



*Risk Reduction & Environmental Stewardship Division
 Water Quality & Hydrology Group (RRES-WQH)
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Date: November 20, 2002
 Refer to: RRES-WQH: 02-428

TA-18 (TA-52, TA49)

Mr. John Young
 Hazardous Materials Bureau
 New Mexico Environment Department
 P.O. Box 26110
 Santa Fe, New Mexico 87502

Mr. Curt Frischkorn
 Ground Water Quality Bureau
 New Mexico Environment Department
 P.O. Box 26110
 Santa Fe, New Mexico 87502

SUBJECT: NOTICE OF INTENT TO DISCHARGE, HYDROGEOLOGIC WORKPLAN WELL R-20, DEVELOPMENT WATER

Dear Mr. Young and Mr. Frischkorn:

Under the Hydrogeologic Workplan NOI, submitted to your agency on August 2, 2001, and subsequently revised on July 16, 2002, if development water produced from a Workplan Well is compliant with New Mexico Water Quality Control Commission (NM WQCC) Regulation 3103 ground water standards and applicable RCRA regulatory limits then the Laboratory can discharge without prior coordination with the NMED. Since the development water produced from Workplan Well R-20 meets the above requirements, the Laboratory is proceeding with land application.

The Laboratory containerized approximately 65,000 gallons of water produced during the development of Workplan Well R-20. Workplan Well R-20 is located on Pajarito Road southeast of Technical Area (TA)-18. Candidate sites for the land application of R-20 development water are as follows:

- The R-20 drill site. Depth to ground water: regional = 780 ft, alluvial = 9.5 ft-57.5 ft.
- The road to Mortandad Canyon from TA-52. Depth to ground water: regional = 1260ft.
- The road to the R-14 drill site: Depth to ground water: regional = 1180 ft.
- The roads at TA-49: Depth to ground water: regional = 1180 ft.

Because current weather conditions are not conducive to evaporation (low temperatures, higher humidity) and recent precipitation has increased soil moisture, it is necessary for the Laboratory to utilize a variety of land application sites. The conditions at each site will be carefully evaluated before use. In accordance the Workplan NOI, no ponding, pooling, or run-off of the discharged water will be permitted. Information regarding the quality of the Workplan Well R-20 development water is provided below.



Water Quality Data

Attachment 1.0 contains analytical reports (metals, general chemistry, perchlorate, nitrate, tritium, and high explosives) from the sampling of containerized development water from Workplan Well R-20. All samples were filtered prior to analysis. Sample results are compliant with all NM WQCC Regulation 3103 ground water standards including the following contaminants of concern:

Contaminants Of Concern	Screening Result (mg/L)	NM WQCC ground water standard (mg/L)
HE	ND	
tritium	ND	
Mn	0.10	0.2
perchlorate	ND	
nitrate (as N)	0.76	10.0
nitrite (as N)	<0.02	

Please call me at (505) 667-6969 or Roy Bohn of the Laboratory's Environmental Restoration Project (RRES-R) at (505) 665-5138 if additional information is required.

Sincerely,



Bob Beers
Water Quality & Hydrology Group

BB/tml

Enclosures: a/s

- Cy: M. Leavitt, NMED/GWQB, Santa Fe, NM, w/enc.
J. Davis, NMED/SWQB, Santa Fe, NM, w/enc.
J. Bearzi, NMED/HWB, Santa Fe, NM, w/enc.
J. Vozella, DOE/OLASO, w/o enc., MS A316
G. Turner, DOE/OLASO, w/enc., MS A316
M. Johansen, DOE/OLASO, w/enc., MS A316
J. Holt, ADO, w/enc., MS A104
B. Ramsey, RRES-DO, w/o enc., MS J591
K. Hargis, RRES-DO, w/o enc., MS J591
D. Stavert, RRES-EP, w/enc., MS J591
C. Nylander, RRES-GP, w/o enc., MS M992
S. Rae, RRES-WQH, w/enc., MS K497
D. Rogers, RRES-WQH, w/o enc., MS K497
M. Saladen, RRES-WQH, w/o enc., MS K497
J. McCann, RRES-WQH, w/o enc., MS M992

Cy (continued):

R. Bohn, RRES-R, w/enc., MS M992

D. Volkman, FWO-UI, w/o enc., MS K718

RRES-WQH File, w/enc., MS K497

IM-5, w/enc., MS A150

ATTACHMENT 1.0

HYDROGEOLOGIC WORKPLAN
WELL R-20

CONTAINERIZED DEVELOPMENT WATER

ANALYTICAL REPORTS:

- GENERAL CHEMISTRY
 - METALS
 - PERCHLORATE
- NITRATE/NITRITE
 - HE
 - TRITIUM

SAMPLE DATE:

October 31, 2002

Hydrogeologic Workplan Well R-20
 Development Water Screening Results

ER WATER SAMPLES

SAMPLE ID	DESCRIPTION	DATE MM/DD/YY	ER Req#	Ag ppm	Al Std.D. ppm +/-	Alk(Lab) ppm CaCO3	As Std.D. ppm +/-	B ppm
GW20-02-49612	R-20 development water	10/31/02	1353S	<0.001	0.088 0.007	32.9	0.0014 0.0001	0.005

Hydrogeologic Workplan Well R-20
 Development Water Screening Results

SAMPLE ID	Std.D. +/-	Ba ppm	Std.D. +/-	Be ppm	Br ppm	Ca ppm	Std.D. +/-	Cd ppm	Cl ppm	ClO3 ppm	ClO4 ppm	Co ppm	Std.D. +/-	CO3 ppm	Cr ppm
GW20-02-49612	0.001	0.016	0.001	<0.001	0.01	5.76	0.05	<0.001	2.40	<0.02	<0.002	0.0022	0.0001	0	0.0021

Hydrogeologic Workplan Well R-20
 Development Water Screening Results

SAMPLE ID	Std.D.	Cs	Cu	Std.D.	F	Fe	Std.D.	Hardness	HCO3	Hg	K	Std.D.	Li	Std.D.	Mg
	+/-	ppm	ppm	+/-	ppm	ppm	+/-	CaCO3 ppm	ppm	ppm	ppm	+/-	ppm	+/-	ppm
GW20-02-49612	0.0001	<0.001	0.016	0.001	0.63	0.08	0.01	20.6	40.1	<0.0002	1.43	0.02	0.016	0.001	1.52

Hydrogeologic Workplan Well R-20
 Development Water Screening Results

SAMPLE ID	Std.D.		Mn Std.D.		Mo Std.D.		Na Std.D.		Ni Std.D.		NO2	NO3	Oxalate	Pb Std.D.		pH
	+/-		ppm	+/-	ppm	+/-	ppm	+/-	ppm	+/-	ppm	ppm	ppm	ppm	+/-	Lab
GW20-02-49612	0.01		0.10	0.01	0.0018	0.0001	12.2	0.2	0.0018	0.0001	<0.02	0.76	<0.02	0.0016	0.0001	6.35

Hydrogeologic Workplan Well R-20
 Development Water Screening Results

SAMPLE ID	PO4	Rb	Std.D.	Sb	Se	Si	Std.D.	SiO2	SO4	Sn	Sr	Std.D.	Th	Ti
	ppm	ppm	+/-	ppm	ppm	ppm	+/- ppm	calc	ppm	ppm	ppm	+/-	ppm	ppm
GW20-02-49612	9.44	0.0024	0.0001	<0.0002	<0.001	45.9	0.3	98.2	2.59	<0.001	0.035	0.001	<0.001	<0.001

Hydrogeologic Workplan Well R-20
 Development Water Screening Results

SAMPLE ID	Tl ppm	U ppm	V std.D. ppm +/-	Zn Std.D. ppm +/-	TDS ppm	HMX ppm	RDX ppm	1,3,5-TNB ppm	1,3-DNB ppm	TNT ppm	NB ppm
GW20-02-49612	<0.001	<0.001	0.006 0.001	0.059 0.001	175.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Hydrogeologic Workplan Well R-20
Development Water Screening Results

SAMPLE ID	2a-4,6-DNT ppm	2,4-DNT ppm	Cation Sum	Anion Sum	Balance	Acetate ppm	Formate ppm
GW20-02-49612	<0.01	<0.01	1.003	0.934	0.0706	+	+



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ARSNM Tracking Number: ARSNM-02-0121
Client I.D.: GW20-02-49612
Date Sampled: 10/31/02
Time Sampled: 1020
Type of Sample: liquid
Contact Person: R. Evans

COC Number: 69242
ARSNM Sample I.D.: ARSNM-02-0804
Date Received: 10/31/02
Time Received: 1150
Date of Report: 11/04/02
Charge Code:

Analysis Description	Analysis Result	Analysis Error $\pm 2 \sigma$ %	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Tritium	BDL	N/A	68.49	pCi/l	EPA 906.0M	11/04/02 0229	bz
Gross Alpha	BDL	N/A	300.98	pCi/l	EPA 900M	11/05/02 1114	bz
Gross Beta	BDL	N/A	737.28	pCi/l	EPA 900M	11/05/02 1114	bz
Gross Gamma	366.14	85.29	193.40	pCi/l	EPA 901.1M	11/03/02 1825	bz

B. Zelenay
Barbara Zelenay

Cost per sample: 224.85

Notes: American Radiation Services of New Mexico assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.