U	2 U	2 U	2 U	7 U	20 U
Arsenic	6 M	3 M	7 U	46 D	7 U	2 U	5 M	4 M	2 U	3 M	9	10 J
Barium	103	104	8.1	160	256	28.6	86.7	86	13.8	68.4	101 B	115
Beryllium	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Cadmium	0.1 U	0.1 U	0.3 U	0.1 M	0.2 M	0.1 U	0.1 U	0.1 U	0.1 M	0.1 U	0.3 U	2.5 U
Calcium	75800	129000 B	57400	175000	113000	247000	81800	79900	64300	101000	192000 B	203000
Chromium	24.2 J	26.8 J	23.9 J	21.6 J	2.3 MJ	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	10 U
Cobalt	13.2 U	13.2 U	4.1 M	13.2 U	12.2 M	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U	5.9 M	5.8 J
Copper	9.3 U	4 UB	9.3 U	11	9.3 U	9.3 U	9.3 U	9.3 U	4.2 MB	9.3 U	9.3 U	10 U
Iron	1580 BJ	2210 BJ	407	27600	12600	23.3 MJB	1180 BJ	1220 BJ	59.8 BJ	1210 BJ	6510 B	6290
Lead	2 U	2 M	7 U	6 M	7 U	2 U	2 U	2 U	2 U	2 U	7 U	10 U
Magnesium	22300	45600 B	16500 J	26800	19100 J	17000 J	21000 J	20900 J	16500 J	21400	18600 BJ	21000
Manganese	91.9	288 B	160 J	559 J	1440 J	0.7 M	93.1	94.5	3.1	97.6	276 BJ	288
Mercury	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.011 J
Nickel	8.1 MJ	23.7 J	73.3	11.7 M	8.7 M	21 UJ	21 UJ	21 UJ	21 UJ	21 UJ	21 U	4.8 J
Potassium	1840	1970	1360	4200	8380	1700	1320	1380	1210	2040	3390 B	3750
Selenium	2 U	2 U	7 U	7 U	7 U	2 U	2 U	2 U	2 U	2 U	21 UD	20 U
Silver	3.4 M	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U	5 U
Sodium	25900	6060 UB	7720	29300	39400	13800	22800	23300	14200	15300	123000 B	125000
Thallium	1 U	1 U	4 U	4 U	4 U	1 U	1 U	1 U	1 U	1 U	4 U	30 U
Vanadium	1.9 M	3.2 M	5.1 U	5.1 U	5.1 U	2.3 M	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	20 U
Zinc	34.1 U	13.5 MJ	34.1 U	31.7 MJ	18 MJ	34.1 U	34.1 U	34.1 U	34.1 U	34.1 U	34.1 U	10 U
MISC. INORGANICS												
Bromide (µg Br/L)	80 M	140 M	110 M	420 M	430 M	40 M	70 M	70 M	14 U	60 M	170 M	NS
Sulfate (mg SO ₄ /L)	58 JD	36 J	36 D	146 D	264 D	434 JD	56 J	56 J	24 J	131 JD	177 D	NS

BGS: Below Ground Surface

NS: Not sampled

U: Not detected

M (Inorganic), J (Organic): Estimated value between the reporting limit and method detection limit

B: Analyte also present in blank

D: Dilution required

Monitoring Well Ground Water Analytical Results - April/May 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	WT114B	WT115A	WT116A	WT116A Dup	WT116B	WT117A	WT117B	WT118B	WT119A
Sample number	S057	S043	S053	S054	S055	S038	S039	S041	S042
Date sampled	5/3/2000	5/1/2000	5/3/2000	5/3/2000	5/3/2000	4/27/2000	4/27/2000	4/28/2000	4/28/2000
Screened interval (Feet BGS)	62.8-67.8	9.7-19.7	4.8-14.8	4.8-14.8	55.4-60.4	7.9-17.9	58.5-63.5	59.9-64.9	7.5-17.5
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
TOTAL METALS									
Dilution factor									
Aluminum	118 U	8860	118 U	118 U	118 U	827	118 U	118 U	38.3 M
Antimony	7 U	7 U	7 U	7 U	7 U	2 U	2 U	7 U	7 U
Arsenic	9	7 U	7 U	7 U	7 U	2 U	2 U	7 U	6 M
Barium	69.4	105	79.9	79.6	135	41.3	35.9	93.4	94
Beryllium	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Cadmium	0.3 U	0.1 M	0.1 M	0.1 M	0.3 U	0.1 U	0.1 U	0.3 U	0.3 U
Calcium	108000	241000	666000	685000	203000	70900	179000	193000	215000
Chromium	3 MJ	12.8 J	6.7 U	6.7 U	6.7 U	9.3 J	6.7 U	6.7 U	2 MJ
Cobalt	13.2 U	13.2 U	11.2 M	11.5 M	13.2 U	13.2 U	13.2 U	13.2 U	13.2 U
Copper	9.3 U	19.7	15.8	15.5	9.3 U	3.2 MB	9.3 U	9.3 U	9.3 U
Iron	6320	6500	31900	32400	3710	508 BJ	2280 BJ	5790	2650
Lead	7 U	11	6 M	13 DM	7 U	2 U	2 U	7 U	7 U
Magnesium	17500 J	12400 J	66900	66100	22900	12000 J	24200 J	20000	70800
Manganese	92.5 J	380 J	1810 J	1800 J	206 J	206	71.7	126 J	318 J
Mercury	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 UJ
Nickel	21 U	11.5 M	13.3 M	12.2 M	21 U	7.5 MJ	21 UJ	21 U	21 U
Potassium	2700	4440	19600	18900	5780	2180	1790	7800	22200
Selenium	7 U	7 U	14 DU	14 UJD	14 UD	4 UD	4 UD	14 UD	14 UD
Silver	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U
Sodium	14100	24600	161000	160000	23500	5110	17100	18700	61100
Thallium	4 U	4 U	4 U	4 U	4 U	1 U	1 U	4 U	4 U
Vanadium	5.1 U	14.5	5.1 U	5.1 U	5.1 U	3.1 M	5.1 U	5.1 U	5.1 U
Zinc	34.1 U	37.7 JB	178 J	194 J	34.1 U	34.1 U	34.1 U	34.1 U	34.1 U
MISC. INORGANICS									
Bromide (µg Br/L)	70 MJ	620	2380 D	2420 D	320 M	60 M	70 M	200 M	460 M
Sulfate (mg SO ₄ /L)	156 D	254 D	1260 D	1250 D	143 D	169 JD	318 JD	351 D	420 D

BGS: Below Ground Surface

NS: Not sampled

U: Not detected

M (Inorganic), J (Organic): Estimated value between the reporting limit and method detection limit

B: Analyte also present in blank

D: Dilution required

Monitoring Well Ground Water Analytical Results - April/May 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	WTB1	WTB3	WTB4	WTE1	WTE3	WTG1	WTG3	WT101A	WT101A Dup	WT101B	WT101C	WT102A
Sample number	S030	S031	S032	S045	S046	S037	S036	S050	S051	S052	S049	S020
Date sampled	4/26/2000	4/26/2000	4/26/2000	5/2/2000	5/2/2000	4/27/2000	4/27/2000	5/3/2000	5/3/2000	5/3/2000	5/3/2000	4/25/2000
Screened interval (Feet BGS)	488.9-474.9	127.2-137.2	169.2-174.2	73.9-83.9	173.9-178.9	38.0-43.0	162-172	8.5-18.5	8.5-18.5	95.5-100.5	162.5-167.5	8.4-18.4
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
VOLATILE ORGANICS												
Sample number	EDCG3	EDCG4	EDCG5	EOOFH	EOOFJ	EOOF8	EDCG9	ECFN2	ECFN3	ECFN4	EOOF5	EDPN4
Chloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2	2	1 U	1 U
Methylene Chloride	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Acetone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Disulfide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	8	8	1 U	1 U	1 U
cis-1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U	1 U	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	1 U	1 U	1 U	1 U	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2	2	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylene (total)	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

BGS: Below Ground Surface

NS: Not sampled

U: Not detected

M (Inorganic), J (Organic): Estimated value between the reporting limit and method detection limit

B: Analyte also present in blank

D: Dilution required

Monitoring Well Ground Water Analytical Results - April/May 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	WT102B	WT102C	WT105A	WT106A	WT111A	WT112A	WT112B	WT112B Dup	WT113A	WT113B	WT114A	WT114A - Split
Sample number	S019	S018	S047	S048	S040	S035	S033	S034	S029	S028	S056	S056
Date sampled	4/25/2000	4/25/2000	5/2/2000	5/2/2000	4/28/2000	4/27/2000	4/27/2000	4/27/2000	4/28/2000	4/28/2000	5/3/2000	5/3/2000
Screened interval (Feet BGS)	62.9-67.9	157-162	8.5-18.5	8.6-18.6	11.9-21.9	7.7-17.7	57.1-62.1	57.1-62.1	14.4-24.4	65.0-70.0	14.5-24.5	14.5-24.5
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
VOLATILE ORGANICS												
Sample number	EDPN2	EDPN1	EOOFK	EOOF4	EOOFB	EDCG8	EDCG6	EDCG7	EDCG2	EDCG0	E01TP	EECFN10
Chloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Bromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Vinyl Chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Chloroethane	1 U	1 U	1 U	0.6 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Methylene Chloride	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Acetone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U
Carbon Disulfide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
1,1-Dichloroethane	1 U	1 U	1 U	0.9 J	1 U	1 U	1 U	1 U	1 U	1 U	3 U	2.6
cis-1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
trans-1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
2-Butanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U
Bromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Bromodichloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Trichloroethene	1 U	1 U	1 U	0.6 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Benzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.9 J
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
4-Methyl-2-pentanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U
2-Hexanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Toluene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Ethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Xylene (total)	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
1,3-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U
1,4-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U
1,2-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U
1,2-Dibromo-3-chloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
1,2,4-Trichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	25 U

BGS: Below Ground Surface
NS: Not sampled
U: Not detected
M (Inorganic), J (Organic): Estimated value between the reporting limit and method detection limit
B: Analyte also present in blank
D: Dilution required

Monitoring Well Ground Water Analytical Results - April/May 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	WT114B	WT115A	WT116A	WT116A Dup	WT116B	WT117A	WT117B	WT118B	WT119A
Sample number	S057	S043	S053	S054	S055	S038	S039	S041	S042
Date sampled	5/3/2000	5/1/2000	5/3/2000	5/3/2000	5/3/2000	4/27/2000	4/27/2000	4/28/2000	4/28/2000
Screened interval (Feet BGS)	62.8-67.8	9.7-19.7	4.8-14.8	4.8-14.8	55.4-60.4	7.9-17.9	58.5-63.5	59.9-64.9	7.5-17.5
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
VOLATILE ORGANICS									
Sample number	E01TQ	EOOFF	ECFN5	ECFN6	ECFN8	EOOF9	EOOFA	EOOFC	EOOFE
Chloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1	1	1 U	1 U	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Acetone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Disulfide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	8	7	1 U	1 U	1 U	2	3
cis-1,2-Dichloroethene	1 U	0.5 J	1	1	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	0.6 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	1 U	0.8 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylene (total)	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

BGS: Below Ground Surface

NS: Not sampled

U: Not detected

M (Inorganic), J (Organic): Estimated value between the reporting limit and method detection limit

B: Analyte also present in blank

D: Dilution required

Monitoring Well Ground Water Analytical Results - April/May 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	WTB1	WTB3	WTB4	WTE1	WTE3	WTG1	WTG3	WT101A	WT101A Dup	WT101B	WT101C	WT102A
Sample number	S030	S031	S032	S045	S048	S037	S038	S050	S051	S052	S049	S020
Date sampled	4/28/2000	4/28/2000	4/28/2000	5/2/2000	5/2/2000	4/27/2000	4/27/2000	5/3/2000	5/3/2000	5/3/2000	5/3/2000	4/25/2000
Screened Interval (Feet BGS)	468.9-474.9	127.2-137.2	169.2-174.2	73.9-83.9	173.9-178.9	38.0-43.0	162-172	6.5-18.5	8.5-18.5	95.5-100.5	162.5-167.5	8.4-18.4
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SEMIVOLATILE ORGANICS												
Sample number	EDCG3	EDCG4	EDCG5	EOOFH	EOOFJ	EOOF8	EDCG9	ECFN2	ECFN3	ECFN4	EOOF5	EDPN4
Phenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
bis(2-Chloroethyl)ether	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Chlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Methylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,2'-Oxybis(1-chloropropane)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
N-Nitroso-di-n-propylamine	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Nitrobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Isophorone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dimethylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
bis(2-Chloroethoxy)methane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dichlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Chloroaniline	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobutadiene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Chloro-3-methylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Methylnaphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorocyclopentadiene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,6-Trichlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,5-Trichlorophenol	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2-Chloronaphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Nitroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Dimethylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acenaphthylene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,6-Dinitrotoluene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3-Nitroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acenaphthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dinitrophenol	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U

BGS: Below Ground Surface

NS: Not sampled

U: Not detected

M (Inorganic), J (Organic): Estimated value between the reporting limit and method detection limit

B: Analyte also present in blank

D: Dilution required

Monitoring Well Ground Water Analytical Results - April/May 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	WT102B	WT102C	WT105A	WT106A	WT111A	WT112A	WT112B	WT112B Dup	WT113A	WT113B	WT114A	WT114A - Split
Sample number	S019	S018	S047	S048	S040	S035	S033	S034	S029	S028	S058	S056
Date sampled	4/25/2000	4/25/2000	5/2/2000	5/2/2000	4/28/2000	4/27/2000	4/27/2000	4/27/2000	4/28/2000	4/28/2000	5/3/2000	5/3/2000
Screened interval (Feet BGS)	62.9-67.9	157-162	8.5-18.5	8.6-18.6	11.9-21.9	7.7-17.7	57.1-62.1	57.1-62.1	14.4-24.4	65.0-70.0	14.5-24.5	14.5-24.5
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SEMIVOLATILE ORGANICS												
Sample number	EDPN2	EDPN1	EOOFK	EOOF4	EOOFB	EDCG8	EDCG6	EDCG7	EDCG2	EDCG0	E01TP	EECFN10
Phenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
bis(2-Chloroethyl)ether	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
2-Chlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
2-Methylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
2,2'-Oxybis(1-chloropropane)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
4-Methylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
N-Nitroso-di-n-propylamine	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
Hexachloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
Nitrobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
Isophorone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
2,4-Dimethylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
bis(2-Chloroethoxy)methane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
2,4-Dichlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
Naphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
4-Chloroaniline	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
Hexachlorobutadiene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
4-Chloro-3-methylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
2-Methylnaphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
Hexachlorocyclopentadiene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
2,4,6-Trichlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
2,4,5-Trichlorophenol	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	NS
2-Chloronaphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
2-Nitroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	NS
Dimethylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
Acenaphthylene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
2,6-Dinitrotoluene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
3-Nitroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	NS
Acenaphthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS
2,4-Dinitrophenol	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	NS

BGS: Below Ground Surface

NS: Not sampled

U: Not detected

M (Inorganic), J (Organic): Estimated value between the reporting limit and method detection limit

B: Analyte also present in blank

D: Dilution required

Monitoring Well Ground Water Analytical Results - April/May 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	WT114B	WT115A	WT116A	WT116A Dup	WT116B	WT117A	WT117B	WT118B	WT119A	
Sample number	S057	S043	S053	S054	S055	S038	S039	S041	S042	
Date sampled	5/3/2000	5/1/2000	5/3/2000	5/3/2000	5/3/2000	4/27/2000	4/27/2000	4/28/2000	4/28/2000	
Screened interval (Feet BGS)	62.8-67.8	9.7-19.7	4.8-14.8	4.8-14.8	55.4-60.4	7.9-17.9	59.5-63.5	59.9-64.9	7.5-17.5	
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
SEMIVOLATILE ORGANICS										
Sample number	E01TQ	EOOFF	ECFN5	ECFN6	ECFN8	EOOF9	EOOFA	EOOFC	EOOFE	
Phenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
bis(2-Chloroethyl)ether	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
2-Chlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
2-Methylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
2,2'-Oxybis(1-chloropropane)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
4-Methylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
N-Nitroso-di-n-propylamine	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
Hexachloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
Nitrobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
Isophorone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
2,4-Dimethylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
bis(2-Chloroethoxy)methane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
2,4-Dichlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
Naphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
4-Chloroaniline	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
Hexachlorobutadiene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
4-Chloro-3-methylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
2-Methylnaphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
Hexachlorocyclopentadiene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
2,4,6-Trichlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
2,4,5-Trichlorophenol	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	
2-Chloronaphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
2-Nitroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	
Dimethylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
Acenaphthylene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
2,6-Dinitrotoluene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
3-Nitroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	
Acenaphthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
2,4-Dinitrophenol	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	

BGS: Below Ground Surface

NS: Not sampled

U: Not detected

M (Inorganic), J (Organic): Estimated value between the reporting limit and method detection limit

B: Analyte also present in blank

D: Dilution required

Monitoring Well Ground Water Analytical Results - April/May 2000
Himco Dump Superfund Site
Eikhart, Indiana

Sample location	WTB1	WTB3	WTB4	WTE1	WTE3	WTG1	WTG3	WT101A	WT101A Dup	WT101B	WT101C	WT102A
Sample number	S030	S031	S032	S045	S048	S037	S038	S050	S051	S052	S049	S020
Date sampled	4/28/2000	4/28/2000	4/28/2000	5/2/2000	5/2/2000	4/27/2000	4/27/2000	5/3/2000	5/3/2000	5/3/2000	5/3/2000	4/25/2000
Screened interval (Feet BGS)	488.9-474.9	127.2-137.2	169.2-174.2	73.9-83.9	173.9-178.9	38.0-43.0	162-172	8.5-18.5	8.5-18.5	95.5-100.5	162.5-167.5	8.4-18.4
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
4-Nitrophenol	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Dibenzofuran	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dinitrotoluene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethylphthalate	5 U	5 U	5 U	3 J	2 J	5 U	5 U	3 J	4 J	2 J	5 U	5 U
4-Chlorophenyl-phenylether	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluorene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Nitroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
N-Nitrosodiphenylamine	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Bromophenyl-phenylether	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pentachlorophenol	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Phenanthrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Anthracene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbazole	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Di-n-butylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pyrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Butylbenzylphthalate	5 U	5 U	5 U	4 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)anthracene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chrysene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
bis(2-Ethylhexyl)phthalate	5 U	6 U	5 U	19	35	4 J	19	8 U	4 J	2 J	2 J	5 U
Di-n-octylphthalate	5 U	5 U	5 U	4 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(b)fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(k)fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)pyrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Indeno(1,2,3-cd)pyrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibenz(a,h)anthracene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(g,h,i)perylene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

BGS: Below Ground Surface
NS: Not sampled
U: Not detected
M (Inorganic), J (Organic): Estimated value between the reporting limit and method detection limit
B: Analyte also present in blank
D: Dilution required

Monitoring Well Ground Water Analytical Results - April/May 2000
Himco Dump Superfund Site
Eikhart, Indiana

Sample location	WT102B	WT102C	WT105A	WT106A	WT111A	WT112A	WT112B	WT112B Dup	WT113A	WT113B	WT114A	WT114A - Split							
Sample number	S019	S018	S047	S048	S040	S035	S033	S034	S029	S028	S056	S056							
Date sampled	4/25/2000	4/25/2000	5/2/2000	5/2/2000	4/28/2000	4/27/2000	4/27/2000	4/27/2000	4/28/2000	4/28/2000	5/3/2000	5/3/2000							
Screened interval (Feet BGS)	62.9-67.9	157-162	8.5-18.5	8.8-18.8	11.9-21.9	7.7-17.7	57.1-62.1	57.1-62.1	14.4-24.4	65.0-70.0	14.5-24.5	14.5-24.5							
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L							
4-Nitrophenol	20	U	20	U	20	U	20	U	20	U	20	U	NS						
Dibenzofuran	5	U	5	U	5	U	5	U	5	U	5	U	NS						
2,4-Dinitrotoluene	5	U	5	U	5	U	5	U	5	U	5	U	NS						
Diethylphthalate	5	U	5	U	3	J	3	J	5	U	5	U	1	J	NS				
4-Chlorophenyl-phenylether	5	U	5	U	5	U	5	U	5	U	5	U	5	U	NS				
Fluorene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	NS				
4-Nitroaniline	20	U	20	U	20	U	20	U	20	U	20	U	20	U	NS				
4,6-Dinitro-2-methylphenol	20	U	20	U	20	U	20	U	20	U	20	U	20	U	NS				
N-Nitrosodiphenylamine	5	U	5	U	5	U	5	U	5	U	5	U	5	U	NS				
4-Bromophenyl-phenylether	5	U	5	U	5	U	5	U	5	U	5	U	5	U	NS				
Hexachlorobenzene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	NS				
Pentachlorophenol	20	U	20	U	20	U	20	U	20	U	20	U	20	U	NS				
Phenanthrene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	NS				
Anthracene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	NS				
Carbazole	5	U	5	U	5	U	5	U	5	U	5	U	5	U	NS				
Di-n-butylphthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U	NS				
Fluoranthene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	NS				
Pyrene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	NS				
Butylbenzylphthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U	NS				
3,3'-Dichlorobenzidine	5	U	5	U	5	U	5	U	5	U	5	U	5	U	NS				
Benzo(a)anthracene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	NS				
Chrysene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	NS				
bis(2-Ethylhexyl)phthalate	5	U	2	J	17		47		5	U	39		5	U	5	U	2	J	NS
Di-n-octylphthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	NS
Benzo(b)fluoranthene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	NS
Benzo(k)fluoranthene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	NS
Benzo(a)pyrene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	NS
Indeno(1,2,3-cd)pyrene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	NS
Dibenz(a,h)anthracene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	NS
Benzo(g,h,i)perylene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	NS

BGS: Below Ground Surface

NS: Not sampled

U: Not detected

M (Inorganic), J (Organic): Estimated value between the reporting limit and method detection limit

B: Analyte also present in blank

D: Dilution required

Monitoring Well Ground Water Analytical Results - April/May 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	WT114B	WT115A	WT116A	WT116A Dup	WT116B	WT117A	WT117B	WT118B	WT118A
Sample number	S057	S043	S053	S054	S055	S038	S039	S041	S042
Date sampled	5/3/2000	5/1/2000	5/3/2000	5/3/2000	5/3/2000	4/27/2000	4/27/2000	4/28/2000	4/28/2000
Screened interval (Feet BGS)	62.8-67.8	9.7-19.7	4.8-14.8	4.8-14.8	55.4-60.4	7.9-17.9	58.6-63.5	59.9-64.9	7.5-17.5
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
4-Nitrophenol	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Dibenzofuran	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dinitrotoluene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethylphthalate	5 U	2 J	5 U	4 J	2 J	5 U	5 U	5 U	5 U
4-Chlorophenyl-phenylether	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluorene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Nitroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
N-Nitrosodiphenylamine	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Bromophenyl-phenylether	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pentachlorophenol	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Phenanthrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Anthracene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbazole	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Di-n-butylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pyrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Butylbenzylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)anthracene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chrysene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
bis(2-Ethylhexyl)phthalate	1 J	18	7	2 J	2 J	7	5 U	5 U	5 U
Di-n-octylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(b)fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(k)fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)pyrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Indeno(1,2,3-cd)pyrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibenz(a,h)anthracene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(g,h,i)perylene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

BGS: Below Ground Surface

NS: Not sampled

U: Not detected

M (Inorganic), J (Organic): Estimated value between the reporting limit and method detection limit

B: Analyte also present in blank

D: Dilution required

Push Ground Water Analysis Results - April/May
Himco Dump Superfund Site
Elkhart, Indiana

Sample location	GPE-1	GPE-2	GPE-3	GP114-1	GP114-2	GP114-3	GP16-1	GP16-2	GP101-1	GP101-2
Sample number	SO14	SO15	SO16	SO21	SO22	SO23	SO24	SO25	SO26	SO27
Date sampled	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000
Depth (Feet BGS)	30-32	35-37	41-43	14.5-16.5	35-37	55-57	37-39	55-57	35-37	58-60
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
TOTAL METALS										
Dilution factor										
Aluminum	2640	3960	3190	118	U 1180	6420	2160	11900	3410	455
Antimony	2	U 2	U 2	U 2	U 2	U 2	U 2	U 2	U 2	U 2
Arsenic	5	M 13	5	M 2	U 39	38	7	M 74	D 17	3
Barium	99	170	120	80.6	48.4	95.6	45.7	164	118	128
Beryllium	2	U 2	U 2	U 2	U 2	U 2	U 2	U 0.7	MB 2	U 2
Cadmium	0.1	M 0.2	DM 0.1	M 0.1	U 0.1	U 0.3	DM 0.1	M 0.6	DM 0.2	M 0.1
Calcium	351000	471000	211000	179000	245000	315000	176000	505000	281000	210000
Chromium	46.5	J 154	J 90.3	J 6.7	U 19.1	J 173	J 38.1	J 124	J 64.4	J 12.6
Cobalt	5.3	MJ 9.3	MJ 8.2	MJ 13.2	U 13.2	U 14.9	J 7.7	MJ 20.8	J 10.2	MJ 13.2
Copper	23.5	B 55.1	27.9	B 9.3	U 11.5	B 76.3	U 18.4	B 105	U 31.1	B 7.3
Iron	19100	BJ 38400	BJ 17800	BJ 337	BJ 13400	BJ 56300	BJ 12800	BJ 71400	BJ 26400	BJ 12000
Lead	15	27	12	2	U 9	35	10	47	D 27	4
Magnesium	47000	58800	31100	23200	34500	57300	34100	116000	42600	33800
Manganese	751	957	490	500	309	881	563	1820	J 634	356
Mercury	0.1	U 0.2	M 0.1	U 0.1	U 0.1	U 0.1	U 0.1	U 0.1	M 0.1	U 0.1
Nickel	26.2	J 38.2	J 22.4	J 21	U 7	MJ 57.8	J 18.4	MJ 64.6	J 29.9	J 10.2
Potassium	8490	12500	9000	3020	2760	4650	3060	4330	6080	6190
Selenium	6	UD 6	UD 6	UD 2	U 6	UD 8	UD 2	U 8	UD 6	UD 2
Silver	11.1	U 11.1	U 11.1	U 11.1	U 11.1	U 11.1	U 11.1	U 11.1	U 11.1	U 11.1
Sodium	62200	86300	31500	178000	15300	17300	21600	16300	22800	25200
Thallium	1	U 1	U 1	U 1	U 1	U 1	U 1	U 1	U 1	U 1
Vanadium	8.2	7.3	2.5	M 5.1	U 5.1	U 8.8	3.9	M 29.9	6	5.1
Zinc	94.1	JB 149	JB 86.1	JB 34.1	U 40.7	JB 156	J 43	JB 172	J 82.3	JB 34.3
MISC. INORGANICS										
Bromide (µg Br/L)	860	M 1330	M 260	M 170	M 60	M 70	M 40	M 60	M 290	M 170
Sulfate (mg SO ₄ /L)	389	JD 654	JD 288	JD 167	JD 178	JD 162	JD 72	JD 134	JD 76	JD 97

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D: Dilution required

Shading: Value not verified.

Himco Dump Superfund Site

Elkhart, Indiana

Sample location	GPE-1	GPE-2	GPE-3	GP114-1	GP114-2	GP114-3	GP16-1	GP16-2	GP101-1	GP101-2
Sample number	SO14	SO15	SO16	SO21	SO22	SO23	SO24	SO25	SO26	SO27
Date sampled	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000	4/25/2000
Depth (Feet BGS)	30-32	35-37	41-43	14.5-16.5	35-37	55-57	37-39	55-57	35-37	58-60
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
VOLATILE ORGANICS										
Sample number	EDPM3	EDPM6	EDPM7	EDPNS	EDPN6	EDPN7	EDCF6	EDCF7	EDCF8	EDCF9
Chloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Methylene Chloride	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Acetone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Disulfide	1 U	0.5 J	0.6 J	1 U	1 U	0.5 J	1 U	1 U	0.6 J	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	0.8 J	1 U	1 U	1 U	4	1 U	1 U	1 U	5	0.8 J
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	0.7 J	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	0.5 J	1 U	1 U	1 U	2	1 U	2	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	0.5 J	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzene	1 U	2	1 U	1 U	1 U	0.9 J	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

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B: Analyte also present in blank

D: Dilution required

Shading: Value not verified.

-Push Ground Water Ana results - April/May
 Hlmco Dump Superfund Site
 Elkhart, Indiana

Sample location	GPE-1		GPE-2		GPE-3		GP114-1		GP114-2		GP114-3		GP16-1		GP16-2		GP101-1		GP101-2	
Sample number	SO14		SO15		SO16		SO21		SO22		SO23		SO24		SO25		SO26		SO27	
Date sampled	4/25/2000		4/25/2000		4/25/2000		4/25/2000		4/25/2000		4/25/2000		4/25/2000		4/25/2000		4/25/2000		4/25/2000	
Depth (Feet BGS)	30-32		35-37		41-43		14.5-16.5		35-37		55-57		37-39		55-57		35-37		58-60	
Units	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
Chlorobenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Ethylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Styrene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Xylene (total)	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-chloropropane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SEMIVOLATILE ORGANICS																				
Sample number	EDPM3		EDPM6		EDPM7		EDPN5		EDPN6		EDPN7		EDCF6		EDCF7		EDCF8		EDCF9	
Phenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
bis(2-Chloroethyl)ether	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Chlorophenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Methylphenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,2'-Oxybis(1-chloropropane)	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Methylphenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N-Nitroso-di-n-propylamine	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Hexachloroethane	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Nitrobenzene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Isophorone	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Nitrophenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,4-Dimethylphenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
bis(2-Chloroethoxy)methane	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,4-Dichlorophenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Naphthalene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Chloroaniline	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Hexachlorobutadiene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Chloro-3-methylphenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Methylnaphthalene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Hexachlorocyclopentadiene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,4,6-Trichlorophenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,4,5-Trichlorophenol	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U
2-Chloronaphthalene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Nitroaniline	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U

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 B: Analyte also present in blank
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Push Ground Water Anal. Results - April/May 2000
 Hlmco Dump Superfund Site
 Elkhart, Indiana

Sample location	GPE-1		GPE-2		GPE-3		GP114-1		GP114-2		GP114-3		GP16-1		GP16-2		GP101-1		GP101-2	
Sample number	SO14		SO15		SO16		SO21		SO22		SO23		S024		S025		S026		SO27	
Date sampled	4/25/2000		4/25/2000		4/25/2000		4/25/2000		4/25/2000		4/25/2000		4/25/2000		4/25/2000		4/25/2000		4/25/2000	
Depth (Feet BGS)	30-32		35-37		41-43		14.5-16.5		35-37		55-57		37-39		55-57		35-37		58-60	
Units	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
Dimethylphthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Acenaphthylene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,6-Dinitrotoluene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
3-Nitroaniline	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Acenaphthene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,4-Dinitrophenol	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U
4-Nitrophenol	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Dibenzofuran	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,4-Dinitrotoluene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Diethylphthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Chlorophenyl-phenylether	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Fluorene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Nitroaniline	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U
4,6-Dinitro-2-methylphenol	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U
N-Nitrosodiphenylamine	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Bromophenyl-phenylether	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Hexachlorobenzene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Pentachlorophenol	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Phenanthrene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Anthracene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Carbazole	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Di-n-butylphthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Fluoranthene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Pyrene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Butylbenzylphthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
3,3'-Dichlorobenzidine	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(a)anthracene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chrysene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
bis(2-Ethylhexyl)phthalate	5		5	U	4	J	5	U	5	U	2	J	5	U	5	U	5	U	4	J
Di-n-octylphthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(b)fluoranthene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(k)fluoranthene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(a)pyrene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Indeno(1,2,3-cd)pyrene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Dibenz(a,h)anthracene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(g,h,i)perylene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U

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 B: Analyte also present in blank
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Residential and Monitoring Well Ground Water Analytical Results - November 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Sample number Date sampled Units	Northwood S01 11/15-16/2000 µg/L	Westwood S02 11/15-16/2000 µg/L	Westwood Dup D02 11/15-16/2000 µg/L	WT116A S03 11/15-16/2000 µg/L	WT101A S04 11/15-16/2000 µg/L
TOTAL METALS					
Aluminum	35.9 M	58.2 U	53.7 U	335 UD	112 UD
Antimony	4 U	4 U	4 U	16 UD	8 UD
Arsenic	2 U	4 UD	2 U	10 UD	6.4 J
Barium	48.1	46.9	47.4	133	79.3
Beryllium	0.2 MB	0.3 MB	0.1 MB	1 BJ	0.6 BJ
Cadmium	0.3 U	0.6 UD	0.6 UD	0.9 UD	0.6 UD
Calcium	102000 BJ	129000 BJ	129000 BJ	745000 BJ	227000 BJ
Chromium	3 U	3 U	3 U	3 U	3 U
Cobalt	1 U	0.8 M	0.9 M	1.1 M	1 U
Copper	2.3 UB	1 UB	1.4 UB	2.1 UB	2 U
Iron	60.2 BJ	1840 BJ	1720 BJ	8200 BJ	9490 BJ
Lead	2 U	2 U	2 U	2 MJ	2 U
Magnesium	24800 BJ	14200 BJ	14200 BJ	60000 BJ	20200 BJ
Manganese	103	1250	1250	1240	929
Mercury	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Nickel	2.9 UB	3.4 UB	3.6 UB	4.2 UB	2.3 UB
Potassium	2790 BJ	4400 BJ	4670 BJ	30800 BJ	10100 BJ
Selenium	4 U	8 UD	8 UD	40 UD	4 U
Silver	1 U	1 U	1 U	1 U	1 U
Sodium	53100 BJ	42300 BJ	42700 BJ	214000 BJ	36700 BJ
Thallium	4 UD	6 UD	4 UD	20 UD	20 UD
Vanadium	5.5 MB	4.9 MJB	3.4 MJB	9.1 JB	5 MB
Zinc	21.7 M	14.3 MJ	20.3 MJ	85.5 M	14.9 M
MISC. INORGANICS					
Bromide (mg Br/L)	0.04 MB	0.04 U	0.03 MB	3.75 BJ	0.32 MB
Sulfate (mg SO ₄ /L)	79.3 DUB	105 DUB	104 DUB	1020 DB	177 DUB
Chloride (mg Cl/L)	96.5 DUB	99.9 DUB	98.4 DUB	26 DUB	27.2 DUB
Cyanide	8 U	8 U	8 U	8 UJ	8 U
VOLATILE ORGANICS					
Vinyl Chloride	1 U	1 U	1 U	1 U	1 U
Chloromethane	1 U	1 U	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U	1 U	1 U
Acrolein	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U
Ethyl ether	1 U	26 D	31 D	100 D	49 U
Dichlorofluoromethane	1 U	5 U	6 U	10 U	5 U
Acetone	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	1 U	1 U	1 U	1 U	1 U
Acrylonitrile	10 U	10 U	10 U	10 U	10 U
trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	4 U	4 U	9 U	14 U
2-Butanone	10 U	10 U	10 U	10 U	10 U
cis-1,2-Dichloroethene	1 U	2 U	3 U	1 U	1 U
2,2-Dichloropropane	1 U	2 U	2 U	2 U	2 U
Bromochloromethane	1 U	1 U	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U
1,1-Dichloropropene	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 UB	1 UB	1 U	1 U
Benzene	1 U	1 U	1 U	8 U	2 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	8 U	8 U	2 U	1 U
Bromodichloromethane	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone	5 U	5 U	5 U	5 U	5 U
Toluene	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U
2-Chloroethyl vinyl ether	5 R	5 R	5 R	5 R	5 R
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U
1,3-Dichloropropane	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U
2-Hexanone	2 U	2 U	2 U	2 U	2 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U

U: Not detected
M: Estimated above method detection limit and below reporting limit
J: Estimated due to QC limit exceedance.
B: Analyte also present in blank
R: Rejected Value is unusable
NS: Not Sampled

Residential and Monitoring Well Ground Water Analytical Results - November 2000
Himco Dump Superfund Site
Eikhart, Indiana

Sample location Sample number Date sampled Units	Northwood S01 11/15-16/2000		Westwood S02 11/15-16/2000		Westwood Dup D02 11/15-16/2000		WT116A S03 11/15-16/2000		WT101A S04 11/15-16/2000	
	pp/L	U	pp/L	U	pp/L	U	pp/L	U	pp/L	U
1,1,2,2-Tetrachloroethane	1	U	1	U	1	U	1	U	1	U
Ethylbenzene	1	U	1	U	1	U	1	U	1	U
m-&or p-Xylene	1	U	1	U	1	U	1	U	1	U
o-Xylene	1	U	1	U	1	U	1	U	1	U
Styrene	1	U	1	U	1	U	1	U	1	U
Bromoform	1	U	1	U	1	U	1	U	1	U
Isopropylbenzene	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichloropropane	1	U	1	U	1	U	1	U	1	U
Bromobenzene	1	U	1	U	1	U	1	U	1	U
n-Propylbenzene	1	U	1	U	1	U	1	U	1	U
2-Chlorotoluene	1	U	1	U	1	U	1	U	1	U
4-Chlorotoluene	1	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	1	U	1	U	1	U	1	U	1	U
tert-Butylbenzene	1	U	1	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	1	U	1	U	1	U	1	U	1	U
sec-Butylbenzene	1	U	1	U	1	U	1	U	1	U
p-Isopropyltoluene	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	1	U	1	U	1	U	1	U	1	U
n-Butylbenzene	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-chloropropane	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	1	U	1	U	1	U	1	U	1	U
Hexachlorobutadiene	1	U	1	U	1	U	1	U	1	U
Naphthalene	1	UJ	1	UJ	1	UJ	1	UJ	1	UJ
1,2,3-Trichlorobenzene	1	U	1	U	1	U	1	U	1	U
SEMIVOLATILE ORGANICS										
bis(2-Chloroethyl)ether	5	U	5	U	5	U	5	U	5	U
Phenol	5	U	5	U	5	U	5	U	5	U
2-Chlorophenol	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
1,3-Dichlorobenzene	5	U	5	U	5	U	5	U	5	U
1,4-Dichlorobenzene	5	U	5	U	5	U	5	U	5	U
1,2-Dichlorobenzene	5	U	5	U	5	U	5	U	5	U
Benzyl alcohol	5	U	5	U	5	U	5	U	5	U
2-Methylphenol	5	U	5	U	5	U	5	U	5	U
4-Methylphenol	5	U	5	U	5	U	5	U	5	U
bis(2-Chloroisopropyl)ether	5	U	5	U	5	U	5	U	5	U
Hexachloroethane	5	U	5	U	5	U	5	U	5	U
N-Nitroso-di-n-propylamine	5	U	5	U	5	U	5	U	5	U
Nitrobenzene	5	U	5	U	5	U	5	U	5	U
Isophorone	5	U	5	U	5	U	5	U	5	U
2-Nitrophenol	5	U	5	U	5	U	5	U	5	U
2,4-Dimethylphenol	5	U	5	U	5	U	5	U	5	U
Benzoic acid	24	UJ	25	UJ	24	UJ	24	UJ	24	UJ
bis(2-Chloroethoxy)methane	5	U	5	U	5	U	5	U	5	U
2,4-Dichlorophenol	5	U	5	U	5	U	5	U	5	U
1,2,4-Trichlorobenzene	5	U	5	U	5	U	5	U	5	U
Naphthalene	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
4-Chloroaniline	5	U	5	U	5	U	5	U	5	U
Hexachlorobutadiene	5	U	5	U	5	U	5	U	5	U
4-Chloro-3-methylphenol	5	U	5	U	5	U	5	U	5	U
2-Methylnaphthalene	5	U	5	U	5	U	5	U	5	U
Hexachlorocyclopentadiene	24	UJ	25	UJ	24	UJ	24	UJ	24	UJ
2,4,6-Trichlorophenol	5	U	5	U	5	U	5	U	5	U
2,4,5-Trichlorophenol	5	U	5	U	5	U	5	U	5	U
2-Chloronaphthalene	5	U	5	U	5	U	5	U	5	U
2-Nitroaniline	5	U	5	U	5	U	5	U	5	U
Acenaphthylene	5	U	5	U	5	U	5	U	5	U
Dimethylphthalate	5	U	5	U	5	U	5	U	5	U
2,6-Dinitrotoluene	5	U	5	U	5	U	5	U	5	U
Acenaphthene	5	U	5	U	5	U	5	U	5	U
3-Nitroaniline	24	UJ	25	UJ	24	UJ	24	UJ	24	UJ
2,4-Dinitrophenol	24	UJ	25	UJ	24	UJ	24	UJ	24	UJ
Dibenzofuran	5	U	5	U	5	U	5	U	5	U
2,4-Dinitrotoluene	5	U	5	U	5	U	5	U	5	U
4-Nitrophenol	24	UJ	25	UJ	24	UJ	24	UJ	24	UJ
Fluorene	5	U	5	U	5	U	5	U	5	U
4-Chlorophenyl-phenylether	5	U	5	U	5	U	5	U	5	U

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Residential and Monitoring Well Ground Water Analytical Results - November 2000
Himco Dump Superfund Site
Elkhart, Indiana

Sample location Sample number Date sampled Units	Northwood S01 11/15-16/2000		Westwood S02 11/15-16/2000		Westwood Dup D02 11/15-16/2000		WT116A S03 11/15-16/2000		WT101A S04 11/15-16/2000	
	µg/L		µg/L		µg/L		µg/L		µg/L	
Diethylphthalate	5	U	5	U	5	U	5	U	5	U
4-Nitroaniline	24	U	25	U	24	U	24	U	24	U
4,6-Dinitro-2-methylphenol	24	U	25	U	24	U	24	U	24	U
N-Nitrosodiphenylamine	5	U	5	U	5	U	5	U	5	U
4-Bromophenyl-phenylether	5	U	5	U	5	U	5	U	5	U
Hexachlorobenzene	5	U	5	U	5	U	5	U	5	U
Pentachlorophenol	24	UJ	25	UJ	24	UJ	24	UJ	24	UJ
Phenanthrene	5	U	5	U	5	U	5	U	5	U
Anthracene	5	U	5	U	5	U	5	U	5	U
Carbazole	5	U	5	U	5	U	5	U	5	U
Di-n-butylphthalate	4	BM	5	U	14	B	4	BM	4	BM
Fluoranthene	5	U	5	U	5	U	5	U	5	U
Pyrene	5	U	5	U	5	U	5	U	5	U
Butylbenzylphthalate	5	U	5	U	5	U	5	U	5	U
3,3'-Dichlorobenzidine	24	UJ	25	UJ	24	UJ	24	UJ	24	UJ
Benzo(a)anthracene	5	U	5	U	5	U	5	U	5	U
Chrysene	5	U	5	U	5	U	5	U	5	U
bis(2-Ethylhexyl)phthalate	5	U	3	M	3	BM	5	U	5	U
Di-n-octylphthalate	5	U	5	U	5	U	5	U	5	U
Benzo(b)fluoranthene	5	U	5	U	5	U	5	U	5	U
Benzo(k)fluoranthene	5	U	5	U	5	U	5	U	5	U
Benzo(a)pyrene	5	U	5	U	5	U	5	U	5	U
Indeno(1,2,3-cd)pyrene	5	U	5	U	5	U	5	U	5	U
Dibenz(a,h)anthracene	5	U	5	U	5	U	5	U	5	U
Benzo(g,h,i)perylene	5	U	5	U	5	U	5	U	5	U
2-Hydroxybenzothiazole	10	UJ	10	UJ	10	UJ	23	J	20	UJ
PESTICIDES/PCBs										
alpha-BHC	0.0200	UJ	0.0200	UJ	0.0200	UJ	0.0200	UJ	0.0200	UJ
Lindane	0.0200	UJ	0.0200	UJ	0.0200	UJ	0.0200	UJ	0.0200	UJ
beta-BHC	0.0200	UJ	0.0200	U	0.0200	U	0.0200	UJ	0.0200	UJ
Heptachlor	0.0200	UJ	0.0200	U	0.0200	U	0.0200	UJ	0.0200	UJ
delta-BHC	0.0200	UJ	0.0200	UJ	0.0200	UJ	0.0200	UJ	0.0200	UJ
Aldrin	0.0200	UJ	0.0200	U	0.0200	U	0.0200	UJ	0.0200	UJ
Hept Epoxide	0.0200	UJ	0.0200	U	0.0200	U	0.0200	UJ	0.0200	UJ
gamma-chlordane	0.0200	UJ	0.0200	UJ	0.0200	UJ	0.0200	UJ	0.0200	UJ
alpha-Chlordane	0.0200	UJ	0.0200	UJ	0.0200	UJ	0.0200	UJ	0.0200	UJ
Endosulfan I	0.0200	UJ	0.0200	UJ	0.0200	UJ	0.0200	UJ	0.0200	UJ
p,p'-DDE	0.0500	UJ	0.0500	UJ	0.0500	UJ	0.0500	UJ	0.0500	UJ
Dieldrin	0.0500	UJ	0.0500	UJ	0.0500	UJ	0.0500	UJ	0.0500	UJ
Endrin	0.0500	UJ	0.0500	UJ	0.0500	UJ	0.0500	UJ	0.0500	UJ
p,p'-DDD	0.0500	UJ	0.0500	UJ	0.0500	UJ	0.0500	UJ	0.0500	UJ
Endosulfan II	0.0500	UJ	0.0500	UJ	0.0500	UJ	0.0500	UJ	0.0500	UJ
p,p'-DDT	0.0500	UJ	0.0500	U	0.0500	U	0.0500	UJ	0.0500	UJ
Endrin Aldehyde	0.0500	UJ	0.0500	U	0.0500	U	0.0500	UJ	0.0500	UJ
Endosulfan Sulfate	0.0500	UJ	0.0500	U	0.0500	U	0.0500	UJ	0.0500	UJ
Methoxychlor	0.2500	UJ	0.2500	U	0.2500	U	0.2500	UJ	0.2500	UJ
Endrin ketone	0.0500	UJ	0.0500	U	0.0500	U	0.0500	UJ	0.0500	UJ
Arochlor 1242	0.1000	U	0.1000	U	0.1000	U	0.1000	U	0.1000	U
Arochlor 1016	0.1000	U	0.1000	U	0.1000	U	0.1000	U	0.1000	U
Arochlor 1232	0.1000	U	0.1000	U	0.1000	U	0.1000	U	0.1000	U
Arochlor 1248	0.1000	U	0.1000	U	0.1000	U	0.1000	U	0.1000	U
Arochlor 1254	0.1000	U	0.1000	U	0.1000	U	0.1000	U	0.1000	U
Arochlor 1260	0.1000	U	0.1000	U	0.1000	U	0.1000	U	0.1000	U

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Residential and Monitoring Well Ground Water Analytical Results - November 2000

Emerging Contaminants
Himco Dump Superfund site
Elkhart, Indiana

Lab ID Sample Location Date Units	3210030 Westwood 11/15/2000 mg/L		3210031 Westwood 11/15/2000 mg/L		3220190 WT116A 11/16/2000 mg/L	
	Result	Qual	Result	Qual	Result	Qual
tetrachloroethylene	0.030	U	0.030	U	0.030	U
phenol	0.450	U	0.314	E	0.450	U
1,4-dichlorobenzene	0.040	U	0.040	U	0.040	U
para-cresol	0.060	U	0.060	U	0.060	U
acetophenone	0.220	U	0.220	U	0.220	U
naphthalene	0.025	U	0.025	U	0.025	U
phthalic anhydride	0.350	U	0.350	U	0.350	U
2,6-di-t-butylphenol	0.150	U	0.150	U	0.150	U
2,6-di-t-p-benzoquinone	0.500	U	0.500	U	0.500	U
BHA	0.120	U	0.120	U	0.120	U
BHT	0.110	U	0.110	U	0.110	U
5-methyl-1H-benzotriazole	0.150	U	0.150	U	0.150	U
N,N-diethyltoluamide	0.080	U	0.080	U	0.080	U
diethylphthalate	0.350	U	0.350	U	0.350	U
para-nonylphenol-total	0.700	U	0.700	U	0.700	U
cotinine	0.080	U	0.080	U	0.080	U
tri(2-chloroethyl)phosphate	0.649		0.741		0.040	U
diazinon	0.030	U	0.030	U	0.030	U
lindane	0.050	U	0.050	U	0.050	U
phenanthrene	0.050	U	0.050	U	0.050	U
anthracene	0.060	U	0.060	U	0.060	U
caffeine	0.080	U	0.080	U	0.080	U
OPEO1	0.120	U	0.120	U	0.120	U
methyl parathion	0.060	U	0.060	U	0.060	U
carbaryl	0.060	U	0.060	U	0.060	U
NPEO1-total	1.000	U	1.000	U	1.000	U
chlorpyrifos	0.020	U	0.020	U	0.020	U
fluoranthene	0.030	U	0.030	U	0.030	U
triclosan	0.040	E	0.041	E	0.051	
OPEO2	0.200	U	0.200	U	0.200	U
cis-chlordane	0.040	U	0.040	U	0.040	U
pyrene	0.030	U	0.030	U	0.030	U
bisphenol A	0.090	U	0.090	U	0.090	U
dieldrin	0.080	U	0.080	U	0.080	U
NPEO2-total	1.100	U	1.100	U	1.100	U
tri(dichlorisopropyl)phosphate	0.100	U	0.100	U	0.100	U
bis(2-ethyl hexyl) adipate	2.000	U	2.000	U	2.000	U
ethanol,2-butoxy-,phosphate	0.200	U	0.200	U	0.200	U
triphenyl phosphate	0.100	U	0.100	U	0.100	U
codeine	0.200	U	0.200	U	0.200	U
bis(2-ethylhexyl) phthalate	3.620	E	2.500	U	2.500	U
17B-estradiol	0.500	U	0.500	U	0.500	U
benzo(a)pyrene	0.070	U	0.070	U	0.070	U
3B-coprostanol	0.600	U	0.600	U	0.600	U
cholesterol	1.500	U	1.500	U	1.500	U
stigmastanol	2.000	U	2.000	U	2.000	U

U - Analyte not detected
E- Value is estimated due
to variable compound performance