PNM PUBLIC SERVICE COMPANY OF NEW MEXICO
ALVARADO SQUARE ALBUQUERQUE, NEW MEXICO 87158

January 20, 1984

RECEIVED
JAN 23 1984
GROUND WATER/HAZARDOUS WASTE BUREAU

Mr. Anthony Drypolcher
Acting Bureau Chief
Groundwater and Hazardous
Waste Bureau
New Mexico Environmental
Improvement Division
Post Office Box 968
Santa Fe, NM 87504-0968

Dear Mr. Drypolcher:

Subject: Public Service Company of New Mexico - Person Generating Station EPA ID #NMT 360010342

Please find attached preliminary analytical results of soil sampling completed December 23, 1983. Public Service Company of New Mexico (PNM) has determined after reviewing this information that it would be advantageous to conduct Phase III sampling as previously discussed with New Mexico Environmental Improvement Division (NMEID) to better define the extent of soil contamination. This information is needed to complete our investigation of the extent of solvent movement and costs of potential treatment or cleanup options. Additionally PNM plans to install three groundwater monitoring wells adjacent to the spill location.

The general location of the additional soil sampling can be found in the attached diagram. Soil sampling will also occur in the location of the groundwater monitoring wells to be installed.

The groundwater monitoring wells will be installed approximately 30 to 50 feet from the center of the subsurface storage tank. They should be generally equidistant from each other. In previous conversation concerning groundwater sampling, Boyd Hamilton and Joel Hubbell, of your staff, have concurred that this number of wells should be sufficient to accomplish the following:

1) To determine the hydraulic gradient in the area of the tank.

2) To establish an upgradient groundwater monitoring well.

3) To establish a downgradient monitoring well.

These wells will be installed using the following procedure:

1) A 6" diameter hollow stem auger will be used to clear a path to 90 feet in depth.

2) A 2" diameter stainless steel casing will then be driven to a total depth of about 130'. The bottom 20' of the casing will be screened. Depth to the water table is estimated to be about 110'-115'.

3) The auger will then be removed and the area around the well casing backfilled with clean materials.

4) The top of the casing will be sealed in place with concrete to prevent movement and infiltration of precipitation down the exterior of the casing.

5) A protective cover will be placed over the casing.

Sampling of these wells will be done using a stainless steel bailer.

PNM discussed Phase III plans with Boyd Hamilton, January 18, 1984. In this conversation PNM stated that PNM must begin this work by January 30, 1984, if we are to be able to provide a report on findings by February 29, 1984. Therefore PNM requests that NMEID provide any comments on these tasks by January 29, 1984 or work would begin as scheduled. Mr. Hamilton stated this was reasonable and that NMEID should have no difficulty in meeting this deadline.

If you have any questions, please contact me.

Sincerely,

Richard A. Jordan, Manager
Regulatory Licensing & Compliance

HLP:cam
Attachments
xc: Mr. Jack Rex

ASSAIGAI

ANALYTICAL LABORATORIES, INC

To: PNM
Alvarado Square
Albuquerque, NM 87158

Date: 12 January 1984
0007 (Cont.)
Page 1 of 4

Attention: Jody Plum

Analyte: Tetrachloroethylene

Sample ID	Analytical Results	Sample ID	Analytical Results
Hole 6:		**Hole 8:**	
0'	0.052 ± 0.009 ppm	60'	0.065 ppm
10'	0.028 ± 0.004 ppm	70'	0.002 ppm
20'	0.018 ± 0.002 ppm	80'	0.086 ppm
30'	0.009 ± 0.004 ppm	90'	0.008 ppm
40'	0.011 ± 0.010 ppm	100'	0.004 ± 0.003 ppm
50'	0.020 ± 0.004 ppm		
60'	<0.001 ppm	**Hole 9:**	
70'	0.042 ± 0.006 ppm	0'	20.9 ppm
80'	<0.001 ppm	10'	0.030 ppm
90'	0.009 ppm	20'	0.021 ppm
		30'	0.010 ppm
Hole 7:		40'	0.002 ppm
0'	0.156 ±0.005 ppm	50'	0.013 ppm
10'	0.012 ppm	60'	<0.001 ppm
20'	15.8 ppm	70'	<0.001 ppm
30'	1443.8 ±134.4 ppm	80'	<0.001 ppm
40'	593.6 ppm	90'	<0.001 ppm
50'	820.9 ppm	100'	<0.001 ppm
60'	240.8 ppm	107.5'	<0.001 ppm
70'	0.028 ± 0.011 ppm		
80'	0.003 ppm	**Hole 10:**	
90'	0.002 ppm	0'	0.320 ppm
		10'	0.017 ppm
Hole 8:		20'	59.1 ppm
		30'	331.4 ± 16.5 ppm
0'	0.575 ppm	40'	0.021 ppm
10'	0.011 ± 0.004 ppm	50'	0.009 ppm
20'	0.079 ppm	60'	<0.001 ppm
30'	0.052 ppm	70'	0.061 ppm
40'	0.003 ppm	80'	0.040 ppm
50'	0.045 ± 0.005 ppm	90'	0.006 ppm

To: PNM

Analyte:Tetrachloroethylene

Sample ID	Analytical Results
Hole 10:	
100'	<0.001 ppm
Hole 11:	
10'	0.121 ppm
20'	<0.001 ppm
30'	0.006 ppm
40'	0.007 ppm
50'	0.002 ppm
60'	0.002± 0.0005 ppm
70'	0.004 ppm
80'	0.002 ppm
90'	<0.001 ppm
Hole 12:	
0'	0.169 ppm
10'	0.004 ppm
20'	0.005 ppm
30'	0.020 ppm
40'	0.012± 0.001 ppm
50'	0.012± 0.013 ppm
60'	0.001 ppm
70'	0.084± 0.053 ppm
80'	0.064 ppm
90'	0.009 ppm
Hole 13:	
0'	0.100 ppm
10'	23.3 ppm
20'	21.9 ppm
25'	492.4 ± 65.1 ppm
30'	391.1 ± 48.1 ppm
40'	0.011 ± 0.007 ppm
50'	0.001 ppm
55'	0.090 ± 0.017 ppm
60'	0.025 ± 0.009 ppm
70'	0.002 ±0.0005 ppm
80'	0.031 ppm
90'	0.013 ± 0.010 ppm

Analyte: Trichloroethane

Sample ID	Analytical Results
Hole 7:	
30'	168.3 ± 5.9 ppm
60'	30.16 ppm
Hole 8:	
0'	0.152 ppm
50'	0.017 ± 0.002 ppm
Hole 9:	
0'	1.388 ppm
40'	<0.001 ppm
Hole 10:	
0'	0.28 ppm
20'	0.146 ppm
Hole 11:	
60'	0.003 ppm
80'	<0.001 ppm
Hole 12:	
10'	0.002 ppm
40'	0.003 ppm
Hole 13:	
10'	0.173 ppm
60'	<0.001 ppm

Analyte	Sample ID/Analytical Results	
	5-15	Jar,Blow Sand next to casing #83-10-18-1431
Trichloroethane	12.6 ppm	13.7 ppm
Tetrachloroethylene	43.7 ppm *	239.0 ppm
EP-Toxicity Pb	<0.002 ppm	1.6 ppm

* Sample has been opened many times.

To: PWM

Normal Detection Limits:

Trichloroethane	0.01 mg/l
Tetrachloroethylene	0.01 mg/l
Pb	0.002 mg/l

Reference: "Organic Analysis Using Gas Chromatography/Mass Spectometry", 1979, Budde & Eichelberger, Ann Arbor Science.

An invoice for services is enclosed. Thank you for your consideration in contacting Assaigai Laboratories.

Sincerely,

Jennifer V. Smith

Jennifer V. Smith, Ph.D.
Laboratory Director

Enclosure

ASSAIGAI

ANALYTICAL LABORATORIES, INC.

To: PNM
Alvarado Square
Albuquerque, NM 87158

Date: 29 December 1983
0007

Attention: Jody Plum

Sample ID	Analytical Results / % Moisture	
PS-6:		
10'-11.5'	4.80 %	Sand, minor gravel to 3/4"
20'-21.5'	4.81 %	Graded sand
30'-31.5'	4.25 %	Sand, some gravel to 1/2"
40'-41.5'	5.03 %	Sand, some gravel to 1/4"
50'-51.5'	3.59 %	Sand, some gravel to 1/4", minor gravel to 1"
60'-61.5'	4.77 %	Sand, silt, minor gravel to 1"
70'-71.5'	4.29 %	Sand, minor gravel to 1/4"
80'	4.99 %	Sand, minor gravel to 1/4"
90'	4.93 %	Sand, some gravel to 1"
PS-7:		
10'-11.5'	5.55 %	Graded sand
20'-21.5'	3.85 %	Sand, minor gravel to 3/4"
30'-31.5'	4.18 %	Sand, minor gravel to 1/4"
40'-41.5'	4.19 %	Sand, minor gravel to 3/4"
50'-51.5'	2.88 %	Graded sand
60'	4.75 %	Sand, minor gravel to 1/4"
70'	2.81 %	Sand, minor gravel to 3/8"
80'	2.89 %	Sand, gravel to 1/2"
90'	4.93 %	Graded sand
PS-8:		
10'	3.37 %	Sand, gravel to 1 1/2"
20'	2.89 %	Sand, minor gravel to 3/8"
30'	3.82 %	Sand, minor gravel to 3/8"
40'	3.24 %	Sand, gravel to 1"
50'	6.02 %	Graded sand, silt
60'-61.5'	7.99 %	Graded sand
70'	4.26 %	Sand, gravel to 3/4"
80'	3.99 %	Sand, gravel to 1"

Sample ID	Analytical Results/% Moisture	
PS-8:		
90'	3.91 %	Sand, minor gravel to 1/4"
95'	4.50 %	Graded sand
100'	9.27 %	Graded sand, silt
105'	7.31 %	Sand, gravel to 1/2"
110'	11.07 %	Sand, clay, minor gravel to 1/4"
PS-9:		
10'	4.80 %	Sand, minor gravel to 1/4"
30'	4.89 %	Graded sand
40'	5.77 %	Graded sand
50'	4.48 %	Sand, gravel to 1/4"
60'	3.57 %	Sand, minor gravel to 1/4"
70'	4.25 %	Sand, gravel to 1 1/4"
80'	7.10 %	Sand, gravel to 1/2"
90'	3.69 %	Graded sand
95'	9.98 %	Sand, minor gravel to 1/2"
100'	3.98 %	Sand, gravel to 1 1/2"
102.5'	3.23 %	Sand, gravel to 1/2"
107.5'	8.83 %	Sand, gravel to 1/2"
No Depth	3.36 %	Graded sand
PS-10:		
10.0'	3.47 %	Sand, minor gravel to 3/8"
20.0'	3.39 %	Graded sand
30.0'	5.58 %	Sand, minor gravel to 3/4"
40'	5.34 %	Sand, minor gravel to 3/4"
50'	2.82 %	Sand, gravel to 1/2"
60'	2.32 %	Sand, gravel to 3/4"
65'	3.62 %	Sand, gravel to 1/4"
70'	6.14 %	Sand, gravel to 3/8"
80'	6.52 %	Sand, minor gravel to 3/8"
90'	7.30 %	Graded sand
95'	2.94 %	Sand, gravel to 3/8"
100'	6.04 %	Graded sand
105'	10.59 %	Sand, minor, broken gravel to 3/4"
110'	9.23 %	Graded sand, clay
112.5'	9.80 %	Sand, some gravel to 3/4"
112.5'(top of core barrell)	11.61 %	Sand, clay, gravel to ½"

Sample ID	Analytical Results/% Moisture	
PS-11:		
50'-51.5'	2.99 %	Graded sand
60'-61.5'	4.38 %	Sand, minor gravel to 1/2"
70'	3.51 %	Sand, minor gravel to 1"
80'	4.36 %	Sand, gravel to 1/4"
90'	4.18 %	Sand, gravel to 1/4"
PS-12:		
10'-11.5'	3.98 %	Sand, minor gravel to 1/2"
20'-21.5'	3.26 %	Sand, broken gravel to 3/4"
30'-31.5'	2.61 %	Sand, broken gravel to 1"
40'-41.5'	5.77 %	Sand, gravel to 3/4"
50'-51.5'	4.10 %	Graded sand
60'-61.5'	2.10 %	Sand, gravel to 1"
70'-71.5'	3.28 %	Sand, broken gravel to 1 1/2"
80'	3.38 %	Graded sand
90'-91.5'	9.12 %	Graded sand, clay
PS-13:		
Surface	5.61 %	Sand, some gravel to 3/4"
10'	2.65 %	Sand, minor gravel to 1/4"
20'	3.94 %	Sand, gravel to 3/8"
30'	9.29 %	Graded sand
40'	2.67 %	Sand, some gravel to 1/2"
50'	3.72 %	Sand, gravel to 1/4"
60'	3.59 %	Sand, gravel to 1"
70'	3.54 %	Sand, gravel to 1"
80'	3.47 %	Sand, gravel to 1/4"
90'	4.34 %	Sand, some gravel to 1"

Reference: USDA Handbook, #60, Modified

An invoice for services is enclosed. Thank you for your consideration in contacting Assaigai Laboratories.

Sincerly,

Jennifer Y. Smith, Ph.D.
Laboratory Director

Enclosure

PUBLIC SERVICE COMPANY OF NEW MEXICO

PROJECT: PERSON STATION WASTE TANK	DEPARTMENT	
	FILE	SHEET OF
COMPONENT: PHASES I, II, III Soil SAMPLING LOCATIONS	BY	DATE
	CHECKED BY	DATE

◊ PHASE I
• PHASE II
✱ PHASE III

N

SCALE 1" = 10 Ft