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Environmental Protection Division
Water Quality & RCRA Group (ENV-RCRA)
P.O. Box 1663, Mail Stop K490
Los Alamos, New Mexico 87545
(505) 667-0666/FAX: (505) 667-5224

Date: June 25, 2009
Refer To: ENV-RCRA-09-0116
LAUR: 09-03903



Mr. William C. Olson, Chief
Ground Water Quality Bureau
New Mexico Environment Department
Harold Runnels Building
1190 St. Francis Dr.
P.O. Box 2611
Santa Fe, New Mexico 87502

Mr. Glenn Saums
Surface Water Quality Bureau
New Mexico Environment Department
Harold Runnels Building
1190 St. Francis Dr.
P.O. Box 2611
Santa Fe, New Mexico 87502

Dear Mr. Olson and Mr. Saums:

SUBJECT: NOTICE OF INTENT TO DISCHARGE, GROUNDWATER FROM PERMEABLE REACTIVE BARRIER (PRB) INSTALLATION

Enclosed is a Notice of Intent to Discharge (NOI) that has been prepared for submittal to the New Mexico Environment Department (NMED) pursuant to 20 NMAC 6.2.1201 of the New Mexico Water Quality Control Commission (NMWQCC) Regulations. This NOI is being submitted to provide coverage for the one-time discharge of groundwater from construction dewatering activities during the installation of the Permeable Reactive Barrier (PRB) in Cañon de Valle. This work is being performed as specified in the New Mexico Environment Department-approved Corrective Measures Implementation Plan for Consolidated Unit 16-021(c)-99, Revision 1 (July 2007). An electronic copy of the Corrective Measures Implementation Plan has been provided in the enclosed CD.

Please contact me at (505) 667-7969 if you have questions or require additional information.

Sincerely,

Bob Beers
Water Quality & RCRA Group

BB/lm



Enclosures: a/s

Cy: James Bearzi, NMED/HWB, Santa Fe, NM, (NOI)
Gene Turner, LASO-EO, (NOI), A316
Hai Shen, LASO-EO, (NOI), A316
Steve Yanicak, LASO-GOV, (NOI), J993
Michael B. Mallory, PADOPS, w/o enc., A102
Chris Cantwell, ADESHQ, w/o enc., K491
Mike Saladen, ENV-RCRA, (NOI), K490
Jake Meadows, ENV-RCRA, (NOI), K490
Don Hickmott, EES-14, (NOI), D462
John McCann, ADEP-PM, (NOI), M992
Randy Johnson, ENV-EAQ, (NOI), M992
ENV-DO, File, w/o enc., J978
ENV-RCRA, File, w/enc., K490
IRM-RMMSO, w/enc., A150



1. Name and mailing address of person proposing to discharge:
 Los Alamos National Laboratory
 PO Box 1663, Mail Stop K490
 Los Alamos, NM 87545
 Attention: Robert Beers
 Water Quality & RCRA Group
 Work Phone: 505-667-7969
 Cell/Home Phone: NA
 Fax: 505-665-9344
 Email: bbeers@lanl.gov

2. Name of facility:
 Los Alamos National Laboratory (LANL or the Laboratory)

3. Physical location of discharge (if applicable, give street address, township, range, section, distance from closest town or landmark, directions to facility, location map):
 See Location Map, Figure 1.1-1, on Page 37 of the Corrective Measures Implementation Plan for Consolidated Unit 16-021(c)-99, Revision 1, on the enclosed CD.

4. Type of operation generating the discharge (e.g., truck wash, food processing plant, restaurant, etc.):
 The Laboratory intends to install a Permeable Reactive Barrier (PRB) in Cañon de Valle for the treatment of HE and barium. Construction dewatering will be required during two phases of the project:
 1. Prior to installation of the PRB, three geophysical test pits will be excavated along the length of the PRB. Dewatering of the test pits will be necessary to perform geophysical testing and characterization. The test pits will confirm the depth to tuff and determine the extent of weathering or fracturing of the tuff. Data from the test pits will be used to finalize the design of the PRB
 2. Dewatering during installation of the PRB's groundwater diversion wall and reactive cell.
 This project is being performed as specified in the enclosed New Mexico Environment Department-approved Corrective Measures Implementation Plan for Consolidated Unit 16-021(c)-99, Revision 1.

3. Source(s) of the discharge. Describe how the wastewater, sludge, or other discharges processed and/or disposed at your facility are generated. Identify all sources. Attach additional pages if needed:
 Water captured during dewatering will be containerized, held until the PRB is operational, and then returned to the watercourse approximately 200 ft upstream of the PRB. This is one-time discharge. BMPs will be utilized to minimize/eliminate erosion impacts. A Storm Water Pollution Prevention Plan (SWPPP) will be implemented for the project. See the detailed description of the PRB on Pages 19-27 of the Corrective Measures Implementation Plan for Consolidated Unit 16-021(c)-99, Revision 1.

4. Expected contaminants in the discharge (e.g., nitrate-nitrogen, metals, organic compounds, salts, etc.) Include estimated concentration if known, and copies of results of laboratory analyses, if available:
 Enclosure 1, Tables 1.0-3.0, presents the analytical results from the sampling of monitoring well CdV 16-02658, an alluvial groundwater well located next to the PRB and closely representing water captured during construction dewatering.
 - Table 1.0 presents the analytical results from 2008-2009 for NMWQCC 3103 groundwater contaminants. Barium concentrations—5.7 mg/L to 7.7 mg/L—at CdV 16-02658 exceeded the NM WQCC 3103 standard of 1.0 mg/L. All other NMWQCC 3103 contaminants were below regulatory limits.
 - Table 2.0 presents all analytical detections from 2005-2009 for high-explosives. RDX concentrations have exceeded the EPA risk level of 6.1 µg/L.
 - Table 3.0 presents all analytical detections of VOCs and SVOCs from 2005-2009. No VOCs or SVOCs exceed NMWQCC groundwater standards.
 The target PRB groundwater treatment goals are 6.1 µg/L for RDX and 1.0 mg/L for barium. In May 2009, the Laboratory submitted a "Contained-In" request to the NMED-HWB for listed contaminants detected in spring and alluvial waters since 1995 (Enclosure 2). The HWB's response to the "Contained-In" request is pending.

5. Describe all components of wastewater processing, treatment, storage, and disposal system (e.g., grease interceptor, lagoon, septic tank/leachfield, etc.) Include sizes, site layout map, plans and specifications, etc. if available:
 Water pumped from the test pits and from the diversion wall and reactive cell excavations will be containerized on-site in poly storage tanks and then returned to the watercourse approximately 200 ft upstream of the PRB once it is operational.

6. Estimated maximum daily discharge volume in gallons per day (or other units): unknown

7. Estimated depth to ground water (ft): Actual volume of groundwater pumped from dewatering activities is unknown. Expected volumes to be less than 1000 gal.

Signature: AR Grieggs Title: Group Leader
 Printed name: Anthony R. Grieggs Date: 6/29/09

Please return this form to:
 NMED Ground Water Quality Bureau
 P.O. Box 5469
 Santa Fe, New Mexico 87502-5469

Telephone: 505-827-2900
 Fax: 505-827-2965

ENCLOSURE #1

Notice of Intent to Discharge (NOI)
 Permeable Reactive Barrier (PRB) in Canon de Valle

Table 1.0. All Analytical Results, NMWQCC 3103 Contaminants (non-organic), Monitoring Well CdV-16-02658, 2008-2009.

Location Name	Start Date	Analyte	Anal. Meth. Code	100 Prop. Code	Symbol	Std. Result	Std. Unit	Std. Mdl.	Lab. Qual. Code	Concn. Flag Code	Rel. Q. Type Code	Lab. Code
CDV-16-02658	03/31/09	Ag	SW-846:6020	F	<	1	ug/L	0.2	U	U		GELC
CDV-16-02658	03/31/09	Al	SW-846:6010B	F	<	200	ug/L	68	U	U		GELC
CDV-16-02658	03/31/09	As	SW-846:6020	F	<	5	ug/L	1.5	U	U		GELC
CDV-16-02658	03/31/09	B	SW-846:6010B	F		19.1	ug/L	10	J	J		GELC
CDV-16-02658	03/31/09	Ba	SW-846:6010B	F		5720	ug/L	1				GELC
CDV-16-02658	03/31/09	Cd	SW-846:6020	F	<	1	ug/L	0.11	U	U		GELC
CDV-16-02658	03/31/09	Cl(-1)	EPA:300.0	F		30.6	mg/L	0.13				GELC
CDV-16-02658	03/31/09	Co	SW-846:6010B	F	<	5	ug/L	1	U	U		GELC
CDV-16-02658	03/31/09	Cr	SW-846:6020	F	<	3	ug/L	1.5	U	U		GELC
CDV-16-02658	03/31/09	Cu	SW-846:6010B	F	<	10	ug/L	3	U	U		GELC
CDV-16-02658	03/31/09	F(-1)	EPA:300.0	F		0.15	mg/L	0.033				GELC
CDV-16-02658	03/31/09	Fe	SW-846:6010B	F		42.5	ug/L	25	J	J		GELC
CDV-16-02658	03/31/09	Hg	EPA:245.2	UF	<	0.2	ug/L	0.067	U	U		GELC
CDV-16-02658	03/31/09	Mn	SW-846:6010B	F	<	10	ug/L	2	U	U		GELC
CDV-16-02658	03/31/09	Mo	SW-846:6020	F		0.134	ug/L	0.1	J	J		GELC
CDV-16-02658	03/31/09	NO3+NO2-N	EPA:353.2	F	<	0.05	mg/L	0.01	U	U		GELC
CDV-16-02658	03/31/09	Ni	SW-846:6020	F		0.774	ug/L	0.5	J	J		GELC
CDV-16-02658	03/31/09	Pb	SW-846:6020	F	<	2	ug/L	0.5	U	U		GELC
CDV-16-02658	03/31/09	Ra-226	EPA:903.1	UF	<	0.486	pCi/L		U	U		GELC
CDV-16-02658	03/31/09	Ra-228	EPA:904	UF		1.26	pCi/L					GELC
CDV-16-02658	03/31/09	SO4(-2)	EPA:300.0	F		9.05	mg/L	0.1		J-		GELC
CDV-16-02658	03/31/09	Se	SW-846:6020	F	<	5	ug/L	1	U	U		GELC
CDV-16-02658	03/31/09	TDS	EPA:160.1	F		156	mg/L	2.4				GELC
CDV-16-02658	03/31/09	U	SW-846:6020	F	<	0.2	ug/L	0.05	U	U		GELC
CDV-16-02658	03/31/09	Zn	SW-846:6010B	F		2.41	ug/L	2	J	J		GELC
CDV-16-02658	03/31/09	pH	EPA:150.1	F		6.39	SU	0.01	H	J-		GELC
CDV-16-02658	04/01/08	Ag	SW-846:6020	F	<	1	ug/L	0.2	UN	UJ		GELC
CDV-16-02658	04/01/08	Al	SW-846:6010B	F	<	200	ug/L	68	U	U		GELC
CDV-16-02658	04/01/08	As	SW-846:6020	F	<	5	ug/L	1.5	U	U		GELC
CDV-16-02658	04/01/08	B	SW-846:6010B	F		22.4	ug/L	10	J	J		GELC
CDV-16-02658	04/01/08	Ba	SW-846:6010B	F		7320	ug/L	1				GELC
CDV-16-02658	04/01/08	CN(TOTAL)	EPA:335.3	UF	<	0.005	mg/L	0.0015	U	U		GELC
CDV-16-02658	04/01/08	Cd	SW-846:6020	F	<	1	ug/L	0.11	U	U		GELC
CDV-16-02658	04/01/08	Cl(-1)	EPA:300.0	F		21	mg/L	0.13				GELC
CDV-16-02658	04/01/08	Co	SW-846:6010B	F	<	5	ug/L	1	U	U		GELC
CDV-16-02658	04/01/08	Cr	SW-846:6020	F	<	10	ug/L	2.5	U	U		GELC
CDV-16-02658	04/01/08	Cu	SW-846:6010B	F	<	10	ug/L	3	U	U		GELC
CDV-16-02658	04/01/08	F(-1)	EPA:300.0	F		0.171	mg/L	0.033				GELC
CDV-16-02658	04/01/08	Fe	SW-846:6010B	F		33	ug/L	25	J	J		GELC

Notice of Intent to Discharge (NOI)
 Permeable Reactive Barrier (PRB) in Canon de Valle

Table 1.0. All Analytical Results, NMWQCC 3103 Contaminants (non-organic), Monitoring Well CdV-16-02658, 2008-2009.

Location Name	Start Date	Analyte	Analyt. Meth. Code	Reg. Prop. Code	Symbol	Std. Result	Std. Unit	Std. Mdl.	Lab. Qual. Code	Conca. Flag Code	Flt. Qc. Type Code	Lab. Code
CDV-16-02658	04/01/08	Hg	EPA:245.2	UF	<	0.2	ug/L	0.03	U	U		GELC
CDV-16-02658	04/01/08	Hg	EPA:245.2	UF	<	0.2	ug/L	0.03	U	U	FB	GELC
CDV-16-02658	04/01/08	Mn	SW-846:6010B	F		8.9	ug/L	2	J	J		GELC
CDV-16-02658	04/01/08	Mo	SW-846:6020	F	<	0.34	ug/L	0.1	J	U		GELC
CDV-16-02658	04/01/08	NO3+NO2-N	EPA:353.2	F	<	0.25	mg/L	0.05	U	U		GELC
CDV-16-02658	04/01/08	Ni	SW-846:6020	F		1.7	ug/L	0.5	J*	J		GELC
CDV-16-02658	04/01/08	Pb	SW-846:6020	F	<	2	ug/L	0.5	U	U		GELC
CDV-16-02658	04/01/08	SO4(-2)	EPA:300.0	F		7.63	mg/L	0.1				GELC
CDV-16-02658	04/01/08	Sc	SW-846:6020	F	<	5	ug/L	1	U	U		GELC
CDV-16-02658	04/01/08	TDS	EPA:160.1	F		153	mg/L	2.4		J		GELC
CDV-16-02658	04/01/08	U	SW-846:6020	F	<	0.2	ug/L	0.05	U	U		GELC
CDV-16-02658	04/01/08	Zn	SW-846:6010B	F		2.8	ug/L	2	J	J		GELC
CDV-16-02658	04/01/08	pH	EPA:150.1	F		6.62	SU	0.01	H	J-		GELC

Notice of Intent to Discharge (NOI)
Permeable Reactive Barrier (PRB) in Canon de Valle

Table 2.0. Detections of High-Explosives, Alluvial Monitoring Well CdV-16-02658, 2005-2009.

Location Name	Start Date	Analyte	Analyte Desc	Analyte Meth Code	Std Prep Code	Symbol	Std Result	Std Unit	Std Mult	Lab Quid Code	Cont'd Quid Code	Lab Code	Std QC Type Code
CDV-16-02658	10/8/08	19406-51-0	Amino-2,6-dinitrotoluene[4-]	SW-846:8321A_MOD	UF		0.174	ug/L	0.13	J	J	GELC	
CDV-16-02658	7/31/06	19406-51-0	Amino-2,6-dinitrotoluene[4-]	SW-846:8321A_MOD	UF		0.27	ug/L	0.13	J		GELC	
CDV-16-02658	5/8/07	DNX	DNX	SW-846:8330	UF		0.39	ug/L	0.069	J		STSL	
CDV-16-02658	3/31/09	2691-41-0	HMX	SW-846:8321A_MOD	UF		5.87	ug/L	0.1			GELC	
CDV-16-02658	10/8/08	2691-41-0	HMX	SW-846:8321A_MOD	UF		10.9	ug/L	0.1		J	GELC	
CDV-16-02658	4/1/08	2691-41-0	HMX	SW-846:8321A_MOD	UF		73.2	ug/L	1.3			GELC	
CDV-16-02658	10/30/07	2691-41-0	HMX	SW-846:8321A_MOD	UF		7.67	ug/L	0.104		J-	GELC	
CDV-16-02658	5/8/07	2691-41-0	HMX	SW-846:8321A_MOD	UF		8.12	ug/L	0.104		J+	GELC	
CDV-16-02658	1/25/07	2691-41-0	HMX	SW-846:8321A_MOD	UF		1.2	ug/L	0.104		J+	GELC	
CDV-16-02658	7/31/06	2691-41-0	HMX	SW-846:8321A_MOD	UF		3.11	ug/L	0.104		J+, J-	GELC	
CDV-16-02658	3/31/06	2691-41-0	HMX	SW-846:8321A_MOD	UF		1.98	ug/L	0.104			GELC	
CDV-16-02658	11/16/05	2691-41-0	HMX	SW-846:8321A_MOD	UF		5.33	ug/L	0.104		J+	GELC	
CDV-16-02658	8/31/05	2691-41-0	HMX	SW-846:8321A_MOD	UF		56.4	ug/L			J	GELC	FD
CDV-16-02658	8/31/05	2691-41-0	HMX	SW-846:8321A_MOD	UF		35.2	ug/L			J	GELC	
CDV-16-02658	4/12/05	2691-41-0	HMX	SW-846:8330	UF		60.8	ug/L	0.065			GEL	
CDV-16-02658	1/24/05	2691-41-0	HMX	SW-846:8321A_MOD	UF		31.1	ug/L	0.5			GEL	
CDV-16-02658	3/31/09	MNX	MNX	SW-846:8330	UF		0.13	ug/L	0.091	J	J	STSL	
CDV-16-02658	4/1/08	MNX	MNX	SW-846:8330	UF		0.8	ug/L	0.091	P		STSL	
CDV-16-02658	5/8/07	MNX	MNX	SW-846:8330	UF		0.87	ug/L	0.091			STSL	
CDV-16-02658	3/31/09	121-82-4	RDX	SW-846:8321A_MOD	UF		3.59	ug/L	0.13			GELC	
CDV-16-02658	10/8/08	121-82-4	RDX	SW-846:8321A_MOD	UF		0.562	ug/L	0.13			GELC	
CDV-16-02658	4/1/08	121-82-4	RDX	SW-846:8321A_MOD	UF		15.7	ug/L	1.6		J	GELC	
CDV-16-02658	10/30/07	121-82-4	RDX	SW-846:8321A_MOD	UF		0.464	ug/L	0.13		J-	GELC	
CDV-16-02658	5/8/07	121-82-4	RDX	SW-846:8321A_MOD	UF		3.14	ug/L	0.13		J	GELC	
CDV-16-02658	1/25/07	121-82-4	RDX	SW-846:8321A_MOD	UF		0.384	ug/L	0.13		J+	GELC	
CDV-16-02658	7/31/06	121-82-4	RDX	SW-846:8321A_MOD	UF		1.46	ug/L	0.13		J-	GELC	
CDV-16-02658	3/31/06	121-82-4	RDX	SW-846:8321A_MOD	UF		0.644	ug/L	0.13			GELC	
CDV-16-02658	11/16/05	121-82-4	RDX	SW-846:8321A_MOD	UF		0.406	ug/L	0.13		J+	GELC	
CDV-16-02658	8/31/05	121-82-4	RDX	SW-846:8321A_MOD	UF		3.15	ug/L			J+, J	GELC	
CDV-16-02658	8/31/05	121-82-4	RDX	SW-846:8321A_MOD	UF		3.44	ug/L			J, J+	GELC	FD
CDV-16-02658	4/12/05	121-82-4	RDX	SW-846:8330	UF		22.3	ug/L	0.13			GEL	
CDV-16-02658	1/24/05	121-82-4	RDX	SW-846:8321A_MOD	UF		12.5	ug/L	0.51			GEL	

**Notice of Intent to Discharge (NOI)
Permeable Reactive Barrier (PRB) in Canon de Valle**

Table 3.0. Detections of VOCs and SVOCs, Alluvial Monitoring Well CdV-16-02658, 2005-2009.

Location Name	Start Date	Well ID	Analyte Name	ANM Meth Code	UIC Code	Symbol	Std Result	Std Unit	Std Meth	Lab/OMA Code	Cont. Type Code	Lab Code	UIC/OC Type Code	Analyte Code
CDV-16-02658	8/31/05	67-64-1	Acetone	SW-846:8260B	UF		4.5	ug/L		J	J+	GELC	FD	VOA
CDV-16-02658	8/31/05	67-64-1	Acetone	SW-846:8260B	UF		5.7	ug/L			J+	GELC		VOA
CDV-16-02658	4/1/08	67-66-3	Chloroform	SW-846:8260B	UF		0.262	ug/L	0.25	J	J	GELC		VOA
CDV-16-02658	7/31/06	127-18-4	Tetrachloroethene	SW-846:8260B	UF		2.6	ug/L	0.25			GELC		VOA
CDV-16-02658	7/31/06	79-01-6	Trichloroethene	SW-846:8260B	UF		2.86	ug/L	0.25			GELC		VOA
CDV-16-02658	10/30/07	117-81-7	Bis(2-ethylhexyl)phthalate	SW-846:8270C	UF		33.2	ug/L	2.27			GELC		SVOA
CDV-16-02658	1/24/05	117-84-0	Di-n-octylphthalate	SW-846:8270C	UF		9.6	ug/L	0.91	J	J	GEL		SVOA

ENCLOSURE #2



Environmental Protection Division
Water Quality & RCRA Group (ENV-RCRA)
P.O. Box 1663, Mail Stop K490
Los Alamos, New Mexico 87545
(505) 667-0666/FAX: (505) 667-5224

Date: May 4, 2009
Refer To: ENV-RCRA-09-077

Mr. James Bearzi
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6313

Dear Mr. Bearzi:

SUBJECT: REQUEST FOR "CONTAINED-IN" DETERMINATION FOR SPRING AND ALLUVIAL WATERS TO EXPEDITE THE CORRECTIVE MEASURES IMPLEMENTATION PLAN FOR CONSOLIDATED UNIT 16-021(c)-99

The purpose of this letter is to request that the New Mexico Environment Department (NMED) Hazardous Waste Bureau use its authority under 20.4.1.200 New Mexico Administrative Code (NMAC) 261.3(f) and the Environmental Protection Agency's (EPA's) "contained-in" policy to determine that spring and alluvial waters in the Cañon de Valle drainage that are potentially contaminated by listed contaminants and residues from treatment of these waters do not warrant management as F-listed hazardous waste, pursuant to the requirements of 20.4.1.200 NMAC §261.31. The Technical Area 16 building 260 (TA-16-260) outfall is believed to be the major source of contaminants in the Cañon de Valle drainage. Based on document review and interviews with workers, a variety of F-listed solvents were discharged to the outfall from cleaning operations at TA-16-260. However, the documentation and interviews did not identify contamination from disposal or spills of P- or U-listed materials or releases from K-listed processes; therefore, these waste numbers would not be assigned to the alluvial and spring waters.

Without NMED's approval of this "contained-in" request, the waters would contain F-listed wastes and a Resource Conservation and Recovery Act (RCRA) permit may be required for the following treatment operations proposed in the NMED-approved Corrective Measures Implementation Plan for Consolidated Unit 16-021(c)-99, Revision 1 (July 2007):

- installing a permeable reactive barrier (PRB) for treatment of high explosives and barium in Cañon de Valle;
- installing carbon filters at Burning Ground Spring and Sanitary Wastewater Systems Consolidation (SWSC) Spring to treat high explosives, and
- modifying the existing carbon filter at Martin Spring to collect water from a new seep.

As discussed with Michael Dale of your staff during a December 22, 2008 meeting, the levels of contaminants in the waters to be treated are so low that a “contained-in” determination is appropriate. Therefore, a RCRA permit would not be necessary and implementation of these treatment technologies would not be delayed by permitting. To support this “contained-in” request, Table 1 compares the maximum detected concentrations of contaminants in the alluvial wells in the vicinity of the project and the springs with groundwater standards. The contaminants included in the table are those that could cause the waters to be F-listed. The comparison to groundwater standards was made in accordance with Section VIII.A.1 of the Compliance Order on Consent:

- If both a Water Quality Control Commission (WQCC) groundwater standard (20.6.2.3.3103 NMAC) and an EPA Safe Drinking Water Act Maximum Contaminant Levels (MCL) (40 Code of Federal Regulations [CFR] §141.61) have been established for an individual substance, then the lower of the two standards is used.
- If a WQCC standard and/or MCL are not available for a contaminant, EPA tap water standards are used (40 CFR §268.40).

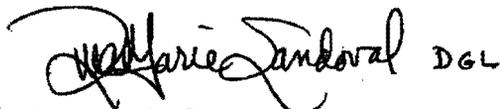
Carbon tetrachloride (7 micrograms per liter [$\mu\text{g/L}$]) at Martin Spring is the only contaminant that exceeded a WQCC/MCL standard (5.0 $\mu\text{g/L}$). Carbon tetrachloride was detected only once (7 $\mu\text{g/L}$ in July 1997) in 44 samples taken between 1995 and 2008. It has not been detected in the 40 samples collected since July 1997. Therefore, current levels of carbon tetrachloride meet applicable standards.

According to EPA documents and associated guidance, the authorized state may also make a determination on a case-specific basis as to how the Land Disposal Restrictions (LDRs) apply to the waste when a “contained-in” determination has been made. Table 1 compares the maximum detected concentrations of F-listed contaminants with the LDR Treatment Standards (40 CFR §268.40, incorporated into 20.4.800 NMAC). Because all of the maximum detected concentrations are below the LDR treatment standards, LANL also requests a determination from NMED that LDR treatment standards will not apply to untreated or treated waters or the residues from treatment.

LANL believes that a “contained-in” determination for the organic constituents shown in Table 1 is appropriate because it would be protective of human health and the environment and would expedite treatment of spring and alluvial waters in Cañon de Valle.

If you have any questions, please contact me at (505) 667-0666 or Gene Turner at (505) 667-5794.

Sincerely,

Handwritten signature of Anthony R. Grieggs in black ink, with the initials "DGL" written to the right of the signature.

for Anthony R. Grieggs
Group Leader
Water Quality & RCRA Group (ENV-RCRA)

ARG:AS/lm

Cy: Michael Dale, NMED/HWB, Santa Fe, NM
David Cobrain, NMED/HWB, Santa Fe, NM
Neelam Dhawan, NMED/HWB, Santa Fe, NM
Gene Turner, LASO/EO, A316
Cheryl Rodriguez, LASO/EO, A316
Michael B. Mallory, PADOPS, A102
J. Chris Cantwell, ADESHQ, K491
John McCann, ADEP-PM, M992
David McInroy, CAP, M992
Don Hickmott, EES-14, D462
Jocelyn Buckley, ENV-RCRA, K490
Ann Sherrard, ENV-RCRA, K490
John Tymkowych, ENV-RCRA, K490
EP-CAP Project File, M992
ENV-DO, file, w/o enc., J978
ENV-RCRA, File, w/enc., K490
IRM-RMMSO, w/enc., A150

Table 1. Comparison of Maximum Detections of F-Listed Contaminants to Water Quality Standards and Land Disposal Restrictions

Contaminant	Maximum Concentration (µg/L) ¹	WQCC (µg/L) or MCLs (µg/L) Standards ²	LDR Treatment Standards (µg/L)
Burning Ground Spring			
Benzene	0.45	5.0	14
Butanone[2-]	8.1	No Standard	280
Methylene Chloride	0.44	5.0	89
Tetrachloroethene	3.9	5.0	56
Trichloroethane[1,1,1-]	0.28	60	54
Trichloroethene	3.7	5.0	54
Trichlorofluoromethane	1	No Standard	20
Martin Spring			
Butanone[2-]	2.3	No Standard	280
Carbon Disulfide	1.33	No Standard	3800
Carbon Tetrachloride	7	5.0	57
Methylene Chloride	3.12	5.0	89
Tetrachloroethene	0.62	5.0	56
Trichloro-1,2,2-trifluoroethane[1,1,2-]	2	No Standard	57
Trichloroethene	0.9	5.0	54
SWSC Spring			
Butanone[2-]	3.1	No Standard	280
Methylene Chloride	0.41	5.0	89
Tetrachloroethene	3	5.0	56
Toluene	0.55	750	800
Trichloroethene	2.4	5.0	54
Alluvial Well CDV-16-02656			
Toluene	3.68	750	800
Trichloroethene	1.1	5.0	54
Alluvial Well CDV-16-02657			
Carbon Disulfide	1.6	No Standard	3800
Alluvial Well CDV-16-02658			
Tetrachloroethene	2.6	5.0	56
Toluene	6.7	750	800
Trichloroethene	2.86	5.0	54
Alluvial Well CDV-16-02659			
Methylene Chloride	0.27	5.0	89
Toluene	0.454	750	800

µg/L = micrograms per liter

EPA = Environmental Protection Agency

LDR = Land Disposal Restrictions Treatment Standards for Hazardous Wastes, Wastewater

MCLs = Maximum Contaminant Levels

WQCC = Water Quality Control Commission

¹ Significant figures vary but are shown as they appear in the Waster Quality Database

² Note that EPA tap water standards were not available for any contaminants without 3101 standards and/or SDWA MCLs; therefore, EPA tap water standards were not used.