



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 377TH AIR BASE WING (AFMC)

Barbara
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ENTERED

377 ABW/EM
2000 Wyoming Blvd SE
Kirtland AFB NM 87117-5659

Mr. William Honker
Chief, RCRA Permits Branch
U.S. EPA Region 6
1445 Ross Ave, Ste 1200
Dallas TX 75202-2733

Dear Mr. Honker

In our 7 February 1994 letter to you, we identified three sites which are areas of concern as potential SWMUs. As a follow-up, we are enclosing the SWMU assessment reports, which include lab reports and maps, on the deionizing unit leach field at Building 1026, drain pit serving the test cell in Building 756, and a buried 55-gallon drum near Building 768.

It has been determined that the drain pit is constructed with a concrete floor. However, it is equipped with a 6-inch outlet that is connected to the storm water drain system, located approximately 60 feet east of the site. We propose to conduct sampling and analysis at the storm water outfall in Tijeras Arroyo, test for lead in the paint on the pit railings, and seal the drain line connecting the pit with the storm water drain system. Funding for this work will be proposed in the FY95 budget.

We propose to remove the 55-gallon drum, and collect a soil sample from below the container, and analyze it for total petroleum hydrocarbons, metals (excluding boron and silica), volatile organic compounds, and semivolatile organic compounds.

After reviewing the data for the deionizing unit leach field at Building 1026, we feel this area is not a hazard; therefore, we believe it should not be identified as a SWMU.



KAFB1413



We ask that your office review the reports and lab results, and provide your final decision as soon as possible. Please contact Mr. Jerry Sillerud, (505) 846-2773/0053, if you have any questions.

Sincerely

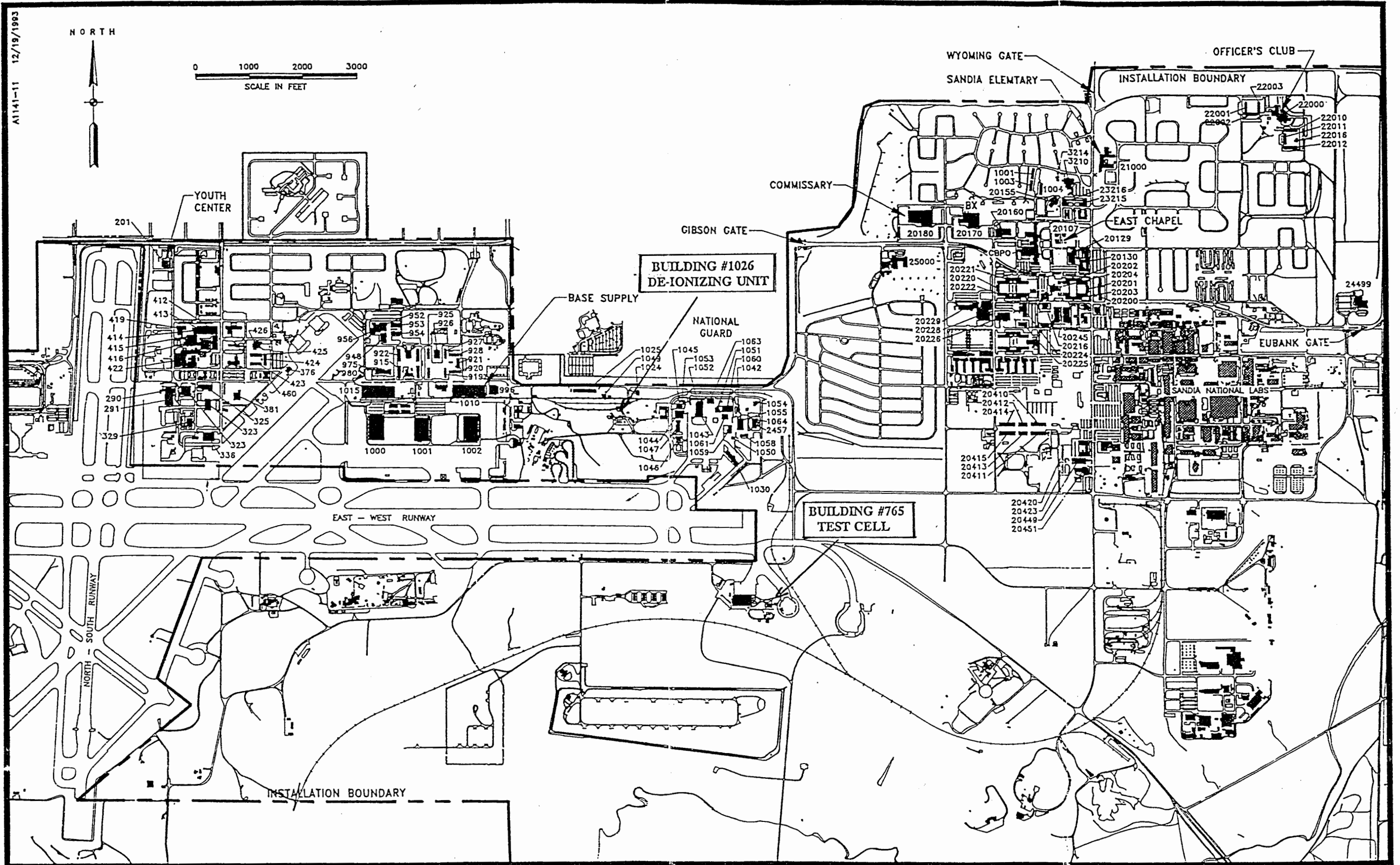


THOMAS A. NORRIS, Colonel, USAF
Director
Environmental Mgmt Division

Attachment:
Reports & Lab Results

cc:
EPA Region 6 (N. Morelock)
NMED-H&RMB (B. Hoditschek)
SWOP (P. Robinson)

KIRTLAND AFB SITE MAP



DEIONIZING UNIT LEACH FIELD

A. LOCATION

The Deionizing Unit leach field is located adjacent to Building 1026, which is in the fuel storage area of Kirtland AFB's west side. This site is located approximately 3000 feet Northeast of LF-01 (SWMU 6-1).

B. FUNCTION OF UNIT

The Deionizing Unit served as a water purifying system which removed free ions from produced water. The deionized water was then added to the jet fuel supply where it served to increase jet engine performance.

C. DESCRIPTION OF THE UNIT

There are no drawings available which show how the leach field is constructed or showing the discharge line into the field. It is believed that an engineered leach field was not constructed and, instead, a discharge line was installed to dispose of the waste directly into the subsurface. At times when the discharge was taking place, it would manifest itself at a low spot about 50 feet northwest of Building 1026.

D. PERIOD OF OPERATION

The Deionizing Unit is estimated to have been installed in 1964 and was actively operated until July 1991.

E. WASTES

It is believed that the only wastes discharged into the leach field were those generated by the deionizing process. In this process, fresh water was passed through a deionizing tower filled with resin beads, which removed the free ions through an adsorption process. The deionizing process took place approximately three times per week at a rate of 60 gallons/hour. After approximately 5000 gallons of use, it became necessary to recharge the unit. Recharging was accomplished by flushing the tower with caustic soda, then flushing with hydrochloric acid to remove residues and restore the proper pH. These wastes were all diverted to the leach field for disposal.

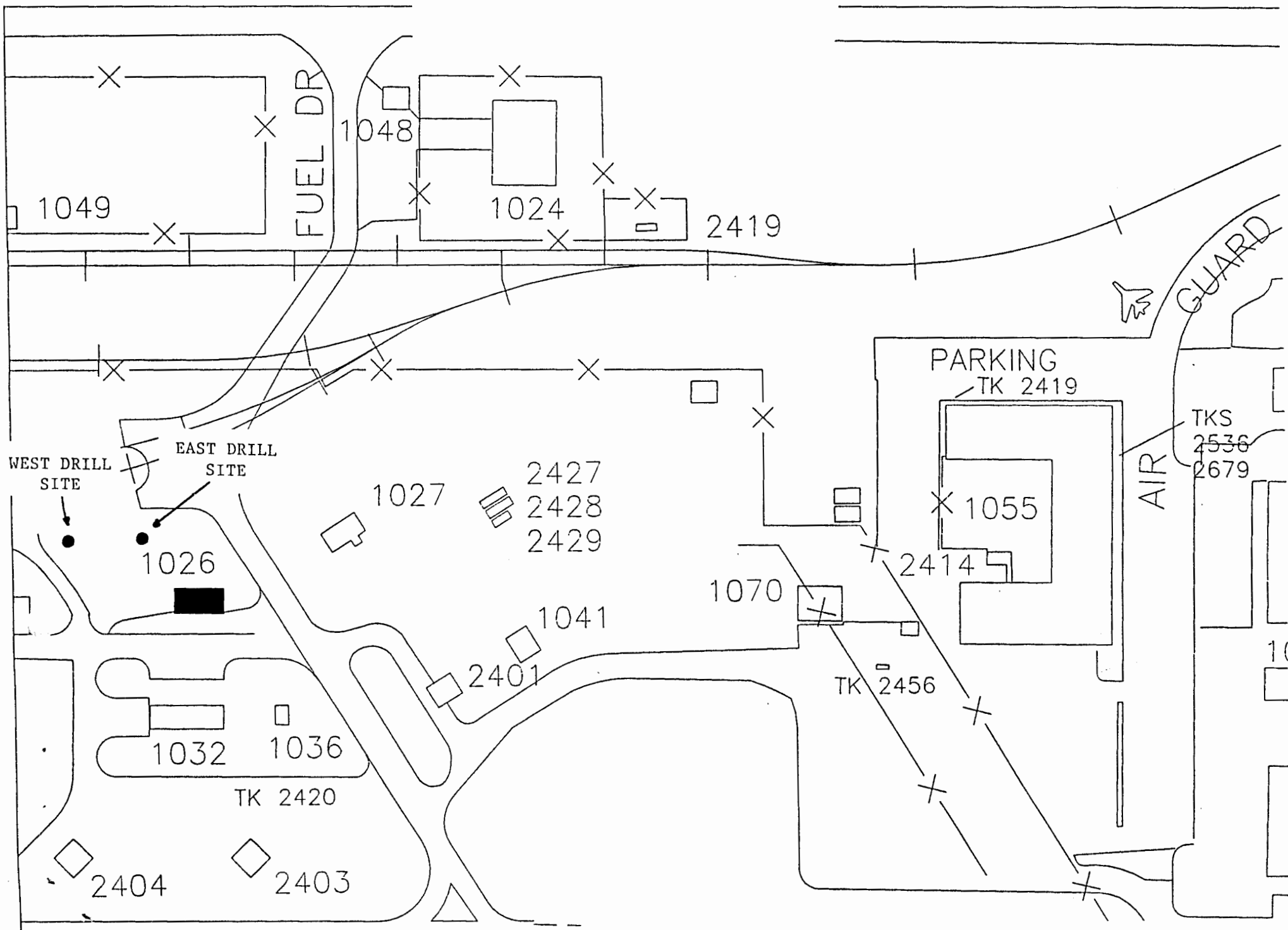
F. SAMPLING AND ANALYSIS

In conjunction with this investigation, two boreholes were drilled with samples taken from the 5-foot, 10-foot, and 20-foot depths, respectively. The borehole locations were selected based on where the discharged waste manifested itself and where it accumulated at the site. Boring 1, designated the East Drill Site, is located about 50 feet northwest of Building 1026; Boring 2, designated the West Drill Site, is located about 75 feet west of Boring 1.

Samples were collected and analyzed by Assaigai Labs of Albuquerque. The samples from the East Drill Site are identified as 9404011020, 9404011055, and 9404011110. The samples from the West Drill Site are identified as 9404011310, 9404011324, and 9404011400. A copy of the test results is attached for review.

A summary table of the analytical results exceeding detection limits is also attached.

BUILDING #1026 AREA



BUILDING 1026 EAST DRILL SITE
ANALYTICAL RESULTS EXCEEDING DETECTION LIMITS

PARAMETER	*DETECTION LIMIT	*RESULTS		
		5'	10'	20'
Di-n-butylphthalate	0.03	ND	0.061	ND
Silver	0.01	1.05	1.1	0.7
Aluminum	1.0	15300.0	7680.0	5790.0
Arsenic	0.005	1.73	1.5	0.865
Barium	0.5	380.0	300.0	45.0
Calcium	1.0	31000.0	61000.0	23600.0
Cadmium	0.003	0.65	1.2	0.6
Cobalt	0.05	5.0	8.5	6.0
Chromium	0.02	7.0	9.0	8.0
Copper	0.02	4.45	5.85	5.0
Iron	0.05	8040.0	111.0	94.2
Potassium	1.0	1180.0	2390.0	1560.0
Magnesium	1.0	4370.0	4980.0	3700.0
Manganese	0.05	131.0	201.0	187.0
Sodium	1.0	71.5	176.0	216.0
Nickel	0.05	10.5	18.0	11.0
Lead	0.1	11.5	14.0	10.5
Zinc	0.01	20.2	28.2	25.0
Vanadium	0.02	20.4	26.5	18.9
pH	0.1	8.3	8.5	8.8
Total Petroleum Hydrocarbons	5.0	5.4	11.8	8.3

*Quantities are Mg/Kg

BUILDING 1026 WEST DRILL SITE
ANALYTICAL RESULTS EXCEEDING DETECTION LIMITS

PARAMETER	DETECTION *LIMIT	*RESULTS		
		5'	10'	20'
Di-n-butylphthalate	0.03	0.1	0.1	0.071
Bis(2-Ethylhexyl)Phthalate	0.03	ND	0.054	0.042
Silver	0.01	2.05	0.95	0.90
Aluminum	1.0	4760.0	8220.0	6280.0
Arsenic	0.005	2.18	1.02	1.29
Barium	0.5	65.0	190.0	65.0
Calcium	1.0	150000	33600	22600
Cadmium	0.003	1.4	1.0	1.1
Cobalt	0.05	8.0	10.0	6.0
Chromium	0.02	8.0	11.0	9.5
Copper	0.02	3.05	5.85	9.15
Iron	0.05	61.0	14900	10400
Potassium	1.0	1200.0	2320.0	1780.0
Magnesium	1.0	3760.0	6080.0	4020.0
Manganese	0.05	98.5	336.0	219.0
Sodium	1.0	617.0	310.0	271.0
Nickel	0.05	15.0	18.5	14.0
Lead	0.1	17.0	16.5	14.0
Zinc	0.01	19.8	43.6	30.0
Vanadium	0.02	16.4	21.6	15.0
pH	0.1	9.0	8.2	8.2
Total Petroleum Hydrocarbons	5.0	11.2	6.5	7.7

*Quantities are Mg/Kg