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Environmental Programs (EP)
Document Signature Form

Document Catalog Number: EP2007-0751
(Please prefix the name of all electronic versions of this document with this number.)

Document Title /Subject: WCSF: Amendment 1, R-36 Monitoring Well Installation
PRSs: None **OUO Information: Y / N**
Associated Document Catalog Number(s): None
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Document Type: Waste Characterization Strategy Form (WCSF) or WCSF Amendment
Former OU: N/A

Date Due: Unknown **Date Final Complete:** 12/17/2007
Date Sent to DOE: Unknown **Date Sent to NMED:** Unknown
Date Sent to RPF: Unknown **Received Per RPF:** Unknown

LA-UR Number: **RPF ER ID Number:** **Performance Measure:** No
AA Deliverable: No **Certification Required:** No **Force Peer Review:** No
Distribution TO: **Distribution FROM:**
Distribution COPY: **Distribution THRU:**
Attachment Notes:
Status/Comments: NOTE: APPROVAL SIGNATURES ON FINAL DOCUMENT.

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Amendment #1 to the Waste Characterization Strategy Form for R-36 Monitoring Well Installation

INTRODUCTION

This is Amendment #1 to WCSF (EP2007-0618), dated 10/18/2007 for the above referenced R-36 Monitoring Well Installation, The waste-generating activities addressed in the original WCSF consist of the installation (i.e., drilling, collecting chip and core samples, well development, and initial aquifer testing) of the regional aquifer. R-36 is located in Sandia Canyon within TA-72 and will be implemented using the same waste-generating activities described in the original WCSF (EP2007-0618). R-36 is located about 750 yards southeast of R-35. This purpose of this amendment is to address a change in the form and the volume of Waste #9 (Concrete Chips) described in the original WCSF.

BACKGROUND

Well R-36, located between wells R-12 and R-35, will be installed to satisfy requirements stated in two letters from the New Mexico Environment Department (NMED). The first letter, dated April 27, 2007, "Direction to Rehabilitate Wells, Pilot Well Rehabilitation Study Summary report", directed Los Alamos National Lab to plug, abandon, and replace well R-12 Screen #3. Well R-36 will serve as the replacement well for R-12, Screen 3. The second letter, dated June 8, 2007, "Denial of Extension Request for Replacement of Monitoring Well R-12, screen #3", specified a deadline of July 1, 2007 for a drilling work plan for a new regional aquifer well. R-36 will be installed in accordance with the NMED-approved Drilling Work Plan for Regional Aquifer Well R-36 (LA-UR-07-4342, June 2007).

Hexavalent chromium contamination is present in the upper part of the regional groundwater system at R-11 and R-28. Molybdenum concentrations were observed above background levels in groundwater screening samples collected from wells R-35a and R-35b. Natural hydraulic gradients in the area are expected to cause the contamination to move eastward with possible local northeast gradients due to pumping of municipal water at PM-3 and PM-1. (See Figure 1 in the original WCSF for well locations.) Thick Miocene basalt may provide a lower confining bed for the vertical movement of contamination, restricting the movement of potential contaminants to the portion of the aquifer above the basalt. Thus, the R-36 well location is moved west of well R-12 so that R-36 can target the sedimentary deposits on top of the Miocene basalts for groundwater monitoring. These sedimentary deposits are more likely to be hydraulically connected with contaminant pathways from western contaminant sources. Well R-36 is situated to intercept potential contaminants within the regional aquifer before they reach the LANL boundary.

Well R-36 will be single-screened and installed in the lower portion of the Sandia Canyon Watershed between R-12 and R-35 (Figure 1) in the upper 100 feet of the regional aquifer. The well will act as a LANL boundary well providing monitoring of the uppermost regional aquifer within sediments above the Miocene age basalt. The well may also increase understanding of chromium, molybdenum, and other contaminant distribution within the regional aquifer.

WASTE DESCRIPTION

All generated waste streams are expected to be the same as stated in the original WCSF, with the following exception:

- Waste # 9: Drilled-out Concrete Chips will now include concrete in the form of slurry. The concrete described in the original WCSF did not solidify in the bore hole and therefore came out of the bore hole as slurry. Some of this concrete slurry may or may not solidify before transport for disposal. The anticipated volume of this waste stream is 10 to 20 cubic yards.

CHARACTERIZATION, MANAGEMENT, AND DISPOSAL	
Waste # 9- Concrete Chips and or Cement Slurry This waste stream will have the anticipated regulatory status of non-hazardous, non-radioactive waste or non-hazardous, low-level radioactive waste. The cement slurry will be characterized by direct waste sampling using the waste characterization analytical suite for waste #1 (solid IDW, drill cuttings). Concrete slurry waste will be stored separately from IDW Solids, in 55-gallon steel drums and/or lined roll-off bins. This waste will be managed as industrial non-hazardous waste pending analytical review. Disposal of this concrete slurry will take place at an authorized disposal facility.	
SIGNATURES (Print name and then sign.)	**DATE**
Project Leader: Mark Everett	1-3-07
ERSS Waste Management Coordinator: Michael Le Scouarnec/ Gordon Jio	GORDON JIO 12/17/07
ENV-RCRA Representative: John Tymkowych	12/17/07
NWIS-SWO Representative: Andy Elicio	12/17/07