THE INSTITUTES FOR

IPD

PHARMACEUTICAL DISCOVERY, LLC

J-6

February 19, 2013

Mr. Dennis Lawyer
Health Physicist
Licensing Assistance Section
Nuclear Materials Safety Branch
U. S. Nuclear Regulatory Commission, Region I, DNMS
2100 Renaissance Boulevard, Suite 100
King of Russia, PA 19406-2713

NRC license number: 06-30480-01
Docket number: 030-34841

Dear Mr. Lawyer,

The Institutes for Pharmaceutical Discovery, LLC, (IPD) is requesting termination of its NRC License no. 06-30480-01, Docket no. 030-34841 located at 23 Business Park Drive, Branford, Connecticut 06405. The decommissioning surveys and report are attached. All records related to this license, decommissioning surveys and data will be maintained by Michael Fare, Chief Operating Officer. After the license has been terminated, IPD will maintain copies of all survey records and related materials at Cornerstone Records Management, 76 Halcyon Drive, Bristol, CT, 06410 or a similarly secure records retention facility for 5 years in the event they should be needed in the future. Please contact me at my home number (203) 458-3399 if there are any questions or additional information is required.

Thank you,

Mr. Michael Fare
Management Representative
Chief Operating Officer
The Institutes for Pharmaceutical Discovery, L.L.C.
317 Nortontown Road
Guilford, CT 06437

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PHONE (203) 315-4000 • FAX (203) 315-4002

February 20, 2013

The Institute for Pharmaceutical Discovery's Decommissioning Report

Table of Contents & Attachments:

1. Cover letter
2. NRC Form 314
3. Decommissioning report
4. Wipe test survey results, Radiation Safety Associate Labs
5. Soil sampling results, Radiation Safety Associate Labs
6. Description and location of wipe tests
7. Room history for radioactive materials use and storage
8. Color coded facility diagram of rooms and areas surveyed
9. Sanitary sewer release log sheets
10. Radioactive waste manifests
11. Facililty diagrams, as-builts

cc: Mr. Michael Fare
Management Representative
Chief Operating Officer
(203) 458-3399

Ms. June Tamkin-Price
Radiation Safety Officer
(203) 230-2594 Office phone
(203) 507-3461 Cell phone

NRC FORM 314 (06-2012)
10 CFR 30.36(j)(1); 40.42(j)(1); 70.38(j)(1); and 72.54(k)(5)(i)(1)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0028 EXPIRES: 10/31/2013

Estimated burden per response to comply with this mandatory collection request: 30 minutes. This submittal is used by NRC as part of the basis for its determination that the facility is released for unrestricted use. Send comments regarding burden estimate to the Information Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0028), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

CERTIFICATE OF DISPOSITION OF MATERIALS

LICENSEE NAME AND ADDRESS	LICENSE NUMBER	DOCKET NUMBER
The Institutes for Pharmaceutical Discovery, L.L.C. 23 Business Park Drive Branford, CT 06405	License No. 06-30480-01	Docket No. 030-34841
	LICENSE EXPIRATION DATE	

A. LICENSE STATUS (Check the appropriate box)

☐ This license has expired. ☑ This license has not yet expired; please terminate it.

B. DISPOSAL OF RADIOACTIVE MATERIAL

(Check the appropriate boxes and complete as necessary. If additional space is needed, provide attachments)

The licensee, or any individual executing this certificate on behalf of the licensee, certifies that:

☐ 1. No radioactive materials have ever been procured or possessed by the licensee under this license.

☑ 2. All activities authorized by this license have ceased, and all radioactive materials procured and/or possessed by the licensee under this license number cited above have been disposed of in the following manner.

☐ a. Transfer of radioactive materials to the licensee listed below:

☑ b. Disposal of radioactive materials:

☐ 1. Directly by the licensee:

☐ 2. By licensed disposal site:

☑ 3. By waste contractor:

☑ c. All radioactive materials have been removed such that any remaining residual radioactivity is within the limits of 10 CFR Part 20, Subpart E, and is ALARA.

C. SURVEYS PERFORMED AND REPORTED

☑ 1. A radiation survey was conducted by the licensee. The survey confirms:

☑ a. the absence of licensed radioactive materials

☑ b. that any remaining residual radioactivity is within the limits of 10 CFR 20, Subpart E, and is ALARA.

☑ 2. A copy of the radiation survey results:

☑ a. is attached; or ☐ b. is not attached (Provide explanation); or ☐ c. was forwarded to NRC on: _____ Date

☐ 3. A radiation survey is not required as only sealed sources were ever possessed under this license, and

☐ a. The results of the latest leak test are attached; and/or ☐ b. No leaking sources have ever been identified.

The person to be contacted regarding the information provided on this form:

NAME	TITLE	TELEPHONE (Include Area Code)	E-MAIL ADDRESS
Mr. Michael Fare	Chief Operating Officer	203-458-3399	michael.fare@gmail.com

Mail all future correspondence regarding this license to:
Mr. Michael Fare , 317 Nortontown Road, Guilford, CT 06437-2294

C. CERTIFYING OFFICIAL

I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT

PRINTED NAME AND TITLE	SIGNATURE	DATE
Mr. Michael Fare, Management Representative, COO	Michael Fare	1/31/13

WARNING: FALSE STATEMENTS IN THIS CERTIFICATE MAY BE SUBJECT TO CIVIL AND/OR CRIMINAL PENALTIES. NRC REGULATIONS REQUIRE THAT SUBMISSIONS TO THE NRC BE COMPLETE AND ACCURATE IN ALL MATERIAL RESPECT. 18 U.S.C. SECTION 1001 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

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PHARMACEUTICAL DISCOVERY, LLC
February 19, 2013

Mr. Dennis Lawyer
Health Physicist
Licensing Assistance Section
Nuclear Materials Safety Branch
U. S. Nuclear Regulatory Commission, Region I, DNMS
2100 Renaissance Boulevard, Suite 100
King of Russia, PA 19406-2713

NRC license number: 06-30480-01
Docket number: 030-34841

Dear Mr. Lawyer:

On November 30, 2012, the Institutes for Pharmaceutical Discovery, LLC, (IPD) notified the NRC of its intent to terminate its specific research and development NRC license number 06-30480-01, Docket no. 030-34841 located at 23 Business Park Drive, Branford, Connecticut 06405. As a follow-up to the notification, IPD vacated the currently leased facility on 15 December 2012. Therefore, in an effort to initiate the decommissioning process, a thorough historical review and site characterization of the licensed radioactive materials received, used and/or stored in the radioactive materials laboratories and associated radioactive waste storage rooms were conducted. This review spanned the entire duration of the NRC license number 06-30480-01, 1999 through 2012.

IPD received approval for its original NRC License Application in 1999 and began working with licensed materials, having short half-lives of 120 days or less, involving minimal tracer studies shortly thereafter. According to IPD's radioisotope inventory records of purchases received, the first order of phosphorus-32, 0.250 milliCuries (mCi), was received on 4/23/1999. Twelve orders of phosphorus-32, 0.250 mCi each, were recorded as being received in 1999 with a total activity of 3.0 mCi of phosphorus-32. This was representative of phosphorus-32 orders received through 2003, at which point, phosphorus-32 use was discontinued, according to the available files. On May 15, 2000, 1.0 mCi of sulfur-35 was recorded representing the first and only order having been received. Also, there were approximately 4 orders of radioiodine-125, ranging in activities from 0.050 mCi to 0.250 mCi, and several orders of very low level activity IRA-I-125 kits over the course of the license and were discontinued by 2009. Although IPD's license was authorized to receive phosphorus-33, from the records, there were never any orders placed or received during the course of the license. In summary, due to

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the length of elapsed time between the last orders received of licensed materials with short half-lives of 120 days or less and the initiation of the termination surveys in November 2012, these licensed materials and associated use and storage, etc. would have been decayed (undergone greater than ten half-lives of decay).

The first orders of licensed materials with half lives greater than 120 days were of tritium, 5.0 mCi, and carbon-14, 0.250 mCi, and were recorded as being received on October 10, 2001. The last three orders of tritium, 1.0 mCi, 0.250 mCi and 0.250 mCi were received on 9/28/2011 and the last order of carbon-14, 1.0 mCi, was recorded as being received on May 11, 2010; however, it was never opened or used. Over the entire history of the use at IPD, approximately 50 mCi of tritium were recorded as being ordered and received, with the majority of orders being 1 mCi or less, ranging from 0.250 mCi up to 5.0 mCi in activity per order. For carbon-14 purchases, a total of approximately 10 mCi were recorded as being received in total, with typical activities of orders ranging from 0.05 mCi to 1.0 mCi per order.

Further, there was a cessation of isotope orders and use of radioactive materials orders and use that spanned approximately 1.5 years from the fall of 2009 until May 11, 2010, when approximately, 1 mCi of carbon-14 was received; however, it was never opened or used. On August 10, 2011, 1.0 mCi of tritium was received and minimal tracer work resumed. On August 19, 2011, 1.0 mCi of tritium was again received for minimal tracer work. The last three radioactive materials orders were received on September 28, 2011 and were approximately 0.250 mCi, 0.250 mCi and 1.0 mCi of tritium or 1.5 mCi in total. This represented a total of approximately 3.5 mCi of tritium and 1.0 mCi of carbon-14 having been ordered and received since early 2009 and May of 2010, respectively. Therefore, over the years, only minimal tracer studies were performed at IPD during its entire license history. Further, sealed sources of licensed materials were never possessed, purchased, used or stored at The Institutes for Pharmaceutical Discovery facility for the duration of the license.

Summary of unsealed licensed materials, purchase, receipt and use status:
Phosphorus-33 - Never purchased, received or used.
Phosphorus-32 - Discontinued purchase, receipt and use in 2003.
Tritium – Discontinued purchase & receipt in 2011 and use in May 2012.
Carbon-14 - Discontinued purchase, receipt and use in 2010.
Sulfur-35 - Discontinued purchase, receipt and use in 2000.
Iodine-125 - Discontinued purchase, receipt and use in 2009.

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In preparation for the license termination at IPD, a thorough history of the radioactive materials use and storage was performed covering the entire duration of the NRC License #06-30480-01. Specifically, reviews of research protocols, room usage and storage of licensed materials; Principal Investigators', Authorized Users' and/or RSO's surveys; purchase orders; radioisotope inventories; emergency response or spill history; sanitary sewer disposals; and waste storage and disposal records were conducted. Radioactive materials use was performed in the approved research laboratory areas only. There were no significant spills or releases that occurred or were reported in the licensed facilities at IPD. Any radioactive contamination detected during routine work and/or radiation safety surveys was documented to be decontaminated to levels well below the NRC's release guidance criteria, NRC License requirements and/or Regulatory Guide 8.23 limits at the time. Further, based on the surveys done over the years and historical site assessment, it was expected that no radioactive contamination would be detected above or a significant fraction of the DCGL values per the NRC's guidance provided in the Federal Register, Vol. 63, No. 222, Wednesday, November 18, 1998, page 64134, Table 1. for DCGL values for building surface contamination levels.

The table below represents the highest routine work and monthly wipe test survey results recorded during IPD's NRC license history. Further, there was a trend of radioactive materials use being tapered off over the years during the NRC license period to very minimal and infrequent use.

REPRESENTATIVE WIPE TEST SURVEY HISTORY
INITIAL RESULTS EXCEEDING 220 DPM/100CM^2
POST DECONTAMINATION AND RE-WIPE RESULTS

Date	Room Location	Wipe Test Description	Initial Result dpm/100cm^2	Post-decontamination Result dpm/100cm^2
3/1/2002	305/306	Radioactive waste container	1,562	27
5/1/2002		Floor (work area)	1,084	26
2/2/2004	305/306	door	902	62
12/16/2009	305/306	Two glucose machines	791	52.9

A review of room histories licensed for radioactive materials use and storage was performed. Rooms 201, 300, 305, 306, 141 and RW2 were used for licensed materials usage and storage during the NRC license period. Rooms 309,310, 322, 174, 427, 131, 132, 133, 134 were never utilized for radioactive material studies; these rooms were included on the initial license in the event of a need arising at a later date. Therefore, the licensed materials work was confined to very limited areas of the IPD facility.
Please see the attached summary with descriptions. A facility as-built diagram is also attached, identifying the licensed rooms and areas that were surveyed

Final Status Surveys

IPD was considered to be under Group 2 decommissioning, and the "Simplified Survey Procedure" in NUREG 1757, Volume 1, was followed for the termination survey. One hundred percent of the scanning of all surfaces in the area of the facility where licensed material was used or stored was surveyed using an appropriate detection instrument. The Ludlum GM survey meter model #3 with a Ludlum model #44-9 detector was used to perform surveys at IPD. The information provided in MARSSIM manual (NUREG 1757) was utilized to determine decision levels and minimum detectable activities. The default values for the observational interval (T) default = 1 second and index of sensitivity (d') default = 2 were used. The background for the meter was 100 cpm. Therefore, the minimum detectable count rate (MDCR) for carbon-14 was 155 cpm and the decison level (DL) was 255 cpm or greater for a surveyor to consider a meter reading to be significant for the detection of carbon-14 contamination. Further, the minimum detectable concentration (MDC) for the detection of building surface contamination for carbon-14 was 256 dpm/cm^2.

In an effort to be as conservative as possible, very thorough and extensive wipe test surveys were performed. Therefore, one hundred percent of all surfaces in the areas of the facility where licensed material was used or stored were surveyed with wipe tests, at a frequency of one wipe comprising 1 square yard, within which the entire surface area of each individual 3 foot by 3 foot square area was wiped.

All floors were marked off and numbered with 3 foot by 3 foot squares, and wipe tests were taken of each 3 foot square and counted using a liquid scintillation counter. A GM meter Ludlum model #3 and model #44-9 detector was used to survey the entire floor surface and measure ambient external gamma exposure rates. External ambient gamma radiation exposure rates were obtained at one meter above and away from all surfaces using a calibrated GM survey meter, Ludlum model #3 and model #44-9 detector, and no positive readings were detected in the facility. Walls were surveyed up to a height of 7

feet, using a similar grid pattern of 5 feet x 5 feet, as appropriate. Wall surfaces were wipe tested. Meter and wipe test surveys were obtained from the sink drains, the traps, and as far down the drain pipes as possible. The hood and vacuum line were also surveyed where licensed material was used or stored. All wipe test results were well below the DCGL levels as per the NRC's guidance provided in the Federal Register, Vol. 63, No. 222, Wednesday, November 18, 1998, page 64134, Table 1. for DCGL values for building surface contamination levels. All survey results and wipe tests were analyzed by an independent outside agent, RSA Laboratories (RSA), 19 Pendleton Drive, Hebron, CT 06428 (Office: 860-228-0487; fax: 860-228-4402) and are attached.

In an effort to be as conservative as possible, even though the following licensed rooms, 309,310, 322, 174, 427, 131, 132, 133, 134, were never used for radioactive material use or storage, as determined during the historical review, thorough GM meter and wipe test surveys were also performed in these areas. Additionally, representative GM meter and wipe test surveys were performed of general access or unrestricted areas at IPD. All wipe test results were well below the DCGL levels as per the NRC's guidance provided in the Federal Register, Vol. 63, No. 222, Wednesday, November 18, 1998, page 64134, Table 1. for DCGL values for building surface contamination levels.

Further, in support of the decommissioning process, surveys were also performed of all accessible areas of equipment having been used for licensed materials work and/or storage. With the exception a small refrigerator/freezer unit in room 201 involving melted ice sampling described below, all results were well below the DCGL levels as per the NRC's guidance provided in the Federal Register, Vol. 63, No. 222, Wednesday, November 18, 1998, page 64134, Table 1. for DCGL values for building surface contamination levels.

The small refrigerator/freezer unit located under the bench top in room 201 was GM meter and wipe test surveyed and found to be indistinguishable from background. We also did preliminary sampling of the ice melt inside of this unit, including a defrosted sample, and the results were indistinguishable from background, using the company's liquid scintillation counter. Unknowingly, the RSO later found that a lab member had taken the refrigerator/freezer unit outside and inadvertently discarded the defrosted water, approximately, 500 ml in volume. Therefore, to be as conservative as possible, it was decided to have the water sample analyzed again by the independent outside agent, RSA. In an independent evaluation, RSA found that the defrosted water samples contained a small amount of tritium, 64,000 DPM/ml or 14.4 μCi in a total volume of 500 ml. Further, a soil sample was obtained in the area where the defrosted water was discarded to see if there was any residual contamination in the soil. When the third-party analysis

indicated tritium contamination of the water from the initial wipe, the company survey team collected soil samples and submitted them to RSA for an analysis of both dried and undried samples, the latter to detect tritium in the aqueous phase. Both dried and undried samples showed that the soil samples was well below the DCGL values as per the NRC's guidance provided in the Federal Register, Vol. 64, No. 234, Tuesday, December 7, 1999, page 68396, Table 3. for DCGL values for soil surface contamination levels.

As part of the preliminary ice water sampling of the freezer compartment within the small refrigerator described above, one very small droplet of melted ice fell on the floor in front of this unit. As a precautionary measure, it was immediately absorbed onto a wipe test for LSC analysis and floor area cleaned or decontaminated. The floor final survey results were indistinguishable from background and well below the DCGL levels as per the NRC's guidance provided in the Federal Register, Vol. 63, No. 222, Wednesday, November 18, 1998, page 64134, Table 1. for DCGL values for building surface contamination levels.

The annual sanitary sewer release limits for this room were Alara or significantly below the limits designated in 10 CFR part 20.2003. All releases corresponded to the solubility criteria in 10 CFR part 20.2003. Copies of records that were in the files of the radioisotopes, dates released, and estimated quantities released into the sanitary sewer are being included as an attachment. In addition, there were no sanitary sewer disposals of liquid radioactive waste in either of the two designated sinks during the decommissioning surveys or in the recent past. Sanitary sewer disposals were ceased prior to May 2012, when research involving tracer levels of tritium was discontinued. Over the years, only trace quantities of tritium and carbon-14 were disposed of into the sanitary sewer, as per the files.

Radioactive waste (i.e. tritium and carbon-14) was always transferred to a licensed waste broker and disposal facility during the duration of IPD's license. In preparation for the termination of this license no. 06-30480-01, The Institutes for Pharmaceutical Discovery, L.L.C. enlisted services from Philotechnics, Ltd, 201 Renovare Blvd, Oak Ridge, TN 37830, Office: 865-285-3064, Cell: 865-805-2416 and Fax: 865-220-0686. All licensed materials and radioactive waste were prepared, packaged, and shipped for disposal by Philotechnics, Ltd. As requested, copies of all of the radioactive manifests are attached. On November 26, 2012, a final radioactive waste shipment was conducted to remove all remaining licensed materials, equipment, and radioactive waste from the Branford, Connecticut, site. The exterior surfaces of all radioactive waste containers were surveyed with the GM survey meter and wipe test. The results were indistinguishable from background.

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A final decommissioning radiation safety survey was performed of the pathway that followed the approved vendors' exit of the building during transportation of the sealed radioactive waste containers to their truck (i.e., path of egress). Radiological surveys indicated there was no residual radioactive contamination present. The building remained in the secured state. As per IPD's files, copies of records of the radioactive waste manifests covering the duration of the NRC license are being included as an attachment.

In conclusion, a review of the final status survey results indicates that the IPD facility meets the requirements for unconditional release.

If you require additional information or have questions, please contact Mr. Michael Fare at his home phone number (203) 458-3399.

Sincerely,

Mr. Michael Fare
Management Representative
Chief Operating Officer
The Institutes for Pharmaceutical Discovery, L.L.C.
317 Nortontown Road
Guilford, CT 06437

RSA Laboratories
Radiochemistry Analysis Data Sheet

Customer: June Tamkin
Sample Type: Wipes
Matrix: Wipes

Isotope 1 H-3
Isotope 2 C-14
Isotope 3 HE Beta

Collect Date: Not Indicated
Count Date: 12/4/2013
Project: Decommissioning
Location: Institute for Pharmaceutical Discovery

Cust ID # :
# of Pages:

Report No.	Location	POS	RSA ID #	Cust ID #	RSA ID#: Location	CPMA	DPMA	CPMB	DPMB	CPMC	
1		1	BG		Background	8.80		15.10		3.20	bg
2		2	33276-1	1		1.33	5.87	0.91	1.29	0.00	1
3		3	33276-2	2		0.00	0.00	2.93	4.44	0.00	2
4		4	33276-3	3		0.00	0.00	5.96	8.87	0.00	3
		5	33276-4	4		4.65	15.22	6.97	10.30	0.00	4
		6	33276-5	5		2.44	14.61	0.00	0.00	0.00	5
		7	33276-6	6		0.00	0.00	0.00	0.00	0.00	6
		8	33276-7	7		1.33	0.00	6.97	10.42	0.80	7
		9	33276-8	8		0.00	0.00	6.97	10.43	1.80	8
		10	33276-9	9		1.33	4.46	1.92	2.83	0.00	9
		11	33276-10	10		0.22	1.24	0.00	0.00	2.80	10
		12	33276-11	11		0.00	0.00	5.96	8.91	0.80	11
		13	33276-12	12		2.44	14.24	0.00	0.00	1.80	12
		14	33276-13	13		0.00	0.00	7.98	12.19	0.00	13
		15	33276-14	14		0.22	1.28	0.00	0.00	0.80	14
		16	33276-15	15		5.76	1.66	18.08	27.39	9.80	15
		17	33276-16	16		0.00	0.00	11.01	16.50	0.00	16
		18	33276-17	17		4.65	25.87	0.91	1.16	0.80	17
		19	33276-18	18		7.98	35.56	5396.00	8.58	15.80	18
		20	33276-19	19		4.65	27.01	0.00	0.00	4.80	19
		21	33276-20	20		2.44	7.50	3.94	5.84	0.80	20
		22	33276-21	21		3.55	21.24	0.00	0.00	0.00	21
		23	33276-22	22		0.22	1.32	0.00	0.00	0.00	22
		24	33276-23	23		2.44	10.79	1.92	2.77	0.00	23
	[redacted]	25	QC H-3	[redacted]	QC H-3	41253.80	183605.00	888.96	0.00	0.00	QCH3
		26	33276-24	24		1.33	7.84	0.00	0.00	0.80	24
		27	33276-25	25		0.22	0.00	0.91	1.40	0.00	25
		28	33276-26	26		0.00	0.00	4.95	7.58	0.00	26
		29	33276-27	27		0.00	0.00	10.00	15.47	0.00	27
		30	33276-28	28		0.00	0.00	7.98	12.29	0.00	28
		31	33276-29	29		0.00	0.00	2.93	4.55	0.00	29
		32	33276-30	30		0.00	0.00	2.93	4.53	0.00	30
		33	33276-31	31		4.65	30.68	0.00	0.00	0.00	31
		34	33276-32	32		7.98	50.29	0.00	0.00	0.00	32
		35	33276-33	33		0.00	0.00	0.00	0.00	0.00	33
		36	33276-34	34		0.00	0.00	0.91	1.40	0.00	34
		37	33276-35	35		0.00	0.00	2.93	4.61	0.00	35
		38	33276-36	36		0.00	0.00	1.92	2.95	0.00	36
		39	33276-37	37		0.00	0.00	1.92	2.98	0.00	37
		40	33276-38	38		0.00	0.00	15.05	2.92	0.00	38
		41	33276-39	39		1.33	0.00	20.10	30.96	0.00	39
		42	33276-40	40		0.00	0.00	3.94	6.05	0.00	40
		43	33276-41	41		0.00	0.00	0.00	0.00	0.00	41
		44	33276-42	42		0.00	4.88	1.92	2.89	0.00	42

	45	33276-43	43		1.33	9.16	0.00	0.00	0.00		43
	46	33276-44	44		6.87	42.16	0.00	0.00	1.80		44
	47	33276-45	45		9.08	38.10	10.00	14.85	3.80		45
	48	33276-46	46		9.08	57.15	0.91	0.97	3.80		46
[redacted]	49	QC C-14	[redacted]	QC C-14	26919.30	6767.60	95876.20	133699.00	0.00	QCCMA	
	50	33276-47	47		3.55	21.75	0.00	0.00	0.00		47
	51	33276-48	48		0.00	0.00	0.00	0.00	0.00		48
	52	33276-49	49		7.98	32.01	8.99	13.27	1.80		49
	53	33276-50	50		0.00	0.00	0.00	0.00	0.00		50
	54	33276-51	51		0.00	0.00	2.93	4.46	0.00		51
	55	33276-52	52		0.22	1.44	0.00	0.00	0.00		52
	56	33276-53	53		0.00	0.00	8.99	14.25	0.80		53
	57	33276-54	54		0.00	0.00	0.00	0.00	0.00		54
	58	33276-55	55		4.65	27.13	0.91	1.17	0.00		55
	59	33276-56	56		0.00	0.00	0.91	1.38	2.80		56
	60	33276-57	57		0.22	0.00	6.97	10.64	0.00		57
	61	33276-58	58		3.55	17.10	2.93	4.33	2.80		58
	62	33276-59	59		2.44	5.89	4.95	7.44	0.00		59
	63	33276-60	60		0.00	0.00	13.03	20.21	0.00		60
	64	33276-61	61		2.44	9.90	2.93	4.37	1.80		61
	65	33276-62	62		0.00	0.00	6.97	10.63	2.80		62
	66	33276-63	63		0.00	0.00	0.00	0.00	0.00		63
	67	33276-64	64		2.44	12.15	1.92	2.84	2.80		64
	68	33276-65	65		1.33	0.73	3.94	6.04	1.80		65
	69	33276-66	66		1.33	0.00	6.97	10.72	2.80		66
	70	33276-67	67		0.22	0.00	0.91	1.40	1.80		67
	71	33276-68	68		24.59	146.36	5.96	7.99	7.80		68
	72	33276-69	69		4.65	27.18	1.92	2.74	0.00		69
[redacted]	73	QC BL	[redacted]	QC BL	2.44	0.42	7.98	11.89	0.00	QCBL	
	74	33276-70	70		0.22	0.00	2.93	4.52	2.80		70
	75	33276-71	71		0.00	0.00	7.98	12.41	0.80		71
	76	33276-72	72		1.33	0.00	6.97	10.64	0.00		72
	77	33276-73	73		0.00	0.00	5.90	8.99	0.00		73
	78	33276-74	74		2.44	13.74	0.91	1.28	1.80		74
	79	33276-75	75		0.00	0.00	8.99	13.78	0.00		75
	80	33276-76	76		0.00	0.00	3.94	5.97	0.00		76
	81	33276-77	77		0.00	0.00	4.95	7.49	0.00		77
	82	33276-78	78		0.00	0.00	12.02	18.39	0.00		78
	83	33276-79	79		0.00	0.00	0.00	0.00	0.00		79
	84	33276-80	80		3.55	17.62	1.92	2.74	3.80		80
	85	33276-81	81		46.75	332.51	0.91	0.00	18.80		81
	86	33276-82	82		0.00	0.00	3.94	6.05	0.00		82
	87	33276-83	83		6.87	2.68	21.12	32.08	3.80		83
	88	33276-84	84		0.22	0.00	11.01	16.73	0.00		84
	89	33276-85	85		0.00	0.00	8.99	29.44	0.00		85
	90	33276-86	86		2.44	7.40	3.94	5.82	0.00		86
	91	33276-87	87		2.44	13.80	0.91	1.28	3.80		87
	92	33276-88	88		0.00	0.00	7.98	12.04	0.00		88
	93	33276-89	89		0.00	0.00	2.93	6.82	0.00		89
	94	33276-90	90		0.00	0.00	2.93	4.71	0.00		90
	95	33276-91	91		15.73	89.50	7.98	11.60	0.80		91
	96	33276-92	92		0.00	0.00	4.95	7.61	0.00		92
[redacted]	97	QC H-3	[redacted]	QC H-3	34348.00	181786.00	856.63	0.00	0.00	QCH3	
	98	33276-93	93		1.33	0.00	5.96	8.92	0.80		93

	99	33276-94	94		5.76	31.29	2.93	4.22	0.00	94	
	100	33276-95	95		0.22	1.26	0.00	0.00	0.00	95	
	101	33276-96	96		4.65	30.44	0.00	0.00	3.80	96	
	102	33276-97	97		2.44	6.11	4.95	7.53	0.00	97	
	103	33276-98	98		0.00	0.00	10.00	15.46	1.80	98	
	104	33276-99	99		0.00	0.00	1.92	3.01	0.00	99	
	105	33276-100	100		0.00	0.00	2.93	4.43	0.00	100	
	106	33276-101	101		0.00	0.00	3.94	5.94	0.00	101	
	107	33276-102	102		1.33	9.31	0.00	0.00	0.00	102	
	108	33276-103	103		0.00	0.00	10.00	15.47	0.80	103	
	109	33276-104	104		3.55	14.39	3.94	5.82	0.00	104	
	110	33276-105	105		3.55	20.19	0.00	0.00	0.00	105	
	111	33276-106	106		1.33	8.34	0.00	0.00	0.00	106	
	112	33276-107	107		9.08	56.80	0.00	0.00	0.00	107	
	113	33276-108	108		0.00	0.00	0.91	1.40	0.00	108	
	114	33276-109	109		0.22	0.00	1.92	2.86	0.00	109	
	115	33276-110	110		0.00	0.00	4.95	7.68	0.00	110	
	116	33276-111	111		0.00	0.00	0.00	0.00	0.00	111	
	117	33276-112	112		1.33	8.27	0.00	0.00	1.80	112	
	118	33276-113	113		3.55	21.77	0.00	0.00	2.80	113	
	119	33276-114	114		2.44	15.54	0.00	0.00	0.00	114	
	120	33276-115	115		0.00	0.00	4.95	7.79	1.80	115	
[redacted]	121	QC C-14	[redacted]	QC C-14	27578.90	4598.66	92731.30	135713.00	0.00	QCC14	
	122	33276-116	116		6.87	45.70	0.00	0.00	0.80	116	
	123	33276-117	117		0.00	0.00	4.95	7.52	0.80	117	
	124	33276-118	118		0.00	0.00	5.96	9.15	0.00	118	
	125	33276-119	119		0.00	0.00	0.00	0.00	0.00	119	
	126	33276-120	120		0.00	0.00	2.93	4.57	0.00	120	
	127	33276-121	121		0.00	0.00	3.94	6.17	0.00	121	
	128	33276-122	122		0.00	0.00	0.00	0.00	0.00	122	
	129	33276-123	123		0.00	0.00	0.00	0.00	0.00	123	
	130	33276-124	124		0.00	0.00	2.93	4.56	2.80	124	
	131	33276-125	125		0.22	0.00	13.03	20.11	0.00	125	
	132	33276-126	126		0.00	0.00	0.00	0.00	0.00	126	
	133	33276-127	127		0.00	0.00	11.01	16.96	1.80	127	
	134	33276-128	128		0.00	0.00	5.96	9.40	0.00	128	
	135	33276-129	129		8132.17	60323.80	171.65	0.00	0.00	129	
	136	33276-130	130		302.68	1871.88	13.03	5.91	0.00	130	
	137	33276-131	131		0.00	0.00	4.95	7.55	3.80	131	
	138	33276-132	132		0.00	0.00	8.99	14.52	0.00	132	
	139	33276-133	133		0.00	0.00	3.94	6.21	0.00	133	
	140	33276-134	134		3.55	19.01	1.92	2.78	1.80	134	
	141	33276-135	135		0.00	0.00	4.95	7.60	0.00	135	
	142	33276-136	136		1.33	0.00	4.95	7.55	0.00	136	
	143	33276-137	137		0.00	0.00	0.00	0.00	1.80	137	
	144	33276-138	138		31.24	178.05	3.94	4.53	6.80	138	
[redacted]	145	QC BL	[redacted]	QC BL	0.00	0.00	8.99	13.52	2.80	BL	
	146	33276-139	139		0.00	0.00	6.97	10.60	0.00	139	
	147	33276-140	140		2.44	2.21	6.97	10.30	0.00	140	
	148	33276-141	141		1.33	0.00	5.96	9.03	0.80	141	
	149	33276-142	142		0.22	0.00	7.98	12.09	0.00	142	
	150	33276-143	143		0.00	0.00	0.00	0.00	0.00	143	
	151	33276-144	144		0.00	0.00	10.00	15.44	0.80	144	
	152	33276-145	145		32.35	188.85	1.92	1.43	7.80	145	

	153	33276-146	146		0.00	0.00	4.95	7.62	0.00		146
	154	33276-147	147		1.33	6.98	0.91	1.34	0.80		147
	155	33276-148	148		5.76	11.88	13.03	20.29	0.00		148
	156	33276-149	149		5.76	26.43	4.95	7.27	2.80		149
	157	33276-150	150		0.00	0.00	0.00	0.00	0.00		150
	158	33276-151	151		2.44	13.31	0.00	0.00	0.00		151
	159	33276-152	152		26.81	159.15	2.93	3.22	12.80		152
	160	33276-153	153		0.00	0.00	8.99	13.44	2.80		153
	161	33276-154	154		2.44	3.93	5.96	8.92	3.80		154
	162	33276-155	155		2.44	15.12	0.00	0.00	1.80		155
	163	33276-156	156		0.00	0.00	2.93	4.45	0.00		156
	164	33276-157	157		0.00	0.00	0.00	0.00	0.00		157
	165	33276-158	158		0.00	0.00	0.00	0.00	0.00		158
	166	33276-159	159		4.65	29.48	0.00	0.00	0.00		159
	167	33276-160	160		2.44	16.74	0.00	0.00	0.00		160
	168	33276-161	161		1.33	0.00	4.95	7.64	0.00		161
[redacted]	169	QC H-3	[redacted]	QC H-3	27611.40	185422.00	706.10	0.00	0.00	H3	
	170	33276-162	162		7.98	50.17	0.00	0.00	0.80		162
	171	33276-163	163		1.33	8.56	0.00	0.00	0.00		163
	172	33276-164	164		5.76	38.64	0.00	0.00	0.00		164
	173	33276-165	165		2.44	16.15	0.00	0.00	0.00		165
	174	33276-166	166		0.00	0.00	10.00	15.38	0.80		166
	175	33276-167	167		0.22	1.49	0.00	0.00	0.80		167
	176	33276-168	168		0.00	0.00	0.00	0.00	0.00		168
	177	33276-169	169		0.22	1.50	0.00	0.00	0.00		169
	178	33276-170	170		0.00	0.00	0.00	0.00	0.00		170
	179	33276-171	171		0.00	0.00	0.00	0.00	0.00		171
	180	33276-172	172		13.52	115.37	0.00	0.00	0.00		172
	181	33276-173	173		4.65	24.85	2.93	4.30	0.80		173
	182	33276-174	174		0.22	0.00	3.94	6.05	0.80		174
	183	33276-175	175		0.00	0.00	0.00	0.00	0.00		175
	184	33276-176	176		2.44	15.77	0.00	0.00	0.00		176
	185	33276-177	177		0.00	0.00	0.00	0.00	1.80		177
	186	33276-178	178		0.22	2.35	0.00	0.00	0.00		178
	187	33276-179	179		4.65	25.42	1.92	2.71	0.80		179
	188	33276-180	180		0.00	0.00	2.93	4.53	0.00		180
	189	33276-181	181		0.00	0.00	2.93	4.53	0.00		181
	190	33276-182	182		2.44	13.71	0.91	1.28	0.00		182
	191	33276-183	183		0.00	0.00	0.00	0.00	0.00		183
	192	33276-184	184		0.22	0.00	0.91	1.38	0.00		184
[redacted]	193	QC C-14	[redacted]	QC C-14	28892.30	13022.20	86309.00	133061.00	0.00	C14	
	194	33276-185	185		5.76	26.69	4.95	7.28	0.00		185
	195	33276-186	186		0.22	1.33	0.00	0.00	0.00		186
	196	33276-187	187		0.00	0.00	0.00	0.00	0.00		187
	197	33276-188	188		0.00	0.00	0.00	0.00	0.80		188
	198	33276-189	189		0.00	0.00	0.00	0.00	0.00		189
	199	33276-190	190		1.33	8.02	0.00	0.00	0.80		190
	200	33276-191	191		0.22	1.25	0.00	0.00	1.80		191
	201	33276-192	192		0.22	1.26	0.00	0.00	0.00		192
	202	33276-193	193		0.22	1.25	0.00	0.00	0.80		193
	203	33276-194	194		0.00	0.00	0.00	0.00	0.00		194
	204	33276-195	195		6.87	35.59	2.93	4.11	0.00		195
	205	33276-196	196		4.65	28.05	0.00	0.00	0.00		196
	206	33276-197	197		0.00	0.00	4.95	7.44	0.00		197

	207	33276-198	198		0.00	0.00	0.00	0.00	0.00		198
	208	33276-199	199		0.00	0.00	0.00	0.00	0.00		199
	209	33276-200	200		0.22	0.00	5.96	9.03	0.80		200
	210	33276-201	201		2.44	14.41	0.00	0.00	1.80		201
	211	33276-202	202		0.00	0.00	0.00	0.00	0.00		202
	212	33276-203	203		3.55	15.66	2.93	4.25	0.00		203
	213	33276-204	204		0.00	0.00	2.93	4.40	2.80		204
	214	33276-205	205		0.22	0.00	4.95	7.38	0.80		205
	215	33276-206	206		1.33	7.67	0.00	0.00	0.80		206
	216	33276-207	207		2.44	9.08	2.93	4.29	1.80		207
[redacted]	217	QC BL	[redacted]	QC BL	0.00	0.00	0.00	0.00	0.80	BL	
	218	33276-208	208		0.00	0.00	0.00	0.00	1.80		208
	219	33276-209	209		0.00	0.00	6.97	10.54	4.80		209
	220	33276-210	210		7.98	24.65	13.03	19.39	2.80		210
	221	33276-211	211		0.00	0.00	0.91	1.38	2.80		211
	222	33276-212	212		0.00	0.00	0.00	0.00	0.80		212
	223	33276-213	213		0.22	0.00	3.94	5.92	0.80		213
	224	33276-214	214		3.55	12.33	4.95	7.32	0.00		214
	225	33276-215	215		0.00	0.00	10.00	21.17	1.80		215
	226	33276-216	216		1.33	0.00	5.96	8.94	2.80		216
	227	33276-217	217		0.00	0.00	2.93	4.00	3.80		217
	228	33276-218	218		5.76	34.57	0.00	0.41	5.80		218
	229	33276-219	219		1.33	6.20	0.91	0.00	0.00		219
	230	33276-220	220		0.00	0.00	0.00	1.31	0.00		220
	231	33276-221	221		0.00	0.00	0.00	0.00	0.00		221
	232	33276-222	222		0.00	0.00	0.00	0.00	0.00		222
	233	33276-223	223		0.00	0.00	0.00	0.00	0.00		223
	234	33276-224	224		0.00	0.00	0.91	1.34	0.00		224
	235	33276-225	225		0.22	1.13	0.00	0.00	0.80		225
	236	33276-226	226		0.00	0.00	7.98	11.93	0.80		226
	237	33276-227	227		0.00	0.00	0.00	0.00	0.00		227
	238	33276-228	228		1.33	0.00	4.95	7.51	0.00		228
	239	33276-229	229		3.55	17.52	0.00	0.00	1.80		229
	240	33276-230	230		4.65	22.49	2.93	4.21	0.00		230
[redacted]	241	QC H-3	[redacted]	QC H-3	41598.30	186023.00	972.82	0.00	0.00	H3	
	242	33276-231	231		79.98	45.18	0.00	0.00	0.00		231
	243	33276-232	232		0.00	0.00	3.94	5.91	0.00		232
	244	33276-233	233		9.08	48.99	0.00	0.00	0.80		233
	245	33276-234	234		0.00	0.00	0.00	0.00	0.80		234
	246	33276-235	235		12.41	73.48	0.00	0.00	11.80		235
	247	33276-236	236		2.44	14.14	0.00	0.00	3.80		236
	1	33276-237	237		0.00	0.00	2.93	4.58	0.00		237
	2	33276-238	238		0.00	0.00	0.00	0.00	0.80		238
	3	33276-239	239		0.00	0.00	0.00	0.00	0.00		239
	4	33276-240	240		0.00	0.00	0.00	0.00	0.00		240
	5	33276-241	241		2.44	15.59	0.00	0.00	0.00		241
	6	33276-242	242		2.44	14.91	0.00	0.00	1.80		242
	7	33276-243	243		0.00	0.00	5.96	9.10	1.80		243
	8	33276-244	244		0.22	1.28	0.00	0.00	0.00		244
	9	33276-245	245		0.00	0.00	0.91	1.39	0.80		245
	10	33276-246	246		0.22	1.32	0.00	0.00	0.00		246
	11	33276-247	247		10.19	64.80	0.00	0.00	0.00		247
	12	33276-248	248		1.33	7.87	0.00	0.00	0.00		248
	13	33276-249	249		0.00	0.00	7.98	12.14	2.80		249

	14	33276-250	250		0.22	0.00	6.97	10.77	2.80		250
	15	33276-251	251		2.44	14.26	0.91	1.29	0.80		251
	16	33276-252	252		0.22	1.33	0.00	0.00	1.80		252
	17	33276-253	253		0.00	0.00	4.95	7.56	0.80		253
[redacted]	18	QC C-14	[redacted]	QC, C-14	26842.00	6673.04	95717.10	133434.00	0.00	C14	
	19	33276-254	254		1.33	7.98	0.00	0.00	0.00		254
	20	33276-255	255		0.00	0.00	6.97	10.32	0.00		255
	21	33276-256	256		0.00	0.00	0.91	1.39	0.00		256
	22	33276-257	257		2.44	14.06	0.91	1.28	0.00		257
	23	33276-258	258		0.00	0.00	0.00	0.00	0.00		258
	24	33276-259	259		0.00	0.00	0.00	0.00	0.00		259
	25	33276-260	260		0.00	0.00	0.00	0.00	2.80		260
	26	33276-261	261		2.44	10.31	3.94	6.54	2.80		261
	27	33276-262	262		0.00	0.00	13.03	19.66	1.80		262
	28	33276-263	263		1.33	0.00	16.06	25.29	1.80		263
	29	33276-264	264		34.57	275.26	7.98	11.26	16.80		264
	30	33276-265	265		3.55	12.15	5.96	9.20	3.80		265
	31	33276-266	266		3.55	0.80	11.01	16.93	3.80		266
	32	33276-267	267		0.22	0.00	5.96	9.36	0.00		267
	33	33276-268	268		0.00	0.00	7.98	21.76	0.00		268
	34	33276-269	269		0.00	0.00	5.96	15.37	0.00		269
	35	33276-270	270		0.00	0.00	19.09	29.97	0.80		270
	36	33276-271	271		2.44	0.00	11.01	17.04	0.80		271
	37	33276-272	272		5.76	32.57	2.93	4.25	3.80		272
	38	33276-273	273		5271.77	39308.80	122.15	0.00	0.00		273
	39	33276-274	274		0.00	0.00	10.00	15.31	1.80		274
	40	33276-275	275		1.33	0.00	5.96	8.83	2.80		275
	41	33276-276	276		4.65	21.38	3.94	5.78	3.80		276
[redacted]	42	QC BL	[redacted]	QC, BL	0.00	0.00	4.95	7.51	0.80	BL	
	43	33276-277	277		0.00	0.00	0.00	0.00	0.00		277
	44	33276-278	278		0.22	0.00	11.01	18.05	1.80		278
	45	33276-279	279		0.00	0.00	4.95	8.09	1.80		279
	46	33276-280	280		2.44	0.00	8.99	13.56	0.00		280
	47	33276-281	281		0.22	0.00	0.91	1.36	0.80		281
	48	33276-282	282		0.00	0.00	0.00	0.00	0.80		282
	49	33276-283	283		0.22	0.00	8.99	18.59	0.00		283
	50	33276-284	284		1.33	0.00	8.99	13.48	5.80		284
	51	33276-285	285		0.00	0.00	8.99	13.47	2.80		285
	52	33276-286	286		0.22	0.00	11.01	16.70	3.80		286
	53	33276-287	287		0.00	0.00	5.96	8.98	1.80		287
	54	33276-288	288		0.00	0.00	0.00	0.00	0.00		288
	55	33276-289	289		3.55	20.45	0.00	0.00	0.00		289
	56	33276-290	290		0.22	0.00	3.94	5.94	0.00		290
	57	33276-291	291		0.00	0.00	0.00	0.00	0.00		291
	58	33276-292	292		0.00	0.00	5.96	9.05	0.00		292
	59	33276-293	293		2.44	7.47	3.94	5.83	1.80		293
	60	33276-294	294		2.44	5.79	4.95	7.40	2.80		294
	61	33276-295	295		0.00	0.00	0.00	0.00	0.00		295
	62	33276-296	296		9.09	54.02	0.00	0.00	0.00		296
	63	33276-297	297		0.00	0.00	6.97	10.42	0.00		297
	64	33276-298	298		0.00	0.00	0.00	0.00	3.80		298
	65	33276-299	299		0.00	0.00	0.00	0.00	0.00		299
[redacted]	66	QC H-3	[redacted]	QC, H-3	34125.90	182593.00	814.21	0.00	0.00	H3	
	67	33276-300	300		1.33	8.31	0.00	0.00	0.00		300

	68	33276-301	301		0.00	0.00	0.00	0.00	0.80	301
	69	33276-302	302		5.76	25.78	3.94	5.62	1.80	302
	70	33276-303	303		1.33	0.00	4.95	7.38	0.00	303
	71	33276-304	304		0.22	0.00	5.96	9.06	0.00	304
	72	33276-305	305		2.44	5.44	4.95	7.24	2.80	305
	73	33276-306	306		0.22	0.00	8.99	13.26	0.80	306
	74	33276-307	307		0.22	0.00	11.01	16.06	5.80	307
	75	33276-308	308		0.00	0.00	2.93	4.36	0.00	308
	76	33276-309	309		5.76	30.34	0.00	0.00	2.80	309
	77	33276-310	310		0.22	0.00	3.94	5.76	3.80	310
	78	33276-311	311		1.33	6.74	0.00	0.00	0.00	311
	79	33276-312	312		1.33	0.90	3.94	5.91	0.00	312
	80	33276-313	313		1.33	0.00	13.03	19.69	3.80	313
	81	33276-314	314		1.33	0.00	11.01	16.35	0.80	314
	82	33276-315	315		0.22	0.00	3.94	5.92	0.00	315
	83	33276-316	316		2.44	0.00	8.99	13.53	5.80	316
	84	33276-317	317		0.00	0.00	0.91	1.37	2.80	317
	85	33276-318	318		0.00	0.00	10.00	14.93	1.80	318
	86	33276-319	319		3.55	0.00	10.00	14.67	0.80	319
	87	33276-320	320		0.00	0.00	7.98	11.91	0.00	320
	88	33276-321	321		3.55	3.50	0.91	1.19	0.00	321
	89	33276-322	322		0.00	0.00	6.97	10.52	0.80	322
[redacted]	90	QC C-14	[redacted]	QC, C-14	27571.50	17.85	92146.90	135022.00	0.00	C14
	91	33276-323	323		9.09	0.00	0.00	0.00	0.00	323
	92	33276-324	324		0.00	5201.93	4.95	7.30	2.80	324
	93	33276-325	325		0.00	42.59	2.93	4.35	4.80	325
	94	33276-326	326		6.87	0.00	3.94	5.55	3.80	326
	95	33276-327	327		0.00	0.00	14.04	20.76	4.80	327
	96	33276-328	328		0.00	31.20	5.96	8.77	5.80	328
	97	33276-329	329		0.00	0.00	5.96	9.10	0.80	329
	98	33276-330	330		0.00	0.00	2.93	4.41	2.80	330
	99	33276-331	331		0.00	0.00	0.91	1.37	0.00	331
	100	33276-332	332		0.00	0.00	5.96	9.10	0.80	332
	101	33276-333	333		2.44	5.93	4.95	7.42	4.80	333
	102	33276-334	334		0.00	0.00	0.00	0.00	1.80	334
	103	33276-335	335		1.33	8.31	0.00	0.00	0.00	335
	104	33276-336	336		0.22	0.00	1.92	3.00	0.80	336
	105	33276-337	337		5.76	37.71	0.00	0.00	0.80	337
	106	33276-338	338		0.22	0.00	1.92	2.94	0.80	338
	107	33276-339	339		0.22	0.00	19.09	29.21	2.80	339
	108	33276-340	340		0.00	0.00	7.98	18.26	0.00	340
	109	33276-341	341		0.00	0.00	7.98	20.86	0.00	341
	110	33276-342	342		1.33	0.00	11.01	20.13	0.00	342
	111	33276-343	343		1.33	7.10	1.00	3.40	0.00	343
	112	33276-344	344		2.44	17.95	0.92	0.00	0.00	344
	113	33276-345	345		6.87	45.92	0.00	0.00	1.80	345
[redacted]	114	QC BL	[redacted]	QC, BL	1.33	2.70	0.00	4.36	0.80	BL
	115	33276-346	346		2.44	15.96	2.93	0.00	0.00	346
	116	33276-347	347		0.00	0.00	0.00	0.00	1.80	347
	117	33276-348	348		1.33	9.08	0.00	0.00	0.00	348
	118	33276-349	349		0.22	1.37	0.00	0.00	1.80	349
	119	33276-350	350		0.00	0.00	0.00	0.00	0.80	350
	120	33276-351	351		2.44	3.94	5.96	9.30	0.00	351
	121	33276-352	352		3.55	13.52	3.94	5.74	0.00	352

122	33276-353	353	0.00	0.00	0.00	0.00	0.00	353
123	33276-354	354	1.33	5.90	0.91	1.30	0.00	354
124	33276-355	355	0.00	0.00	1.92	2.83	0.00	355
125	33276-356	356	0.00	0.00	0.00	0.00	0.00	356

[redacted] [redacted]

[redacted]

SELECT CONFIDENCE LEVEL: 90% (1) 2 <=====
(enter the number next to the 95% (2)
desired confidence level in box 99% (3)
F3 {left of arrow})
MDA CALCULATION

RSA ID #	SAMPLE COUNT TIME	BKGD COUNT TIME	BKGD CPM	DETECTOR EFICENCY	SAMPLE VOLUME L/g	LLD DPM	MDA pCi
H-3	1	1	7.5	0.1831	1	84.37	38.00
C-14	1	1	15.1	0.6662	1	31.20	14.05
HE Beta	1	1	5		1	#DIV/0!	#DIV/0!

0.6662
0.1831

MDA uCi
3.80E-05
1.41E-05
#DIV/0!

RSA Laboratories

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Radiochemistry Analysis Data Sheet

Report No. **Report 2**

Customer: **June Tamkin**

Customer Samp No. **N/A**

Location: **Institute for Pharmaceutical Discovery**

RSA Lab Sample No. **30410 -30412**

Project: **Decommissioning**

Date Collected: **Not Indicated**

Samp. Description: **Wipes**

Date Counted: **12/4/2013**

Matrix: **Wipes**

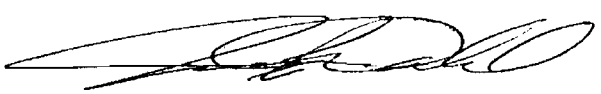
H-3 LLD dpm= 84.37

H-3 QC = 177500 dpm +/- 10%

C-14 LLD dpm= 31.20

C-14 QC = 134800 dpm +/- 10%

RSA ID#	CUST. ID#	Location	H-3 CPM	H-3 DPM	C-14 CPM	C-14 DPM	HE Beta CPM	
BG		BACKGROUND	8.80		15.10		3.20	
33276-1	1		1.33	6	0.91	1.29	0.00	
33276-2	2		0.00	0.00	2.93	4.44	0.00	
33276-3	3		0.00	0.00	5.96	8.87	0.00	
33276-4	4		4.65	15.22	6.97	10.30	0.00	
33276-5	5		2.44	14.61	0.00	0.00	0.00	
33276-6	6		0.00	0.00	0.00	0.00	0.00	
33276-7	7		1.33	0.00	6.97	10.42	0.80	
33276-8	8		0.00	0.00	6.97	10.43	1.80	
33276-9	9		1.33	4.46	1.92	2.83	0.00	
33276-10	10		0.22	1.24	0.00	0.00	2.80	
33276-11	11		0.00	0	5.96	8.91	0.80	
33276-12	12		2.44	14.24	0.00	0.00	1.80	
33276-13	13		0.00	0.00	7.98	12.19	0.00	
33276-14	14		0.22	1.28	0.00	0.00	0.80	
33276-15	15		5.76	1.66	18.08	27.39	9.80	
33276-16	16		0.00	0.00	11.01	16.50	0.00	
33276-17	17		4.65	25.87	0.91	1.16	0.80	
33276-18	18		7.98	35.56	5396.00	8.58	15.80	
33276-19	19		4.65	27.01	0.00	0.00	4.80	
33276-20	20		2.44	7.50	3.94	5.84	0.80	
33276-21	21		3.55	21.24	0.00	0.00	0.00	
33276-22	22		0.22	1.32	0.00	0.00	0.00	
33276-23	23		2.44	10.79	1.92	2.77	0.00	
QC H-3	QC H-3	QC H-3	41253.80	183605.00	888.96	0.00	0.00	
33276-24	24		1.33	7.84	0.00	0.00	0.80	
33276-25	25		0.22	0.00	0.91	1.40	0.00	
33276-26	26		0.00	0.00	4.95	7.58	0.00	
33276-27	27		0.00	0.00	10.00	15.47	0.00	
33276-28	28		0.00	0.00	7.98	12.29	0.00	
33276-29	29		0.00	0.00	2.93	4.55	0.00	
33276-30	30		0.00	0.00	2.93	4.53	0.00	
33276-31	31		4.65	30.68	0.00	0.00	0.00	
33276-32	32		7.98	50.29	0.00	0.00	0.00	
33276-33	33		0.00	0.00	0.00	0.00	0.00	
33276-34	34		0.00	0.00	0.91	1.40	0.00	



Jay R. Dockendorff
Laboratory Director

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Radiochemistry Analysis Data Sheet

RSA ID#	CUST. ID#	LOCATION	H-3 CPM	H-3 DPM	C-14 CPM	C-14 DPM	HE Beta CPM	
33276-35	35.00		0.00	0.00	2.93	4.61	0.00	
33276-36	36.00		0.00	0.00	1.92	2.95	0.00	
33276-37	37.00		0.00	0.00	1.92	2.98	0.00	
33276-38	38.00		0.00	0.00	15.05	2.92	0.00	
33276-39	39.00		1.33	0.00	20.10	30.96	0.00	
33276-40	40.00		0.00	0.00	3.94	6.05	0.00	
33276-41	41.00		0.00	0.00	0.00	0.00	0.00	
33276-42	42.00		0.00	4.88	1.92	2.89	0.00	
33276-43	43.00		1.33	9.16	0.00	0.00	0.00	
33276-44	44.00		6.87	42.16	0.00	0.00	1.80	
33276-45	45.00		9.08	38.10	10.00	14.85	3.80	
33276-46	46.00		9.08	57.15	0.91	0.97	3.80	
QC C-14	QC C-14	QC C-14	26919.30	6767.60	95876.20	133699.00	0.00	
33276-47	47.00		3.55	21.75	0.00	0.00	0.00	
33276-48	48.00		0.00	0.00	0.00	0.00	0.00	
33276-49	49.00		7.98	32.01	8.99	13.27	1.80	
33276-50	50.00		0.00	0.00	0.00	0.00	0.00	
33276-51	51.00		0.00	0.00	2.93	4.46	0.00	
33276-52	52.00		0.22	1.44	0.00	0.00	0.00	
33276-53	53.00		0.00	0.00	8.99	14.25	0.80	
33276-54	54.00		0.00	0.00	0.00	0.00	0.00	
33276-55	55.00		4.65	27.13	0.91	1.17	0.00	
33276-56	56.00		0.00	0.00	0.91	1.38	2.80	
33276-57	57.00		0.22	0.00	6.97	10.64	0.00	
33276-58	58.00		3.55	17.10	2.93	4.33	2.80	
33276-59	59.00		2.44	5.89	4.95	7.44	0.00	
33276-60	60.00		0.00	0.00	13.03	20.21	0.00	
33276-61	61.00		2.44	9.90	2.93	4.37	1.80	
33276-62	62.00		0.00	0.00	6.97	10.63	2.80	
33276-63	63.00		0.00	0.00	0.00	0.00	0.00	
33276-64	64.00		2.44	12.15	1.92	2.84	2.80	
33276-65	65.00		1.33	0.73	3.94	6.04	1.80	
33276-66	66.00		1.33	0.00	6.97	10.72	2.80	
33276-67	67.00		0.22	0.00	0.91	1.40	1.80	
33276-68	68.00		24.59	146.36	5.96	7.99	7.80	
33276-69	69.00		4.65	27.18	1.92	2.74	0.00	
QC BL	QC BL	QC BL	2.44	0.42	7.98	11.89	0.00	
33276-70	70.00		0.22	0.00	2.93	4.52	2.80	
33276-71	71.00		0.00	0.00	7.98	12.41	0.80	
33276-72	72.00		1.33	0.00	6.97	10.64	0.00	
33276-73	73.00		0.00	0.00	5.90	8.99	0.00	
33276-74	74.00		2.44	13.74	0.91	1.28	1.80	
33276-75	75.00		0.00	0.00	8.99	13.78	0.00	
33276-76	76.00		0.00	0.00	3.94	5.97	0.00	
33276-77	77.00		0.00	0.00	4.95	7.49	0.00	
33276-78	78.00		0.00	0.00	12.02	18.39	0.00	
33276-79	79.00		0.00	0.00	0.00	0.00	0.00	

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Laboratory Director

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Radiochemistry Analysis Data Sheet

RSA ID#	CUST. ID#	LOCATION	H-3 CPM	H-3 DPM	C-14 CPM	C-14 DPM	HE Beta CPM
33276-80	80		3.55	17.62	1.92	2.74	3.80
33276-81	81		46.75	332.51	0.91	0.00	18.80
33276-82	82		0.00	0.00	3.94	6.05	0.00
33276-83	83		6.87	2.68	21.12	32.08	3.80
33276-84	84		0.22	0.00	11.01	16.73	0.00
33276-85	85		0.00	0.00	8.99	29.44	0.00
33276-86	86		2.44	7.40	3.94	5.82	0.00
33276-87	87		2.44	13.80	0.91	1.28	3.80
33276-88	88		0.00	0.00	7.98	12.04	0.00
33276-89	89		0.00	0.00	2.93	6.82	0.00
33276-90	90		0.00	0.00	2.93	4.71	0.00
33276-91	91		15.73	89.50	7.98	11.60	0.80
33276-92	92		0.00	0.00	4.95	7.61	0.00
QC H-3	QC H-3	QC H-3	34348.00	181786.00	856.63	0.00	0.00
33276-93	93		1.33	0.00	5.96	8.92	0.80
33276-94	94		5.76	31.29	2.93	4.22	0.00
33276-95	95		0.22	1.26	0.00	0.00	0.00
33276-96	96		4.65	30.44	0.00	0.00	3.80
33276-97	97		2.44	6.11	4.95	7.53	0.00
33276-98	98		0.00	0.00	10.00	15.46	1.80
33276-99	99		0.00	0.00	1.92	3.01	0.00
33276-100	100		0.00	0.00	2.93	4.43	0.00
33276-101	101		0.00	0.00	3.94	5.94	0.00
33276-102	102		1.33	9.31	0.00	0.00	0.00
33276-103	103		0.00	0.00	10.00	15.47	0.80
33276-104	104		3.55	14.39	3.94	5.82	0.00
33276-105	105		3.55	20.19	0.00	0.00	0.00
33276-106	106		1.33	8.34	0.00	0.00	0.00
33276-107	107		9.08	56.80	0.00	0.00	0.00
33276-108	108		0.00	0.00	0.91	1.40	0.00
33276-109	109		0.22	0.00	1.92	2.86	0.00
33276-110	110		0.00	0.00	4.95	7.68	0.00
33276-111	111		0.00	0.00	0.00	0.00	0.00
33276-112	112		1.33	8.27	0.00	0.00	1.80
33276-113	113		3.55	21.77	0.00	0.00	2.80
33276-114	114		2.44	15.54	0.00	0.00	0.00
33276-115	115		0.00	0.00	4.95	7.79	1.80
QC C-14	QC C-14	QC C-14	27578.90	4598.66	92731.30	135713.00	0.00
33276-116	116		6.87	45.70	0.00	0.00	0.80
33276-117	117		0.00	0.00	4.95	7.52	0.80
33276-118	118		0.00	0.00	5.96	9.15	0.00
33276-119	119		0.00	0.00	0.00	0.00	0.00
33276-120	120		0.00	0.00	2.93	4.57	0.00
33276-121	121		0.00	0.00	3.94	6.17	0.00
33276-122	122		0.00	0.00	0.00	0.00	0.00
33276-123	123		0.00	0.00	0.00	0.00	0.00
33276-124	124		0.00	0.00	2.93	4.56	2.80

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Radiochemistry Analysis Data Sheet

RSA ID#	CUST. ID#	LOCATION	H-3 CPM	H-3 DPM	C-14 CPM	C-14 DPM	HE Beta CPM
33276-125	125		0.22	0.00	13.03	20.11	0.00
33276-126	126		0.00	0.00	0.00	0.00	0.00
33276-127	127		0.00	0.00	11.01	16.96	1.80
33276-128	128		0.00	0.00	5.96	9.40	0.00
33276-129	129		8132.17	60323.80	171.65	0.00	0.00
33276-130	130		302.68	1871.88	13.03	5.91	0.00
33276-131	131		0.00	0.00	4.95	7.55	3.80
33276-132	132		0.00	0.00	8.99	14.52	0.00
33276-133	133		0.00	0.00	3.94	6.21	0.00
33276-134	134		3.55	19.01	1.92	2.78	1.80
33276-135	135		0.00	0.00	4.95	7.60	0.00
33276-136	136		1.33	0.00	4.95	7.55	0.00
33276-137	137		0.00	0.00	0.00	0.00	1.80
33276-138	138		31.24	178.05	3.94	4.53	6.80
QC BL	QC BL	QC BL	0.00	0.00	8.99	13.52	2.80
33276-139	139		0.00	0.00	6.97	10.60	0.00
33276-140	140		2.44	2.21	6.97	10.30	0.00
33276-141	141		1.33	0.00	5.96	9.03	0.80
33276-142	142		0.22	0.00	7.98	12.09	0.00
33276-143	143		0.00	0.00	0.00	0.00	0.00
33276-144	144		0.00	0.00	10.00	15.44	0.80
33276-145	145		32.35	188.85	1.92	1.43	7.80
33276-146	146		0.00	0.00	4.95	7.62	0.00
33276-147	147		1.33	6.98	0.91	1.34	0.80
33276-148	148		5.76	11.88	13.03	20.29	0.00
33276-149	149		5.76	26.43	4.95	7.27	2.80
33276-150	150		0.00	0.00	0.00	0.00	0.00
33276-151	151		2.44	13.31	0.00	0.00	0.00
33276-152	152		26.81	159.15	2.93	3.22	12.80
33276-153	153		0.00	0.00	8.99	13.44	2.80
33276-154	154		2.44	3.93	5.96	8.92	3.80
33276-155	155		2.44	15.12	0.00	0.00	1.80
33276-156	156		0.00	0.00	2.93	4.45	0.00
33276-157	157		0.00	0.00	0.00	0.00	0.00
33276-158	158		0.00	0.00	0.00	0.00	0.00
33276-159	159		4.65	29.48	0.00	0.00	0.00
33276-160	160		2.44	16.74	0.00	0.00	0.00
33276-161	161		1.33	0.00	4.95	7.64	0.00
QC H-3	QC H-3	QC H-3	27611.40	185422.00	706.10	0.00	0.00
33276-162	162		7.98	50.17	0.00	0.00	0.80
33276-163	163		1.33	8.56	0.00	0.00	0.00
33276-164	164		5.76	38.64	0.00	0.00	0.00
33276-165	165		2.44	16.15	0.00	0.00	0.00
33276-166	166		0.00	0.00	10.00	15.38	0.80
33276-167	167		0.22	1.49	0.00	0.00	0.80
33276-168	168		0.00	0.00	0.00	0.00	0.00
33276-169	169		0.22	1.50	0.00	0.00	0.00

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RSA ID#	CUST. ID#	LOCATION	H-3 CPM	H-3 DPM	C-14 CPM	C-14 DPM	HE Beta CPM
33276-170	170		0.00	0.00	0.00	0.00	0.00
33276-171	171		0.00	0.00	0.00	0.00	0.00
33276-172	172		13.52	115.37	0.00	0.00	0.00
33276-173	173		4.65	25	2.93	4.30	0.80
33276-174	174		0.22	0.00	3.94	6.05	0.80
33276-175	175		0.00	0.00	0.00	0.00	0.00
33276-176	176		2.44	15.77	0.00	0.00	0.00
33276-177	177		0.00	0.00	0.00	0.00	1.80
33276-178	178		0.22	2.35	0.00	0.00	0.00
33276-179	179		4.65	25.42	1.92	2.71	0.80
33276-180	180		0.00	0.00	2.93	4.53	0.00
33276-181	181		0.00	0.00	2.93	4.53	0.00
33276-182	182		2.44	13.71	0.91	1.28	0.00
33276-183	183		0.00	0.00	0.00	0.00	0.00
33276-184	184		0.22	0.00	0.91	1.38	0.00
QC C-14	QC C-14	QC C-14	28892.30	13022.20	86309.00	133061.00	0.00
33276-185	185		5.76	26.69	4.95	7.28	0.00
33276-186	186		0.22	1.33	0.00	0.00	0.00
33276-187	187		0.00	0.00	0.00	0.00	0.00
33276-188	188		0.00	0.00	0.00	0.00	0.80
33276-189	189		0.00	0.00	0.00	0.00	0.00
33276-190	190		1.33	8.02	0.00	0.00	0.80
33276-191	191		0.22	1.25	0.00	0.00	1.80
33276-192	192		0.22	1.26	0.00	0.00	0.00
33276-193	193		0.22	1.25	0.00	0.00	0.80
33276-194	194		0.00	0.00	0.00	0.00	0.00
33276-195	195		6.87	35.59	2.93	4.11	0.00
33276-196	196		4.65	28.05	0.00	0.00	0.00
33276-197	197		0.00	0	4.95	7.44	0.00
33276-198	198		0.00	0.00	0.00	0.00	0.00
33276-199	199		0.00	0.00	0.00	0.00	0.00
33276-200	200		0.22	0.00	5.96	9.03	0.80
33276-201	201		2.44	14.41	0.00	0.00	1.80
33276-202	202		0.00	0.00	0.00	0.00	0.00
33276-203	203		3.55	15.66	2.93	4.25	0.00
33276-204	204		0.00	0.00	2.93	4.40	2.80
33276-205	205		0.22	0.00	4.95	7.38	0.80
33276-206	206		1.33	7.67	0.00	0.00	0.80
33276-207	207		2.44	9.08	2.93	4.29	1.80
QC BL	QC BL	QC BL	0.00	0.00	0.00	0.00	0.80
33276-208	208		0.00	0.00	0.00	0.00	1.80
33276-209	209		0.00	0.00	6.97	10.54	4.80
33276-210	210		7.98	24.65	13.03	19.39	2.80
33276-211	211		0.00	0.00	0.91	1.38	2.80
33276-212	212		0.00	0.00	0.00	0.00	0.80
33276-213	213		0.22	0.00	3.94	5.92	0.80
33276-214	214		3.55	12.33	4.95	7.32	0.00

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RSA ID#	CUST. ID#	LOCATION	H-3 CPM	H-3 DPM	C-14 CPM	C-14 DPM	HE Beta CPM
33276-215	215		0.00	0.00	10.00	21.17	1.80
33276-216	216		1.33	0.00	5.96	8.94	2.80
33276-217	217		0.00	0.00	2.93	4.00	3.80
33276-218	218		5.76	34.57	0.00	0.41	5.80
33276-219	219		1.33	6.20	0.91	0.00	0.00
33276-220	220		0.00	0.00	0.00	1.31	0.00
33276-221	221		0.00	0.00	0.00	0.00	0.00
33276-222	222		0.00	0.00	0.00	0.00	0.00
33276-223	223		0.00	0.00	0.00	0.00	0.00
33276-224	224		0.00	0.00	0.91	1.34	0.00
33276-225	225		0.22	1.13	0.00	0.00	0.80
33276-226	226		0.00	0.00	7.98	11.93	0.80
33276-227	227		0.00	0.00	0.00	0.00	0.00
33276-228	228		1.33	0.00	4.95	7.51	0.00
33276-229	229		3.55	17.52	0.00	0.00	1.80
33276-230	230		4.65	22.49	2.93	4.21	0.00
QC H-3	QC H-3	QC H-3	41598.30	186023.00	972.82	0.00	0.00
33276-231	231		79.98	45.18	0.00	0.00	0.00
33276-232	232		0.00	0.00	3.94	5.91	0.00
33276-233	233		9.08	48.99	0.00	0.00	0.80
33276-234	234		0.00	0.00	0.00	0.00	0.80
33276-235	235		12.41	73.48	0.00	0.00	11.80
33276-236	236		2.44	14.14	0.00	0.00	3.80
33276-237	237		0.00	0.00	2.93	4.58	0.00
33276-238	238		0.00	0.00	0.00	0.00	0.80
33276-239	239		0.00	0.00	0.00	0.00	0.00
33276-240	240		0.00	0.00	0.00	0.00	0.00
33276-241	241		2.44	15.59	0.00	0.00	0.00
33276-242	242		2.44	14.91	0.00	0.00	1.80
33276-243	243		0.00	0.00	5.96	9.10	1.80
33276-244	244		0.22	1.28	0.00	0.00	0.00
33276-245	245		0.00	0.00	0.91	1.39	0.80
33276-246	246		0.22	1.32	0.00	0.00	0.00
33276-247	247		10.19	64.80	0.00	0.00	0.00
33276-248	248		1.33	7.87	0.00	0.00	0.00
33276-249	249		0.00	0.00	7.98	12.14	2.80
33276-250	250		0.22	0.00	6.97	10.77	2.80
33276-251	251		2.44	14.26	0.91	1.29	0.80
33276-252	252		0.22	1.33	0.00	0.00	1.80
33276-253	253		0.00	0.00	4.95	7.56	0.80
QC C-14	QC C-14	QC, C-14	26842.00	6673.04	95717.10	133434.00	0.00
33276-254	254		1.33	7.98	0.00	0.00	0.00
33276-255	255		0.00	0.00	6.97	10.32	0.00
33276-256	256		0.00	0.00	0.91	1.39	0.00
33276-257	257		2.44	14.06	0.91	1.28	0.00
33276-258	258		0.00	0.00	0.00	0.00	0.00
33276-259	259		0.00	0.00	0.00	0.00	0.00

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RSA ID#	CUST. ID#	LOCATION	H-3 CPM	H-3 DPM	C-14 CPM	C-14 DPM	HE Beta CPM
33276-260	260		0.00	0.00	0.00	0.00	2.80
33276-261	261		2.44	10.31	3.94	6.54	2.80
33276-262	262		0.00	0.00	13.03	19.66	1.80
33276-263	263		1.33	0.00	16.06	25.29	1.80
33276-264	264		34.57	275.26	7.98	11.26	16.80
33276-265	265		3.55	12.15	5.96	9.20	3.80
33276-266	266		3.55	0.80	11.01	16.93	3.80
33276-267	267		0.22	0.00	5.96	9.36	0.00
33276-268	268		0.00	0.00	7.98	21.76	0.00
33276-269	269		0.00	0.00	5.96	15.37	0.00
33276-270	270		0.00	0.00	19.09	29.97	0.80
33276-271	271		2.44	0.00	11.01	17.04	0.80
33276-272	272		5.76	32.57	2.93	4.25	3.80
33276-273	273		5271.77	39308.80	122.15	0.00	0.00
33276-274	274		0.00	0.00	10.00	15.31	1.80
33276-275	275		1.33	0.00	5.96	8.83	2.80
33276-276	276		4.65	21.38	3.94	5.78	3.80
QC BL	QC BL	QC, BL	0.00	0.00	4.95	7.51	0.80
33276-277	277		0.00	0.00	0.00	0.00	0.00
33276-278	278		0.22	0.00	11.01	18.05	1.80
33276-279	279		0.00	0.00	4.95	8.09	1.80
33276-280	280		2.44	0.00	8.99	13.56	0.00
33276-281	281		0.22	0.00	0.91	1.36	0.80
33276-282	282		0.00	0.00	0.00	0.00	0.80
33276-283	283		0.22	0.00	8.99	18.59	0.00
33276-284	284		1.33	0.00	8.99	13.48	5.80
33276-285	285		0.00	0.00	8.99	13.47	2.80
33276-286	286		0.22	0.00	11.01	16.70	3.80
33276-287	287		0.00	0.00	5.96	8.98	1.80
33276-288	288		0.00	0.00	0.00	0.00	0.00
33276-289	289		3.55	20.45	0.00	0.00	0.00
33276-290	290		0.22	0.00	3.94	5.94	0.00
33276-291	291		0.00	0.00	0.00	0.00	0.00
33276-292	292		0.00	0.00	5.96	9.05	0.00
33276-293	293		2.44	7.47	3.94	5.83	1.80
33276-294	294		2.44	5.79	4.95	7.40	2.80
33276-295	295		0.00	0.00	0.00	0.00	0.00
33276-296	296		9.09	54.02	0.00	0.00	0.00
33276-297	297		0.00	0.00	6.97	10.42	0.00
33276-298	298		0.00	0.00	0.00	0.00	3.80
33276-299	299		0.00	0.00	0.00	0.00	0.00
QC H-3	QC H-3	QC, H-3	34125.90	182593.00	814.21	0.00	0.00
33276-300	300		1.33	8.31	0.00	0.00	0.00
33276-301	301		0.00	0.00	0.00	0.00	0.80
33276-302	302		5.76	25.78	3.94	5.62	1.80
33276-303	303		1.33	0.00	4.95	7.38	0.00
33276-304	304		0.22	0.00	5.96	9.06	0.00

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RSA ID#	CUST. ID#	LOCATION	H-3 CPM	H-3 DPM	C-14 CPM	C-14 DPM	HE Beta CPM
33276-305	305		2.44	5.44	4.95	7.24	2.80
33276-306	306		0.22	0.00	8.99	13.26	0.80
33276-307	307		0.22	0.00	11.01	16.06	5.80
33276-308	308		0.00	0.00	2.93	4.36	0.00
33276-309	309		5.76	30.34	0.00	0.00	2.80
33276-310	310		0.22	0.00	3.94	5.76	3.80
33276-311	311		1.33	6.74	0.00	0.00	0.00
33276-312	312		1.33	0.90	3.94	5.91	0.00
33276-313	313		1.33	0.00	13.03	19.69	3.80
33276-314	314		1.33	0.00	11.01	16.35	0.80
33276-315	315		0.22	0.00	3.94	5.92	0.00
33276-316	316		2.44	0.00	8.99	13.53	5.80
33276-317	317		0.00	0.00	0.91	1.37	2.80
33276-318	318		0.00	0.00	10.00	14.93	1.80
33276-319	319		3.55	0.00	10.00	14.67	0.80
33276-320	320		0.00	0.00	7.98	11.91	0.00
33276-321	321		3.55	3.50	0.91	1.19	0.00
33276-322	322		0.00	0.00	6.97	10.52	0.80
QC C-14	QC C-14	QC, C-14	27571.50	17.85	92146.90	135022.00	0.00
33276-323	323		9.09	0.00	0.00	0.00	0.00
33276-324	324		0.00	5201.93	4.95	7.30	2.80
33276-325	325		0.00	42.59	2.93	4.35	4.80
33276-326	326		6.87	0.00	3.94	5.55	3.80
33276-327	327		0.00	0.00	14.04	20.76	4.80
33276-328	328		0.00	31.20	5.96	8.77	5.80
33276-329	329		0.00	0.00	5.96	9.10	0.80
33276-330	330		0.00	0.00	2.93	4.41	2.80
33276-331	331		0.00	0.00	0.91	1.37	0.00
33276-332	332		0.00	0.00	5.96	9.10	0.80
33276-333	333		2.44	5.93	4.95	7.42	4.80
33276-334	334		0.00	0.00	0.00	0.00	1.80
33276-335	335		1.33	8.31	0.00	0.00	0.00
33276-336	336		0.22	0.00	1.92	3.00	0.80
33276-337	337		5.76	37.71	0.00	0.00	0.80
33276-338	338		0.22	0.00	1.92	2.94	0.80
33276-339	339		0.22	0.00	19.09	29.21	2.80
33276-340	340		0.00	0.00	7.98	18.26	0.00
33276-341	341		0.00	0.00	7.98	20.86	0.00
33276-342	342		1.33	0.00	11.01	20.13	0.00
33276-343	343		1.33	7.10	1.00	3.40	0.00
33276-344	344		2.44	17.95	0.92	0.00	0.00
33276-345	345		6.87	45.92	0.00	0.00	1.80
QC BL	QC BL	QC, BL	1.33	2.70	0.00	4.36	0.80
33276-346	346		2.44	15.96	2.93	0.00	0.00
33276-347	347		0.00	0.00	0.00	0.00	1.80
33276-348	348		1.33	9.08	0.00	0.00	0.00
33276-349	349		0.22	1.37	0.00	0.00	1.80

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RSA ID#	CUST. ID#	LOCATION	H-3 CPM	H-3 DPM	C-14 CPM	C-14 DPM	HE Beta CPM
33276-350	350		0.00	0.00	0.00	0.00	0.80
33276-351	351		2.44	3.94	5.96	9.30	0.00
33276-352	352		3.55	13.52	3.94	5.74	0.00
33276-353	353		0.00	0.00	0.00	0.00	0.00
33276-354	354		1.33	5.90	0.91	1.30	0.00
33276-355	355		0.00	0.00	1.92	2.83	0.00
33276-356	356		0.00	0.00	0.00	0.00	0.00

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Laboratory Director

RSA Laboratories
Radiochemistry Analysis Data Sheet

Customer: June Tamkin
Sample Type: Wipes
Matrix: Wipes

Isotope 1 H-3
Isotope 2 C-14
Isotope 3 HE Beta

Collect Date: Not Indicated
Count Date: 12/4/2013
Project: Decommissioning
Location: Institute for Pharmaceutical Discovery

Cust ID # :
# of Pages:

Report No.	Location	POS	RSA ID #	Cust ID #	RSA ID#: Location	CPMA	DPMA	CPMB	DPMB	CPMC	
1		1	BG		Background	11.30		19.30		4.60	BG
2		2	33276-357	357		0.00	0.00	3.74	5.53	5.40	357
3		3	33276-358	358		0.00	0.00	0.00	0.00	5.40	358
4		4	33276-359	359		0.00	0.00	5.76	8.48	0.00	359
		5	33276-360	360		2.99	14.94	0.00	0.00	0.40	360
		6	33276-361	361		1.88	5.74	2.73	3.93	0.40	361
		7	33276-362	362		0.00	0.00	0.00	0.00	0.00	362
		8	33276-363	363		0.00	0.00	0.00	0.00	2.40	363
		9	33276-364	364		0.00	0.00	3.74	5.61	0.00	364
		10	33276-365	365		0.00	0.00	0.00	0.00	6.40	365
		11	33276-366	366		0.78	4.07	0.00	0.00	0.00	366
		12	33276-367	367		0.00	0.00	0.00	0.00	3.40	367
		13	33276-368	368		0.00	0.00	0.00	0.00	1.40	368
		14	33276-369	369		0.00	0.00	6.77	9.00	0.00	369
		15	33276-370	370		0.78	3.84	0.00	0.00	2.40	370
		16	33276-371	371		0.00	0.00	0.00	0.00	0.00	371
		17	33276-372	372		0.00	0.00	4.75	6.88	2.40	372
		18	33276-373	373		0.00	0.00	0.00	0.00	0.40	373
		19	33276-374	374		1.88	2.73	4.75	6.90	0.00	374
		20	33276-375	375		0.00	0.00	0.00	0.00	1.40	375
		21	33276-376	376		0.00	0.00	0.71	1.06	0.00	376
		22	33276-377	377		0.00	0.00	0.00	0.00	2.40	377
		23	33276-378	378		0.00	0.00	0.00	0.00	0.00	378
		24	33276-379	379		0.00	0.00	0.00	0.00	2.40	379
	[redacted]	25	QC H-3	[redacted]	QC H-3	26936.70	183953.00	767.54	0.00	0.00	H-3
		26	33276-380	380		1.88	10.05	0.00	0.00	0.00	380
		27	33276-381	381		0.00	0.00	0.00	0.00	0.00	381
		28	33276-382	382		0.00	0.00	0.00	0.00	0.00	382
		29	33276-383	383		1.88	9.60	0.00	0.00	0.00	383
		30	33276-384	384		0.00	0.00	0.00	0.00	0.00	384
		31	33276-385	385		0.78	4.59	0.00	0.00	0.00	385
		32	33276-386	386		0.78	4.61	0.00	0.00	0.00	386
		33	33276-387	387		0.78	4.64	0.00	0.00	0.40	387
		34	33276-388	388		0.00	0.00	0.00	0.00	0.00	388
		35	33276-389	389		0.00	0.00	4.75	7.12	0.40	389
		36	33276-390	390		0.00	0.00	0.00	0.00	2.40	390
		37	33276-391	391		0.78	4.62	0.00	0.00	0.40	391
		38	33276-392	392		0.00	0.00	5.76	15.01	0.00	392
		39	33276-393	393		0.00	0.00	0.00	0.00	0.40	393
		40	33276-394	394		2.99	15.70	0.00	0.00	0.00	394
		41	33276-395	395		0.00	0.00	0.71	1.07	0.00	395
		42	33276-396	396		0.78	41.55	0.00	0.00	0.00	396
		43	33276-397	397		0.00	0.00	0.00	0.00	0.00	397
		44	33276-398	398		0.00	0.00	2.73	4.14	0.00	398

	45	33276-399	399		25.15	160.74	0.00	0.00	0.00	399	
	46	33276-400	400		0.00	0.00	0.00	0.00	0.00	400	
	47	33276-401	401		5.21	27.24	2.73	391.00	0.40	401	
	48	33276-402	402		0.00	0.00	0.00	0.00	0.40	402	
[redacted]	49	QC C-14	[redacted]	QC C-14	26606.60	5256.35	95922.30	133811.00	0.00	C-14	
	50	33276-403	403		0.00	0.00	0.00	0.00	2.40	403	
	51	33276-404	404		0.00	0.00	1.72	2.65	0.00	404	
	52	33276-405	405		0.00	0.00	0.00	0.00	0.00	405	
	53	33276-406	406		0.00	0.00	0.00	0.00	0.00	406	
	54	33276-407	407		0.00	0.00	0.00	0.00	0.00	407	
	55	33276-408	408		0.00	0.00	0.00	0.00	0.00	408	
	56	33276-409	409		2.99	19.12	0.00	0.00	0.40	409	
	57	33276-410	410		0.00	0.00	0.00	0.00	2.40	410	
	58	33276-411	411		0.00	0.00	0.00	0.00	0.40	411	
	59	33276-412	412		1.88	11.12	0.00	0.00	0.00	412	
	60	33276-413	413		0.00	0.00	5.76	0.00	1.40	413	
	61	33276-414	414		0.00	0.00	0.00	0.00	0.00	414	
	62	33276-415	415		0.00	0.00	15.86	30.77	2.40	415	
	63	33276-416	416		4783.22	35424.90	112.85	0.00	0.00	416	
	64	33276-417	417		4543.88	32550.90	119.92	0.00	0.00	417	
	65	33276-418	418		0.78	0.00	6.77	10.68	3.40	418	
	66	33276-419	419		116.02	859.27	4.75	1.93	0.00	419	
	67	33276-420	420		0.78	6.02	0.00	0.00	1.40	420	
	68	33276-421	421		0.00	0.00	0.00	0.00	5.40	421	
	69	33276-422	422		0.00	0.00	0.00	0.00	0.40	422	
	70	33276-423	423		0.00	0.00	0.00	0.00	8.40	423	
	71	33276-424	424		0.00	0.00	2.73	5.17	3.40	424	
	72	33276-425	425		0.00	0.00	0.00	0.00	0.00	425	
[redacted]	73	QC BL	[redacted]	QC BL	0.00	0.00	3.74	5.65	0.00	BL	
	74	33276-426	426		0.00	0.00	0.00	0.00	0.00	426	
	75	33276-427	427		0.00	0.00	0.00	0.00	0.00	427	
	76	33276-428	428		0.78	4.44	0.00	0.00	0.40	428	
	78	33276-429	305-4118-1		0.00	0.00	0.00	0.00	0.00	1	
	79	33276-430	305-4118-2		0.00	0.00	7.78	11.85	0.40	2	
	80	33276-431	305-4118-3		0.00	0.00	0.00	0.00	0.00	3	
	81	33276-432	305-4118-4		0.00	0.00	0.00	0.00	0.00	4	
	82	33276-433	305-4118-5		0.00	0.00	0.00	0.00	0.40	5	
	83	33276-434	305-4118-6		0.00	0.00	6.77	10.39	0.00	6	
	84	33276-435	305-4118-7		0.00	0.00	0.00	0.00	0.00	7	
	85	33276-436	305-4118-8		0.00	0.00	0.00	0.00	0.00	8	
	86	33276-437	305-4118-9		0.00	0.00	0.00	0.00	1.40	9	
	87	33276-438	305-4118-10		0.00	0.00	0.00	0.00	0.40	10	
	88	33276-439	305-4118-11		0.00	0.00	1.72	2.63	0.00	11	
	89	33276-440	305-4118-12		0.00	0.00	0.00	0.00	2.40	12	
	90	33276-441	305-4118-13		0.78	4.75	0.00	0.00	0.00	13	
	91	33276-442	305-4118-14		0.00	0.00	0.71	1.08	0.00	14	
	92	33276-443	305-4118-15		4.10	26.20	0.00	0.00	0.00	15	
	93	33276-444	305-4118-16		0.00	0.00	0.71	1.09	0.00	16	
	95	33276-445	204-4118-1		0.00	0.00	3.74	5.77	0.40		
	96	33276-446	204-4118-2		0.00	0.00	0.71	1.08	0.40		
[redacted]	97	QC H-3	[redacted]	QC H-3	34247.10	182759.00	860.49	0.00	0.00	H-3	
	98	33276-447	204-4118-3		0.00	0.00	0.00	0.00	0.00		

99	33276-448	204-4118-4	0.00	0.00	0.00	0.00	0.00		
100	33276-449	204-4118-5	129.31	855.61	0.00	0.00	0.00		
101	33276-450	204-4118-6	0.00	0.00	0.00	0.00	0.00		
102	33276-451	204-4118-7	8.53	42.93	6.77	10.04	0.00		
103	33276-452	204-4118-8	0.00	0.00	0.00	0.00	0.00		
104	33276-453	204-4118-9	0.00	0.00	3.74	0.00	0.00		
105	33276-454	204-4118-10	0.00	0.00	0.00	0.00	0.00		
106	33276-455	204-4118-11	0.00	0.00	0.00	0.00	0.40		
107	33276-456	204-4118-12	2.99	19.19	0.00	288.10	0.00		
109	33276-457	LSC-4118-1	0.00	0.00	0.00	0.00	0.00		1
110	33276-458	LSC-4118-2	6.32	35.02	1.72	149.40	2.40		2
111	33276-459	LSC-4118-3	0.00	0.00	0.00	0.00	0.00		3
112	33276-460	LSC-4118-4	0.00	0.00	0.00	0.00	0.40	-	
113	33276-461	LSC-4118-5	0.00	0.00	0.00	0.00	0.00	-	

SELECT CONFIDENCE LEVEL: 90% (1) 2 <=====
(enter the number next to the 95% (2)
desired confidence level in box 99% (3)
F3 {left of arrow})
MDA CALCULATION

RSA ID #	SAMPLE COUNT TIME	BKGD COUNT TIME	BKGD CPM	DETECTOR EFICENCY	SAMPLE VOLUME L/g	LLD DPM	MDA pCi
H-3	1	1	7.5	0.1831	1	84.37	38.00
C-14	1	1	19.3	0.6662	1	34.74	15.65
HE Beta	1	1	5		1	#DIV/0!	#DIV/0!

0.6662
0.1831

MDA uCi
3.80E-05
1.57E-05
#DIV/0!

RSA Laboratories

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Radiochemistry Analysis Data Sheet

Report No. **Report 2**

Customer: **June Tamkin**

Customer Samp No. **N/A**

Location: **Institute for Pharmaceutical Discovery**

RSA Lab Sample No. **30410 -30412**

Project: **Decommissioning**

Date Collected: **Not Indicated**

Samp. Description: **Wipes**

Date Counted: **12/4/2013**

Matrix: **Wipes**

H-3 LLD dpm= 84.37

H-3 QC = 177500 dpm +/- 10%

C-14 LLD dpm= 34.74

C-14 QC = 134800 dpm +/- 10%

RSA ID#	CUST. ID#	Location	H-3 CPM	H-3 DPM	C-14 CPM	C-14 DPM	HE Beta CPM	
BG		BACKGROUND	11.30		19.30		4.60	
33276-357	357		0.00	0	3.74	5.53	5.40	
33276-358	358		0.00	0.00	0.00	0.00	5.40	
33276-359	359		0.00	0.00	5.76	8.48	0.00	
33276-360	360		2.99	14.94	0.00	0.00	0.40	
33276-361	361		1.88	5.74	2.73	3.93	0.40	
33276-362	362		0.00	0.00	0.00	0.00	0.00	
33276-363	363		0.00	0.00	0.00	0.00	2.40	
33276-364	364		0.00	0.00	3.74	5.61	0.00	
33276-365	365		0.00	0.00	0.00	0.00	6.40	
33276-366	366		0.78	4.07	0.00	0.00	0.00	
33276-367	367		0.00	0	0.00	0.00	3.40	
33276-368	368		0.00	0.00	0.00	0.00	1.40	
33276-369	369		0.00	0.00	6.77	9.00	0.00	
33276-370	370		0.78	3.84	0.00	0.00	2.40	
33276-371	371		0.00	0.00	0.00	0.00	0.00	
33276-372	372		0.00	0.00	4.75	6.88	2.40	
33276-373	373		0.00	0.00	0.00	0.00	0.40	
33276-374	374		1.88	2.73	4.75	6.90	0.00	
33276-375	375		0.00	0.00	0.00	0.00	1.40	
33276-376	376		0.00	0.00	0.71	1.06	0.00	
33276-377	377		0.00	0.00	0.00	0.00	2.40	
33276-378	378		0.00	0.00	0.00	0.00	0.00	
33276-379	379		0.00	0.00	0.00	0.00	2.40	
QC H-3	QC H-3	QC H-3	26936.70	183953.00	767.54	0.00	0.00	
33276-380	380		1.88	10.05	0.00	0.00	0.00	
33276-381	381		0.00	0.00	0.00	0.00	0.00	
33276-382	382		0.00	0.00	0.00	0.00	0.00	
33276-383	383		1.88	9.60	0.00	0.00	0.00	
33276-384	384		0.00	0.00	0.00	0.00	0.00	
33276-385	385		0.78	4.59	0.00	0.00	0.00	
33276-386	386		0.78	4.61	0.00	0.00	0.00	
33276-387	387		0.78	4.64	0.00	0.00	0.40	
33276-388	388		0.00	0.00	0.00	0.00	0.00	
33276-389	389		0.00	0.00	4.75	7.12	0.40	
33276-390	390		0.00	0.00	0.00	0.00	2.40	

Jay R. Dockendorff
Laboratory Director

RSA Laboratories

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Radiochemistry Analysis Data Sheet

RSA ID#	CUST. ID#	LOCATION	H-3 CPM	H-3 DPM	C-14 CPM	C-14 DPM	HE Beta CPM	
33276-391	391.00		0.78	4.62	0.00	0.00	0.40	
33276-392	392.00		0.00	0.00	5.76	15.01	0.00	
33276-393	393.00		0.00	0.00	0.00	0.00	0.40	
33276-394	394.00		2.99	15.70	0.00	0.00	0.00	
33276-395	395.00		0.00	0.00	0.71	1.07	0.00	
33276-396	396.00		0.78	41.55	0.00	0.00	0.00	
33276-397	397.00		0.00	0.00	0.00	0.00	0.00	
33276-398	398.00		0.00	0.00	2.73	4.14	0.00	
33276-399	399.00		25.15	160.74	0.00	0.00	0.00	
33276-400	400.00		0.00	0.00	0.00	0.00	0.00	
33276-401	401.00		5.21	27.24	2.73	391.00	0.40	
33276-402	402.00		0.00	0.00	0.00	0.00	0.40	
QC C-14	QC C-14	QC C-14	26606.60	5256.35	95922.30	133811.00	0.00	
33276-403	403.00		0.00	0.00	0.00	0.00	2.40	
33276-404	404.00		0.00	0.00	1.72	2.65	0.00	
33276-405	405.00		0.00	0.00	0.00	0.00	0.00	
33276-406	406.00		0.00	0.00	0.00	0.00	0.00	
33276-407	407.00		0.00	0.00	0.00	0.00	0.00	
33276-408	408.00		0.00	0.00	0.00	0.00	0.00	
33276-409	409.00		2.99	19.12	0.00	0.00	0.40	
33276-410	410.00		0.00	0.00	0.00	0.00	2.40	
33276-411	411.00		0.00	0.00	0.00	0.00	0.40	
33276-412	412.00		1.88	11.12	0.00	0.00	0.00	
33276-413	413.00		0.00	0.00	5.76	0.00	1.40	
33276-414	414.00		0.00	0.00	0.00	0.00	0.00	
33276-415	415.00		0.00	0.00	15.86	30.77	2.40	
33276-416	416.00		4783.22	35424.90	112.85	0.00	0.00	
33276-417	417.00		4543.88	32550.90	119.92	0.00	0.00	
33276-418	418.00		0.78	0.00	6.77	10.68	3.40	
33276-419	419.00		116.02	859.27	4.75	1.93	0.00	
33276-420	420.00		0.78	6.02	0.00	0.00	1.40	
33276-421	421.00		0.00	0.00	0.00	0.00	5.40	
33276-422	422.00		0.00	0.00	0.00	0.00	0.40	
33276-423	423.00		0.00	0.00	0.00	0.00	8.40	
33276-424	424.00		0.00	0.00	2.73	5.17	3.40	
33276-425	425.00		0.00	0.00	0.00	0.00	0.00	
QC BL	QC BL	QC BL	0.00	0.00	3.74	5.65	0.00	
33276-426	426.00		0.00	0.00	0.00	0.00	0.00	
33276-427	427.00		0.00	0.00	0.00	0.00	0.00	
33276-428	428.00		0.78	4.44	0.00	0.00	0.40	
33276-429	305-4118-1		0.00	0.00	0.00	0.00	0.00	
33276-430	305-4118-2		0.00	0.00	7.78	11.85	0.40	
33276-431	305-4118-3		0.00	0.00	0.00	0.00	0.00	
33276-432	305-4118-4		0.00	0.00	0.00	0.00	0.00	
33276-433	305-4118-5		0.00	0.00	0.00	0.00	0.40	
33276-434	305-4118-6		0.00	0.00	6.77	10.39	0.00	

Jay R. Dockendorff
Laboratory Director

RSA Laboratories

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Radiochemistry Analysis Data Sheet

RSA ID#	CUST. ID#	LOCATION	H-3 CPM	H-3 DPM	C-14 CPM	C-14 DPM	HE Beta CPM
33276-435	305-4118-7		0.00	0.00	0.00	0.00	0.00
33276-436	305-4118-8		0.00	0.00	0.00	0.00	0.00
33276-437	305-4118-9		0.00	0.00	0.00	0.00	1.40
33276-438	305-4118-10		0.00	0.00	0.00	0.00	0.40
33276-439	305-4118-11		0.00	0.00	1.72	2.63	0.00
33276-440	305-4118-12		0.00	0.00	0.00	0.00	2.40
33276-441	305-4118-13		0.78	4.75	0.00	0.00	0.00
33276-442	305-4118-14		0.00	0.00	0.71	1.08	0.00
33276-443	305-4118-15		4.10	26.20	0.00	0.00	0.00
33276-444	305-4118-16		0.00	0.00	0.71	1.09	0.00
33276-445	204-4118-1		0.00	0.00	3.74	5.77	0.40
33276-446	204-4118-2		0.00	0.00	0.71	1.08	0.40
QC H-3	QC H-3	QC H-3	34247.10	182759.00	860.49	0.00	0.00
33276-447	204-4118-3		0.00	0.00	0.00	0.00	0.00
33276-448	204-4118-4		0.00	0.00	0.00	0.00	0.00
33276-449	204-4118-5		129.31	855.61	0.00	0.00	0.00
33276-450	204-4118-6		0.00	0.00	0.00	0.00	0.00
33276-451	204-4118-7		8.53	42.93	6.77	10.04	0.00
33276-452	204-4118-8		0.00	0.00	0.00	0.00	0.00
33276-453	204-4118-9		0.00	0.00	3.74	0.00	0.00
33276-454	204-4118-10		0.00	0.00	0.00	0.00	0.00
33276-455	204-4118-11		0.00	0.00	0.00	0.00	0.40
33276-456	204-4118-12		2.99	19.19	0.00	288.10	0.00
33276-457	LSC-4118-1		0.00	0.00	0.00	0.00	0.00
33276-458	LSC-4118-2		6.32	35.02	1.72	149.40	2.40
33276-459	LSC-4118-3		0.00	0.00	0.00	0.00	0.00
33276-460	LSC-4118-4		0.00	0.00	0.00	0.00	0.40
33276-461	LSC-4118-5		0.00	0.00	0.00	0.00	0.00

Jay R. Dockendorff
Laboratory Director

RSA Laboratories
Radiochemistry Analysis Data Sheet

Customer: June Tamkin
Sample Type: Wipes
Matrix: Wipes

Isotope 1 H-3
Isotope 2 C-14
Isotope 3 HE Beta
RSA ID#:

Collect Date: 20 min count X 10
Count Date: 12/6/2013
Project: Decommissioning
Location: Institute for Pharmaceutical Discovery

Cust ID # :
# of Pages:

Report No.	Location	POS	RSA ID #	Cust ID #	Location	CPMA	DPMA		
1		1	BG		Background			BG	
2		2	33276-129	129-R1		8354.08	62410.70		357
3		3	33276-129	129-R2		8347.28	62601.80		358
4		4	33276-129	129-R3		8344.20	62470.30		359
		5	33276-129	129-R4		8315.79	62400.10		360
		6	33276-129	129-R5		8361.36	63327.30		361
		7	33276-129	129-R6		8357.11	63034.40		362
		8	33276-129	129-R7		8382.62	63421.00		363
		9	33276-129	129-R8		8387.62	64062.30		364
		10	33276-129	129-R9		8399.17	63659.20		365
		11	33276-129	129-R10		8386.94	63841.20		366
		12		129-R-avg		8363.62	63118.30		
		13							368
		14	33276-130	130-R1		310.92	1855.48		369
		15	33276-131	130-R2		311.97	1868.25		370
		16	33276-132	130-R3		306.77	1821.08		371
		17	33276-133	130-R4		311.92	1862.23		372
		18	33276-134	130-R5		298.29	1750.35		373
		19	33276-135	130-R6		307.49	1846.12		374
		20	33276-136	130-R7		299.07	1772.15		375
		21	33276-137	130-R8		311.20	1877.85		376
		22	33276-138	130-R9		309.04	1870.54		377
		23	33276-139	130-R10		305.88	1830.71		
		24		130-R-avg		307.25	1835.13		379
	[redacted]	25						H-3	
		26	33276-273	273-R1		5646.66	40129.40		380
		27	33276-273	273-R2		5690.01	40982.70		381
		28	33276-273	273-R3		5696.62	41075.00		382
		29	33276-273	273-R4		5659.95	40369.80		383
		30	33276-273	273-R5		5667.00	40281.90		384
		31	33276-273	273-R6		5668.06	40222.60		385
		32	33276-273	273-R7		5609.50	39491.50		386
		33	33276-273	273-R8		5654.12	39676.60		387
		34	33276-273	273-R9		5650.76	40061.60		388
		35	33276-273	273-R10		5665.68	40706.20		
		36		273-R-avg		5660.84	40295.20		390
		37							391
		38	33276-416	416-R1		4831.92	36518.00		392
		39	33276-416	416-R2		4784.71	35419.90		393
		40	33276-416	416-R3		4811.77	35955.70		394
		41	33276-416	416-R4		4810.95	35777.10		395
		42	33276-416	416-R5		4819.88	36281.80		396
		43	33276-416	416-R6		4847.49	36923.30		397
		44	33276-416	416-R7		4854.26	37293.40		398

45	33276-416	416-R8	4824.84	36081.90		399
46	33276-416	416-R9	4854.12	36966.50		400
47	33276-416	416-R10	4851.30	36463.60		
48		416-R-avg	4829.12	36361.40		402
49					C-14	
50	33276-417	417-R1	4671.71	33301.40		403
51	33276-417	417-R2	4678.26	32885.40		404
52	33276-417	417-R3	4668.35	33357.60		405
53	33276-417	417-R4	4703.71	33939.10		406
54	33276-417	417-R5	4683.17	33684.60		407
55	33276-417	417-R6	4670.15	33160.20		408
56	33276-417	417-R7	4681.97	33322.70		409
57	33276-417	417-R8	4684.86	33662.60		410
58	33276-417	417-R9	4669.30	33068.30		411
59	33276-417	417-R10	4665.48	33686.80		
60		417-R-avg	4677.70	33458.30		413
61						414
62	33276-419	419-R1	9.64	21.09		415
63	33276-419	419-R2	10.09	26.19		416
64	33276-419	419-R3	10.03	28.19		417
65	33276-419	419-R4	8.81	17.74		418
66	33276-419	419-R5	8.81	15.46		419
67	33276-419	419-R6	9.48	24.89		420
68	33276-419	419-R7	9.64	21.67		421
69	33276-419	419-R8	10.03	27.94		422
70	33276-419	419-R9	10.47	30.15		423
71	33276-419	419-R10	9.53	24.66		
72		419-R-avg	9.65	23.80		425
					BL	
74	33276-85	85-R1	5.27	0.00		426
75	33276-85	85-R2	5.99	0.00		427
76	33276-85	85-R3	4.77	0.00		428
	33276-85	85-R4	6.21	0.00		
78	33276-85	85-R5	5.71	0.00		1
79	33276-85	85-R6	6.60	0.00		2
80	33276-85	85-R7	4.94	0.00		3
81	33276-85	85-R8	5.71	0.00		4
82	33276-85	85-R9	5.38	0.00		5
83	33276-85	85-R10	6.71	0.00		
84		85-R-avg	5.73	0.00		7
85						8
86	33276-264	264-R1	9.60	29.85		9
87	33276-264	264-R2	9.43	26.46		10
88	33276-264	264-R3	9.04	30.07		11
89	33276-264	264-R4	8.60	27.07		12
90	33276-264	264-R5	8.76	29.60		13
91	33276-264	264-R6	9.15	29.70		14
92	33276-264	264-R7	7.99	23.68		15
93	33276-264	264-R8	7.93	27.13		16
	33276-264	264-R9	7.27	18.57		
	33276-264	264-R10	8.60	24.59		
		264-R-avg	8.64	26.64		

H-3 C-14

SELECT CONFIDENCE LEVEL: 90% (1) 2 <=====
(enter the number next to the 95% (2)
desired confidence level in box 99% (3)
F3 {left of arrow})
MDA CALCULATION

RSA ID #	SAMPLE COUNT TIME	BKGD COUNT TIME	BKGD CPM	DETECTOR EFICENCY	SAMPLE VOLUME L/g	LLD DPM	MDA pCi
H-3	1	1	7.5	0.1831	1	84.37	38.00
C-14	1	1		0.6662	1	#VALUE!	#VALUE!
HE Beta	1	1	5		1	#DIV/0!	#DIV/0!

0.6662
0.1831

MDA uCi
3.80E-05
#VALUE!
#DIV/0!

RSA Laboratories

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Radiochemistry Analysis Data Sheet

Report No. **Report 2**

Customer: **June Tamkin**

Customer Samp No. **Various**

Location: **Institute for Pharmaceutical Discovery**

RSA Lab Sample No. **33276**

Project: **Decommissioning**

20 min count X 10

Samp. Description: **Wipes**

Date Counted: **12/6/2013**

Matrix: **Wipes**

H-3 LLD dpm= 84.37

RSA ID#	CUST. ID#	Location	H-3 CPM	H-3 DPM				
BG		BACKGROUND	0.00					
33276-129	129-R1		8354.08	62411				
33276-129	129-R2		8347.28	62601.80				
33276-129	129-R3		8344.20	62470.30				
33276-129	129-R4		8315.79	62400.10				
33276-129	129-R5		8361.36	63327.30				
33276-129	129-R6		8357.11	63034.40				
33276-129	129-R7		8382.62	63421.00				
33276-129	129-R8		8387.62	64062.30				
33276-129	129-R9		8399.17	63659.20				
33276-129	129-R10		8386.94	63841.20				
	129-R-avg		8363.62	63118				
33276-130	130-R1		310.92	1855.48				
33276-131	130-R2		311.97	1868.25				
33276-132	130-R3		306.77	1821.08				
33276-133	130-R4		311.92	1862.23				
33276-134	130-R5		298.29	1750.35				
33276-135	130-R6		307.49	1846.12				
33276-136	130-R7		299.07	1772.15				
33276-137	130-R8		311.20	1877.85				
33276-138	130-R9		309.04	1870.54				
33276-139	130-R10		305.88	1830.71				
	130-R-avg		307.25	1835.13				
33276-273	273-R1		5646.66	40129.40				
33276-273	273-R2		5690.01	40982.70				
33276-273	273-R3		5696.62	41075.00				
33276-273	273-R4		5659.95	40369.80				
33276-273	273-R5		5667.00	40281.90				
33276-273	273-R6		5668.06	40222.60				
33276-273	273-R7		5609.50	39491.50				
33276-273	273-R8		5654.12	39676.60				
33276-273	273-R9		5650.76	40061.60				
33276-273	273-R10		5665.68	40706.20				
	273-R-avg		5660.84	40295.20				

Jay R. Dockendorff
Laboratory Director

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Radiochemistry Analysis Data Sheet

RSA ID#	CUST. ID#	LOCATION	H-3 CPM	H-3 DPM				
33276-416	416-R1		4831.92	36518.00				
33276-416	416-R2		4784.71	35419.90				
33276-416	416-R3		4811.77	35955.70				
33276-416	416-R4		4810.95	35777.10				
33276-416	416-R5		4819.88	36281.80				
33276-416	416-R6		4847.49	36923.30				
33276-416	416-R7		4854.26	37293.40				
33276-416	416-R8		4824.84	36081.90				
33276-416	416-R9		4854.12	36966.50				
33276-416	416-R10		4851.30	36463.60				
	416-R-avg		4829.12	36361.40				
33276-417	417-R1		4671.71	33301.40				
33276-417	417-R2		4678.26	32885.40				
33276-417	417-R3		4668.35	33357.60				
33276-417	417-R4		4703.71	33939.10				
33276-417	417-R5		4683.17	33684.60				
33276-417	417-R6		4670.15	33160.20				
33276-417	417-R7		4681.97	33322.70				
33276-417	417-R8		4684.86	33662.60				
33276-417	417-R9		4669.30	33068.30				
33276-417	417-R10		4665.48	33686.80				
	417-R-avg		4677.70	33458.30				
33276-419	419-R1		9.64	21.09				
33276-419	419-R2		10.09	26.19				
33276-419	419-R3		10.03	28.19				
33276-419	419-R4		8.81	17.74				
33276-419	419-R5		8.81	15.46				
33276-419	419-R6		9.48	24.89				
33276-419	419-R7		9.64	21.67				
33276-419	419-R8		10.03	27.94				
33276-419	419-R9		10.47	30.15				
33276-419	419-R10		9.53	24.66				
	419-R-avg		9.65	23.80				
33276-85	85-R1		5.27	0.00				
33276-85	85-R2		5.99	0.00				
33276-85	85-R3		4.77	0.00				
33276-85	85-R4		6.21	0.00				
33276-85	85-R5		5.71	0.00				
33276-85	85-R6		6.60	0.00				
33276-85	85-R7		4.94	0.00				
33276-85	85-R8		5.71	0.00				
33276-85	85-R9		5.38	0.00				
33276-85	85-R10		6.71	0.00				

Jay R. Dockendorff
Laboratory Director

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Radiochemistry Analysis Data Sheet

RSA ID#	CUST. ID#	LOCATION	H-3 CPM	H-3 DPM			
	85-R-avg		5.73	0.00			
33276-264	264-R1		9.60	29.85			
33276-264	264-R2		9.43	26.46			
33276-264	264-R3		9.04	30.07			
33276-264	264-R4		8.60	27.07			
33276-264	264-R5		8.76	29.60			
33276-264	264-R6		9.15	29.70			
33276-264	264-R7		7.99	23.68			
33276-264	264-R8		7.93	27.13			
33276-264	264-R9		7.27	18.57			
33276-264	264-R10		8.60	24.59			
	264-R-avg		8.64	26.64			

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Laboratory Director

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Radiochemistry Analysis Data Sheet

COC #: **30656ATL** Rpt:**30**

Client: **June Tamkin**

Client Samp. No.: **Sample Dry prep**

Location: **Not Specified**

RSA Lab. Samp. No. **33278Dry**

Project: **IPD**

Date Collected: **12/13/12**

Sample Type: **Soil**

Date Received: **12/15/12**

Matrix: **Soil**

State of Connecticut Laboratory Cert # : PH-0111

Parameter	Method	Result	LLD	Units	Date
Tritium	**906.0**	**0.19 +/- 1.18**	**3.27**	**PCi/g**	**12/27/12**

Jay R. Dockendorff
Laboratory Director

RSA Laboratories
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Radiochemistry Analysis Data Sheet

COC #: **30656ATL** Rpt:**31**

Client: **June Tamkin**

Client Samp. No.: **Sample Wet prep**

Location: **Not Specified**

RSA Lab. Samp. No. **33278Wet**

Project: **IPD**

Date Collected: **12/13/12**

Sample Type: **Soil**

Date Received: **12/15/12**

Matrix: **Soil**

State of Connecticut Laboratory Cert # : PH-0111

Parameter	Method	Result	LLD	Units	Date
Tritium	**906.0**	**0.00 +/- 1.02**	**3.35**	**PCi/g**	**01/02/13**

Jay R. Dockendorff
Laboratory Director

RSA Laboratories

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Radiochemistry Analysis Data Sheet

COC #: **30656ATL** Rpt:**29**

Client: **June Tamkin**

Client Samp. No.: **Background**

Location: **Front of Bldg.**

RSA Lab. Samp. No. **33277**

Project: **IPD**

Date Collected: **12/13/12**

Sample Type: **Soil**

Date Received: **12/15/12**

Matrix: **Soil**

State of Connecticut Laboratory Cert # : PH-0111

Parameter	Method	Result	LLD	Units	Date
Tritium	**906.0**	**0.00 +/- 1.07**	**3.27**	**PCi/g**	**12/27/12**

Jay R. Dockendorff
Laboratory Director

Termination/decommissioning Surveys: Rooms and Wipe Test Locations

SAMPLE	ROOM	WIPE TEST LOCATION
Unk_1	305	FLR1
Unk_2	305	FLR2
Unk_3	305	FLR3
Unk_4	305	FLR4
Unk_5	305	FLR5
Unk_6	305	FLR6
Unk_7	305	FLR7
Unk_8	305	FLR8
Unk_9	305	FLR9
Unk_10	305	FLR10
Unk_11	305	FLR11
Unk_12	305	FLR12
Unk_13	305	FLR13
Unk_14	305	FLR14
Unk_15	305	FLR15
Unk_16	305	FLR16
Unk_17	305	FLR17
Unk_18	305	FLR18
Unk_19	305	FLR19
Unk_20	305	FLR20
Unk_21	305	FLR20
Unk_22	305	FLR21
Unk_23	305	FLR22
Unk_24	305	FLR23
Unk_25	305	room 201, hood, top inside (3)
Unk_26	305	room 201, hood, sash, bottom (1)
Unk_27	305	left wall
Unk_28	305	right wall
Unk_29	305	back wall
Unk_30	305	glass hood sash inside & out
Unk_31	305	inside of hood
Unk_32	305	bench/table 6
Unk_33	305	glucose analyzer 4
Unk_34	305	metal table /bench 2
Unk_35	305	BKG 15
Unk_36	305	door handle door entry 305 13
Unk_37	305	refrigerator 11
Unk_38	305	floor 9
Unk_39	305	table 7
Unk_40	305	cart 5
Unk_41	305	floor 3
Unk_42	305	carcass freezer 16
Unk_43	305	wall 35 & shelves
Unk_44	305	wall 36
Unk_45	305	pipeter 37
Unk_46	305	cart & back wall
Unk_47	305	inside
Unk_48	305	pens
Unk_49	305	FLR 24
Unk_50	305	FLR 25 sink basin
Unk_51	305	FLR 26
Unk_52	305	FLR 27
Unk_53	305	FLR 28
Unk_54	305	FLR 29
Unk_55	305	FLR 30
Unk_56	305	FLR 31
Unk_57	305	FLR 32
Unk_58	305	FLR 33
Unk_59	305	FLR 34
Unk_60	LSC	3
Unk_61	LSC	2
Unk_62	LSC	1
Unk_63	Hood 201	cabinet under hood inside doors(12)
Unk_64	Hood 201	cabinet under hood right wall (10)
Unk_65	Hood 201	cabinet under hood left wall (8)
Unk_66	Hood 201	the hood inside + outside sash (6)
Unk_67	Hood 201	the hood inside right wall (4)
Unk_68	Hood 201	the hood inside left wall (2)
Unk_69	Hood 201	cabinet under hood , back wall (11)
Unk_70	Hood 201	cabinet under hood , top roof (9)
Unk_71	Hood 201	cabinet under hood , bottom (7)
Unk_72	Hood 201	the hood back wall (5)

Unk_73	306	first Cabinet over sink
Unk_74	306	sink and handles (42)
Unk_75	306	inside draws near sink (43)
Unk_76	306	Bench (44)
Unk_77	306	Bench door and cabinet (45)
Unk_78	306	Bench door and cabinet (46)
Unk_79	306	Bench 47
Unk_80	306	glucose analyzer (48)
Unk_81	305	inside sm box
Unk_82	305	outside sm box
Unk_83	305	inside lg box
Unk_84	305	outside lg box
Unk_85	306	right glucose analyzer liquid (1)
Unk_86	306	right glucose analyzer liquid handle(2)
Unk_87	306	right glucose analyzer buttens (3)
Unk_88	306	left glucose analyzer buttens (4)
Unk_89	306	left glucose analyzer liquid (5)
Unk_90	305	sink drain (6)
Unk_91	305	refre freezer inside (7)
Unk_92	305	refre freezer outside (8)
Unk_93	305	Refre inside (9)
Unk_94	305	Counter left of sink(10)
Unk_95	300	Inside carcass freezer (11)
Unk_96	300	Outside carcass freezer (12)
Unk_97	300	Area #1 of flooring left of freezer (13)
Unk_98	300	Area #2 of flooring front of freezer (14)
Unk_99	300	Area #3 of flooring right of freezer (15)
Unk_100	300	Area #3 of flooring right of freezer (16)
Unk_101	310	room 310, inside door on left 2D
Unk_102	310	room 310, sink and drain floor 2C
Unk_103	310	room 310, floor inside 2B
Unk_104	310	room 310, inside and ousude door handle 2A
Unk_105	310	5
Unk_106	310	6
Unk_107	309 1C	room 309, bench
Unk_108	309 1B	room 309, inside flood at door entry
Unk_109	309 1A	room 309, inside and ouside of door, handles
Unk_110	427 4B	room 427, floor in front of door
Unk_111	reception 6E	reception area, coffee machine area and sink
Unk_112	427 4A	room 427, outer door handle into room from hallway]
Unk_113	surgical rm anim	Surgical Suite, steel bench
Unk_114	surg rm 3C	Surgical Suite, outside door handle and door
Unk_115	recept 6F	reception area, floor in front of door
Unk_116	surg floor 3B	Surgical Suite, floor
Unk_117	surg floor 3A	Surgical Suite, door handle and door
Unk_118	310 2F	room 310, floor swipe right door closest to clamp room
Unk_119	310 2E	room 310, inside door on right
Unk_120	recpt 6D	reception area, desktops secretarial area
Unk_121	recept 6B	reception area, cabinet in front of door
Unk_122	recpt 6A	reception area, door handle to exit
Unk_123	174 5D	room 174, floor in front of door
Unk_124	174 5C	room 174, bench to immediate left from door entry
Unk_125	174 5B	room 174, sink/drain cover
Unk_126	174 5A	room 174, door/door handle into PK lab
Unk_127	427 4D	room 427, bench top at far end of room from door
Unk_128	427 4C	room 427, sink/drain cover
Unk_129	room 201	water freeze 201
Unk_130	room 201	wipe floor droplet-melted ice
Unk_131	room 201	unknow under hood
Unk_132	room 201	l125 aspirate
Unk_133	room 201	unknow solution in clinder
Unk_134	room 201	unknow under hood bottle
Unk_135	room 201	l125 aspirate bottle
Unk_136	room 201	lead
Unk_137	room 201	bottle outside
Unk_138	room 201	bottle inside
Unk_139	room 201	incubator outside
Unk_140	room 201	incubator inside
Unk_141	**room 201**	**incubator inside,glass+upper shelf**
141.rerun	**room 201**	**incubator inside,glass+upper shelf**
Unk_142	room 201	jitterbug outside
Unk_143	room 201	jitterbug inside
Unk_144	room 201	jitterbug inside
Unk_145	room 201	hybrid oven outside
Unk_146	room 201	hybrid oven inside
Unk_147	room 201	hybrid oven inside
Unk_148	room 201	cent inside

Unk_149	room 201	cent outside
Unk_150	room 201	cent outside
Unk_151	**room 201**	**refrig door**
151.rerun	**room 201**	**refrig door**
Unk_152	room 201	refrig inside
Unk_153	room 201	refrig inside
Unk_154	Room 131-134	desk laptop facing Mike's office (1)
Unk_155	Room 131-134	desk laptop facing Mike's office (2)
Unk_156	Room 131-134	desk laptop facing Mike's office (3)
Unk_157	Room 131-134	bench top adjacent to fume hood (4)
Unk_158	Room 131-134	bench top adjacent to fume hood (5)
Unk_159	Room 131-134	bench top adjacent to fume hood (6)
Unk_160	Room 131-134	bench top adjacent to cold room (7)
Unk_161	Room 131-134	bench top adjacent to cold room (8)
Unk_162	Room 131-134	bench top adjacent to cold room (9)
Unk_163	Room 131-134	bench top adjacent to dark room (10)
Unk_164	Room 131-134	bench top adjacent to dark room (11)
Unk_165	Room 131-134	bench top adjacent to dark room (12)
Unk_166	Room 131-134	bench top adjacent to freezer room (13)
Unk_167	Room 131-134	bench top adjacent to freezer room (14)
Unk_168	Room 131-134	bench top adjacent to freezer room (15)
Unk_169	Room 131-134	bench top adjacent to last fume hood (16)
Unk_170	Room 131-134	bench top adjacent to last fume hood (17)
Unk_171	Room 131-134	floor of last lab bay (18)
Unk_172	room 201	hood 1 Repeat
Unk_173	room 201	hood 2 repeat
Unk_174	room 201	hood 3 repeat
Unk_175	room 201	hood 4 repeat
Unk_176	room 201	hood 5 repeat
Unk_177	room 201	hood 6 repeat
Unk_178	room 201	hood 7 repeat
Unk_179	room 201	hood 8 repeat
Unk_180	room 201	hood 9 repeat
Unk_181	room 201	hood 10 repeat
Unk_182	room 201	hood 11 repeat
Unk_183	room 201	hood 12 repeat
Unk_184	**room 201**	**Regre door, repeat of 151**
Unk_185	**room 201**	**Regre door, repeat of 151**
Unk_186	**room 201**	**incubator inside,repeat of 141**
Unk_187	**room 201**	**incubator inside. Lower shelf**
Unk_188	room 201	heating block
Unk_189	room 201	shaker
Unk_190	room 201	eppendorf mini spin
Unk_191	room 201	power supply biorad
Unk_192	room 201	plexglass#1 inside
Unk_193	room 201	plexglass#1 outside
Unk_194	room 201	plexglass#2 inside
Unk_195	room 201	plexglass#2 outside
Unk_196	room 201	spill kit top lid
Unk_197	room 201	spill kit side
Unk_198	room 201	spill kit bottom
Unk_199	room 201	stir plate
Unk_200	room 201	gel box #1 outside
Unk_201	room 201	gel box #1 inside
Unk_202	room 201	lead shielding
Unk_203	room 201	gel box #2 outside
Unk_204	room 201	gel box #2 inside
Unk_205	room 201	cassette inside
Unk_206	room 201	gel box#3 outside
Unk_207	room 201	gel box#3 inside
Unk_208	room 201	gel box#4 outside
Unk_209	room 201	gel box#4 inside
Unk_210	room 201	safe box outside
Unk_211	room 201	stratagene outside
Unk_212	room 201	small container #1 outside
Unk_213	room 201	small container #1 inside
Unk_214	room 201	small container #2 outside
Unk_215	**room 201**	**small container #2 inside**
Unk_216	room 201	small container #3 outside
Unk_217	room 201	small container #3 inside
Unk_218	room 201	small container#4 outside
Unk_219	room 201	small container #4 inside
Unk_220	room 201	small container #5 outside
Unk_221	**room 201**	**small container #5 inside**
Unk_222	room 201	small container #6 outside
Unk_223	room 201	small container #6 inside
Unk_224	room 201	small container #7 outside

Unk_225	room 201	small container #7 inside
Unk_226	room 201	small container #8 outside
Unk_227	room 201	small container #8 inside
Unk_228	room 201	BOX ouside
Unk_229	room 201	box inside
Unk_230	room 201	container red top outside
Unk_231	room 201	container red top inside
Unk_232	room 201	thick shield glass
Unk_233	room 201	beaker
Unk_234	room 201	amersham
Unk_235	**room 201**	**small container #2 inside repeat**
Unk_236	**room 201**	**small container #5 inside repeat**
Unk_237	RW 2	outside empty lead pigs (small fiberboard 125l decayed)
Unk_238	RW 2	inside empty lead pigs (decayed)
Unk_239	RW 2	large dry waste box (3)
Unk_240	RW 2	inside/outside plexiglass carboy (4)
Unk_241	RW 2	external surface plexiglass box A (5)
Unk_242	RW 2	inside surface plexiglass box A (6)
Unk_243	RW 2	external surface plexiglass box B (7)
Unk_244	RW 2	inside surface plexiglass box B (8)
Unk_245	RW 2	lead foil first sheet (9)
Unk_246	RW 2	lead foil second strip (10)
Unk_247	RW 2	carboy-2 inside and external (11)
Unk_248	RW 2	carboy-2 outside surfaces (12)
Unk_249	RW 2	Plexiglass container/shields small boxes (13)
Unk_250	RW 2	outside grey basin, plastic (14)
Unk_251	RW 2	inside grey basin, plastic (15)
Unk_252	RW 2	pipette washer, external surfaces (16)
Unk_253	RW 2	plexiglass box-larger outside surface (17)
Unk_254	RW 2	plexiglass box- larger inside surface (18)
Unk_255	RW 2	4-walls (19)
Unk_256	RW 2	door handle and door inside/outside (20)
Unk_257	RW 2	door inside/outside (21)
Unk_258	RW 1	bench surface and cabinets/drawers (22)
Unk_259	RW 1	equipment bulk water bath 1st (23)
Unk_260	RW 1	equipment bulk water bath 2nd (24)
Unk_261	RW 1	floor-broad wipe (25)
Unk_262	RW 1	fluoromax interior (26)
Unk_263	RW 1	fluoromax exterior (27)
Unk_264	RW 1	outside of 55 gallon drum (28)
Unk_265	RW 1	outside of 55 gallon drum (29)
Unk_266	RW 1	4 walls (30)
Unk_267	RW 1	microwave-research use (31)
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Unk_269	room 201	sink #2 fluid sample inside sink trap
Unk_270	room 164, 165,	room 164, 165,
Unk_271	room 164, 165,	room 164, 165,
Unk_272	room 164, 165,	room 164, 165,
Unk_273	room 201	refr ice melt
Unk_274	room 201	counter tops 50
Unk_275	room 201	counter tops 51
Unk_276	room 201	counter tops 52
Unk_277	room 201	counter tops 53
Unk_278	room 201	counter tops 54
Unk_279	room 201	counter tops 55
Unk_280	room 201	counter tops 56
Unk_281	room 201	counter tops 57
Unk_282	room 201	counter tops 58
Unk_283	**room 201**	**counter tops 59**
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Unk_397	room 201	903 inside cabinet #3 wipe
Unk_398	room 201	904 inside cabinet #4 wipe
Unk_399	room 201	905 inside drawer 1 bulk
Unk_400	room 201	906 inside drawer 2 bulk
Unk_401	room 201	907 inside drawer 3 bulk
Unk_402	room 201	908 inside drawer 4 bulk
Unk_403	room 201	909 inside cabinet 5
Unk_404	room 201	910 wall
Unk_405	room 201	911 black bench counter and wall surface
Unk_406	room 201	912 wall over bench counter
Unk_407	room 201	913 wall around light switch
Unk_408	room 201	914 inside of lower fume hood cabinet floor
Unk_409	room 201	915 door and wall
Unk_410	room 300	Floor Carcass Freezer (916)
Unk_411	room 306	306/5/306 tabletop bench (917)
Unk_412	room 306	305/306 metal cart (918)
Unk_413	room 306	Liquid Sample Glucose analyzer 305/306 (919)
Unk_414	room 306	Liquid Sample Glucose analyzer 2 wash 305/306 (920)
Unk_415	room 306	Liquid Sample analysis 305/306 (921)
BKG1		**BKG1**
BKG2		**BKG2**
BKG3		**BKG3**
BKG4		**BKG4**
BKG5		**BKG5**
BKG6		**BKG6**
BKG7		**BKG7**
BKG8		**BKG8**
BKG9		**BKG9**
BKG10		**BKG10**
Unk_416		Thawed Liquid in refrig/freezer
Unk_417		Thawed Liquid in refrig/freezer
Unk_418	room 201	Floor infront of hood
Unk_419	room 201	Floor middle of the room
Unk_420	room 201	floor to refrig/freezer and the exit
Unk_421	outside 201	hallway floor
Unk_422	outside 201	hallway floor/immedately at the door
Unk_423	outside 201	hallway floor/ouside exit
Unk_424	parking lot	ground by the exit outside
Unk_425	door to exit	handle of the door
Unk_426	LSC	inside rack
Unk_427	LSC	inside door
Unk 428		

Pre-Termnination Wipe Test Rooms and Locations

Unk 429	305/306	Floor (work area)
Unk 430	305/306	Table
Unk 431	305/306	Floor (work area)
Unk 432	305/306	Glucose analyzer 4
Unk 433	305/306	Cart
Unk 434	305/306	Table
Unk 435	305/306	Table
Unk 436	305/306	Sink
Unk 437	305/306	Floor
Unk 438	305/306	Table
Unk 439	305/306	Refrigerator
Unk 440	305/306	Sink
Unk 441	305/306	Door handle

Unk 442	305/306	Door handle
Unk 443	305/306	Background
Unk 444	305/306	Carcass freezer
Unk 445	201	Outer jdoor to 201
Unk 446	201	Inner door to 201
Unk 447	201	Minifridge
Unk 448	201	Countertop
Unk 449	201	Floor
Unk 450	201	Countertop
Unk 451	201	Sink
Unk 452	201	Hood
Unk 453	201	Floor
Unk 454	201	Under hood
Unk 455	201	Door to parking and floor
Unk 456	141	Door handles
Unk 457	141	Floor
Unk 458	141	Countertop
Unk 459	141	Liquid scintillation counter
Unk 460	141	Keyboard of computer
Unk 461	141	Wall

Isotope Room Descriptions

The Institutes For Pharmaceutical Discovery, L.L.C.

[redacted] room was utilized for freezer storage of ^{3}H- and ^{14}C-labelled carcasses. No procedures were done in this room. One freezer was present and was decommissioned.

[redacted] This room was used for storage of ^{3}H and ^{14}C samples generated in room 306. All equipment, flooring, cabinetry and sink areas have been surveyed and swiped.

[redacted] room was used for in vivo ^{3}H and ^{14}C studies. All equipment, flooring and cabinetry have been surveyed and swiped.

Room 309: Never utilized for radioactive studies, included on the initial license in the event of need at a later date.

Room 310: Never utilized for radioactive studies, included on the initial license in the event of need at a later date.

Room 322: Never utilized for radioactive studies, included on the initial license in the event of need at a later date.

Room 174: Never utilized for radioactive studies, included on the initial license in the event of need at a later date.

Room 427: Never utilized for radioactive studies, included on the initial license in the event of need at a later date.

[redacted] primary room for radioactive procedures and waste storage. ^{14}C, ^{125}I, ^{3}H, ^{32}P, ^{33}P and ^{35}S were utilized in this room. ^{32}P, ^{33}P and ^{35}S were not used in this room since 2006. All equipment, flooring, cabinetry, hood and sink areas have been surveyed and swiped. One area of contamination was identified and decontaminated using RadCon (verified by wipe test).

Room 131: Never utilized for radioactive studies, included on the initial license in the event of need at a later date.

Room 132: Never utilized for radioactive studies, included on the initial license in the event of need at a later date.

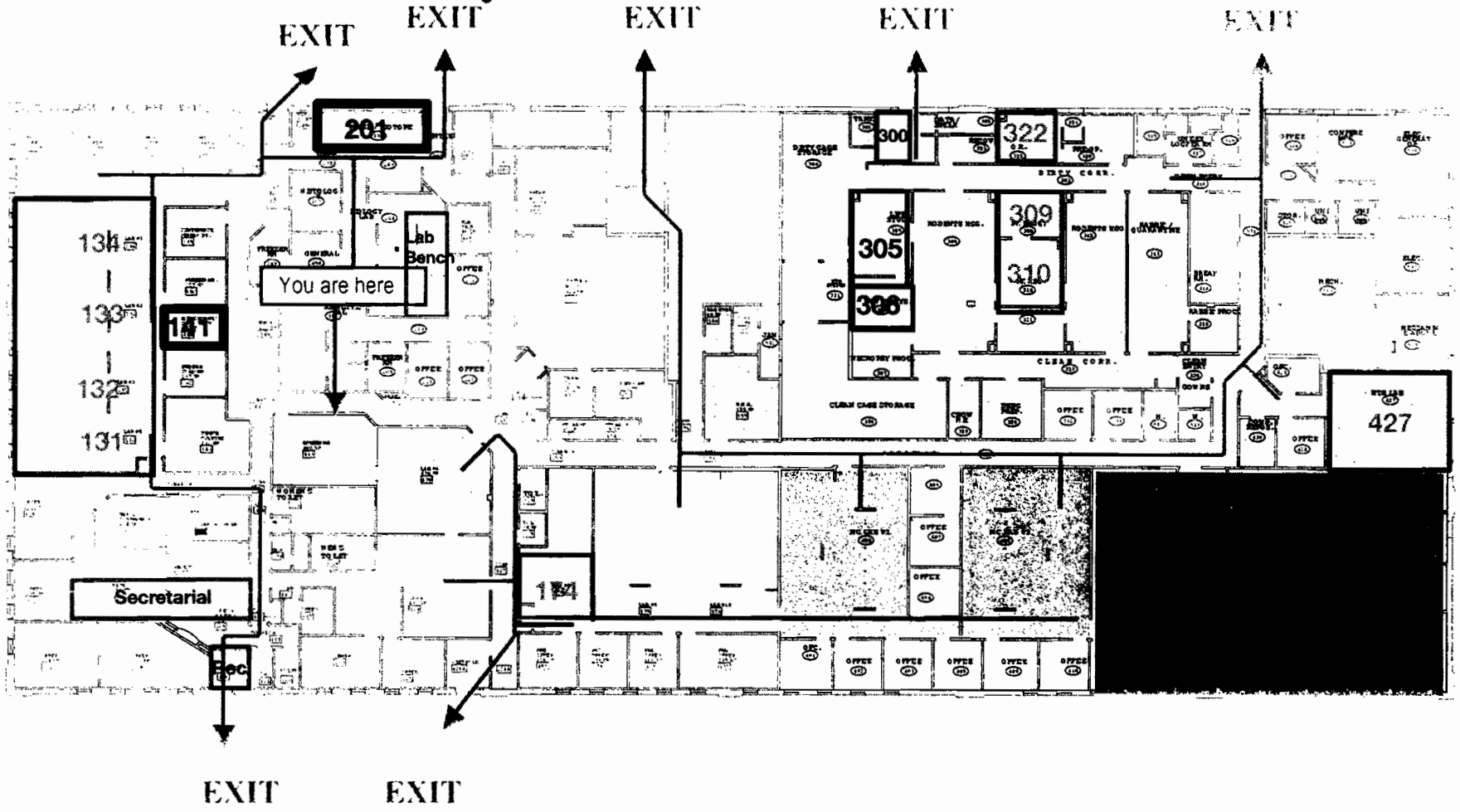
Room 133: Never utilized for radioactive studies, included on the initial license in the event of need at a later date.

Room 134: Never utilized for radioactive studies, included on the initial license in the event of need at a later date.

[redacted]om that housed the liquid scintillation counter, gamma counter and film developer ([redacted]C, ^{125}I, ^{32}P, ^{33}P and ^{35}S).

[redacted]his room was used for long-term storage of ^{14}C, ^{3}H, ^{32}P, ^{33}P and ^{35}S and ^{125}I waste. Flooring, walls, door handles have been surveyed and swiped.

66 17 27



Isotopes used; listed on license

Isotopes never used; listed on license.

Isotopes never used; general use area

RADIOISOTOPE DISPOSAL - SINK

Date	User	Isotope	Amount	
			µCi	Vol
✓ 5/3/99	G. Ambrosini	32P	0.1	1 ml
5/27/99	L. Amero	3H	0.52	1 ml
6/17/99	G. Ambrosini	32P	0.2	10 ml
8/4/99	G. Ambrosini	32P	0.1	1 ml
8/6/99	[illegible]	32P	0.5	5 L
8/26/99	[illegible]	32P	0.5	2 L

RADIOISOTOPE DISPOSAL - SINK

Date	User	Isotope	Amount	
			µCi	Vol
9/2	JEA	^{32}P	1 µCi	2 L.
12/2	[illegible]	^{32}P	0.5 µCi	500 ml
1/10/00	[illegible]	^{32}P	1 µCi	500 ml
2/17/00	[illegible]	^{32}P	1 µCi	500 ml
2/22/00	[illegible]	^{32}P	1 µCi	500 ml
2/24/00	[illegible]	^{32}P	1 µCi	500 ml
3/14/00	[illegible]	^{32}P	2 µCi	500 ml
		Dump liq. in hot storage Rm.		

RADIOISOTOPE DISPOSAL - SINK

Date	User	Isotope	Amount	
			µCi	Vol
10/17/00	T. Hawthorne	^{14}C	1	140 mL
10/18/00	T. Hawthorne	^{14}C	3	420 mL
10/20/00	T. Hawthorne	^{14}C	1	140 mL
11/6/00	T. Hawthorne	^{14}C	1.5	160 mL

Liquid (Sink) Radioactivity Disposal Form

Date	Material or Chemical	Isotope(s)	Activity (μCi)	User Initials
7-Nov-01	3MG / mannitol	^{3}H / ^{14}C	78 / 11.7	DD
9-Nov-01	3MG / mannitol	^{3}H / ^{14}C	127 / 19	DD
13 Nov 01	3MG / mannitol	^{3}H / ^{14}C	214.5 / 34	DD
19 Nov 01	3MG / mannitol	^{3}H / ^{14}C	234 / 35	DD
26 Nov 01	3MG / mannitol	^{3}H / ^{14}C	254 / 39	DD
29 Nov 01	3MG / mannitol	^{3}H / ^{14}C	156 / 23.4	DD
4 Dec 01	3MG / mannitol	^{3}H / ^{14}C	312 / 46.8	DD
7 Dec 01	3MG / mannitol	^{3}H / ^{14}C	240 / 35.6	DD
10 Dec 01	3MG / mannitol	^{3}H / ^{14}C	292.5 / 43.9	DD
12 Dec 01	3MG / mannitol	^{3}H / ^{14}C	292.5 / 43.9	DD
14 Dec 01	3MG / mannitol	^{3}H / ^{14}C	243.9 / 36.6	DD
17 Dec 01	3MG / mannitol	^{3}H / ^{14}C	214.5 / 42.9	DD
19 Dec 01	3MG / mannitol	^{3}H / ^{14}C	195 / 29.3	DD
17 Jan 01	3MG / mannitol	^{3}H / ^{14}C	195 / 29.3	DD
24 Jan 01	3MG / mannitol	^{3}H / ^{14}C	195 / 29.3	DD
31 Jan 01	3MG / mannitol	^{3}H / ^{14}C	195 / 29.3	DD
7 Feb 02	3MG / mannitol	^{3}H / ^{14}C	215 / 32.2	DD
15 Feb 02	3MG / mannitol	^{3}H / ^{14}C	195 / 29.3	DD
26 Feb 02	3MG / mannitol	^{3}H / ^{14}C	273 / 41	DD
4 mar 02	3MG / mannitol	^{3}H / ^{14}C	107.3 / 16.1	DD
7 mar 02	3MG / mannitol	^{3}H / ^{14}C	101.4 / 15.2	DD
13 mar 02	3MG / mannitol	^{3}H / ^{14}C	148 / 22.3	DD
19 mar 02	3MG / mannitol	^{3}H / ^{14}C	78 / 11.7	DD
25 mar 02	3MG / mannitol	^{3}H / ^{14}C	214.5 / 32.2	DD
4 Apr 02	3MG / mannitol	^{3}H / ^{14}C	148 / 22.3	DD
10 Apr 02	3MG / mannitol	^{3}H / ^{14}C	126.9 / 19	DD
25 Apr 02	3MG / mannitol	^{3}H / ^{14}C	175.5 / 26.3	DD
14 May 02	3MG / mannitol	^{3}H / ^{14}C	234 / 35.1	DD
16 May 02	2DOG / mannitol	^{3}H / ^{14}C	253.5 / 38	DD
22 May 02	3MG / mannitol	^{3}H / ^{14}C	214.5 / 32.2	DD
11 Jun 02	3MG / mannitol	^{3}H / ^{14}C	263 / 39.5	DD
25 Jul 02	Glucose	^{3}H	15.25	CF
29 July 02	Glucose	^{3}H	31.50	CF
11 July 02	Glucose	^{3}H	25	CF
17 July 02	Glucose	^{3}H	10	CF
22 Jul 02	3MG / mannitol	^{3}H / ^{14}C	195 / 29.2	DD
25 Jul 02	3MG	^{3}H	4.9	DD
25 Jul 02	Glucose	^{3}H	2	CF
01 Aug 02	Glucose	^{3}H	2	CF
08 Aug 02	Glucose	^{3}H	2	CF
09 Aug 02	palmitate	^{14}C	13.3	DD

Liquid (Sink) Radioactivity Disposal Form

Date	Material or Chemical	Isotope	Activity (μCi)	User Initials
15 Aug 02	glucose	^3H	4	CF
20 Aug 02	3MG / mannitol	^3H / ^{14}C	351 / 41.4	DD
21 Aug 02	glucose	^3H	2.4	CF
5 Sep 02	glucose	^3H	2.4	CF
6 Sep 02	glucose	^3H	2.4	CF
12 Sep 02	glucose	^3H	1.2	CF
18 Sep 02	3MG / mannitol	^3H / ^{14}C	234 / 35.1	DD
19 Sep 02	palmitate	^{14}C	13.3	DD
19 Sep 02	glucose	^3H	2.4	CF
23 Sep 02	glucose	^3H	1.2	CF
26 Sep 02	3MG / mannitol	^3H / ^{14}C	156 / 23.4	DD
26 Sep 02	Glucose	^3H	1.2	CF
02 Oct 02	glucose	^3H	1.2	CF
03 Oct 02	3MG / mannitol	^3H / ^{14}C	136.5 / 20.5	DD
08 Oct 02	palmitate	^{14}C	11.6	DD *
8 Oct 02	glucose	^3H	2.4	CF
14 Oct 02	palmitate	^{14}C	14.1	DD
15 Oct 02	glucose	^3H	2.4	CF
16 Oct 02	glucose	^3H	1.2	CF
17 Oct 02	palmitate	^{14}C	12.5	DD
21 Oct 02	glucose	^3H	2.4	CF
24 Oct 02	palmitate	^{14}C	12.5	DD
31 Oct 02	glucose	^3H	2.4	CF *
31 Oct 02	3MG / mannitol	^3H / ^{14}C	136.5 / 20.5	DD
01 Nov 02	glucose	^3H	1.2	CF
4 Nov 02	3MG / mannitol	^3H / ^{14}C	97.5 / 14.6	DD
6 Nov 02	3MG / mannitol	^3H / ^{14}C	78 / 11.7	DD
07 Nov 02	glucose	^3H	1.2	CF *
07 Nov 02	3MG / mannitol	^3H / ^{14}C	78 / 11.7	DD
13 Nov 02	palmitate	^{14}C	12.5	DD
13 Nov 02	glucose	^3H	2.4	CF
14 Nov 02	glucose	^3H	1.2	CF
19 Nov 02	glucose	^3H	2.4	CF
21 Nov 02	glucose	^3H	1.2	CF
21 Nov 02	3MG / mannitol	^3H / ^{14}C	156 / 23.4	DD
22 Nov 02	3MG / mannitol	^3H / ^{14}C	156 / 23.4	DD
29 Nov 02	3MG / mannitol	^3H / ^{14}C	78 / 9.4	DD
4 Dec 02	palmitate	^{14}C	13.4	DD
9 Dec 02	3MG / mannitol	^3H / ^{14}C	195 / 23.4	DD
11 Dec 02	glucose	^3H	2.4	CF *
12 Dec 02	glucose	^3H	2.4	CF
17 Dec 02	glucose	^3H	2.4	CF *
15 Jan 03	glucose	^3H	2.4	CF
16 Jan 03	glucose	^3H	2.4	CF

Liquid (Sink) Radioactivity Disposal Form

Date	Material or Chemical	Isotope	Activity (μCi)	User Initials
1/7/03	glucose	3H	2.4	CF
1/22/03	glucose	3H	3.6	CF
1/23/03	glucose	3H	2.4	CF
1/24/03	glucose	3H	2.4	CF
2/12/03	glucose	3H	2.4	CF
2/13/03	glucose	3H	2.4	CF
2/14/03	glucose	3H	2.4	CF
3/25/03	glucose	3H	2.4	CF
3/21/03	glucose	3H	1.2	CF
4/7/03	glucose	3H	2.4	CF
4/9/03	glucose	3H	2.4	CF
4/10/03	glucose	3H	2.4	CF
4/11/03	glucose	3H	1.2	CF
4/22/03	glucose	3H	2.4	CF
4/23/03	glucose	3H	2.4	CF
4/24/03	glucose	3H	2.4	CF
5/13/03	glucose	3H	2.4	CF
5/14/03	glucose	3H	2.4	CF
5/15/03	glucose	3H	2.4	CF
5/29/03	glucose	3H	2.4	CF
6/6/03	glucose	3H	2.4	CF
6/10/03	glucose	3H	2.4	CF
6/11/03	glucose	3H	2.4	CF
6/20/03	glucose	3H	2.4	CF
6/26/03	glucose	3H	2.4	CF
6/27/03	glucose	3H	2.4	CF
7/11/03	glucose	3H	2.4	CF
7/17/03	glucose	3H	2.4	CF
7/28/03	glucose	3H	2.4	CF
10/2/03	glucose	3H	2.4	CF
10/7/03	glucose	3H	2.4	CF
10/8/03	glucose	3H	2.4	CF
10/25/03	glucose	3H	2.4	CF
10/29/03	glucose	3H	2.4	CF
11/19/03	glucose	3H	2.4	CF
11/20/03	glucose	3H	2.4	CF
22OCT03	2DOG-/mannitol	3H / 14C	1/1	DD
23OCT03	2DOG-/mannitol	3H / 14C	1/1	DD
31OCT03	2DOG-/mannitol	3H / 14C	1/1	DD
4NOV03	2DOG-/mannitol	3H / 14C	1/1	DD
5NOV03	2DOG-/mannitol	3H / 14C	1/1	DD
7NOV03	2DOG-/mannitol	3H / 14C	1/1	DD
12NOV03	2DOG-/mannitol	3H / 14C	1/1	DD
18NOV03	2DOG-/mannitol	3H / 14C	1/1	DD
24NOV03	2DOG-/mannitol	3H / 14C	1/1	DD

Liquid (Sink) Radioactivity Disposal Form

Date	Material or Chemical	Isotope	Activity (µCi)	User Initials
10/23/02	^{125}I-CCK	^{125}I	0.9	ML
10/31/02	"	"	0.9	ML
23Jan03	[illegible] acetyl CoA	^{14}C	7	DD/DS
4/28/03	I125 PIIINP	I125	1.6	DG
4/29/03	I125 PIIINP	|	.552	DG
4/30/03	I125 PIIINP	|	1.48	DG
5/5/03	I125 PIIINP	|	1.14	DG
5/6/03	I125 PIIINP	↓	1.18	DG
5/19/03	" "	"	1.5	DG
5/20/03	" "	"	1.6	DG
5/28/03	" "	"	1.6	DG
5/29/03	" "	"	1.4	DG
6/2/03	32P ATP	32P	50	SW
6/8/03	32P ATP	32P	5	SW
7/3/03	I125 PIIINP	I125	1.0	DG
7/27/03	32P	32P	10	SW
8/7/03	^{3}H-2DOG	^{3}H	<83uCi	TJ
9.10.03	I125	I125	53uCi	DG
10.27.03	I125	I125	7.6 uCi	DG
10.27.03	I125	I125	82 uCi	DG
10.28.03	I125	I125	81 uCi	DG
12-09-03	I 125	I 125	4 uCi	IM
12/17/03	I 125	I 125	1.5 uCi	IM
12/19/03	I 125	I 125	1.3 uCi	IM
1.27.04	I125	I125	1.5uCi	DG
1.29.04	I125	I125	0.79uCi	DG
1-30.04	I125	I125	0.6 uCi	DG
1-29.04	I125	I125	80 uCi	DG
1.30.04	I125	I125	70 uCi	DG
3.5.04	I125	I125	79 uCi	DG
3.8.04	I125	I125	89 uCi	DG
3.8-04	I125	I125	1.53uC.	DG
3.20.04	I125	I125	2.5 uCi	DG
3.25.04	I125	I125	.1 uCi	DG
4-01-04	Niacin	H3	<1uCi	JACK
4/05	H3 Niacin	H3	<1uCi	[illegible]
4/07	H3 Niacin	H3	<1uCi	[illegible]
4/14	H3 Niacin	H3	<1uCi	[illegible]
6/22	3H Niacin	H3	~4uCi	Jack
6/23	Niacin	H3	~5uCi	Jack
7/06	Niacin	3H	~6uCi	Jack
7/14/04	3H glucose	3H	≤1 uCi	DD
8/2	Niacin	3H	~6uCi	Jack

over

8/[illegible]/04	Niacin	^3H	~7.5 uCi	Jack
8/19/04	Niacin	^3H	~6 uCi	Jack
8/23	Niacin	^3H	~7.5 uCi	Jack
6,23,05	Niacin	^3H	~20 μCi	Kejvan
6,30,05	Niacin	^3H	~18 μCi	Kejvan

Liquid (Sink) Radioactivity Disposal Form

Date	Material or Chemical	Isotope	Activity (μCi)	User Initials
12/11/07	fluorescein	3H	0.4	CF
1/20/08	fluorescein	3H	0.4	CF
1/27/08	fluorescein	3H	0.4	CF
1/28/08	fluorescein	3H	0.4	CF
2/3/08	fluorescein	3H	0.4	CF
3/4/08	fluorescein	3H	0.4	CF
3/11	fluorescein	3H	0.4	CF
3/12	fluorescein	3H	0.4	CF
3/18	fluorescein	3H	0.4	CF
3/19	fluorescein	3H	0.4	CF
3/25	fluorescein	3H	0.4	CF
3/26	fluorescein	3H	0.4	CF
4/1/08	fluorescein	3H	0.4	CF
4/6/08	fluorescein	3H	0.4	CF
4/7/08	fluorescein	3H	0.4	CF
4/15	fluorescein	3H	0.4	CF
4/16	fluorescein	3H	0.4	CF
5/21	fluorescein	3H	0.4	CF
7/27	fluorescein	3H	0.4	CF
7/28	fluorescein	3H	0.4	CF
6/22	fluorescein	3H	0.4	CF
6/23	fluorescein	3H	0.4	CF
6/26	fluorescein	3H	0.4	CF
6/25	fluorescein	3H	0.4	CF
7/20	fluorescein	3H	0.4	CF
7/21	fluorescein	3H	0.4	CF
7/22	fluorescein	3H	0.4	CF
7/15/08	fluorescein	3H	0.4	CF
8/6/08	fluorescein	3H	0.4	CF

RADIOISOTOPE DISPOSAL - SINK

Date	User	Isotope	Amount	
			µCi	Vol
9/2	JEA	32P	1 µCi	2 L.
12/2	gx	32P	0.5 µCi	500 ml
1/10/00	QR	32P	1 µCi	500 ml
2/17/00	QR	32P	1 µCi	500 ml
2/22/00	QR	32P	1 µCi	[illegible]
2/24/00	QR	32P	1 µCi	500 ml
3/14/00	QR	32P	2 µCi	500 ml
		Dry + liq. in hot storage Rm.		

RADIOISOTOPE DISPOSAL - SINK

Date	User	Isotope	Amount µCi
2/13/07	LSO	3H Glucose	31.75
2/21/07	LSO	3H Glucose	22.15
2/27/07	LW	3H	12.83
3/1/07	LW	3H	11.76
3/7/07	LW	3H	11.17
3/8/07	LW	3H	15.68
3/14/07	LW	3H	39.2
3/15/07	LW	3H	24.30
3/22/07	LW	3H	32.14
3/27/07	LW	3H	25.68
3/29/07	LW	3H	32.54
4/3/07	LW	3H	20.38
4/4/07	LW	3H	19.6
4/10/07	LW	3H	29.60
4/11/07	LSO	3H	17.25
4/17/07	LW	3H	28.62
4/25/07	LW	3H	30.58
4/27/07	LW	3H	10.98
5/1/07	LW	3H	19.6
5/2/07	LW	3H	9.8
5/15/07	LW	3H	29.2
5/16/07	LW	3H	29.4
5/18/07	LW	3H	18.82
5/22/07	LW	3H	18.82
5/30/07	LW	3H	29.79
5/31/07	LW	3H	31.36
6/5/07	LW	3H	20.38
6/7/07	LW	3H	13.13

RADIOISOTOPE DISPOSAL - SINK

Date	User	Isotope	Amount µCi
6/11/06	LW	3H	19.6
6/12/07	LW	3H	20.97
6/13/07	LW	3H	29.7
6/14/07	LW	3H	29.6
6/20/07	LW	3H	19.21
6/21/07	LW	3H	19.6
6/27/07	LSM	3H	17.54
7/3	LW	3H	19.21
JSM 7/3	LW	3H	9.8
7/7	LW	3H	22.7
7/10	LW	3H	38.2 mCi
7/13	LW	3H	26.8 mCi
7/17/07	LW	3H	10.98 mCi
7/18/07	LW	3H	15.7
7/24/07	LW	3H	30.58
7/24/07	LW	3H	29.4
8/2/07	LW	3H	17.64
8/3/07	LW	3H	29.8
8/8/07	LW	3H	28.22
8/9/07	LW	3H	29.4
8/14/07	LW	3H	9.8
8/22/07	LW	3H	29.6
8/28/07	LW	3H	31.24
8/29/07	LSO	3H	19.60
8/30/07	LW	3H	28.6
8/30/07	LW	3H	14.7
9/5/07	LW	3H	39.4
9/6/07	LW	3H	29.99
estimate 9/7/07	JF	3H	29.40
estimate 9/11/07	JF	3H	21.85
9/12/07	LW	3H	19.99

Estimated burden per response to comply with this information collection request: 45 minutes. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0164), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FORM 540 — Energy Solutions/Bear Creek

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER

1. EMERGENCY TELEPHONE NUMBER (Include Area Code)
800-424-9300

ORGANIZATION
CHEMTREC

2. IS THIS AN "EXCLUSIVE USE" SHIPMENT?
[ ] YES
[X] NO

3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST → 6

4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT?
[ ] YES
[X] NO
If "Yes", provide Manifest Number →

EPA MANIFEST NUMBER
NA

5. SHIPPER - NAME AND FACILITY
Philotechnics ® Institute of Pharmaceutical Discovery, LLC
23 Business Park Drive
Branford, CT 06405

SHIPMENT ID NUMBER
0374-112612EN

[X] COLLECTOR
[ ] PROCESSOR
[ ] GENERATOR TYPE (Specify)

USER PERMIT NUMBER: T-TN024-L12
SHIPMENT NUMBER: 0374-112612EN

CONTACT
June Tamkin-Price

TELEPHONE NUMBER (Include Area Code)
(203) 507-3481

6. CARRIER - Name and Address
Philotechnics, Ltd
201 Renovare Blvd.
Oak Ridge, TN 37830

Truck #:
Trailer #:

EPA I.D. NUMBER
TNR00005054

SHIPPING DATE
11/26/2012

CONTACT
Justin Bullon

TELEPHONE NUMBER (Include Area Code)
(865) 456-4812

SIGNATURE - Authorized carrier acknowledging waste receipt: [signature]
DATE: 11 26 12

7. FORM 540 AND 540A — PAGE 1 OF 2 PAGE(S)
FORM 541 AND 541A — 2 PAGE(S)
FORM 542 AND 542A — 1 PAGE(S)
ADDITIONAL INFORMATION — NONE PAGE(S)

8. MANIFEST NUMBER (Use this number on all continuation pages)
0374-112312EN

9. CONSIGNEE - Name and Facility Address
Energy Solutions Bear Creek
Operated By Energy Solutions
1560 Bear Creek Road
Oak Ridge, TN 37830

CONTACT
Donnie Brackett

TELEPHONE NUMBER (Include Area Code)
(865) 220-1628

SIGNATURE - Authorized consignee acknowledging waste receipt: [signature]
DATE: 12/21/12

2254 112586 1

10. CERTIFICATION
This is to certify that the herein-named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This also certifies that the waste described, packaged, marked, and labeled and is in proper condition for transportation and disposal in accordance with the requirements of 10 CFR Parts 20 and 61, or equivalent state regulation.

AUTHORIZED SIGNATURE: [signature]
TITLE: Broker
DATE: 11-26-12

11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL "RADIOACTIVE"	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIONUCLIDES	16. TOTAL PACKAGE ACTIVITY MBq	16. TOTAL PACKAGE ACTIVITY mCi	17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
NON-DOT REGULATED MATERIALS BIOLOGICAL WASTE (NON-CARC) 1 - 41 GAL FIBER	NA	NA	SOLID/METAL OXIDES	H-3	60.7170000000	(1.6410000000)	NA	5.20 ft³ 25.00000 lb	12-001653 (IPD 1)
NON-DOT REGULATED MATERIALS NON-HAZ LSV 1 - 55 GAL FIBER DRUM	NA	NA	LIQUID/OXIDES	H-3	74.0000000000	(2.0000000000)	NA	7.50 ft³ 40.00000 lb	12-001654 (LSV 1)
NON-DOT REGULATED MATERIALS NON-HAZ LSV 1 - 55 GAL FIBER DRUM	NA	NA	LIQUID/OXIDES	H-3	74.0000000000	(2.0000000000)	NA	7.50 ft³ 40.00000 lb	12-001655 (LSV 2)
NON-DOT REGULATED MATERIALS NON-HAZ LSV 1 - 55 GAL FIBER DRUM	NA	NA	LIQUID/OXIDES	H-3	74.0000000000	(2.0000000000)	NA	7.50 ft³ 40.00000 lb	12-001656 (LSV 3)
NON-DOT REGULATED MATERIALS NON-HAZ LSV 1 - 55 GAL FIBER DRUM	NA	NA	LIQUID/OXIDES	H-3	74.0000000000	(2.0000000000)	NA	7.50 ft³ 40.00000 lb	12-001657 (LSV 4)
NON-DOT REGULATED MATERIALS DAW THERMAL 1 - 55 GAL FIBER DRUM	NA	NA	SOLID/METAL OXIDES	H-3	37.0000000000	(1.0000000000)	NA	7.50 ft³ 50.00000 lb	12-001658 (DAW 1)

FOR CONSIGNEE USE ONLY

Tennessee "License For Delivery" No. ____________

South Carolina Transport Permit No. ____________

US Ecology Generator No. ____________

US Ecology Permit No. ____________

20. Generator Certification Statement

A) Radioactive Materials. Certification is hereby made that this shipment of low-level radioactive waste has been prepared in accordance with a radioactive waste management program which has been approved by the Nuclear Regulatory Commission or an Agreement State regulatory agency and with the current revision of the site Waste Acceptance Criteria.
B) Hazardous Materials. Generator hereby certifies that this material does / does not contain a hazardous waste as defined in 40 CFR 261.
C) Data. Generator hereby represents and warrants that the data set forth in this UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST are true and correct in all respects and in accordance with all applicable governmental laws, rules, regulations and site Radioactive Material License.
D) INFECTIOUS SUBSTANCE: Generator hereby certifies that this material does not contain infectious substances as defined in 49 CFR 173.134

Bruce L Conway (Print Name) — [signature] (Signature) — 11/26/2012 (Date)
on behalf of Michael Ing

Form 540 (10-96)

Modified Date: 11/21/2012 10:18

FORM 540A

Energy Solutions/Bear Creek

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER (CONTINUATION)

8. MANIFEST NUMBER (Use this number on all continuation pages)
0374-112612EN

11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL "RADIOACTIVE"	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIONUCLIDES	16. TOTAL PACKAGE ACTIVITY MBq	mCi	17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
NON-DOT REGULATED MATERIALS AQUEOUS LIQUID 1 - 10 GALLON DRUM	NA	NA	LIQUID/OXIDES	H-3	41.033000000	(1.109000000)	NA	1.20 ft³ 70.00000 lb	12-001659 (AQUEOUS 1)
NON-DOT REGULATED MATERIALS NON-HAZ LSV 1 - 41 GAL FIBER	NA	NA	LIQUID/OXIDES	C-14 ; H-3	830.502000000	(22.446000000	NA	5.20 ft³ 100.00000 lb	12-001660 (STOCK VIALS)

FORM 541 Energy Solutions/Bear Creek

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION

Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste

1. MANIFEST TOTALS

NUMBER OF PACKAGES/ DISPOSAL CONTAINERS	NET WASTE VOLUME	NET WASTE WEIGHT	SPECIAL NUCLEAR MATERIAL (grams) U-233	U-235	Pu	TOTAL
8	m^3 1.39038 / ft^3 49.10000	kg 128.81956 / lb 284.00000	NP	NP	NP	NP

ACTIVITY (MBq/mCi) (LLD UNITS IN uCi/cc)	ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE
MBq	1045.87900000000	1043.27050000000	2.60850000000	NP	NP	NP
mCi	28.26700000000	28.19650000000	0.07050000000	NP	NP	NP

2. MANIFEST NUMBER 0374-112612EN

3. PAGE 1 OF 2 PAGE(S)

4. SHIPPER NAME Philotechnics @ Institute of Pharmaceutical D

SHIPMENT ID NUMBER 0374-112612EN

DISPOSAL CONTAINER DESCRIPTION / WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER

5. CONTAINER IDENTIFICATION NUMBER/ GENERATOR NUMBER (# - Innerpack Container)	6. CONTAINER DESCRIPTION (See Note 1) PROCESS REQUESTED (See Note 1A) BURIAL/DISPOSITION (See Note 2A)	7. VOLUME m^3 / ft^3	8. WASTE AND CONTAINER WEIGHT kg / lb	9. SURFACE RADIATION LEVEL mSv/hr / mrem/hr	10. SURFACE CONTAMINATION MBq/100 cm² dpm/100 cm² ALPHA	BETA-GAMMA	11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER m^3 / ft^3	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	15. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT RADIONUCLIDES	MBq	mCi	16. WASTE CLASSIFICATION AS - Class A Stable AU - Class A Unstable B - Class B C - Class C
12-001653 (IPD 1)	19 Other-Fiber Box	0.14725	11.33975	< 5.0000E-03	< 3.6740E-06	< 3.6740E-05	42	0.14725	100	SOLID METAL OXIDES / NP	NP	H-3	60.7170000000	1.6410000000	AU
374	O - INCINERATION O	5.20000	25.00000	< 5.0000E-01	< 2.2000E+02	< 2.2000E+03		5.20000				Sub Total	60.7170000000	1.6410000000	
												Package Total	60.7170000000	1.6410000000	
12-001654 (LSV 1)	19 Other-Fiber Drum	0.21238	18.14360	< 5.0000E-03	< 3.6740E-06	< 3.6740E-05	40	0.21238	100	LIQUID OXIDES / NP	NP	H-3	74.0000000000	2.0000000000	AU
374	O - INCINERATION O	7.50000	40.00000	< 5.0000E-01	< 2.2000E+02	< 2.2000E+03		7.50000				Sub Total	74.0000000000	2.0000000000	
												Package Total	74.0000000000	2.0000000000	
12-001655 (DAW 2)	19 Other-Fiber Drum	0.21238	18.14360	< 5.0000E-03	< 3.6740E-06	< 3.6740E-05	40	0.21238	100	LIQUID OXIDES / NP	NP	H-3	2.5530000000	0.0690000000	AU
374	O - INCINERATION O	7.50000	40.00000	< 5.0000E-01	< 2.2000E+02	< 2.2000E+03		7.50000				Sub Total	2.5530000000	0.0690000000	
												Package Total	2.5530000000	0.0690000000	
12-001656 (DAW 3)	19 Other-Fiber Drum	0.21238	18.14360	< 5.0000E-03	< 3.6740E-06	< 3.6740E-05	40	0.21238	100	LIQUID OXIDES / NP	NP	H-3	0.0370000000	0.0010000000	AU
374	O - INCINERATION O	7.50000	40.00000	< 5.0000E-01	< 2.2000E+02	< 2.2000E+03		7.50000				Sub Total	0.0370000000	0.0010000000	
												Package Total	0.0370000000	0.0010000000	

NOTE 1: Container Description Codes. For containers/waste requiring disposal in approved structural overpacks, the numerical code must be followed by "-OP."

1. Wooden Box or Crate
2. Metal Box
3. Plastic Drum or Pail
4. Metal Drum or Pail
5. Metal Tank or Liner
6. Concrete Tank or Liner
7. Polyethylene Tank or Liner
8. Fiberglass Tank or Liner
9. Demineralizer
10. Gas Cylinder
11. Bulk, Unpacked Waste
12. Unpackaged Components
13. High Integrity Container
19. Other. Describe in Item 6, or additional page

NOTE 1A: Process Requested

C. Compaction
SR. Steam Reforming
DI. Direct Incineration
SI. Sort & Incinerate
D. Decon
G. Green is Clean
M. Metal Melt
T. Trans-Ship
LI. Liquid for Incineration
OI. Oil for Incineration
O. Other (describe)

NOTE 2: Waste Descriptor Codes. (Choose up to three which predominate by volume.)

20. Charcoal
21. Incinerator Ash
22. Soil
23. Gas
24. Oil
25. Aqueous Liquid
26. Filter Media
27. Mechanical Filter
28. EPA or State Hazardous
29. Demolition Rubble
30. Cation Ion-exchange Media
31. Anion Ion-exchange Media
32. Mixed Bed Ion-exchange Media
33. Contaminated Equipment
34. Organic Liquid (except oil)
35. Glassware or Labware
36. Sealed Source/Device
37. Paint or Plating
38. Evaporator Bottoms/Sludges/ Concentrates
39. Compactible Trash
40. Noncompactible Trash
41. Animal Carcass
42. Biological Material (except animal carcass)
43. Activated Material
50. Other. Describe in Item 11, or additional page

NOTE 2A: Burial/Disposition Site

B Barnwell Waste Management Facility
E Envirocare
R Richland, WA
PR Process and Return
O Other

NOTE 3: Solidification and Stabilization Media Codes. (Choose up to three which predominate by volume.) For media meeting disposal site structural stability requirements, the numerical code must be followed by "-S" and the media vendor and brand name must also be identified in Item 12. Code 100=None Required

Solidification
90. Cement
91. Concrete (encapsulation)
92. Bitumen
93. Vinyl Chloride
94. Vinyl Ester Styrene
99. Other. Describe in Item 13, or additional page
100. None Required

Form 541 (10-96) * - Indicates Cross Contamination

FORM 541A

Energy Solutions/Bear Creek

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

2. MANIFEST NUMBER: 0374-112612EN

3. PAGE 2 OF 2 PAGE(S)

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER							
							PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION		
5. CONTAINER IDENTIFICATION NUMBER/ GENERATOR NUMBER * - Innerpack Container	6. CONTAINER DESCRIPTION (See Note 1) PROCESS REQUESTED (See Note 1A) BURIAL/DISPOSITION (See Note 2A)	7. VOLUME m³ / ft³	8. WASTE AND CONTAINER WEIGHT kg / lb	9. SURFACE RADIATION LEVEL mSv/hr / mrem/hr	10. SURFACE CONTAMINATION MBq/100 cm² / dpm/100 cm² ALPHA	BETA-GAMMA	11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER m³ / ft³	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT RADIONUCLIDES	MBq	mCi	16. WASTE CLASSIFICATION AS - Class A Stable AU - Class A Unstable B - Class B C - Class C
12-001657 (DAW 4)	19 Other-Fiber Drum	0.21238	18.14360	< 5.0000E-03	< 3.6740E-06	< 3.6740E-05	40	0.21238	100	LIQUID OXIDES / NP	NP	H-3	0.0370000000	0.0010000000	AU
374	O - INCINERATION	7.50000	40.00000	< 5.0000E-01	< 2.2000E+02	< 2.2000E+03		7.50000							
	O											Sub Total	0.0370000000	0.0010000000	
												Package Total	0.0370000000	0.0010000000	
12-001658 (DAW 1)	19 Other-Fiber Drum	0.21238	22.67950	< 5.0000E-03	< 3.6740E-06	< 3.6740E-05	40	0.21238	100	SOLID METAL OXIDES / NP	NP	H-3	37.0000000000	1.0000000000	AU
374	O - INCINERATION	7.50000	50.00000	< 5.0000E-01	< 2.2000E+02	< 2.2000E+03		7.50000							
	O											Sub Total	37.0000000000	1.0000000000	
												Package Total	37.0000000000	1.0000000000	
12-001659 (AQUEOUS 1)	4	0.03398	31.75130	< 5.0000E-03	< 3.6740E-06	< 3.6740E-05	25	0.03398	100	LIQUID OXIDES / NP	NP	H-3	41.0330000000	1.1090000000	AU
374	O - INCINERATION	1.20000	70.00000	< 5.0000E-01	< 2.2000E+02	< 2.2000E+03		1.20000							
	O											Sub Total	41.0330000000	1.1090000000	
												Package Total	41.0330000000	1.1090000000	
12-001660 (STOCK VIALS)	19 Other-Fiber Box	0.14725	45.35900	< 5.0000E-03	< 3.6740E-06	< 3.6740E-05	40	0.14725	100	LIQUID OXIDES / NP	NP	C-14	2.6085000000	0.0705000000	AU
374	O - INCINERATION	5.20000	100.00000	< 5.0000E-01	< 2.2000E+02	< 2.2000E+03		5.20000				H-3	827.8935000000	22.3755000000	
	O											Sub Total	830.5020000000	22.4460000000	
												Package Total	830.5020000000	22.4460000000	
Shipment Total		1.39038	183.70395										1045.8790000000	28.2670000000	
		49.10000	405.00000												

Form 541A (10-96)

* - Indicates Cross Contamination

NRC FORM 542 (7-2001) Energy Solutions/Bear Creek

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

MANIFEST INDEX AND REGIONAL COMPACT TABULATION

List all original "PROCESSED WASTE" generators (if any) before "COLLECTED WASTE" generators

1. WASTE COLLECTOR/PROCESSOR

NAME: Philotechnics @ Institute of Pharamaceutical Discovery, LLC

IDENTIFICATION NUMBER: 374

SHIPPING DATE: 11/26/2012

SHIPPER USE ONLY

2. MANIFEST NUMBER: 0374-112612EN

3. PAGE 1 OF 1 PAGE(S)

4. GENERATOR IDENTIFICATION NUMBER	5. GENERATOR NAME PERMIT NUMBER (IF APPLICABLE), AND TELEPHONE NUMBER	6. GENERATOR FACILITY ADDRESS	7. PREPROCESSED WASTE (OR MATERIAL) VOLUME m³	8. MANIFEST NUMBER(S) UNDER WHICH WASTE (OR MATERIAL) RECEIVED AND DATE OF RECEIPT	9. WASTE CODE P=PROCESSED C=COLLECTED	10. ORIGINATING COMPACT REGION OR STATE	11. AS PROCESSED/COLLECTED TOTAL A. SOURCE MATERIAL (kg)	B. SNM (g)	C. ACTIVITY MBq	D. VOLUME m³
374	Institute of Pharamaceutical Discovery, LLC EPA #: (203) 507-3461	23 Business Park Drive Branford, CT 06405	1.39038	Onsite Generation 11/21/2012	C	CT	NP	NP	1045.879	1.39038
						TOTALS OF ALL PAGES (FORMS 542 AND 542A)	NP	NP	1045.8790000000	1.39038

ise print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CTR000003996
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 000906047 JJK

5. Generator's Name and Mailing Address
Institute of Pharamaceutical Discovery, LLC
23 Business Park Drive
Branford, CT 06405
Generator's Phone: (203) 315-5432

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: R+R Trucking — U.S. EPA ID Number: MOR000501973

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
NSSI Recovery Services
5709 Etheridge Street
Houston TX, 77087
Facility's Phone: (713) 641-0391
U.S. EPA ID Number: TXD982560284

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1993, WASTE, FLAMMABLE LIQUID, N.O.S. (Methanol), 3, PGII	1	DM	15	K	D001 F003
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
9b, 1 = MW Bulk Liquid - (ID# MW-5) -
ERG# 128 REF. NRC. MANIFEST 0374-060109NSSI

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: A. Thomas DiCiocco — Signature: [signature] — Month: 6 Day: 01 Year: 09

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Robert McIntosh — Signature: [signature] — Month: 06 Day: 01 Year: 09

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H129			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Jesse Alvarez — Signature: [signature] — Month: 6 Day: 12 Year: 09

Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

NRC FORM 540 (7-2007) U.S. NUCLEAR REGULATORY COMMISSION

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER

1. EMERGENCY TELEPHONE NUMBER (Include Area Code)
800-424-9300

ORGANIZATION
CHEMTREC

2. IS THIS AN "EXCLUSIVE USE" SHIPMENT?
[ ] YES
[X] NO

3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST ========> 1

4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? [X] YES [ ] NO
If "Yes", provide Manifest Number ====>

EPA MANIFEST NUMBER
C00906047JJK
~~[illegible]~~ 77

5. SHIPPER - NAME AND FACILITY
Philotechnics @ Institute of Pharmaceutical Discovery, LLC
23 Business Park Drive
Branford, CT 06405

SHIPMENT ID NUMBER
0374-060109NSSI

X COLLECTOR
PROCESSOR
GENERATOR TYPE (Specify)

USER PERMIT NUMBER

SHIPMENT NUMBER
0374-060109NSSI

CONTACT
A. Thomas DiCioccio
~~Beth Bolton~~

TELEPHONE NUMBER (Include Area Code)
(203) 315-~~6802~~ 5962

6. CARRIER - Name and Address
R & R Trucking
302 Thunder Road
Duenweg, MO 64841

Truck #:
Trailer #:

EPA I.D. NUMBER
MOR000591973

SHIPPING DATE
06/01/2009

CONTACT
Jo Vance

TELEPHONE NUMBER (Include Area Code)
800-625-6885

SIGNATURE - Authorized carrier acknowledging waste receipt [signature] DATE 6-1-09

7. FORM 540 AND 540A PAGE 1 OF 1 PAGE(S)
FORM 541 AND 541A 1 PAGE(S)
FORM 542 AND 542A 1 PAGE(S)
ADDITIONAL INFORMATION NONE PAGE(S)

8. MANIFEST NUMBER
(Use this number on all continuation pages)
0374-060109NSSI

9. CONSIGNEE - Name and Facility Address
NSSI Recovery Services
Operated By NSSI Recovery Services
5709 Etheridge Street
Houston, TX 77087

CONTACT
Bob Gallagher

TELEPHONE NUMBER (Include Area Code)
(713) 641-0391

SIGNATURE - Authorized consignee acknowledging waste receipt [signature] DATE 6-7-2009

10. CERTIFICATION

This is to certify that the herein named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This also certifies that the materials are classified, packaged, marked, and labeled and in proper condition for transportation and disposal in accordance with the requirements of 10 CFR Parts 20 and 61, or equivalent state regulation.

AUTHORIZED SIGNATURE [signature] TITLE B. Potter DATE 6-1-09

11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL "RADIOACTIVE"	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIONUCLIDES	16. TOTAL PACKAGE ACTIVITY MBq	mCi	17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S., (METHANOL), 3; PGII	NA	NA	LIQUID/OXIDES	C-14	8.4175000000	(0.2275000000)	NA	4.10 ft^3	09-009768
MIXED WASTE BULK LIQUID								33.00000 lb	(MW-5)
1 - 30 GAL DRUM									

FOR CONSIGNEE USE ONLY

20. Generator Certification Statement

A) Radioactive Materials. Certification is hereby made that this shipment of low-level radioactive waste has been prepared in accordance with a radioactive waste management program which has been approved by the Nuclear Regulatory Commission or an Agreement State regulatory agency and with the current revision of the site Material Acceptance Criteria.
B) Hazardous Materials. Generator hereby certifies that this material __ does (or) __ does not contain a hazardous waste as defined in 40 CFR 261.
C) Data. Generator hereby represents and warrants that all data set forth in this (UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST) are true and correct in all respects and in accordance with all applicable governmental laws, rules, regulations and site Radioactive Material License.
D) INFECTIOUS SUBSTANCE. Generator hereby certifies that this material does not contain an infectious substance as defined in 49 CFR 173.134

A. Thomas DiCioccio [signature] 6/01/09
Print Name Signature Date

Modified Date: 06/01/2009 12:00

ORIGINAL

Estimated burden per responce to comply with this information collection request. 3.3 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0166), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

NRC FORM 541 (7-2007) — U.S. NUCLEAR REGULATORY COMMISSION

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION

Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste

1. MANIFEST TOTALS

NUMBER OF PACKAGES/ DISPOSAL CONTAINERS	NET WASTE VOLUME	NET WASTE WEIGHT	SPECIAL NUCLEAR MATERIAL (grams) U-233	U-235	Pu	TOTAL
1	m^3 0.11610 ft^3 4.10000	kg 1.36077 lb 3.00000	NP	NP	NP	NP

ACTIVITY (MBq/mCi) (LLD UNITS IN uCi/cc)

	ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE
MBq	8.4175000000	NP	8.4175000000	NP	NP	NP
mCi	0.2275000000	NP	0.2275000000	NP	NP	NP

2. MANIFEST NUMBER: 0374-060109NSSI

3. PAGE 1 OF 1 PAGE(S)

4. SHIPPER NAME: Philotechnics @ Institute of Pharamaceutical D

SHIPMENT ID NUMBER: 0374-060109NSSI

DISPOSAL CONTAINER DESCRIPTION / WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER

5. CONTAINER IDENTIFICATION NUMBER/ TRANSPORT PERMIT NUMBER (# - Innerpack Container)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME m^3 / ft^3	8. WASTE AND CONTAINER WEIGHT kg / lb	9. SURFACE RADIATION LEVEL mSv/hr / mrem/hr	10. SURFACE CONTAMINATION MBq/100 cm² / dpm/100 cm² ALPHA	BETA-GAMMA	11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER m^3 / ft^3	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	14. CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	15. RADIONUCLIDES	MBq	mCi	16. WASTE CLASSIFICATION AS - Class A Stable, AU - Class A Unstable, B - Class B, C - Class C
09-009768 (MW-5)	4	0.11610 4.10000	14.96847 33.00000	< 0.005 < 0.5	< 0.000003674 < 220	< 0.00003674 < 2200	28	0.11610 4.10000	100	LIQUID OXIDES / NP	NP	C-14	8.4175000000	0.2275000000	AU
Origin: CT Institute of Pharmaceutical Discovery, LLC 23 Business Park Drive Branford, CT 06405												Sub Total	8.4175000000	0.2275000000	
Package Total													8.4175000000	0.2275000000	
Shipment Total		0.11610 4.10000	14.96847 33.00000										8.4175000000	0.2275000000	

NOTE 1: Container Description Codes. For containers/waste requiring disposal in approved structural overpacks, the numerical code must be followed by "-OP."

1. Wooden Box or Crate
2. Metal Box
3. Plastic Drum or Pail
4. Metal Drum or Pail
5. Metal Tank or Liner
6. Concrete Tank or Liner
7. Polyethylene Tank or Liner
8. Fiberglass Tank or Liner
9. Demineralizer
10. Gas Cylinder
11. Bulk, Unpacked Waste
12. Unpackaged Components
13. High Integrity Container
19. Other. Describe in item 6, or additional page

NOTE 2: Waste Descriptor Codes. (Choose up to three which predominate by volume.)

20. Charcoal
21. Incinerator Ash
22. Soil
23. Gas
24. Oil
25. Aqueous Liquid
26. Filter Media
27. Mechanical Filter
28. EPA or State Hazardous
29. Demolition Rubble
30. Cation Ion-exchange Media
31. Anion Ion-exchange Media
32. Mixed Bed Ion-exchange Media
33. Contaminated Equipment
34. Organic Liquid (except oil)
35. Glassware or Labware
36. Sealed Source/Device
37. Paint or Plating
38. Evaporator Bottoms/Sludges/ Concentrates
39. Compactible Trash
40. Noncompactible Trash
41. Animal Carcass
42. Biological Material (except animal carcass)
43. Activated Material
59. Other. Describe in item 11, or additional page

NOTE 3: Sorption, Solidification and Stabilization Media Codes. (Choose up to three which predominate by volume). For media meeting disposal site structral stability requirements, the numerical code must be followed by "-S". For all solidification media, the vendor and brand name must also be identified in item 13. Code 100=None Required

Sorption

60. Speedi Dri
61. Celeton
62. Floor Dry/ Superfine
63. Hi Dri
64. Safe T Sorb
65. Safe N Dri
66. Florco
67. Florco X
68. Solid A Sorb
69. Chemsil 50
70. Chemsil 50
71. Chemsil 3030
72. Dicaperl HP 200
73. Dicaperl HP500
74. Petroset
75. Petroset II
76. Aquaset
77. Aquaset II
89. Other. Describe in item 13 or additional page.

Solidification

90. Cement
91. Concrete (encapsulation)
92. Bitumen
93. Vinyl Chloride
94. Vinyl Ester Styrene
99. Other. Describe in item 13, or additional page
100. None Required

 * - Indicates Cross Contamination

NRC FORM 542 (7-2007) U.S. NUCLEAR REGULATORY COMMISSION

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

MANIFEST INDEX AND REGIONAL COMPACT TABULATION

List all original "PROCESSED WASTE" generators (if any) before "COLLECTED WASTE" generators

1. WASTE COLLECTOR/PROCESSOR

NAME: Philotechnics @ Institute of Pharmaceutical Discovery, LLC

IDENTIFICATION NUMBER:

SHIPPING DATE: 06/01/2009

SHIPPER USE ONLY

2. MANIFEST NUMBER: 0374-060109NSSI

3. PAGE 1 OF 1 PAGE(S)

4. S.C. TRANSPORT PERMIT NUMBER	5. GENERATOR NAME AND TELEPHONE NUMBER	6. GENERATOR FACILITY ADDRESS	6A. WASTE DESCRIPTION (NOMENCLATURE)	7. PREPROCESSED WASTE (OR MATERIAL) VOLUME m³	7. PREPROCESSED WASTE (OR MATERIAL) VOLUME ft³	8. MANIFEST NUMBER(S) UNDER WHICH WASTE (OR MATERIAL) RECEIVED AND DATE OF RECEIPT	9. WASTE CODE P=PROCESSED C=COLLECTED	10. ORIGINATING COMPACT REGION OR STATE	11. AS PROCESSED/COLLECTED TOTAL A. SOURCE MATERIAL (kg)	A. SOURCE MATERIAL (lb)	B. SNM (g)	C. ACTIVITY MBq	C. ACTIVITY mCi	D. VOLUME m³	D. VOLUME ft³	E. WEIGHT (lb)	F. MAXIMUM PACKAGE RADIATION LEVEL (mrem/hr)
	Institute of Pharmaceutical Discovery, LLC (203) 315-5932	23 Business Park Drive Branford, CT 06405	EPA or State Hazardous	0.11610	4.10000	Onsite Generation 06/01/2009	C	CT	NP	NP	NP	8.4175	.2275	0.11610	4.10000	3.00000	<0.5
			TOTALS OF ALL PAGES (FORMS 542 AND 542A)						NP	NP	NP	8.4175000000	0.2275000000	0.11610	4.10000	3.00000	N/A

09R-ETTP-08.

COPY

Estimated burden per response to comply with this information collection request: 45 minutes. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0164), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

NRC FORM 540 (7-2007) — U.S. NUCLEAR REGULATORY COMMISSION

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
SHIPPING PAPER

1. EMERGENCY TELEPHONE NUMBER (Include Area Code) 800-424-9300
ORGANIZATION: CHEMTREC

2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? [ ] YES [X] NO

3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST 4

4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? [ ] YES [X] NO
If "Yes", provide Manifest Number ====>
EPA MANIFEST NUMBER: N/A

5. SHIPPER - NAME AND FACILITY
Philotechnics @ Institute of Pharmaceutical Discovery, LLC
22 Business Park Drive
Branford, CT 06405

SHIPMENT ID NUMBER: 0374-060109M
X COLLECTOR
PROCESSOR
GENERATOR TYPE (Specify)

USER PERMIT NUMBER
SHIPMENT NUMBER: 0374-060109M
CONTACT: A. Thomas DiCioccio ~~Ben Dalton~~
TELEPHONE NUMBER (Include Area Code): (203) 315-~~6962~~ 5762

6. CARRIER - Name and Address
R & R Trucking
302 Thunder Road
Duenweg, MO 64841
Truck #:
Trailer #:
EPA I.D. NUMBER: MOR000501973
SHIPPING DATE: 06/01/2009
CONTACT: Jo Vance
TELEPHONE NUMBER (Include Area Code): 800-625-6885
SIGNATURE - Authorized carrier acknowledging waste receipt: [signature]
DATE: 6-1-09

7. FORM 540 AND 540A — PAGE 1 OF 1 PAGE(S)
FORM 541 AND 541A — 2 PAGE(S)
FORM 542 AND 542A — 1 PAGE(S)
ADDITIONAL INFORMATION — NONE PAGE(S)

8. MANIFEST NUMBER (Use this number on all continuation pages): 0374-060109M

9. CONSIGNEE - Name and Facility Address
Impact Services
Operated By Impact Services, Inc.
Hiway 58-(ETTP)-Bldg # 1310MP
Oak Ridge, TN 37830
CONTACT: Cammy Jones
TELEPHONE NUMBER (Include Area Code): (865) 576-3724
SIGNATURE - Authorized consignee acknowledging waste receipt: [signature]
DATE: 6-9-09

10. CERTIFICATION
This is to certify that the herein-named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This also certifies that the materials are classified, packaged, marked, and labeled and in proper condition for transportation and disposal in accordance with the requirements of 10 CFR Parts 20 and 61, or equivalent state regulation.
AUTHORIZED SIGNATURE: [signature] TITLE: Broker DATE: 6-1-09

11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL "RADIOACTIVE"	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIONUCLIDES	16. TOTAL PACKAGE ACTIVITY MBq	16. mCi	17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
Non-Radioactive per DOT DAW/THERMAL 1 - 41 GAL FIBER	NA	NA	SOLID/METAL OXIDES	C-14 ; H-3	6.7713000000	(0.1830000000)	NA	5.20 ft³ 25.00000 lb	09-009764 (DAW-1)
Non-Radioactive per DOT DAW/THERMAL 1 - 41 GAL FIBER	NA	NA	SOLID/METAL OXIDES	C-14 ; I-125	0.1221000000	(0.0033000000)	NA	5.20 ft³ 25.00000 lb	09-009765 (DAW-2)
Non-Radioactive per DOT NON-HAZ LSV 1 - 41 GAL FIBER	NA	NA	LIQUID/OXIDES	C-14 ; H-3 ; I-125	11.2110000000	(0.3030000000)	NA	5.20 ft³ 50.00000 lb	09-009766 (LSV-3)
Non-Radioactive per DOT AQUEOUS LIQUID 1 - 30 GAL DRUM	NA	NA	LIQUID/OXIDES	C-14 ; I-125 ; P-32	37.8103000000	(1.0219000000)	NA	4.10 ft³ 60.00000 lb	09-009767 (LIQ-4)

FOR CONSIGNEE USE ONLY

20. Generator Certification Statement
A) Radioactive Materials. Certification is hereby made that this shipment of low-level radioactive waste has been prepared in accordance with a radioactive waste management program which has been approved by the Nuclear Regulatory Commission or an Agreement State regulatory agency and with the current revision of the site Material Acceptance Criteria.
B) Hazardous Materials. Generator hereby certifies that this material ___ does (not) ___ does not contain a hazardous waste as defined in 40 CFR 261.
C) Data. Generator hereby represents and warrants that all data set forth in this (UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST) are true and correct in all respects and in accordance with all applicable governmental laws, rules, regulations and site Radioactive Material License.
D) INFECTIOUS SUBSTANCE. Generator hereby certifies that this material does not contain an infectious substance as defined in 49 CFR 173.134.

A. Thomas DiCioccio (Print Name) — [signature] (Signature) — 6/1/09 (Date)

NRC Form 540 (7-2007) — Modified Date: 06/01/2009 11:44

JAN [illegible]

NRC FORM 541 (7-2007) — U.S. NUCLEAR REGULATORY COMMISSION

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION

Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste

1. MANIFEST TOTALS

NUMBER OF PACKAGES/ DISPOSAL CONTAINERS	NET WASTE VOLUME	NET WASTE WEIGHT	SPECIAL NUCLEAR MATERIAL (grams) U-233	U-235	Pu	TOTAL
4	m^3 0.55785 / ft^3 19.70600	kg 48.03054 / lb 106.00000	NP	NP	NP	NP

ACTIVITY (MBq/mCi) (LLD UNITS IN uCi/cc)

	ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE
MBq	65.9144000000	8.3020000000	46.6422000000	NP	NP	NP
mCi	1.5112000000	0.2260000000	1.2606000000	NP	NP	NP

2. MANIFEST NUMBER: 0374-060109IM

3. PAGE 1 OF 2 PAGE(S)

4. SHIPPER NAME: Phlotechnics @ Institute of Pharmaceutical D

SHIPMENT ID NUMBER: 0374-060109IM

DISPOSAL CONTAINER DESCRIPTION / **WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER**

5. CONTAINER IDENTIFICATION NUMBER/ TRANSPORT PERMIT NUMBER	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME m^3 / ft^3	8. WASTE AND CONTAINER WEIGHT kg / lb	9. SURFACE RADIATION LEVEL mSv/hr / mrem/hr	10. SURFACE CONTAMINATION MBq/100 cm^2 / dpm/100 cm^2 ALPHA	BETA-GAMMA	PHYSICAL DESCRIPTION 11. WASTE DESCRIPTOR * (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER m^3 / ft^3	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	15. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT RADIONUCLIDES	MBq	mCi	16. WASTE CLASSIFICATION AS - Class A Stable AU - Class A Unstable B - Class B C - Class C
09-009764 (DAW-1)	41 GAL FIBER	0.14725 / 5.20000	11.33975 / 25.00000	< 0.005 / < 0.5	< 0.000003674 / < 220	< 0.00003674 / < 2200	40	0.14725 / 5.20000	100	SOLID METAL OXIDES / NP	NP	C-14	0.2590000000	0.0070000000	AU
												H-3	6.5120000000	0.1760000000	
Origin: CT Institute of Pharamaceutical Discovery, LLC 23 Business Park Drive Branford, CT 06405												Sub Total	6.7710000000	0.1830000000	
Package Total													6.7710000000	0.1830000000	
09-009765 (DAW-2)	41 GAL FIBER	0.14725 / 5.20000	11.33975 / 25.00000	< 0.005 / < 0.5	< 0.000003674 / < 220	< 0.00003674 / < 2200	40	0.14725 / 5.20000	100	SOLID METAL OXIDES / NP	NP	C-14	0.0370000000	0.0010000000	AU
												I-125	0.0851000000	0.0023000000	
Origin: CT Institute of Pharamaceutical Discovery, LLC 23 Business Park Drive Branford, CT 06405												Sub Total	0.1221000000	0.0033000000	
Package Total													0.1221000000	0.0033000000	
09-009766 (LSV-3)	41 GAL FIBER	0.14725 / 5.20000	22.67950 / 50.00000	< 0.005 / < 0.5	< 0.000003674 / < 220	< 0.00003674 / < 2200	40	0.14725 / 5.20000	100	LIQUID OXIDES / NP	NP	C-14	9.3240000000	0.2520000000	AU
												H-3	1.8500000000	0.0500000000	
												I-125	0.0370000000	0.0010000000	
Origin: CT Institute of Pharamaceutical Discovery, LLC 23 Business Park Drive Branford, CT 06405												Sub Total	11.2110000000	0.3030000000	
Package Total													11.2110000000	0.3030000000	

# indicates Innerpack Container

NOTE 1: Container Description Codes. For containers/packs requiring disposal in approved structural overpacks, the numerical code must be followed by "-OP."

1. Wooden Box or Crate
2. Metal Box
3. Plastic Drum or Pail
4. Metal Drum or Pail
5. Metal Tank or Liner
6. Concrete Tank or Liner
7. Polyethylene Tank or Liner
8. Fiberglass Tank or Liner
9. Demineralizer
10. Gas Cylinder
11. Bulk, Unpacked Waste
12. Unpackaged Components
13. High Integrity Container
19. Other. Describe in Item 6, or additional page

NOTE 2: Waste Descriptor Codes. (Choose up to three which predominate by volume.)

20. Charcoal
21. Incinerator Ash
22. Soil
23. Gas
24. Oil
25. Aqueous Liquid
26. Filter Media
27. Mechanical Filter
28. EPA or State Hazardous
29. Demolition Rubble
30. Cation Ion-exchange Media
31. Anion Ion-exchange Media
32. Mixed Bed Ion-exchange Media
33. Contaminated Equipment
34. Organic Liquid (except oil)
35. Glassware or Labware
36. Sealed Source/Device
37. Paint or Plating
38. Evaporator Bottoms/Sludges/ Concentrates
39. Compactible Trash
40. Noncompactible Trash
41. Animal Carcass
42. Biological Material (except animal carcass)
43. Activated Material
59. Other. Describe in Item 11, or additional page

NOTE 3: Sorption, Solidification and Stabilization Media Codes. (Choose up to three which predominate by volume). For media meeting disposal site structural stability requirements, the numerical code must be followed by "-S". For all solidification media, the vendor and brand name must also be identified in Item 13. Code 100=None Required

Sorption

60. Speedi Dri
61. Celeton
62. Floor Dry/ Superlime
63. Hi Dri
64. Safe T Sorb
65. Safe N Dri
66. Floorco
67. Floorco X
68. Solid A Sorb

Solidification

69. Chemsil 30
70. Chemsil 50
71. Chemsil 3030
72. Dicaperl HP 200
73. Dicaperl HP500
74. Petroset
75. Petroset II
76. Aquaset
77. Aquaset II
89. Other. Describe in Item 13 or additional page.
90. Cement
91. Concrete (encapsulation)
92. Bitumen
93. Vinyl Chloride
94. Vinyl Ester Styrene
99. Other, Describe in Item 13, or additional page
100. None Required

NRC Form 541 (7-2007) * - Indicates Cross Contamination

NRC FORM 541A
(7-2007)

U.S. NUCLEAR REGULATORY COMMISSION

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

2. MANIFEST NUMBER: 0374-000109IM

3. PAGE 2 OF 2 PAGE(S)

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER							
							PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION		
5. CONTAINER IDENTIFICATION NUMBER/ TRANSPORT PERMIT NUMBER # - Innerpack Container	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME m^3 / ft^3	8. WASTE AND CONTAINER WEIGHT kg / lb	9. SURFACE RADIATION LEVEL mSv/hr / mrem/hr	10. SURFACE CONTAMINATION MBq/100 cm^2 / dpm/100 cm^2 ALPHA	BETA-GAMMA	11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER m^3 / ft^3	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT RADIONUCLIDES	MBq	mCi	16. WASTE CLASSIFICATION AS - Class A Stable AU - Class A Unstable B - Class B C - Class C
09-009767 (LIQ-4) Origin: CT Institute of Pharmaceutical Discovery, LLC 23 Business Park Drive Branford, CT 06405	4	0.11610 4.10000	27.21540 60.00000	< 0.005 < 0.5	< 0.000003674 < 220	< 0.00003674 < 2200	40	0.11610 4.10000	100	LIQUID OXIDES / NP	NP	C-14 I-125 P-32 Sub Total	37.0222000000 0.1221000000 0.6660000000 37.8103000000	1.0006000000 0.0033000000 0.0180000000 1.0219000000	AU
Package Total													37.8103000000	1.0219000000	
Shipment Total		0.55785 19.70000	72.57440 160.00000										55.9144000000	1.5112000000	

NRC Form 541A (7-2007) * - Indicates Cross Contamination

NRC FORM 542 (7-2007) U.S. NUCLEAR REGULATORY COMMISSION

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

MANIFEST INDEX AND REGIONAL COMPACT TABULATION

List all original "PROCESSED WASTE" generators (if any) before "COLLECTED WASTE" generators

1. WASTE COLLECTOR/PROCESSOR

NAME: Philotechnics @ Institute of Pharmaceutical Discovery, LLC

IDENTIFICATION NUMBER:

SHIPPER USE ONLY

SHIPPING DATE: 06/01/2009

2. MANIFEST NUMBER: 0374-0601091M

3. PAGE 1 OF 1 PAGE(S)

4. S.C. TRANSPORT PERMIT NUMBER	5. GENERATOR NAME AND TELEPHONE NUMBER	6. GENERATOR FACILITY ADDRESS	6A. WASTE DESCRIPTION (NOMENCLATURE)	7. PREPROCESSED WASTE (OR MATERIAL) VOLUME m³	7. PREPROCESSED WASTE (OR MATERIAL) VOLUME ft³	8. MANIFEST NUMBER(S) UNDER WHICH WASTE (OR MATERIAL) RECEIVED AND DATE OF RECEIPT	9. WASTE CODE P=PROCESSED C=COLLECTED	10. ORIGINATING COMPACT REGION OR STATE	11. AS PROCESSED/COLLECTED TOTAL A. SOURCE MATERIAL (kg)	A. SOURCE MATERIAL (lb)	B. SNM (g)	C. ACTIVITY MBq	C. ACTIVITY mCi	D. VOLUME m³	D. VOLUME ft³	E. WEIGHT (lb)	F. MAXIMUM PACKAGE RADIATION LEVEL (mrem/hr)
	Institute of Pharmaceutical Discovery, LLC (203) 315-5932	23 Business Park Drive Branford, CT 06405	AQUEOUS LIQUID DAW/THERMAL NON-HAZ LSV	0.55785	19.70000	Onsite Generation 06/01/2009	C	CT	NP	NP	NP	55.9144	1.5112	0.55785	19.70000	106.00000	<0.5
			TOTALS OF ALL PAGES (FORMS 542 AND 542A)						NP	NP	NP	55.9144000000	1.5112000000	0.55785	19.70000	106.00000	N/A

FORM 540 — EnergySolutions, Inc.

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
SHIPPING PAPER

1. EMERGENCY TELEPHONE NUMBER (Include Area Code): 800-424-9300	
ORGANIZATION: CHEMTREC	
2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? [ ] YES [X] NO	3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST ==========> 9
4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? [ ] YES [X] NO. If "Yes", provide Manifest Number ==========>	EPA MANIFEST NUMBER: N/A

5. SHIPPER - NAME AND FACILITY: Prilotechnics, Ltd @ Institute of Pharmaceutical Discovery, 23 Business Park Drive, Branford, CT 06405	SHIPMENT ID NUMBER: 0374-040108EN
	X COLLECTOR / PROCESSOR / GENERATOR TYPE (Specify)
USER PERMIT NUMBER	SHIPMENT NUMBER: 0374-040108EN
CONTACT: ~~David Doff~~ Bork Balkan	TELEPHONE NUMBER (Include Area Code): (203) 315-~~0914~~ 9994
6. CARRIER - Name and Address: R & R Trucking, 302 Thunder Road, Duenweg, MO 64841	Truck #: / Trailer #: / EPA I.D. NUMBER: MOR000501973 / SHIPPING DATE
CONTACT: Marion Singletary	TELEPHONE NUMBER (Include Area Code): 866-252-2784
SIGNATURE - Authorized carrier acknowledging waste receipt	DATE: 4-2-08

7. FORM 540 AND 540A — PAGE 1 OF 2 PAGE(S); FORM 541 AND 541A — 3 PAGE(S); FORM 542 AND 542A — 1 PAGE(S); ADDITIONAL INFORMATION — NONE PAGE(S)	8. MANIFEST NUMBER (Use this number on all continuation pages): 0374-040108EN
9. CONSIGNEE - Name and Facility Address: EnergySolutions, Inc., Operated By EnergySolutions, 1560 Bear Creek Road, Oak Ridge, TN 37830	CONTACT: Ed Kolski / TELEPHONE NUMBER (Include Area Code): (865) 220-1629
SIGNATURE - Authorized consignee acknowledging waste receipt: Brad Mell	DATE: 5-2-08

10. CERTIFICATION

This is to certify that the herein-named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This also certifies that the materials are classified, packaged, marked, and labeled and in proper condition for transportation and disposal in accordance with the requirements of 10 CFR Parts 20 and 61, or equivalent state regulation.

AUTHORIZED SIGNATURE: [signature] / TITLE: Operator / DATE: 4-2-08

11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL "RADIOACTIVE"	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIONUCLIDES	16. TOTAL PACKAGE ACTIVITY MBq	mCi	17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
Non-Radioactive per DOT DAW/THERMAL 1 - 41 GAL FIBER	NA	NA	SOLID/METAL OXIDES	H-3	5.4760000000	(0.1480000000)	NA	5.20 ft³ 50.00000 lb 46	08-005564 (DAW-1)
Non-Radioactive per DOT DAW/THERMAL 1 - 41 GAL FIBER	NA	NA	SOLID/METAL OXIDES	H-3	6.0660000000	(0.1640000000)	NA	5.20 ft³ 50.00000 lb 48	08-005565 (DAW-2)
Non-Radioactive per DOT DAW/THERMAL 1 - 41 GAL FIBER	NA	NA	SOLID/METAL OXIDES	C-14 ; H-3	4.6250000000	(0.1250000000)	NA	5.20 ft³ 50.00000 lb 48	08-005566 (DAW-3)
Non-Radioactive per DOT DAW/THERMAL 1 - 41 GAL FIBER	NA	NA	SOLID/METAL OXIDES	H-3	5.3280000000	(0.1440000000)	NA	5.20 ft³ 50.00000 lb 36	08-005567 (DAW-4)
Non-Radioactive per DOT NON-HAZ LSV 1 - 41 GAL FIBER	NA	NA	LIQUID/OXIDES	C-14	0.1850000000	(0.0050000000)	NA	5.20 ft³ 75.00000 lb 24	08-005568 (LSV-1)

FOR CONSIGNEE USE ONLY

Tennessee "License For Delivery" No. _____ Per BM 5-2-08

South Carolina Transport Permit No. _____

US Ecology Generator No. _____

US Ecology Permit No. _____

20. Generator Certification Statement

A) Radioactive Materials. Certification is hereby made that this shipment of low-level radioactive waste has been prepared in accordance with a radioactive waste management program which has been approved by the Nuclear Regulatory Commission or an Agreement State regulatory agency and with the current revision of the 10x Material Acceptance Criteria.
B) Hazardous Materials. Generator hereby certifies that this material does not contain a hazardous waste as defined in 40 CFR 261.
C) Data. Generator hereby represents and warrants that all data set forth in this (UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST) are true and correct in all respects and in accordance with all applicable governmental laws, rules, regulations and site Radioactive Material Licenses.
D) INFECTIOUS SUBSTANCE: Generator hereby certifies that this material does not contain an infectious substance as defined in 49CFR 173.134

Bork Balkan (Print Name) — [signature] (Signature) — 4/2/2008 (Date)

Form 540 (10-98) — Modified Date: 03/28/2008 13:32

FORM 540A

EnergySolutions, Inc.

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER (CONTINUATION)

8. MANIFEST NUMBER (Use this number on all continuation pages)
0374-040108EN

11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL "RADIOACTIVE"	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIONUCLIDES	16. TOTAL PACKAGE ACTIVITY MBq	mCi	17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
Non-Radioactive per DOT ANIMAL CARCASSES 1 - 41 GAL FIBER	NA	NA	SOLID/METAL OXIDES	H-3	1729.38000000	(46.740000000	NA	5.20 ft^3 60.00000 lb	08-005569 (BIO-1)
Non-Radioactive per DOT ANIMAL CARCASSES 1 - 41 GAL FIBER	NA	NA	SOLID/METAL OXIDES	H-3	1729.38000000	(46.740000000	NA	5.20 ft^3 60.00000 lb	08-005570 (BIO-2)
Non-Radioactive per DOT ANIMAL CARCASSES 1 - 41 GAL FIBER	NA	NA	SOLID/METAL OXIDES	H-3	1729.38000000	(46.740000000	NA	5.20 ft^3 60.00000 lb	08-005571 (BIO-3)

Modified Date: 04/02/2008 14:02

FORM 541 — EnergySolutions, Inc.

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION

Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste

1. MANIFEST TOTALS

NUMBER OF PACKAGES/ DISPOSAL CONTAINERS	NET WASTE VOLUME	NET WASTE WEIGHT	SPECIAL NUCLEAR MATERIAL (grams) U-233	U-235	Pu	TOTAL
8	m^3 1.17800 kg	177.35369	NP	NP	NP	NP
	ft^3 41.60000 lb	391.00000				

ACTIVITY (MBq/mCi) (LLD UNITS IN uCi/cc)

	ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE
MBq	5209.8220000000	5209.5630000000	0.2590000000	NP	NP	NP
mCi	140.8060000000	140.7990000000	0.0070000000	NP	NP	NP

2. MANIFEST NUMBER 0374-040108EN

3. PAGE 1 OF 2 PAGE(S)

4. SHIPPER NAME Philotechnics, Ltd @ Institute of Pharamaceutic

SHIPMENT ID NUMBER 0374-040108EN

DISPOSAL CONTAINER DESCRIPTION / **WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER**

5. CONTAINER IDENTIFICATION NUMBER/ GENERATOR NUMBER	6. CONTAINER DESCRIPTION (See Note 1) PROCESS REQUESTED (See Note 1A) BURIAL/DISPOSITION (See Note 2A)	7. VOLUME m^3 ft^3	8. WASTE AND CONTAINER WEIGHT kg lb	9. SURFACE RADIATION LEVEL mSv/hr mrem/hr	10. SURFACE CONTAMINATION MBq/100 cm^2 dpm/100 cm^2 ALPHA	BETA-GAMMA	11. WASTE DESCRIPTOR (See Note 2)	12. PHYSICAL DESCRIPTION APPROXIMATE WASTE VOLUME(S) IN CONTAINER m^3 ft^3	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	15. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT RADIONUCLIDES	MBq	mCi	16. WASTE CLASSIFICATION AS - Class A Stable AU - Class A Unstable B - Class B C - Class C
# - Innerpack Container															
08-005564 (DAW-1)	19 Other-Fiber Drum	0.14725	22.67950	< 5.0000E-03	< 3.6740E-06	< 3.6740E-05	40	0.14725	100	SOLID METAL OXIDES / NP	NP	H-3	5.4760000000	0.1480000000	AU
374	O - O	5.20000	50.00000	< 5.0000E-01	< 2.2000E+02	< 2.2000E+03		5.20000				Sub Total	5.4760000000	0.1480000000	
												Package Total	5.4760000000	0.1480000000	
08-005565 (DAW-2)	19 Other-Fiber Drum	0.14725	22.67950	< 5.0000E-03	< 3.6740E-06	< 3.6740E-05	40	0.14725	100	SOLID METAL OXIDES / NP	NP	H-3	6.0680000000	0.1640000000	AU
374	O - O	5.20000	50.00000	< 5.0000E-01	< 2.2000E+02	< 2.2000E+03		5.20000				Sub Total	6.0680000000	0.1640000000	
												Package Total	6.0680000000	0.1640000000	
08-005566 (DAW-3)	19 Other-Fiber Drum	0.14725	22.67950	< 5.0000E-03	< 3.6740E-06	< 3.6740E-05	40	0.14725	100	SOLID METAL OXIDES / NP	NP	C-14	0.0740000000	0.0020000000	AU
374	O - O	5.20000	50.00000	< 5.0000E-01	< 2.2000E+02	< 2.2000E+03		5.20000				H-3	4.5510000000	0.1230000000	
												Sub Total	4.6250000000	0.1250000000	
												Package Total	4.6250000000	0.1250000000	
08-005567 (DAW-4)	19 Other-Fiber Drum	0.14725	22.67950	< 5.0000E-03	< 3.6740E-06	< 3.6740E-05	40	0.14725	100	SOLID METAL OXIDES / NP	NP	H-3	5.3280000000	0.1440000000	AU
374	O - O	5.20000	50.00000	< 5.0000E-01	< 2.2000E+02	< 2.2000E+03		5.20000				Sub Total	5.3280000000	0.1440000000	
												Package Total	5.3280000000	0.1440000000	

NOTE 1: Container Description Codes. For containers/waste requiring disposal in approved structural overpacks, the numerical code must be followed by "-OP."

1. Wooden Box or Crate
2. Metal Box
3. Plastic Drum or Pail
4. Metal Drum or Pail
5. Metal Tank or Liner
6. Concrete Tank or Liner
7. Polyethylene Tank or Liner
8. Fiberglass Tank or Liner
9. Demineralizer
10. Gas Cylinder
11. Bulk, Unpacked Waste
12. Unpackaged Components
13. High Integrity Container
19. Other. Describe in Item 6, or additional page

NOTE 1A: Process Requested

C. Compaction
SR. Steam Reforming
DI. Direct Incineration
SI. Sort & Incinerate
D. Decon
G. Green Is Clean
M. Metal Melt
T. Trans-Ship
LI. Liquid for Incineration
OI. Oil for Incineration
O. Other (describe)

NOTE 2: Waste Descriptor Codes. (Choose up to three which predominate by volume.)

20. Charcoal
21. Incinerator Ash
22. Soil
23. Gas
24. Oil
25. Aqueous Liquid
26. Filter Media
27. Mechanical Filter
28. EPA or State Hazardous
29. Demolition Rubble
30. Cation Ion-exchange Media
31. Anion Ion-exchange Media
32. Mixed Bed Ion-exchange Media
33. Contaminated Equipment
34. Organic Liquid (except oil)
35. Glassware or Labware
36. Sealed Source/Device
37. Paint or Plating
38. Evaporator Bottoms/Sludges/ Concentrates
39. Compactible Trash
40. Noncompactible Trash
41. Animal Carcass
42. Biological Material (except animal carcass)
43. Activated Material
59. Other. Describe in Item 11, or additional page

NOTE 2A: Burial/Disposition Site

B Barnwell Waste Management Facility
E Envirocare
R Richland, WA
PR Process and Return
O Other

NOTE 3: Solidification and Stabilization Media Codes. (Choose up to three which predominate by volume.) For media meeting disposal site structral stability requirements, the numerical code must be followed by "-S" and the media vendor and brand name must also be identified in Item 13. Code 100=None Required

Solidification

90. Cement
91. Concrete (encapsulation)
97. Bitumen
93. Vinyl Chloride
94. Vinyl Ester Styrene
99. Other. Describe in Item 13, or additional page
100. None Required

* - Indicates Cross Contamination

FORM 541A

EnergySolutions, Inc.

2. MANIFEST NUMBER 0374-040108EN

3. PAGE 2 OF 2 PAGE(S)

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER							
5. CONTAINER IDENTIFICATION NUMBER/ GENERATOR NUMBER # - Innerpack Container	6. CONTAINER DESCRIPTION (See Note 1) PROCESS REQUESTED (See Note 1A) BURIAL/DISPOSITION (See Note 2A)	7. VOLUME m³ ft³	8. WASTE AND CONTAINER WEIGHT kg lb	9. SURFACE RADIATION LEVEL mSv/hr mrem/hr	10. SURFACE CONTAMINATION MBq/100 cm² dpm/100 cm² ALPHA	BETA-GAMMA	11. PHYSICAL DESCRIPTION WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER m³ ft³	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	15. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT RADIONUCLIDES	MBq	mCi	16. WASTE CLASSIFICATION A5 - Class A Stable AU - Class A Unstable B - Class B C - Class C
08-005568 (LSV-1)	19 Other-Fiber Drum	0.14725	34.01925	< 5.0000E-03	< 3.6740E-06	< 3.6740E-05	40	0.14725	100	LIQUID OXIDES / NP	NP	C-14	0.1850000000	0.0050000000	AU
374	O - O	5.20000	75.00000	< 5.0000E-01	< 2.2000E+02	< 2.2000E+03		5.20000				Sub Total	0.1850000000	0.0050000000	
												Package Total	0.1850000000	0.0050000000	
08-005569 (BIO-1)	19 Other-Fiber Drum	0.14725	27.21540	< 5.0000E-03	< 3.6740E-06	< 3.6740E-05	41	0.14725	100	SOLID METAL OXIDES / NP	NP	H-3	1729.3800000000	46.7400000000	AU
374	O - O	5.20000	60.00000	< 5.0000E-01	< 2.2000E+02	< 2.2000E+03		5.20000				Sub Total	1729.3800000000	46.7400000000	
												Package Total	1729.3800000000	46.7400000000	
08-005570 (BIO-2)	19 Other-Fiber Drum	0.14725	27.21540	< 5.0000E-03	< 3.6740E-06	< 3.6740E-05	41	0.14725	100	SOLID METAL OXIDES / NP	NP	H-3	1729.3800000000	46.7400000000	AU
374	O - O	5.20000	60.00000	< 5.0000E-01	< 2.2000E+02	< 2.2000E+03		5.20000				Sub Total	1729.3800000000	46.7400000000	
												Package Total	1729.3800000000	46.7400000000	
08-005571 (BIO-3)	19 Other-Fiber Drum	0.14725	27.21540	< 5.0000E-03	< 3.6740E-06	< 3.6740E-05	41	0.14725	100	SOLID METAL OXIDES / NP	NP	H-3	1729.3800000000	46.7400000000	AU
374	O - O	5.20000	60.00000	< 5.0000E-01	< 2.2000E+02	< 2.2000E+03		5.20000				Sub Total	1729.3800000000	46.7400000000	
												Package Total	1729.3800000000	46.7400000000	
Shipment Total		1.17600	206.38345										5209.8220000000	140.8060000000	
		41.60000	455.00000												

Form 541A (10-96) * - Indicates Cross Contamination

NRC FORM 542 (7-2001)

EnergySolutions, Inc.

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

MANIFEST INDEX AND REGIONAL COMPACT TABULATION

List all original "PROCESSED WASTE" generators (if any) before "COLLECTED WASTE" generators

1. WASTE COLLECTOR/PROCESSOR

NAME
Philotechnics, Ltd @ Institute of Pharamaceutical Discovery

IDENTIFICATION NUMBER
374

SHIPPING DATE
04/01/2008

SHIPPER USE ONLY

2. MANIFEST NUMBER
0374-040108EN

3. PAGE 1 OF 1 PAGE(S)

4. GENERATOR IDENTIFICATION NUMBER	5. GENERATOR NAME PERMIT NUMBER (IF APPLICABLE), AND TELEPHONE NUMBER	6. GENERATOR FACILITY ADDRESS	7. PREPROCESSED WASTE (OR MATERIAL) VOLUME m³	8. MANIFEST NUMBER(S) UNDER WHICH WASTE (OR MATERIAL) RECEIVED AND DATE OF RECEIPT	9. WASTE CODE P=PROCESSED C=COLLECTED	10. ORIGINATING COMPACT REGION OR STATE	11. AS PROCESSED/COLLECTED TOTAL A. SOURCE MATERIAL (kg)	B. SNM (g)	C. ACTIVITY MBq	D. VOLUME m³
374	Institute of Pharamaceutical Discovery EPA #: (203) 315-5932	23 Business Park Drive Branford, CT 06405	1.17800	Onsite Generation 03/28/2008	C	CT	NP	NP	5209.822	1.17800
				TOTALS OF ALL PAGES (FORMS 542 AND 542A)			NP	NP	5209.8220000000	1.17800

... the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FORM 540 — EnergySolutions, Inc.

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
SHIPPING PAPER

1. EMERGENCY TELEPHONE NUMBER (Include Area Code)
800-424-9300

ORGANIZATION
CHEMTREC

2. IS THIS AN "EXCLUSIVE USE" SHIPMENT?
[ ] YES
[X] NO

3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST ====> 6

4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? [ ] YES [X] NO
If "Yes", provide Manifest Number ====>

EPA MANIFEST NUMBER
N/A

5. SHIPPER - NAME AND FACILITY
Philotechnics, Ltd @ Institute of Pharmaceutical Discovery
23 Business Park Drive
Branford, CT 06405

USER PERMIT NUMBER

SHIPMENT NUMBER
0374-080607EN

CONTACT
David Dean

SHIPMENT ID NUMBER
0374-080607EN

[X] COLLECTOR
[ ] PROCESSOR

GENERATOR TYPE (Specify)

TELEPHONE NUMBER (Include Area Code)
(203) 315-5974

6. CARRIER - Name and Address
R & R Trucking
302 Thunder Road
Duenweg, MO 64841

Truck #:
Trailer #:

EPA I.D. NUMBER
MOR000501973

SHIPPING DATE
08/06/2007

CONTACT
Mitch Lunsford

TELEPHONE NUMBER (Include Area Code)
866-252-2784

SIGNATURE - Authorized carrier acknowledging waste receipt
[signature]

DATE
8-6-07

7.
FORM 540 AND 540A — PAGE 1 OF 1 PAGE(S)
FORM 541 AND 541A — NONE PAGE(S)
FORM 542 AND 542A — NONE PAGE(S)
ADDITIONAL INFORMATION — NONE PAGE(S)

8. MANIFEST NUMBER
(Use this number on all continuation pages)
0374-080607EN

9. CONSIGNEE - Name and Facility Address
EnergySolutions, Inc.
Operated By EnergySolutions
1560 Bear Creek Road
Oak Ridge, TN 37830

CONTACT
Ed Kolski

TELEPHONE NUMBER (Include Area Code)
(865) 220-1629

SIGNATURE - Authorized consignee acknowledging waste receipt
[signature]

DATE
8/17/07

T073284

10. CERTIFICATION
This is to certify that the herein-named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This also certifies that the materials are classified, packaged, marked, and labeled and in proper condition for transportation and disposal in accordance with the requirements of 10 CFR Parts 20 and 61, or equivalent state regulation.

AUTHORIZED SIGNATURE [signature] **TITLE** [signature] **DATE** 8-6-07

11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL "RADIOACTIVE"	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIONUCLIDES	16. TOTAL PACKAGE ACTIVITY MBq	16. TOTAL PACKAGE ACTIVITY mCi	17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
Non-Radioactive per DOT DAW/THERMAL	NA	NA	SOLID/METAL OXIDES	H-3	9.694000	(0.262000)	NA	5.20 ft³ 46.00000 lb	07-003064 (070806-A)
Non-Radioactive per DOT DAW/THERMAL	NA	NA	SOLID/METAL OXIDES	C-14	0.999000	(0.027000)	NA	5.20 ft³ 28.00000 lb	07-003065 (070806-B)
Non-Radioactive per DOT DAW/THERMAL	NA	NA	SOLID/METAL OXIDES	H-3	9.694000	(0.262000)	NA	5.20 ft³ 50.00000 lb	07-003066 (070806-C)
Non-Radioactive per DOT NON-HAZ LSV	NA	NA	LIQUID/OXIDES	C-14 ; H-3	19.943000	(0.539000)	NA	7.40 ft³ 76.00000 lb	07-003067 (070806-D)
Non-Radioactive per DOT ANIMAL CARCASSES	NA	NA	SOLID/METAL OXIDES	H-3	155.030000	(4.190000)	NA	5.20 ft³ 58.00000 lb	07-003068 (070806-E)
Non-Radioactive per DOT ANIMAL CARCASSES	NA	NA	SOLID/METAL OXIDES	H-3	155.030000	(4.190000)	NA	5.20 ft³ 58.00000 lb	07-003069 (070806-F)

FOR CONSIGNEE USE ONLY

Tennessee "License For Delivery" No. ____________

South Carolina Transport Permit No. ____________

US Ecology Generator No. ____________

US Ecology Permit No. ____________

[handwritten initials] 8/17

20. Generator Certification Statement

A) Radioactive Materials. Certification is hereby made that this shipment of low-level radioactive waste has been prepared in accordance with a radioactive waste management program which has been approved by the Nuclear Regulatory Commission or an Agreement State regulatory agency and with the current revision of the site Material Acceptance Criteria.
B) Hazardous Materials. Generator hereby certifies that this material does not contain a hazardous waste as defined in 40 CFR 261.
C) Data. Generator hereby represents and warrants that all data set forth in this (UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST) are true and correct in all respects and in accordance with all applicable governmental laws, rules, regulations and site Radioactive Material Licenses.
D) INFECTIOUS SUBSTANCE: Generator hereby certifies that this material does not contain an infectious substance as defined in 49CFR 173.134

David Dean — Print Name
[signature] — Signature
6 Aug 07 — Date

Form 540 (10-96)

Modified Date: 08/01/2007 16:04

FORM 541

EnergySolutions, Inc.

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION

Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste

1. MANIFEST TOTALS

NUMBER OF PACKAGES/ DISPOSAL CONTAINERS	NET WASTE VOLUME		NET WASTE WEIGHT	
6	m^3	0.94580	kg	101.60416
	ft^3	33.40000	lb	224.00000

SPECIAL NUCLEAR MATERIAL (grams)

U-233	U-235	Pu	TOTAL
NP	NP	NP	NP

ACTIVITY (MBq/mCi) (LLD UNITS IN uCi/cc)

	ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE
MBq	350.390000	348.836000	1.554000	NP	NP	NP
mCi	9.470000	9.428000	0.042000	NP	NP	NP

2. MANIFEST NUMBER: 0374-080607EN

3. PAGE 1 OF 2 PAGE(S)

4. SHIPPER NAME: Institute of Pharamaceutical Discovery

SHIPMENT ID NUMBER: 0374-080607EN

DISPOSAL CONTAINER DESCRIPTION / WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER

5. CONTAINER IDENTIFICATION NUMBER/ GENERATOR NUMBER	6. CONTAINER DESCRIPTION (See Note 1) PROCESS REQUESTED (See Note 1A) BURIAL/DISPOSITION (See Note 2A)	7. VOLUME m^3 / ft^3	8. WASTE AND CONTAINER WEIGHT kg / lb	9. SURFACE RADIATION LEVEL mSv/hr / mrem/hr	10. SURFACE CONTAMINATION MBq/100 cm^2 dpm/100 cm^2 ALPHA	BETA-GAMMA	11. WASTE DESCRIPTOR (See Note 2)	12. PHYSICAL DESCRIPTION APPROXIMATE WASTE VOLUME(S) IN CONTAINER m^3 / ft^3	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	15. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT RADIONUCLIDES	MBq	mCi	16. WASTE CLASSIFICATION AS - Class A Stable AU - Class A Unstable B - Class B C - Class C
# - Innerpack Container															
07-003064 (070806-A)	19 Other-Fiber Drum	0.14725	20.86514	< 5.0000E-03	< 3.6740E-06	< 3.6740E-05	40	0.14725	100	SOLID METAL OXIDES / NP	NP	H-3	9.694000	0.262000	AU
374	O - O	5.20000	46.00000	< 5.0000E-01	< 2.2000E+02	< 2.2000E+03		5.20000				Sub Total	9.694000	0.262000	
												Package Total	9.694000	0.262000	
07-003065 (070806-B)	19 Other-Fiber Drum	0.14725	12.70052	< 5.0000E-03	< 3.6740E-06	< 3.6740E-05	40	0.14725	100	SOLID METAL OXIDES / NP	NP	C-14	0.999000	0.027000	AU
374	O - O	5.20000	28.00000	< 5.0000E-01	< 2.2000E+02	< 2.2000E+03		5.20000				Sub Total	0.999000	0.027000	
												Package Total	0.999000	0.027000	
07-003066 (070806-C)	19 Other-Fiber Drum	0.14725	22.67950	< 5.0000E-03	< 3.6740E-06	< 3.6740E-05	40	0.14725	100	SOLID METAL OXIDES / NP	NP	H-3	9.694000	0.262000	AU
374	O - O	5.20000	50.00000	< 5.0000E-01	< 2.2000E+02	< 2.2000E+03		5.20000				Sub Total	9.694000	0.262000	
												Package Total	9.694000	0.262000	
07-003067 (070806-D)	4	0.20955	34.47284	< 5.0000E-03	< 3.6740E-06	< 3.6740E-05	40	0.20955	100	LIQUID OXIDES / NP	NP	C-14	0.555000	0.015000	AU
374	O - O	7.40000	76.00000	< 5.0000E-01	< 2.2000E+02	< 2.2000E+03		7.40000				H-3	19.388000	0.524000	
												Sub Total	19.943000	0.539000	
												Package Total	19.943000	0.539000	

NOTE 1: Container Description Codes. For containers/waste requiring disposal in approved structural overpacks, the numerical code must be followed by "-OP."

1. Wooden Box or Crate
2. Metal Box
3. Plastic Drum or Pail
4. Metal Drum or Pail
5. Metal Tank or Liner
6. Concrete Tank or Liner
7. Polyethylene Tank or Liner
8. Fiberglass Tank or Liner
9. Demineralizer
10. Gas Cylinder
11. Bulk, Unpacked Waste
12. Unpackaged Components
13. High Integrity Container
19. Other. Describe in Item 6, or additional page

NOTE 1A: Process Requested

C. Compaction
SR. Steam Reforming
DI. Direct Incineration
SI. Sort & Incinerate
D. Decon
G. Green Is Clean
M. Metal Melt
T. Trans-Ship
LI. Liquid for Incineration
OI. Oil for Incineration
O. Other (describe)

NOTE 2: Waste Descriptor Codes. (Choose up to three which predominate by volume.)

20. Charcoal
21. Incinerator Ash
22. Soil
23. Gas
24. Oil
25. Aqueous Liquid
26. Filter Media
27. Mechanical Filter
28. EPA or State Hazardous
29. Demolition Rubble
30. Cation Ion-exchange Media
31. Anion Ion-exchange Media
32. Mixed Bed Ion-exchange Media
33. Contaminated Equipment
34. Organic Liquid (except oil)
35. Glassware or Labware
36. Sealed Source/Device
37. Paint or Plating
38. Evaporator Bottoms/Sludges/ Concentrates
39. Compactible Trash
40. Noncompactible Trash
41. Animal Carcass
42. Biological Material (except animal carcass)
43. Activated Material
59. Other. Describe in Item 11, or additional page

NOTE 2A: Burial/Disposition Site

B Barnwell Waste Management Facility
E Envirocare
R Richland, WA
PR Process and Return
O Other

NOTE 3: Solidification and Stabilization Media Codes. (Choose up to three which predominate by volume.) For media meeting disposal site structral stability requirements, the numerical code must be followed by "-S" and the media vendor and brand name must also be identified in Item 13. Code 100=None Required

Solidification
90. Cement
91. Concrete (encapsulation)
92. Bitumen
93. Vinyl Chloride
94. Vinyl Ester Styrene
99. Other. Describe in Item 13, or additional page
100. None Required

* - Indicates Cross Contamination

FORM 541A

EnergySolutions, Inc.

2. MANIFEST NUMBER 0374-080607EN

3. PAGE 2 OF 2 PAGE(S)

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER							
							PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION		
5. CONTAINER IDENTIFICATION NUMBER/ GENERATOR NUMBER	6. CONTAINER DESCRIPTION (See Note 1) PROCESS REQUESTED (See Note 1A) BURIAL/DISPOSITION (See Note 2A)	7. VOLUME m^3 ft^3	8. WASTE AND CONTAINER WEIGHT kg lb	9. SURFACE RADIATION LEVEL mSv/hr mrem/hr	10. SURFACE CONTAMINATION MBq/100 cm^2 dpm/100 cm^2 ALPHA	BETA-GAMMA	11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER m^3 ft^3	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT			16. WASTE CLASSIFICATION AS - Class A Stable AU - Class A Unstable B - Class B C - Class C
# - Innerpack Container												RADIONUCLIDES	MBq	mCi	
07-003068 (070806-E)	19 Other-Fiber Drum	0.14725	26.30822	< 5.0000E-03	< 3.6740E-06	< 3.6740E-05	41	0.14725	100	SOLID METAL OXIDES / NP	NP	H-3	155.030000	4.190000	AU
374	O - O	5.20000	58.00000	< 5.0000E-01	< 2.2000E+02	< 2.2000E+03		5.20000							
												Sub Total	155.030000	4.190000	
												Package Total	155.030000	4.190000	
07-003069 (070806-F)	19 Other-Fiber Drum	0.14725	26.30822	< 5.0000E-03	< 3.6740E-06	< 3.6740E-05	41	0.14725	100	SOLID METAL OXIDES / NP	NP	H-3	155.030000	4.190000	AU
374	O - O	5.20000	58.00000	< 5.0000E-01	< 2.2000E+02	< 2.2000E+03		5.20000							
												Sub Total	155.030000	4.190000	
												Package Total	155.030000	4.190000	
Shipment Total		0.94580	143.33444										350.390000	9.470000	
		33.40000	316.00000												

Form 541A (10-96) * - Indicates Cross Contamination

Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

NRC FORM 542 (7-2001)

EnergySolutions, Inc.

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

MANIFEST INDEX AND REGIONAL COMPACT TABULATION

List all original "PROCESSED WASTE" generators (if any) before "COLLECTED WASTE" generators

1. WASTE COLLECTOR/PROCESSOR

NAME: Institute of Pharamaceutical Discovery

IDENTIFICATION NUMBER: 374

SHIPPING DATE: 08/06/2007

SHIPPER USE ONLY

2. MANIFEST NUMBER: 0374-080607EN

3. PAGE 1 OF 1 PAGE(S)

4. GENERATOR IDENTIFICATION NUMBER	5. GENERATOR NAME PERMIT NUMBER (IF APPLICABLE), AND TELEPHONE NUMBER	6. GENERATOR FACILITY ADDRESS	7. PREPROCESSED WASTE (OR MATERIAL) VOLUME m³	8. MANIFEST NUMBER(S) UNDER WHICH WASTE (OR MATERIAL) RECEIVED AND DATE OF RECEIPT	9. WASTE CODE P=PROCESSED C=COLLECTED	10. ORIGINATING COMPACT REGION OR STATE	11. AS PROCESSED/COLLECTED TOTAL A. SOURCE MATERIAL (kg)	B. SNM (g)	C. ACTIVITY MBq	D. VOLUME m³
374	Institute of Pharamaceutical Discovery EPA #: (203) 315-5974	23 Business Park Drive Branford, CT 06405	0.94580	Onsite Generation 08/01/2007	C	CT	NP	NP	350.39	0.94580
				TOTALS OF ALL PAGES (FORMS 542 AND 542A)			NP	NP	350.390000	0.94580

Copy

FORM 540 (8-98/ISIP) — Philotechnics, Ltd.

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER

1. EMERGENCY TELEPHONE NUMBER (Include Area Code)
800-424-9300
ORGANIZATION
CHEMTREC

2. IS THIS AN EXCLUSIVE USE SHIPMENT?
YES
X NO

3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST ====> 3

4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? YES X NO
If 'Yes' provide manifest Number ====>
EPA MANIFEST NUMBER
Not Applicable

5. SHIPPER – NAME AND FACILITY
Philotechnics @ Institute of Pharmaceutical Discovery
23 Business Park Drive
Branford, CT 06405

SHIPPER ID NUMBER
0374-042605Pe
X COLLECTOR
PROCESSOR

USER PERMIT NUMBER: NA
SHIPMENT NUMBER: 0374-042605Pe
GENERATOR TYPE Specify

CONTACT
David Dean
TELEPHONE NUMBER (Include Area Code)
203-315-5974

CARRIER – Name and Address
R & R Trucking
302 Thunder Road
Duenweg, MO, 64841

EPA I.D. NUMBER
NA

SHIPPING DATE
04/12/2005

CONTACT
Mitch Lunsford
TELEPHONE NUMBER (Include Area Code)
866-252-2784

SIGNATURE - Authorized carrier acknowledging receipt
Jason Magers
DATE
4-26-05

7. FORM 540 AND 540A — PAGE 1 OF 1 PAGES
FORM 541 AND 541A — 1 PAGES
FORM 542 AND 542A — 1 PAGES
ADDITIONAL INFORMATION — PAGES

8. MANIFEST NUMBER (Use this number on all continuation pages.)
0374-042605Pe

9. CONSIGNEE – Name and Facility Address
PeCos, LLC
2025 Battelle Blvd.
Richland, WA 99352

CONTACT
Larry Morin
TELEPHONE NUMBER (Include Area Code)
509-375-5160

SIGNATURE – *Authorized consignee acknowledging receipt*
DATE
5-25-05

10. CERTIFICATION
This is to certify that the herein named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This also certifies that the materials are classified, packaged, marked, and labeled and are in proper condition for transportation and disposal as described with the applicable requirements of 10 CFR Parts 20 and 61, or equivalent state regulations.
AUTHORIZED SIGNATURE: Jason Magers — TITLE: Broker — DATE: 4-26-05

11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Include proper shipping name, hazard class, UN ID number, and any other information)	12. DOT LABEL RADIOACTIVE	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIONUCLIDES	16. TOTAL PACKAGE MBq ACTIVITY	mCi	17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
Exempt Material -DOT Exempt Package, NA, NA -- Animal Carcass	NA	NA	Solid/Metal Oxides	H-3	1.44E+01	(3.90E-01)	NA	1.18E+01 kg 26.0 lbs	050425-A
Exempt Material -DOT Exempt Package, NA, NA -- Animal Carcass	NA	NA	Solid/Metal Oxides	H-3	1.44E+01	(3.90E-01)	NA	1.18E+01 kg 26.0 lbs	050425-B
Exempt Material -DOT Exempt Package, NA, NA -- Animal Carcass	NA	NA	Solid/Metal Oxides	H-3	3.22E+01	(8.70E-01)	NA	2.59E+01 kg 57.0 lbs	050425-C

20. GENERATOR CERTIFICATION STATEMENT

A) Radioactive Materials. Certification is hereby made to Philotechnics,Ltd. that this shipment of low-level radioactive material/waste has been prepared in accordance with a radioactive waste management program which has been approved by the NRC or an Agreement State regulatory agency and furthermore meets the criteria set forth in 49 CFR 173.443 concerning contamination controls on the external surfaces of the packages.

B) Data. Generator hereby represents and warrants that alldata set forth in this UNIFORM RADIOACTIVE WASTE MANIFEST are true and correct in all respects and in accordance with all applicable governmental laws, rules, regulations and the above mentioned processors Radioactive Material Licenses.

C) Hazardous Materials. Generator hereby certifies that this material does not contain a hazardous waste as defined in 40 CFR 261. ( ) N/A

D. INFECTIOUS SUBSTANCE: Generator hereby certifies that this material does not contain an infectious substance as defined in 49CFR 173.134.

Print Name	Signature	Date
David Dean	Dave Dean	26Apr05

Consolidate into 1-55 gal

FORM 541
(8-98/ISIP)

Consigned to: Philotechnics, Ltd.

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION

1. MANIFEST TOTALS

NUMBER OF PACKAGES/ DISPOSAL CONTAINERS	NET WASTE VOLUME	NET WASTE WEIGHT	SPECIAL NUCLEAR MATERIAL(grams) U-233	U-235	Pu	TOTAL
3	m³ 0.14	kg 49.44	NP	NP	NP	NP
	ft³ 4.800E+00	lb 1.090E+02				

ACTIVITY (MBq/mCi)	ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE
MBq	6.100E+01	6.100E+01	NP	NP	NP	kg NP
mCi	1.650E+00	1.650E+00	NP	NP	NP	lb NP

2. MANIFEST NUMBER
0374-M2605Pe

3. PAGE 1 OF 1 PAGE(S)

4. SHIPPER NAME
Philotechnics, Ltd.

SHIPPER ID NUMBER
0374042605Pe

DISPOSAL CONTAINER DESCRIPTION

5. CONTAINER IDENTIFICATION NUMBER/ TRANSPORT PERMIT NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME m³ / ft³	8. WASTE AND CONTAINER WEIGHT kg / lb	9. SURFACE RADIATION LEVEL mSv/hr / mrem/hr	10. SURFACE CONTAMINATION MBq/100 cm² / dpm/100 cm² ALPHA	BETA-GAMMA
050425-A 0374	19 FIBER DRUM	0.21	11.79	<1.00E-03	<3.33E-07	<1.67E-05
		7.50	26.0 #	<0.10	<20.00	<1.00E+03
050425-B 0374	19 FIBER DRUM	0.21	11.79	<1.00E-03	<3.33E-07	<1.67E-05
		7.50	26.0 #	<0.10	<20.00	<1.00E+03
050425-C 0374	19 FIBER DRUM	0.21	25.85	<1.00E-03	<3.33E-07	<1.67E-05
		7.50	57.0 #	<0.10	<20.00	<1.00E+03

WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER

PHYSICAL DESCRIPTION 11. WASTE DESCRIP-TOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER m³ / ft³	13. SORBENT SOLIDIFICATION, STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	15. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL;OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT RADIONUCLIDES	MBq	mCi	16. WASTE CLASSIFI-CATION AS-Class A Stable AU-Class A Unstable B-ClassB C-Class C
41 Process Animal Carcass	2.83E-02	100	Metal Oxides NP	NP	H-3	1.44E+01	3.90E-01	AU
					SubTotal	1.44E+01	3.90E-01	
	1.00E+00				Pkg Total	1.44E+01	3.90E-01	
41 Process Animal Carcass	5.10E-02	100	Metal Oxides NP	NP	H-3	1.44E+01	3.90E-01	AU
					SubTotal	1.44E+01	3.90E-01	
	1.80E+00				Pkg Total	1.44E+01	3.90E-01	
41 Process Animal Carcass	5.66E-02	100	Metal Oxides NP	NP	H-3	3.22E+01	8.70E-01	AU
					SubTotal	3.22E+01	8.70E-01	
	2.00E+00				Pkg Total	3.22E+01	8.70E-01	

NOTE 1: Container Description Codes. For containers/ waste requiring disposal in approved structural overpacks, the numerical code must be followed by "-OP."

1. Wooden Box or Crate
2. Metal Box
3. Plastic Drum or Pail
4. Metal Drum or Pail
5. Metal Tank or Liner
6. Concrete Tank or Liner
7. Polyethylene Tank or Liner
8. Fiberglass Tank or Liner
9. Demineralizer
10. Gas Cylinder
11. Bulk, Unpackaged Waste
12. Unpackaged Components
13. High Integrity Container
19. Other.Describe in item 6, or additional page

NOTE 2: Waste Descriptor Codes. Choose up to three which predominate by volume

20. Charcoal
21. Incinerator Ash
22. Soil
23. Gas
24. Oil
25. Aqueous Liquid
26. Filter Media
27. Mechanical Filter
28. EPA or State Hazardous
29. Demolition Rubble
30. Cation Ion-exchange Media
31. Anion Ion-exchange Media
32. Mixed Bed Ion-exchange Media
33. Contaminated Equipment
34. Organic Liquid, except Oil
35. Glassware or Labware
36. Sealed Source/Device
37. Paint or Plating
38. Evaporator Bottoms/Sludges/Concentrates
39. Compactible Trash
40. Noncompactible Trash
41. Animal Carcass
42. Biological Material (except animal carcass)
43. Activated Material
59. Other, Describe in Item 11, or additional page

Note 3: Sorption, Solidification, Stabilization Media Codes (Choose up to three which predominate by volume.) For media meeting disposal site structural stability requirements, the numerical code must be followed by "-S" and the media vendor and brand name must also be identified in Item 13. Code 100 = NONE REQUIRED

Sorption

60. Speed Dri
61. Celetom
62. Floor Dry Superfine
63. Hi DriGas
64. safe T Sorb
65. Safe N Dri
66. Florco
67. Florco X
68. Solid A Sorb
69. Chemsil 30
70. Chemsil 50
71. Chemsil 3030
72. Dicaperl HP200
73. Dicaperl HP500
74. Petroset
75. Petroset II
76. Aquaset
77. Aquaset II
89. Other. Describe in item13, or additional page

Solidification

90. Cement
91. Concrete (encapsulation)
92. Bitumen
93. Vinyl Chloride
94. Vinyl Ester Styrene
99. Other. Describe in item 13, or additional page
100. None Required

FORM 540 — Philotechnics

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER

1. EMERGENCY TELEPHONE NUMBER (Include Area Code): 800-424-9300

ORGANIZATION: CHEMTREC

2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? [ ] YES [X] NO

3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST =====> 1

4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? [ ] YES [X] NO
If "Yes," provide Manifest Number =====>

EPA MANIFEST NUMBER: 3038423

5. SHIPPER -- NAME AND FACILITY
Philotechnics @ Institute of Pharmaceutical Discovery
23 Business Park Drive
Branford, CT 06405

S.C PERMIT #: NA

SHIPMENT NUMBER: 0374-020304NSSI

CONTACT: David Dean

SHIPMENT I.D. NUMBER: 0374-020304NSSI

[X] COLLECTOR
[ ] PROCESSOR
GENERATOR TYPE (Specify)

TELEPHONE NUMBER (Include Area Code): 203-315-5974

6. CARRIER -- Name and Address
Hittman Transport
628 Gallaher Road
Kingston, TN 37763
Truck #:
Trailer #:

EPA I.D. NUMBER: TND987783065

SHIPPING DATE: 2/3/04

CONTACT: Stacy Brackett

TELEPHONE NUMBER (Include Area Code): 865-481-0222

SIGNATURE -- Authorized carrier acknowledging waste receipt: [signature] (RCT)

DATE: 2-3-04

7. FORM 540 AND 540A — PAGE 1 OF 1 PAGE(S)
FORM 541 AND 541A — 1 PAGE(S)
FORM 542 AND 542A — 1 PAGE(S)
ADDITIONAL INFORMATION — None PAGE(S)

8. MANIFEST NUMBER (Use this number on all continuation pages): 0374-020304NSSI

9. CONSIGNEE - Name and Facility Address
NSSI Recovery Services
5709 Etheridge Street
Houston, TX 77087

CONTACT: Bob Gallagher

TELEPHONE NUMBER (Include Area Code): 713-641-0391

SIGNATURE - Authorized consignee acknowledging waste receipt: [signature]

DATE: 2-18-04

10. CERTIFICATION

This is to certify that the herein-named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This also certifies that the materials are classified, packaged, marked, and labeled and are in proper condition for transportation and disposal as described in accordance with the requirements of 10 CFR Parts 20 and 61, or equivalent state regulations.

AUTHORIZED SIGNATURE: [signature]

TITLE: Sr. Broker

DATE: 2-3-04

11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information	12. DOT LABEL "RADIOACTIVE"	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIONUCLIDES			16. TOTAL PACKAGE ACTIVITY MBq	mCi	17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
Radioactive material, excepted package-limited quantity of material, 7, UN2910	NA	NA	Liquid Non-Haz Liquid Scint. Vials	C-14	H-3		2.5671E+00	6.9380E-02	NA	90. LBS; 7.5 FT3	040109-G

FOR CONSIGNEE USE ONLY

This is to inform the generator of the waste shipped on this manifest, that NSSI has the appropriate permits for, and will accept, the waste the generator is shipping.

20. GENERATOR CERTIFICATION STATEMENT

A) Radioactive Materials. Certification is hereby made to Philotechnics, Ltd. that this shipment of low-level radioactive material/waste has been prepared in accordance with a radioactive waste management program which has been approved by the NRC or an Agreement State regulatory agency and furthermore meets the criteria set forth in 49 CFR 173.443 concerning contamination controls on the external surfaces of the packages.

B) Data. Generator hereby represents and warrants that all data set forth in this UNIFORM RADIOACTIVE WASTE MANIFEST are true and correct in all respects and in accordance with all applicable governmental laws, rules, regulations and the above mentioned processors Radioactive Material Liscenses.

C) Hazardous Materials. Generator hereby certifies that this material does not contain a hazardous waste as defined in 40 CFR 261. ( ) N/A

David Dean — Print Name
[signature] — Signature
3Feb04 — Date

FORM 540 (10-96)

FORM 541 Philotechnics

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION

Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste

1. MANIFEST TOTALS

NUMBER OF PACKAGES/ DISPOSAL CONTAINERS	NET WASTE VOLUME	NET WASTE WEIGHT	SPECIAL NUCLEAR MATERIAL (grams) U-233	U-235	Pu	TOTAL
1	m3 0.2124 / ft3 7.5000	kg 40.8233 / lb 90.0000	NP	NP	NP	NP

ACTIVITY	ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE	
MBq	2.5671E+00	2.1682E+00	3.9886E-01	NP	NP	(kgs)	NA
mCi	6.9380E-02	5.8600E-02	1.0780E-02	NP	NP	(lbs)	NA

2. MANIFEST NUMBER 0374-020304NSSI

3. PAGE 1 OF 1 PAGE(S)

4. SHIPPER NAME Philotechnics @ Institute of Ph

SHIPMENT ID NUMBER 0374-020304NSSI

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER							
							PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION			16. WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C
5. CONTAINER IDENTIFICATION NUMBER / GENERATOR ID NUMBER	6. CONTAINER DESCRIPTION (See Note 1) PROCESS REQUESTED (See Note 1A) BURIAL/DISPOSITION (See Note 2A)	7. VOLUME (m3) (ft3)	8. WASTE AND CONTAINER WEIGHT (kg) (lb)	9. SURFACE RADIATION LEVEL mSv/hr mrem/hr	10. SURFACE CONTAMINATION MBq/100 cm2 dpm/100 cm2 ALPHA	BETA-GAMMA	11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3) (FT3)	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF>0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR TOTAL ACTIVITY AND RADIONUCLIDE PERCENT RADIONUCLIDES	MBq	mCi	
040109-G/0374	4	0.2124	40.8233	<5.0000E-03	<3.6740E-06	<3.6740E-05	59-LIQUID SCINTILLATION VIALS	0.2124	NA	Non-Haz Liquid Scint. Vials/NP	NP	C-14	3.9886E-01	1.0780E-02	AU
		7.5000	90.0000	<5.000E-01	<2.200E+02	<2.200E+03		7.5000				H-3	2.1682E+00	5.8600E-02	
												Subtotal	2.5671E+00	6.9380E-02	
												Total	2.5671E+00	6.9380E-02	
Shipment Totals		0.2124	40.8233										2.5671E+00	6.9380E-02	
		7.5000	90.0000												

NOTE 1: Container Description Codes. For containers/ waste requiring disposal in approved structural over-packs the numerical code must be followed by "-OP."

1. Wooden Box or Crate
2. Metal Box
3. Plastic Drum or Pail
4. Metal Drum or Pail
5. Metal Tank or Liner
6. Concrete Tank or Liner
7. Polyethlene Tank or Liner
8. Fiberglass Tank or Liner
9. Demineralizer
10. Gas Cylinder
11. Bulk, Unpackaged Waste
12. Unpackaged Components
13. High Integrity Container
19. Other. Describe in Item 6, or additional page.

Note 1A: Process Descriptors

NT/VR	Non Thermal / Volume Reduction
NT/SC	Non Thermal / Super Compaction
NT/DC	Non Thermal / Decontamination
NT/DCY	Non Thermal / Decay
NT/PT	Non Thermal / Pass THRU
NT/SR	Non Thermal / Survey & Release
NT/STB	Non Thermal / Stabilize
NT/FL	Non Thermal / Fill
NT/SAB	Non Thermal / Shred & Bail
T/SFG	Thermal / Saf-Glas
T/BPU	Thermal / Batch Processing Unit
T/VIT	Thermal / Vitrification Process

NOTE 2: Waste Descriptor Codes. (Choose up to three which predominate by volume.)

20. Charcoal
21. Incinerator Ash
22. Soil
23. Gas
24. Oil
25. Aqueous Liquid
26. Filter Media
27. Mechanical Filter
28. EPA or State Hazardous
29. Demolition Rubble
30. Cation Ion-exchange Media
31. Anion Ion-exchange Media
32. Mixed Bed Ion-exchange Media
33. Contaminated Equipment
34. Organic Liquid (except oil)
35. Glassware or Labware
36. Sealed Source/Device
37. Paint or Plating
38. Evaporator Bottoms/Sludges/ Concentrates
39. Compactible Trash
40. Noncompactible Trash
41. Animal Carcass
42. Biological Material (except animal carcass)
43. Activated Material
59. Other. Describe in item 11, or additional page

Note 2A: End Disposition Descriptors

BSC	Barnwell, SC
ECU	Envirocare, UT
USE	US Ecology, Richland WA
DOE	DOE, Hanford WA
RTG	Return to Generator
O	Other
NDV	No Disposal Volume
TBD	To be Determined
WCS	Waste Control Specialists, Texas
FR	Free Release

Note 3: Solidification and Stabilization Media Codes. (Choose up to three which predominate by volume. For media meeting disposal site structural stability requirements, the numerical code must be followed by "-S" and the media vendor and brand name must also be identified in Item 13. Code 100=NONE REQUIRED.

Solidification

90. Cement
91. Concrete (encapsulation)
92. Bitumen
93. Vinyl Chloride
94. Vinyl Ester Styrene
99. Other. Describe in Item 13, or additional page
100. None Required.

FORM 541 (10-96)

FORM 542 Philotechnics

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

MANIFEST INDEX AND REGIONAL COMPACT TABULATION

List all original "PROCESSED WASTE" generators (if any) before "COLLECTED WASTE" generators.

1. WASTE COLLECTOR/PROCESSOR

NAME: Philotechnics @ Institute of Pharmaceutical Discovery

IDENTIFICATION NUMBER: 0374

SHIPPER USE ONLY

SHIPPING DATE: 2/3/04

2. MANIFEST NUMBER: 0374-020304NSSI

3. PAGE 1 OF 1 PAGE(S)

4. GENERATOR IDENTIFICATION NUMBER	5. GENERATOR NAME PERMIT NUMBER (IF APPLICABLE) AND TELEPHONE NUMBER	6. GENERATOR FACILITY ADDRESS	7. PREPROCESSED WASTE (OR MATERIAL) VOLUME (m3)	(ft3)	8. MANIFEST NUMBER(S) UNDER WHICH WASTE (OR MATERIAL) RECEIVED AND DATE OF RECEIPT	9. WASTE CODE P = PROCESSED C = COLLECTED	10. ORIGINATING COMPACT REGION OR STATE	11. AS PROCESSED/COLLECTED TOTAL A. SOURCE MATERIAL (kg)	(lb)	B. SNM (g)	C. ACTIVITY (MBq)	(mCi)	D. VOLUME (m3)	(ft3)
0374 XXX	Philotechnics @ Institute of Pharmaceutical Discovery 203-315-5974	23 Business Park Drive Branford, CT 06405	0.2124	7.5008	0374-020304NSSI (02/03/2004)	C	CT	0.0000E+00	0.0000E+00	0.0000E+00	2.5671E+00	6.9380E-02	0.2124	7.5000
TOTALS OF ALL PAGES (FORMS 542 AND 542A)								0.0000E+00	0.0000E+00	0.0000E+00	2.5671E+00	6.9380E-02	0.2124	7.5000

Form 542 (10-96)

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

ISOTOPES REPORT

For Manifest # 0374-020304NSSI
Philotechnics

Isotope	Total Activity (MBq)	(mCi)
C-14	3.9886E-01	1.0780E-02
H-3	2.1682E+00	5.8600E-02

NSSI/SOURCES & SERVICES, INC.
P.O. BOX 34042 HOUSTON, TEXAS 77234
PH: (713) 641-0391 www.nssihouston.com FAX: (713) 641-6153

March 03, 2004

Attn: David Dean
The Institute of Pharmaceutical Discovery, LLC
23 Business Park Drive
Branford, CT 06405

Dear Mr. Dean:

I am returning the original copy of the manifest used for shipping hazardous wastes to our facility for treatment.

In compliance with 40 CFR 264.12(b), NSSI is permitted to receive your waste, has received your waste and will continue to receive future shipment of this waste.

Please retain the manifest in your files for possible review by Regulatory Agencies to show proper disposal.

Your use of NSSI/Recovery Services, Inc. for treatment is appreciated.

Sincerely,
Robert D. Gallagher

Robert D. Gallagher
President

RDG/vla
Ref. #manifest.frm

Cc : Andy Armbrust
Philotechnics
P.O. Box 4516
Oak Ridge, TN 37831-4516

AS COMMISSION ON
NVIRONMENTAL QUALITY
P.O. Box 13087
Austin, Texas 78711-3087

This is to inform the generator of the waste shipped on this manifest that [illegible] has the appropriate permits for, and will [illegible] the waste the generator is shipping.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No.

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
The Institute for Pharmaceutical Discovery, LLC
23 Business Park Drive
Branford, CT 06405
4. Generator's Phone (203) 315-5974

A. State Manifest Document Number: 3038423

B. State Generator's ID:

5. Transporter 1 Company Name: Hittman Transport

6. US EPA ID Number: TND 987783 065

C. State Transporter's ID:

D. Transporter's Phone: 865-481-0222

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address
NSSI
5709 Etheridge Street
Houston, TX 77087

10. US EPA ID Number: TXD 988 256 294

G. State Facility's ID: 38669

H. Facility's Phone: 713-641-0391

11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, ID Number and Packing Group)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
X	a. Radioactive Material, Excepted package - Limited quantity of material, 7, UN2910	001	DM	00090	P	NRY CMTS
	b.					
	c.					
	d.					

J. Additional Descriptions for Materials Listed Above
N.A. = NON-HAZ LSV
Reference NRC Manifest No 0374-020304 NSSI
Reference ERG No 161

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Emergency Response telephone No 800-424-9300 (Chemtrec)

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name	Signature	Month	Day	Year
David Dean	[signature]	02	03	04

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date: Month	Day	Year
Connie Stockton	[signature]	02	03	04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date: Month	Day	Year
Robert C Fitzgibbon	[signature]	02	16	04

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Date: Month	Day	Year
K. Foscon	[signature]	02	18	04

TCEQ-0311 (Rev. 09/01/02)

White - original Pink-TSD Facility Yellow-Transporter Green-Generator's first copy

FORM 540 — Philotechnics

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER

1 EMERGENCY TELEPHONE NUMBER (*Include Area Code*)
800-424-9300

ORGANIZATION
CHEMTREC

2. IS THIS AN "EXCLUSIVE USE" SHIPMENT?
[ ] YES
[X] NO

3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST ⟹ 6

4 DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT?
[ ] YES
[X] NO
If "Yes," provide Manifest Number ⟹

EPA MANIFEST NUMBER
NA

5 SHIPPER – NAME AND FACILITY
Philotechnics @ Institute of Pharmaceutical Discovery
23 Business Park Drive
Branford, CT 06405

SHIPMENT I.D. NUMBER
0374-020304Pec

[X] COLLECTOR
[ ] PROCESSOR
[ ] GENERATOR TYPE (*Specify*)

S.C PERMIT #
NA

SHIPMENT NUMBER
0374-020304Pec

CONTACT
David Dean

TELEPHONE NUMBER (Include Area Code)
203-315-5974

6. CARRIER – Name and Address
Hittman Transport
628 Gallaher Road
Kingston, TN 37763
Truck #.
Trailer #.

EPA I.D. NUMBER
TND987783065

SHIPPING DATE
2/3/04

CONTACT
Stacy Brackett

TELEPHONE NUMBER (Include Area Code)
865-481-0222

SIGNATURE -- *Authorized carrier acknowledging waste receipt* [signature]

DATE
2-3-04

7 FORM 540 AND 540A — PAGE 1 OF 1 PAGE(S)
FORM 541 AND 541A — 2 PAGE(S)
FORM 542 AND 542A — 1 PAGE(S)
ADDITIONAL INFORMATION — None PAGE(S)

8. MANIFEST NUMBER
(Use this number on all continuation pages)
0374-020304Pec

9 CONSIGNEE - Name and Facility Address
PeCos, LLC
2025 Battelle Blvd.
Richland, WA 99352

CONTACT
Larry Morin

TELEPHONE NUMBER (Include Area Code)
509-375-5160

SIGNATURE - *Authorized consignee acknowledging waste receipt* [signature]

DATE
2/23/04

10. CERTIFICATION

This is to certify that the herein-named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This also certifies that the materials are classified, packaged, marked, and labeled and are in proper condition for transportation and disposal as described in accordance with the requirements of 10 CFR Parts 20 and 61, or equivalent state regulations

AUTHORIZED SIGNATURE [signature]

TITLE
Sr. Broker

DATE
2-3-04

11 U.S DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information	12. DOT LABEL "RADIOACTIVE"	13 TRANSPORT INDEX	14 PHYSICAL AND CHEMICAL FORM	15 INDIVIDUAL RADIONUCLIDES		16. TOTAL PACKAGE ACTIVITY MBq	mCi	17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
Radioactive material, excepted package-limited quantity of material, 7, UN2910	NA	NA	Solid Metal Oxides/Pa,PI,GI-Incin.	C-14 H-3		1.3331E+01	3.6030E-01	NA	80. LBS; 7.5 FT3	040109-A
Radioactive material, excepted package-limited quantity of material, 7, UN2910	NA	NA	Solid Metal Oxides/Pa,PI,GI-Incin.	C-14 H-3		3.7770E+00	1.0208E-01	NA	80. LBS; 7.5 FT3	040109-B
Radioactive material, excepted package-limited quantity of material, 7, UN2910	NA	NA	Solid Metal Oxides/Animal Carc.I-Inc	H-3		2.4642E+01	6.6600E-01	NA	35. LBS; 2. FT3	040109-C
Radioactive material, excepted package-limited quantity of material, 7, UN2910	NA	NA	Solid Metal Oxides/Animal Carc.I-Inc	H-3		2.4642E+01	6.6600E-01	NA	35. LBS; 2. FT3	040109-D
Radioactive material, excepted package-limited quantity of material, 7, UN2910	NA	NA	Solid Metal Oxides/Animal Carc.I-Inc	H-3		2.4642E+01	6.6600E-01	NA	35. LBS; 2. FT3	040109-E
Radioactive material, excepted package-limited quantity of material, 7, UN2910	NA	NA	Solid Metal Oxides/Animal Carc.I-Inc	C-14 H-3		1.7463E+02	4.7198E+00	NA	12. LBS; 2. FT3	040109-F

FOR CONSIGNEE USE ONLY
LLR04-013

20. 20. GENERATOR CERTIFICATION STATEMENT

A) Radioactive Materials Certification is hereby made to Philotechnics, Ltd. that this shipment of low-level radioactive material/waste has been prepared in accordance with a radioactive waste management program which has been approved by the NRC or an Agreement State regulatory agency and furthermore meets the criteria set forth in 49 CFR 173.443 concerning contamination controls on the external surfaces of the packages.

B) Data. Generator hereby represents and warrants that all data set forth in this UNIFORM RADIOACTIVE WASTE MANIFEST are true and correct in all respects and in accordance with all applicable governmental laws, rules, regulations and the above mentioned processors Radioactive Material Liscenses.

C) Hazardous Materials. Generator hereby certifies that this material does not contain a hazardous waste as defined in 40 CFR 261 ( ) N/A

David Dean — Print Name
[signature] — Signature
3Feb04 — Date

FORM 540 (10-96)

[redacted]

cc

FORM 540 Philotechnics

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER

1. EMERGENCY TELEPHONE NUMBER (Include Area Code)
865-806-7991

ORGANIZATION
Philotechnics

2. IS THIS AN "EXCLUSIVE USE" SHIPMENT?
[ ] YES
[X] NO

3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST =====> 1

4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? If "Yes," provide Manifest Number =====>
[ ] YES
[X] NO
EPA MANIFEST NUMBER
NA

5. SHIPPER -- NAME AND FACILITY
Philotechnics @ Institute of Pharmaceutical Discovery
23 Business Park Drive
Branford, CT 06405

S.C.PERMIT #
NA

SHIPMENT NUMBER
0374-102802NSSI

CONTACT
David Dean

6. CARRIER -- Name and Address
Hittman Transport
628 Gallaher Road
Kingston, TN 37763
Truck #:
Trailer #:

CONTACT
Stacy Brackett

SIGNATURE -- *Authorized carrier acknowledging waste receipt*
[signature]

SHIPMENT I.D. NUMBER
0374-102802NSSI

[X] COLLECTOR
[ ] PROCESSOR
[ ] GENERATOR TYPE *(Specify)*

TELEPHONE NUMBER (Include Area Code)
203-315-5974

EPA I.D. NUMBER
TND987783065

SHIPPING DATE
~~10/28/02~~ 11-4-02

TELEPHONE NUMBER (Include Area Code)
865-481-0222

DATE
11-4-02

7. FORM 540 AND 540A PAGE 1 OF 1 PAGE(S)
FORM 541 AND 541A 1 PAGE(S)
FORM 542 AND 542A 1 PAGE(S)
ADDITIONAL INFORMATION None PAGE(S)

9. CONSIGNEE - Name and Facility Address
NSSI Recovery Services, Inc.
5709 Etheridge Road
Houston, TX 77087

SIGNATURE - *Authorized consignee acknowledging waste receipt*

10. CERTIFICATION
This is to certify that the herein-named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This also certifies that the materials are classified, packaged, marked, and labeled and are in proper condition for transportation and disposal as described in accordance with the requirements of 10 CFR Parts 20 and 61, or equivalent state regulations.

AUTHORIZED SIGNATURE [signature]

TITLE Sr. Project Tech

DATE 11-4-02

8. MANIFEST NUMBER (Use this number on all continuation pages)
0374-102802NSSI

CONTACT
Bob Gallagher

TELEPHONE NUMBER (Include Area Code)
713-641-0391

DATE

11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL "RADIOACTIVE"	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIONUCLIDES			16. TOTAL PACKAGE ACTIVITY MBq	mCi	17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
Radioactive material, excepted package-limited quantity of material, 7, UN2910	NA	NA	Solid Metal Oxides/Non-Haz LSV	C-14	H-3		1.2950E+01	3.5000E-01	NA	100. LBS; 7.5 FT3	02-1104B

FOR CONSIGNEE USE ONLY

20. 20. GENERATOR CERTIFICATION STATEMENT

A) Radioactive Materials. Certification is hereby made to Philotechnics, Ltd. that this shipment of low-level radioactive material/waste has been prepared in accordance with a radioactive waste management program which has been approved by the NRC or an Agreement State regulatory agency and with the current revision of the Philotechnics, Ltd. Waste Acceptance Criteria.

B) Data. Generator hereby represents and warrants that all data set forth in this UNIFORM RADIOACTIVE WASTE MANIFEST are true and correct in all respects and in accordance with all applicable governmental laws, rules, regulations and the above mentioned processors Radioactive Material Liscenses.

C) Hazardous Materials. Generator hereby certifies that this material does not contain a hazardous waste as defined in 40 CFR 261. ( ) N/A

David Dean (Print Name) [signature] (Signature) 4 Nov 02 (Date)

FORM 540 (10-96)

Philotechnics

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION

Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste

1. MANIFEST TOTALS

NUMBER OF PACKAGES/ DISPOSAL CONTAINERS	NET WASTE VOLUME		NET WASTE WEIGHT		SPECIAL NUCLEAR MATERIAL (grams) U-233	U-235	Pu	TOTAL
1	m3	0.2124	kg	45.3592	NP	NP	NP	NP
	ft3	7.5000	lb	100.0000				

ACTIVITY	ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE	
MBq	1.2950E+01	2.8490E+00	1.0101E+01	NP	NP	(kgs)	NA
mCi	3.5000E-01	7.7000E-02	2.7300E-01	NP	NP	(lbs)	NA

2. MANIFEST NUMBER: 0374-102802NSSI

3. PAGE 1 OF 1 PAGE(S)

4. SHIPPER NAME: Philotechnics @ Institute of Ph

SHIPMENT ID NUMBER: 0374-102802NSSI

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER							
							PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION			16. WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C
5. CONTAINER IDENTIFICATION NUMBER / GENERATOR ID NUMBER	6. CONTAINER DESCRIPTION (See Note 1) PROCESS REQUESTED (See Note 1A) BURIAL/DISPOSITION (See Note 2A)	7. VOLUME (m3) (ft3)	8. WASTE AND CONTAINER WEIGHT (kg) (lb)	9. SURFACE RADIATION LEVEL mSv/hr mrem/hr	10. SURFACE CONTAMINATION MBq/100 cm2 dpm/100 cm2 ALPHA	BETA-GAMMA	11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3) (FT3)	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF>0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR TOTAL ACTIVITY AND RADIONUCLIDE PERCENT RADIONUCLIDES	MBq	mCi	
02-1104B/0374	4	0.2124	45.3592	<5.0000E-03	<3.6740E-06	<3.6740E-05	59-LIQUID SCINTILLATION VIALS (NON-RCRA)	0.2124	NA	Metal Oxides/Non-Haz LSV/NP	NP	C-14	1.0101E+01	2.7300E-01	AU
		7.5000	100.0000	<5.000E-01	<2.200E+02	<2.200E+03		7.5000				H-3	2.8490E+00	7.7000E-02	
												Subtotal	1.2950E+01	3.5000E-01	
												Total	1.2950E+01	3.5000E-01	
Shipment Totals		0.2124	45.3592										1.2950E+01	3.5000E-01	
		7.5000	100.0000												

NOTE 1: Container Description Codes. For containers/ waste requiring disposal in approved structural over-packs the numerical code must be followed by "-OP."

1. Wooden Box or Crate
2. Metal Box
3. Plastic Drum or Pail
4. Metal Drum or Pail
5. Metal Tank or Liner
6. Concrete Tank or Liner
7. Polyethlene Tank or Liner
8. Fiberglass Tank or Liner
9. Demineralizer
10. Gas Cylinder
11. Bulk, Unpackaged Waste
12. Unpackaged Components
13. High Integrity Container
19. Other. Describe in Item 6, or additional page.

Note 1A: Process Descriptors

NT/VR	Non Thermal / Volume Reduction
NT/SC	Non Thermal / Super Compaction
NT/DC	Non Thermal / Decontamination
NT/DCY	Non Thermal / Decay
NT/PT	Non Thermal / Pass THRU
NT/SR	Non Thermal / Survey & Release
NT/STB	Non Thermal / Stabilize
NT/FL	Non Thermal / Fill
NT/SAB	Non Thermal / Shred & Bail
T/SFG	Thermal / Saf-Glas
T/BPU	Thermal / Batch Processing Unit
T/VIT	Thermal / Vitrification Process

NOTE 2: Waste Descriptor Codes. (Choose up to three which predominate by volume.)

20. Charcoal
21. Incinerator Ash
22. Soil
23. Gas
24. Oil
25. Aqueous Liquid
26. Filter Media
27. Mechanical Filter
28. EPA or State Hazardous
29. Demolition Rubble
30. Cation Ion-exchange Media
31. Anion Ion-exchange Media
32. Mixed Bed Ion-exchange Media
33. Contaminated Equipment
34. Organic Liquid (except oil)
35. Glassware or Labware
36. Sealed Source/Device
37. Paint or Plating
38. Evaporator Bottoms/Sludges/ Concentrates
39. Compactible Trash
40. Noncompactible Trash
41. Animal Carcass
42. Biological Material (except animal carcass)
43. Activated Material
59. Other. Describe in Item 11, or additional page

Note 2A: End Disposition Descriptors

BSC	Barnwell, SC
ECU	Envirocare, UT
USE	US Ecology, Richland WA
DOE	DOE, Hanford WA
RTG	Return to Generator
O	Other
NDV	No Disposal Volume
TBD	To be Determined
WCS	Waste Control Specialists, Texas
FR	Free Release

Note 3: Solidification and Stabilization Media Codes. (Choose up to three which predominate by volume. For media meeting disposal site structural stability requirements, the numerical code must be followed by "-S" and the media vendor and brand name must also be identified in Item 13. Code 100=NONE REQUIRED.

Solidification

90. Cement
91. Concrete (encapsulation)
92. Bitumen
93. Vinyl Chloride
94. Vinyl Ester Styrene
99. Other. Describe in Item 13, or additional page
100. None Required.

FORM 541 (10-96)

Philotechnics

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION

Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste

1. MANIFEST TOTALS

NUMBER OF PACKAGES/ DISPOSAL CONTAINERS	NET WASTE VOLUME		NET WASTE WEIGHT		SPECIAL NUCLEAR MATERIAL (grams) U-233	U-235	Pu	TOTAL
1	m3	0.2124	kg	45.3592	NP	NP	NP	NP
	ft3	7.5000	lb	100.0000				

ACTIVITY	ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE	
MBq	1.2950E+01	2.8490E+00	1.0101E+01	NP	NP	(kgs)	NA
mCi	3.5000E-01	7.7000E-02	2.7300E-01	NP	NP	(lbs)	NA

2. MANIFEST NUMBER: 0374-102802NSSI

3. PAGE 1 OF 1 PAGE(S)

4. SHIPPER NAME: Philotechnics @ Institute of Ph

SHIPMENT ID NUMBER: 0374-102802NSSI

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER						16. WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C
							PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION	
5. CONTAINER IDENTIFICATION NUMBER / GENERATOR ID NUMBER	6. CONTAINER DESCRIPTION (See Note 1) PROCESS REQUESTED (See Note 1A) BURIAL/DISPOSITION (See Note 2A)	7. VOLUME (m3) (ft3)	8. WASTE AND CONTAINER WEIGHT (kg) (lb)	9. SURFACE RADIATION LEVEL mSv/hr mrem/hr	10. SURFACE CONTAMINATION MBq/100 cm2 dpm/100 cm2 ALPHA	BETA-GAMMA	11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3) (FT3)	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF>0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR TOTAL ACTIVITY AND RADIONUCLIDE PERCENT		
												RADIONUCLIDES	MBq	mCi	
02-1104B/0374	4	0.2124	45.3592	<5.0000E-03	<3.6740E-06	<3.6740E-05	59-LIQUID SCINTILLATION VIALS (NON-RCRA)	0.2124	NA	Metal Oxides/Non-Haz LSV/NP	NP	C-14	1.0101E+01	2.7300E-01	AU
												H-3	2.8490E+00	7.7000E-02	
		7.5000	100.0000	<5.000E-01	<2.200E+02	<2.200E+03		7.5000				Subtotal	1.2950E+01	3.5000E-01	
												Total	1.2950E+01	3.5000E-01	
Shipment Totals		0.2124	45.3592										1.2950E+01	3.5000E-01	
		7.5000	100.0000												

NOTE 1: Container Description Codes. For containers/ waste requiring disposal in approved structural over-packs the numerical code must be followed by "-OP."

1. Wooden Box or Crate
2. Metal Box
3. Plastic Drum or Pail
4. Metal Drum or Pail
5. Metal Tank or Liner
6. Concrete Tank or Liner
7. Polyethlene Tank or Liner
8. Fiberglass Tank or Liner
9. Demineralizer
10. Gas Cylinder
11. Bulk, Unpackaged Waste
12. Unpackaged Components
13. High Integrity Container
19. Other. Describe in Item 6, or additional page.

Note 1A: Process Descriptors

NT/VR	Non Thermal / Volume Reduction
NT/SC	Non Thermal / Super Compaction
NT/DC	Non Thermal / Decontamination
NT/DCY	Non Thermal / Decay
NT/PT	Non Thermal / Pass THRU
NT/SR	Non Thermal / Survey & Release
NT/STB	Non Thermal / Stabilize
NT/FL	Non Thermal / Fill
NT/SAB	Non Thermal / Shred & Bail
T/SFG	Thermal / Saf-Glas
T/BPU	Thermal / Batch Processing Unit
T/VIT	Thermal / Vitrification Process

NOTE 2: Waste Descriptor Codes. (Choose up to three which predominate by volume.)

20. Charcoal
21. Incinerator Ash
22. Soil
23. Gas
24. Oil
25. Aqueous Liquid
26. Filter Media
27. Mechanical Filter
28. EPA or State Hazardous
29. Demolition Rubble
30. Cation Ion-exchange Media
31. Anion Ion-exchange Media
32. Mixed Bed Ion-exchange Media
33. Contaminated Equipment
34. Organic Liquid (except oil)
35. Glassware or Labware
36. Sealed Source/Device
37. Paint or Plating
38. Evaporator Bottoms/Sludges/ Concentrates
39. Compactible Trash
40. Noncompactible Trash
41. Animal Carcass
42. Biological Material (except animal carcass)
43. Activated Material
59. Other. Describe in item 11, or additional page

Note 2A: End Disposition Descriptors

BSC	Barnwell, SC
ECU	Envirocare, UT
USE	US Ecology, Richland WA
DOE	DOE, Hanford WA
RTG	Return to Generator
O	Other
NDV	No Disposal Volume
TBD	To be Determined
WCS	Waste Control Specialists, Texas
FR	Free Release

Note 3: Solidification and Stabilization Media Codes. (Choose up to three which predominate by volume. For media meeting disposal site structural stability requirements, the numerical code must be followed by "-S" and the media vendor and brand name must also be identified in Item 13. Code 100=NONE REQUIRED.

Solidification

90. Cement
91. Concrete (encapsulation)
92. Bitumen
93. Vinyl Chloride
94. Vinyl Ester Styrene
99. Other. Describe in item 13, or additional page
100. None Required.

542 Philotechnics

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

MANIFEST INDEX AND REGIONAL COMPACT TABULATION

List all original "PROCESSED WASTE" generators (if any) before "COLLECTED WASTE" generators.

1. WASTE COLLECTOR/PROCESSOR

NAME: Philotechnics @ Institute of Pharmaceutical Discovery

IDENTIFICATION NUMBER: 0374

SHIPPING DATE: 10/28/02

SHIPPER USE ONLY

2. MANIFEST NUMBER: 0374-102802NSSI

3. PAGE 1 OF 1 PAGE(S)

4. GENERATOR IDENTIFICATION NUMBER	5. GENERATOR NAME PERMIT NUMBER (IF APPLICABLE) AND TELEPHONE NUMBER	6. GENERATOR FACILITY ADDRESS	7. PREPROCESSED WASTE (OR MATERIAL) VOLUME (m3)	(ft3)	8. MANIFEST NUMBER(S) UNDER WHICH WASTE (OR MATERIAL) RECEIVED AND DATE OF RECEIPT	9. WASTE CODE P = PROCESSED C = COLLECTED	10. ORIGINATING COMPACT REGION OR STATE	11. AS PROCESSED/COLLECTED TOTAL A. SOURCE MATERIAL (kg)	(lb)	B. SNM (g)	C. ACTIVITY (MBq)	(mCi)	D. VOLUME (m3)	(ft3)
0374 101	Philotechnics @ Institute of Pharmaceutical Discovery 203-315-5974	23 Business Park Drive Branford, CT 06405	0.2124	7.5008	0374-102802NSSI (10/28/2002)	C	CT	0.0000E+00	0.0000E+00	0.0000E+00	1.2950E+01	3.5000E-01	0.2124	7.5000
TOTALS OF ALL PAGES (FORMS 542 AND 542A)								0.0000E+00	0.0000E+00	0.0000E+00	1.2950E+01	3.5000E-01	0.2124	7.5000

Form 542 (10-96)

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION
P.O. Box 13087
Austin, Texas 78711-3087

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. . . . . Manifest Document No. 77024

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Institute of Pharmaceutical Discovery
23 Business Park Drive
Branford, CT 06405

4. Generator's Phone (203) 315-5771

A. State Manifest Document Number 02849259

B. State Generator's ID 99929

5. Transporter 1 Company Name: U. Pilot Transport

6. US EPA ID Number: T.N.D.9.8.7.7.2.3.0.1.5

C. State Transporter's ID

D. Transporter's Phone 865-376-8107

7. Transporter 2 Company Name

8. US EPA ID Number . . . . . .

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
NRC
5746 Eldridge Street
Houston, Tx 77027

10. US EPA ID Number: T.X.D.9.8.2.5.6.0.2.9.4

G. State Facility's ID 3769

H. Facility's Phone 713-641-0391

11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, ID Number and Packing Group)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
X	a. Radioactive Material, excepted package - limited quantity of material, 7, UN2910	0 0 1	DM	0 0 1 0 0	P	NRN
	b.					
	c.					
	d.					

J. Additional Descriptions for Materials Listed Above
a = NON-HAZARDOUS LSA
Reference NRC Manifest # 0374. ID2502 N551
Reference ERG # 162

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Emergency Response Phone # 615-594-7991

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name	Signature	Month	Day	Year
David Dean	D. Dean	11	04	02

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials — Date

Printed/Typed Name	Signature	Month	Day	Year
Ronnie Stockton	Ronnie Stockton	11	04	02

18. Transporter 2 Acknowledgement of Receipt of Materials — Date

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. — Date

Printed/Typed Name	Signature	Month	Day	Year

TNRCC-0311 (Rev. 07/01/97)

White - original Pink-TSD Facility Yellow-Transporter Green-Generator's first copy

[redacted]

FORM 540 — Philotechnics

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER

1. EMERGENCY TELEPHONE NUMBER (Include Area Code): 865-806-7991

ORGANIZATION: Philotechnics

2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? [ ] YES [X] NO

3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST =====> 2

4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? [ ] YES [X] NO
If "Yes," provide Manifest Number =====> NA

EPA MANIFEST NUMBER: NA

5. SHIPPER -- NAME AND FACILITY
Philotechnics @ Institute of Pharmaceutical Discovery
23 Business Park Drive
Branford, CT 06405

S.C.PERMIT #: NA

SHIPMENT NUMBER: 0374-102802DTK

CONTACT: David Dean

TELEPHONE NUMBER (Include Area Code): 203-315-5974

6. CARRIER -- Name and Address
Hittman Transport
628 Gallaher Road
Kingston, TN 37763
Truck #:
Trailer #:

CONTACT: Stacy Brackett

TELEPHONE NUMBER (Include Area Code): 865-481-0222

SIGNATURE -- Authorized carrier acknowledging waste receipt: Stacy Brackett

DATE: 11-4-02

SHIPMENT I.D. NUMBER: 0374-102802DTK

[X] COLLECTOR
[ ] PROCESSOR
[ ] GENERATOR TYPE (Specify)

EPA I.D. NUMBER: TND987783065

SHIPPING DATE: ~~10/28/02~~ 11-4-02

7. FORM 540 AND 540A — PAGE 1 OF 1 PAGE(S)
FORM 541 AND 541A — 1 PAGE(S)
FORM 542 AND 542A — 1 PAGE(S)
ADDITIONAL INFORMATION — None PAGE(S)

8. MANIFEST NUMBER (Use this number on all continuation pages): 0374-102802DTK

9. CONSIGNEE - Name and Facility Address
Duratek, Inc.
1560 Bear Creek Rd.
Oak Ridge, TN 37831

CONTACT: Transportation Mgr.

TELEPHONE NUMBER (Include Area Code): 865-525-5091

SIGNATURE - Authorized consignee acknowledging waste receipt:

DATE:

10. CERTIFICATION

This is to certify that the herein-named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This also certifies that the materials are classified, packaged, marked, and labeled and are in proper condition for transportation and disposal as described in accordance with the requirements of 10 CFR Parts 20 and 61, or equivalent state regulations.

AUTHORIZED SIGNATURE: Stacy Brackett — TITLE: Sr. Broker Tech — DATE: 11-4-02

11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL "RADIOACTIVE"	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIONUCLIDES	16. TOTAL PACKAGE ACTIVITY MBq	mCi	17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
Radioactive material, excepted package-limited quantity of material, 7, UN2910	NA	NA	Solid Metal Oxides/Pa,Pl,Gl-Incin.	C-14 H-3	7.2520E+00	1.9600E-01	NA	70. LBS; 7.5 FT3	02-1104A
Radioactive material, excepted package-limited quantity of material, 7, UN2910	NA	NA	Solid Metal Oxides/Animal Car.-Incin	H-3	2.5678E+01	6.9400E-01	NA	37. LBS; 1.5 FT3	02-1104C

FOR CONSIGNEE USE ONLY

20. 20. GENERATOR CERTIFICATION STATEMENT

A) Radioactive Materials. Certification is hereby made to Philotechnics, Ltd. that this shipment of low-level radioactive material/waste has been prepared in accordance with a radioactive waste management program which has been approved by the NRC or an Agreement State regulatory agency and with the current revision of the Philotechnics, Ltd. Waste Acceptance Criteria.

B) Data. Generator hereby represents and warrants that all data set forth in this UNIFORM RADIOACTIVE WASTE MANIFEST are true and correct in all respects and in accordance with all applicable governmental laws, rules, regulations and the above mentioned processors Radioactive Material Liscenses.

C) Hazardous Materials. Generator hereby certifies that this material does not contain a hazardous waste as defined in 40 CFR 261. ( ) N/A

David Dean (Print Name) — David Dean (Signature) — 4 NOV 02 (Date)

FORM 540 (10-96)

Philotechnics

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION

Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste

1. MANIFEST TOTALS

NUMBER OF PACKAGES/ DISPOSAL CONTAINERS	NET WASTE VOLUME	NET WASTE WEIGHT	SPECIAL NUCLEAR MATERIAL (grams) U-233	U-235	Pu	TOTAL
2	m3 0.2549	kg 48.5344	NP	NP	NP	NP
	ft3 9.0000	lb 107.0000				

ACTIVITY	ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE	
MBq	3.2930E+01	3.1006E+01	1.9240E+00	NP	NP	(kgs)	NA
mCi	8.9000E-01	8.3800E-01	5.2000E-02	NP	NP	(lbs)	NA

2. MANIFEST NUMBER: 0374-102802DTK

3. PAGE 1 OF 1 PAGE(S)

4. SHIPPER NAME: Philotechnics @ Institute of Ph

SHIPMENT ID NUMBER: 0374-102802DTK

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER							16 WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C
							PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION		
5. CONTAINER IDENTIFICATION NUMBER / GENERATOR ID NUMBER	6. CONTAINER DESCRIPTION (See Note 1) PROCESS REQUESTED (See Note 1A) BURIAL/DISPOSITION (See Note 2A)	7. VOLUME (m3) (ft3)	8. WASTE AND CONTAINER WEIGHT (kg) (lb)	9. SURFACE RADIATION LEVEL mSv/hr mrem/hr	10. SURFACE CONTAMINATION MBq/100 cm2 dpm/100 cm2 ALPHA	BETA-GAMMA	11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3) (FT3)	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF>0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR TOTAL ACTIVITY AND RADIONUCLIDE PERCENT RADIONUCLIDES	MBq	mCi	
02-1104A/0374	19 FIBER CONTAINER	0.2124	31.7515	<5.0000E-03	<3.6740E-06	<3.6740E-05	59-PAPER, PLASTIC,GLASS	0.2124	NA	Metal Oxides/Pa,Pi,GI-Incln./NP	NP	C-14	1.9240E+00	5.2000E-02	AU
												H-3	5.3280E+00	1.4400E-01	
		7.5000	70.0000	<5.000E-01	<2.200E+02	<2.200E+03		7.5000				Subtotal	7.2520E+00	1.9600E-01	
												Total	7.2520E+00	1.9600E-01	
02-1104C/0374	19 FIBER CONTAINER	0.0425	16.7829	<5.0000E-03	<3.6740E-06	<3.6740E-05	41	0.0425	NA	Metal Oxides/Animal Car.-Incln/NP	NP	H-3	2.5678E+01	6.9400E-01	AU
		1.5000	37.0000	<5.000E-01	<2.200E+02	<2.200E+03		1.5000				Subtotal	2.5678E+01	6.9400E-01	
												Total	2.5678E+01	6.9400E-01	
Shipment Totals		0.2549	48.5344										3.2930E+01	8.9000E-01	
		9.0000	107.0000												

NOTE 1: Container Description Codes. For containers/ waste requiring disposal in approved structural over-packs the numerical code must be followed by "-OP."

1. Wooden Box or Crate
2. Metal Box
3. Plastic Drum or Pail
4. Metal Drum or Pail
5. Metal Tank or Liner
6. Concrete Tank or Liner
7. Polyethlene Tank or Liner
8. Fiberglass Tank or Liner
9. Demineralizer
10. Gas Cylinder
11. Bulk, Unpackaged Waste
12. Unpackaged Components
13. High Integrity Container
19. Other. Describe in item 6, or additional page.

Note 1A: Process Descriptors

NT/VR	Non Thermal / Volume Reduction
NT/SC	Non Thermal / Super Compaction
NT/DC	Non Thermal / Decontamination
NT/DCY	Non Thermal / Decay
NT/PT	Non Thermal / Pass THRU
NT/SR	Non Thermal / Survey & Release
NT/STB	Non Thermal / Stabilize
NT/FL	Non Thermal / Fill
NT/SAB	Non Thermal / Shred & Bail
T/SFG	Thermal / Saf-Glas
T/BPU	Thermal / Batch Processing Unit
T/VIT	Thermal / Vitrification Process

NOTE 2: Waste Descriptor Codes. (Choose up to three which predominate by volume.)

20. Charcoal
21. Incinerator Ash
22. Soil
23. Gas
24. Oil
25. Aqueous Liquid
26. Filter Media
27. Mechanical Filter
28. EPA or State Hazardous
29. Demolition Rubble
30. Cation Ion-exchange Media
31. Anion Ion-exchange Media
32. Mixed Bed Ion-exchange Media
33. Contaminated Equipment
34. Organic Liquid (except oil)
35. Glassware or Labware
36. Sealed Source/Device
37. Paint or Plating
38. Evaporator Bottoms/Sludges/ Concentrates
39. Compactible Trash
40. Noncompactible Trash
41. Animal Carcass
42. Biological Material (except animal carcass)
43. Activated Material
59. Other. Describe in item 11, or additional page

Note 2A: End Disposition Descriptors

BSC	Barnwell, SC
ECU	Envirocare, UT
USE	US Ecology, Richland WA
DOE	DOE, Hanford WA
RTG	Return to Generator
O	Other
NDV	No Disposal Volume
TBD	To be Determined
WCS	Waste Control Specialists, Texas
FR	Free Release

Note 3: Solidification and Stabilization Media Codes. (Choose up to three which predominate by volume. For media meeting disposal site structural stability requirements, the numerical code must be followed by "-S" and the media vendor and brand name must also be identified in item 13. Code 100=NONE REQUIRED.

Solidification

90. Cement
91. Concrete (encapsulation)
92. Bitumen
93. Vinyl Chloride
94. Vinyl Ester Styrene
99. Other. Describe in item 13, or additional page
100. None Required.

FORM 541 (10-96)

542 Philotechnics

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

MANIFEST INDEX AND REGIONAL COMPACT TABULATION

List all original "PROCESSED WASTE" generators (if any) before "COLLECTED WASTE" generators.

1. WASTE COLLECTOR/PROCESSOR

NAME: Philotechnics @ Institute of Pharmaceutical Discovery

IDENTIFICATION NUMBER: 0374

SHIPPING DATE: 10/28/02

SHIPPER USE ONLY

2. MANIFEST NUMBER: 0374-102802DTK

3. PAGE 1 OF 1 PAGE(S)

4. GENERATOR IDENTIFICATION NUMBER	5. GENERATOR NAME PERMIT NUMBER (IF APPLICABLE) AND TELEPHONE NUMBER	6. GENERATOR FACILITY ADDRESS	7. PREPROCESSED WASTE (OR MATERIAL) VOLUME (m3)	(ft3)	8. MANIFEST NUMBER(S) UNDER WHICH WASTE (OR MATERIAL) RECEIVED AND DATE OF RECEIPT	9. WASTE CODE P = PROCESSED C = COLLECTED	10. ORIGINATING COMPACT REGION OR STATE	11. AS PROCESSED/COLLECTED TOTAL A. SOURCE MATERIAL (kg)	(lb)	B. SNM (g)	C. ACTIVITY (MBq)	(mCi)	D. VOLUME (m3)	(ft3)
0374 41	Philotechnics @ Institute of Pharmaceutical Discovery 203-315-5974	23 Business Park Drive Branford, CT 06405	0.2549	9.0041	0374-102802DTK (10/28/2002)	C	CT	0.0000E+00	0.0000E+00	0.0000E+00	3.2930E+01	8.9000E-01	0.2549	9.0000
60														
TOTALS OF ALL PAGES (FORMS 542 AND 542A)								0.0000E+00	0.0000E+00	0.0000E+00	3.2930E+01	8.9000E-01	0.2549	9.0000

Form 542 (10-96)