File 4/30/01

State of New Mexico
ENVIRONMENT DEPARTMENT
DOE OVERSIGHT BUREAU
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LANL TA-0

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APR 10 2001
DOE OVERSIGHT BUREAU

April 9, 2001

Joe Vozella, DOE/AIP/POC
Department of Energy
Los Alamos Area Office, MS A316
Los Alamos, NM 87545

LANL/ER/OU 1011

Re: Potential Release Site 0-019 Sediment Sampling Results – January 2001

Dear Mr. Vozella:

The New Mexico Environment Department DOE Oversight Bureau (DOE OB) has compiled data from sediment samples collected during January 2001 at potential release site (PRS) 0-019. The PRS is located on State Road 502, north of the Los Alamos County Airport and south of the Sombrillo Nursing Home. A total of eight samples were collected from locations in the drainage below a former outfall and in the wetland area in the canyon below the outfall.

The samples below the outfall were collected at two locations at which LANL had previously removed contaminated soil and collected cleanup verification samples. In a previous investigation conducted by LANL, these locations had been identified to contain elevated levels of mercury and pesticides (DDT). Four grab samples were collected from the excavations. Two samples were analyzed for metals and the remaining two samples were analyzed for pesticides.

Two of the samples in the wetland were collected from locations that were previously identified as having elevated levels of mercury and were being re-sampled by LANL. The remaining two samples were collected in areas in the canyon bottom that had not been investigated.

Based on the data, there are still elevated levels of mercury (30.1 ppm) and lead (702 ppm) in the drainage directly below the outfall. The levels are above the New Mexico soil screening levels for mercury and lead of 6.5 ppm and 400 ppm, respectively. The team leader for this site, Terry Rust, has decided to conduct further remediation in this part of the drainage

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All of the data packages for this sampling event have been sent to Terry Rust (LANL). These data summaries are provided to DOE for review prior to release to any interested members of the public. Please contact Darlene Goering at 827-1536 if you have any questions about this data.

Sincerely,

Stephen Yanicak

Steve Yanicak
White Rock Office Program Manager

SY:dxg

cc: John Parker, NMED, Chief, DOE OB
Darlene Goering, NMED, DOE OB
Ted Taylor, DOE LAAO, MS A316

c:/.../Data Transmittal to Vozella.doc

Sediment Analytical Results Table 1 — **Project Number** 1.23.01-211 (SED) 00-019

Metals in Sediment

NMED DOE Oversight Bureau

Lab ID	Sample ID	Sample Location	Date	Al (mg/kg)	Al DL	Al Qual	Sb (mg/kg)	Sb DL	Sb Qual	As (mg/kg)	As DL	As Qual	Ba (mg/kg)	Ba DL	Ba Qual	Be (mg/kg)	Be DL	Be Qual	Cd (mg/kg)	Cd DL	Cd Qual	Ca (mg/kg)	Ca DL	Ca Qual	Cr (mg/kg)	Cr DL	Cr Qual	Co (mg/kg)	Co DL	Co Qual	Cu (mg/kg)	Cu DL	Cu Qual
101083-01	GR-0.36(WETLAND)		01/23/2001	11500	0.5		0.304	0.001		5.24	0.006		261	0.01		0.953	0.02		2.23	0.02		4210	2.0		23.4	0.01		5.23	0.006		61.1	0.010	
101083-02	GR-0.37(WETLAND)		01/23/2001	14100	0.5		0.772	0.001		21.8	0.006		2310	0.01		1.32	0.02		4.27	0.02		16200	2.0		39.4	0.01		13.3	0.006		85.6	0.010	
101083-03	00-10228-A		01/23/2001	6590	0.5		0.314	0.001		11.5	0.006		357	0.01		0.539	0.02		9.95	0.02		9940	2.0		27.5	0.01		3.01	0.006		470	0.010	
101083-04	00-10228-B		01/23/2001	7150	0.5		0.257	0.001		6.33	0.006		498	0.01		0.431	0.02		2.58	0.02		7490	2.0		19.4	0.010		2.67	0.006		437	0.01	

Qualifiers:
U - Result is less than the sample specific reporting limits

Fe			Pb			Mg			Mn			Ni			K			Se			Ag			Na			Tl			V			Zn			Hg			Uranium		
(mg/kg)	DL	Qual	(mg/kg)	DL	Qual	(mg/kg)	DL	Qual	(mg/kg)	DL	Qual	(mg/kg)	DL	Qual	(mg/kg)	DL	Qual	(mg/kg)	DL	Qual	(mg/kg)	DL	Qual	(mg/kg)	DL	Qual	(mg/kg)	DL	Qual	(mg/kg)	DL	Qual	(mg/kg)	DL	Qual	(mg/kg)	DL	Qual	(mg/kg)	DL	Qual
12500	1.0		77.8	0.009		2030	0.1		582	0.02		10.1	0.01		2040	0.50		0.711	0.03		7.92	0.01		259	0.07		0.163	0.01		31.2	0.006		283	0.04		1.08	0.02				
71800	1.0		154	0.009		3310	0.1		5130	0.02		15.1	0.01		3450	0.50		1.54	0.03		33.2	0.01		381	0.07		0.211	0.01		60.2	0.006		668	0.04		1.14	0.02				
12200	1.0		702	0.009		1410	0.1		152	0.02		8.86	0.01		821	0.50		0.732	0.03		169	0.01		193	0.07		0.0970	0.01		26.9	0.006		518	0.04		30.1	0.02				
9330	1.0		357	0.009		1510	0.10		145	0.02		8.71	0.01		976	0.50		1.40	0.03		18.7	0.01		188	0.07		0.113	0.010		20.1	0.01		361	0.04		17.2	0.02				

Sediment Analytical Results Table 1 Project Numb 1.23.01-211 (SED) 00-019

CN, PO_4, TOC, $CaCO_3$, and NH3 in Sediment

NMED DOE Oversight Bureau

Lab ID	Sample ID	Sample Location	Date	pH S.U.	Total Cyanide	RL	Cyanide Amenable (mg/Kg)	RL	Total Phosphorus (mg/Kg)	RL	Total Organic Carbon (mg/Kg)	Total Dissolved Solids (mg/Kg)	RL	Total Suspended Solids (mg/Kg)	RL	Alkalinity as Bicarbonate ($CaCO_3$)	RL	Alkalinity as Carbonate ($CaCO_3$)	RL	Total Alkalinity mg/L	Phosphorus a P (mg/Kg)	Phosphorus a PO_4 (mg/Kg)	Flouride (mg/Kg)	RL	Chloride (mg/Kg)	RL	Bromide (mg/Kg)	RL	Sulfate as SO_4 (mg/Kg)	RL	Nitrogen as Ammonia (mg/Kg)	RL	Nitrite/ Nitrate (mg/Kg)	RL	Total Kjeldahl Nitrogen (ppm)
101083-01	GR-0.36(WETLAND)		01/23/2001		1.08	0.03																													
101083-02	GR-0.37(WETLAND)		01/23/2001		2.44	0.03																													
101083-03	00-10228-A		01/23/2001		1.24	0.03																													
101083-04	00-10228-B		01/23/2001		0.58	0.03																													

Sediment Analytical Results Table 3
PCBs and Pesticides in Sediment
NMED DOE Oversight Bureau

Project Number 1.23.01-211 (SED) 00-019

	CAS Number	00-10229-D DOE OB (ppb)	00-10229-C DOE OB (ppb)	GR-0.3-C (ppm)	GR-0.35-B (ppm)
Hexachlorobenzene	118-74-1	0.45	0.16		
alpha HCH	319-84-6	U	U		
beta HCH	319-85-7	U	U		
gamma HCH	58-89-9	U	U		
Heptachlor	76-44-8	U	U		
Aldrin	309-00-2	U	U		
Oxychlordane	27304-13-8	2.9 R	U		
trans-Chlordane	5103-74-2	**28**	2.1		
cis-Chlordane	5103-71-9	**23**	2.1		
o,p'-DDE	3424-82-6	0.86	U		
p,p'-DDE	72-55-9	**18**	4.3		
trans-Nonachlor	39765-80-5	**13**	1.4		
cis-Nonachlor	5103-73-1	4.0	0.40		
o,p'-DDD	53-19-0	**20**	0.64		
p,p'-DDD	72-54-8	**38**	1.8		
o,p'-DDT	789-02-6	**39**	3.0		
p,p'-DDT	50-29-3	**240**	25		
Mirex	2385-85-5	U	U		
delta HCH	319-86-8	U	U		
Heptachlor Epoxide	1024-57-3	5.9	0.42		
alpha-Endosulphan (I)	959-98-8	U	U		
Dieldrin	60-57-1	18	1.5		
Endrin	72-20-8	0.83	U		

Sediment Analytical Results Table 3 (continued) Project Number 1.23.01-211 (SED) 00-019
PCBs and Pesticides in Sediment
NMED DOE Oversight Bureau

	CAS Number	00-10229-D DOE OB (ppb)	00-10229-C DOE OB (ppb)	GR-0.3-C (ppm)	GR-0.35-B (ppm)
beta-Endosulphan (II)	33213-65-9	0.21	U		
Endosulphan Sulphate	1031-07-8	U	U		
Methoxychlor	72-43-5	14	U		
Total PCB (Sum of Congeners)				0.310	0.723
Aroclor 1242 (Equivalent)				0.00164	0.00075
Aroclor 1254 (Equivalent)				0.217	0.581
Aroclor 1260 (Equivalent)				0.114	0.326
Total PCB (Sum of AROCLORS) (Equivalent)				0.33264	0.90775