

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
SAMPLE COLLECTION LOG

Project Number 2008012.103

Sample Number: <u>Floor Drains</u> <u>FD-1 Through FD11</u>	Site Name: <u>DORF</u>	Date: <u>9/15/09</u>	Time: <u>0800-1200</u>	Page: <u>1 of 2</u>
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Preservative: <u>None</u>	Grid Dimensions: <u>N/A</u> Units (circle): meters inches feet centimeters
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Sample No.	Sampled by (Initials)	Date/Time	Sample Description (media, depth)	Sample Type (grab, composite)	Container Type	Sample Location
FD-1	<u>AS</u>	<u>9/15/09 0830</u>	<u>Dbr 15'-0-1'</u>	<u>Grab</u>	<u>Ziploc Bag</u>	<u>See Attached Map For Location</u>
FD-2	<u>AS</u>	<u>0900</u>				
FD-3	<u>AS</u>	<u>0915</u>				
FD-4	<u>AS</u>	<u>0930</u>				
FD-5	<u>AS</u>	<u>0940</u>				
FD-6	<u>AS</u>	<u>1000</u>				
FD-7	<u>AS</u>	<u>1015</u>				
FD-8	<u>AS</u>	<u>1015</u>				
FD-9	<u>AS</u>	<u>1030</u>				
FD-10	<u>AS</u>	<u>1100</u>				

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Notes: Collected samples from floor drains in Bldg. 516, at locations FD1 through FD-11. Sample material was not recovered from locations FD12 through FD-16. Samples were collected w/clean stainless steel scoops or spoons. Each drain had ~ 1.5" dia. opening. A gas flow proportional detector, Ludlum Model 2221 #86330 w/43-94 probe (0.5" OD, length of 6") was inserted into each opening. Background was 100 cpm, no detectable counts > bkgd. were noted at any of the floor drain locations. Smears were collected in each drain & forwarded for LSC analysis.

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
SAMPLE COLLECTION LOG

Project Number 2008012.103

Sample Number: <u>Floor Drains</u> <u>FD-11</u>	Site Name: <u>DORF</u>	Date: <u>9/15/09</u>	Time: <u>0800-1200</u>	Page: <u>2 of 2</u>
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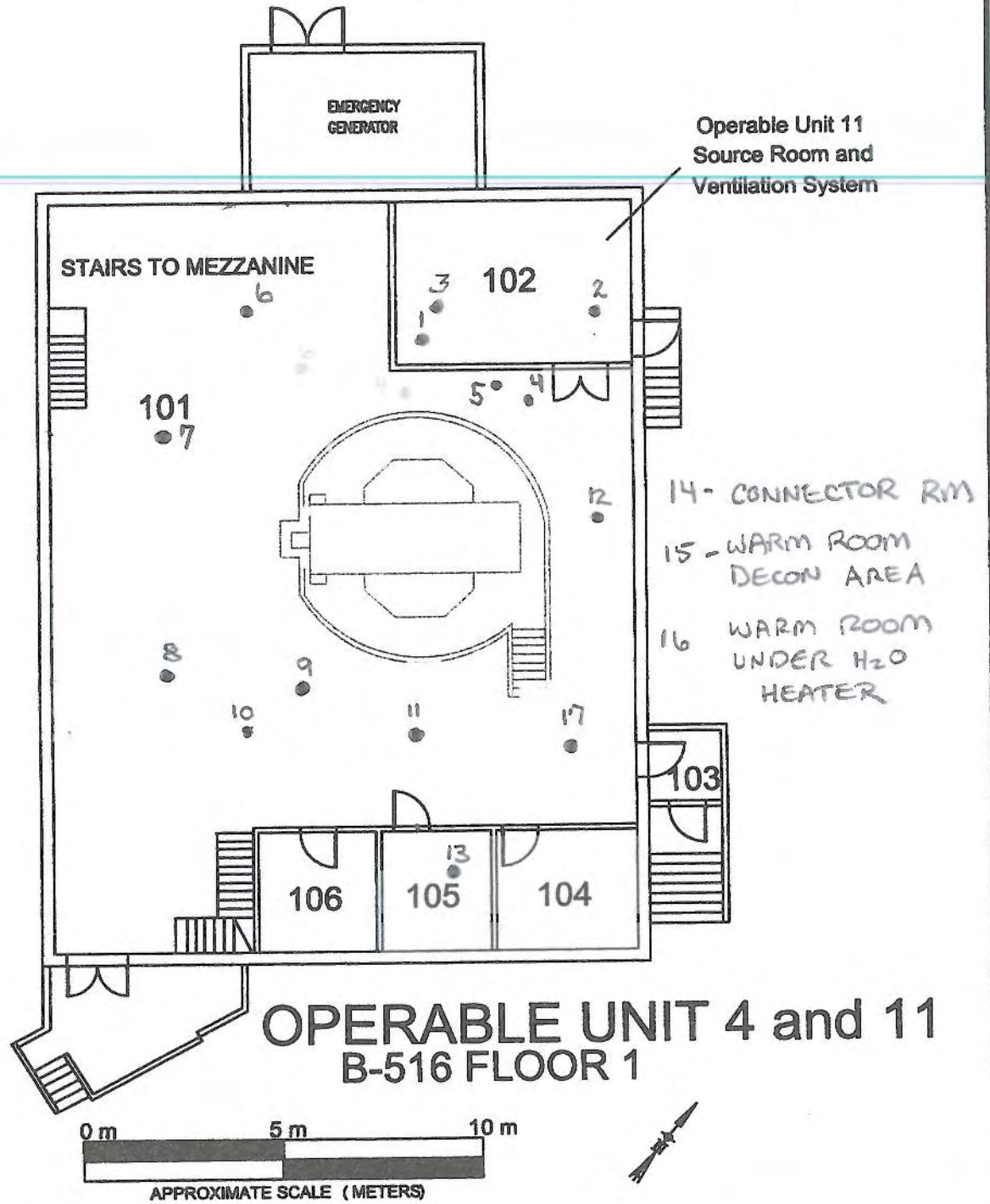
Preservative: <u>None</u>	Grid Dimensions: _____ <u>NA</u> Units (circle): meters inches feet centimeters
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Sample No.	Sampled by (initials)	Date/Time	Sample Description (media, depth)	Sample Type (grab, composite)	Container Type	Sample Location
FD-11	PTD	9/15/09 1130	Debris/0-1'	Grab	ziploc bag	See Attached Map

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Notes:

FLOOR DRAIN SURVEY POINTS



Map 8-1

Operable Unit 4 and 11
B-516 Floor 1 Plan



IEM

Integrated Environmental Management, Inc.

LEGEND



Double Door



Door



Stairs



Former
Reactor Vessel

Diamond Ordnance Radiation
Facility At Walter Reed Army
Medical Center
Forest Glen Annex
Silver Spring, Maryland



US Army Corps
of Engineers
Baltimore District

FLOOR DRAIN SAMPLE LOCATIONS AND RESULTS

SAMPLE DESIGNATION	TYPE	SAMPLE COORDINATES	SMEAR RESULTS		SCAN RESULTS ABOVE BKG
			ALPHA	BETA	
FD 1	FLOOR DRAIN	MECHANICAL ROOM N140 X E220	1	45	< 100 CPM
FD2	FLOOR DRAIN	MECHANICAL ROOM N107 X E36	0	55	< 100 CPM
FD3	FLOOR DRAIN	MECHANICAL ROOM N107 X E200	0	68	< 100 CPM
FD4	FLOOR DRAIN	ROOM 101 N38 X E97	0	65	< 100 CPM
FD5	FLOOR DRAIN	ROOM 101 N16 X E125	0	59	< 100 CPM
FD6	FLOOR DRAIN	ROOM 101 N105 X E143	0	90	< 100 CPM
FD7	FLOOR DRAIN	ROOM 101 N215 X W110	0	43	< 100 CPM
FD8	FLOOR DRAIN	ROOM 101 S269 X W109	0	52	< 100 CPM
FD9	FLOOR DRAIN	ROOM 101 S267 X W253	0	56	< 100 CPM
FD10	FLOOR DRAIN	ROOM 101 S220 X W195	0	56	< 100 CPM
FD11	FLOOR DRAIN	ROOM 101 S217 X E212	1	66	< 100 CPM
FD12	FLOOR DRAIN	ROOM 101 N144 X E36	0	59	< 100 CPM
FD 13	FLOOR DRAIN	REST ROOM	0	56	< 100 CPM
FD 14	FLOOR DRAIN	CONNECTOR ROOM	0	69	< 100 CPM
FD 15	FLOOR DRAIN	WARM ROOM DECON AREA	0	71	< 100 CPM
FD 16	FLOOR DRAIN	WARM ROOM H20 HEATER	1	58	< 100 CPM
FD17	FLOOR DRAIN	ROOM 101 S218 X E54	0	66	< 100 CPM

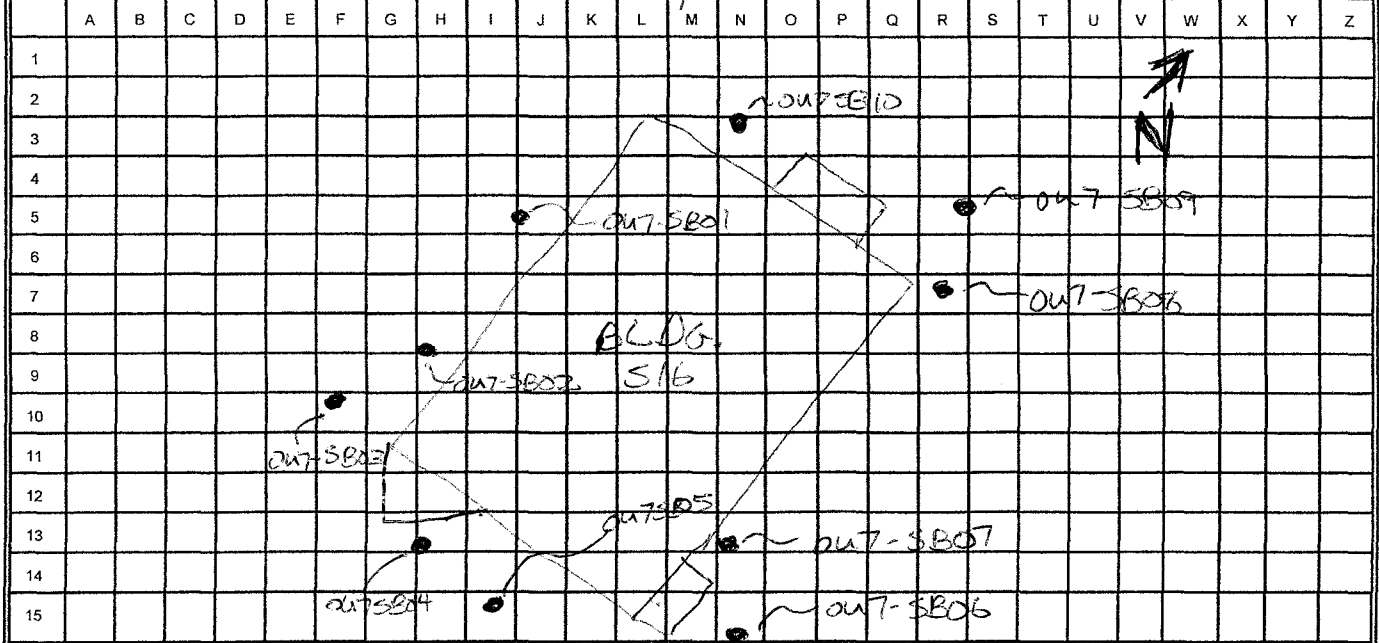
INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
SAMPLE COLLECTION LOG

Project Number 2008012.103

Sample Number: <u>OUT-SB01 through OUT-SB10, GeoProbe cores adjacent to Bldg. 516</u>	Site Name: <u>DORF</u>	Date: <u>9/17 - 9/22/09</u>	Time: <u>Various</u>	Page: <u>1 of 1</u>
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Preservative: <u>None</u>	Grid Dimensions: <u>10' x 17'</u> Units (circle): meters inches feet centimeters
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Sample No.	Sampled by (initials)	Date/Time	Sample Description (media, depth)	Sample Type (grab, composite)	Container Type	Sample Location
OUT-SB01	RM	9/17/09 0930	Soil / 18'-20'	Grab	Ziploc Bag	W side of 516
OUT-SB02	RM	9/17/09 1130	Soil / 18'-20'			W side of 516
OUT-SB03	RM	9/17/09 1430	Soil / 18'-20'			SW corner
OUT-SB04	RM	9/18/09 0930	Soil / 22'-24'			S side of 516
OUT-SB05	RM	9/21/09 0845	Soil / 22'-24'			S side of 516
OUT-SB06	RM	9/21/09 1200	Soil / 22'-24'			SE corner
OUT-SB07	RM	9/21/09 1340	Soil / 22'-24'			E side of 516
OUT-SB08	RM	9/21/09 1530	Soil / 22'-24'			NE corner
OUT-SB09	RM	9/22/09 0900	Soil / 22'-24'			N side of 516
OUT-SB10	RM	9/22/09 1130	Soil / 21'-23'	Grab	Grab	N side of 516



Notes: Collected 2" diameter geoprobe macrocores at 10 locations adjacent to Bldg. 516. Scanned each core section w/a Bicon Micropen & a Ludlum 44-g pancake GM detector. None of the gamma scans or contamination scans indicated any readings > background values.

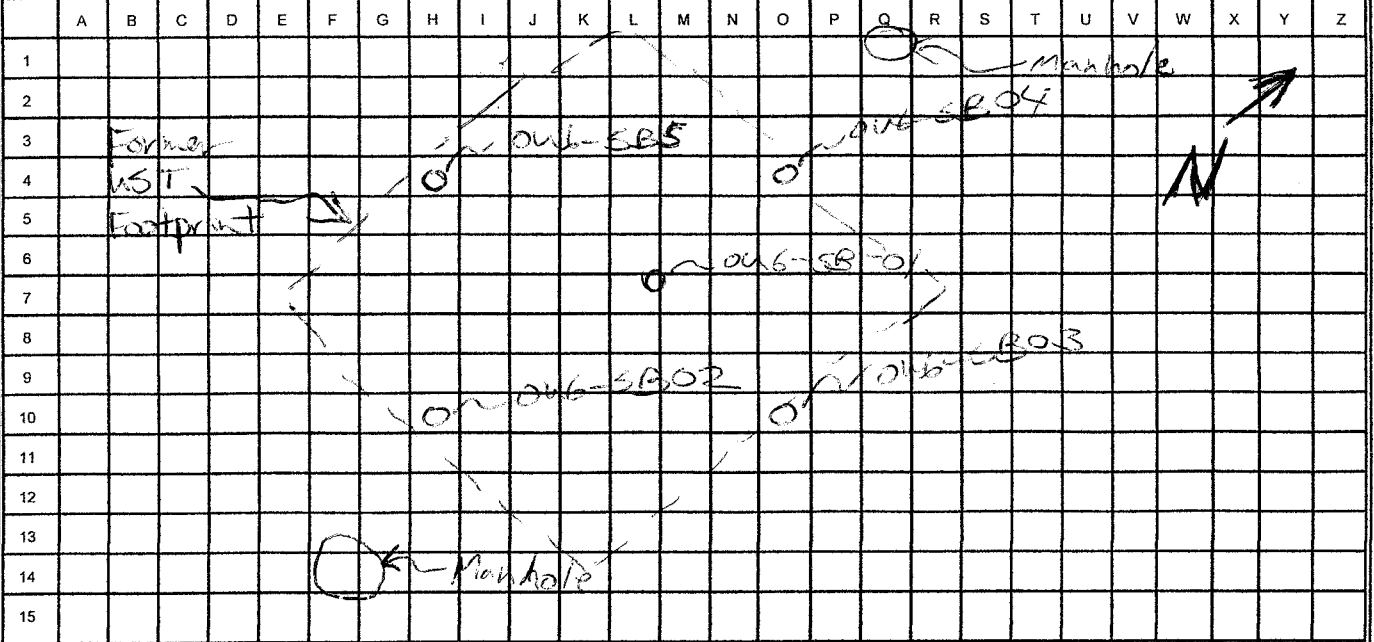
INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
SAMPLE COLLECTION LOG

Project Number 2008012.103

Sample Number: <u>OU6-SB01, SB02, SB03, SB04</u>	Site Name: <u>DORF Former UST Area</u>	Date: <u>9/14/09 - 9/16/09</u>	Time: <u>Various</u>	Page: <u>1 of 1</u>
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Preservative: <u>None</u>	Grid Dimensions: <u>N/A</u>
	Units (circle): meters / <u>inches</u> / feet / centimeters

Sample No.	Sampled by (Initials)	Date/Time	Sample Description (media, depth)	Sample Type (grab, composite)	Container Type	Sample Location
<u>OU6-SB01-27-28'</u>	<u>BAR</u>	<u>9/15/09 1110</u>	<u>Geoprobe core 27'-29'</u>	<u>Grab</u>	<u>Ziploc bag</u>	<u>Former UST AREA</u>
<u>OU6-SB02-26-28'</u>	<u>BAR</u>	<u>9/14/09 1640</u>	<u>Geoprobe core 26'-28'</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>
<u>OU6-SB03-28-30'</u>	<u>BAR</u>	<u>9/16/09 1425</u>	<u>Geoprobe core 28'-30'</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>
<u>OU6-SB04-18-20'</u>	<u>BAR</u>	<u>9/16/09 1140</u>	<u>Geoprobe core 18'-20'</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>
<u>OU6-SB05 14'-20'</u>	<u>BAR</u>	<u>9/16/09 1430</u>	<u>Geoprobe core 14'-20'</u>	<u>Grab</u>	<u>Ziploc bag</u>	<u>Former UST Area</u>



Notes: Collected 2" diameter geoprobe macrocore at 5 locations in Former UST Area. Scanned each core w/ Bixion micromem #B296W, bkgd = 4 uem/m at truck bed where samples are being handled. Also screened all cores after they were sliced open w/ pancake gm detector. None of the gamma scans or pancake scans indicated readings detectable > bkgd. Collected a duplicate (Duplicate #1) of OU6-SB02

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
SAMPLE COLLECTION LOG

Project Number 2008012.103

Sample Number: <u>Floor Penetrations</u>	Site Name: <u>DORF, Bldg. 516</u>	Date: <u>9/14/09 - 9/16/09</u>	Time: <u>Various</u>	Page: <u>1 of 1</u>
Preservative: <u>None</u>		Grid Dimensions: <u>N/A</u> Units (circle): meters <input type="checkbox"/> inches <input checked="" type="checkbox"/> feet <input type="checkbox"/> centimeters <input type="checkbox"/>		

Sample No.	Sampled by (Initials)	Date/Time	Sample Description (media, depth)	Sample Type (grab, composite)	Container Type	Sample Location
FP-3	<u>PRD</u>	<u>9/14/09 0745</u>	<u>Debris / 0"-6"</u>	<u>Grab</u>	<u>Ziploc Bag</u>	<u>See Attached Map for Locations</u>
FP-8	<u>PRD</u>	<u>9/14/09 0900</u>	<u>10"-4"</u>	↓	↓	↓
FP-15	<u>PRD</u>	<u>9/16/09 0815</u>	<u>10"-16"</u>	↓	↓	↓
FP-Composite	<u>PRD</u>	<u>9/14/09 1000</u>	<u>10"-4"</u>	<u>Composite of Locations FP-3, 8, 15</u>	↓	↓

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Notes: Collected samples of debris from floor penetrations in Bldg. 516 at locations FP-3, FP-8 & FP-15 and made a composite sample of debris from locations FP-4, 6, & 7 due to small volumes of materials present. No materials were recovered from FP-1, 3, 5, 9-14, & 16-27. Samples were collected w/ clean S.S. spoons or wire hooks for small openings. A gas flow proportional detector, Ludlum Model 2221 #86330 w/ 43-94 probe (0.5" OD, length of 6") was inserted into each opening. Background was ~100 cpm, no

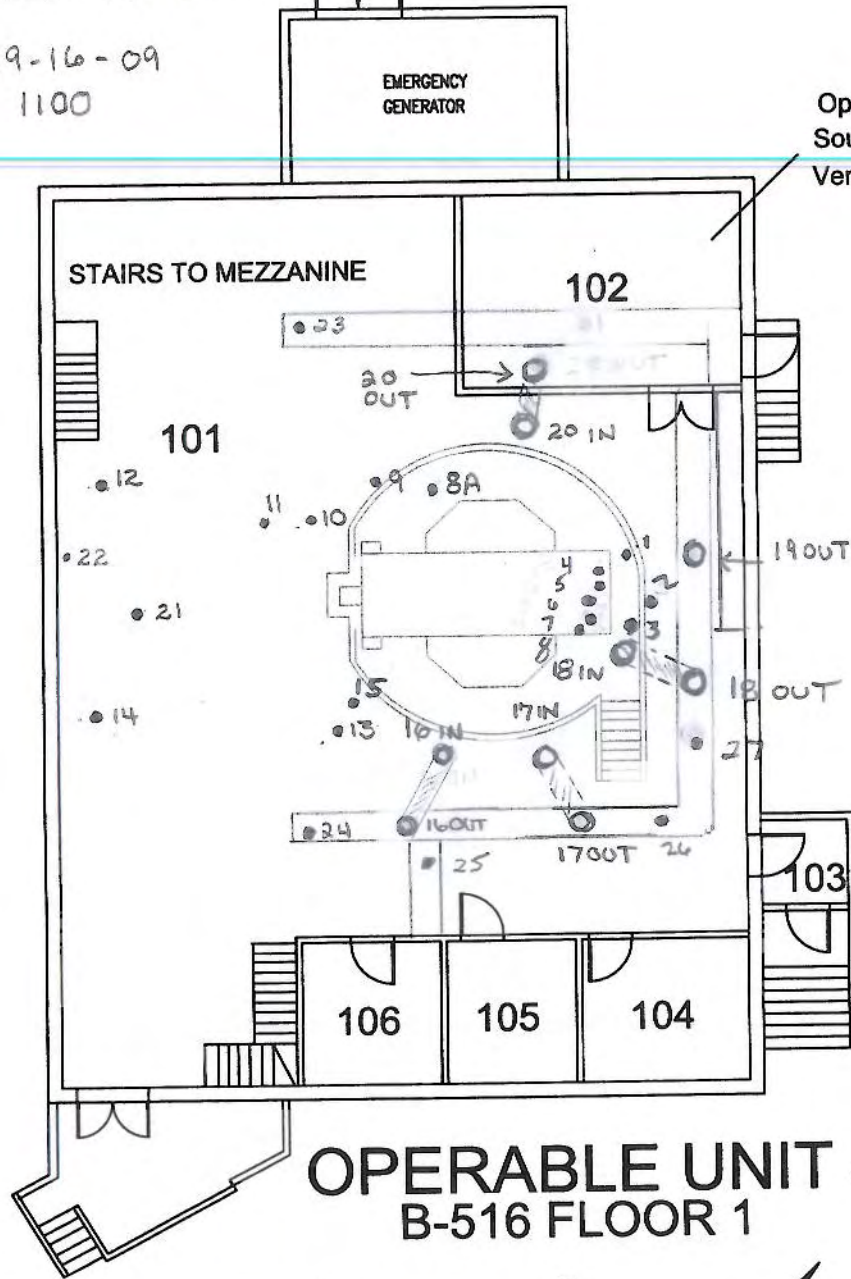
detectable counts > background were noted w/ exception of 5" diameter conduits as noted. All openings > 2" diameter were also surveyed w/ a 1" x 1" NaI probe, no detectable counts > bkgd, except 5" conduit noted above. Smears were collected at each location & sent for LSC Analysis

FLOOR PENETRATIONS

SURVEY 09-16-09
1100

EMERGENCY
GENERATOR

Operable Unit 11
Source Room and
Ventilation System



OPERABLE UNIT 4 and 11 B-516 FLOOR 1

0 m 5 m 10 m

APPROXIMATE SCALE (METERS)

Map 8-1

Operable Unit 4 and 11
B-516 Floor 1 Plan

LEGEND



Double Door



Door



Stairs



Former
Reactor Vessel

Diamond Ordnance Radiation
Facility At Walter Reed Army
Medical Center
Forest Glen Annex
Silver Spring, Maryland



IEM
Integrated Environmental Management, Inc.



US Army Corps
of Engineers
Baltimore District

FLOOR PENETRATION SURVEY DATA

SAMPLE DESIGNATION	TYPE	SAMPLE COORDINATES	SMEAR RESULTS		SCAN RESULTS ABOVE BKG	SIZE/DEPTH (INCHES)
			ALPHA	BETA		
FP 1	FLOOR PENETRATION	ROOM 101	0	70	< 100 CPM	2/29 solid
FP2	FLOOR PENETRATION	ROOM 101	0	50	< 100 CPM	1 1/2 / 0 Wire
FP3	FLOOR PENETRATION	ROOM 101	0	70	< 100 CPM	2 / 6 rubble
FP4	FLOOR PENETRATION	ROOM 101	0	65	< 100 CPM	1 1/2 / 4 Solid
FP5	FLOOR PENETRATION	ROOM 101	1	57	< 100 CPM	3/4 / 0 Wire
FP6	FLOOR PENETRATION	ROOM 101	0	49	< 100 CPM	1 1/2 / 4 Solid
FP7	FLOOR PENETRATION	ROOM 101	0	56	< 100 CPM	1 1/2 / 4 Solid
FP8	FLOOR PENETRATION	ROOM 101	0	74	< 100 CPM	1 1/2 / 4 Solid
FP8A	FLOOR PENETRATION	ROOM 101	0	60	< 100 CPM	1 5/8 / 0 solid
FP9	FLOOR PENETRATION	ROOM 101	2	72	< 100 CPM	through to exposure room
FP10	FLOOR PENETRATION	ROOM 101	0	65	< 100 CPM	through to exposure room
FP11	FLOOR PENETRATION	ROOM 101	1	62	< 100 CPM	through to exposure room
FP12	FLOOR PENETRATION	ROOM 101	1	57	< 100 CPM	through to exposure room
FP 13	FLOOR PENETRATION	ROOM 101	1	63	< 100 CPM	through to exposure room
FP 14	FLOOR PENETRATION	ROOM 101	0	52	< 100 CPM	through to exposure room
FP 15	FLOOR PENETRATION	ROOM 101	0	72	< 100 CPM	2 / 16 sand
FP 16I	FLOOR PENETRATION	ROOM 101	0	59	400 CPM – TOP 400 CPM – 3'	5/ through to 160

FP 160	FLOOR PENETRATION	ROOM 101	0	73	400 CPM – TOP 400 CPM – 3'	5 / through to 16I
FP171	FLOOR PENETRATION	ROOM 101	0	69	300 CPM – TOP 2200 CPM – 3'	5/ through to 170
FP170	FLOOR PENETRATION	ROOM 101	0	65	300 CPM – TOP 1200 CPM – 3'	5/ through to 171
FP181	FLOOR PENETRATION	ROOM 101	0	79	300 CPM – TOP 1500 CPM – 3'	5/ through to 180
FP180	FLOOR PENETRATION	ROOM 101	1	58	300 CPM – TOP 1600 CPM – 3'	5/ through to 181
FP191	FLOOR PENETRATION	ROOM 101	0	69	NA	CONCRETE
FP190	FLOOR PENETRATION	ROOM 101	0	70	300 CPM – TOP 300 CPM – 3'	5/ UNKNOWN
FP201	FLOOR PENETRATION	ROOM 101	0	60	300 CPM – TOP 3000 CPM – 3'	5/ through to 200
FP200	FLOOR PENETRATION	ROOM 101	0	65	300 CPM – TOP 2800 CPM – 3'	5/ through to 201
FP21	FLOOR PENETRATION	ROOM 101	1	55	< 100 CPM	FREEZER HOOK-UP
FP22	FLOOR PENETRATION	ROOM 101	0	79	< 100 CPM	$\frac{3}{4}$ / 0 Wire
FP23	FLOOR PENETRATION	ROOM 101	0	54	< 100 CPM	2 ½ / unknown conduit
FP24	FLOOR PENETRATION	ROOM 101	0	54	< 100 CPM	2 ½ / unknown conduit
FP25	FLOOR PENETRATION	ROOM 101	1	72	< 100 CPM	2 ½ / unknown conduit
FP26	FLOOR PENETRATION	ROOM 101	1	69	< 100 CPM	2 ½ / unknown conduit
FP27	FLOOR PENETRATION	ROOM 101	0	63	< 100 CPM	2 ½ / unknown conduit

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
SAMPLE COLLECTION LOG

Project Number 2008012.103

Sample Number: <u>007-locations</u> <u>4, 5, 7, 8 & Background</u>		Site Name: <u>DORF, outside</u> <u>soil areas, inside fence</u>		Date: <u>9/16/09</u>	Time: <u>1030</u>	Page: <u>1 of 1</u>
Preservative: <u>None</u>				Grid Dimensions: <u>N/A</u> x <u>N/A</u> Units (circle): meters <input type="checkbox"/> inches <input type="checkbox"/> feet <input type="checkbox"/> centimeters		
Sample No.	Sampled by (initials)	Date/Time	Sample Description (media, depth)	Sample Type (grab, composite)	Container Type	Sample Location
<u>007-Location 4</u>	<u>pas</u>	<u>9/16/09 1040</u>	<u>Soil, 0"-6"</u>	<u>Grab</u>	<u>Ziploc Bag</u>	<u>Flower Bed by entrance</u>
<u>007-Location 5</u>	<u>pas</u>	<u>9/16/09 1105</u>	<u>Soil, 0"-6"</u>	<u>Grab</u>	<u>Ziploc Bag</u>	<u>End of ramp</u>
<u>007-Location 7</u>	<u>pas</u>	<u>9/16/09 1100</u>	<u>Soil, 0"-6"</u>	<u>Grab</u>	<u>Ziploc Bag</u>	<u>By Fence line</u>
<u>007-Location 8</u>	<u>pas</u>	<u>9/16/09 1115</u>	<u>Soil, 0"-6"</u>	<u>Grab</u>	<u>Ziploc Bag</u>	<u>Front of Bldg. 513</u>
<u>Background</u>	<u>pas</u>	<u>9/16/09 1030</u>	<u>Soil, 0"-6"</u>	<u>Grab</u>	<u>Ziploc Bag</u>	<u>SE corner of site</u>

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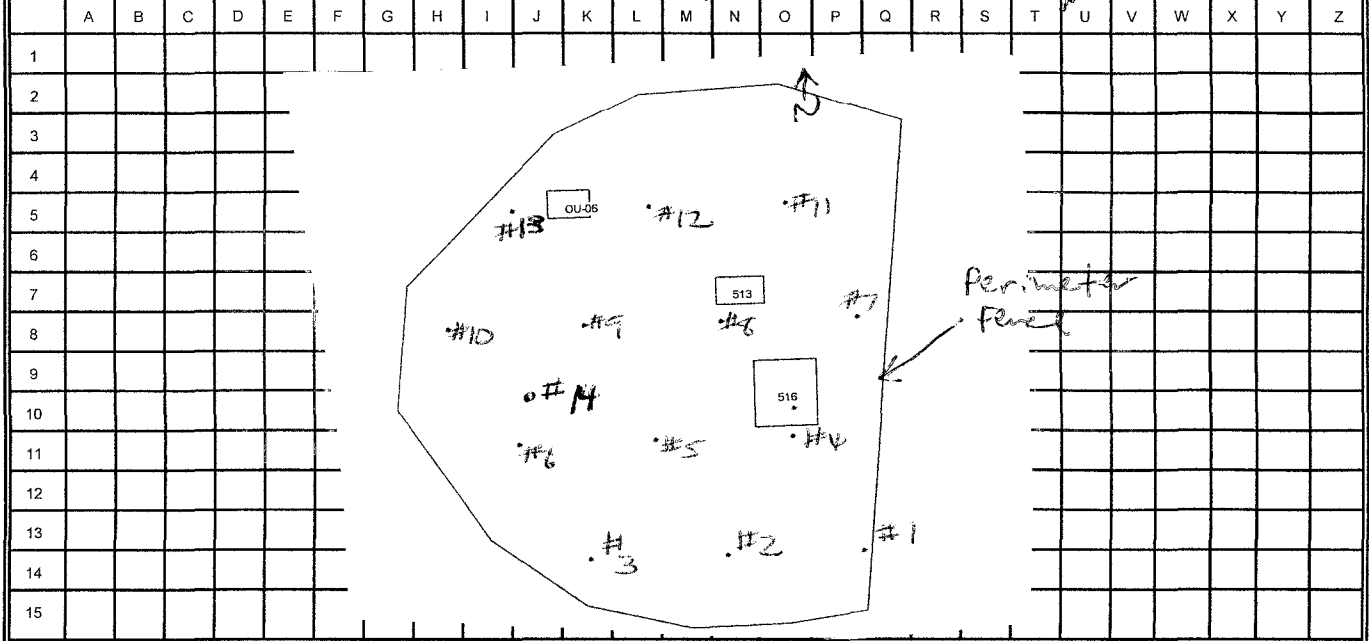
Notes: Collected grab soil samples from locations that showed the highest measurements during the gamma walkover survey. Samples were collected 0"-6" depth using a clean, stainless steel trowel at each location. Samples forwarded to outreach lab for gamma spec. & H₃C, H₄ Analyses.

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
SAMPLE COLLECTION LOG

Project Number 2008012.103

Sample Number: <u>OU7-locations #1,2,3,6,9,10,11,12,13,14</u>	Site Name: <u>DORF, outside soil areas, inside fence</u>	Date: <u>10/28/09</u>	Time: <u>1400</u>	Page: <u>1 of 1</u>
Preservative: <u>None</u>		Grid Dimensions: <u>N/A</u> x <u>9</u> Units (circle): meters / <u>inches</u> / feet / centimeters		

Sample No.	Sampled by (initials)	Date/Time	Sample Description (media, depth)	Sample Type (grab, composite)	Container Type	Sample Location
OU7-location 1	<u>pm</u>	<u>10/28/09 1415</u>	<u>Soil 0"-6"</u>	<u>Grab</u>	<u>ziploc bag</u>	<u>See figure below</u>
OU7-location 2	<u>pm</u>	<u>1407</u>				
OU7-location 3	<u>pm</u>	<u>1425</u>				
OU7-location 6	<u>pm</u>	<u>1405</u>				
OU7-location 9	<u>pm</u>	<u>1445</u>				
OU7-location 10	<u>pm</u>	<u>1440</u>				
OU7-location 11	<u>pm</u>	<u>1443</u>				
OU7-location 12	<u>pm</u>	<u>1420</u>				
OU7-location 13	<u>pm</u>	<u>1450</u>				
OU7-location 14	<u>pm</u>	<u>1455</u>				



Notes: Collected grab soil samples from other OU7 locations that were not sampled on 9/16/09. Samples were collected 0"-6" depth using a clean, stainless steel trowel at each location. Samples were forwarded to Outreach Lab for gamma spec. & H₃/K₄ Analyses.



311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

December 15, 2009

Carol Berger
Integrated Environmental Management, Inc.
8 Brooks Ave #205
Gaithersburg, MD 20877

CLIENT PROJECT NAME: 2008012.103
OUTREACH LAB ID: 20090789

Dear Ms. Berger:

Please find enclosed the analytical report for your samples received in our laboratory on September 24, 2009 for the above captioned project. Twenty-nine solid samples were received in good condition and analyzed for naturally occurring radionuclides by Gamma Spectroscopy, Carbon-14, Tritium, Nickel 63, Asbestos, and Isotopic Uranium, per your instructions.

All Quality Control for the requested analysis is reported on the analytical report and is within control limits with the exception of the DUP RPD for Carbon-14, K-40, and Uranium 234.

Per your instructions, these samples will be disposed 30 days after the final report date.

Thank you for choosing Outreach Laboratory and if you have any questions, please call us at 918-251-2515.

Laboratory Director

ODEQ ID #9517
NRC ODEQ LIC. #27522-01



CERT. ID #OK001
See Certified
Parameter List

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Lab ID: 20090789-01						
Client ID: FD-1						
Date Sampled: 9/15/2009 8:30:00 AM						
Matrix: Solid						
Radiochemical Analyses						
Carbon-14	EPA EERF C01	1.31 +/- 0.145	pCi/g	0.108	10/30/2009	11/3/2009 SD
Eu-152	HASL 300*	0 +/- 0.057	pCi/g	0.135		10/26/2009 RE
Eu-154	HASL 300*	0 +/- 0.040	pCi/g	0.096		10/26/2009 RE
K-40	HASL 300*	5.48 +/- 1.06	pCi/g	0.818		10/26/2009 RE
Tl-208	HASL 300*	0.031 +/- 0.031	pCi/g	0.053		10/26/2009 RE
Bi-212	HASL 300*	0.071 +/- 0.208	pCi/g	0.376		10/26/2009 RE
Pb-212	HASL 300*	0.115 +/- 0.099	pCi/g	0.138		10/26/2009 RE
Bi-214	HASL 300*	0.082 +/- 0.117	pCi/g	0.092		10/26/2009 RE
Pb-214	HASL 300*	0.079 +/- 0.056	pCi/g	0.107		10/26/2009 RE
Ac-228	HASL 300*	0.196 +/- 0.145	pCi/g	0.241		10/26/2009 RE
Th-234	HASL 300*	0.189 +/- 0.287	pCi/g	0.498		10/26/2009 RE
Nickel-63	DOE RESL Ni-1 M	0 +/- 4.8	pCi/g	2.1	11/20/2009	11/23/2009 RE
Tritium (H3)	EPA 906*	20.3 +/- 1.63	pCi/g	11.1	10/21/2009	11/18/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.480 +/- 0.200	pCi/g	0.158	11/10/2009	11/16/2009 SD
Uranium-235	ASTM D 3972/DOE U-02*	0.288 +/- 0.155	pCi/g	0.126	11/10/2009	11/16/2009 SD
Uranium-234	ASTM D 3972/DOE U-02*	1.49 +/- 0.334	pCi/g	0.180	11/10/2009	11/16/2009 SD

Lab ID: 20090789-02
Client ID: FD-2
Date Sampled: 9/15/2009 9:00:00 AM
Matrix: Solid

Radiochemical Analyses						
Carbon-14	EPA EERF C01	0.382 +/- 0.092	pCi/g	0.082	10/30/2009	11/3/2009 SD
Eu-152	HASL 300*	0.041 +/- 0.047	pCi/g	0.101		10/26/2009 RE
Eu-154	HASL 300*	0.211 +/- 0.304	pCi/g	0.070		10/26/2009 RE
K-40	HASL 300*	1.68 +/- 1.28	pCi/g	1.54		10/26/2009 RE
Tl-208	HASL 300*	0.040 +/- 0.093	pCi/g	0.120		10/26/2009 RE
Bi-212	HASL 300*	0.276 +/- 0.272	pCi/g	0.646		10/26/2009 RE
Pb-212	HASL 300*	0.082 +/- 0.037	pCi/g	0.087		10/26/2009 RE
Bi-214	HASL 300*	0.061 +/- 0.086	pCi/g	0.147		10/26/2009 RE
Pb-214	HASL 300*	0.060 +/- 0.067	pCi/g	0.118		10/26/2009 RE
Ac-228	HASL 300*	0.282 +/- 0.122	pCi/g	0.272		10/26/2009 RE
Th-234	HASL 300*	0 +/- 0.443	pCi/g	1.050		10/26/2009 RE

*NELAC Certified Parameter BDL = Below Detection Limit



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	Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Nickel-63	DOE RESL Ni-1 M	0 +/- 4.1	pCi/g	1.8	11/20/2009	11/23/2009	RE
Tritium (H3)	EPA 906*	3.5 +/- 1.19	pCi/g	9.0	10/21/2009	11/18/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	0.366 +/- 0.097	pCi/g	0.047	11/17/2009	11/19/2009	SD
Uranium-235	ASTM D 3972/DOE U-02*	0.099 +/- 0.052	pCi/g	0.035	11/17/2009	11/19/2009	SD
Uranium-234	ASTM D 3972/DOE U-02*	0.711 +/- 0.131	pCi/g	0.026	11/17/2009	11/19/2009	SD

Lab ID: 20090789-03
Client ID: FD-3
Date Sampled: 9/15/2009 9:15:00 AM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.208 +/- 0.087	pCi/g	0.085	10/30/2009	11/3/2009	SD
Eu-152	HASL 300*	0 +/- 0.115	pCi/g	0.272		10/28/2009	RE
Eu-154	HASL 300*	0 +/- 0.079	pCi/g	0.188		10/28/2009	RE
K-40	HASL 300*	2.06 +/- 1.77	pCi/g	2.21		10/28/2009	RE
Tl-208	HASL 300*	0.134 +/- 0.075	pCi/g	0.092		10/28/2009	RE
Bi-212	HASL 300*	0.129 +/- 0.571	pCi/g	0.748		10/28/2009	RE
Pb-212	HASL 300*	0.240 +/- 0.049	pCi/g	0.117		10/28/2009	RE
Bi-214	HASL 300*	0.490 +/- 0.904	pCi/g	0.278		10/28/2009	RE
Pb-214	HASL 300*	0.085 +/- 0.094	pCi/g	0.196		10/28/2009	RE
Ac-228	HASL 300*	0.189 +/- 0.414	pCi/g	0.338		10/28/2009	RE
Th-234	HASL 300*	0 +/- 0.658	pCi/g	1.56		10/28/2009	RE
Nickel-63	DOE RESL Ni-1 M	0 +/- 4.5	pCi/g	1.9	11/20/2009	11/23/2009	RE
Tritium (H3)	EPA 906*	7.5 +/- 1.72	pCi/g	12.8	10/21/2009	11/18/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	0.658 +/- 0.178	pCi/g	0.111	11/10/2009	11/16/2009	SD
Uranium-235	ASTM D 3972/DOE U-02*	0.283 +/- 0.126	pCi/g	0.117	11/10/2009	11/16/2009	SD
Uranium-234	ASTM D 3972/DOE U-02*	1.35 +/- 0.253	pCi/g	0.145	11/10/2009	11/16/2009	SD

Lab ID: 20090789-04
Client ID: FD-4
Date Sampled: 9/15/2009 9:30:00 AM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.591 +/- 0.094	pCi/g	0.078	10/16/2009	11/3/2009	SD
Eu-152	HASL 300*	0 +/- 0.057	pCi/g	0.136		10/28/2009	RE
Eu-154	HASL 300*	0.007 +/- 0.020	pCi/g	0.039		10/28/2009	RE

*NELAC Certified Parameter BDL = Below Detection Limit



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	Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
K-40	HASL 300*	3.95 +/- 0.828	pCi/g	0.765		10/28/2009	RE
Tl-208	HASL 300*	0.092 +/- 0.039	pCi/g	0.056		10/28/2009	RE
Bi-212	HASL 300*	0 +/- 0.118	pCi/g	0.261		10/28/2009	RE
Pb-212	HASL 300*	0.343 +/- 0.111	pCi/g	0.133		10/28/2009	RE
Bi-214	HASL 300*	0.214 +/- 0.039	pCi/g	0.107		10/28/2009	RE
Pb-214	HASL 300*	0.242 +/- 0.026	pCi/g	0.120		10/28/2009	RE
Ac-228	HASL 300*	0.237 +/- 0.104	pCi/g	0.199		10/28/2009	RE
Th-234	HASL 300*	0.142 +/- 0.157	pCi/g	0.336		10/28/2009	RE
Nickel-63	DOE RESL Ni-1 M	0 +/- 4.2	pCi/g	1.8	11/20/2009	11/23/2009	RE
Tritium (H3)	EPA 906*	2.8 +/- 1.05	pCi/g	8.0	10/21/2009	11/18/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	1.09 +/- 0.186	pCi/g	0.084	11/10/2009	11/16/2009	SD
Uranium-235	ASTM D 3972/DOE U-02*	0.755 +/- 0.153	pCi/g	0.055	11/10/2009	11/16/2009	SD
Uranium-234	ASTM D 3972/DOE U-02*	9.81 +/- 0.547	pCi/g	0.092	11/10/2009	11/16/2009	SD

Lab ID: 20090789-05
Client ID: FD-5
Date Sampled: 9/15/2009 9:40:00 AM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.231 +/- 0.083	pCi/g	0.080	10/30/2009	11/3/2009	SD
Eu-152	HASL 300*	0 +/- 0.019	pCi/g	0.045		10/26/2009	RE
Eu-154	HASL 300*	0 +/- 0.013	pCi/g	0.030		10/26/2009	RE
K-40	HASL 300*	2.11 +/- 0.376	pCi/g	0.259		10/26/2009	RE
Tl-208	HASL 300*	0.014 +/- 0.017	pCi/g	0.022		10/26/2009	RE
Bi-212	HASL 300*	0 +/- 0.102	pCi/g	0.141		10/26/2009	RE
Pb-212	HASL 300*	0.014 +/- 0.021	pCi/g	0.312		10/26/2009	RE
Bi-214	HASL 300*	0.072 +/- 0.036	pCi/g	0.047		10/26/2009	RE
Pb-214	HASL 300*	0.013 +/- 0.024	pCi/g	0.036		10/26/2009	RE
Ac-228	HASL 300*	0.037 +/- 0.053	pCi/g	0.089		10/26/2009	RE
Th-234	HASL 300*	0.119 +/- 0.208	pCi/g	0.266		10/26/2009	RE
Nickel-63	DOE RESL Ni-1 M	0.5 +/- 4.6	pCi/g	1.9	11/20/2009	11/23/2009	RE
Tritium (H3)	EPA 906*	4.2 +/- 1.19	pCi/g	9.0	10/21/2009	11/18/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	0.531 +/- 0.151	pCi/g	0.114	11/10/2009	11/16/2009	SD
Uranium-235	ASTM D 3972/DOE U-02*	0.404 +/- 0.128	pCi/g	0.083	11/10/2009	11/16/2009	SD
Uranium-234	ASTM D 3972/DOE U-02*	1.39 +/- 0.231	pCi/g	0.101	11/10/2009	11/16/2009	SD



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Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Lab ID: 20090789-06						
Client ID: FD-6						
Date Sampled: 9/15/2009 10:00:00 AM						
Matrix: Solid						
Radiochemical Analyses						
Carbon-14	EPA EERF C01	1.72 +/- 0.128	pCi/g	0.079	10/30/2009	11/3/2009 SD
Eu-152	HASL 300*	0 +/- 0.050	pCi/g	0.118		10/28/2009 RE
Eu-154	HASL 300*	0 +/- 0.035	pCi/g	0.083		10/28/2009 RE
K-40	HASL 300*	3.44 +/- 0.905	pCi/g	0.742		10/28/2009 RE
Tl-208	HASL 300*	0.035 +/- 0.039	pCi/g	0.048		10/28/2009 RE
Bi-212	HASL 300*	0.280 +/- 0.229	pCi/g	0.543		10/28/2009 RE
Pb-212	HASL 300*	0.099 +/- 0.068	pCi/g	0.101		10/28/2009 RE
Bi-214	HASL 300*	0 +/- 0.015	pCi/g	0.060		10/28/2009 RE
Pb-214	HASL 300*	0.048 +/- 0.150	pCi/g	0.098		10/28/2009 RE
Ac-228	HASL 300*	0.073 +/- 0.081	pCi/g	0.160		10/28/2009 RE
Th-234	HASL 300*	0 +/- 0.218	pCi/g	0.517		10/28/2009 RE
Nickel-63	DOE RESL Ni-1 M	0 +/- 4.3	pCi/g	1.8	11/20/2009	11/23/2009 RE
Tritium (H3)	EPA 906*	252 +/- 2.77	pCi/g	8.9	10/21/2009	11/18/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.476 +/- 0.135	pCi/g	0.055	11/10/2009	11/16/2009 SD
Uranium-235	ASTM D 3972/DOE U-02*	0.316 +/- 0.110	pCi/g	0.043	11/10/2009	11/16/2009 SD
Uranium-234	ASTM D 3972/DOE U-02*	3.06 +/- 0.337	pCi/g	0.035	11/10/2009	11/16/2009 SD

Lab ID: 20090789-07
Client ID: FD-7
Date Sampled: 9/15/2009 10:15:00 AM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	3.18 +/- 0.184	pCi/g	0.080	10/16/2009	11/4/2009 SD
Eu-152	HASL 300*	0 +/- 0.392	pCi/g	0.930		10/25/2009 RE
Eu-154	HASL 300*	0 +/- 0.363	pCi/g	0.861		10/25/2009 RE
K-40	HASL 300*	95.8 +/- 8.26	pCi/g	1.94		10/25/2009 RE
Tl-208	HASL 300*	1.97 +/- 0.242	pCi/g	0.160		10/25/2009 RE
Bi-212	HASL 300*	2.53 +/- 0.982	pCi/g	1.09		10/25/2009 RE
Pb-212	HASL 300*	8.42 +/- 1.02	pCi/g	0.466		10/25/2009 RE
Bi-214	HASL 300*	4.46 +/- 0.443	pCi/g	0.311		10/25/2009 RE
Pb-214	HASL 300*	5.58 +/- 0.632	pCi/g	0.441		10/25/2009 RE
Ac-228	HASL 300*	5.30 +/- 0.569	pCi/g	0.602		10/25/2009 RE
Th-234	HASL 300*	6.04 +/- 5.09	pCi/g	6.89		10/25/2009 RE



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Nickel-63	DOE RESL Ni-1 M	0 +/- 4.2	pCi/g	1.8	11/20/2009	11/23/2009	RE
Tritium (H3)	EPA 906*	36.2 +/- 1.41	pCi/g	8.4	10/21/2009	11/18/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	3.27 +/- 0.390	pCi/g	0.059	11/10/2009	11/16/2009	SD
Uranium-235	ASTM D 3972/DOE U-02*	0.633 +/- 0.173	pCi/g	0.059	11/10/2009	11/16/2009	SD
Uranium-234	ASTM D 3972/DOE U-02*	7.67 +/- 0.599	pCi/g	0.094	11/10/2009	11/16/2009	SD

Lab ID: 20090789-08
Client ID: FD-8
Date Sampled: 9/15/2009 10:15:00 AM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	1.10 +/- 0.100	pCi/g	0.064	10/16/2009	11/4/2009	SD
Eu-152	HASL 300*	0 +/- 0.043	pCi/g	0.102		10/28/2009	RE
Eu-154	HASL 300*	0.064 +/- 0.030	pCi/g	0.071		10/28/2009	RE
K-40	HASL 300*	14.0 +/- 3.46	pCi/g	1.17		10/28/2009	RE
Tl-208	HASL 300*	0.075 +/- 0.076	pCi/g	0.094		10/28/2009	RE
Bi-212	HASL 300*	0 +/- 0.532	pCi/g	0.365		10/28/2009	RE
Pb-212	HASL 300*	0.004 +/- 0.520	pCi/g	0.102		10/28/2009	RE
Bi-214	HASL 300*	0.160 +/- 0.098	pCi/g	0.156		10/28/2009	RE
Pb-214	HASL 300*	0 +/- 0.046	pCi/g	0.109		10/28/2009	RE
Ac-228	HASL 300*	0.040 +/- 0.249	pCi/g	0.308		10/28/2009	RE
Th-234	HASL 300*	0 +/- 0.227	pCi/g	0.538		10/28/2009	RE
Nickel-63	DOE RESL Ni-1 M	0 +/- 5.8	pCi/g	2.4	11/20/2009	11/23/2009	RE
Tritium (H3)	EPA 906*	6.2 +/- 1.15	pCi/g	8.4	10/21/2009	11/18/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	0.25 +/- 0.126	pCi/g	0.159	11/10/2009	11/16/2009	SD
Uranium-235	ASTM D 3972/DOE U-02*	0.114 +/- 0.095	pCi/g	0.134	11/10/2009	11/16/2009	SD
Uranium-234	ASTM D 3972/DOE U-02*	0.40 +/- 0.171	pCi/g	0.225	11/10/2009	11/16/2009	SD

Lab ID: 20090789-09
Client ID: FD-9
Date Sampled: 9/15/2009 10:30:00 AM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.444 +/- 0.108	pCi/g	0.098	10/16/2009	11/4/2009	SD
Eu-152	HASL 300*	0 +/- 0.237	pCi/g	0.562		10/26/2009	RE
Eu-154	HASL 300*	0 +/- 0.209	pCi/g	0.497		10/26/2009	RE



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Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
K-40	HASL 300*	13.3 +/- 2.75	pCi/g	1.44	10/26/2009	RE
Tl-208	HASL 300*	0 +/- 0.076	pCi/g	0.181	10/26/2009	RE
Bi-212	HASL 300*	0.368 +/- 0.535	pCi/g	1.27	10/26/2009	RE
Pb-212	HASL 300*	0.000 +/- 0.218	pCi/g	0.295	10/26/2009	RE
Bi-214	HASL 300*	0.260 +/- 0.174	pCi/g	0.206	10/26/2009	RE
Pb-214	HASL 300*	0.129 +/- 0.225	pCi/g	0.329	10/26/2009	RE
Ac-228	HASL 300*	0.100 +/- 0.255	pCi/g	0.380	10/26/2009	RE
Th-234	HASL 300*	2.44 +/- 3.350	pCi/g	4.07	10/26/2009	RE
Nickel-63	DOE RESL Ni-1 M	0 +/- 4.6	pCi/g	1.9	11/20/2009	11/23/2009 RE
Tritium (H3)	EPA 906*	4.9 +/- 1.17	pCi/g	8.7	10/21/2009	11/18/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.249 +/- 0.092	pCi/g	0.081	11/10/2009	11/16/2009 SD
Uranium-235	ASTM D 3972/DOE U-02*	0.167 +/- 0.071	pCi/g	0.049	11/10/2009	11/16/2009 SD
Uranium-234	ASTM D 3972/DOE U-02*	1.27 +/- 0.192	pCi/g	0.076	11/10/2009	11/16/2009 SD

Lab ID: 20090789-10
Client ID: FD-10
Date Sampled: 9/15/2009 11:00:00 AM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.868 +/- 0.110	pCi/g	0.082	10/16/2009	11/4/2009 SD
Eu-152	HASL 300*	0.020 +/- 0.023	pCi/g	0.074	10/28/2009	RE
Eu-154	HASL 300*	0 +/- 0.021	pCi/g	0.051	10/28/2009	RE
K-40	HASL 300*	3.47 +/- 0.820	pCi/g	0.672	10/28/2009	RE
Tl-208	HASL 300*	0 +/- 0.025	pCi/g	0.045	10/28/2009	RE
Bi-212	HASL 300*	0 +/- 0.223	pCi/g	0.529	10/28/2009	RE
Pb-212	HASL 300*	0.026 +/- 0.127	pCi/g	0.110	10/28/2009	RE
Bi-214	HASL 300*	0.033 +/- 0.154	pCi/g	0.086	10/28/2009	RE
Pb-214	HASL 300*	0.051 +/- 0.036	pCi/g	0.096	10/28/2009	RE
Ac-228	HASL 300*	0 +/- 0.109	pCi/g	0.259	10/28/2009	RE
Th-234	HASL 300*	0.215 +/- 0.566	pCi/g	0.426	10/28/2009	RE
Nickel-63	DOE RESL Ni-1 M	0 +/- 4.1	pCi/g	1.7	11/20/2009	11/23/2009 RE
Tritium (H3)	EPA 906*	49.8 +/- 2.14	pCi/g	12.9	10/21/2009	11/18/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.185 +/- 0.103	pCi/g	0.116	11/20/2009	11/23/2009 SD
Uranium-235	ASTM D 3972/DOE U-02*	0.510 +/- 0.147	pCi/g	0.101	11/20/2009	11/23/2009 SD
Uranium-234	ASTM D 3972/DOE U-02*	0.308 +/- 0.133	pCi/g	0.146	11/20/2009	11/23/2009 SD



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Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Lab ID: 20090789-11						
Client ID: FD-11						
Date Sampled: 9/15/2009 11:30:00 AM						
Matrix: Solid						
Radiochemical Analyses						
Carbon-14	EPA EERF C01	1.15 +/- 0.128	pCi/g	0.096	10/21/2009	11/4/2009 SD
Eu-152	HASL 300*	0.021 +/- 0.064	pCi/g	0.078		10/28/2009 RE
Eu-154	HASL 300*	0 +/- 0.023	pCi/g	0.054		10/28/2009 RE
K-40	HASL 300*	2.49 +/- 0.651	pCi/g	0.641		10/28/2009 RE
Tl-208	HASL 300*	0.030 +/- 0.044	pCi/g	0.057		10/28/2009 RE
Bi-212	HASL 300*	0 +/- 0.177	pCi/g	0.249		10/28/2009 RE
Pb-212	HASL 300*	0.042 +/- 0.389	pCi/g	0.078		10/28/2009 RE
Bi-214	HASL 300*	0.140 +/- 0.083	pCi/g	0.117		10/28/2009 RE
Pb-214	HASL 300*	0.085 +/- 0.203	pCi/g	0.115		10/28/2009 RE
Ac-228	HASL 300*	0.082 +/- 0.115	pCi/g	0.225		10/28/2009 RE
Th-234	HASL 300*	0.107 +/- 0.546	pCi/g	0.505		10/28/2009 RE
Nickel-63	DOE RESL Ni-1 M	0 +/- 4.0	pCi/g	1.7	11/20/2009	11/23/2009 RE
Tritium (H3)	EPA 906*	36.2 +/- 1.52	pCi/g	9.2	10/21/2009	11/18/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	2.26 +/- 0.206	pCi/g	0.119	11/17/2009	11/19/2009 SD
Uranium-235	ASTM D 3972/DOE U-02*	1.37 +/- 0.162	pCi/g	0.098	11/17/2009	11/19/2009 SD
Uranium-234	ASTM D 3972/DOE U-02*	7.40 +/- 0.366	pCi/g	0.169	11/17/2009	11/19/2009 SD

Lab ID: 20090789-12
Client ID: FP-3
Date Sampled: 9/14/2009 9:45:00 AM
Matrix: Solid

Radiochemical Analyses						
Carbon-14	EPA EERF C01	0.587 +/- 0.094	pCi/g	0.078	10/21/2009	11/4/2009 SD
Eu-152	HASL 300*	0.042 +/- 0.084	pCi/g	0.125		10/26/2009 RE
Eu-154	HASL 300*	0 +/- 0.102	pCi/g	0.242		10/26/2009 RE
K-40	HASL 300*	4.29 +/- 1.07	pCi/g	0.737		10/26/2009 RE
Tl-208	HASL 300*	0.052 +/- 0.034	pCi/g	0.049		10/26/2009 RE
Bi-212	HASL 300*	0.503 +/- 0.253	pCi/g	0.601		10/26/2009 RE
Pb-212	HASL 300*	0.339 +/- 0.105	pCi/g	0.127		10/26/2009 RE
Bi-214	HASL 300*	0.156 +/- 0.100	pCi/g	0.115		10/26/2009 RE
Pb-214	HASL 300*	0.189 +/- 0.101	pCi/g	0.145		10/26/2009 RE
Ac-228	HASL 300*	0.152 +/- 0.141	pCi/g	0.176		10/26/2009 RE
Th-234	HASL 300*	0.058 +/- 1.69	pCi/g	2.08		10/26/2009 RE

*NELAC Certified Parameter

BDL = Below Detection Limit



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Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Nickel-63	DOE RESL Ni-1 M	0.8 +/- 4.8	pCi/g	2.0	11/20/2009	11/23/2009 RE
Tritium (H3)	EPA 906*	4.7 +/- 1.18	pCi/g	8.8	10/21/2009	11/18/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.539 +/- 0.125	pCi/g	0.095	11/17/2009	11/19/2009 SD
Uranium-235	ASTM D 3972/DOE U-02*	0.134 +/- 0.063	pCi/g	0.052	11/17/2009	11/19/2009 SD
Uranium-234	ASTM D 3972/DOE U-02*	1.30 +/- 0.183	pCi/g	0.088	11/17/2009	11/19/2009 SD

Lab ID: 20090789-13
 Client ID: FP-8
 Date Sampled: 9/14/2009 9:00:00 AM
 Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	1.06 +/- 0.119	pCi/g	0.090	10/21/2009	11/4/2009 SD
Eu-152	HASL 300*	0 +/- 0.146	pCi/g	0.346		10/26/2009 RE
Eu-154	HASL 300*	0 +/- 0.151	pCi/g	0.359		10/26/2009 RE
K-40	HASL 300*	8.88 +/- 1.50	pCi/g	1.04		10/26/2009 RE
Tl-208	HASL 300*	0.162 +/- 0.041	pCi/g	0.060		10/26/2009 RE
Bi-212	HASL 300*	0 +/- 0.137	pCi/g	0.324		10/26/2009 RE
Pb-212	HASL 300*	0.748 +/- 0.246	pCi/g	0.271		10/26/2009 RE
Bi-214	HASL 300*	0.269 +/- 0.095	pCi/g	0.135		10/26/2009 RE
Pb-214	HASL 300*	0.265 +/- 0.107	pCi/g	0.173		10/26/2009 RE
Ac-228	HASL 300*	0.326 +/- 0.087	pCi/g	0.252		10/26/2009 RE
Th-234	HASL 300*	0 +/- 2.58	pCi/g	6.12		10/26/2009 RE
Nickel-63	DOE RESL Ni-1 M	0 +/- 4.2	pCi/g	1.8	11/20/2009	11/23/2009 RE
Tritium (H3)	EPA 906*	6.4 +/- 1.26	pCi/g	9.3	10/16/2009	11/18/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.168 +/- 0.129	pCi/g	0.184	11/10/2009	11/16/2009 SD
Uranium-235	ASTM D 3972/DOE U-02*	0.058 +/- 0.100	pCi/g	0.163	11/10/2009	11/16/2009 SD
Uranium-234	ASTM D 3972/DOE U-02*	0.272 +/- 0.142	pCi/g	0.181	11/10/2009	11/16/2009 SD

Lab ID: 20090789-14
 Client ID: FP-15
 Date Sampled: 9/16/2009 8:15:00 AM
 Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.815 +/- 0.097	pCi/g	0.073	10/16/2009	11/4/2009 SD
Eu-152	HASL 300*	0 +/- 0.301	pCi/g	0.714		10/26/2009 RE
Eu-154	HASL 300*	0 +/- 0.149	pCi/g	0.353		10/26/2009 RE

*NELAC Certified Parameter BDL = Below Detection Limit



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	Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
K-40	HASL 300*	27.4 +/- 4.13	pCi/g	2.81		10/26/2009	RE
Tl-208	HASL 300*	0.059 +/- 0.028	pCi/g	0.366		10/26/2009	RE
Bi-212	HASL 300*	0 +/- 0.776	pCi/g	1.84		10/26/2009	RE
Pb-212	HASL 300*	0 +/- 0.158	pCi/g	0.374		10/26/2009	RE
Bi-214	HASL 300*	0.194 +/- 0.234	pCi/g	0.310		10/26/2009	RE
Pb-214	HASL 300*	0.293 +/- 0.207	pCi/g	0.376		10/26/2009	RE
Ac-228	HASL 300*	0.510 +/- 0.337	pCi/g	0.572		10/26/2009	RE
Th-234	HASL 300*	0 +/- 5.02	pCi/g	11.9		10/26/2009	RE
Nickel-63	DOE RESL Ni-1 M	0 +/- 4.3	pCi/g	1.8	11/20/2009	11/23/2009	RE
Tritium (H3)	EPA 906*	2.2 +/- 1.13	pCi/g	8.6	10/16/2009	11/18/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	0.252 +/- 0.135	pCi/g	0.193	11/10/2009	11/16/2009	SD
Uranium-235	ASTM D 3972/DOE U-02*	0.051 +/- 0.057	pCi/g	0.088	11/10/2009	11/16/2009	SD
Uranium-234	ASTM D 3972/DOE U-02*	0.549 +/- 0.137	pCi/g	0.116	11/10/2009	11/16/2009	SD

Lab ID: 20090789-15
Client ID: FP-Composite
Date Sampled: 9/14/2009 10:00:00 AM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	2.29 +/- 0.170	pCi/g	0.088	10/21/2009	11/5/2009	SD
Eu-152	HASL 300*	0 +/- 0.091	pCi/g	0.217		10/26/2009	RE
Eu-154	HASL 300*	0 +/- 0.095	pCi/g	0.225		10/26/2009	RE
K-40	HASL 300*	3.40 +/- 0.861	pCi/g	0.561		10/26/2009	RE
Tl-208	HASL 300*	0.055 +/- 0.039	pCi/g	0.044		10/26/2009	RE
Bi-212	HASL 300*	0.073 +/- 0.194	pCi/g	0.461		10/26/2009	RE
Pb-212	HASL 300*	0.145 +/- 0.110	pCi/g	0.133		10/26/2009	RE
Bi-214	HASL 300*	0.129 +/- 0.075	pCi/g	0.099		10/26/2009	RE
Pb-214	HASL 300*	0.142 +/- 0.087	pCi/g	0.116		10/26/2009	RE
Ac-228	HASL 300*	0.121 +/- 0.087	pCi/g	0.129		10/26/2009	RE
Th-234	HASL 300*	0.904 +/- 1.58	pCi/g	1.92		10/26/2009	RE
Nickel-63	DOE RESL Ni-1 M	0.3 +/- 4.4	pCi/g	1.8	11/20/2009	11/23/2009	RE
Tritium (H3)	EPA 906*	10.7 +/- 1.22	pCi/g	8.7	10/21/2009	11/18/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	0.215 +/- 0.115	pCi/g	0.128	11/10/2009	11/16/2009	SD
Uranium-235	ASTM D 3972/DOE U-02*	0.104 +/- 0.082	pCi/g	0.099	11/10/2009	11/16/2009	SD
Uranium-234	ASTM D 3972/DOE U-02*	0.499 +/- 0.159	pCi/g	0.136	11/10/2009	11/16/2009	SD



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Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Lab ID: 20090789-16						
Client ID: cable Tray						
Date Sampled: 9/18/2009 8:45:00 AM						
Matrix: Solid						
Radiochemical Analyses						
Carbon-14	EPA EERF C01	11.8 +/- 0.328	pCi/g	0.106	10/30/2009	11/5/2009 SD
Eu-152	HASL 300*	0 +/- 0.035	pCi/g	0.083		10/28/2009 RE
Eu-154	HASL 300*	0.185 +/- 0.191	pCi/g	0.082		10/28/2009 RE
K-40	HASL 300*	5.91 +/- 1.68	pCi/g	0.917		10/28/2009 RE
Tl-208	HASL 300*	0.092 +/- 0.069	pCi/g	0.086		10/28/2009 RE
Bi-212	HASL 300*	0 +/- 0.154	pCi/g	0.365		10/28/2009 RE
Pb-212	HASL 300*	0 +/- 0.027	pCi/g	0.064		10/28/2009 RE
Bi-214	HASL 300*	0.203 +/- 0.137	pCi/g	0.164		10/28/2009 RE
Pb-214	HASL 300*	0.249 +/- 0.090	pCi/g	0.130		10/28/2009 RE
Ac-228	HASL 300*	0.163 +/- 0.145	pCi/g	0.168		10/28/2009 RE
Th-234	HASL 300*	0.125 +/- 0.461	pCi/g	0.580		10/28/2009 RE
Nickel-63	DOE RESL Ni-1 M	5.8 +/- 5.1	pCi/g	2.1	11/20/2009	11/23/2009 RE
Tritium (H3)	EPA 906*	102 +/- 2.02	pCi/g	9.3	10/21/2009	11/18/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	1.27 +/- 0.226	pCi/g	0.067	11/10/2009	11/16/2009 SD
Uranium-235	ASTM D 3972/DOE U-02*	0.336 +/- 0.117	pCi/g	0.045	11/10/2009	11/16/2009 SD
Uranium-234	ASTM D 3972/DOE U-02*	3.38 +/- 0.369	pCi/g	0.092	11/10/2009	11/16/2009 SD

Lab ID: 20090789-17
Client ID: OU6-SB05-18'-20'
Date Sampled: 9/16/2009 2:30:00 PM
Matrix: Solid

Radiochemical Analyses						
Carbon-14	EPA EERF C01	0.508 +/- 0.053	pCi/g	0.037	10/5/2009	10/16/2009 RE
Eu-152	HASL 300*	0.151 +/- 0.137	pCi/g	0.110		10/30/2009 RE
Eu-154	HASL 300*	0.087 +/- 0.192	pCi/g	0.094		10/30/2009 RE
K-40	HASL 300*	25.3 +/- 2.78	pCi/g	0.886		10/30/2009 RE
Tl-208	HASL 300*	0.509 +/- 0.086	pCi/g	0.077		10/30/2009 RE
Bi-212	HASL 300*	0 +/- 0.154	pCi/g	0.366		10/30/2009 RE
Pb-212	HASL 300*	1.43 +/- 0.154	pCi/g	0.137		10/30/2009 RE
Bi-214	HASL 300*	0.831 +/- 0.159	pCi/g	0.151		10/30/2009 RE
Pb-214	HASL 300*	0.825 +/- 0.099	pCi/g	0.106		10/30/2009 RE
Ac-228	HASL 300*	0.212 +/- 0.088	pCi/g	0.207		10/30/2009 RE
Th-234	HASL 300*	1.31 +/- 2.56	pCi/g	0.759		10/30/2009 RE

*NELAC Certified Parameter

BDL = Below Detection Limit



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Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Tritium (H3)	EPA 906*	1.7 +/- 0.20	pCi/g	3.4	10/3/2009	10/15/2009 RE

Lab ID: 20090789-18
Client ID: OU7-SB01-18'-20'
Date Sampled: 9/17/2009 9:30:00 AM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.083	pCi/g	0.093	10/6/2009	10/16/2009 RE
Eu-152	HASL 300*	0 +/- 0.210	pCi/g	0.498		10/26/2009 RE
Eu-154	HASL 300*	0 +/- 0.203	pCi/g	0.482		10/26/2009 RE
K-40	HASL 300*	33.9 +/- 3.36	pCi/g	1.49		10/26/2009 RE
Tl-208	HASL 300*	0.758 +/- 0.086	pCi/g	0.086		10/26/2009 RE
Bi-212	HASL 300*	0.798 +/- 0.529	pCi/g	0.631		10/26/2009 RE
Pb-212	HASL 300*	3.15 +/- 1.50	pCi/g	0.258		10/26/2009 RE
Bi-214	HASL 300*	1.30 +/- 0.174	pCi/g	0.172		10/26/2009 RE
Pb-214	HASL 300*	2.55 +/- 0.327	pCi/g	0.410		10/26/2009 RE
Ac-228	HASL 300*	1.80 +/- 0.213	pCi/g	0.333		10/26/2009 RE
Th-234	HASL 300*	6.49 +/- 4.00	pCi/g	7.59		10/26/2009 RE
Tritium (H3)	EPA 906*	1.3 +/- 0.19	pCi/g	3.2	10/3/2009	10/15/2009 RE

Lab ID: 20090789-19
Client ID: OU7-SB02-18'-20'
Date Sampled: 9/17/2009 11:30:00 AM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.064	pCi/g	0.069	10/6/2009	10/17/2009 RE
Eu-152	HASL 300*	0 +/- 0.079	pCi/g	0.187		11/23/2009 RE
Eu-154	HASL 300*	0 +/- 0.056	pCi/g	0.132		11/23/2009 RE
K-40	HASL 300*	31.6 +/- 3.23	pCi/g	0.978		11/23/2009 RE
Tl-208	HASL 300*	0.894 +/- 0.095	pCi/g	0.086		11/23/2009 RE
Bi-212	HASL 300*	0.738 +/- 0.491	pCi/g	0.589		11/23/2009 RE
Pb-212	HASL 300*	2.15 +/- 0.161	pCi/g	0.129		11/23/2009 RE
Bi-214	HASL 300*	1.64 +/- 0.154	pCi/g	0.130		11/23/2009 RE
Pb-214	HASL 300*	1.66 +/- 0.160	pCi/g	0.145		11/23/2009 RE
Ac-228	HASL 300*	1.93 +/- 0.245	pCi/g	0.444		11/23/2009 RE
Th-234	HASL 300*	0 +/- 0.394	pCi/g	0.935		11/23/2009 RE
Tritium (H3)	EPA 906*	1.2 +/- 0.21	pCi/g	3.5	10/3/2009	10/15/2009 RE



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Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
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Lab ID: 20090789-20
Client ID: OU7-SB03-18'-20'
Date Sampled: 9/17/2009 2:30:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.082	pCi/g	0.092	10/6/2009	10/17/2009 RE
Eu-152	HASL 300*	0 +/- 0.152	pCi/g	0.361		10/28/2009 RE
Eu-154	HASL 300*	0 +/- 0.135	pCi/g	0.321		10/28/2009 RE
K-40	HASL 300*	27.8 +/- 2.54	pCi/g	0.578		10/28/2009 RE
Tl-208	HASL 300*	0.011 +/- 0.026	pCi/g	0.056		10/28/2009 RE
Bi-212	HASL 300*	1.28 +/- 0.484	pCi/g	0.543		10/28/2009 RE
Pb-212	HASL 300*	2.74 +/- 0.327	pCi/g	0.153		10/28/2009 RE
Bi-214	HASL 300*	1.24 +/- 0.153	pCi/g	0.134		10/28/2009 RE
Pb-214	HASL 300*	1.75 +/- 0.190	pCi/g	0.150		10/28/2009 RE
Ac-228	HASL 300*	0.840 +/- 0.143	pCi/g	0.209		10/28/2009 RE
Th-234	HASL 300*	0 +/- 1.58	pCi/g	3.75		10/28/2009 RE
Tritium (H3)	EPA 906*	1.7 +/- 0.19	pCi/g	3.2	10/3/2009	10/15/2009 RE

Lab ID: 20090789-21
Client ID: OU7-SB04-22'-24'
Date Sampled: 9/18/2009 9:30:00 AM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.075	pCi/g	0.083	10/6/2009	10/17/2009 RE
Eu-152	HASL 300*	0 +/- 0.225	pCi/g	0.533		10/27/2009 RE
Eu-154	HASL 300*	0 +/- 0.156	pCi/g	0.371		10/27/2009 RE
K-40	HASL 300*	34.4 +/- 3.65	pCi/g	1.30		10/27/2009 RE
Tl-208	HASL 300*	0.511 +/- 0.080	pCi/g	0.095		10/27/2009 RE
Bi-212	HASL 300*	0.698 +/- 0.514	pCi/g	0.610		10/27/2009 RE
Pb-212	HASL 300*	2.67 +/- 0.340	pCi/g	0.215		10/27/2009 RE
Bi-214	HASL 300*	2.31 +/- 0.261	pCi/g	0.211		10/27/2009 RE
Pb-214	HASL 300*	2.83 +/- 0.293	pCi/g	0.203		10/27/2009 RE
Ac-228	HASL 300*	1.18 +/- 0.182	pCi/g	0.329		10/27/2009 RE
Th-234	HASL 300*	1.45 +/- 2.43	pCi/g	1.92		10/27/2009 RE
Tritium (H3)	EPA 906*	0 +/- 0.20	pCi/g	3.4	10/3/2009	10/15/2009 RE

Lab ID: 20090789-22
Client ID: OU7-SB05-22'-24'
Date Sampled: 9/21/2009 8:45:00 AM
Matrix: Solid

Radiochemical Analyses

*NELAC Certified Parameter BDL = Below Detection Limit

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Carbon-14	EPA EERF C01	0.033 +/- 0.076	pCi/g	0.081	10/6/2009	10/17/2009 RE
Eu-152	HASL 300*	0 +/- 0.098	pCi/g	0.233		11/22/2009 RE
Eu-154	HASL 300*	0.136 +/- 0.125	pCi/g	0.111		11/22/2009 RE
K-40	HASL 300*	32.6 +/- 4.49	pCi/g	0.540		11/22/2009 RE
Tl-208	HASL 300*	0.615 +/- 0.092	pCi/g	0.073		11/22/2009 RE
Bi-212	HASL 300*	0.587 +/- 0.448	pCi/g	0.545		11/22/2009 RE
Pb-212	HASL 300*	1.82 +/- 0.216	pCi/g	0.152		11/22/2009 RE
Bi-214	HASL 300*	1.29 +/- 0.156	pCi/g	0.129		11/22/2009 RE
Pb-214	HASL 300*	1.14 +/- 0.137	pCi/g	0.140		11/22/2009 RE
Ac-228	HASL 300*	1.46 +/- 0.211	pCi/g	0.266		11/22/2009 RE
Th-234	HASL 300*	2.18 +/- 1.23	pCi/g	1.47		11/22/2009 RE
Tritium (H3)	EPA 906*	1.0 +/- 0.20	pCi/g	3.4	10/3/2009	10/15/2009 RE

Lab ID: 20090789-23
Client ID: OU7-SB06-22'-24'
Date Sampled: 9/21/2009 12:00:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.047	pCi/g	0.051	10/6/2009	10/17/2009 RE
Eu-152	HASL 300*	0 +/- 0.092	pCi/g	0.218		11/22/2009 RE
Eu-154	HASL 300*	0 +/- 0.063	pCi/g	0.150		11/22/2009 RE
K-40	HASL 300*	28.5 +/- 3.97	pCi/g	0.618		11/22/2009 RE
Tl-208	HASL 300*	0.607 +/- 0.091	pCi/g	0.071		11/22/2009 RE
Bi-212	HASL 300*	0.115 +/- 0.822	pCi/g	0.430		11/22/2009 RE
Pb-212	HASL 300*	1.57 +/- 0.168	pCi/g	0.098		11/22/2009 RE
Bi-214	HASL 300*	0.846 +/- 0.107	pCi/g	0.127		11/22/2009 RE
Pb-214	HASL 300*	0.864 +/- 0.108	pCi/g	0.134		11/22/2009 RE
Ac-228	HASL 300*	1.53 +/- 0.148	pCi/g	0.215		11/22/2009 RE
Th-234	HASL 300*	0.112 +/- 1.83	pCi/g	1.15		11/22/2009 RE
Tritium (H3)	EPA 906*	0 +/- 0.20	pCi/g	3.4	10/3/2009	10/15/2009 RE

Lab ID: 20090789-24
Client ID: OU7-SB07-22'-24'
Date Sampled: 9/21/2009 1:40:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.06	pCi/g	0.1	10/6/2009	10/17/2009 RE
Eu-152	HASL 300*	0.058 +/- 0.066	pCi/g	0.145		11/2/2009 RE
Eu-154	HASL 300*	0 +/- 0.053	pCi/g	0.125		11/2/2009 RE
K-40	HASL 300*	23.1 +/- 2.47	pCi/g	0.925		11/2/2009 RE
Tl-208	HASL 300*	0.335 +/- 0.061	pCi/g	0.061		11/2/2009 RE

*NELAC Certified Parameter

BDL = Below Detection Limit



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Analytical Report

	Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Bi-212	HASL 300*	0.436 +/- 0.335	pCi/g	0.399		11/2/2009	RE
Pb-212	HASL 300*	1.41 +/- 0.228	pCi/g	0.165		11/2/2009	RE
Bi-214	HASL 300*	1.06 +/- 0.173	pCi/g	0.140		11/2/2009	RE
Pb-214	HASL 300*	1.10 +/- 0.139	pCi/g	0.132		11/2/2009	RE
Ac-228	HASL 300*	0 +/- 0.161	pCi/g	0.381		11/2/2009	RE
Th-234	HASL 300*	0 +/- 0.426	pCi/g	1.01		11/2/2009	RE
Tritium (H3)	EPA 906*	2.0 +/- 0.21	pCi/g	3.5	10/3/2009	10/15/2009	RE

Lab ID: 20090789-25
 Client ID: OU7-SB08-22'-24'
 Date Sampled: 9/21/2009 3:30:00 PM
 Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.02 +/- 0.06	pCi/g	0.06	10/6/2009	10/17/2009	RE
Eu-152	HASL 300*	0 +/- 0.134	pCi/g	0.318		10/27/2009	RE
Eu-154	HASL 300*	0 +/- 0.153	pCi/g	0.363		10/27/2009	RE
K-40	HASL 300*	28.6 +/- 3.14	pCi/g	0.927		10/27/2009	RE
Tl-208	HASL 300*	0.476 +/- 0.108	pCi/g	0.103		10/27/2009	RE
Bi-212	HASL 300*	1.42 +/- 0.769	pCi/g	0.906		10/27/2009	RE
Pb-212	HASL 300*	2.92 +/- 0.387	pCi/g	0.213		10/27/2009	RE
Bi-214	HASL 300*	1.04 +/- 0.135	pCi/g	0.154		10/27/2009	RE
Pb-214	HASL 300*	1.32 +/- 0.225	pCi/g	0.219		10/27/2009	RE
Ac-228	HASL 300*	1.23 +/- 0.136	pCi/g	0.266		10/27/2009	RE
Th-234	HASL 300*	0 +/- 2.10	pCi/g	4.99		10/27/2009	RE
Tritium (H3)	EPA 906*	2.0 +/- 0.20	pCi/g	3.3	10/3/2009	10/15/2009	RE

Lab ID: 20090789-26
 Client ID: OU7-SB09-22'-24'
 Date Sampled: 9/22/2009 9:00:00 AM
 Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.02 +/- 0.05	pCi/g	0.05	10/6/2009	10/17/2009	RE
Eu-152	HASL 300*	0 +/- 0.138	pCi/g	0.328		10/28/2009	RE
Eu-154	HASL 300*	0.087 +/- 0.091	pCi/g	0.181		10/28/2009	RE
K-40	HASL 300*	27.4 +/- 1.90	pCi/g	1.01		10/28/2009	RE
Tl-208	HASL 300*	0.697 +/- 0.097	pCi/g	0.080		10/28/2009	RE
Bi-212	HASL 300*	1.00 +/- 0.489	pCi/g	0.587		10/28/2009	RE
Pb-212	HASL 300*	0 +/- 0.081	pCi/g	0.191		10/28/2009	RE
Bi-214	HASL 300*	2.16 +/- 0.195	pCi/g	0.138		10/28/2009	RE
Pb-214	HASL 300*	3.32 +/- 0.308	pCi/g	0.249		10/28/2009	RE
Ac-228	HASL 300*	1.93 +/- 0.194	pCi/g	0.257		10/28/2009	RE

*NELAC Certified Parameter

BDL = Below Detection Limit



Outreach Laboratory

311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

Client Project: 2008012-103
Lab Number: 20090789
Date Reported: 12/2/2009
Date Received: 9/24/09
Page Number: 15 of 17

Analytical Report

	Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Th-234	HASL 300*	6.68 +/- 3.38	pCi/g	5.36		10/28/2009	RE
Tritium (H3)	EPA 906*	0.2 +/- 0.2	pCi/g	3.4	10/3/2009	10/15/2009	RE

Lab ID: 20090789-27
Client ID: OU7-SB10-21'-23'
Date Sampled: 9/22/2009 11:30:00 AM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.03 +/- 0.08	pCi/g	0.09	10/6/2009	10/17/2009	RE
Eu-152	HASL 300*	0 +/- 0.054	pCi/g	0.129		11/2/2009	RE
Eu-154	HASL 300*	0 +/- 0.055	pCi/g	0.131		11/2/2009	RE
K-40	HASL 300*	14.5 +/- 1.24	pCi/g	0.417		11/2/2009	RE
Tl-208	HASL 300*	0.282 +/- 0.044	pCi/g	0.043		11/2/2009	RE
Bi-212	HASL 300*	0.332 +/- 0.135	pCi/g	0.207		11/2/2009	RE
Pb-212	HASL 300*	1.09 +/- 0.290	pCi/g	0.071		11/2/2009	RE
Bi-214	HASL 300*	0.640 +/- 0.070	pCi/g	0.064		11/2/2009	RE
Pb-214	HASL 300*	0.621 +/- 0.060	pCi/g	0.072		11/2/2009	RE
Ac-228	HASL 300*	0.876 +/- 0.101	pCi/g	0.107		11/2/2009	RE
Th-234	HASL 300*	0 +/- 0.459	pCi/g	1.09		11/2/2009	RE
Tritium (H3)	EPA 906*	0.6 +/- 0.19	pCi/g	3.3	10/3/2009	10/15/2009	RE

Lab ID: 20090789-28
Client ID: Ramp Drain
Date Sampled: 9/22/2009 2:30:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.063	pCi/g	0.069	10/16/2009	11/5/2009	SD
Eu-152	HASL 300*	0 +/- 0.091	pCi/g	0.217		11/2/2009	RE
Eu-154	HASL 300*	0.081 +/- 0.083	pCi/g	0.143		11/2/2009	RE
K-40	HASL 300*	14.4 +/- 2.54	pCi/g	1.45		11/2/2009	RE
Tl-208	HASL 300*	0.366 +/- 0.102	pCi/g	0.101		11/2/2009	RE
Bi-212	HASL 300*	0.796 +/- 0.630	pCi/g	0.742		11/2/2009	RE
Pb-212	HASL 300*	0 +/- 0.101	pCi/g	0.239		11/2/2009	RE
Bi-214	HASL 300*	0.480 +/- 0.201	pCi/g	0.256		11/2/2009	RE
Pb-214	HASL 300*	0.936 +/- 0.170	pCi/g	0.193		11/2/2009	RE
Ac-228	HASL 300*	0 +/- 0.243	pCi/g	0.576		11/2/2009	RE
Th-234	HASL 300*	0.081 +/- 1.11	pCi/g	1.36		11/2/2009	RE
Nickel-63	DOE RESL Ni-1 M	0 +/- 4.2	pCi/g	1.8	11/20/2009	11/23/2009	RE
Tritium (H3)	EPA 906*	1.6 +/- 1.18	pCi/g	9.1	10/21/2009	11/18/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	1.05 +/- 0.200	pCi/g	0.075	11/10/2009	11/16/2009	SD



Outreach Laboratory

311 North Aspen
Broken Arrow, OK 74012
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Client Project: 2008012-i03
Lab Number: 20090789
Date Reported: 12/2/2009
Date Received: 9/24/09
Page Number: 16 of 17

Analytical Report

	Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Uranium-235	ASTM D 3972/DOE U-02*	0.209 +/- 0.090	pCi/g	0.043	11/10/2009	11/16/2009	SD
Uranium-234	ASTM D 3972/DOE U-02*	1.26 +/- 0.218	pCi/g	0.060	11/10/2009	11/16/2009	SD

Lab ID: 20090789-29
Client ID: Duct Insulation
Date Sampled: 9/23/2009 11:00:00 AM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.623 +/- 0.097	pCi/g	0.080	10/30/2009	11/5/2009	SD
Eu-152	HASL 300*	0 +/- 0.390	pCi/g	0.925		10/28/2009	RE
Eu-154	HASL 300*	0 +/- 0.266	pCi/g	0.631		10/28/2009	RE
K-40	HASL 300*	17.9 +/- 8.17	pCi/g	3.98		10/28/2009	RE
Tl-208	HASL 300*	0.275 +/- 0.232	pCi/g	0.284		10/28/2009	RE
Bi-212	HASL 300*	1.11 +/- 1.63	pCi/g	2.07		10/28/2009	RE
Pb-212	HASL 300*	0.414 +/- 0.524	pCi/g	0.664		10/28/2009	RE
Bi-214	HASL 300*	3.16 +/- 0.677	pCi/g	0.716		10/28/2009	RE
Pb-214	HASL 300*	2.96 +/- 0.576	pCi/g	0.681		10/28/2009	RE
Ac-228	HASL 300*	0.657 +/- 0.597	pCi/g	1.18		10/28/2009	RE
Th-234	HASL 300*	2.35 +/- 2.70	pCi/g	4.60		10/28/2009	RE
Nickel-63	DOE RESL Ni-1 M	0 +/- 5.3	pCi/g	2.2	11/20/2009	11/23/2009	RE
Tritium (H3)	EPA 906*	31.0 +/- 1.50	pCi/g	9.4	10/21/2009	11/18/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	2.64 +/- 0.333	pCi/g	0.098	11/10/2009	11/16/2009	SD
Uranium-235	ASTM D 3972/DOE U-02*	0.501 +/- 0.146	pCi/g	0.065	11/10/2009	11/16/2009	SD
Uranium-234	ASTM D 3972/DOE U-02*	2.80 +/- 0.343	pCi/g	0.106	11/10/2009	11/16/2009	SD

Inorganics Analyses

Chrysotile	Bulk	10	%			10/6/2009	OL
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Outreach Laboratory

311 North Aspen
Broken Arrow, OK 74012
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Client Project: 2008012-103
Lab Number: 20090789
Date Reported: 12/2/2009
Date Received: 9/24/09
Page Number: 17 of 17

QC Report

Parameter	Blank	LCS %REC	LCSD		DUP RPD	MS %REC	MSD		Date
			%REC	RPD			%REC	RPD	
Ac-228 (Ra228)					1.6				10/28/2009
Ac-228 (Ra228)					NC				10/26/2009
Am-241		84.0	106.0	22.6					10/28/2009
Am-241		103.0	98.0	5.8					10/30/2009
Bi-212					NC				10/26/2009
Bi-212					NC				10/28/2009
Bi-214 (Ra226)					17.7				10/28/2009
Bi-214 (Ra226)					9.3				10/26/2009
Carbon-14	0.085	71.0			35.8	61.0	61.0	1.0	11/5/2009
Carbon-14	0	80.0			NC	87.0	102.0	17.0	10/16/2009
Co-60		100.0	97.0	2.7					10/30/2009
Co-60		97.0	98.0	0.9					10/28/2009
Cs-137		100.0	101.0	1.3					10/30/2009
Cs-137		100.0	98.0	1.6					10/28/2009
K-40					12.8				10/28/2009
K-40					21.2				10/26/2009
Nickel-63	0	105.0				94.0	97.8	2.8	11/23/2009
Pb-212					NC				10/28/2009
Pb-212					7.6				10/26/2009
Pb-214					8.3				10/26/2009
Pb-214					0.3				10/28/2009
Th-234 (U238)					NC				10/28/2009
Th-234 (U238)					NC				10/26/2009
Tl-208					NC				10/28/2009
Tl-208					NC				10/26/2009
Tritium (H3)	0	93.0				96.2	92.7	3.7	11/18/2009
Tritium (H3)	256	102.0			NC	101.0	103.0	0.9	10/15/2009
Uranium-234	0.367	91.7			57.5	94.4	101.0	9.9	11/16/2009
Uranium-238	0.049	107.0			NC	91.9	100.0	11.3	11/16/2009

Lab Approval: _____

**INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD**

Page 1 of 4
Reference No 2008012-03

(1) Client Name	USACE Baltimore/DORF	(7) Samples Shipment Date	9/23/09	(5) Bill to:	IEM
(2) Collected By:	R. Alan Duff	(8) Lab Destination	Outreach - Broken Arrow/OK		8 Brookes Ave., Ste. 205
(3) Job/Task No:	2008012-103	(9) Lab Contact	Ron Eidson	(10) Report to:	Gaithersburg, MD 20877
(4) Project Manager:	R. Alan Duff	(12) IEM Technical Contact/Phone	R. Alan Duff (855) 207-5678		Email to: RADUFF@IEM-INC.COM
(6) Purchase Order No.	N/A	(13) Carrier/Waybill No.	Fed Ex #		9 CDBERGER@IEM-INC.COM
(11) Required Report Date	Normal TAT		837729087503		

ONE CONTAINER PER LINE

(14) Sample Number	(15) Sample Description/Type	(16) Date/Time Collected	(17) Container Type	(18) Sample Volume	(19) Preservative	(20) Requested Testing Program
1 FD-1	Floor drain debris Grab	9/15/09 0830	Ziploc Bag	~2.5kg	None	Gamma Spec. / H3-C14 / Ni-63 / ISO. U
2 FD-2		9/15/09 0900		↓		
3 FD-3		9/15/09 0915		↓		
4 FD-4		9/15/09 0930		0.5kg		
5 FD-5		9/15/09 0940		0.5kg		
6 FD-6		9/15/09 1000		0.5kg		
7 FD-7		9/15/09 1015		↓		
8 FD-8		9/15/09 1015		↓		
9 FD-9		9/15/09 1030		↓		

(23) Special Instructions

(24) Possible Hazard Identification
 Non-hazard Flammable Skin Irritant Poison B Unknown

(25) Sample Disposal
 Return to Client Disposal by Lab Archive months

(26) Turnaround Time Required: Normal Rush

(27) QC Level: I II III Project Specific See Attached Spec. Lot #

(28) Relinquished by: (signature, date, time): [Signature] 9/23/09 1200
 Relinquished by: (signature, date, time):
 Relinquished by: (signature, date, time):

Received by: (signature, date, time): [Signature] 09/24/09/1000
 Received by: (signature, date, time):
 Received by: (signature, date, time):

(See Reverse for Instructions) 20090789

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD

(1) Client Name	USACE Baltimore/DORF	(7) Samples Shipment Date	9/23/09	(5) Bill to:	
(2) Collected By:	R. Alan Duff	(8) Lab Destination	R		
(3) Job/Task No:	2008012.103	(9) Lab Contact	SEE PAGE		
(4) Project Manager:	R. Alan Duff	(12) IEM Technical Contact/Phone		(10) Report to:	
(6) Purchase Order No.	N/A	(13) Carrier/Waybill No.			
(11) Required Report Date	Normal TAT				

ONE CONTAINER PER LINE

(14) Sample Number	(15) Sample Description/Type	(16) Date/Time Collected	(17) Container Type	(18) Sample Volume	(19) Preservative	(20) Requested Testing Program
FD-10	Floor drain debris Grab	9/15/09 1100	ziploc Bag	~0.25Kg	None	Gamma Spec, H3/C14 Ni-63, ES-U
FD-11	Floor penetrations Grab	9/15/09 1130	↓	~0.25Kg	None	
EP-3	Floor penetrations Grab	9/14/09 0945	ziploc Bag	~1Kg	None	
EP-8		9/14/09 0900				
EP-15		9/16/09 0815				
EP-Composite	Floor penetrations composite for cable run debris	9/14/09 1000				
Cable Tray	Composite of cable run debris	9/18/09 0845		~0.5kg		
OU6-SBOS-10-20	OU6 Locations 10-20	9/16/09 1430	↓	1kg		Gamma Spec. / H3+C14
OU7-SBOS-10-20	OU7 Locations 10-20 at Bldg 516	9/17/09 0930	↓			

(23) Special Instructions

(24) Possible Hazard Identification
 Non-hazard Flammable Skin Irritant Poison B Unknown

(25) Sample Disposal
 Return to Client Disposal by Lab Archive months

(26) Turnaround Time Required: Normal Rush

(27) QC Level: I II III Project Specific See Attached Spec. Memo

(28) Relinquished by: (signature, date, time): [Signature] 9/23/09 1200
 Relinquished by: (signature, date, time):
 Relinquished by: (signature, date, time):

(See Reverse for Instructions)

20090789-2

**INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD**

Page 3 of 4
Reference No 2008012-03

(1) Client Name	USACE Baltimore/DORF	(7) Samples Shipment Date	9/23/09	(5) Bill to:	
(2) Collected By:	R. Alan Duff	(8) Lab Destination	SET		
(3) Job/Task No:	2008012.103	(9) Lab Contact			
(4) Project Manager:	R. Alan Duff	(12) IEM Technical Contact/Phone		(10) Report to:	
(6) Purchase Order No.	N/A	(13) Carrier/Waybill No.			
(11) Required Report Date	Normal TAT				

ONE CONTAINER PER LINE

(14) Sample Number	(15) Sample Description/Type	(16) Date/Time Collected	(17) Container Type	(18) Sample Volume	(19) Preservative	(20) Requested Testing Program
19	0U7-SB02-18-20 Out west side of Bldg. 516	9/17/09 1130	Ziploc Bag	~ 1 kg	None	Gamma Spec., H3/C14
20	0U7-SB03-18-20 Out SW corner of Bldg. 516	9/17/09 1430				
21	0U7-SB04-22-24 Out Truck dock driveway	9/18/09 0930				
22	0U7-SB05-22-24 Out parking area	9/21/09 0845				
23	0U7-SB06-22-24 SW corner of Bldg.	9/21/09 1200				
24	0U7-SB07-22-24 West side of Bldg. 516	9/21/09 1340				
25	0U7-SB08-22-24 West side of Bldg. 516	9/21/09 1530				
26	0U7-SB09-22-24 North side of Bldg. 516	9/22/09 0900				
27	0U7-SB10-21-23 North side of Bldg.	9/22/09 1130				

(23) Special Instructions	
(24) Possible Hazard Identification	<input checked="" type="checkbox"/> Non-hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown
(25) Sample Disposal	Return to Client <input type="checkbox"/> Archive <input checked="" type="checkbox"/> months (27) QC Level: <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> Project Specific <i>See Attached Spec. Letter</i>
(26) Turnaround Time Required:	Normal <input checked="" type="checkbox"/> Rush <input type="checkbox"/>
(28) Relinquished by: (signature, date, time):	<i>RAD</i> 9/23/09 1200
Relinquished by: (signature, date, time):	
Relinquished by: (signature, date, time):	

(See Reverse for Instructions)

20090789-3

**INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD**

Page 4 of 4
Reference No 2008012-03

(1) Client Name	USACE Baltimore/Dorf	(7) Samples Shipment Date	9/23/09	(5) Bill to:	
(2) Collected By:	R. Alkan Duff	(8) Lab Destination			
(3) Job/Task No:	2008012.103	(9) Lab Contact	SEE PAGE 4		
(4) Project Manager:	R. Alkan Duff	(12) IEM Technical Contact/Phone		(10) Report to:	F U
(6) Purchase Order No.	N/A	(13) Carrier/Waybill No.			
(11) Required Report Date	NORMAL TAT				

ONE CONTAINER PER LINE

(14) Sample Number	(15) Sample Description/Type	(16) Date/Time Collected	(17) Container Type	(18) Sample Volume	(19) Preservative	(20) Requested Testing Program
28	Ramp Drain Grab/soil	9/23/09 1430	ziploc Bag	n/Kg	None	Gamma Spec, H3/CN NI-63 / Isotopic U
29	Duct Insulation Grab/Insulation	9/23/09 1100	ziploc Bag	n.0.5Kg	None	Gamma Spec H3/CN NI-63 / Asbestos

(23) Special Instructions **POTENTIAL ASBESTOS IN DUCT INSULATION SAMPLE**

(24) Possible Hazard Identification
 Non-hazard Flammable Skin Irritant Poison B Unknown Disposal by Lab Archive months

(26) Turnaround Time Required: Normal Rush Project Specific See spec. letter

(28) Relinquished by: (signature, date, time): W. J. J. 9/23/09 1200 Received by: (signature, date, time) Phil Phillips 092409/1000

Relinquished by: (signature, date, time): _____ Received by: (signature, date, time) _____

Relinquished by: (signature, date, time): _____ Received by: (signature, date, time) _____

(See Reverse for Instructions) 20090789-4



**Outreach
Laboratory**

311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

December 16, 2009

Carol Berger
Integrated Environmental Management, Inc.
8 Brooks Ave #205
Gaithersburg, MD 20877

CLIENT PROJECT NAME: 2008012.103
OUTREACH LAB ID: 20090742

Dear Ms. Berger:

Please find enclosed the analytical report for your samples received in our laboratory on September 11, 2009 for the above captioned project. Twenty-nine solid samples were received in good condition and analyzed for naturally occurring radionuclides by Gamma Spectroscopy, Carbon-14, Tritium, Iron-55, and Isotopic Uranium, per your instructions.

All Quality Control for the requested analysis is reported on the analytical report and is within control limits with the exception of the DUP RPD for Eu-152, and the MS % Recovery for Iron 55, and the MS % Recovery and MSD RPD for Uranium 234.

Per your instructions, these samples will be disposed 30 days after the final report date.

Thank you for choosing Outreach Laboratory and if you have any questions, please call us at 918-251-2515.

Laboratory Director

ODEQ ID #9517
NRC ODEQ LIC. #27522-01



CERT. ID #OK001
See Certified
Parameter List

Analytical Report

	Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
--	--------	--------	-------	----	-----------	---------------	---------

Lab ID: 20090742-01
Client ID: C-1-1 (Ceiling)
Date Sampled: 8/5/2009 3:00:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.112 +/- 0.084	pCi/g	0.086	10/1/2009	10/3/2009	RE
K-40	HASL 300*	1.94 +/- 0.376	pCi/g	0.341		10/5/2009	RE
Tl-208	HASL 300*	0.052 +/- 0.028	pCi/g	0.049		10/5/2009	RE
Bi-212	HASL 300*	0.526 +/- 0.323	pCi/g	0.406		10/5/2009	RE
Pb-212	HASL 300*	0.192 +/- 0.076	pCi/g	0.114		10/5/2009	RE
Bi-214	HASL 300*	0.169 +/- 0.049	pCi/g	0.096		10/5/2009	RE
Pb-214	HASL 300*	0.229 +/- 0.036	pCi/g	0.097		10/5/2009	RE
Ac-228	HASL 300*	0.029 +/- 0.093	pCi/g	0.190		10/5/2009	RE
Th-234	HASL 300*	0.024 +/- 0.611	pCi/g	1.45		10/5/2009	RE
Eu-152	HASL 300*	22.7 +/- 0.542	pCi/g	0.132		10/5/2009	RE
Eu-154	HASL 300*	0.648 +/- 0.106	pCi/g	0.252		10/5/2009	RE
Iron-55	ASTM D 4922	8.51 +/- 0.75	pCi/g	0.95	10/26/2009	11/1/2009	RE
Tritium (H3)	EPA 906*	2.4 +/- 0.20	pCi/g	3.3	9/30/2009	10/13/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	0.576 +/- 0.097	pCi/g	0.066	10/5/2009	10/18/2009	RE
Uranium-235	ASTM D 3972/DOE U-02*	0.287 +/- 0.069	pCi/g	0.048	10/5/2009	10/18/2009	RE
Uranium-234	ASTM D 3972/DOE U-02*	0.642 +/- 0.101	pCi/g	0.058	10/5/2009	10/18/2009	RE

Lab ID: 20090742-02
Client ID: C-1-2 (Ceiling)
Date Sampled: 8/5/2009 3:00:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.054	pCi/g	0.059	10/1/2009	10/3/2009	RE
K-40	HASL 300*	1.26 +/- 0.402	pCi/g	0.614		10/5/2009	RE
Tl-208	HASL 300*	0.103 +/- 0.020	pCi/g	0.036		10/5/2009	RE
Bi-212	HASL 300*	0 +/- 0.188	pCi/g	0.446		10/5/2009	RE
Pb-212	HASL 300*	0.191 +/- 0.049	pCi/g	0.074		10/5/2009	RE
Bi-214	HASL 300*	0.118 +/- 0.056	pCi/g	0.085		10/5/2009	RE
Pb-214	HASL 300*	0.226 +/- 0.106	pCi/g	0.077		10/5/2009	RE
Ac-228	HASL 300*	0.232 +/- 0.065	pCi/g	0.177		10/5/2009	RE
Th-234	HASL 300*	0 +/- 0.342	pCi/g	0.811		10/5/2009	RE
Eu-152	HASL 300*	3.50 +/- 0.126	pCi/g	0.116		10/5/2009	RE
Eu-154	HASL 300*	0.236 +/- 0.079	pCi/g	0.115		10/5/2009	RE



Outreach Laboratory

311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

Client Project: 2008/012-103
Lab Number: 20090742
Date Reported: 12/15/2009
Date Received: 9/11/09
Page Number: 2 of 19

Analytical Report

	Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Iron-55	ASTM D 4922	1.99 +/- 0.62	pCi/g	0.95	10/26/2009	11/1/2009	RE
Tritium (H3)	EPA 906*	2.5 +/- 0.20	pCi/g	3.4	9/30/2009	10/13/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	0.522 +/- 0.105	pCi/g	0.082	10/5/2009	10/18/2009	RE
Uranium-235	ASTM D 3972/DOE U-02*	0.078 +/- 0.050	pCi/g	0.063	10/5/2009	10/18/2009	RE
Uranium-234	ASTM D 3972/DOE U-02*	0.553 +/- 0.108	pCi/g	0.087	10/5/2009	10/18/2009	RE

Lab ID: 20090742-03
Client ID: C-1-3 (Ceiling)
Date Sampled: 8/5/2009 3:00:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.055	pCi/g	0.060	10/1/2009	10/3/2009	RE
K-40	HASL 300*	2.14 +/- 0.579	pCi/g	0.567		10/3/2009	RE
Tl-208	HASL 300*	0.136 +/- 0.034	pCi/g	0.058		10/3/2009	RE
Bi-212	HASL 300*	0.375 +/- 0.240	pCi/g	0.437		10/3/2009	RE
Pb-212	HASL 300*	0.437 +/- 0.075	pCi/g	0.100		10/3/2009	RE
Bi-214	HASL 300*	0.276 +/- 0.060	pCi/g	0.094		10/3/2009	RE
Pb-214	HASL 300*	0.329 +/- 0.051	pCi/g	0.088		10/3/2009	RE
Ac-228	HASL 300*	0.404 +/- 0.102	pCi/g	0.232		10/3/2009	RE
Th-234	HASL 300*	0.558 +/- 0.191	pCi/g	0.411		10/3/2009	RE
Eu-152	HASL 300*	5.54 +/- 0.161	pCi/g	0.110		10/3/2009	RE
Eu-154	HASL 300*	0.173 +/- 0.054	pCi/g	0.077		10/3/2009	RE
Iron-55	ASTM D 4922	0 +/- 0.57	pCi/g	0.96	10/26/2009	11/1/2009	RE
Tritium (H3)	EPA 906*	3.1 +/- 0.21	pCi/g	3.5	9/30/2009	10/13/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	0.494 +/- 0.094	pCi/g	0.042	10/5/2009	10/18/2009	RE
Uranium-235	ASTM D 3972/DOE U-02*	0.066 +/- 0.036	pCi/g	0.027	10/5/2009	10/18/2009	RE
Uranium-234	ASTM D 3972/DOE U-02*	0.563 +/- 0.103	pCi/g	0.058	10/5/2009	10/18/2009	RE

Lab ID: 20090742-04
Client ID: C-1-4 (Ceiling)
Date Sampled: 8/5/2009 3:00:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.089	pCi/g	0.097	10/2/2009	10/5/2009	RE
K-40	HASL 300*	2.09 +/- 0.563	pCi/g	0.500		10/6/2009	RE
Tl-208	HASL 300*	0.065 +/- 0.040	pCi/g	0.070		10/6/2009	RE



Outreach Laboratory

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ITEM

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Bi-212	HASL 300*	0.319 +/- 0.229	pCi/g	0.411	10/6/2009	RE
Pb-212	HASL 300*	0.440 +/- 0.081	pCi/g	0.143	10/6/2009	RE
Bi-214	HASL 300*	0.012 +/- 0.295	pCi/g	0.114	10/6/2009	RE
Pb-214	HASL 300*	0.395 +/- 0.060	pCi/g	0.132	10/6/2009	RE
Ac-228	HASL 300*	0.148 +/- 0.143	pCi/g	0.204	10/6/2009	RE
Th-234	HASL 300*	0.302 +/- 0.704	pCi/g	1.67	10/6/2009	RE
Eu-152	HASL 300*	5.86 +/- 0.300	pCi/g	0.182	10/6/2009	RE
Eu-154	HASL 300*	0.207 +/- 0.081	pCi/g	0.146	10/6/2009	RE
Iron-55	ASTM D 4922	0 +/- 0.57	pCi/g	0.96	10/26/2009	11/1/2009 RE
Tritium (H3)	EPA 906*	2.4 +/- 0.21	pCi/g	3.4	9/30/2009	10/13/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.571 +/- 0.095	pCi/g	0.044	10/5/2009	10/18/2009 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.066 +/- 0.033	pCi/g	0.024	10/5/2009	10/18/2009 RE
Uranium-234	ASTM D 3972/DOE U-02*	0.556 +/- 0.092	pCi/g	0.034	10/5/2009	10/18/2009 RE

Lab ID: 20090742-05
Client ID: C-1-5 (Ceiling)
Date Sampled: 8/5/2009 3:00:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.072	pCi/g	0.079	10/2/2009	10/5/2009 RE
K-40	HASL 300*	1.10 +/- 0.658	pCi/g	0.793		10/6/2009 RE
Tl-208	HASL 300*	0.049 +/- 0.052	pCi/g	0.065		10/6/2009 RE
Bi-212	HASL 300*	0 +/- 0.271	pCi/g	0.643		10/6/2009 RE
Pb-212	HASL 300*	0.146 +/- 0.101	pCi/g	0.125		10/6/2009 RE
Bi-214	HASL 300*	0.193 +/- 0.077	pCi/g	0.101		10/6/2009 RE
Pb-214	HASL 300*	0.221 +/- 0.062	pCi/g	0.104		10/6/2009 RE
Ac-228	HASL 300*	0.032 +/- 0.169	pCi/g	0.226		10/6/2009 RE
Th-234	HASL 300*	0 +/- 0.317	pCi/g	0.753		10/6/2009 RE
Eu-152	HASL 300*	1.53 +/- 0.139	pCi/g	0.121		10/6/2009 RE
Eu-154	HASL 300*	0.354 +/- 0.030	pCi/g	0.085		10/6/2009 RE
Iron-55	ASTM D 4922	0.97 +/- 0.60	pCi/g	0.96	10/26/2009	11/1/2009 RE
Tritium (H3)	EPA 906*	0.8 +/- 0.21	pCi/g	3.5	9/30/2009	10/14/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.384 +/- 0.093	pCi/g	0.081	10/5/2009	10/18/2009 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.066 +/- 0.052	pCi/g	0.071	10/5/2009	10/18/2009 RE
Uranium-234	ASTM D 3972/DOE U-02*	0.425 +/- 0.104	pCi/g	0.104	10/5/2009	10/18/2009 RE

*NELAC Certified Parameter

BDL = Below Detection Limit



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Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
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Lab ID: 20090742-06
Client ID: F-3-1 (Floor)
Date Sampled: 8/5/2009 3:10:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.104 +/- 0.056	pCi/g	0.055	10/1/2009	10/3/2009	RE
K-40	HASL 300*	2.28 +/- 0.612	pCi/g	0.536		10/6/2009	RE
Tl-208	HASL 300*	0.055 +/- 0.059	pCi/g	0.074		10/6/2009	RE
Bi-212	HASL 300*	0 +/- 0.234	pCi/g	0.376		10/6/2009	RE
Pb-212	HASL 300*	0 +/- 0.168	pCi/g	0.223		10/6/2009	RE
Bi-214	HASL 300*	0.155 +/- 0.023	pCi/g	0.119		10/6/2009	RE
Pb-214	HASL 300*	0.155 +/- 0.116	pCi/g	0.165		10/6/2009	RE
Ac-228	HASL 300*	0.189 +/- 0.160	pCi/g	0.197		10/6/2009	RE
Th-234	HASL 300*	1.22 +/- 1.99	pCi/g	2.55		10/6/2009	RE
Eu-152	HASL 300*	9.10 +/- 0.382	pCi/g	0.209		10/6/2009	RE
Eu-154	HASL 300*	0.212 +/- 0.097	pCi/g	0.147		10/6/2009	RE
Iron-55	ASTM D 4922	0.98 +/- 0.60	pCi/g	0.96	10/26/2009	11/1/2009	RE
Tritium (H3)	EPA 906*	4.4 +/- 0.21	pCi/g	3.5	9/30/2009	10/13/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	0.404 +/- 0.073	pCi/g	0.049	10/5/2009	10/18/2009	RE
Uranium-235	ASTM D 3972/DOE U-02*	0.059 +/- 0.032	pCi/g	0.039	10/5/2009	10/18/2009	RE
Uranium-234	ASTM D 3972/DOE U-02*	0.462 +/- 0.079	pCi/g	0.058	10/5/2009	10/18/2009	RE

Lab ID: 20090742-07
Client ID: F-3-2 (Floor)
Date Sampled: 8/5/2009 3:10:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.038 +/- 0.055	pCi/g	0.058	10/1/2009	10/3/2009	RE
K-40	HASL 300*	2.01 +/- 0.883	pCi/g	1.00		10/3/2009	RE
Tl-208	HASL 300*	0.129 +/- 0.381	pCi/g	0.090		10/3/2009	RE
Bi-212	HASL 300*	0.644 +/- 0.341	pCi/g	0.808		10/3/2009	RE
Pb-212	HASL 300*	0.070 +/- 0.042	pCi/g	0.077		10/3/2009	RE
Bi-214	HASL 300*	0.135 +/- 0.073	pCi/g	0.143		10/3/2009	RE
Pb-214	HASL 300*	0.286 +/- 0.064	pCi/g	0.152		10/3/2009	RE
Ac-228	HASL 300*	0.357 +/- 0.238	pCi/g	0.273		10/3/2009	RE
Th-234	HASL 300*	0 +/- 0.201	pCi/g	0.478		10/3/2009	RE
Eu-152	HASL 300*	6.90 +/- 0.245	pCi/g	0.120		10/3/2009	RE
Eu-154	HASL 300*	0.048 +/- 0.130	pCi/g	0.084		10/3/2009	RE

*NELAC Certified Parameter

BDL = Below Detection Limit



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Client Project: 2008/012-103
Lab Number: 20090742
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Date Received: 9/11/09
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Analytical Report

	Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Iron-55	ASTM D 4922	0.18 +/- 0.58	pCi/g	0.96	10/26/2009	11/1/2009	RE
Tritium (H3)	EPA 906*	4.1 +/- 0.21	pCi/g	3.4	9/30/2009	10/13/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	3.04 +/- 0.476	pCi/g	0.227	10/5/2009	10/18/2009	RE
Uranium-235	ASTM D 3972/DOE U-02*	0.386 +/- 0.181	pCi/g	0.138	10/5/2009	10/18/2009	RE
Uranium-234	ASTM D 3972/DOE U-02*	2.29 +/- 0.423	pCi/g	0.250	10/5/2009	10/18/2009	RE

Lab ID: 20090742-08
Client ID: F-3-3 (Floor)
Date Sampled: 8/5/2009 3:10:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.098 +/- 0.068	pCi/g	0.069	10/1/2009	10/3/2009	RE
K-40	HASL 300*	2.87 +/- 0.917	pCi/g	1.01		10/6/2009	RE
Tl-208	HASL 300*	0.091 +/- 0.038	pCi/g	0.072		10/6/2009	RE
Bi-212	HASL 300*	0 +/- 0.501	pCi/g	0.666		10/6/2009	RE
Pb-212	HASL 300*	0.342 +/- 0.046	pCi/g	0.133		10/6/2009	RE
Bi-214	HASL 300*	0.092 +/- 0.136	pCi/g	0.174		10/6/2009	RE
Pb-214	HASL 300*	0.738 +/- 0.166	pCi/g	0.167		10/6/2009	RE
Ac-228	HASL 300*	0 +/- 0.148	pCi/g	0.352		10/6/2009	RE
Th-234	HASL 300*	0 +/- 0.818	pCi/g	1.94		10/6/2009	RE
Eu-152	HASL 300*	7.15 +/- 0.305	pCi/g	0.307		10/6/2009	RE
Eu-154	HASL 300*	0.310 +/- 0.094	pCi/g	0.179		10/6/2009	RE
Iron-55	ASTM D 4922	0.08 +/- 0.58	pCi/g	0.96	10/26/2009	11/2/2009	RE
Tritium (H3)	EPA 906*	2.3 +/- 0.21	pCi/g	3.5	9/30/2009	10/13/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	0.449 +/- 0.077	pCi/g	0.034	10/5/2009	10/18/2009	RE
Uranium-235	ASTM D 3972/DOE U-02*	0.069 +/- 0.033	pCi/g	0.032	10/5/2009	10/18/2009	RE
Uranium-234	ASTM D 3972/DOE U-02*	0.573 +/- 0.090	pCi/g	0.058	10/5/2009	10/18/2009	RE

Lab ID: 20090742-09
Client ID: F-3-4 (Floor)
Date Sampled: 8/5/2009 3:10:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.072	pCi/g	0.079	10/2/2009	10/5/2009	RE
K-40	HASL 300*	2.09 +/- 0.633	pCi/g	0.584		10/6/2009	RE
Tl-208	HASL 300*	1.06 +/- 1.32	pCi/g	1.50		10/6/2009	RE

*NELAC Certified Parameter BDL = Below Detection Limit



Outreach Laboratory

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Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Bi-212	HASL 300*	0.156 +/- 0.175	pCi/g	0.359	10/6/2009	RE
Pb-212	HASL 300*	0.289 +/- 0.090	pCi/g	0.131	10/6/2009	RE
Bi-214	HASL 300*	0.092 +/- 0.049	pCi/g	0.138	10/6/2009	RE
Pb-214	HASL 300*	0.097 +/- 0.061	pCi/g	0.125	10/6/2009	RE
Ac-228	HASL 300*	5.72 +/- 0.085	pCi/g	3.40	10/6/2009	RE
Th-234	HASL 300*	1.16 +/- 0.611	pCi/g	1.45	10/6/2009	RE
Eu-152	HASL 300*	14.9 +/- 0.460	pCi/g	0.606	10/6/2009	RE
Eu-154	HASL 300*	1.34 +/- 0.521	pCi/g	0.965	10/6/2009	RE
Iron-55	ASTM D 4922	0 +/- 0.57	pCi/g	0.96	10/26/2009	11/2/2009 RE
Tritium (H3)	EPA 906*	2.4 +/- 0.21	pCi/g	3.5	9/30/2009	10/14/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	1.06 +/- 0.113	pCi/g	0.048	10/5/2009	10/18/2009 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.229 +/- 0.054	pCi/g	0.030	10/5/2009	10/18/2009 RE
Uranium-234	ASTM D 3972/DOE U-02*	1.07 +/- 0.115	pCi/g	0.049	10/5/2009	10/18/2009 RE

Lab ID: 20090742-10
Client ID: F-3-5 (Floor)
Date Sampled: 8/5/2009 3:10:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.020 +/- 0.068	pCi/g	0.073	10/6/2009	10/16/2009 RE
K-40	HASL 300*	2.56 +/- 0.575	pCi/g	0.482		10/3/2009 RE
Tl-208	HASL 300*	0.090 +/- 0.044	pCi/g	0.054		10/3/2009 RE
Bi-212	HASL 300*	0 +/- 0.291	pCi/g	0.391		10/3/2009 RE
Pb-212	HASL 300*	0.115 +/- 0.057	pCi/g	0.070		10/3/2009 RE
Bi-214	HASL 300*	0.201 +/- 0.079	pCi/g	0.105		10/3/2009 RE
Pb-214	HASL 300*	0.207 +/- 0.060	pCi/g	0.092		10/3/2009 RE
Ac-228	HASL 300*	0.126 +/- 0.148	pCi/g	0.187		10/3/2009 RE
Th-234	HASL 300*	0.446 +/- 0.607	pCi/g	0.934		10/3/2009 RE
Eu-152	HASL 300*	4.35 +/- 0.180	pCi/g	0.109		10/3/2009 RE
Eu-154	HASL 300*	0.154 +/- 0.094	pCi/g	0.076		10/3/2009 RE
Iron-55	ASTM D 4922	0.50 +/- 0.59	pCi/g	0.96	10/26/2009	11/2/2009 RE
Tritium (H3)	EPA 906*	2.6 +/- 0.21	pCi/g	3.5	10/3/2009	10/15/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.719 +/- 0.152	pCi/g	0.173	10/5/2009	10/18/2009 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.074 +/- 0.081	pCi/g	0.127	10/5/2009	10/18/2009 RE
Uranium-234	ASTM D 3972/DOE U-02*	0.753 +/- 0.171	pCi/g	0.215	10/5/2009	10/18/2009 RE



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Lab Number: 20090742
Date Reported: 12/15/2009
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Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
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Lab ID: 20090742-11
Client ID: W-12-1 (Wall)
Date Sampled: 8/6/2009 2:00:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.119 +/- 0.080	pCi/g	0.081	10/2/2009	10/5/2009	RE
K-40	HASL 300*	2.61 +/- 1.05	pCi/g	1.09		10/6/2009	RE
Tl-208	HASL 300*	0.073 +/- 0.052	pCi/g	0.107		10/6/2009	RE
Bi-212	HASL 300*	0 +/- 0.209	pCi/g	0.496		10/6/2009	RE
Pb-212	HASL 300*	0.201 +/- 0.087	pCi/g	0.160		10/6/2009	RE
Bi-214	HASL 300*	0.127 +/- 0.126	pCi/g	0.182		10/6/2009	RE
Pb-214	HASL 300*	0.707 +/- 0.109	pCi/g	0.212		10/6/2009	RE
Ac-228	HASL 300*	0.169 +/- 0.227	pCi/g	0.316		10/6/2009	RE
Th-234	HASL 300*	0 +/- 0.915	pCi/g	2.17		10/6/2009	RE
Eu-152	HASL 300*	12.7 +/- 0.586	pCi/g	0.214		10/6/2009	RE
Eu-154	HASL 300*	0.371 +/- 0.170	pCi/g	0.149		10/6/2009	RE
Iron-55	ASTM D 4922	0.01 +/- 0.57	pCi/g	0.96	10/26/2009	11/2/2009	RE
Tritium (H3)	EPA 906*	3.0 +/- 0.21	pCi/l	3.5	9/30/2009	10/14/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	0.416 +/- 0.106	pCi/g	0.138	10/5/2009	10/18/2009	RE
Uranium-235	ASTM D 3972/DOE U-02*	0.066 +/- 0.063	pCi/g	0.101	10/5/2009	10/18/2009	RE
Uranium-234	ASTM D 3972/DOE U-02*	0.469 +/- 0.110	pCi/g	0.140	10/5/2009	10/18/2009	RE

Lab ID: 20090742-12
Client ID: W-12-2 (Wall)
Date Sampled: 8/6/2009 2:00:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.015 +/- 0.074	pCi/g	0.080	10/2/2009	10/5/2009	RE
K-40	HASL 300*	2.00 +/- 0.589	pCi/g	0.514		10/6/2009	RE
Tl-208	HASL 300*	0.005 +/- 0.043	pCi/g	0.057		10/6/2009	RE
Bi-212	HASL 300*	0 +/- 0.304	pCi/g	0.721		10/6/2009	RE
Pb-212	HASL 300*	0.293 +/- 0.136	pCi/g	0.162		10/6/2009	RE
Bi-214	HASL 300*	0.108 +/- 0.080	pCi/g	0.108		10/6/2009	RE
Pb-214	HASL 300*	0.386 +/- 0.081	pCi/g	0.171		10/6/2009	RE
Ac-228	HASL 300*	0 +/- 0.129	pCi/g	0.306		10/6/2009	RE
Th-234	HASL 300*	0.900 +/- 1.24	pCi/g	2.45		10/6/2009	RE
Eu-152	HASL 300*	7.72 +/- 0.375	pCi/g	0.204		10/6/2009	RE
Eu-154	HASL 300*	0.236 +/- 0.106	pCi/g	0.151		10/6/2009	RE

*NELAC Certified Parameter

BDL = Below Detection Limit

Analytical Report

	Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Iron-55	ASTM D 4922	0.47 +/- 0.59	pCi/g	0.96	10/26/2009	11/2/2009	RE
Tritium (H3)	EPA 906*	2.2 +/- 0.21	pCi/g	3.4	9/30/2009	10/14/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	0.332 +/- 0.068	pCi/g	0.045	10/5/2009	10/18/2009	RE
Uranium-235	ASTM D 3972/DOE U-02*	0.093 +/- 0.036	pCi/g	0.027	10/5/2009	10/18/2009	RE
Uranium-234	ASTM D 3972/DOE U-02*	0.522 +/- 0.085	pCi/g	0.052	10/5/2009	10/18/2009	RE

Lab ID: 20090742-13
Client ID: W-12-3 (Wall)
Date Sampled: 8/6/2009 2:00:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.013 +/- 0.067	pCi/g	0.072	10/2/2009	10/5/2009	RE
K-40	HASL 300*	2.04 +/- 0.860	pCi/g	1.00		10/6/2009	RE
Tl-208	HASL 300*	0.170 +/- 0.084	pCi/g	0.103		10/6/2009	RE
Bi-212	HASL 300*	0 +/- 0.216	pCi/g	0.369		10/6/2009	RE
Pb-212	HASL 300*	0.331 +/- 0.075	pCi/g	0.127		10/6/2009	RE
Bi-214	HASL 300*	0.146 +/- 0.047	pCi/g	0.126		10/6/2009	RE
Pb-214	HASL 300*	0.266 +/- 0.048	pCi/g	0.140		10/6/2009	RE
Ac-228	HASL 300*	0.210 +/- 0.044	pCi/g	0.195		10/6/2009	RE
Th-234	HASL 300*	0.144 +/- 1.02	pCi/g	1.31		10/6/2009	RE
Eu-152	HASL 300*	7.33 +/- 0.314	pCi/g	0.192		10/6/2009	RE
Eu-154	HASL 300*	0.091 +/- 0.112	pCi/g	0.195		10/6/2009	RE
Iron-55	ASTM D 4922	0 +/- 0.57	pCi/g	0.96	10/26/2009	11/2/2009	RE
Tritium (H3)	EPA 906*	1.5 +/- 0.21	pCi/g	3.5	9/30/2009	10/14/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	0.771 +/- 0.173	pCi/g	0.099	10/5/2009	10/30/2009	RE
Uranium-235	ASTM D 3972/DOE U-02*	0.109 +/- 0.073	pCi/g	0.079	10/5/2009	10/30/2009	RE
Uranium-234	ASTM D 3972/DOE U-02*	0.949 +/- 0.194	pCi/g	0.117	10/5/2009	10/30/2009	RE

Lab ID: 20090742-14
Client ID: W-12-4 (Wall)
Date Sampled: 8/6/2009 2:00:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.08	pCi/g	0.1	10/2/2009	10/5/2009	RE
K-40	HASL 300*	2.26 +/- 0.661	pCi/g	0.570		10/7/2009	RE
Tl-208	HASL 300*	0.100 +/- 0.052	pCi/g	0.060		10/7/2009	RE



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Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Bi-212	HASL 300*	0.081 +/- 0.151	pCi/g	0.308	10/7/2009	RE
Pb-212	HASL 300*	0.400 +/- 0.090	pCi/g	0.151	10/7/2009	RE
Bi-214	HASL 300*	0.262 +/- 0.062	pCi/g	0.107	10/7/2009	RE
Pb-214	HASL 300*	0.320 +/- 0.068	pCi/g	0.128	10/7/2009	RE
Ac-228	HASL 300*	0.239 +/- 0.111	pCi/g	0.222	10/7/2009	RE
Th-234	HASL 300*	0.797 +/- 0.874	pCi/g	0.735	10/7/2009	RE
Eu-152	HASL 300*	3.00 +/- 0.231	pCi/g	0.165	10/7/2009	RE
Eu-154	HASL 300*	0.085 +/- 0.050	pCi/g	0.136	10/7/2009	RE
Iron-55	ASTM D 4922	0.21 +/- 0.58	pCi/g	0.96	10/26/2009	11/2/2009 RE
Tritium (H3)	EPA 906*	2.8 +/- 0.21	pCi/g	3.5	9/30/2009	10/14/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.654 +/- 0.118	pCi/g	0.102	10/5/2009	10/18/2009 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.315 +/- 0.081	pCi/g	0.069	10/5/2009	10/18/2009 RE
Uranium-234	ASTM D 3972/DOE U-02*	0.716 +/- 0.121	pCi/g	0.097	10/5/2009	10/18/2009 RE

Lab ID: 20090742-15
Client ID: W-12-5 (Wall)
Date Sampled: 8/6/2009 2:00:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.07	pCi/g	0.08	10/2/2009	10/5/2009 RE
K-40	HASL 300*	1.86 +/- 0.754	pCi/g	0.787		10/7/2009 RE
Tl-208	HASL 300*	0.113 +/- 0.044	pCi/g	0.061		10/7/2009 RE
Bi-212	HASL 300*	0.370 +/- 0.209	pCi/g	0.388		10/7/2009 RE
Pb-212	HASL 300*	0 +/- 0.189	pCi/g	0.101		10/7/2009 RE
Bi-214	HASL 300*	0.258 +/- 0.061	pCi/g	0.099		10/7/2009 RE
Pb-214	HASL 300*	0.389 +/- 0.058	pCi/g	0.101		10/7/2009 RE
Ac-228	HASL 300*	0.218 +/- 0.103	pCi/g	0.203		10/7/2009 RE
Th-234	HASL 300*	0.169 +/- 0.765	pCi/g	0.988		10/7/2009 RE
Eu-152	HASL 300*	3.04 +/- 0.194	pCi/g	0.162		10/7/2009 RE
Eu-154	HASL 300*	0.146 +/- 0.101	pCi/g	0.105		10/7/2009 RE
Iron-55	ASTM D 4922	0 +/- 0.57	pCi/g	0.96	10/26/2009	11/2/2009 RE
Tritium (H3)	EPA 906*	2.6 +/- 0.21	pCi/g	3.5	9/30/2009	10/14/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.513 +/- 0.111	pCi/g	0.134	10/5/2009	10/18/2009 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.192 +/- 0.058	pCi/g	0.058	10/5/2009	10/18/2009 RE
Uranium-234	ASTM D 3972/DOE U-02*	0.783 +/- 0.108	pCi/g	0.078	10/5/2009	10/18/2009 RE

*NELAC Certified Parameter

BDL = Below Detection Limit

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
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Lab ID: 20090742-16
Client ID: W-13-1 (Wall)
Date Sampled: 8/6/2009 2:15:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.061	pCi/g	0.088	10/6/2009	10/16/2009	RE
K-40	HASL 300*	2.21 +/- 0.773	pCi/g	0.819		10/7/2009	RE
Tl-208	HASL 300*	0.088 +/- 0.043	pCi/g	0.076		10/7/2009	RE
Bi-212	HASL 300*	0.003 +/- 0.291	pCi/g	0.386		10/7/2009	RE
Pb-212	HASL 300*	0.238 +/- 0.102	pCi/g	0.142		10/7/2009	RE
Bi-214	HASL 300*	0.003 +/- 0.051	pCi/g	0.088		10/7/2009	RE
Pb-214	HASL 300*	0.215 +/- 0.052	pCi/g	0.121		10/7/2009	RE
Ac-228	HASL 300*	0.184 +/- 0.084	pCi/g	0.201		10/7/2009	RE
Th-234	HASL 300*	0.063 +/- 0.491	pCi/g	0.568		10/7/2009	RE
Eu-152	HASL 300*	5.37 +/- 0.184	pCi/g	0.110		10/7/2009	RE
Eu-154	HASL 300*	0.120 +/- 0.102	pCi/g	0.076		10/7/2009	RE
Iron-55	ASTM D 4922	1.01 +/- 0.60	pCi/g	0.96	10/26/2009	11/2/2009	RE
Tritium (H3)	EPA 906*	3.2 +/- 0.22	pCi/g	3.6	10/3/2009	10/15/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	0.431 +/- 0.098	pCi/g	0.089	10/5/2009	10/18/2009	RE
Uranium-235	ASTM D 3972/DOE U-02*	0.187 +/- 0.073	pCi/g	0.084	10/5/2009	10/18/2009	RE
Uranium-234	ASTM D 3972/DOE U-02*	0.546 +/- 0.112	pCi/g	0.104	10/5/2009	10/18/2009	RE

Lab ID: 20090742-17
Client ID: W-13-2 (Wall)
Date Sampled: 8/6/2009 2:15:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.02 +/- 0.09	pCi/g	0.10	10/2/2009	10/5/2009	RE
K-40	HASL 300*	2.60 +/- 0.815	pCi/g	0.749		10/7/2009	RE
Tl-208	HASL 300*	0.154 +/- 0.082	pCi/g	0.098		10/7/2009	RE
Bi-212	HASL 300*	0 +/- 0.382	pCi/g	0.906		10/7/2009	RE
Pb-212	HASL 300*	0.221 +/- 0.169	pCi/g	0.210		10/7/2009	RE
Bi-214	HASL 300*	0.255 +/- 0.124	pCi/g	0.184		10/7/2009	RE
Pb-214	HASL 300*	0.343 +/- 0.153	pCi/g	0.220		10/7/2009	RE
Ac-228	HASL 300*	0.177 +/- 0.204	pCi/g	0.256		10/7/2009	RE
Th-234	HASL 300*	1.65 +/- 2.42	pCi/g	4.15		10/7/2009	RE
Eu-152	HASL 300*	8.95 +/- 0.423	pCi/g	0.262		10/7/2009	RE
Eu-154	HASL 300*	0.307 +/- 0.141	pCi/g	0.191		10/7/2009	RE

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Iron-55	ASTM D 4922	0 +/- 0.56	pCi/g	0.96	10/26/2009	11/2/2009 RE
Tritium (H3)	EPA 906*	6.0 +/- 0.22	pCi/g	3.6	9/30/2009	10/14/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.519 +/- 0.092	pCi/g	0.033	10/5/2009	10/18/2009 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.049 +/- 0.030	pCi/g	0.025	10/5/2009	10/18/2009 RE
Uranium-234	ASTM D 3972/DOE U-02*	0.488 +/- 0.088	pCi/g	0.019	10/5/2009	10/18/2009 RE

Lab ID: 20090742-18
Client ID: W-13-3 (Wall)
Date Sampled: 8/6/2009 2:15:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.02 +/- 0.07	pCi/g	0.08	10/2/2009	10/5/2009 RE
K-40	HASL 300*	2.78 +/- 1.04	pCi/g	1.180		10/7/2009 RE
Tl-208	HASL 300*	0.025 +/- 0.064	pCi/g	0.083		10/7/2009 RE
Bi-212	HASL 300*	0.398 +/- 0.434	pCi/g	1.030		10/7/2009 RE
Pb-212	HASL 300*	0.324 +/- 0.053	pCi/g	0.168		10/7/2009 RE
Bi-214	HASL 300*	0.299 +/- 0.095	pCi/g	0.181		10/7/2009 RE
Pb-214	HASL 300*	0.412 +/- 0.100	pCi/g	0.176		10/7/2009 RE
Ac-228	HASL 300*	0.264 +/- 0.069	pCi/g	0.251		10/7/2009 RE
Th-234	HASL 300*	0 +/- 0.700	pCi/g	1.66		10/7/2009 RE
Eu-152	HASL 300*	9.74 +/- 0.353	pCi/g	0.241		10/7/2009 RE
Eu-154	HASL 300*	0.231 +/- 0.080	pCi/g	0.219		10/7/2009 RE
Iron-55	ASTM D 4922	0.12 +/- 0.58	pCi/g	0.96	10/26/2009	11/2/2009 RE
Tritium (H3)	EPA 906*	4.5 +/- 0.22	pCi/g	3.5	9/30/2009	10/14/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.728 +/- 0.113	pCi/g	0.032	10/5/2009	10/18/2009 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.255 +/- 0.068	pCi/g	0.032	10/5/2009	10/18/2009 RE
Uranium-234	ASTM D 3972/DOE U-02*	0.802 +/- 0.121	pCi/g	0.053	10/5/2009	10/18/2009 RE

Lab ID: 20090742-19
Client ID: W-13-4 (Wall)
Date Sampled: 8/6/2009 2:15:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	1.31 +/- 0.133	pCi/g	0.096	10/3/2009	10/16/2009 RE
K-40	HASL 300*	2.02 +/- 0.706	pCi/g	0.688		10/7/2009 RE
Tl-208	HASL 300*	0.087 +/- 0.114	pCi/g	0.082		10/7/2009 RE



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Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Bi-212	HASL 300*	0.020 +/- 0.291	pCi/g	0.523	10/7/2009	RE
Pb-212	HASL 300*	0.335 +/- 0.112	pCi/g	0.165	10/7/2009	RE
Bi-214	HASL 300*	0.166 +/- 0.182	pCi/g	0.139	10/7/2009	RE
Pb-214	HASL 300*	0.241 +/- 0.074	pCi/g	0.167	10/7/2009	RE
Ac-228	HASL 300*	0.087 +/- 0.152	pCi/g	0.352	10/7/2009	RE
Th-234	HASL 300*	0.949 +/- 0.843	pCi/g	2.00	10/7/2009	RE
Eu-152	HASL 300*	9.42 +/- 0.403	pCi/g	0.224	10/7/2009	RE
Eu-154	HASL 300*	0.343 +/- 0.145	pCi/g	0.197	10/7/2009	RE
Iron-55	ASTM D 4922	0 +/- 0.56	pCi/g	0.96	10/26/2009	11/2/2009 RE
Tritium (H3)	EPA 906*	4.8 +/- 0.22	pCi/g	3.6	10/3/2009	10/14/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.488 +/- 0.084	pCi/g	0.077	10/5/2009	10/18/2009 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.210 +/- 0.059	pCi/g	0.065	10/5/2009	10/18/2009 RE
Uranium-234	ASTM D 3972/DOE U-02*	0.501 +/- 0.096	pCi/g	0.110	10/5/2009	10/18/2009 RE

Lab ID: 20090742-20
Client ID: W-13-5 (Wall)
Date Sampled: 8/6/2009 2:15:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.897 +/- 0.110	pCi/g	0.082	10/3/2009	10/16/2009 RE
K-40	HASL 300*	3.31 +/- 1.03	pCi/g	1.01		10/7/2009 RE
Tl-208	HASL 300*	0.116 +/- 0.042	pCi/g	0.108		10/7/2009 RE
Bi-212	HASL 300*	0 +/- 0.569	pCi/g	1.35		10/7/2009 RE
Pb-212	HASL 300*	0.313 +/- 0.089	pCi/g	0.162		10/7/2009 RE
Bi-214	HASL 300*	0.248 +/- 0.150	pCi/g	0.200		10/7/2009 RE
Pb-214	HASL 300*	0.412 +/- 0.097	pCi/g	0.171		10/7/2009 RE
Ac-228	HASL 300*	0.507 +/- 0.307	pCi/g	0.233		10/7/2009 RE
Th-234	HASL 300*	0 +/- 0.535	pCi/g	1.27		10/7/2009 RE
Eu-152	HASL 300*	18.3 +/- 0.691	pCi/g	0.404		10/7/2009 RE
Eu-154	HASL 300*	0.690 +/- 0.166	pCi/g	0.310		10/7/2009 RE
Iron-55	ASTM D 4922	0.49 +/- 0.59	pCi/g	0.96	10/26/2009	11/2/2009 RE
Tritium (H3)	EPA 906*	2.0 +/- 0.21	pCi/g	3.5	10/3/2009	10/14/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.521 +/- 0.113	pCi/g	0.092	10/12/2009	10/21/2009 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.113 +/- 0.060	pCi/g	0.070	10/12/2009	10/21/2009 RE
Uranium-234	ASTM D 3972/DOE U-02*	0.626 +/- 0.123	pCi/g	0.098	10/12/2009	10/21/2009 RE

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
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Lab ID: 20090742-21
Client ID: W-14-1 (Wall)
Date Sampled: 8/6/2009 2:30:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.059 +/- 0.097	pCi/g	0.103	10/3/2009	10/16/2009 RE
K-40	HASL 300*	2.28 +/- 0.618	pCi/g	0.610		10/7/2009 RE
Tl-208	HASL 300*	0 +/- 0.075	pCi/g	0.177		10/7/2009 RE
Bi-212	HASL 300*	0 +/- 0.591	pCi/g	0.816		10/7/2009 RE
Pb-212	HASL 300*	0 +/- 0.244	pCi/g	0.318		10/7/2009 RE
Bi-214	HASL 300*	0.185 +/- 0.137	pCi/g	0.196		10/7/2009 RE
Pb-214	HASL 300*	1.92 +/- 0.530	pCi/g	0.630		10/7/2009 RE
Ac-228	HASL 300*	0.027 +/- 0.233	pCi/g	0.307		10/7/2009 RE
Th-234	HASL 300*	0.069 +/- 2.33	pCi/g	5.52		10/7/2009 RE
Eu-152	HASL 300*	27.7 +/- 0.921	pCi/g	0.394		10/7/2009 RE
Eu-154	HASL 300*	0.725 +/- 0.193	pCi/g	0.282		10/7/2009 RE
Iron-55	ASTM D 4922	0.11 +/- 0.58	pCi/g	0.96	10/26/2009	11/2/2009 RE
Tritium (H3)	EPA 906*	3.3 +/- 0.20	pCi/g	3.3	10/3/2009	10/15/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.730 +/- 0.113	pCi/g	0.041	10/12/2009	10/21/2009 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.101 +/- 0.043	pCi/g	0.026	10/12/2009	10/21/2009 RE
Uranium-234	ASTM D 3972/DOE U-02*	0.868 +/- 0.125	pCi/g	0.058	10/12/2009	10/21/2009 RE

Lab ID: 20090742-22
Client ID: W-14-2 (Wall)
Date Sampled: 8/6/2009 2:30:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.012 +/- 0.073	pCi/g	0.078	10/3/2009	10/16/2009 RE
K-40	HASL 300*	4.78 +/- 1.14	pCi/g	1.17		10/7/2009 RE
Tl-208	HASL 300*	0.117 +/- 0.051	pCi/g	0.103		10/7/2009 RE
Bi-212	HASL 300*	0.099 +/- 0.236	pCi/g	0.831		10/7/2009 RE
Pb-212	HASL 300*	0.502 +/- 0.120	pCi/g	0.234		10/7/2009 RE
Bi-214	HASL 300*	0.053 +/- 0.206	pCi/g	0.207		10/7/2009 RE
Pb-214	HASL 300*	0.238 +/- 0.088	pCi/g	0.214		10/7/2009 RE
Ac-228	HASL 300*	0.280 +/- 0.054	pCi/g	0.424		10/7/2009 RE
Th-234	HASL 300*	3.50 +/- 1.33	pCi/g	3.15		10/7/2009 RE
Eu-152	HASL 300*	27.3 +/- 0.728	pCi/g	0.370		10/7/2009 RE
Eu-154	HASL 300*	0.798 +/- 0.172	pCi/g	0.272		10/7/2009 RE



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Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Iron-55	ASTM D 4922	0.56 +/- 0.59	pCi/g	0.96	10/26/2009	11/2/2009 RE
Tritium (H3)	EPA 906*	3.2 +/- 0.21	pCi/g	3.5	10/3/2009	10/15/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.423 +/- 0.090	pCi/g	0.051	10/12/2009	10/21/2009 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.109 +/- 0.045	pCi/g	0.027	10/12/2009	10/21/2009 RE
Uranium-234	ASTM D 3972/DOE U-02*	0.608 +/- 0.105	pCi/g	0.039	10/12/2009	10/21/2009 RE

Lab ID: 20090742-23
Client ID: W-14-3 (Wall)
Date Sampled: 8/6/2009 2:30:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.072	pCi/g	0.079	10/3/2009	10/16/2009 RE
K-40	HASL 300*	3.11 +/- 0.788	pCi/g	0.730		10/8/2009 RE
Tl-208	HASL 300*	0.124 +/- 0.117	pCi/g	0.149		10/8/2009 RE
Bi-212	HASL 300*	0.044 +/- 0.190	pCi/g	0.474		10/8/2009 RE
Pb-212	HASL 300*	0.437 +/- 0.190	pCi/g	0.186		10/8/2009 RE
Bi-214	HASL 300*	0.176 +/- 0.083	pCi/g	0.172		10/8/2009 RE
Pb-214	HASL 300*	0.412 +/- 0.059	pCi/g	0.168		10/8/2009 RE
Ac-228	HASL 300*	0 +/- 0.222	pCi/g	0.526		10/8/2009 RE
Th-234	HASL 300*	0.523 +/- 0.978	pCi/g	2.32		10/8/2009 RE
Eu-152	HASL 300*	16.9 +/- 0.562	pCi/g	0.244		10/8/2009 RE
Eu-154	HASL 300*	0.774 +/- 0.142	pCi/g	0.197		10/8/2009 RE
Iron-55	ASTM D 4922	0 +/- 0.56	pCi/g	0.96	10/26/2009	11/2/2009 RE
Tritium (H3)	EPA 906*	6.7 +/- 0.22	pCi/g	3.5	10/3/2009	10/15/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.515 +/- 0.112	pCi/g	0.090	10/12/2009	10/21/2009 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.120 +/- 0.065	pCi/g	0.079	10/12/2009	10/21/2009 RE
Uranium-234	ASTM D 3972/DOE U-02*	0.735 +/- 0.137	pCi/g	0.116	10/12/2009	10/21/2009 RE

Lab ID: 20090742-24
Client ID: W-14-4 (Wall)
Date Sampled: 8/6/2009 2:30:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.468 +/- 0.096	pCi/g	0.084	10/6/2009	10/16/2009 RE
K-40	HASL 300*	2.78 +/- 0.414	pCi/g	0.533		10/3/2009 RE
Tl-208	HASL 300*	0.117 +/- 0.022	pCi/g	0.047		10/3/2009 RE

*NELAC Certified Parameter BDL = Below Detection Limit



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Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Bi-212	HASL 300*	0.241 +/- 0.089	pCi/g	0.366	10/3/2009	RE
Pb-212	HASL 300*	0.241 +/- 0.089	pCi/g	0.090	10/3/2009	RE
Bi-214	HASL 300*	0.149 +/- 0.048	pCi/g	0.090	10/3/2009	RE
Pb-214	HASL 300*	0 +/- 0.061	pCi/g	0.145	10/3/2009	RE
Ac-228	HASL 300*	0.253 +/- 0.138	pCi/g	0.310	10/3/2009	RE
Th-234	HASL 300*	0 +/- 0.380	pCi/g	0.901	10/3/2009	RE
Eu-152	HASL 300*	13.6 +/- 0.305	pCi/g	0.148	10/3/2009	RE
Eu-154	HASL 300*	0.453 +/- 0.040	pCi/g	0.122	10/3/2009	RE
Iron-55	ASTM D 4922	0 +/- 0.57	pCi/g	0.96	10/26/2009	11/2/2009 RE
Tritium (H3)	EPA 906*	4.5 +/- 0.20	pCi/g	3.2	10/3/2009	10/15/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.458 +/- 0.080	pCi/g	0.052	10/12/2009	10/21/2009 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.059 +/- 0.034	pCi/g	0.041	10/12/2009	10/21/2009 RE
Uranium-234	ASTM D 3972/DOE U-02*	0.543 +/- 0.088	pCi/g	0.062	10/12/2009	10/21/2009 RE

Lab ID: 20090742-25
Client ID: W-14-5 (Wall)
Date Sampled: 8/6/2009 2:30:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	1.56 +/- 0.140	pCi/g	0.096	10/6/2009	10/16/2009 RE
K-40	HASL 300*	1.37 +/- 1.17	pCi/g	1.41		10/15/2009 RE
Tl-208	HASL 300*	0 +/- 0.121	pCi/g	0.161		10/15/2009 RE
Bi-212	HASL 300*	0 +/- 0.754	pCi/g	1.79		10/15/2009 RE
Pb-212	HASL 300*	0.239 +/- 0.082	pCi/g	0.142		10/15/2009 RE
Bi-214	HASL 300*	0.287 +/- 0.135	pCi/g	0.281		10/15/2009 RE
Pb-214	HASL 300*	0.416 +/- 0.103	pCi/g	0.213		10/15/2009 RE
Ac-228	HASL 300*	0.511 +/- 0.303	pCi/g	0.521		10/15/2009 RE
Th-234	HASL 300*	0.041 +/- 0.639	pCi/g	0.830		10/15/2009 RE
Eu-152	HASL 300*	20.7 +/- 0.703	pCi/g	0.170		10/15/2009 RE
Eu-154	HASL 300*	0.353 +/- 0.247	pCi/g	0.119		10/15/2009 RE
Iron-55	ASTM D 4922	0 +/- 0.56	pCi/g	0.96	10/26/2009	11/2/2009 RE
Tritium (H3)	EPA 906*	4.2 +/- 0.21	pCi/g	3.5	10/3/2009	10/15/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.519 +/- 0.096	pCi/g	0.057	10/12/2009	10/21/2009 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.197 +/- 0.059	pCi/g	0.037	10/12/2009	10/21/2009 RE
Uranium-234	ASTM D 3972/DOE U-02*	0.712 +/- 0.112	pCi/g	0.062	10/12/2009	10/21/2009 RE

*NELAC Certified Parameter

BDL = Below Detection Limit

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
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Lab ID: 20090742-26
Client ID: Pool-1
Date Sampled: 8/5/2009 3:00:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.153 +/- 0.065	pCi/g	0.063	10/2/2009	10/5/2009	RE
K-40	HASL 300*	1.60 +/- 0.731	pCi/g	0.761		10/8/2009	RE
Tl-208	HASL 300*	0.110 +/- 0.047	pCi/g	0.062		10/8/2009	RE
Bi-212	HASL 300*	0.116 +/- 0.222	pCi/g	0.526		10/8/2009	RE
Pb-212	HASL 300*	0.393 +/- 0.121	pCi/g	0.137		10/8/2009	RE
Bi-214	HASL 300*	0.135 +/- 0.036	pCi/g	0.092		10/8/2009	RE
Pb-214	HASL 300*	0.216 +/- 0.056	pCi/g	0.102		10/8/2009	RE
Ac-228	HASL 300*	0.280 +/- 0.093	pCi/g	0.160		10/8/2009	RE
Th-234	HASL 300*	0 +/- 0.408	pCi/g	0.967		10/8/2009	RE
Eu-152	HASL 300*	0 +/- 0.056	pCi/g	0.133		10/8/2009	RE
Eu-154	HASL 300*	0.010 +/- 0.026	pCi/g	0.038		10/8/2009	RE
Iron-55	ASTM D 4922	0 +/- 0.57	pCi/g	0.96	10/26/2009	11/2/2009	RE
Tritium (H3)	EPA 906*	1.6 +/- 0.19	pCi/g	3.3	9/30/2009	10/13/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	0.317 +/- 0.060	pCi/g	0.030	10/12/2009	10/21/2009	RE
Uranium-235	ASTM D 3972/DOE U-02*	0.078 +/- 0.032	pCi/g	0.028	10/12/2009	10/21/2009	RE
Uranium-234	ASTM D 3972/DOE U-02*	0.308 +/- 0.063	pCi/g	0.050	10/12/2009	10/21/2009	RE

Lab ID: 20090742-27
Client ID: Pool-2
Date Sampled: 8/5/2009 3:10:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	1.12 +/- 0.085	pCi/g	0.053	10/1/2009	10/3/2009	RE
K-40	HASL 300*	2.99 +/- 0.625	pCi/g	0.474		10/8/2009	RE
Tl-208	HASL 300*	0.083 +/- 0.084	pCi/g	0.048		10/8/2009	RE
Bi-212	HASL 300*	1.82 +/- 0.396	pCi/g	0.381		10/8/2009	RE
Pb-212	HASL 300*	4.19 +/- 0.454	pCi/g	0.128		10/8/2009	RE
Bi-214	HASL 300*	1.18 +/- 0.126	pCi/g	0.099		10/8/2009	RE
Pb-214	HASL 300*	1.10 +/- 0.150	pCi/g	0.155		10/8/2009	RE
Ac-228	HASL 300*	2.28 +/- 0.196	pCi/g	0.183		10/8/2009	RE
Th-234	HASL 300*	2.70 +/- 1.33	pCi/g	1.98		10/8/2009	RE
Eu-152	HASL 300*	0 +/- 0.097	pCi/g	0.231		10/8/2009	RE
Eu-154	HASL 300*	0 +/- 0.067	pCi/g	0.160		10/8/2009	RE

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Iron-55	ASTM D 4922	0.29 +/- 0.58	pCi/g	0.96	10/26/2009	11/2/2009 RE
Tritium (H3)	EPA 906*	1.2 +/- 0.20	pCi/g	3.4	9/30/2009	10/13/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	1.95 +/- 0.180	pCi/g	0.142	10/12/2009	10/24/2009 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.206 +/- 0.062	pCi/g	0.061	10/12/2009	10/24/2009 RE
Uranium-234	ASTM D 3972/DOE U-02*	1.96 +/- 0.167	pCi/g	0.083	10/12/2009	10/24/2009 RE

Lab ID: 20090742-28
Client ID: Pool-3
Date Sampled: 8/6/2009 2:45:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.057	pCi/g	0.063	9/30/2009	10/3/2009 RE
K-40	HASL 300*	9.75 +/- 1.36	pCi/g	1.02		10/8/2009 RE
Tl-208	HASL 300*	0.367 +/- 0.078	pCi/g	0.078		10/8/2009 RE
Bi-212	HASL 300*	0.911 +/- 0.160	pCi/g	0.463		10/8/2009 RE
Pb-212	HASL 300*	1.63 +/- 0.083	pCi/g	0.198		10/8/2009 RE
Bi-214	HASL 300*	0.413 +/- 0.130	pCi/g	0.154		10/8/2009 RE
Pb-214	HASL 300*	0.578 +/- 0.105	pCi/g	0.137		10/8/2009 RE
Ac-228	HASL 300*	1.15 +/- 0.161	pCi/g	0.270		10/8/2009 RE
Th-234	HASL 300*	0.415 +/- 1.07	pCi/g	1.49		10/8/2009 RE
Eu-152	HASL 300*	0.286 +/- 0.084	pCi/g	0.187		10/8/2009 RE
Eu-154	HASL 300*	0.269 +/- 0.096	pCi/g	0.227		10/8/2009 RE
Iron-55	ASTM D 4922	0.06 +/- 0.58	pCi/g	0.96	10/26/2009	11/2/2009 RE
Tritium (H3)	EPA 906*	1.7 +/- 0.20	pCi/g	3.4	9/30/2009	10/13/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.645 +/- 0.140	pCi/g	0.155	10/12/2009	10/21/2009 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.055 +/- 0.048	pCi/g	0.067	10/12/2009	10/21/2009 RE
Uranium-234	ASTM D 3972/DOE U-02*	0.588 +/- 0.133	pCi/g	0.145	10/12/2009	10/21/2009 RE

Lab ID: 20090742-29
Client ID: Pool-4
Date Sampled: 8/7/2009 10:00:00 AM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.051	pCi/g	0.057	10/2/2009	10/5/2009 RE
K-40	HASL 300*	0.64 +/- 0.379	pCi/g	0.449		10/8/2009 RE
Tl-208	HASL 300*	0.076 +/- 0.031	pCi/g	0.037		10/8/2009 RE



Outreach Laboratory

311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

Client: IEM
Client Project: 2008/012-103
Lab Number: 20090742
Date Reported: 12/15/2009
Date Received: 9/11/09
Page Number: 18 of 19

Analytical Report

	Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Bi-212	HASL 300*	0.230 +/- 0.105	pCi/g	0.178		10/8/2009	RE
Pb-212	HASL 300*	0.209 +/- 0.028	pCi/g	0.035		10/8/2009	RE
Bi-214	HASL 300*	0.082 +/- 0.041	pCi/g	0.070		10/8/2009	RE
Pb-214	HASL 300*	0.095 +/- 0.025	pCi/g	0.049		10/8/2009	RE
Ac-228	HASL 300*	0.231 +/- 0.051	pCi/g	0.114		10/8/2009	RE
Th-234	HASL 300*	0.270 +/- 0.293	pCi/g	0.211		10/8/2009	RE
Eu-152	HASL 300*	0.324 +/- 0.034	pCi/g	0.025		10/8/2009	RE
Eu-154	HASL 300*	0.041 +/- 0.008	pCi/g	0.018		10/8/2009	RE
Iron-55	ASTM D 4922	0 +/- 0.56	pCi/g	0.96	11/2/2009	11/25/2009	RE
Tritium (H3)	EPA 906*	1.9 +/- 0.21	pCi/g	3.5	9/30/2009	10/13/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	0.550 +/- 0.089	pCi/g	0.059	10/12/2009	10/21/2009	RE
Uranium-235	ASTM D 3972/DOE U-02*	0.128 +/- 0.041	pCi/g	0.017	10/12/2009	10/21/2009	RE
Uranium-234	ASTM D 3972/DOE U-02*	0.586 +/- 0.091	pCi/g	0.052	10/12/2009	10/21/2009	RE



**Outreach
Laboratory**

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Client: IEM
 Client Project: 2008/012-103
 Lab Number: 20090742
 Date Reported: 12/15/2009
 Date Received: 9/11/09
 Page Number: 19 of 19

QC Report

Parameter	Blank	LCS %REC	LCSD		DUP RPD	MS %REC	MSD		Date
			%REC	RPD			%REC	RPD	
Ac-228 (Ra228)					NC				10/10/2009
Ac-228 (Ra228)					NC				10/5/2009
Am-241		89.0	104.0	15.4					10/5/2009
Bi-212					NC				10/5/2009
Bi-214 (Ra226)		83.0	112.0	29.7	NC				10/10/2009
Bi-214 (Ra226)					NC				10/5/2009
Carbon-14	0	80.0			NC	87.0	102.0	17.0	10/16/2009
Carbon-14	0.030	95.0			NC	63.0	55.0	14.0	10/3/2009
Co-60		95.0	107.0	11.3					10/5/2009
Cs-137		94.0	108.0	14.0					10/5/2009
Eu-152					51.5				10/5/2009
Eu-154					NC				10/5/2009
Iron-55	0.2	104.0				0.0	34.7		11/25/2009
Iron-55	0	116.0			NC	106.0			11/2/2009
Iron-55	0	69.9				42.7	36.7	15.3	11/25/2009
K-40					NC				10/10/2009
K-40					NC				10/5/2009
Pb-212					NC				10/5/2009
Pb-214		116.0	108.0	7.7					10/10/2009
Pb-214					14.0				10/5/2009
Th-234 (U238)					NC				10/5/2009
Tl-208					NC				10/5/2009
Tritium (H3)	256	102.0			NC	101.0	103.0	0.9	10/15/2009
Tritium (H3)	185	104.0			NC	102.0	102.0	1.2	10/13/2009
Uranium-234	0.486	88.8			NC	85.9	94.8	4.0	10/18/2009
Uranium-234	0.237	90.8			NC	8.7	100.0	168.4	10/24/2009
Uranium-238	0.238	93.1			4.5	108.0	93.7	12.8	10/24/2009
Uranium-238	0.451	90.0			NC	92.9	99.6	1.2	10/18/2009

Lab Approval: _____

**INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD**

Page 1 of 1
Reference No 2008012.103

(1) Client Name	USACE Baltimore/DoRF	(7) Samples Shipment Date	9/10/09	(5) Bill to:	IEM
(2) Collected By:	R. Alan Duff	(8) Lab Destination	Outreach-Broken Arms	(9) Lab Contact	8 Brookes Ave., Ste. 205 Gaithersburg, MD 20877
(3) Job/Task No:	2008012.103	(9) Lab Contact	Ron Eidson	(10) Report to:	RADUFF@IEM-INC.COM
(4) Project Manager:	R. Alan Duff	(12) IEM Technical Contact/Phone	Alan Duff (865) 207-5678		
(6) Purchase Order No.	N/A	(13) Carrier/Waybill No.	FEXEX		
(11) Required Report Date	Normal TAT		# 837729087499		

ONE CONTAINER PER LINE

(14) Sample Number	(15) Sample Description/Type	(16) Date/Time Collected	(17) Container Type	(18) Sample Volume	(19) Preservative	(20) Requested Testing Program
C-1 (ceiling)	Concrete Core (0"-4.5")	8/5/09 1500	Double Ziploc Bags	~0.1 FT ³	NONE	Gamma Spectroscopy Fe-55 Isotopic A, H-3, C-14
F-3 (Floor)	Concrete Core (0"-4.5")	8/5/09 1510				
W-12 (Wall)	Concrete Core (0"-5.5")	8/6/09 1400				
W-13 (Wall)	Concrete Core (0"-5.5")	8/6/09 1415				
W-14 (Wall)	Concrete Core (0"-4.5")	8/6/09 1430				
Pool-1	Concrete/Rebar (4'-10' depth)	8/6/09 1500				
Pool-2	Concrete/Rebar (4'-12' depth)	8/6/09 1510				
Pool-3	Concrete/Rebar (12'-15' depth)	8/6/09 1445				
Pool-4	Concrete/Rebar (8.5'-12' depth)	8/6/09 1000				

(23) Special Instructions	NONE
(24) Possible Hazard Identification	<input checked="" type="checkbox"/> Non-hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Rush
(25) Sample Disposal	<input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive
(26) Turnaround Time Required:	Normal <input checked="" type="checkbox"/> Rush <input type="checkbox"/>
(28) Relinquished by: (signature, date, time):	RADUFF 8/9/09 1600
Relinquished by: (signature, date, time):	
Relinquished by: (signature, date, time):	
Relinquished by: (signature, date, time):	

(See Reverse for Instructions)



**Outreach
Laboratory**

311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

December 16, 2009

Carol Berger
Integrated Environmental Management, Inc.
8 Brooks Ave #205
Gaithersburg, MD 20877

CLIENT PROJECT NAME: 2008012.103
OUTREACH LAB ID: 20090954

Dear Ms. Berger:

Please find enclosed the analytical report for your samples received in our laboratory on November 13, 2009 for the above captioned project. Ten solid samples were received in good condition and analyzed for naturally occurring radionuclides by Gamma Spectroscopy, Carbon-14, and Tritium, per your instructions.

All Quality Control for the requested analysis is reported on the analytical report and is within control limits.

Per your instructions, these samples will be disposed 30 days after the final report date.

Thank you for choosing Outreach Laboratory and if you have any questions, please call us at 918-251-2515.

Laboratory Director

ODEQ ID #9517
NRC ODEQ LIC. #27522-01



CERT. ID #OK001
See Certified
Parameter List



**Outreach
Laboratory**

311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
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Client: IEM
 Client Project: 208012.103
 Lab Number: 20090954
 Date Reported: 12/11/2009
 Date Received: 11/13/09
 Page Number: 1 of 6

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
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Lab ID: 20090954-01
 Client ID: OU7-Location 1
 Date Sampled: 10/28/2009 2:15:00 PM
 Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.190 +/- 0.092	pCi/g	0.091	12/2/2009	12/10/2009	SD
K-40	DOE Ga-01-R*	15.0 +/- 2.34	pCi/g	1.20		12/8/2009	RE
Tl-208	DOE Ga-01-R*	0.449 +/- 0.092	pCi/g	0.118		12/8/2009	RE
Bi-212	DOE Ga-01-R*	1.31 +/- 0.464	pCi/g	1.01		12/8/2009	RE
Pb-212	DOE Ga-01-R*	1.17 +/- 0.162	pCi/g	0.179		12/8/2009	RE
Bi-214	DOE Ga-01-R*	1.55 +/- 0.253	pCi/g	0.252		12/8/2009	RE
Pb-214	DOE Ga-01-R*	1.48 +/- 0.097	pCi/g	0.213		12/8/2009	RE
Ac-228	DOE Ga-01-R*	1.01 +/- 0.156	pCi/g	0.459		12/8/2009	RE
Th-234	DOE Ga-01-R*	0.576 +/- 0.406	pCi/g	0.648		12/8/2009	RE
Eu-152	DOE Ga-01-R*	0 +/- 0.126	pCi/g	0.300		12/8/2009	RE
Eu-154	DOE Ga-01-R*	0 +/- 0.089	pCi/g	0.212		12/8/2009	RE
Cs-137	DOE Ga-01-R*	0.550 +/- 0.116	pCi/g	0.138		12/8/2009	RE
Tritium (H3)	EPA 906*	0 +/- 0.36	pCi/g	4.9	12/2/2009	12/7/2009	RE

Lab ID: 20090954-02
 Client ID: OU7-Location 2
 Date Sampled: 10/28/2009 2:07:00 PM
 Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.065 +/- 0.065	pCi/g	0.068	12/2/2009	12/9/2009	SD
K-40	DOE Ga-01-R*	13.6 +/- 3.56	pCi/g	1.94		12/8/2009	RE
Tl-208	DOE Ga-01-R*	0.403 +/- 0.175	pCi/g	0.191		12/8/2009	RE
Bi-212	DOE Ga-01-R*	0.620 +/- 0.656	pCi/g	0.780		12/8/2009	RE
Pb-212	DOE Ga-01-R*	0 +/- 0.134	pCi/g	0.317		12/8/2009	RE
Bi-214	DOE Ga-01-R*	0.982 +/- 0.290	pCi/g	0.326		12/8/2009	RE
Pb-214	DOE Ga-01-R*	1.13 +/- 0.201	pCi/g	0.308		12/8/2009	RE
Ac-228	DOE Ga-01-R*	1.16 +/- 0.326	pCi/g	0.550		12/8/2009	RE
Th-234	DOE Ga-01-R*	1.18 +/- 2.07	pCi/g	1.14		12/8/2009	RE
Eu-152	DOE Ga-01-R*	0.039 +/- 0.087	pCi/g	0.136		12/8/2009	RE
Eu-154	DOE Ga-01-R*	0 +/- 0.040	pCi/g	0.094		12/8/2009	RE
Cs-137	DOE Ga-01-R*	0.508 +/- 0.177	pCi/g	0.171		12/8/2009	RE
Tritium (H3)	EPA 906*	0 +/- 0.38	pCi/g	5.2	12/2/2009	12/8/2009	RE



Outreach Laboratory

311 North Aspen
Broken Arrow, OK 74012
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Client: IEM
Client Project: 208012.103
Lab Number: 20090954
Date Reported: 12/11/2009
Date Received: 11/13/09
Page Number: 2 of 6

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
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Lab ID: 20090954-03
Client ID: OU7-Location 3
Date Sampled: 10/28/2009 2:25:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.094 +/- 0.062	pCi/g	0.063	12/2/2009	12/9/2009	SD
K-40	DOE Ga-01-R*	25.7 +/- 3.18	pCi/g	1.17		12/8/2009	RE
Tl-208	DOE Ga-01-R*	0.406 +/- 0.105	pCi/g	0.098		12/8/2009	RE
Bi-212	DOE Ga-01-R*	0.597 +/- 0.583	pCi/g	0.715		12/8/2009	RE
Pb-212	DOE Ga-01-R*	1.98 +/- 0.135	pCi/g	0.321		12/8/2009	RE
Bi-214	DOE Ga-01-R*	1.48 +/- 0.222	pCi/g	0.167		12/8/2009	RE
Pb-214	DOE Ga-01-R*	1.59 +/- 0.393	pCi/g	0.576		12/8/2009	RE
Ac-228	DOE Ga-01-R*	1.43 +/- 0.297	pCi/g	0.363		12/8/2009	RE
Th-234	DOE Ga-01-R*	45.5 +/- 13.3	pCi/g	3.57		12/8/2009	RE
Eu-152	DOE Ga-01-R*	0 +/- 0.177	pCi/g	0.420		12/8/2009	RE
Eu-154	DOE Ga-01-R*	0 +/- 0.201	pCi/g	0.478		12/8/2009	RE
Cs-137	DOE Ga-01-R*	0.359 +/- 0.112	pCi/g	0.113		12/8/2009	RE
Tritium (H3)	EPA 906*	0 +/- 0.39	pCi/g	5.1	12/2/2009	12/8/2009	RE

Lab ID: 20090954-04
Client ID: OU7-Location 6
Date Sampled: 10/28/2009 2:05:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.101 +/- 0.064	pCi/g	0.065	12/2/2009	12/9/2009	SD
K-40	DOE Ga-01-R*	3.39 +/- 1.06	pCi/g	1.04		12/8/2009	RE
Tl-208	DOE Ga-01-R*	0.252 +/- 0.069	pCi/g	0.068		12/8/2009	RE
Bi-212	DOE Ga-01-R*	0.134 +/- 0.358	pCi/g	0.370		12/8/2009	RE
Pb-212	DOE Ga-01-R*	1.29 +/- 0.281	pCi/g	0.252		12/8/2009	RE
Bi-214	DOE Ga-01-R*	0.726 +/- 0.138	pCi/g	0.145		12/8/2009	RE
Pb-214	DOE Ga-01-R*	0.775 +/- 0.212	pCi/g	0.204		12/8/2009	RE
Ac-228	DOE Ga-01-R*	0.521 +/- 0.154	pCi/g	0.215		12/8/2009	RE
Th-234	DOE Ga-01-R*	0.697 +/- 5.30	pCi/g	6.97		12/8/2009	RE
Eu-152	DOE Ga-01-R*	0 +/- 0.099	pCi/g	0.236		12/8/2009	RE
Eu-154	DOE Ga-01-R*	0 +/- 0.099	pCi/g	0.235		12/8/2009	RE
Cs-137	DOE Ga-01-R*	0.421 +/- 0.083	pCi/g	0.066		12/8/2009	RE
Tritium (H3)	EPA 906*	1 +/- 0.40	pCi/g	5.2	12/2/2009	12/8/2009	RE



Outreach Laboratory

311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

Client: IEM
Client Project: 208012.103
Lab Number: 20090954
Date Reported: 12/11/2009
Date Received: 11/13/09
Page Number: 3 of 6

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
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Lab ID: 20090954-05
Client ID: OU7-Location 9
Date Sampled: 10/28/2009 2:45:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.046 +/- 0.054	pCi/g	0.056	12/2/2009	12/9/2009	SD
K-40	DOE Ga-01-R*	25.8 +/- 3.18	pCi/g	1.45		12/8/2009	RE
Tl-208	DOE Ga-01-R*	0.504 +/- 0.120	pCi/g	0.119		12/8/2009	RE
Bi-212	DOE Ga-01-R*	1.07 +/- 0.256	pCi/g	0.715		12/8/2009	RE
Pb-212	DOE Ga-01-R*	2.27 +/- 0.246	pCi/g	0.235		12/8/2009	RE
Bi-214	DOE Ga-01-R*	1.43 +/- 0.202	pCi/g	0.150		12/8/2009	RE
Pb-214	DOE Ga-01-R*	1.84 +/- 0.247	pCi/g	0.308		12/8/2009	RE
Ac-228	DOE Ga-01-R*	1.58 +/- 0.197	pCi/g	0.383		12/8/2009	RE
Th-234	DOE Ga-01-R*	3.24 +/- 1.05	pCi/g	2.50		12/8/2009	RE
Eu-152	DOE Ga-01-R*	0 +/- 0.162	pCi/g	0.385		12/8/2009	RE
Eu-154	DOE Ga-01-R*	0 +/- 0.129	pCi/g	0.306		12/8/2009	RE
Cs-137	DOE Ga-01-R*	0.328 +/- 0.105	pCi/g	0.107		12/8/2009	RE
Tritium (H3)	EPA 906*	0.8 +/- 0.36	pCi/g	4.8	12/2/2009	12/8/2009	RE

Lab ID: 20090954-06
Client ID: OU7-Location 10
Date Sampled: 10/28/2009 2:40:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.093 +/- 0.069	pCi/g	0.070	12/2/2009	12/10/2009	SD
K-40	DOE Ga-01-R*	19.1 +/- 3.41	pCi/g	1.92		12/8/2009	RE
Tl-208	DOE Ga-01-R*	0.559 +/- 0.174	pCi/g	0.208		12/8/2009	RE
Bi-212	DOE Ga-01-R*	0.532 +/- 0.665	pCi/g	0.823		12/8/2009	RE
Pb-212	DOE Ga-01-R*	2.36 +/- 0.507	pCi/g	0.473		12/8/2009	RE
Bi-214	DOE Ga-01-R*	1.33 +/- 0.276	pCi/g	0.302		12/8/2009	RE
Pb-214	DOE Ga-01-R*	0.927 +/- 0.269	pCi/g	0.350		12/8/2009	RE
Ac-228	DOE Ga-01-R*	1.47 +/- 0.371	pCi/g	0.783		12/8/2009	RE
Th-234	DOE Ga-01-R*	0 +/- 0.877	pCi/g	2.08		12/8/2009	RE
Eu-152	DOE Ga-01-R*	0 +/- 0.197	pCi/g	0.467		12/8/2009	RE
Eu-154	DOE Ga-01-R*	0 +/- 0.140	pCi/g	0.333		12/8/2009	RE
Cs-137	DOE Ga-01-R*	0.513 +/- 0.146	pCi/g	0.160		12/8/2009	RE
Tritium (H3)	EPA 906*	0 +/- 0.37	pCi/g	5.0	12/2/2009	12/8/2009	RE



Outreach Laboratory

311 North Aspen
Broken Arrow, OK 74012
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Client:	IEM
Client Project:	208012.103
Lab Number:	20090954
Date Reported:	12/11/2009
Date Received:	11/13/09
Page Number:	4 of 6

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
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Lab ID: 20090954-07
 Client ID: OU7-Location 11
 Date Sampled: 10/28/2009 2:43:00 PM
 Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.205 +/- 0.060	pCi/g	0.053	12/2/2009	12/9/2009	SD
K-40	DOE Ga-01-R*	22.5 +/- 2.97	pCi/g	1.12		12/8/2009	RE
Tl-208	DOE Ga-01-R*	0.401 +/- 0.109	pCi/g	0.101		12/8/2009	RE
Bi-212	DOE Ga-01-R*	0.442 +/- 0.728	pCi/g	0.821		12/8/2009	RE
Pb-212	DOE Ga-01-R*	1.88 +/- 0.363	pCi/g	0.312		12/8/2009	RE
Bi-214	DOE Ga-01-R*	1.39 +/- 0.236	pCi/g	0.217		12/8/2009	RE
Pb-214	DOE Ga-01-R*	1.82 +/- 0.294	pCi/g	0.245		12/8/2009	RE
Ac-228	DOE Ga-01-R*	1.09 +/- 0.286	pCi/g	0.384		12/8/2009	RE
Th-234	DOE Ga-01-R*	0.487 +/- 3.16	pCi/g	3.73		12/8/2009	RE
Eu-152	DOE Ga-01-R*	0.153 +/- 0.484	pCi/g	0.271		12/8/2009	RE
Eu-154	DOE Ga-01-R*	0 +/- 0.182	pCi/g	0.432		12/8/2009	RE
Cs-137	DOE Ga-01-R*	0.405 +/- 0.103	pCi/g	0.086		12/8/2009	RE
Tritium (H3)	EPA 906*	3.4 +/- 0.41	pCi/g	5.3	12/2/2009	12/8/2009	RE

Lab ID: 20090954-08
 Client ID: OU7-Location 12
 Date Sampled: 10/28/2009 2:20:00 PM
 Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.135 +/- 0.073	pCi/g	0.072	12/2/2009	12/9/2009	SD
K-40	DOE Ga-01-R*	17.4 +/- 2.47	pCi/g	1.43		12/8/2009	RE
Tl-208	DOE Ga-01-R*	0.486 +/- 0.135	pCi/g	0.167		12/8/2009	RE
Bi-212	DOE Ga-01-R*	0 +/- 0.443	pCi/g	1.05		12/8/2009	RE
Pb-212	DOE Ga-01-R*	0.744 +/- 0.644	pCi/g	0.168		12/8/2009	RE
Bi-214	DOE Ga-01-R*	1.07 +/- 0.137	pCi/g	0.208		12/8/2009	RE
Pb-214	DOE Ga-01-R*	0.963 +/- 0.289	pCi/g	0.457		12/8/2009	RE
Ac-228	DOE Ga-01-R*	1.54 +/- 0.268	pCi/g	0.385		12/8/2009	RE
Th-234	DOE Ga-01-R*	0 +/- 1.05	pCi/g	1.39		12/8/2009	RE
Eu-152	DOE Ga-01-R*	0 +/- 0.096	pCi/g	0.227		12/8/2009	RE
Eu-154	DOE Ga-01-R*	0.093 +/- 0.065	pCi/g	0.088		12/8/2009	RE
Cs-137	DOE Ga-01-R*	0.382 +/- 0.178	pCi/g	0.211		12/8/2009	RE
Tritium (H3)	EPA 906*	0.8 +/- 0.36	pCi/g	4.8	12/2/2009	12/8/2009	RE



Outreach Laboratory

311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
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Client: IEM
Client Project: 208012.103
Lab Number: 20090954
Date Reported: 12/11/2009
Date Received: 11/13/09
Page Number: 5 of 6

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
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Lab ID: 20090954-09
Client ID: OU7-Location 13
Date Sampled: 10/28/2009 2:50:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.005 +/- 0.087	pCi/g	0.093	12/2/2009	12/9/2009	SD
K-40	DOE Ga-01-R*	26.7 +/- 3.67	pCi/g	1.51		12/9/2009	RE
Tl-208	DOE Ga-01-R*	0.479 +/- 0.126	pCi/g	0.112		12/9/2009	RE
Bi-212	DOE Ga-01-R*	0.133 +/- 0.700	pCi/g	0.817		12/9/2009	RE
Pb-212	DOE Ga-01-R*	1.99 +/- 0.446	pCi/g	0.423		12/9/2009	RE
Bi-214	DOE Ga-01-R*	1.35 +/- 0.264	pCi/g	0.241		12/9/2009	RE
Pb-214	DOE Ga-01-R*	2.05 +/- 0.367	pCi/g	0.343		12/9/2009	RE
Ac-228	DOE Ga-01-R*	1.03 +/- 0.350	pCi/g	0.476		12/9/2009	RE
Th-234	DOE Ga-01-R*	4.80 +/- 3.62	pCi/g	5.67		12/9/2009	RE
Eu-152	DOE Ga-01-R*	0 +/- 0.256	pCi/g	0.608		12/8/2009	RE
Eu-154	DOE Ga-01-R*	0 +/- 0.214	pCi/g	0.508		12/8/2009	RE
Cs-137	DOE Ga-01-R*	0.405 +/- 0.138	pCi/g	0.139		12/9/2009	RE
Tritium (H3)	EPA 906*	1.1 +/- 0.37	pCi/g	4.8	12/2/2009	12/8/2009	RE

Lab ID: 20090954-10
Client ID: OU7-Location 14
Date Sampled: 10/28/2009 2:55:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.097 +/- 0.077	pCi/g	0.078	12/2/2009	12/9/2009	SD
K-40	DOE Ga-01-R*	17.7 +/- 3.46	pCi/g	2.17		12/9/2009	RE
Tl-208	DOE Ga-01-R*	0.409 +/- 0.130	pCi/g	0.144		12/9/2009	RE
Bi-212	DOE Ga-01-R*	0 +/- 0.556	pCi/g	0.906		12/9/2009	RE
Pb-212	DOE Ga-01-R*	1.34 +/- 0.342	pCi/g	0.351		12/9/2009	RE
Bi-214	DOE Ga-01-R*	1.18 +/- 0.310	pCi/g	0.345		12/9/2009	RE
Pb-214	DOE Ga-01-R*	1.12 +/- 0.197	pCi/g	0.285		12/9/2009	RE
Ac-228	DOE Ga-01-R*	0.944 +/- 0.405	pCi/g	0.683		12/9/2009	RE
Th-234	DOE Ga-01-R*	0.479 +/- 1.26	pCi/g	1.23		12/9/2009	RE
Eu-152	DOE Ga-01-R*	0.119 +/- 0.149	pCi/g	0.194		12/8/2009	RE
Eu-154	DOE Ga-01-R*	0 +/- 0.057	pCi/g	0.135		12/8/2009	RE
Cs-137	DOE Ga-01-R*	0.375 +/- 0.177	pCi/g	0.195		12/9/2009	RE
Tritium (H3)	EPA 906*	0.3 +/- 0.35	pCi/g	4.6	12/2/2009	12/8/2009	RE



Outreach Laboratory

311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
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Client: IEM
Client Project: 208012.103
Lab Number: 20090954
Date Reported: 12/11/2009
Date Received: 11/13/09
Page Number: 6 of 6

QC Report

Parameter	Blank	LCS %REC	LCSD		DUP RPD	MS %REC	MSD		Date
			%REC	RPD			%REC	RPD	
Ac-228					13.0				12/8/2009
Am-241		103.0	107.0	4.0					12/8/2009
Bi-212					NC				12/8/2009
Bi-214					6.0				12/8/2009
Carbon-14	0.134	91.0				99.0	85.0	15.0	12/9/2009
Carbon-14	0	81.9				88.5	93.0	4.4	12/7/2009
Co-60		98.0	99.0	0.9					12/8/2009
Cs-137		99.0	101.0	1.6					12/8/2009
K-40					6.9				12/8/2009
Pb-212					NC				12/8/2009
Pb-214					10.7				12/8/2009
Th-234					NC				12/8/2009
Tl-208					NC				12/8/2009
Tritium (H3)	0	81.9			NC	88.5	93.0	4.4	12/7/2009

Lab Approval: _____

**INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD**

Reference No 2008012.103

(1) Client Name	USACE Baltimore/DORF	(7) Samples Shipment Date	11/29/09	(5) Bill to:	IEM
(2) Collected By:	R. Alan Duff	(8) Lab Destination	Outreach - Broken Arrow		975A Russell Ave
(3) Job/Task No:	2008012.103	(9) Lab Contact	Ron Eidson	(10) Report to:	Gaithersburg, MD 20879
(4) Project Manager:	R. Alan Duff	(12) IEM Technical Contact/Phone	Alan Duff (865) 207-5678		Email to: RADUFF@IEM, INC. com
(6) Purchase Order No.	N/A	(13) Carrier/Waybill No.	FEDEX #		CDBERGER@IEM, INC.COM
(11) Required Report Date	Normal TAT		8705 3515 5690		

ONE CONTAINER PER LINE

(14) Sample Number	(15) Sample Description/Type	(16) Date/Time Collected	(17) Container Type	(18) Sample Volume	(19) Preservative	(20) Requested Testing Program
0U7- Location 1	Soil Grab	10/28/09 1415	ziploc bag	~ 1 Kg	None	Gamma Spectroscopy & H ₃ C/14
0U7- Location 2		1407				
0U7- Location 3		1425				
0U7- Location 6		1405				
0U7- Location 9		1445				
0U7- Location 10		1440				
0U7- Location 11		1443				
0U7- Location 12		1420				
0U7- Location 13		1459				

(23) Special Instructions

(24) Possible Hazard Identification
 Non-hazard Flammable Skin Irritant Poison B Unknown *SPD*

(25) Sample Disposal
 Return to Client Disposal by Lab Archive months

(26) Turnaround Time Required: Normal Rush

(27) QC Level: I II III Project Specific See C. Berger Spec. Letter

(28) Relinquished by: (signature, date, time): *C. Berger 11/29/09 0900*
 Received by: (signature, date, time): *Philip Phillips 11/30/09/1420*

Relinquished by: (signature, date, time):
 Received by: (signature, date, time):

Relinquished by: (signature, date, time):
 Received by: (signature, date, time):

(See Reverse for Instructions)

20090954-1

**INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD**

Page 2 of 2
Reference No 2008012.103

(1) Client Name <u>USAGE Baltimore/Dorf</u>	(7) Samples Shipment Date <u>11-09-09</u>	(5) Bill to:
(2) Collected By: <u>R. Alan Duff</u>	(8) Lab Destination <u>see page 2</u>	
(3) Job/Task No: <u>2008012.103</u>	(9) Lab Contact	
(4) Project Manager: <u>R. Alan Duff</u>	(12) IEM Technical Contact/Phone <u>10882</u>	(10) Report to:
(6) Purchase Order No. <u>N/A</u>	(13) Carrier/Waybill No.	
(11) Required Report Date <u>Normal TAT</u>		

ONE CONTAINER PER LINE

(14) Sample Number	(15) Sample Description/Type	(16) Date/Time Collected	(17) Container Type	(18) Sample Volume	(19) Preservative	(20) Requested Testing Program
<u>007 - Location 14</u>	<u>Soil/Grav</u>	<u>10/28/09 1455</u>	<u>Ziploc Bag</u>	<u>N/Kg</u>	<u>None</u>	<u>Gamma Spectroscopy & H3/C14</u>

(23) Special Instructions

(24) Possible Hazard Identification
 Non-hazard Flammable Skin Irritant Poison B Unknown Rush

(25) Sample Disposal
 Return to Client Disposal by Land Archive months

(26) Turnaround Time Required: Normal Rush

(27) QC Level: I II III Project Specific See C. Berger Spec. Letter

(28) Relinquished by: (signature, date, time) [Signature] 11/19/09 0800
 Received by: (signature, date, time) [Signature] 11/30/09 1420

Relinquished by: (signature, date, time):
 Received by: (signature, date, time):

20090954-2

**INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD**

(1) Client Name	USACE Baltimore	(7) Samples Shipment Date	N/A	(5) Bill to:
(2) Collected By:	R. Alan Duff	(8) Lab Destination	N/A	
(3) Job/Task No:	2008012.103	(9) Lab Contact	N/A	
(4) Project Manager:	R.A. Duff	(12) IEM Technical Contact/Phone	N/A	(10) Report to:
(6) Purchase Order No.	N/A	(13) Carrier/Waybill No.	J	
(11) Required Report Date	N/A			

ONE CONTAINER PER LINE

(14) Sample Number	(15) Sample Description/Type	(16) Date/Time Collected	(17) Container Type	(18) Sample Volume	(19) Preservative	(20) Requested Testing Program
007-#1-#14	soil	10/28/09 1400-1500	Ziploc Bag	~1 kg each	None	N/A

(23) Special Instructions

(24) Possible Hazard Identification
 Non-hazard Flammable Skin Irritant Poison B Unknown Disposal by Lab Archive _____ months

(26) Turnaround Time Required: Normal Rush Project Specific _____

(28) Relinquished by: (signature, date, time): [Signature] 10/28/09 1700
 Relinquished by: (signature, date, time): [Signature] 11/26/09 0900
 Relinquished by: (signature, date, time): _____

(See Reverse for Instructions)



311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

December 16, 2009

Carol Berger
Integrated Environmental Management, Inc.
8 Brooks Ave #205
Gaithersburg, MD 20877

CLIENT PROJECT NAME: 2008012.103
OUTREACH LAB ID: 20090767

Dear Ms. Berger:

Please find enclosed the analytical report for your samples received in our laboratory on September 17, 2009 for the above captioned project. Nineteen solid samples and one liquid sample were received in good condition and analyzed for naturally occurring radionuclides by Gamma Spectroscopy, Carbon-14, Tritium, Iron 55, and Isotopic Uranium, per your instructions.

All Quality Control for the requested analysis is reported on the analytical report and is within control limits with the exception of the MSD RPD for Carbon 14, and the MS % Recovery and MSD RPD for Uranium 234.

Per your instructions, these samples will be disposed 30 days after the final report date.

Thank you for choosing Outreach Laboratory and if you have any questions, please call us at 918-251-2515.

Laboratory Director

ODEQ ID #9517
NRC ODEQ LIC. #27522-01



CERT. ID #OK001
See Certified
Parameter List



Outreach Laboratory

311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

Client Project: 2008012.103
Lab Number: 20090767
Date Reported: 12/15/2009
Date Received: 9/17/09
Page Number: 1 of 11

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Radiochemical Analyses						
Carbon-14	EPA EERF C01	0.22 +/- 0.08	pCi/g	0.07	9/18/2009	9/25/2009 RE
K-40	HASL 300*	1.90 +/- 3.05	pCi/g	3.88		10/14/2009 RE
Tl-208	HASL 300*	0.177 +/- 0.222	pCi/g	0.526		10/14/2009 RE
Bi-212	HASL 300*	0 +/- 1.89	pCi/g	2.07		10/14/2009 RE
Pb-212	HASL 300*	0.535 +/- 0.412	pCi/g	0.718		10/14/2009 RE
Bi-214	HASL 300*	0.372 +/- 0.443	pCi/g	0.547		10/14/2009 RE
Pb-214	HASL 300*	0.615 +/- 1.15	pCi/g	0.511		10/14/2009 RE
Ac-228	HASL 300*	0.685 +/- 0.771	pCi/g	1.83		10/14/2009 RE
Th-234	HASL 300*	0.696 +/- 3.09	pCi/g	2.52		10/14/2009 RE
Eu-152	HASL 300*	0.189 +/- 0.370	pCi/g	0.877		10/14/2009 RE
Eu-154	HASL 300*	0.155 +/- 0.283	pCi/g	0.250		10/14/2009 RE
Iron-55	ASTM D 4922	11.67 +/- 0.82	pCi/g	0.96	11/2/2009	11/25/2009 RE
Tritium (H3)	EPA 906*	15.2 +/- 0.8	pCi/g	6.4	9/18/2009	9/25/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.350 +/- 0.154	pCi/g	0.211	10/12/2009	10/23/2009 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.095 +/- 0.070	pCi/g	0.089	10/12/2009	10/23/2009 RE
Uranium-234	ASTM D 3972/DOE U-02*	0.416 +/- 0.153	pCi/g	0.197	10/12/2009	10/23/2009 RE

Lab ID: 20090767-02
Client ID: Lime-1
Date Sampled: 8/28/2009 2:00:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.07 +/- 0.07	pCi/g	0.07	9/18/2009	9/25/2009 RE
K-40	HASL 300*	0 +/- 1.04	pCi/g	1.73		10/14/2009 RE
Tl-208	HASL 300*	0.143 +/- 0.498	pCi/g	0.108		10/14/2009 RE
Bi-212	HASL 300*	0.058 +/- 0.466	pCi/g	0.644		10/14/2009 RE
Pb-212	HASL 300*	0.066 +/- 0.082	pCi/g	0.165		10/14/2009 RE
Bi-214	HASL 300*	0.225 +/- 0.209	pCi/g	0.281		10/14/2009 RE
Pb-214	HASL 300*	0.053 +/- 0.130	pCi/g	0.198		10/14/2009 RE
Ac-228	HASL 300*	0 +/- 0.258	pCi/g	0.611		10/14/2009 RE
Th-234	HASL 300*	0.724 +/- 0.426	pCi/g	1.01		10/14/2009 RE
Eu-152	HASL 300*	0.026 +/- 0.036	pCi/g	0.217		10/14/2009 RE
Eu-154	HASL 300*	0.026 +/- 0.056	pCi/g	0.134		10/14/2009 RE

*NELAC Certified Parameter BDL = Below Detection Limit



Outreach Laboratory

311 North Aspen
Broken Arrow, OK 74012
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FAX (918) 251-0008

Client Project: 2008012.103
Lab Number: 20090767
Date Reported: 12/15/2009
Date Received: 9/17/09
Page Number: 2 of 11

Analytical Report

	Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Iron-55	ASTM D 4922	0 +/- 0.57	pCi/g	0.96	11/2/2009	11/25/2009	RE
Tritium (H3)	EPA 906*	13.3 +/- 0.7	pCi/g	5.5	9/18/2009	9/25/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	0.529 +/- 0.141	pCi/g	0.124	10/12/2009	10/23/2009	RE
Uranium-235	ASTM D 3972/DOE U-02*	0.195 +/- 0.075	pCi/g	0.030	10/12/2009	10/23/2009	RE
Uranium-234	ASTM D 3972/DOE U-02*	0.522 +/- 0.136	pCi/g	0.108	10/12/2009	10/23/2009	RE

Lab ID: 20090767-03
Client ID: Cooling Sump
Date Sampled: 8/12/2009 11:00:00 AM
Matrix: Liquid

Radiochemical Analyses

Carbon-14	EPA EERF C01	4.38 +/- 1.23	pCi/l	1.14	9/28/2009	9/28/2009	RE
K-40	HASL 300*	30.6 +/- 59.1	pCi/l	85.0		9/22/2009	RE
Tl-208	HASL 300*	0 +/- 3.86	pCi/l	3.84		9/22/2009	RE
Bi-212	HASL 300*	0 +/- 26.3	pCi/l	69.9		9/22/2009	RE
Pb-212	HASL 300*	0 +/- 13.6	pCi/l	18.6		9/22/2009	RE
Bi-214	HASL 300*	7.72 +/- 8.81	pCi/l	7.00		9/22/2009	RE
Pb-214	HASL 300*	0 +/- 7.63	pCi/l	18.1		9/22/2009	RE
Ac-228	HASL 300*	0 +/- 10.2	pCi/l	24.3		9/22/2009	RE
Th-234	HASL 300*	22.8 +/- 57.2	pCi/l	98.1		9/22/2009	RE
Eu-152	HASL 300*	0 +/- 9.74	pCi/l	23.1		9/22/2009	RE
Eu-154	HASL 300*	0 +/- 6.79	pCi/l	16.1		9/22/2009	RE
Iron-55	ASTM D 4922	4.13 +/- 28.8	pCi/l	48.2	11/2/2009	11/25/2009	RE
Tritium (H3)	EPA 906*	1570 +/- 23	pCi/l	321	9/18/2009	9/29/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	0.986 +/- 0.330	pCi/l	0.276	9/29/2009	10/2/2009	RE
Uranium-235	ASTM D 3972/DOE U-02*	0.668 +/- 0.249	pCi/l	0.131	9/29/2009	10/2/2009	RE
Uranium-234	ASTM D 3972/DOE U-02*	2.77 +/- 0.522	pCi/l	0.336	9/29/2009	10/2/2009	RE

Lab ID: 20090767-04
Client ID: Acoustic Tile
Date Sampled: 9/8/2009 1:30:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.08 +/- 0.05	pCi/g	0.05	9/18/2009	9/25/2009	RE
K-40	HASL 300*	6.92 +/- 1.45	pCi/g	0.787		10/14/2009	RE
Tl-208	HASL 300*	0.007 +/- 0.046	pCi/g	0.063		10/14/2009	RE

*NELAC Certified Parameter BDL = Below Detection Limit

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Bi-212	HASL 300*	0.473 +/- 0.275	pCi/g	0.652	10/14/2009	RE
Pb-212	HASL 300*	0 +/- 0.083	pCi/g	0.196	10/14/2009	RE
Bi-214	HASL 300*	0.137 +/- 0.093	pCi/g	0.128	10/14/2009	RE
Pb-214	HASL 300*	0.042 +/- 0.130	pCi/g	0.172	10/14/2009	RE
Ac-228	HASL 300*	0.126 +/- 0.311	pCi/g	0.189	10/14/2009	RE
Th-234	HASL 300*	1.04 +/- 1.52	pCi/g	2.33	10/14/2009	RE
Eu-152	HASL 300*	0.257 +/- 0.189	pCi/g	0.448	10/14/2009	RE
Eu-154	HASL 300*	0.232 +/- 0.129	pCi/g	0.307	10/14/2009	RE
Iron-55	ASTM D 4922	0.16 +/- 0.58	pCi/g	0.96	11/2/2009	11/25/2009 RE
Tritium (H3)	EPA 906*	7.2 +/- 0.6	pCi/g	4.7	9/18/2009	9/25/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.187 +/- 0.064	pCi/g	0.059	10/12/2009	10/24/2009 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.093 +/- 0.044	pCi/g	0.038	10/12/2009	10/24/2009 RE
Uranium-234	ASTM D 3972/DOE U-02*	0.337 +/- 0.083	pCi/g	0.065	10/12/2009	10/24/2009 RE

Lab ID: 20090767-05
Client ID: Storage Pit Plug
Date Sampled: 9/10/2009 2:30:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.07	pCi/g	0.08	9/18/2009	9/25/2009 RE
K-40	HASL 300*	7.49 +/- 1.40	pCi/g	0.699	10/14/2009	RE
Tl-208	HASL 300*	0.069 +/- 0.046	pCi/g	0.056	10/14/2009	RE
Bi-212	HASL 300*	0.088 +/- 0.364	pCi/g	0.478	10/14/2009	RE
Pb-212	HASL 300*	0.287 +/- 0.069	pCi/g	0.083	10/14/2009	RE
Bi-214	HASL 300*	0.359 +/- 0.060	pCi/g	0.121	10/14/2009	RE
Pb-214	HASL 300*	0.232 +/- 0.073	pCi/g	0.105	10/14/2009	RE
Ac-228	HASL 300*	0.229 +/- 0.129	pCi/g	0.219	10/14/2009	RE
Th-234	HASL 300*	0.696 +/- 1.18	pCi/g	1.36	10/14/2009	RE
Eu-152	HASL 300*	0.021 +/- 0.051	pCi/g	0.121	10/14/2009	RE
Eu-154	HASL 300*	0.016 +/- 0.077	pCi/g	0.183	10/14/2009	RE
Iron-55	ASTM D 4922	0.11 +/- 0.58	pCi/g	0.96	11/2/2009	11/25/2009 RE
Tritium (H3)	EPA 906*	6.6 +/- 0.7	pCi/g	5.8	9/18/2009	9/25/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.726 +/- 0.126	pCi/g	0.088	10/12/2009	10/24/2009 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.200 +/- 0.071	pCi/g	0.067	10/12/2009	10/24/2009 RE
Uranium-234	ASTM D 3972/DOE U-02*	0.948 +/- 0.143	pCi/g	0.094	10/12/2009	10/24/2009 RE



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Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
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Lab ID: 20090767-06
Client ID: Concrete Block-1
Date Sampled: 8/19/2009 1:30:00 PM
Matrix: Solid

Radiochemical Analyses

K-40	HASL 300*	3.87 +/- 5.13	pCi/g	6.53	10/15/2009	RE
Tl-208	HASL 300*	0.841 +/- 0.350	pCi/g	0.430	10/15/2009	RE
Bi-212	HASL 300*	2.22 +/- 1.75	pCi/g	2.16	10/15/2009	RE
Pb-212	HASL 300*	2.13 +/- 0.452	pCi/g	0.490	10/15/2009	RE
Bi-214	HASL 300*	0 +/- 0.369	pCi/g	0.875	10/15/2009	RE
Pb-214	HASL 300*	0.483 +/- 0.353	pCi/g	0.581	10/15/2009	RE
Ac-228	HASL 300*	1.56 +/- 0.608	pCi/g	1.11	10/15/2009	RE
Th-234	HASL 300*	0 +/- 2.44	pCi/g	5.79	10/15/2009	RE
Eu-152	HASL 300*	0 +/- 0.314	pCi/g	0.746	10/15/2009	RE
Eu-154	HASL 300*	0 +/- 0.215	pCi/g	0.511	10/15/2009	RE
Iron-55	ASTM D 4922	0 +/- 0.56	pCi/g	0.96	11/2/2009	11/25/2009 RE

Lab ID: 20090767-07
Client ID: OU6-SB01-27-29'
Date Sampled: 9/15/2009 11:10:00 AM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.033 +/- 0.025	pCi/g	0.026	9/24/2009	9/29/2009 RE
K-40	HASL 300*	29.9 +/- 2.80	pCi/g	0.701	10/14/2009	RE
Tl-208	HASL 300*	0.535 +/- 0.066	pCi/g	0.062	10/14/2009	RE
Bi-212	HASL 300*	1.28 +/- 0.366	pCi/g	0.518	10/14/2009	RE
Pb-212	HASL 300*	1.84 +/- 0.184	pCi/g	0.182	10/14/2009	RE
Bi-214	HASL 300*	1.34 +/- 0.158	pCi/g	0.155	10/14/2009	RE
Pb-214	HASL 300*	1.31 +/- 0.088	pCi/g	0.115	10/14/2009	RE
Ac-228	HASL 300*	1.69 +/- 0.161	pCi/g	0.229	10/14/2009	RE
Th-234	HASL 300*	0.380 +/- 0.438	pCi/g	1.04	10/14/2009	RE
Eu-152	HASL 300*	0 +/- 0.080	pCi/g	0.190	10/14/2009	RE
Eu-154	HASL 300*	0 +/- 0.056	pCi/g	0.133	10/14/2009	RE
Tritium (H3)	EPA 906*	1.3 +/- 0.18	pCi/g	3.0	9/24/2009	9/30/2009 RE

Lab ID: 20090767-08
Client ID: OU6-SB02-26-28'
Date Sampled: 9/14/2009 4:40:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.023 +/- 0.022	pCi/g	0.023	9/24/2009	9/29/2009 RE
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*NELAC Certified Parameter BDL = Below Detection Limit



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Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
K-40	HASL 300*	14.3 +/- 2.08	pCi/g	1.51	10/14/2009	RE
Tl-208	HASL 300*	0.273 +/- 0.114	pCi/g	0.136	10/14/2009	RE
Bi-212	HASL 300*	0.789 +/- 0.352	pCi/g	0.549	10/14/2009	RE
Pb-212	HASL 300*	1.75 +/- 0.128	pCi/g	0.304	10/14/2009	RE
Bi-214	HASL 300*	1.26 +/- 0.199	pCi/g	0.186	10/14/2009	RE
Pb-214	HASL 300*	1.72 +/- 0.195	pCi/g	0.280	10/14/2009	RE
Ac-228	HASL 300*	0.878 +/- 0.169	pCi/g	0.286	10/14/2009	RE
Th-234	HASL 300*	2.91 +/- 1.50	pCi/g	3.57	10/14/2009	RE
Eu-152	HASL 300*	0.333 +/- 0.233	pCi/g	0.553	10/14/2009	RE
Eu-154	HASL 300*	0.038 +/- 0.165	pCi/g	0.391	10/14/2009	RE
Tritium (H3)	EPA 906*	0.1 +/- 0.17	pCi/g	3.0	9/24/2009	9/30/2009 RE

Lab ID: 20090767-09
Client ID: OU6-SB03-28-30'
Date Sampled: 9/15/2009 2:25:00 PM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.021	pCi/g	0.023	9/24/2009	9/29/2009 RE
K-40	HASL 300*	32.7 +/- 3.48	pCi/g	1.10		10/14/2009 RE
Tl-208	HASL 300*	0.496 +/- 0.102	pCi/g	0.082		10/14/2009 RE
Bi-212	HASL 300*	0.835 +/- 0.477	pCi/g	0.528		10/14/2009 RE
Pb-212	HASL 300*	2.21 +/- 0.362	pCi/g	0.277		10/14/2009 RE
Bi-214	HASL 300*	1.11 +/- 0.192	pCi/g	0.180		10/14/2009 RE
Pb-214	HASL 300*	1.70 +/- 0.265	pCi/g	0.264		10/14/2009 RE
Ac-228	HASL 300*	1.60 +/- 0.271	pCi/g	0.314		10/14/2009 RE
Th-234	HASL 300*	3.41 +/- 3.65	pCi/g	3.60		10/14/2009 RE
Eu-152	HASL 300*	0 +/- 0.159	pCi/g	0.378		10/14/2009 RE
Eu-154	HASL 300*	0.027 +/- 0.164	pCi/g	0.388		10/14/2009 RE
Tritium (H3)	EPA 906*	0.9 +/- 0.17	pCi/g	2.9	9/24/2009	9/30/2009 RE

Lab ID: 20090767-10
Client ID: OU7-Location-4
Date Sampled: 9/16/2009 10:40:00 AM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.2 +/- 0.05	pCi/g	0.04	9/18/2009	9/25/2009 RE
K-40	HASL 300*	15.3 +/- 2.23	pCi/g	1.17		11/9/2009 RE
Tl-208	HASL 300*	0.127 +/- 0.197	pCi/g	0.271		11/9/2009 RE
Bi-212	HASL 300*	0.436 +/- 0.239	pCi/g	0.446		11/9/2009 RE
Pb-212	HASL 300*	1.67 +/- 0.242	pCi/g	0.197		11/9/2009 RE
Bi-214	HASL 300*	1.29 +/- 0.193	pCi/g	0.177		11/9/2009 RE

*NELAC Certified Parameter BDL = Below Detection Limit

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Pb-214	HASL 300*	2.06 +/- 0.216	pCi/g	0.266	11/9/2009	RE
Ac-228	HASL 300*	1.20 +/- 0.102	pCi/g	0.330	11/9/2009	RE
Th-234	HASL 300*	3.47 +/- 0.834	pCi/g	1.48	11/9/2009	RE
Eu-152	HASL 300*	0.026 +/- 0.156	pCi/g	0.371	11/9/2009	RE
Eu-154	HASL 300*	0 +/- 0.060	pCi/g	0.142	11/9/2009	RE
Tritium (H3)	EPA 906*	1.1 +/- 0.18	pCi/g	3.0	9/24/2009	9/30/2009 RE

Lab ID: 20090767-11
Client ID: OU7-Location-5
Date Sampled: 9/16/2009 11:05:00 AM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.006 +/- 0.021	pCi/g	0.023	9/24/2009	9/29/2009 RE
K-40	HASL 300*	25.6 +/- 3.17	pCi/g	1.24		10/14/2009 RE
Tl-208	HASL 300*	0.442 +/- 0.055	pCi/g	0.092		10/14/2009 RE
Bi-212	HASL 300*	0.643 +/- 0.411	pCi/g	0.662		10/14/2009 RE
Pb-212	HASL 300*	2.61 +/- 0.408	pCi/g	0.339		10/14/2009 RE
Bi-214	HASL 300*	1.32 +/- 0.138	pCi/g	0.183		10/14/2009 RE
Pb-214	HASL 300*	1.94 +/- 0.204	pCi/g	0.239		10/14/2009 RE
Ac-228	HASL 300*	1.46 +/- 0.306	pCi/g	0.380		10/14/2009 RE
Th-234	HASL 300*	2.95 +/- 1.06	pCi/g	1.83		10/14/2009 RE
Eu-152	HASL 300*	0 +/- 0.207	pCi/g	0.492		10/14/2009 RE
Eu-154	HASL 300*	0 +/- 0.145	pCi/g	0.343		10/14/2009 RE
Tritium (H3)	EPA 906*	0.9 +/- 0.18	pCi/g	3.0	9/24/2009	9/30/2009 RE

Lab ID: 20090767-12
Client ID: OU7-Location-7
Date Sampled: 9/16/2009 11:00:00 AM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.024	pCi/g	0.026	9/24/2009	9/29/2009 RE
K-40	HASL 300*	16.4 +/- 2.64	pCi/g	1.26		10/14/2009 RE
Tl-208	HASL 300*	0.341 +/- 0.114	pCi/g	0.123		10/14/2009 RE
Bi-212	HASL 300*	0.589 +/- 0.344	pCi/g	0.494		10/14/2009 RE
Pb-212	HASL 300*	1.32 +/- 0.202	pCi/g	0.143		10/14/2009 RE
Bi-214	HASL 300*	0.843 +/- 0.180	pCi/g	0.182		10/14/2009 RE
Pb-214	HASL 300*	1.45 +/- 0.170	pCi/g	0.173		10/14/2009 RE
Ac-228	HASL 300*	0.905 +/- 0.263	pCi/g	0.366		10/14/2009 RE
Th-234	HASL 300*	1.35 +/- 1.77	pCi/g	1.50		10/14/2009 RE
Eu-152	HASL 300*	0.024 +/- 0.118	pCi/g	0.144		10/14/2009 RE
Eu-154	HASL 300*	0 +/- 0.074	pCi/g	0.175		10/14/2009 RE



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Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Tritium (H3)	EPA 906*	2.2 +/- 0.18	pCi/g	2.9	9/24/2009	9/30/2009 RE

Lab ID: 20090767-13
Client ID: OU7-Location-8
Date Sampled: 9/16/2009 11:15:00 AM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.060 +/- 0.019	pCi/g	0.017	9/24/2009	9/29/2009 RE
K-40	HASL 300*	19.9 +/- 2.86	pCi/g	1.36		10/14/2009 RE
Tl-208	HASL 300*	0.419 +/- 0.093	pCi/g	0.093		10/14/2009 RE
Bi-212	HASL 300*	0.686 +/- 0.273	pCi/g	0.473		10/14/2009 RE
Pb-212	HASL 300*	1.45 +/- 0.208	pCi/g	0.139		10/14/2009 RE
Bi-214	HASL 300*	0.960 +/- 0.169	pCi/g	0.161		10/14/2009 RE
Pb-214	HASL 300*	1.22 +/- 0.165	pCi/g	0.173		10/14/2009 RE
Ac-228	HASL 300*	0.932 +/- 0.248	pCi/g	0.359		10/14/2009 RE
Th-234	HASL 300*	0.869 +/- 1.25	pCi/g	2.07		10/14/2009 RE
Eu-152	HASL 300*	0.316 +/- 0.246	pCi/g	0.127		10/14/2009 RE
Eu-154	HASL 300*	0 +/- 0.037	pCi/g	0.088		10/14/2009 RE
Tritium (H3)	EPA 906*	4.5 +/- 0.6	pCi/g	5.6	9/18/2009	9/25/2009 RE

Lab ID: 20090767-14
Client ID: Background
Date Sampled: 9/16/2009 10:50:00 AM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.026	pCi/g	0.029	9/24/2009	9/29/2009 RE
K-40	HASL 300*	21.7 +/- 2.71	pCi/g	0.912		10/14/2009 RE
Tl-208	HASL 300*	0.499 +/- 0.102	pCi/g	0.084		10/14/2009 RE
Bi-212	HASL 300*	0.513 +/- 0.516	pCi/g	0.634		10/14/2009 RE
Pb-212	HASL 300*	2.72 +/- 0.376	pCi/g	0.214		10/14/2009 RE
Bi-214	HASL 300*	1.11 +/- 0.195	pCi/g	0.183		10/14/2009 RE
Pb-214	HASL 300*	1.47 +/- 0.249	pCi/g	0.254		10/14/2009 RE
Ac-228	HASL 300*	1.30 +/- 0.249	pCi/g	0.316		10/14/2009 RE
Th-234	HASL 300*	4.76 +/- 3.73	pCi/g	4.67		10/14/2009 RE
Eu-152	HASL 300*	0.186 +/- 0.851	pCi/g	0.313		10/14/2009 RE
Eu-154	HASL 300*	0.051 +/- 0.149	pCi/g	0.353		10/14/2009 RE
Iron-55	ASTM D 4922	0 +/- 0.55	pCi/g	0.96	11/2/2009	11/25/2009 RE
Tritium (H3)	EPA 906*	1.2 +/- 0.15	pCi/g	2.6	9/24/2009	9/30/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	1.35 +/- 0.149	pCi/g	0.040	10/12/2009	10/24/2009 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.184 +/- 0.055	pCi/g	0.025	10/12/2009	10/24/2009 RE

*NELAC Certified Parameter BDL = Below Detection Limit



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	Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Uranium-234	ASTM D 3972/DOE U-02*	1.47 +/- 0.156	pCi/g	0.055	10/12/2009	10/24/2009	RE

Lab ID: 20090767-15
Client ID: Stormwater West
Date Sampled: 9/16/2009 8:30:00 AM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.094 +/- 0.025	pCi/g	0.023	9/24/2009	9/29/2009	RE
K-40	HASL 300*	14.2 +/- 1.95	pCi/g	1.22		10/14/2009	RE
Tl-208	HASL 300*	0.325 +/- 0.101	pCi/g	0.115		10/14/2009	RE
Bi-212	HASL 300*	0.575 +/- 0.467	pCi/g	0.564		10/14/2009	RE
Pb-212	HASL 300*	1.65 +/- 0.290	pCi/g	0.257		10/14/2009	RE
Bi-214	HASL 300*	0.700 +/- 0.190	pCi/g	0.302		10/14/2009	RE
Pb-214	HASL 300*	0.964 +/- 0.157	pCi/g	0.195		10/14/2009	RE
Ac-228	HASL 300*	0.985 +/- 0.191	pCi/g	0.335		10/14/2009	RE
Th-234	HASL 300*	0.409 +/- 1.42	pCi/g	1.91		10/14/2009	RE
Eu-152	HASL 300*	0.082 +/- 0.218	pCi/g	0.517		10/14/2009	RE
Eu-154	HASL 300*	0.057 +/- 0.150	pCi/g	0.355		10/14/2009	RE
Iron-55	ASTM D 4922	0 +/- 0.56	pCi/g	0.96	11/2/2009	11/25/2009	RE
Tritium (H3)	EPA 906*	1.2 +/- 0.16	pCi/g	2.7	9/24/2009	9/30/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	1.01 +/- 0.138	pCi/g	0.079	10/12/2009	10/24/2009	RE
Uranium-235	ASTM D 3972/DOE U-02*	0.104 +/- 0.057	pCi/g	0.069	10/12/2009	10/24/2009	RE
Uranium-234	ASTM D 3972/DOE U-02*	1.11 +/- 0.149	pCi/g	0.102	10/12/2009	10/24/2009	RE

Lab ID: 20090767-16
Client ID: Stormwater South
Date Sampled: 9/16/2009 8:45:00 AM
Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.255 +/- 0.030	pCi/g	0.023	9/24/2009	9/29/2009	RE
K-40	HASL 300*	13.3 +/- 1.17	pCi/g	0.946		10/14/2009	RE
Tl-208	HASL 300*	0.351 +/- 0.062	pCi/g	0.083		10/14/2009	RE
Bi-212	HASL 300*	0.455 +/- 0.336	pCi/g	0.540		10/14/2009	RE
Pb-212	HASL 300*	2.15 +/- 0.379	pCi/g	0.369		10/14/2009	RE
Bi-214	HASL 300*	0.779 +/- 0.157	pCi/g	0.177		10/14/2009	RE
Pb-214	HASL 300*	1.43 +/- 0.142	pCi/g	0.189		10/14/2009	RE
Ac-228	HASL 300*	1.08 +/- 0.197	pCi/g	0.431		10/14/2009	RE
Th-234	HASL 300*	2.23 +/- 0.578	pCi/g	1.49		10/14/2009	RE

*NELAC Certified Parameter BDL = Below Detection Limit



Client Project: 2008012.103
 Lab Number: 20090767
 Date Reported: 12/15/2009
 Date Received: 9/17/09
 Page Number: 9 of 11

Analytical Report

	Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Eu-152	HASL 300*	0 +/- 0.166	pCi/g	0.393		10/14/2009	RE
Eu-154	HASL 300*	0 +/- 0.116	pCi/g	0.275		10/14/2009	RE
Iron-55	ASTM D 4922	0 +/- 0.52	pCi/g	0.96	11/2/2009	11/25/2009	RE
Tritium (H3)	EPA 906*	1.2 +/- 0.18	pCi/g	3.0	9/24/2009	9/30/2009	RE
Uranium-238	ASTM D 3972/DOE U-02*	0.892 +/- 0.111	pCi/g	0.054	10/12/2009	10/23/2009	RE
Uranium-235	ASTM D 3972/DOE U-02*	0.152 +/- 0.049	pCi/g	0.043	10/12/2009	10/23/2009	RE
Uranium-234	ASTM D 3972/DOE U-02*	0.981 +/- 0.118	pCi/g	0.064	10/12/2009	10/23/2009	RE

Lab ID: 20090767-17
 Client ID: Duplicate-1
 Date Sampled: 9/14/2009 4:40:00 PM
 Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.021	pCi/g	0.023	9/25/2009	9/29/2009	RE
K-40	HASL 300*	33.8 +/- 3.24	pCi/g	1.08		10/14/2009	RE
Tl-208	HASL 300*	0.494 +/- 0.074	pCi/g	0.079		10/14/2009	RE
Bi-212	HASL 300*	0.947 +/- 0.514	pCi/g	0.601		10/14/2009	RE
Pb-212	HASL 300*	1.90 +/- 0.218	pCi/g	0.110		10/14/2009	RE
Bi-214	HASL 300*	1.11 +/- 0.145	pCi/g	0.142		10/14/2009	RE
Pb-214	HASL 300*	1.34 +/- 0.146	pCi/g	0.136		10/14/2009	RE
Ac-228	HASL 300*	1.63 +/- 0.190	pCi/g	0.253		10/14/2009	RE
Th-234	HASL 300*	0 +/- 0.422	pCi/g	1.00		10/14/2009	RE
Eu-152	HASL 300*	0.007 +/- 0.081	pCi/g	0.191		10/14/2009	RE
Eu-154	HASL 300*	0 +/- 0.057	pCi/g	0.135		10/14/2009	RE
Tritium (H3)	EPA 906*	1.2 +/- 0.17	pCi/g	2.9	9/24/2009	9/30/2009	RE

Lab ID: 20090767-18
 Client ID: Duplicate-2
 Date Sampled: 9/16/2009 10:40:00 AM
 Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.028 +/- 0.024	pCi/g	0.025	9/25/2009	9/29/2009	RE
K-40	HASL 300*	14.1 +/- 1.69	pCi/g	0.761		10/16/2009	RE
Tl-208	HASL 300*	0.359 +/- 0.071	pCi/g	0.064		10/16/2009	RE
Bi-212	HASL 300*	0.879 +/- 0.451	pCi/g	0.523		10/16/2009	RE
Pb-212	HASL 300*	1.59 +/- 0.085	pCi/g	0.201		10/16/2009	RE
Bi-214	HASL 300*	1.34 +/- 0.159	pCi/g	0.131		10/16/2009	RE
Pb-214	HASL 300*	1.75 +/- 0.215	pCi/g	0.179		10/16/2009	RE
Ac-228	HASL 300*	1.00 +/- 0.176	pCi/g	0.224		10/16/2009	RE

*NELAC Certified Parameter BDL = Below Detection Limit

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Th-234	HASL 300*	3.83 +/- 1.38	pCi/g	2.52	10/16/2009	RE
Eu-152	HASL 300*	0.208 +/- 0.217	pCi/g	0.188	10/16/2009	RE
Eu-154	HASL 300*	0 +/- 0.097	pCi/g	0.231	10/16/2009	RE
Tritium (H3)	EPA 906*	0.7 +/- 0.18	pCi/g	3.0	9/24/2009	9/30/2009 RE

Lab ID: 20090767-19
 Client ID: Duplicate-3
 Date Sampled: 9/16/2009 8:45:00 AM
 Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.096 +/- 0.031	pCi/g	0.030	9/25/2009	9/29/2009 RE
K-40	HASL 300*	17.9 +/- 3.22	pCi/g	2.69		10/16/2009 RE
Tl-208	HASL 300*	0.426 +/- 0.168	pCi/g	0.217		10/16/2009 RE
Bi-212	HASL 300*	1.53 +/- 0.614	pCi/g	1.06		10/16/2009 RE
Pb-212	HASL 300*	0.861 +/- 0.216	pCi/g	0.196		10/16/2009 RE
Bi-214	HASL 300*	1.04 +/- 0.219	pCi/g	0.279		10/16/2009 RE
Pb-214	HASL 300*	1.06 +/- 0.162	pCi/g	0.275		10/16/2009 RE
Ac-228	HASL 300*	1.85 +/- 0.418	pCi/g	0.710		10/16/2009 RE
Th-234	HASL 300*	0.806 +/- 1.50	pCi/g	1.29		10/16/2009 RE
Eu-152	HASL 300*	0 +/- 0.096	pCi/g	0.227		10/16/2009 RE
Eu-154	HASL 300*	0 +/- 0.068	pCi/g	0.162		10/16/2009 RE
Iron-55	ASTM D 4922	0 +/- 0.57	pCi/g	0.96	11/2/2009	11/25/2009 RE
Tritium (H3)	EPA 906*	2.7 +/- 0.19	pCi/g	3.1	9/24/2009	10/1/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	0.741 +/- 0.090	pCi/g	0.030	10/12/2009	10/24/2009 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.139 +/- 0.041	pCi/g	0.028	10/12/2009	10/24/2009 RE
Uranium-234	ASTM D 3972/DOE U-02*	0.938 +/- 0.103	pCi/g	0.050	10/12/2009	10/24/2009 RE

Lab ID: 20090767-20
 Client ID: OU6-SB04-18-20'
 Date Sampled: 9/16/2009 11:40:00 AM
 Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 0.020	pCi/g	0.022	9/25/2009	9/29/2009 RE
K-40	HASL 300*	32.1 +/- 2.75	pCi/g	1.25		10/16/2009 RE
Tl-208	HASL 300*	0.568 +/- 0.064	pCi/g	0.061		10/16/2009 RE
Bi-212	HASL 300*	1.16 +/- 0.515	pCi/g	0.614		10/16/2009 RE
Pb-212	HASL 300*	2.70 +/- 0.330	pCi/g	0.200		10/16/2009 RE
Bi-214	HASL 300*	1.00 +/- 0.108	pCi/g	0.133		10/16/2009 RE
Pb-214	HASL 300*	1.31 +/- 0.141	pCi/g	0.143		10/16/2009 RE

*NELAC Certified Parameter BDL = Below Detection Limit



Outreach Laboratory

311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

Client Project: 2008012.103
Lab Number: 20090767
Date Reported: 12/15/2009
Date Received: 9/17/09
Page Number: 11 of 11

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Ac-228	HASL 300*	1.55 +/- 0.137	pCi/g	0.214	10/16/2009	RE
Th-234	HASL 300*	0 +/- 1.11	pCi/g	2.64	10/16/2009	RE
Eu-152	HASL 300*	0 +/- 0.173	pCi/g	0.411	10/16/2009	RE
Eu-154	HASL 300*	0 +/- 0.122	pCi/g	0.289	10/16/2009	RE
Tritium (H3)	EPA 906*	1.5 +/- 0.18	pCi/g	3.1	9/24/2009	10/1/2009 RE

QC Report

Parameter	Blank	LCS %REC	LCSD		DUP RPD	MS %REC	MSD		Date
			%REC	RPD			%REC	RPD	
Am-241		101.0	79.0	23.9					10/14/2009
Am-241		102.0	125.0	20.6					9/21/2009
Carbon-14	0.080	58.0				53.0	49.0	5.4	9/25/2009
Carbon-14	0.717	63.0			0.7	40.0	32.0	21.0	9/28/2009
Carbon-14	0	77.0			NC	81.0	59.0	31.0	9/29/2009
Co-60		96.0	93.0	3.6					9/21/2009
Co-60		103.0	95.0	8.1					10/14/2009
Cs-137		106.0	98.0	7.4					10/14/2009
Cs-137		90.0	86.0	4.8					9/21/2009
Iron-55	0	69.9				42.7	36.7	15.3	11/25/2009
Iron-55	0.2	101.0			NC	102.0	92.8	9.2	11/25/2009
Tritium (H3)	3.5	106.0				111.0	110.0	1.2	9/25/2009
Tritium (H3)	79.7	94.9			NC	97.7	99.7	2.0	9/30/2009
Tritium (H3)	67.7	104.0			3.8	97.1	97.0	0.1	9/28/2009
Uranium-234	0.239	89.3				98.0	89.6	8.9	10/2/2009
Uranium-234	0.237	90.8			NC	8.7	100.0	168.4	10/24/2009
Uranium-238	0.056	86.8			12.4	101.0	91.9	9.9	10/2/2009
Uranium-238	0.238	93.1			4.5	108.0	93.7	12.8	10/24/2009

Lab Approval: _____

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD

(1) Client Name	USACE Baltimore/DORF	(7) Samples Shipment Date	9/16/09	(5) Bill to:	IEM
(2) Collected By:	R. Alan Duff	(8) Lab Destination	Outreach Broken Arrow, OK		8 Brookes Ave., Ste. 205
(3) Job/Task No:	2008012-103	(9) Lab Contact	Ron Eidson	(10) Report to:	Gaithensburg, MD 20877
(4) Project Manager:	R. Alan Duff	(12) IEM Technical Contact/Phone	Alan Duff (865)707-5778		Email to: RADUFF@IEM-INC.COM
(6) Purchase Order No.:	N/A	(13) Carrier/Waybill No.	FedEx # 837729087488		CD BERGER@IEM-INC.COM
(11) Required Report Date	Normal TAT				

ONE CONTAINER PER LINE

(14) Sample Number	(15) Sample Description/Type	(16) Date/Time Collected	(17) Container Type	(18) Sample Volume	(19) Preservative	(20) Requested Testing Program
1	HEPA-1	8/18/09	Double Ziploc Bags	~0.5kg	None	Gamma spec, Fe-55, Iso. Uranium, H3/C14
2	Line-1	8/08/09	↓	↓	None	
3	Cooling Sump	8/12/09	18 poly	1 lb	None	
4	Acoustic Tile	9/8/09	Ziploc Bag	~0.5kg	None	
5	Storage Pit Plug	9/10/09	Ziploc Bag	~0.5kg	None	
6	Concrete Block-1	8/19/09	Ziploc Bag	~1kg	None	Gamma spec, Fe-55
7	0UG-SB01-27-29'	9/15/09	Ziploc Bag	~1kg	None	Gamma spec, H3/C14
8	0UG-SB02-26-28'	9/14/09	Ziploc Bag	~1kg	None	
9	0UG-SB03-28-30'	9/15/09	Ziploc Bag	~1kg	None	

(23) Special Instructions Cooling sump may contain Ethelene Glycol Anti-Freeze 200907671

(24) Possible Hazard Identification
 Non-hazard Flammable Skin Irritant Poison Unknown Archive months

(26) Turnaround Time Required: Normal Rush Project Specific See Attached Spec. Letter

(28) Relinquished by: (signature, date, time): RADuff 9/16/09 1500

Relinquished by: (signature, date, time):

Relinquished by: (signature, date, time):

**INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD**

Page 2 of 3
Reference No 2008012-02

(1) Client Name	USACE Baltimore/DORF	(5) Bill to:	
(2) Collected By:	R. Alan Duff	(7) Samples Shipment Date	9/16/09
(3) Job/Task No:	2008012.103	(8) Lab Destination	SEE PAGE 3
(4) Project Manager:	R. Alan Duff	(9) Lab Contact	
(6) Purchase Order No.	N/A	(12) IEM Technical Contact/Phone	
(11) Required Report Date	Normal TAT	(13) Carrier/Waybill No.	
		(10) Report to:	

ONE CONTAINER PER LINE

(14) Sample Number	(15) Sample Description/Type	(16) Date/Time Collected	(17) Container Type	(18) Sample Volume	(19) Preservative	(20) Requested Testing Program
01	Soil Grab South side Bldg 516	9/16/09 1040	Ziploc bag	n/Ks	None	Gamma Spec H3/C14
11	Soil Grab west side of Bldg 516	1105				
12	Soil Grab North	1100				
13	Soil Grab By Bldg 515	1115				
14	Soil Grab SE corner of site	9/16/09 1050	Ziploc Bag	n/Ks	None	Gamma Spec H3/C14
15	Sediment Grab West fence discharging	9/16/09 0830				
16	Sediment Grab South fence discharging	9/16/09 0845				
17	Duplicate-1 Soil Grab	9/14/09 1640	Ziploc Bag	n/Ks	None	Gamma Spec, H3/C14
18	Duplicate-2 Soil Grab	9/16/09 1040				

(23) Special Instructions	
(24) Possible Hazard Identification	<input type="checkbox"/> Non-hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown
(26) Turnaround Time Required:	Normal <input checked="" type="checkbox"/> Rush <input type="checkbox"/>
(28) Relinquished by: (signature, date, time):	<i>RAD</i> 9/16/09 1500
Relinquished by: (signature, date, time):	
Relinquished by: (signature, date, time):	
(25) Sample Disposal	Return to Client <input type="checkbox"/> Disposal by Lab <input checked="" type="checkbox"/> Archive _____ months
(27) QC Level:	<input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> Project Specific <i>See Attached Spec. Letter</i>
Received by: (signature, date, time)	<i>ADJ</i> 9/17/09 25 pm
Received by: (signature, date, time)	
Received by: (signature, date, time)	

(See Reverse for Instructions)

20090767-2

**INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD**

Page 3 of 3
Reference No 2008012-02

(1) Client Name	USACE Baltimore/Dorf	(7) Samples Shipment Date	9/16/09	(5) Bill to:	
(2) Collected By:	R. Alan Duff	(8) Lab Destination	SEE PAGE		
(3) Job/Task No:	2008012.103	(9) Lab Contact		(10) Report to:	103
(4) Project Manager:	R. Alan Duff	(12) IEM Technical Contact/Phone			
(6) Purchase Order No.	N/A	(13) Carrier/Waybill No.			
(11) Required Report Date	Normal IAT				

ONE CONTAINER PER LINE

(14) Sample Number	(15) Sample Description/Type	(16) Date/Time Collected	(17) Container Type	(18) Sample Volume	(19) Preservative	(20) Requested Testing Program
19 Duplicate-3	soil/grub	9/16/09 0845	Ziploc Bag	~1 Kg	None	Gamma Spec, H3/C14
20 046-SB04 20'	Geoprobe core former 14513	9/16/09 1140	↓	↓	↓	Fe-55, I-131, U-235 Gamma Spec, H3/C14

(23) Special Instructions

(24) Possible Hazard Identification
 Non-hazard Flammable Skin Irritant Poison B Unknown
 Normal Rush

(25) Sample Disposal
 Return to Client Disposal by Lab Archive months

(26) Turnaround Time Required: _____
 Relinquished by: (signature, date, time): [Signature] 9/16/09 1500
 Relinquished by: (signature, date, time): [Signature] 9/17/09 2030
 Relinquished by: (signature, date, time): _____

2009076723



Outreach Laboratory

311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

December 16, 2009

Carol Berger
Integrated Environmental Management, Inc.
8 Brooks Ave #205
Gaithersburg, MD 20877

CLIENT PROJECT NAME: 2008012.103
OUTREACH LAB ID: 20090741

Dear Ms. Berger:

Please find enclosed the analytical report for your samples received in our laboratory on September 24, 2009 for the above captioned project. Twenty-nine solid samples were received in good condition and analyzed for naturally occurring radionuclides by Gamma Spectroscopy, Carbon-14, Tritium, Nickel 63, Iron 55, Solubility, and Isotopic Uranium, per your instructions. One hundred grams of well-homogenized sample was filtered through a 0.45 micron membrane filter. The weight of the filtrate was measured and reported as Solubility.

All Quality Control for the requested analysis is reported on the analytical report and is within control limits with the exception of the DUP RPD for Eu-152, the MSD RPD for Carbon 14, and the MS % Recovery for Iron 55.

Per your instructions, these samples will be disposed 30 days after the final report date.

Thank you for choosing Outreach Laboratory and if you have any questions, please call us at 918-251-2515.

Laboratory Director

ODEQ ID #9517
NRC ODEQ LIC. #27522-01



CERT. ID #OK001
See Certified
Parameter List



Outreach Laboratory

311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

Client: IEM
Client Project: 2008012.103
Lab Number: 20090741
Date Reported: 12/15/2009
Date Received: 9/11/09
Page Number: 1 of 6

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
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Lab ID: 20090741-01
Client ID: Coring Water-1
Date Sampled: 8/7/2009 1:00:00 PM
Matrix: Liquid

Radiochemical Analyses

Carbon-14	EPA EERF C01	6.49 +/- 1.53	pCi/l	1.37	9/28/2009	9/28/2009	RE
K-40	EPA 901.1*	111 +/- 50.8	pCi/l	53.3		9/18/2009	RE
Tl-208	EPA 901.1*	6.38 +/- 16.7	pCi/l	4.69		9/18/2009	RE
Bi-212	EPA 901.1*	11.3 +/- 14.3	pCi/l	34.0		9/18/2009	RE
Pb-212	EPA 901.1*	0 +/- 6.55	pCi/l	8.53		9/18/2009	RE
Bi-214	EPA 901.1*	2.52 +/- 6.64	pCi/l	9.02		9/18/2009	RE
Pb-214	EPA 901.1*	14.2 +/- 11.8	pCi/l	6.57		9/18/2009	RE
Ac-228	EPA 901.1*	0 +/- 6.74	pCi/l	16.0		9/18/2009	RE
Th-234	EPA 901.1*	98.2 +/- 77.9	pCi/l	109		9/18/2009	RE
Eu-152	EPA 901.1*	85.5 +/- 10.3	pCi/l	12.3		9/18/2009	RE
Eu-154	EPA 901.1*	2.22 +/- 7.65	pCi/l	8.55		9/18/2009	RE
Iron-55	ASTM D 4922	0 +/- 28.5	pCi/l	48.2	11/2/2009	11/25/2009	RE
Tritium (H3)	EPA 906*	1650 +/- 23	pCi/l	329	9/18/2009	9/29/2009	RE

Lab ID: 20090741-02
Client ID: Coring Water-2
Date Sampled: 8/7/2009 1:05:00 PM
Matrix: Liquid

Radiochemical Analyses

Carbon-14	EPA EERF C01	4.30 +/- 1.69	pCi/l	1.64	9/28/2009	9/28/2009	RE
K-40	EPA 901.1*	104 +/- 78.2	pCi/l	93.7		9/18/2009	RE
Tl-208	EPA 901.1*	2.90 +/- 2.6	pCi/l	3.29		9/18/2009	RE
Bi-212	EPA 901.1*	0 +/- 18.5	pCi/l	12.6		9/18/2009	RE
Pb-212	EPA 901.1*	0 +/- 2.32	pCi/l	5.51		9/18/2009	RE
Bi-214	EPA 901.1*	10.6 +/- 23.0	pCi/l	7.98		9/18/2009	RE
Pb-214	EPA 901.1*	16.5 +/- 8.36	pCi/l	6.60		9/18/2009	RE
Ac-228	EPA 901.1*	10.4 +/- 5.48	pCi/l	16.4		9/18/2009	RE
Th-234	EPA 901.1*	0 +/- 49.7	pCi/l	118		9/18/2009	RE
Eu-152	EPA 901.1*	86.5 +/- 7.10	pCi/l	9.48		9/18/2009	RE
Eu-154	EPA 901.1*	6.32 +/- 12.5	pCi/l	9.32		9/18/2009	RE
Iron-55	ASTM D 4922	10.1 +/- 29.0	pCi/l	48.2	11/2/2009	11/25/2009	RE
Tritium (H3)	EPA 906*	1460 +/- 23	pCi/l	329	9/18/2009	9/29/2009	RE

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
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Lab ID: 20090741-03
Client ID: Coring Water-3
Date Sampled: 8/7/2009 1:10:00 PM
Matrix: Liquid

Radiochemical Analyses

Carbon-14	EPA EERF C01	2.99 +/- 1.29	pCi/l	1.26	9/28/2009	9/28/2009	RE
K-40	EPA 901.1*	55.7 +/- 59.7	pCi/l	73.3		9/18/2009	RE
Tl-208	EPA 901.1*	8.96 +/- 10.5	pCi/l	4.18		9/18/2009	RE
Bi-212	EPA 901.1*	0 +/- 26.0	pCi/l	30.6		9/18/2009	RE
Pb-212	EPA 901.1*	4.18 +/- 14.6	pCi/l	20.1		9/18/2009	RE
Bi-214	EPA 901.1*	6.34 +/- 4.55	pCi/l	8.45		9/18/2009	RE
Pb-214	EPA 901.1*	8.27 +/- 16.9	pCi/l	10.4		9/18/2009	RE
Ac-228	EPA 901.1*	3.58 +/- 10.6	pCi/l	17.8		9/18/2009	RE
Th-234	EPA 901.1*	19.9 +/- 118	pCi/l	151		9/18/2009	RE
Eu-152	EPA 901.1*	31.4 +/- 6.49	pCi/l	11.6		9/18/2009	RE
Eu-154	EPA 901.1*	0 +/- 5.77	pCi/l	13.7		9/18/2009	RE
Iron-55	ASTM D 4922	0 +/- 28.6	pCi/l	48.2	11/2/2009	11/25/2009	RE
Tritium (H3)	EPA 906*	1060 +/- 22	pCi/l	328	9/18/2009	9/29/2009	RE

Lab ID: 20090741-04
Client ID: Coring Water-4
Date Sampled: 8/7/2009 1:15:00 PM
Matrix: Liquid

Radiochemical Analyses

Carbon-14	EPA EERF C01	8.67 +/- 1.80	pCi/l	1.62	9/28/2009	9/28/2009	RE
K-40	EPA 901.1*	266 +/- 123	pCi/l	142		9/18/2009	RE
Tl-208	EPA 901.1*	6.16 +/- 10.2	pCi/l	13.0		9/18/2009	RE
Bi-212	EPA 901.1*	10.3 +/- 44.4	pCi/l	57.8		9/18/2009	RE
Pb-212	EPA 901.1*	0 +/- 18.4	pCi/l	23.7		9/18/2009	RE
Bi-214	EPA 901.1*	17.6 +/- 75.5	pCi/l	12.4		9/18/2009	RE
Pb-214	EPA 901.1*	25.7 +/- 19.2	pCi/l	15.0		9/18/2009	RE
Ac-228	EPA 901.1*	45.1 +/- 13.9	pCi/l	24.2		9/18/2009	RE
Th-234	EPA 901.1*	0 +/- 50.2	pCi/l	119		9/18/2009	RE
Eu-152	EPA 901.1*	97.3 +/- 13.5	pCi/l	10.9		9/18/2009	RE
Eu-154	EPA 901.1*	0 +/- 3.21	pCi/l	7.61		9/18/2009	RE
Iron-55	ASTM D 4922	0 +/- 27.5	pCi/l	48.2	11/2/2009	11/25/2009	RE
Tritium (H3)	EPA 906*	1090 +/- 22	pCi/l	328	9/18/2009	9/29/2009	RE



**Outreach
Laboratory**
311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

Client: IEM
Client Project: 2008012.103
Lab Number: 20090741
Date Reported: 12/15/2009
Date Received: 9/11/09
Page Number: 3 of 6

Analytical Report

	Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
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Lab ID: 20090741-05
Client ID: Coring Water-5
Date Sampled: 8/7/2009 1:20:00 PM
Matrix: Liquid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 1.13	pCi/l	1.23	9/28/2009	9/28/2009	RE
K-40	EPA 901.1*	28.3 +/- 39.0	pCi/l	49.2		9/21/2009	RE
Tl-208	EPA 901.1*	9.42 +/- 16.1	pCi/l	4.36		9/21/2009	RE
Bi-212	EPA 901.1*	0 +/- 21.3	pCi/l	29.3		9/21/2009	RE
Pb-212	EPA 901.1*	0 +/- 6.14	pCi/l	8.01		9/21/2009	RE
Bi-214	EPA 901.1*	3.63 +/- 5.88	pCi/l	8.28		9/21/2009	RE
Pb-214	EPA 901.1*	0 +/- 3.07	pCi/l	7.28		9/21/2009	RE
Ac-228	EPA 901.1*	17.0 +/- 11.0	pCi/l	14.3		9/21/2009	RE
Th-234	EPA 901.1*	30.8 +/- 65.3	pCi/l	83.4		9/21/2009	RE
Eu-152	EPA 901.1*	5.7 +/- 4.68	pCi/l	7.16		9/21/2009	RE
Eu-154	EPA 901.1*	0 +/- 3.03	pCi/l	7.18		9/21/2009	RE
Iron-55	ASTM D 4922	0 +/- 27.8	pCi/l	48.2	11/2/2009	11/25/2009	RE
Tritium (H3)	EPA 906*	308 +/- 20	pCi/l	328	9/18/2009	9/29/2009	RE

Lab ID: 20090741-06
Client ID: Warm Room Sump
Date Sampled: 8/13/2009 8:25:00 AM
Matrix: Liquid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.709 +/- 1.18	pCi/l	1.25	9/26/2009	9/28/2009	RE
K-40	EPA 901.1*	64.7 +/- 68.3	pCi/l	84.7		9/21/2009	RE
Tl-208	EPA 901.1*	4.85 +/- 2.92	pCi/l	3.60		9/21/2009	RE
Bi-212	EPA 901.1*	0 +/- 2.96	pCi/l	7.02		9/21/2009	RE
Pb-212	EPA 901.1*	0 +/- 14.6	pCi/l	34.6		9/21/2009	RE
Bi-214	EPA 901.1*	0 +/- 3.85	pCi/l	9.14		9/21/2009	RE
Pb-214	EPA 901.1*	0 +/- 3.67	pCi/l	8.71		9/21/2009	RE
Ac-228	EPA 901.1*	6.76 +/- 5.47	pCi/l	13.3		9/21/2009	RE
Th-234	EPA 901.1*	33.7 +/- 66.1	pCi/l	113		9/21/2009	RE
Eu-152	EPA 901.1*	0 +/- 4.55	pCi/l	10.8		9/21/2009	RE
Eu-154	EPA 901.1*	0 +/- 2.83	pCi/l	6.71		9/21/2009	RE
Iron-55	ASTM D 4922	0 +/- 28.6	pCi/l	48.2	11/2/2009	11/25/2009	RE
Tritium (H3)	EPA 906*	9990 +/- 38	pCi/l	326	9/18/2009	9/29/2009	RE



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Client: IEM
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Lab Number: 20090741
Date Reported: 12/15/2009
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Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
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Lab ID: 20090741-07
Client ID: Oil-1
Date Sampled: 8/12/2009 1:00:00 PM
Matrix: Oil

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 1.08	pCi/g	1.20	9/28/2009	9/29/2009	RE
K-40	HASL 300*	0 +/- 0.077	pCi/g	0.131		9/21/2009	RE
Tl-208	HASL 300*	0 +/- 0.003	pCi/g	0.007		9/21/2009	RE
Bi-212	HASL 300*	0.066 +/- 0.055	pCi/g	0.046		9/21/2009	RE
Pb-212	HASL 300*	0.002 +/- 0.018	pCi/g	0.024		9/21/2009	RE
Bi-214	HASL 300*	0.004 +/- 0.010	pCi/g	0.014		9/21/2009	RE
Pb-214	HASL 300*	0 +/- 0.013	pCi/g	0.032		9/21/2009	RE
Ac-228	HASL 300*	0.004 +/- 0.014	pCi/g	0.021		9/21/2009	RE
Th-234	HASL 300*	0.086 +/- 0.089	pCi/g	0.151		9/21/2009	RE
Eu-152	EPA 901.1*	0 +/- 0.016	pCi/g	0.038		9/21/2009	RE
Eu-154	EPA 901.1*	0 +/- 0.001	pCi/g	0.011		9/21/2009	RE
Iron-55	ASTM D 4922	2.93 +/- 5.81	pCi/g	9.63	11/2/2009	11/25/2009	RE
Tritium (H3)	EPA 906*	18.4 +/- 1.90	pCi/g	31.8	9/24/2009	10/1/2009	RE

Lab ID: 20090741-08
Client ID: Oil-2
Date Sampled: 8/12/2009 11:45:00 AM
Matrix: Oil

Radiochemical Analyses

Carbon-14	EPA EERF C01	0 +/- 1.04	pCi/g	1.15	9/28/2009	9/29/2009	RE
K-40	HASL 300*	0 +/- 0.081	pCi/g	0.115		9/21/2009	RE
Tl-208	HASL 300*	0 +/- 0.008	pCi/g	0.010		9/21/2009	RE
Bi-212	HASL 300*	0.018 +/- 0.020	pCi/g	0.047		9/21/2009	RE
Pb-212	HASL 300*	0.001 +/- 0.004	pCi/g	0.010		9/21/2009	RE
Bi-214	HASL 300*	0 +/- 0.005	pCi/g	0.011		9/21/2009	RE
Pb-214	HASL 300*	0 +/- 0.005	pCi/g	0.011		9/21/2009	RE
Ac-228	HASL 300*	0.011 +/- 0.010	pCi/g	0.018		9/21/2009	RE
Th-234	HASL 300*	0.271 +/- 0.131	pCi/g	0.138		9/21/2009	RE
Eu-152	EPA 901.1*	0.004 +/- 0.012	pCi/g	0.090		9/21/2009	RE
Eu-154	EPA 901.1*	0 +/- 0.003	pCi/g	0.007		9/21/2009	RE
Iron-55	ASTM D 4922	2.93 +/- 5.81	pCi/g	9.63	11/2/2009	11/25/2009	RE
Tritium (H3)	EPA 906*	19.7 +/- 1.83	pCi/g	30.4	9/24/2009	10/1/2009	RE

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Radiochemical Analyses						
Carbon-14	EPA EERF C01	0 +/- 0.025	pCi/g	0.027	9/30/2009	10/1/2009 RE
K-40	HASL 300*	0 +/- 1.45	pCi/g	1.91		11/23/2009 RE
Tl-208	HASL 300*	0.619 +/- 0.096	pCi/g	0.094		11/23/2009 RE
Bi-212	HASL 300*	1.47 +/- 0.650	pCi/g	0.762		11/23/2009 RE
Pb-212	HASL 300*	1.58 +/- 0.167	pCi/g	0.115		11/23/2009 RE
Bi-214	HASL 300*	0.180 +/- 0.286	pCi/g	0.400		11/23/2009 RE
Pb-214	HASL 300*	0.448 +/- 0.096	pCi/g	0.162		11/23/2009 RE
Ac-228	HASL 300*	1.56 +/- 0.238	pCi/g	0.414		11/23/2009 RE
Th-234	HASL 300*	0 +/- 0.814	pCi/g	1.930		11/23/2009 RE
Eu-152	EPA 901.1*	0 +/- 0.110	pCi/g	0.260		11/23/2009 RE
Eu-154	EPA 901.1*	0 +/- 0.086	pCi/g	0.203		11/23/2009 RE
Iron-55	ASTM D 4922	0.06 +/- 0.58	pCi/g	0.96	10/26/2009	11/25/2009 RE
Tritium (H3)	EPA 906*	2.3 +/- 0.22	pCi/g	3.6	9/30/2009	10/12/2009 RE
Uranium-238	ASTM D 3972/DOE U-02*	1.69 +/- 0.167	pCi/g	0.062	10/5/2009	10/18/2009 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.181 +/- 0.057	pCi/g	0.039	10/5/2009	10/18/2009 RE
Uranium-234	ASTM D 3972/DOE U-02*	1.49 +/- 0.158	pCi/g	0.068	10/5/2009	10/18/2009 RE



Outreach Laboratory

311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

Client: IEM
Client Project: 2008012.103
Lab Number: 20090741
Date Reported: 12/15/2009
Date Received: 9/11/09
Page Number: 6 of 6

QC Report

Parameter	Blank	LCS %REC	LCSD		DUP RPD	MS %REC	MSD		Date
			%REC	RPD			%REC	RPD	
Ac-228 (Ra228)					NC				10/5/2009
Am-241		102.0	125.0	20.6					9/21/2009
Am-241		89.0	104.0	15.4					10/5/2009
Bi-212					NC				10/5/2009
Bi-214 (Ra226)					NC				10/5/2009
Carbon-14	0	77.0			NC	81.0	59.0	31.0	9/29/2009
Carbon-14	0.717	63.0			0.7	40.0	32.0	21.0	9/28/2009
Co-60		95.0	107.0	11.3					10/5/2009
Co-60		96.0	93.0	3.6					9/21/2009
Cs-137		90.0	86.0	4.8					9/21/2009
Cs-137		94.0	108.0	14.0					10/5/2009
Eu-152					51.5				10/5/2009
Eu-154					NC				10/5/2009
Iron-55	0.2	104.0				0.0	34.7		11/25/2009
Iron-55	0.2	101.0			NC	102.0	92.8	9.2	11/25/2009
K-40					NC				10/5/2009
Pb-212					NC				10/5/2009
Pb-214					14.0				10/5/2009
Th-234 (U238)					NC				10/5/2009
Tl-208					NC				10/5/2009
Tritium (H3)	79.7	94.9			NC	97.7	99.7	2.0	9/30/2009
Tritium (H3)	67.7	104.0			3.8	97.1	97.0	0.1	9/28/2009
Uranium-234	0.486	88.8			NC	85.9	94.8	4.0	10/18/2009
Uranium-238	0.451	90.0			NC	92.9	99.6	1.2	10/18/2009

Lab Approval: _____

**INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD**

(1) Client Name	USACE Baltimore/DORF	(7) Samples Shipment Date	9/10/09	(5) Bill to:	IEM
(2) Collected By:	R. Alan Duff	(8) Lab Destination	Outreach - Broken Arrow, OK		8 Brookes Ave., Ste. 205
(3) Job/Task No:	2008012.103	(9) Lab Contact	Ron Eidson		Gaithersburg, MD 20877
(4) Project Manager:	R. Alan Duff	(12) IEM Technical Contact/Phone	Alan Duff (865) 207-5878	(10) Report to:	Email to - RADUFF@IEM-INC.COM
(6) Purchase Order No.	N/A	(13) Carrier/Waybill No.	FEDEX #		CD BERGER @ IEM-INC.COM
(11) Required Report Date	Normal TAT		837729087514		

ONE CONTAINER PER LINE

(14) Sample Number	(15) Sample Description/Type	(16) Date/Time Collected	(17) Container Type	(18) Sample Volume	(19) Preservative	(20) Requested Testing Program
1	CORING WATER-1 Water collected from coring	8/7/09 1300	1 l poly	~ 1 l	None	Gamma Spectroscopy H-3/C-14 Fe-55 & Solubility
2	CORING WATER-2	8/7/09 1305				
3	CORING WATER-3	8/7/09 1310				
4	CORING WATER-4	8/7/09 1315				
5	CORING WATER-5 Composite of 2	8/7/09 1320				
6	Warm Room Sump drains from Sump Hydraulic Oil	8/13/09 0825	1 l poly	~ 1 l	None	Gamma Spectroscopy H-3/C-14 Fe-55
7	Oil-1 Franchising compound	8/12/09 1366				
8	Oil-2 Sewer sediment Pumpable at site fence	8/12/09 1145				
9	Sewer-1	9/8/09 1500	40 ea glass	2 jars	None	Gamma spec Es-0, H-3/C-14

(23) Special Instructions Two Hydraulic Oil Samples

(24) Possible Hazard Identification
 Non-hazard Flammable Skin Irritant Poison B Unknown

(25) Sample Disposal
 Return to Client Disposal by Lab Archive months

(26) Turnaround Time Required: Normal Rush
 Relinquished by: (signature, date, time): RADuff 9/10/09 1500
 Relinquished by: (signature, date, time):
 Relinquished by: (signature, date, time):

(See Reverse for Instructions)

[Handwritten Signature]



**Outreach
Laboratory**

311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

January 5, 2010

Carol Berger
Integrated Environmental Management, Inc.
975 Russell Ave, Suite A
Gaithersburg, MD 20879

CLIENT PROJECT NAME: 2008012.103
OUTREACH LAB ID: 20091040

Dear Ms. Berger:

Please find enclosed the analytical report for your sample received in our laboratory on December 16, 2008 for the above captioned project. Three solid and seven liquid samples were received in good condition and analyzed for Carbon 14, Tritium, and naturally occurring radionuclides by Gamma Spectroscopy, with a ten day work turn, per your instructions.

All Quality Control for the requested analysis is reported on the analytical report and is within control limits with the exception of the MSD RPD for Carbon 14 and the MSD % Recovery/RPD for Tritium.

These samples will be disposed 30 days after the final report date unless otherwise notified.

Thank you for choosing Outreach Laboratory and if you have any questions, please call us at 918-251-2515.

Laboratory Director

ODEQ ID #9517
NRC ODEQ LIC. #27522-01



CERT. ID #OK001
See Certified
Parameter List



Outreach Laboratory

311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

Client: IEM
Client Project: 2008012.103
Lab Number: 20091040
Date Reported: 1/5/2010
Date Received: 12/16/09
Page Number: 1 of 4

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Lab ID: 20091040-01						
Client ID: Coring Drum 3 Sediment						
Date Sampled: 12/14/2009 3:00:00 PM						
Matrix: Solid						
Radiochemical Analyses						
Carbon-14	EPA EERF C01	0.122 +/- 0.030	pCi/g	0.027	12/21/2009	12/21/2009 SD
K-40	DOE Ga-01-R*	2.63 +/- 0.658	pCi/g	0.525		12/18/2009 RE
Tl-208	DOE Ga-01-R*	0.150 +/- 0.045	pCi/g	0.085		12/18/2009 RE
Bi-212	DOE Ga-01-R*	0.257 +/- 0.341	pCi/g	0.432		12/18/2009 RE
Pb-212	DOE Ga-01-R*	0.626 +/- 0.109	pCi/g	0.133		12/18/2009 RE
Bi-214	DOE Ga-01-R*	0.360 +/- 0.079	pCi/g	0.169		12/18/2009 RE
Pb-214	DOE Ga-01-R*	0.274 +/- 0.052	pCi/g	0.135		12/18/2009 RE
Ac-228	DOE Ga-01-R*	0.405 +/- 0.112	pCi/g	0.232		12/18/2009 RE
Th-234	DOE Ga-01-R*	0.467 +/- 0.717	pCi/g	1.70		12/18/2009 RE
Eu-152	DOE Ga-01-R*	4.72 +/- 0.276	pCi/g	0.206		12/18/2009 RE
Eu-154	DOE Ga-01-R*	0.190 +/- 0.115	pCi/g	0.150		12/18/2009 RE
Tritium (H3)	EPA 906*	0 +/- 0.5	pCi/g	6.8	12/21/2009	12/27/2009 RE
Inorganics Analyses						
Percent Moisture	SM 2540 B	49.2	%			12/16/2009 RT

Lab ID: 20091040-02
Client ID: Coring Drum 5 Sediment
Date Sampled: 12/14/2009 3:09:00 PM
Matrix: Solid

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Radiochemical Analyses						
Carbon-14	EPA EERF C01	0.168 +/- 0.028	pCi/g	0.023	12/21/2009	12/21/2009 SD
K-40	DOE Ga-01-R*	1.46 +/- 0.911	pCi/g	1.05		12/18/2009 RE
Tl-208	DOE Ga-01-R*	0.092 +/- 0.071	pCi/g	0.090		12/18/2009 RE
Bi-212	DOE Ga-01-R*	0 +/- 0.317	pCi/g	0.752		12/18/2009 RE
Pb-212	DOE Ga-01-R*	0.452 +/- 0.101	pCi/g	0.213		12/18/2009 RE
Bi-214	DOE Ga-01-R*	0.744 +/- 0.128	pCi/g	0.125		12/18/2009 RE
Pb-214	DOE Ga-01-R*	0.713 +/- 0.171	pCi/g	0.195		12/18/2009 RE
Ac-228	DOE Ga-01-R*	0.171 +/- 0.128	pCi/g	0.196		12/18/2009 RE
Th-234	DOE Ga-01-R*	0 +/- 2.17	pCi/g	5.14		12/18/2009 RE
Eu-152	DOE Ga-01-R*	1.69 +/- 0.197	pCi/g	0.235		12/18/2009 RE
Eu-154	DOE Ga-01-R*	0.064 +/- 0.112	pCi/g	0.144		12/18/2009 RE
Tritium (H3)	EPA 906*	0 +/- 0.5	pCi/g	6.5	12/21/2009	12/27/2009 RE
Inorganics Analyses						
Percent Moisture	SM 2540 B	59.0	%			12/16/2009 RT



Outreach Laboratory

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Client: IEM
Client Project: 2008012.103
Lab Number: 20091040
Date Reported: 1/5/2010
Date Received: 12/16/09
Page Number: 2 of 4

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
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Lab ID: 20091040-03
 Client ID: Warm Room Sump Sediment
 Date Sampled: 12/14/2009 2:35:00 PM
 Matrix: Solid

Radiochemical Analyses

Carbon-14	EPA EERF C01	0.040 +/- 0.024	pCi/g	0.024	12/21/2009	12/21/2009 SD
K-40	DOE Ga-01-R*	2.30 +/- 2.49	pCi/g	3.07		12/18/2009 RE
Tl-208	DOE Ga-01-R*	0.365 +/- 0.129	pCi/g	0.306		12/18/2009 RE
Bi-212	DOE Ga-01-R*	1.14 +/- 1.51	pCi/g	1.91		12/18/2009 RE
Pb-212	DOE Ga-01-R*	0 +/- 0.189	pCi/g	0.448		12/18/2009 RE
Bi-214	DOE Ga-01-R*	0.896 +/- 0.363	pCi/g	0.413		12/18/2009 RE
Pb-214	DOE Ga-01-R*	0.893 +/- 0.314	pCi/g	0.499		12/18/2009 RE
Ac-228	DOE Ga-01-R*	0.456 +/- 0.078	pCi/g	0.424		12/18/2009 RE
Th-234	DOE Ga-01-R*	2.01 +/- 2.59	pCi/g	2.68		12/18/2009 RE
Eu-152	DOE Ga-01-R*	0.511 +/- 0.206	pCi/g	0.631		12/18/2009 RE
Eu-154	DOE Ga-01-R*	0 +/- 0.231	pCi/g	0.547		12/18/2009 RE
Tritium (H3)	EPA 906*	1.46 +/- 0.5	pCi/g	7.2	12/21/2009	12/27/2009 RE

Inorganics Analyses

Percent Moisture	SM 2540 B	79.9	%			12/16/2009 RT
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Lab ID: 20091040-04
 Client ID: Coring Drum 1 Filtered
 Date Sampled: 12/14/2009 1:22:00 PM
 Matrix: Liquid

Radiochemical Analyses

Tritium (H3)	EPA 906*	1510 +/- 65	pCi/l	794	12/21/2009	12/28/2009 RE
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Lab ID: 20091040-05
 Client ID: Coring Drum 2 Filtered
 Date Sampled: 12/14/2009 1:25:00 PM
 Matrix: Liquid

Radiochemical Analyses

Tritium (H3)	EPA 906*	1430 +/- 65	pCi/l	802	12/21/2009	12/28/2009 RE
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Lab ID: 20091040-06
 Client ID: Coring Drum 3 Filtered
 Date Sampled: 12/14/2009 12:05:00 PM
 Matrix: Liquid

Radiochemical Analyses

Tritium (H3)	EPA 906*	1470 +/- 65	pCi/l	802	12/21/2009	12/28/2009 RE
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Outreach Laboratory

311 North Aspen
Broken Arrow, OK 74012
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FAX (918) 251-0008

Client: IEM
Client Project: 2008012.103
Lab Number: 20091040
Date Reported: 1/5/2010
Date Received: 12/16/09
Page Number: 3 of 4

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
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Lab ID: 20091040-07
Client ID: Coring Drum 4 Filtered
Date Sampled: 12/14/2009 1:28:00 PM
Matrix: Liquid

Radiochemical Analyses

Tritium (H3)	EPA 906*	715 +/- 63	pCi/l	806	12/21/2009	12/28/2009 RE
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Lab ID: 20091040-08
Client ID: Coring Drum 5 Filtered
Date Sampled: 12/14/2009 1:31:00 PM
Matrix: Liquid

Radiochemical Analyses

Tritium (H3)	EPA 906*	0 +/- 60	pCi/l	802	12/21/2009	12/28/2009 RE
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Lab ID: 20091040-09
Client ID: Vent Room Sump Water
Date Sampled: 12/14/2009 2:35:00 PM
Matrix: Liquid

Radiochemical Analyses

Carbon-14	EPA EERF C01	4.66 +/- 1.33	pCi/l	1.24	12/29/2009	12/30/2009 SD
K-40	DOE Ga-01-R*	111 +/- 56.8	pCi/l	62.2		12/18/2009 RE
Tl-208	DOE Ga-01-R*	10.4 +/- 2.97	pCi/l	3.92		12/18/2009 RE
Bi-212	DOE Ga-01-R*	0 +/- 16.7	pCi/l	22.5		12/18/2009 RE
Pb-212	DOE Ga-01-R*	21.1 +/- 3.08	pCi/l	7.30		12/18/2009 RE
Bi-214	DOE Ga-01-R*	16.7 +/- 7.82	pCi/l	9.60		12/18/2009 RE
Pb-214	DOE Ga-01-R*	21.2 +/- 5.06	pCi/l	12.0		12/18/2009 RE
Ac-228	DOE Ga-01-R*	16.9 +/- 7.66	pCi/l	11.9		12/18/2009 RE
Th-234	DOE Ga-01-R*	642 +/- 179	pCi/l	95.0		12/18/2009 RE
Eu-152	DOE Ga-01-R*	0 +/- 4.51	pCi/l	10.7		12/18/2009 RE
Eu-154	DOE Ga-01-R*	0 +/- 3.10	pCi/l	7.35		12/18/2009 RE
Tritium (H3)	EPA 906*	1710 +/- 66	pCi/l	794	12/21/2009	12/28/2009 RE

Lab ID: 20091040-10
Client ID: Warm Room Sump Filtered
Date Sampled: 12/14/2009 3:00:00 PM
Matrix: Liquid

Radiochemical Analyses

Tritium (H3)	EPA 906*	16600 +/- 104	pCi/l	806	12/21/2009	12/28/2009 RE
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Outreach Laboratory

311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

Client: IEM
Client Project: 2008012.103
Lab Number: 20091040
Date Reported: 1/5/2010
Date Received: 12/16/09
Page Number: 4 of 4

QC Report

Parameter	Blank	LCS	LCSD		DUP RPD	MS	MSD		Date
		%REC	%REC	RPD		%REC	%REC	RPD	
Ac-228 (Ra228)					NC				12/18/2009
Bi-212					NC				12/18/2009
Bi-214 (Ra226)		93.0	89.0	3.6	NC				12/18/2009
Carbon-14	0	125.0			NC	46.0	98.0	71.0	12/30/2009
K-40					NC				12/18/2009
Pb-212					NC				12/18/2009
Pb-214		107.0	97.0	10.4	NC				12/18/2009
Th-234 (U238)					NC				12/18/2009
Tl-208					NC				12/18/2009
Tritium (H3)	0	92.1			NC	104.0	129.0	21.0	12/27/2009

Lab Approval: _____



**Outreach
Laboratory**

311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

August 16, 2010

Carol Berger
Integrated Environmental Management, Inc.
975 Russell Ave, Suite A
Gaithersburg, MD 20879

CLIENT PROJECT NAME: 2008012.103, Rev. 3
OUTREACH LAB ID: 20100591

Dear Ms. Berger:

Please find enclosed the analytical report for your samples originally received in our laboratory on September 11, 2009 for the above captioned project. Per your email request of July 29, 2010, three solid samples were analyzed for density. The attached results relate only to the samples submitted by your company

All Quality Control for the requested analysis is reported on the analytical report and is within control limits.

Per your instructions, these three samples will be returned.

Thank you for choosing Outreach Laboratory and if you have any questions, please call us at 918-251-2515.

Laboratory Director

ODEQ ID #9517
NRC ODEQ LIC. #27522-01



CERT. ID #OK001
See Certified
Parameter List



Outreach Laboratory

311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

Client: IEM
Client Project: 2008012.103, Rev. 3
Lab Number: 20100591
Date Reported: 8/11/2010
Date Received: 7/29/10
Page Number: 1 of 1

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
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Lab ID: 20100591-01
Client ID: IEM C-1-1, Lab 20090742-01
Date Sampled: 8/5/2009 3:00:00 PM
Matrix: Solid

Inorganics Analyses

Density SM 2710-F 2.31 kg/l 8/11/2010 RT

Lab ID: 20100591-02
Client ID: IEM F-3-1, Lab 20090742-06
Date Sampled: 8/5/2009 3:10:00 PM
Matrix: Solid

Inorganics Analyses

Density SM 2710-F 2.14 kg/l 8/11/2010 RT

Lab ID: 20100591-03
Client ID: IEM W-121, Lab 20090742-11
Date Sampled: 8/6/2009 2:00:00 PM
Matrix: Solid

Inorganics Analyses

Density SM 2710-F 2.39 kg/l 8/11/2010 RT

QC Report

Parameter	Blank	LCS %REC	LCSD %REC RPD	DUP RPD	MS %REC	MSD %REC RPD	Date
Density				1.4			8/11/2010

Lab Approval: _____

Eidson

From: "Carol D. Berger" <CDBerger@IEM-Inc.com>
To: "Outreach Laboratory" <info@outreachlab.com>
Sent: Thursday, July 29, 2010 10:43 AM
Subject: Density Determination

Lori/Ron/Donna:

I need to have the density determined on a few of those concrete samples that you are archiving for us. Here are the sample numbers:

IEM C-1-1, Lab 20090742-01
IEM F-3-1, Lab 20090742-06
IEM W-12-1, Lab 20090742-11

Can I get those results in 10 days? Would you kindly reference IEM Project No. 2008012.103, Rev. 3 on the invoice for this work? Thank you very much!

- Carol

Carol D. Berger
Integrated Environmental Management, Inc.
975 Russell Avenue, Suite A
Gaithersburg, Maryland 20879
(240) 631-8990
CDBerger@IEM-Inc.com

IEM is Certified to the ISO 9001:2008 Standard. Please visit our web site at <http://www.IEM-Inc.com>.

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20100591



**Outreach
Laboratory**

311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

August 25, 2010

Carol Berger
Integrated Environmental Management, Inc.
975 Russell Ave, Suite A
Gaithersburg, MD 20879

CLIENT PROJECT NAME: 2008012
OUTREACH LAB ID: 20100552

Dear Ms. Berger:

Please find enclosed the analytical report for your samples received in our laboratory on July 16, 2010 for the above captioned project. Four solid samples and three liquid samples were analyzed for Tritium, Isotopic Uranium, and naturally occurring radionuclides by Gamma Spectroscopy, per your chain of custody. The attached results relate only to the samples submitted by your company.

The gamma spec. analysis for sample 2010055203 showed higher activities for Pb-214, Th-234 and U-235. These should be considered false positive results. The Isotopes only had one positive energy line and the other lines used to identify these isotopes were either Non Detected or negative. These results were magnified due to the very small amount of sample (0.174 L) available for analysis.

All Quality Control for the requested analysis is reported on the analytical report and is within control limits.

These samples will be held for thirty days after the final report date and then disposed per your instructions.

Thank you for choosing Outreach Laboratory and if you have any questions, please call us at 918-251-2515.

Laboratory Director

ODEQ ID #9517
NRC ODEQ LIC. #27522-01



CERT. ID #OK001
See Certified
Parameter List



Outreach Laboratory

311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

Client: IEM
Client Project: 2008012
Lab Number: 20100552
Date Reported: 8/19/2010
Date Received: 7/16/10
Page Number: 1 of 3

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
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Lab ID: 20100552-01
Client ID: Warm Rm. Sump - Lower
Date Sampled: 7/12/2010 8:00:00 AM
Matrix: Liquid

Radiochemical Analyses

Tritium (H3) EPA 906* 3965 +/- 39 pci/l 353 8/4/2010 8/18/2010 RE

Lab ID: 20100552-02
Client ID: Vent Rm. Sump
Date Sampled: 7/12/2010 11:00:00 AM
Matrix: Liquid

Radiochemical Analyses

Tritium (H3) EPA 906* 864 +/- 30 pci/l 353 8/4/2010 8/18/2010 RE

Lab ID: 20100552-03
Client ID: Concrete Cut Water
Date Sampled: 7/13/2010 12:15:00 PM
Matrix: Liquid

Radiochemical Analyses

K-40	EPA 901.1*	0 +/- 1320	pCi/l	1800	8/4/2010	SD
Tl-208	EPA 901.1*	2.15 +/- 79.7	pCi/l	68.3	8/4/2010	SD
Bi-212	EPA 901.1*	0 +/- 339	pCi/l	677	8/4/2010	SD
Pb-212	EPA 901.1*	0 +/- 78.4	pCi/l	143	8/4/2010	SD
Bi-214	EPA 901.1*	2.32 +/- 285	pCi/l	140	8/4/2010	SD
Pb-214	EPA 901.1*	130 +/- 106	pCi/l	182	8/4/2010	SD
Ac-228	EPA 901.1*	0 +/- 165	pCi/l	330	8/4/2010	SD
Th-234	EPA 901.1*	108 +/- 1130	pCi/l	1120	8/4/2010	SD
U-235	EPA 901.1*	330 +/- 358	pCi/l	143	8/4/2010	SD
Tritium (II3)	EPA 906*	1039 +/- 30	pci/l	353	8/4/2010	8/19/2010 RE

Lab ID: 20100552-04
Client ID: Warm Room Sump Sediment
Date Sampled: 7/13/2010 2:00:00 PM
Matrix: Solid

Radiochemical Analyses

K-40	DOE Ga-01-R*	0.741 +/- 0.741	pCi/g	0.529	8/4/2010	SD
Tl-208	DOE Ga-01-R*	0.034 +/- 0.049	pCi/g	0.062	8/4/2010	SD
Bi-212	DOE Ga-01-R*	0 +/- 0.292	pCi/g	0.584	8/4/2010	SD
Pb-212	DOE Ga-01-R*	0 +/- 0.203	pCi/g	0.121	8/4/2010	SD
Bi-214	DOE Ga-01-R*	0.097 +/- 0.067	pCi/g	0.099	8/4/2010	SD
Pb-214	DOE Ga-01-R*	0.087 +/- 0.074	pCi/g	0.178	8/4/2010	SD

*NELAC Certified Parameter BDL = Below Detection Limit



Outreach Laboratory

311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

Client: IEM
Client Project: 2008012
Lab Number: 20100552
Date Reported: 8/19/2010
Date Received: 7/16/10
Page Number: 2 of 3

Analytical Report

Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Ac-228	DOE Ga-01-R*	ND	pCi/g	0.263	8/4/2010	SD
Th-234	DOE Ga-01-R*	0 +/- 0.151	pCi/g	0.301	8/4/2010	SD
U-235	DOE Ga-01-R*	0.138 +/- 0.184	pCi/g	0.243	8/4/2010	SD
Tritium (H3)	EPA 906*	11 +/- 0	pCi/g	4	8/4/2010	8/19/2010 RE

Lab ID: 20100552-05
Client ID: Conduit Soil
Date Sampled: 7/14/2010 9:00:00 AM
Matrix: Solid

Radiochemical Analyses

K-40	DOE Ga-01-R*	19.1 +/- 1.94	pCi/g	0.552	8/16/2010	SD
Tl-208	DOE Ga-01-R*	0.448 +/- 0.054	pCi/g	0.048	8/16/2010	SD
Bi-212	DOE Ga-01-R*	0.841 +/- 0.188	pCi/g	0.298	8/16/2010	SD
Pb-212	DOE Ga-01-R*	1.31 +/- 0.129	pCi/g	0.073	8/16/2010	SD
Bi-214	DOE Ga-01-R*	1.28 +/- 0.094	pCi/g	0.114	8/16/2010	SD
Pb-214	DOE Ga-01-R*	1.25 +/- 0.101	pCi/g	0.146	8/16/2010	SD
Ac-228	DOE Ga-01-R*	1.21 +/- 0.074	pCi/g	0.125	8/16/2010	SD
Th-234	DOE Ga-01-R*	1.08 +/- 0.628	pCi/g	1.04	8/16/2010	SD
U-235	DOE Ga-01-R*	0.161 +/- 0.064	pCi/g	0.071	8/16/2010	SD
Uranium-238	ASTM D 3972/DOE U-02*	1.51 +/- 0.262	pCi/g	0.144	8/11/2010	8/17/2010 RE
Uranium-235	ASTM D 3972/DOE U-02*	0.117 +/- 0.102	pCi/g	0.140	8/11/2010	8/17/2010 RE
Uranium-234	ASTM D 3972/DOE U-02*	1.30 +/- 0.258	pCi/g	0.201	8/11/2010	8/17/2010 RE

Lab ID: 20100552-06
Client ID: Warm Room Sump - Upper
Date Sampled: 7/27/2010 11:20:00 AM
Matrix: Liquid

Radiochemical Analyses

Tritium (H3)	EPA 906*	1353 +/- 31	pci/l	353	8/4/2010	8/18/2010 RE
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**Outreach
Laboratory**

311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

Client: IEM
Client Project: 2008012
Lab Number: 20100552
Date Reported: 8/19/2010
Date Received: 7/16/10
Page Number: 3 of 3

QC Report

Parameter	Blank	LCS %REC	LCSD		DUP RPD	MS %REC	MSD		Date
			%REC	RPD			%REC	RPD	
Ac-228 (Th232)					3.0				7/30/2010
Bi-214 (Ra226)		110.0	83.0	28.2	NC				7/30/2010
K-40					6.8				7/30/2010
Pb-214		94.0	109.0	15.0					7/30/2010
Th-234 (U238)					NC				7/30/2010
Tritium (H3)	0	97.8			7.0	90.1	92.1	2.0	8/18/2010

Lab Approval: _____

**INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD**

Reference No

(1) Client Name USACE (BALTIMORE)	(7) Samples Shipment Date 7/27/10	(5) Bill to: IEM	(6) Lab Destination OUTREACH LAB
(2) Collected By: PATRICK PHILLIPS	(8) Lab Contact KON EDSON	(9) Lab Contact KON EDSON	(10) Report to: SAME
(3) Job/Task No: 2008012.103	(12) IEM Technical Contact/Phone (BERKELEY) 393-7809	(11) Required Report Date 10 DAYS	
(4) Project Manager: R. ALAN DUFF	(13) Carrier/Waybill No.		
(5) Purchase Order No. 2008012.103 (REV 3)			

ONE CONTAINER PER LINE

(14) Sample Number	(15) Sample Description/Type	(16) Date/Time Collected	(17) Container Type	(18) Sample Volume	(19) Preservative	(20) Requested Testing Program
WATER FROM SUMP UPPER	LIGAND	7/27/10 / 1120	GLASS AMBER UC	2/L	NONE	SEE 2008012103.103

(23) Special Instructions

(24) Possible Hazard Identification
 Non-hazard Flammable Skin Irritant Poison B Unknown

(25) Sample Disposal
 Return to Client Disposal by Lab Archive _____ months

(26) Turnaround Time Required:
 Normal Rush **10 DAYS**

(27) QC Level: I II III Project Specific _____

(28) Relinquished by: (signature, date, time) **Pat Phillips 7/27/10, 1700**

Received by: (signature, date, time) _____

Relinquished by: (signature, date, time) _____

Received by: (signature, date, time) _____

(See Reverse for Instructions) **20100552 28.50C**

**INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD**

Page 1 of 1
Reference No 2008012

(1) Client Name	USACE/DORF	(7) Samples Shipment Date	7/15/10	(5) Bill to:	IEM
(2) Collected By:	R. Alan Duff	(8) Lab Destination	Outreach		975 A Russell Ave.
(3) Job/Task No:	2008012.103	(9) Lab Contact	Ron Eidson	(10) Report to:	Gaithursburg, MD 20879
(4) Project Manager:	R. Alan Duff	(12) IEM Technical Contact/Phone	R. Alan Duff (301) 538-9180		Same as Above
(6) Purchase Order No.	N/A	(13) Carrier/Waybill No.	FedEx		E-mail to CD Berger @ IEM-INC.com
(11) Required Report Date	Normal Turn	#	870546474330		ralanduff@AOL.com

ONE CONTAINER PER LINE

(14) Sample Number	(15) Sample Description/Type	(16) Date/Time Collected	(17) Container Type	(18) Sample Volume	(19) Preservative	(20) Requested Testing Program
1	Warm Rm. Sump - upper Water / Grab	7/12/10 0800	500ml Glass	500 ml	None	H3 - Liquid Scintillation
2	Warm Rm. Sump - lower Water / Grab	7/12/10 0945	500ml Glass	500 ml	None	H3 - Liq. Scint.
3	Vent Rm. Sump Water / Grab	7/12/10 1100	500ml Glass	500 ml	None	H3 - Liq. Scint.
4	Concrete Cut Water / Grab	7/13/10 1215	250 ml plastic	250 ml	None	Gamma Spec H3 - Liquid Scintillation
5	Warm room Sump sediment / Grab	7/13/10 1400	Glass	~200ml	None	Gamma Spec H3 / Liquid Scintillation
	Conduit Soil / Grab	7/14/10 0900	1 l plastic	ml	None	Gamma Spec H3 - ISO Topic

(23) Special Instructions Vent Room Sump Sample may contain Ethylene Glycol (anti-freeze)

(24) Possible Hazard Identification
 Non-hazard Flammable Skin Irritant Poison B Unknown
 Return to Client Disposal by Lab Archive months

(26) Turnaround Time Required: Normal Rush

(27) QC Level: I II III Project Specific See C. Berger Spec

(28) Relinquished by: (signature, date, time): PROJ 7/15/10 1600
 Relinquished by: (signature, date, time):
 Relinquished by: (signature, date, time):
 Relinquished by: (signature, date, time):

(See Reverse for Instructions)

201005512
LEP071616