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Los Alamos

NATIONAL LABORATORY

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Date: April 24, 2001
In Reply Refer To: ESH-18/WQ&H:01-121
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J. Yang

Ms. Phyllis Bustamante
Ground Water Quality Bureau
New Mexico Environment Department
P.O. Box 26110
Santa Fe, New Mexico 87502

**SUBJECT: GROUND WATER DISCHARGE PLAN (DP-1132), QUARTERLY REPORT,
FIRST QUARTER, 2001**

Dear Ms. Bustamante:

This letter and the enclosed attachments are intended to serve as Los Alamos National Laboratory's quarterly Ground Water Discharge Plan (DP-1132) report for the Radioactive Liquid Waste Treatment Facility (RLWTF) at TA-50 for the period from January 1 through March 31, 2001. Since the first quarter of 1999, Los Alamos National Laboratory has provided your agency with voluntary quarterly reports containing analytical results from effluent and ground water monitoring and a status report on RLWTF operations.

Attachment 1.0, Table 1.0, presents the analytical results from sampling conducted at the Laboratory's Mortandad Canyon alluvial monitoring wells on March 12, 2001. All of the analytical results from MCO-3, MCO-6, and MCO-7 were below New Mexico Water Quality Control Commission (NM WQCC) Regulation 3103 standards for nitrate (NO₃-N), fluoride (F), and total dissolved solids (TDS) with the exception of a fluoride result at MCO-7 of 1.61 mg/L (NM WQCC Regulation 3103 standard for fluoride is 1.6 mg/L).

No sample results are available for MCO-4B. Due to heavy winter snows the road to MCO-4B was impassable during the first quarter of 2001. MCO-4B will be sampled in the second quarter of 2001.

Attachment 2.0, Table 2.0, presents the analytical results from weekly monitoring of the RLWTF's effluent holding tank. The weekly samples are flow-proportioned composite samples prepared from each batch of effluent generated by the RLWTF during a 7-day period. All sample results shown for the first quarter 2001 were below NM WQCC Regulation 3103 standards for nitrate (NO₃-N), fluoride (F), and total dissolved solids (TDS). The quarterly average for nitrates in the RLWTF's effluent was 5.21 mg/L.

In addition to weekly composite sampling, the RLWTF also conducts operational screening (using a HACH Kit) for nitrates (NO₃-N) in each batch of effluent. Operational screening of effluent samples collected during the first quarter 2001 produced the following maximum, minimum, and average results for nitrate (NO₃-N), respectively: 9.3 mg/L, 2.1 mg/L, and 5.65 mg/L.

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Please contact me at 667-7969 if you would like additional information regarding this quarterly report.

Sincerely,



Bob Beers
Water Quality and Hydrology Group

BB/tml

Attachments: a/s

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D. Erickson, ESH-DO, w/att., MS K491
L. McAtee, ESH-DO, w/att., MS K491
S. Rae, ESH-18, w/att., MS K497
D. Rogers, ESH-18, w/att., MS K497
M. Saladen, ESH-18, w/att., MS K497
D. Woitte, LC/GL, w/att., MS A187
WQ&H File, w/att., MS K497
IM-5, w/att., MS A150



Radioactive Liquid Waste Treatment Facility
 Ground Water Discharge Plan (DP-1132)
 Quarterly Report
 1st Quarter, 2001

Table 1.0. Analytical Results, Mortandad Canyon Alluvial Monitoring Wells (mg/L), 1st Quarter, 2001.

Sampling Location	Sample Date: March 12, 2001				
	NO3-N	TKN	NH3	TDS	F
MCO-3	1.46	0.38	<0.05	259	0.79
MCO-4B	NS	NS	NS	NS	NS
MCO-6	4.77	0.33	<0.05	289	1.43
MCO-7	9.05	0.26	<0.05	331	1.61
MCO-7 duplicate	9.2	0.27	<0.05	330	1.56
<i>NM WQCC Ground Water Standards</i>	<i>10</i>			<i>1000</i>	<i>1.6</i>

Notes:

NS means that no sample was collected at this well.

All units: mg/L

Table 2.0. RLWTF Weekly Effluent Monitoring Analytical Results, 1st Quarter, 2001.

Monitoring Period	RLWTF Weekly Effluent Monitoring Analytical Results		
	NO3-N (mg/L)	F (mg/L)	TDS (mg/L)
JANUARY	3.7	1.24	770
	6.9	0.97	536
	9.0	0.91	532
	5.9	0.87	504
FEBRUARY	5.2	1.11	520
	5.4	1.02	600
	5.4	0.50	294
	6.2	0.54	370
MARCH	3.54	0.45	358
	2.13	0.35	296
	3.9	0.49	352
	1.38	0.34	308
1st Quarter 2001 Averages (mg/L)	5.21	0.73	453
<i>NM WQCC 3103 Ground Water Standards (mg/L)</i>	<i>10</i>	<i>1.6</i>	<i>1000</i>