

HDP-PR-FSS-701, Final Status Survey Plan Development
APPENDIX P-6
FSS FIELD LOG

Survey Area: LSA-05 **Description:** Barn and Cistern Open Land Area
Survey Unit: 02 / 03 **Description:** Tile Barn Area

FSS Field Log:

<u>Date/Time:</u>	<u>Observation or Comment:</u>	<u>Technician</u>
08/19/13 0630	Received our daily FSS briefing and safety briefing.	SDJ / NJJ / JH

08/19/13 0700	Performed daily instrument source check for all FSS instruments. All meters successfully passed the source check. Proceeded to LSA 05-02 area to continue GWS and systematic soil sampling efforts.	
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08/19/13 0730	N. Jordan performed GWS around sump area of LSA 05-02. See survey 3134 C 130819 for more information. Finished systematic soil sampling in LSA 05-02. Samples taken at the following locations and depths:	
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Sample ID	Start	Depth	Easting	Northing
L050251PRS00	0.0'	1.0'	82667 4.1	864747.7
L050252PES00	1.0'	1.5'	826674.1	864747.7
L050253PES00	0.0'	0.5'	826710.8	864737.8
L050254PES00	0.0'	0.5'	826647.2	864720.8
L050256PRS00	0.0'	0.5'	826620.4	864693.9
L050257PES00	0.5'	1.0'	826620.4	804693.9
L050261PRS00	0.0'	2.0'	826593.5	864667.1
L050262PES00	2.0'	2.5'	826593.5	864667.1

See survey 3307 C 130819 for more information

08/19/13 1300	Began the GWS of LSA 05-03. Installed a snow fence boundary between LSA 05-02 and 05-03.	
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08/19/13 1600	Performed biased sampling from 0 – 0.5' at the following locations in In LSA 05-03 based on GWS data:	
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L050323PUB00 N-864823.34 E-826718.36

L050324PUB00 N-864891.74 E-826783.77

L050325PUB00 N-864907.21 E-826827.64

See survey 3336 C 130819 for more information.

08/19/13 1800	Performed post source check of all FSS meters. All meters passed post source check successfully.	
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END SDJ / NJJ / JH

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Survey Area: <u>LSA-05</u>	Description: <u>Barn and Cistern Open Land Area</u>
Survey Unit: <u>02 & 03</u>	Description: <u>Tile Barn Area</u>

FSS Field Log:

<u>Date/Time:</u>	<u>Observation or Comment:</u>	<u>Technician</u>
08/20/13 0630	Received our daily FSS briefing and safety briefing.	SDJ/NJJ/JAH
08/20/13 0700	Performed daily instrument source check for all FSS instruments. All meters successfully passed the source check.	
08/20/13 0715	N. Jordan completed documentation of recent surveys. Gathered necessary equipment for field support.	
08/20/13 0730	Began job coverage at the barns area in support of ECC work in LSA 05-01, GWS and sample point flagging within LSA 05-03 and LSA 05-02 sump area GWS.	
08/20/13 1000	N. Jordan completed GWS of Sump Area within LSA 05-02. See survey 3164 C 130820 for more information.	
08/20/13 1100	S. Jenkins and N. Jordan completed survey of interior of the storm water basin located in LSA 05-02. See survey 3162 C 130820 for more information.	
08/20/13 1300	S. Jenkins pulled biased soil sample in the bottom of the Sump Area in LSA 05-02 at the following location: L050269PUB00 N- 864673.01 E- 826687.53. See survey 3335 C 130820 for more information.	
08/20/13 1455	Performed biased sampling at the following location in LSA 05-03 sidewall: L050326PUB00 N-864825.94 E-826699.56	

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Date/Time: **Observation or Comment:** **Technician**

08/20/13 1520 Performed systematic soil sampling of the following locations within LSA 05-03 with support from the Operations department: SDJ/NJJ/JAH

Sample ID	Start	End	Easting	Northing
L050301PRS00	0.0'	2.0'	826747.6	864773.6
L050302PES00	2.0'	2.5'	826747.6	864773.6
L050303PRS00	0.0'	1.5'	826706.5	864784.6
L050304PEQ00	1.5'	2.0'	826706.5	864784.6
L050304PES00	1.5'	2.0'	826706.5	864784.6
L050305PRS00	0.0'	4.5'	826777.6	864803.6
L050306PES00	4.5'	5.0'	826777.6	864803.6
L050307PRS00	0.0'	3.0'	826736.6	864814.6
L050308PES00	3.0'	3.5'	826736.6	864814.6

08/20/13 1730 Completed equipment decontamination and clean-up of sample processing area.

08/20/13 1800 Secured all samples within the sample cage. Performed post source check of all FSS meters. All meters passed post source check successfully.

END SDJ/NJJ/JAH

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<u>Date/Time:</u>	<u>Observation or Comment:</u>	<u>Technician</u>																																			
08/21/13 0915	Pulled biased soil samples at the following locations during systematic sampling efforts:	SDJ/NJJ/JAH																																			
	<table border="0"> <thead> <tr> <th>Sample ID</th> <th>Start</th> <th>Depth</th> <th>Easting</th> <th>Northing</th> </tr> </thead> <tbody> <tr> <td>L050327PUB00</td> <td>0</td> <td>0.5</td> <td>826692.97</td> <td>864816.6</td> </tr> <tr> <td>L050328PUB00</td> <td>0</td> <td>0.5</td> <td>826704.8</td> <td>864821.84</td> </tr> <tr> <td>L050329PUB00</td> <td>0</td> <td>0.5</td> <td>826699.56</td> <td>864825.94</td> </tr> <tr> <td>L050330PUB00</td> <td>0</td> <td>0.5</td> <td>826755.52</td> <td>864786.04</td> </tr> <tr> <td>L050331PUB00</td> <td>0</td> <td>0.5</td> <td>826755.81</td> <td>864787.23</td> </tr> <tr> <td>L050332PUB00</td> <td>0</td> <td>0.5</td> <td>826751.01</td> <td>864786.9</td> </tr> </tbody> </table>	Sample ID	Start	Depth	Easting	Northing	L050327PUB00	0	0.5	826692.97	864816.6	L050328PUB00	0	0.5	826704.8	864821.84	L050329PUB00	0	0.5	826699.56	864825.94	L050330PUB00	0	0.5	826755.52	864786.04	L050331PUB00	0	0.5	826755.81	864787.23	L050332PUB00	0	0.5	826751.01	864786.9	
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	See survey 3310 C 130821 for more information.																																				
08/21/13 1630	Completed soil sampling efforts.																																				
08/21/13 1730	Completed equipment decontamination and clean-up of sample processing area.																																				
08/21/13 1800	Secured all samples within the sample cage. Performed post source check of all FSS meters. All meters passed post source check successfully.																																				

END SDJ/NJJ/JAH

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Survey Area: LSA-05 **Description:** Barn and Cistern Open Land Area
Survey Unit: 03 **Description:** Tile Barn Area

FSS Field Log:

<u>Date/Time:</u>	<u>Observation or Comment:</u>	<u>Technician</u>
08/22/13 0630	Received our daily FSS briefing and safety briefing.	SDJ/NJJ/JAH
08/22/13 0700	Performed daily instrument source check for all FSS instruments. all meters successfully passed the source check. Gathered necessary equipment and supplies.	
08/22/13 0830	Conducted Non-Soil surveys within LSA 05-03. This survey included All manmade items still present within the survey unit. Items surveyed Included, light post, fence posts, fire hydrants and water main valve caps.	
08/22/13 0900	Continued GWS of LSA 05-03. Provided as needed job coverage for ECC In LSA 05-01.	
08/22/13 0915	Conducted biased soil sampling of areas flagged during GWS of LSA 05-03. The following locations were sampled.	
	L050333PUB00 N-864818.330 E-826694.62	
	L050334PUB00 N-864823.57 E-826706.453	
	L050335PUB00 N-864827.67 E-826701.213	
	L050336PUB00 N-864787.770 E-826757.174	
	L050337PUB00 N-864788.96 E-826757.464	
	See survey 3384 C 130822 for more information.	
08/22/13 1800	Performed post use FSS instrument source check and survey documentation.	

END SDJ/NJJ/JAH

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Survey Area: LSA-05 **Description:** Barn and Cistern Open Land Area
Survey Unit: 03 **Description:** Tile Barn Area

FSS Field Log:

<u>Date/Time:</u>	<u>Observation or Comment:</u>	<u>Technician</u>
08/23/13 0630	Received our daily FSS briefing and safety briefing.	SDJ/NJJ/JAH

08/23/13 0700	Performed daily instrument source check for all FSS instruments. all meters successfully passed the source check. Gathered necessary equipment and supplies.	
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08/23/13 0800	Continued hand excavation of the berm adjacent to highway P near the utility lines. Expanded an elevated area into a 2 foot x 2 foot excavation. Obtained three soil samples at the highest readings at the base of the excavation. All three samples were taken within 6 inches of the same location.	
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Sample ID	Easting	Northing
L050338PUB00	826721.453	864823.570
L050339PUB00	826706.453	864823.570
L050340PUB00	826706.453	864823.570

See survey 3329 C 130823

Bounding samples were then taken on all four sides of the excavation at a distance of one foot from the sides of the hole, to determine the extent of the activity. The sample depth was 0.0' – 2.0' with an additional sample of 2.0' – 2.5'.

Sample ID	Easting	Northing
L050328PUI01	826706.493	864819.410
L050328PUI02	826709.653	864820.080
L050328PUI03	826709.143	864823.410
L050328PUI04	826703.743	864824.300
L050328PUI05	826706.493	864819.410
L050328PUI06	826709.653	864820.080
L050328PUI07	826709.143	864823.410

* NOTE: Sample L050328PUI04 hit refusal at 1.5'.
See survey 3326 C 130823 for more information.

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Date/Time: **Observation or Comment:****Technician**

08/23/13 1530 Obtained biased samples from other elevated areas within LSA 05-03
 at the following locations.

SDJ/NJJ/JAH

Sample ID	Easting	Northing
L050341PUB00	826753.414	864786.240
L050342PUB00	826690.443	864815.140

See survey 3325 C 130823 for more information.

08/23/13 1600 Processed the soil samples and delivered to on-site lab for analysis.

08/23/13 1750 Completed sample equipment decontamination and cleaned sample prep
 area.

08/23/13 1800 Performed post source check of all FSS meters. All meters passed post
 source check successfully.

END SDJ/NJJ/JAH

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Survey Area: LSA-05 **Description:** Soil sampling LSA-05-03
Survey Unit: O3 **Description:** Soil sampling LSA-05-03 elevated area investigation verification

FSS Field Log:

<u>Date/Time:</u>	<u>Observation or Comment:</u>	<u>Technician</u>
8/29/13 14:20	Area roped off with radiation signs only, weather hot ~ 96 degrees Fahrenheit, soil dry. Sampling was performed over two days. Started on 8/29/13 and completed 9/3/13. Gamma survey of samples, sample surface, and down hole logging of sample locations was performed. Field background on 8/29/13 10231 cpm, field BKG on 9/3/13 10561 Background with collimator 7122 cpm. All results are on contact. Reference survey # 3303 C 130829	TY
<u>Time/Depth</u>	<u>Sample ID</u> <u>Coordinates</u>	<u>Sample cpm</u>
14:20/0-6"	6398-RA-130829-07-01 864782.82N 826693.46E	4272
14:25/6-18"	6398-RA-130829-07-02	3964
14:30/0-6"	6398-RA-130829-07-03 864787.39N 826688.90E	3613
14:35/6-18"	6398-RA-130829-07-04	4390
14:40/0-6"	6398-RA-130829-07-05 864791.27N 826680.09E	4163
14:45/6-18"	6398-RA-130829-07-06	4013
15:00/0-6"	6398-RA-130829-07-07 864796.91N 826674.30E	3915
15:05/6-18"	6398-RA-130829-07-08	3950
15:50/0-6"	6398-RA-130829-07-09 864795.84N 826702.47E	4316
15:55/6-18"	6398-RA-130829-07-10	4260
16:00/0-6"	6398-RA-130829-07-11 864800.89N 826698.95E	4516
16:05/6-18"	6398-RA-130829-07-12	4316
10:25/0-6"	Sampled on 9/3/13 6398-RA-130829-07-13 through 32 6398-RA-130829-07-13 864803.71N 826694.30E	4190
10:30/6-18"	6398-RA-130829-07-14	4316
10:35/0-6"	6398-RA-130829-07-15 864805.30N 826681.49E	4042
10:40/6-18"	6398-RA-130829-07-16	3788

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Time/Depth	Sample ID	Coordinates	Sample cpm
10:45/0-6"	6398-RA-130829-07-17	864806.22N 826713.22E	3790
10:50/6-18"	6398-RA-130829-07-18		4961
10:55/0-6"	6398-RA-130829-07-19	864811.74N 826708.27E	4276
11:00/6-18"	6398-RA-130829-07-20		4074
11:05/0-6"	6398-RA-130829-07-21	864814.80N 826703.42E	4343
11:10/6-18"	6398-RA-130829-07-22		4120
11:15/0-6"	6398-RA-130829-07-23	864836.44N 826709.48E	4191
11:20/6-12"	6398-RA-130829-07-24		4436
13:20/0-6"	6398-RA-130829-07-25	864820.28N 826704.21E	4684
13:25/6-12"	6398-RA-130829-07-26		3864
13:30/0-6"	6398-RA-130829-07-27	864812.33N 826690.80E	4608
13:35/6-12"	6398-RA-130829-07-28		4386
13:40/0-6"	6398-RA-130829-07-29	864822.74N 826701.64E	4164
13:45/0-12"	6398-RA-130829-07-30		4128
13:50/0-6"	6398-RA-130829-07-31	864833.02N 826703.93E	3868
13:55/6-12"	6398-RA-130829-07-32		4408
Date/Time			
9/3/13 16:20	Down hole logging was performed in sample locations with collimator used. Field BKG was 7122 cpm. See map for sample location		
	Sample location		
	#1 10469gcpm	#13 10721gcpm	
	#2 11106gcpm	#14 10290gcpm	
	#3 10741gcpm	#15 10877gcpm	
	#4 8546gcpm	#16 9643gcpm	
	#5 10895gcpm		
	#6 10501gcpm		
	#7 10827gcpm		
	#8 10021gcpm		
	#9 10016gcpm		
	#10 10901gcpm		
	#11 10828gcpm		
	#12 9910gcpm		

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FSS FIELD LOG

Survey Area: LSA-05 **Description:** LSA-05-03 N. Center Wall
Survey Unit: 03 **Description:** Investigation of elevated area next HWY P

FSS Field Log:

Date/Time: **Observation or Comment:** **Technician**
9/3/13 14:20

Area roped off with radiation signs only. Weather hot ~ 90 degrees Fahrenheit soil dry. Gamma walkover was performed without GPS due to terrain. Area survey was next to Hwy P approximately 45' long and a height of 4' to 5'. A collimator was used to perform survey Bkg with collimator 6338 cpm survey performed on contact with soil. A fuel pellet was found during survey HP Supervision was notified and location marked with flag. During location of pellet found heighten audible response stopped and touched wall, soil and pellet was knocked off wall found pellet in soil that had fallen off wall on contact reading was 40000 gcpm in soil. Removed pellet from soil on contact reading 82000 gcpm. Perform gamma survey of area around location of pellet found no excessive readings. Reference survey # 3304 C 130903.

TY

Thomas York / [Signature]
9-5-13

**HDP-PR-FSS-701, Final Status Survey Plan Development
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FSS FIELD LOG**

Survey Area: LSA-05 **Description:** Barns and Cistern Open Land Area
Survey Unit: 03 **Description:** Wood Barn Area

FSS Field Log:

<u>Date/Time:</u>	<u>Observation or Comment:</u>	<u>Technician</u>
08/19/13/11:00am Rock Mercau R.N.	Elevated measurement localized along north sidewall! Three wheel barrels removed re-survey to see if measurement dropped to <18,000 gpm (uncollimated) Use collimator on post-dig measurements also.	Rad. Eng
END R.N.	Used hand shovels to remove soil. Samples collected.	
08-20-13/Shift Note Tues. R.N.	Samples collected and analyzed from north sidewall. See Survey Log No. 314/C130820 for measurements that drove collection of more biased	
END R.N.	samples in this north wall location.	
8-21-13 Shift Notes Wed. R.N.	Biased samples collected around the North wall had onsite lab results with SOF > 1. Sample L050327PUB00 = 0.79 SOF L050328PUB00 = 1.15 " L050329PUB00 = 1.66 " L050330PUB00 = 0.90 " L05031PUB00 = 1.01 "	
	Hand excavations will continue in this area due to presence of underground utilities (water main + telephone fiberoptic line).	
	Hand excavations resulted in discovery of additional elevated measurements along north sidewall and area directly south (in between area where two barns were once located). Hand excavations and biased sampling continue.	

Rad. Eng.
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Survey Area: <u>LSA-05</u>	Description: <u>Barns and Cistern Open Land Area</u>
Survey Unit: <u>03</u>	Description: <u>Wood Barn Area</u>

FSS Field Log:

<u>Date/Time:</u>	<u>Observation or Comment:</u>	<u>Technician</u>
8-22-2013 Shift Notes Thurs. R.N.	Reviewed sample data from biased locations in and around the north wall/utility run area. Also have a SOF = 1.0 directly south of north wall elevated area. Localized hand excavations on area associated with L050334 PUB 00 where SOF = 1.0. Dug round hole approx. 2-ft wide x 2.5 ft deep due to consistent monitoring of ~12K-14K gcpm (collimated) monitoring levels plateaued @ ~9K-10K gcpm (collimated). Biased samples collected, L050335 PUB 00 , L050336 PUB 00 and L050337 PUB 00 . Also continued localized hand excavations along north wall. Investigating nature and extent of the areas along north excavation wall @ footprint between the two barns.	Rad. Eng.
08-23-2013 Shift Notes Friday R.N.	Biased sample results from on-site lab showed samples 35, 36, and 37 (listed above) all < 0.50 SOF. However, areas around the north wall continue to show "spots" of elevated activity. Hand excavations along north wall revealed a rotting wood post w/ concrete footer. Wood post removed. No elevated measurements on post or concrete, but localized measurements ~15K-20K persist in soil.	
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Survey Area: <u>LSA-05</u>	Description: <u>Barns and Cistern Open Land Area</u>
Survey Unit: <u>03</u>	Description: <u>Wood Barn Area</u>

FSS Field Log:

<u>Date/Time:</u>	<u>Observation or Comment:</u>	<u>Technician</u>
<u>8-23-13</u> <u>Shift Notes</u> <u>Rock Nevean</u> <u>R.N.</u> <u>Friday</u> <u>(Continuation)</u>	<p>Sitewalk with RSO resulted in the decision to suspend the FSS process in LSA 05-03. Given that the area that was formerly between the two Barns (north excavation slope and areas directly south) shows biased sample results with a $SOF > 1$ at depths 0"-6" and 6"-12". Hand excavations did indeed remediate localized areas. However, upon visual inspection of the remaining areas in LSA05-03, it was a concern that there may be additional areas that require exposure (excavation), surveys and sampling.</p> <p>At approx. 17:45 on 08-23-2013 Joe Guido (RSO) provided me with text to provide documentation and communication with the Project on failure of FSS. After edits and discussion, RSO sent email entitled "RE: 08-21 and 22-13 HDP Daily Progress Report" at 19:03 (see attached print of e-mail).</p> <p>The area of interest will be isolated from the eastern portion of LSA05-03 and additional localized excavations, surveys, and sampling will be performed.</p> <p>Isolation controls will be discussed with HP Techs and input from techs/labor will be used to determine most efficient way to proceed.</p>	<u>Rad. Eng.</u>
<u>END 08-23-13</u> <u>entry</u>		

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Survey Area: LSA-05	Description: Barns and Cistern Open Land Area
Survey Unit: 03	Description: Wood Barn Area

FSS Field Log:

<u>Date/Time:</u>	<u>Observation or Comment:</u>	<u>Technician</u>
08-26-13 08:00 Rock Newman P.M. Monday	Discussed approach for using small equipment such as a "skid-steer" w/backhoe attachment and a hopper to perform localized excavations and removal of waste. Chris C. said the WTA will accept deliveries of LSA05-03 soil. Jason Wilson of West. Ops is prepared to support the excavations with equip. and personnel.	
END 08:00 entry		

Shift Note: FSS characterization work is suspended in this unit. The area of interest will be isolated and remediated based on visual, survey, and sampling activities.

FSS is working with GIS to provide maps

From: Guido, Joseph S
Sent: Friday, August 23, 2013 7:03 PM
To: Smetanka, Joseph W
Cc: Richardson, Dennis C; Davis, Kevin T. (SAIC); Neveau, Rock P; Bresnahan, Michelle E
Subject: RE: 08-21 and 22-13 HDP Daily Progress Report

Joe,
Sorry for the delay in my response but I wanted to see how far we would get today. After the analysis of biased samples selected during the gamma walkover surveys, we have localized areas in LSA-05-03 which still exhibit elevated activity at depth (2 to 3 feet down). This is problematic, as it is indicative of contamination which has been covered by clean material. We will isolate this area from the rest of 05-03 and continue to work in parallel to the ORAU confirmation survey of the balance of the survey unit.

Joseph Guido, CHP
Project Radiation Safety Officer
Westinghouse Electric Company - Hematite Decommissioning Project
Office: (314) 810-3361
Email: guidojs@westinghouse.com
Home Page: www.westinghousenuclear.com

From: Smetanka, Joseph W
Sent: Friday, August 23, 2013 10:25 AM
To: Davis, Kevin T. (SAIC); Guido, Joseph S
Subject: FW: 08-21 and 22-13 HDP Daily Progress Report

Since we had further elevated readings in the barns area, are we still confident ORAU should be performing their surveys in LSA 05-03?

From: Cambron, Deborah S
Sent: Thursday, August 22, 2013 3:41 PM
To: Smetanka, Joseph W
Cc: Mike LaFranzo; Abercrombie, Robert N.; Alvarado, Juan J; Anderson, Keith D.; Miklos, Angelo D; Arnold, Timothy J. (Hudson Global); Bauman, Nicole L; Bieser, Bonnie S.; Cambron, Deborah S; Carl Jenks; Cummin, Chris C.; Davis, J. Todd; Davis, Kevin T. (SAIC); DeWitt, Michele M.; Anderson, Diana M; Dorothy Franklin; Doster, Branden; Gearhart, James C.; Gilstrap, Eric; Guido, Joseph S; Hyslop, Chad; J T Springer; Jones, Mark; Marx, Kate; Kelmeckis, Val J; Langlois, Timothy; Lee, Peter; Lewis, Mark B.; Matthews, Brian; McCants, Natasha R; McLafferty, James L.; Gutman, Michele M.; Miller, Kevin C.; Miller, S Eric; Richardson, Dennis C; Ridenhower, Donald D.; Robert Orlikowski; Rood, Gerald J.; Seger, Susan; Sharma, Dinesh K; Stoller, Sharon L; Szlis, Kathy; Tapp, Jeremy; Tiffany Drake; Welch, Sally P; Westlund, Darwin A
Subject: 08-21 and 22-13 HDP Daily Progress Report

Joe,
Attached is the 8-21 and 8-22-13 HDP Daily Progress Report. Please refer any questions or comments to Dennis Richardson, HDP Deputy Director.

Regards,
Deb Cambron
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Environmental, Health and Safety, and Engineering
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HDP-PR-FSS-701, Final Status Survey Plan Development
APPENDIX P-6
FSS FIELD LOG

Survey Area: LSA-05 **Description:** Barn and Cistern Open Land Area
Survey Unit: 03 **Description:** Tile Barn Area

FSS Field Log:

Date/Time: **Observation or Comment:** **Technician**
09/10/13 0630 Received our daily FSS briefing and safety briefing. SJ/JH/NJ/AS

09/10/13 0730 A. Schooley continued support at the barns area as ECC continued load out of spoils pile generated during LSA 05-01 excavation and backfill.

09/10/13 0800 N. Jordan & J. Hoffman conducted a walkover of a portion of LSA 10-07 that exhibited slightly elevated readings during last week's walkover. See Survey 3391 C 130910 for more information

09/10/13 1000 S. Jenkins monitored excavation within the western portion of LSA 05-03. An area that exhibited widespread, low level elevated readings was scraped an additional 16-18" and a manual walkover was performed. Two areas of slight elevation were found and flagged for future biased soil sampling. Information on these areas is below.

<u>Elevated Area</u>	<u>Easting</u>	<u>Northing</u>
EA 1	826683.663	864783.72
EA 2	826700.823	864818.15

See survey 3399 C 130910 for more information.

09/10/13 1040 Biased soil sampling was performed at 13 locations within LSA 05-03, to verify that the extents of contamination have been removed with ECC labor support. The samples included soil samples at the two elevated area locations noted above. Soil sample ID and location information is below.

<u>Sample ID</u>	<u>Time</u>	<u>Easting</u>	<u>Northing</u>
6470-RA-130909-07-01	1050	826695.353	864785.29
6470-RA-130909-07-02	1100	826685.213	864791.45
6470-RA-130909-07-03	1110	826678.373	864796.57
6470-RA-130909-07-04	1115	826693.723	864800.72
6470-RA-130909-07-05	1308	826703.353	864792.98
6470-RA-130909-07-06	1312	826710.593	864800.93
6470-RA-130909-07-07	1040	826676.853	864799.92
6470-RA-130909-07-08	1320	826684.893	864800.2
6470-RA-130909-07-09	1331	826700.823	864818.15
6470-RA-130909-07-10	1340	826702.683	864823.46
6470-RA-130909-07-11	1345	826703.993	864825.47
6470-RA-130909-07-12	1350	826702.093	864832.46
6470-RA-130909-07-13	1355	826683.663	864783.72

FSS Field Log 1 of 2

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<u>Date/Time:</u>	<u>Observation or Comment:</u>	<u>Technician</u>
09/10/13 1300	N. Jordan and J. Hoffman finished the GWS in LSA 10-07 and proceeded To the barn area to assist with soil sampling operations and soil load out From LSA 05-01 area.	
09/10/13 1600	Soil samples were labeled and delivered to the on-site lab for analysis.	
09/10/13 1700	Performed post source check of all FSS meters. All meters passed successfully.	
	END SJ/NJ/JH/AS	

FSS Field Log 2 of 2

HDP-PR-FSS-701, Final Status Survey Plan Development
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FSS FIELD LOG

Survey Area: <u>LSA-05</u>	Description: <u>Barn and Cistern Open Land Area</u>
Survey Unit: <u>03</u>	Description: <u>Tile Barn Area</u>

FSS Field Log:

<u>Date/Time:</u>	<u>Observation or Comment:</u>	<u>Technician</u>
09/16/13 0630	Received our daily FSS briefing and safety briefing.	SJ/JH/NJ/AS
09/16/13 0800	N. Jordan & J. Hoffman verified that isolation and controls were in place in LSA 05-03.	
09/16/13 0830	J. Hoffman and N. Jordan began a GPS GWS of a portion of LSA 05-03. During the GWS, J. Hoffman located two areas of elevated readings. Both areas were flagged for further investigation and/or sampling. During further investigation, one area was determined to be a discreet source of contamination. The reading at the surface of the soil was 24,000 GCPM. After only a slight disturbance of the soil, a portion of a pellet was visible and measured 98,000 GCPM on contact. The pellet was removed and the soil re-scanned and found to be 12,000 GCPM on contact. See surveys: 3466-C-130916 & 3467-C-130916 for more detailed information.	
09/16/13 1300	J. Hoffman conducted a manual GWS of a portion of vertical sidewall in LSA 05-03. See survey 3467-C-130916 for more detailed information.	
09/16/13 1700	Performed post source check of all FSS meters. All meters passed successfully. END SJ/NJ/JH/AS	

FSS Field Log 1 of 1

HDP-PR-FSS-701, Final Status Survey Plan Development
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FSS FIELD LOG

Survey Area: <u>LSA-05</u>	Description: <u>Barn and Cistern Open Land Area</u>
Survey Unit: <u>03</u>	Description: <u>Tile Barn Area</u>

FSS Field Log:

<u>Date/Time:</u>	<u>Observation or Comment:</u>	<u>Technician</u>
09/17/13 0630	Received our daily FSS briefing and safety briefing.	SJ/JH/NJ/AS
09/17/13 0800	N. Jordan & J. Hoffman verified that isolation and controls were in place in LSA 05-03.	
09/17/13 0830	J. Hoffman and N. Jordan began a GPS GWS of a portion of LSA 05-03.	
09/17/13 1300	J. Hoffman and N. Jordan continued the GPS GWS of a portion of LSA 05-03. See surveys 3503-C-130917 and 3504-C-130917 for more detailed information.	
09/17/13 1700	Performed post source check of all FSS meters. All meters passed successfully. END SJ/NJ/JH/AS	

FSS Field Log 1 of 1

HDP-PR-FSS-701, Final Status Survey Plan Development
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FSS FIELD LOG

Survey Area: <u>LSA-05</u>	Description: <u>Barn and Cistern Open Land Area</u>
Survey Unit: <u>03</u>	Description: <u>Tile Barn Area</u>

FSS Field Log:

<u>Date/Time:</u>	<u>Observation or Comment:</u>	<u>Technician</u>
09/18/13 0630	Received our daily FSS briefing and safety briefing.	NJ/AB
09/18/13 0800	N. Jordan verified that isolation and controls were in place in LSA 05-03.	
09/18/13 0830	N. Jordan began a GPS GWS of a portion of LSA 05-03. During the GWS, N. Jordan two areas of elevated readings. Both area were flagged for further investigation and/or sampling. During further investigation, one area was determined to be a discreet source of contamination. The reading at the surface of the soil was 16,200 GCPM on contact. After hand excavating the area a pellet was visible and measured 77,000 GCPM on contact. The pellet was removed and the soil re-scanned and found to be 12,000 GCPM on contact. See surveys: 3505-C-130918 for more detailed information.	
09/18/13 133	N. Jordan and A. Bohacheff conducted a GPS GWS of a portion of LSA 05-03. See survey 3506-C-130918 for more detailed information.	
09/18/13 1700	Performed post source check of all FSS meters. All meters passed successfully. END NJ/AB	

FSS Field Log 1 of 1

HDP-PR-FSS-701, Final Status Survey Plan Development
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FSS FIELD LOG

Survey Area: LSA-05 **Description:** Barn and Cistern Open Land Area
Survey Unit: 03 **Description:** Tile Barn Area

FSS Field Log:

<u>Date/Time:</u>	<u>Observation or Comment:</u>	<u>Technician</u>
09/23/13 0630	Received our daily FSS briefing and safety briefing.	NJ/AB/JH
09/23/13 0800	A. Bohacheff, J. Hoffman and N. Jordan verified that isolation and controls were in place in LSA 05-03.	
09/23/13 0830	A. Bohacheff, J. Hoffman and N. Jordan began a GPS GWS of a portion of LSA 05-03.	
09/23/13 1330	A. Bohacheff, N. Jordan and J. Hoffman continued GPS GWS in LSA 05-03.	
09/23/13 1645	J. Hoffman, N. Jordan and A. Bohacheff completed GPS GWS for the day.	
	See surveys 3534-C-130923 & 3535-C-130923 for more detailed information.	
09/23/13 1700	Performed post source check of all FSS meters. All meters passed successfully.	
	END NJ/AB/JH	

FSS Field Log 1 of 1

HDP-PR-FSS-701, Final Status Survey Plan Development
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FSS FIELD LOG

Survey Area: LSA-05 **Description:** Barn and Cistern Open Land Area
Survey Unit: 03 **Description:** Tile Barn Area

FSS Field Log:

<u>Date/Time:</u>	<u>Observation or Comment:</u>	<u>Technician</u>
09/24/13 0630	Received our daily FSS briefing and safety briefing.	NJ/AB/JH
09/24/13 0815	A. Bohacheff, J. Hoffman and N. Jordan verified that isolation and controls were in place in LSA 05-03.	
09/24/13 0830	A. Bohacheff, J. Hoffman and N. Jordan began a GPS GWS of a portion of LSA 05-03.	
09/24/13 1315	A. Bohacheff, N. Jordan and J. Hoffman continued GPS GWS in LSA 05-03.	
09/24/13 1645	J. Hoffman, N. Jordan and A. Bohacheff completed GPS GWS for the day.	
	See surveys 3572-C-130924 & 3573-C-130924 for more detailed information.	
09/24/13 1700	Performed post source check of all FSS meters. All meters passed successfully.	
	END NJ/AB/JH	

FSS Field Log 1 of 1

HDP-PR-FSS-701, Final Status Survey Plan Development
APPENDIX P-6
FSS FIELD LOG

Survey Area: LSA-05 **Description:** Barn and Cistern Open Land Area
Survey Unit: 03 **Description:** Tile Barn Area

FSS Field Log:

<u>Date/Time:</u>	<u>Observation or Comment:</u>	<u>Technician</u>
10/07/13 0630	Received our daily FSS briefing and safety briefing.	JH/NJ
10/07/13 0815	J. Hoffman and N. Jordan verified that isolation and controls were in place in LSA 05-03.	
10/07/13 0835	J. Hoffman began a GPS GWS of the trench and exposed water line within LSA 05-03. N. Jordan began a GPS GWS of a portion of LSA 05-03.	
10/07/13 1300	N. Jordan and J. Hoffman continued GPS GWS in LSA 05-03.	
10/07/13 1635	J. Hoffman and N. Jordan completed GPS GWS for the day in LSA 05-03.	
	See surveys 3734-C-131007 & 3735-C-131007 for more detailed information.	
10/07/13 1645	Performed post source check of all FSS meters. All meters passed successfully.	
	END JH/NJ	

FSS Field Log 1 of 1

HDP-PR-FSS-701, Final Status Survey Plan Development
APPENDIX P-6
FSS FIELD LOG

Survey Area: LSA-05 **Description:** Barn and Cistern Open Land Area
Survey Unit: 03 **Description:** Tile Barn Area

FSS Field Log:

<u>Date/Time:</u>	<u>Observation or Comment:</u>	<u>Technician</u>
10/08/13 0630	Received our daily FSS briefing and safety briefing.	JH/NJ
10/08/13 0815	J. Hoffman and N. Jordan verified that isolation and controls were in place in LSA 05-03.	
10/08/13 0835	J. Hoffman began a GPS GWS of horizontal surfaces within LSA 05-03. N. Jordan began a manual GWS of vertical sidewall portions of LSA 05-03.	
10/08/13 1300	N. Jordan and J. Hoffman continued GWS in LSA 05-03.	
10/08/13 1330	N. Jordan completed manual GWS of the sidewalls. See survey 3775-C-131008 for more detailed information.	
10/08/13 1635	J. Hoffman completed GPS GWS for the day in LSA 05-03. See survey 3774-C-131008 & for more detailed information.	
10/08/13 1645	Performed post source check of all FSS meters. All meters passed successfully. END JH/NJ	

FSS Field Log 1 of 1

HDP-PR-FSS-701, Final Status Survey Plan Development
APPENDIX P-6
FSS FIELD LOG

Survey Area: LSA-05 **Description:** Barn and Cistern Open Land Area

Survey Unit: 03 **Description:** Tile Barn Area

FSS Field Log:

Date/Time: **Observation or Comment:** **Technician**

10/09/13 0630 Received our daily FSS briefing and safety briefing. JH/AS

10/09/13 0815 J. Hoffman and A. Schooley verified that isolation and controls were in Place in LSA 05-03.

10/09/13 0835 J. Hoffman and A. Schooley began Biased Soil Sampling of the following Sample IDs within LSA 05-03.

Sample ID	Time
L050343PUB00	1605
L050344PUB00	1610
L050345PUB00	1615
L050346PUB00	1620
L050347PUB00	1625
L050348PUB00	1630

10/09/13 1300 A. Schooley and J. Hoffman continued sampling in LSA 05-03.

10/09/13 1635 J. Hoffman and A. Schooley completed Biased Soil Sampling in LSA 05-03.

See survey 3783-C-131009 for more detailed information.

10/09/13 1645 Performed post source check of all FSS meters used. All meters passed successfully.

END JH/AS

FSS Field Log 1 of 1

HDP-PR-FSS-701, Final Status Survey Plan Development
APPENDIX P-6
FSS FIELD LOG

Survey Area: LSA-05	Description: Barns and Cistern Open Land Area
Survey Unit: 03	Description: Wood Barn Area

FSS Field Log:

<u>Date/Time:</u>	<u>Observation or Comment:</u>	<u>Technician</u>
10/9/13 14:00	Based on Statistical Analysis of the data Radiological Engineering would like has determined bias samples should be collected from the following locations	AB
Stat. Analysis	→ 1) E: 826707.6 N: 864811.5	
Stat. Analysis	→ 2) E: 826739.2 N: 864780.1	
Highest GWS Reading	→ 3) E: 826699.6 N: 864825.9	
	Each location will have 2 samples collected. The first sample will be from a depth of 0 to 6 inches and the second sample will be from a depth of 6 to 12 inches.	
10/11/13 13:00	Further Statistical Analysis and discussion with the RSO indicated 3 areas in the western portion in LSA 05-03 that need to be GWS. GWS will be performed using a 2x2 moving in a serp moving at a scan speed no greater than 1 foot per second. Place flags in areas where elevated ^{or anomalous} readings are found. If no flags are placed collect a 6 inch sample in all locations where flags are placed. If no flags are placed, collect a sample from the highest reading in each area. See attached maps for areas needing to be GWS.	AB

