TA-21 '06

chamberlain, kathryn, NMENV

From: Mark S. Thacker [mthacker@lanl.gov]
Sent: Wednesday, June 21, 2006 12:56 PM
To: chamberlain, kathryn, NMENV
Subject: FW: DP Site Aggregate Area Sampling
Attachments: Full suite analyses locations-Final.doc

For some reason this did not go through the first time.

Mark

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From: Mark S. Thacker [mailto:mthacker@lanl.gov]
Sent: Wednesday, June 21, 2006 10:46 AM
To: 'Katie at NMED'
Cc: 'Woodworth, Lance A.'; 'Roy Bohn'; 'Day, Emily'; 'brucew@lanl.gov'
Subject: DP Site Aggregate Area Sampling

Katie, the attached table outlines our proposed sampling location(s) for the full suite analyses at the DP Aggregate SWMUs/AOCs and the rational for choosing those locations. As stated on page 5-1 of the approved work plan "Field screening will determine the sample(s) with the highest radionuclide and/or organic contamination. If field screening instruments cannot determine which sample(s) contain(s) the highest levels of radionuclides or organic compounds, samples collected from the location where contamination would most likely be present as indicated by site history (i.e., sump, outfall, etc.) will be selected." We have selected location based on the above stated rationale because we do not believe that field screening will greatly assist us with sample selection. By collecting samples up front for full suite analyses it will simplify the logistics of the field program and our interactions with NMED. At the initiation of the field program we will collected all the samples as outlined in the attached table and run them for quick turn around analyses. We will transmit the results to NMED and discuss the need for additional full suite analyses at the sites. While conducting the investigation and corrective actions at the sites we will still utilize field screening to determine if full suite analyses is warranted on other samples. Please review the table and let us know if you agree with the proposed locations. We would be glad to have a conference call with you to discuss the proposed locations.

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SWMU/AOC/ Consolidated Unit	Location selected for expanded suite analyses[1]	Rationale
21-024(i)	Location 4 (Figure 5.12-2)	At pipeline connection to former septic tank; location where contaminants potentially accumulated. Septic tank and outfall previously remediated.
21-024(j)	BH-2 (Figure 5.13-3)	Center of outfall; location where contaminants discharged.
21-024(k)	BH-2 (Figure 5.14-3)	Center of tile field; location where contaminants potentially accumulated.[3]
21-024(l)-99	BH-2 (Figure 5.15-3)	Downslope of the center of the sump; location where contaminants potentially accumulated.[2]
	BH-3 (Figure 5.15-3)	Center of outfall; location where contaminants discharged.
	BH-4 (Figure 5.15-3)	Center of outfall; location where contaminants discharged.
21-024(n)	BH-1 (Figure 5.16-3)	Center of outfall; location where contaminants discharged.
	BH-2 (Figure 5.16-3)	North of the cleanout; location where contaminants discharged.
	BH-5 (Figure 5.16-3)	Center of outfall; location where contaminants discharged.
21-024(o)	BH-1 (Figure 5.17-3)	Center of outfall; location where contaminants discharged.
21-026(a)-99	BH-1 (Figure 5.18-3)	Center of sludge drying beds; location where contaminants potentially accumulated.
	BH-5 (Figure 5.18-3)	Center of outfall; location where contaminants discharged.
21-027(a)	BH-2 (Figure 5.19-3)	Center of outfall; location where contaminants discharged.
21-027(c)	BH-1 (Figure 5.20-3)	Center of outfall; location where contaminants discharged.
21-013(c)	Location 1 (Figure 4.1-1)	In the area of the three excavated trenches; location where contaminants potentially accumulated.
21-003-99	Location 18 (Figure 4.2-1)	Downslope of the site; location where the highest Aroclor concentration was previously detected at Location 21-02127.

SWMU/AOC/ Consolidated Unit	Location selected for expanded suite analyses[1]	Rationale
21-006(c)-99	BH-8, 21-006(b) (Figure 5.1-3)	Center of outfall; location where contaminants discharged.[2]
21-012(b)	BH-7 (Figure 5.2-2)	Center of outfall; location where contaminants discharged.[2]
21-022(f)	Location 5 (Figure 5.3-2)	At pipeline's historic termination at MDA U.[2]
21-022(h)-99	BH-2, 21-022(h) (Figure 5.4-3)	Center of outfall; location where contaminants discharged.[2]
21-023(a)-99	BH-1, 21-023(a) (Figure 5.5-2)	Center of former septic tank; location where contaminants potentially accumulated.[3]
	BH-2, 21-023(b) (Figure 5.5-2)	Center of former septic tank; location where contaminants potentially accumulated.[3]
	BH-3, 21-023(d) (Figure 5.5-2)	Center of former septic tank; location where contaminants potentially accumulated.[3]
21-024(a)	BH-2 (Figure 5.6-3)	Center of outfall; location where contaminants discharged.
21-024(b)	BH-2 (Figure 5.7-3)	Center of outfall; location where contaminants discharged. Location also near previously detected radionuclide activities at Location 21-01379.
21-024(d)	Location 22 (Figure 5.8-3)	Center of bench; location based on previously detected radionuclide activities at Locations 21-04086 and 21-04087.
21-024(e)	Location 20 (Figure 5.9-3)	Center of edge of mesa top downslope of outfall; location based on previously detected metals and radionuclides at Location 21-01341.
21-024(g)	BH-4 (Figure 5.10-3)	Within drainage ditch closest to septic tank location; location where contaminants potentially accumulated.[3]
	BH-7 (Figure 5.10-3)	Center of outfall; location where contaminants discharged from septic tank.
21-024(h)	Location 15 (Figure 5.11-3)	Downslope of outfall at drainage low spot; location where contaminants potentially accumulated. Location also based on previously detected radionuclide activities at Location 21-01414.

SWMU/AOC/ Consolidated Unit	Location selected for expanded suite analyses[1]	Rationale
21-024(c)	Location 1 (Figure 4.3-1)	Center of outfall; location where contaminants discharged.
21-009	Location 5 (Figure 4.4-1)	In the southeast corner of the former laboratory; location where bench counting was performed.
21-002(b)	Location 1 (Figure 4.5-1)	Downslope of the site; location where radionuclide activity was previously detected at Location 21-02506.

[1] At this location, all sample depths proposed in the approved work plan will be collected using the hand auger method and field screened. If no positive field screening results are detected, the shallowest proposed sample depth will be sent to the laboratory for expanded suite analyses as outlined in the work plan. These expanded analyses include high explosives, polychlorinated biphenyls, dioxins, and furans. The results from the analysis will be reviewed with NMED to determine if additional sampling at the sites for the expanded suite will be required.

[2] At this SWMU/AOC, samples will be collected prior to historical sump or pit removal. During sump or pit removal, field screening and outfall analytical results will guide whether or not samples will be selected for the expanded suite analyses.

[3] Since this location is under a former structure or subsurface feature (tile field, sludge drying bed, or drainage ditch), only the shallowest depth will be collected using the hand auger method and analyzed for the expanded suite. Deeper prescribed sample intervals will be collected at a later date.