



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

ENTERED

Ms Barbara Hoditschek
Program Manager, RCRA Permits
NMED, Hazardous & Radioactive Materials Bureau
525 Camino de los Marquez, Suite 4
Santa Fe NM 87502

AUG 04 1993

Dear Ms Hoditschek,

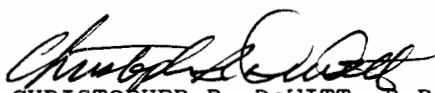
Reference: Your letter to Mr Walter Darr, Chief, Compliance, dated July 6, 1993, and a phone conversation with Ms Stephanie Stoddard of your staff on July 27, 1993.

As requested in the letter and discussed with Ms Stoddard, Kirtland AFB (KAFB) has submitted copies of all existing groundwater quality data pertinent to monitoring wells 0501, 0502, 0503, 0504, 0602, 0606, 0609 and 0610 from December 1990 to the present. This data was delivered to Ms Stoddard on July 31, 1993, and is being submitted to support the closure certification for the base sewage lagoons and the golf course main pond. Because this data is in the form of packages that include test results of samples from other units, these results were included with those of the two closure units and will likely be of use to you for future reference.

Pursuant to the New Mexico Hazardous Waste Management Regulations (HWMR-7), Part VI, 40 CFR 265.115, Mr Darr has informed me KAFB anticipates that the certification of closure for these units will be submitted by the required deadline of August 13, 1993. We expect to have the draft in hand from the Omaha District Corps of Engineers on August 6, 1993, and the final certification completed by August 11, 1993.

A list of the documents delivered to Stephanie is attached. If there are any questions concerning these closure documents, please contact me at (505) 846-2773, or Walt Darr at (505) 846-2774.

Sincerely


CHRISTOPHER B. DeWITT, R.P.G.
IRP Program Geologist

1 Atch
Document List



KAFB1321



<u>PACKAGE #</u>	<u>SAMPLE DATE</u>	<u>REPORT #</u>
1	7,8,9 1991	016256, 016360, 016395, 016935, 017008
2	8,9 1991	013736, 013749, 013774, 013866, 013845, 013888, 013908, 013980, 013952, 013918
3	5,6 1991	015173, 015184, 015290, 015259, 015216, 015245, 015152, 015333, 015310, 015099
4	11 1991	018780, 018913, 018942, 019028, 019050, 019110, 019162, 019179
5	1,2 1993	"Laboratory Results of Groundwater Tests"
6	5 1992	022696, 022768, 022785, 022815, 022848, 022916, 022921, 022286, 022923, 022956, 022977
7	2 1991	013571, 013631
8	5,7 1992	023696, 024120, 024083

NMED GROUND WATER SAMPLING AT KIRTLAND AFB

under Defense-State Memorandum of Agreement ("DSMOA") auspices

Springs:

Coyote, Hubbell, and Sol Se Mete springs sampled on July 12, 1991; analyzed for volatile organic compounds, water chemistry, metals, and radiochemistry. Laboratory error resulted in loss of water chemistry data for Hubbell and Sol Se Mete springs.

Production wells:

KAFB drinking water production wells 1, 2, 3, 4, 7, 11, and 13 were sampled at the wellhead on November 10, 1992. Samples were analyzed for volatile organic compounds using EPA methods 601 and 602. No such compounds were detected in any of the samples, with detection limits generally of 1 ppb.

Monitoring wells:

Well	Date sampled	Analyses
Schoolhouse	7/22/91	VOCs, metals, water chem., radiochem.
0502 (Sewage lagoons)	2/24/93	VOCs
0610 (Golf course)	2/24/93	VOCs
0113 (Landfill 1)	3/15/93	VOCs, SVOCs, water chem., N species
0110 (Landfill 1)	3/16/93	VOCs, SVOCs, water chem., N species
0115 (Landfill 1)	3/19/93	VOCs, SVOCs, water chem., N species
1005 (McCormick Ranch)	4/15/93	VOCs, SVOCs, explosives, water chem.
1002 (McCormick Ranch)	4/20/93	VOCs, SVOCs, explosives, water chem.

RESULTS

- Volatile organic compounds (VOCs) were detected in the Schoolhouse well, where benzene and xylenes were identified as traces below the detection limit of 1 ppb, and toluene was present at 1.2 ppb. These levels are below any regulatory standards. Traces (below detection limits) of vinyl acetate and of two phthalates were detected in three monitor well samples, but are believed to be laboratory artifacts and/or derived from PVC well casings.

- No explosives were detected in either sample for which they were analyzed.

The table on the following page is a comparison of metals, water chemistry, and selected radiochemical results.

Only detected parameters are reported. Blank = not detected; na = not analyzed for.

PARAMETER (mg/L)	Coyote	Hubbell	S.S.M.	Scihse.	0110	0113	0115	1002	1005
Aluminum	0.20				na	na	na	na	na
Barium				0.10	na	na	na	na	na
Boron	0.90	0.10		0.20	na	na	na	na	na
Calcium	260/87*	78.0	110	140	41.0	33.0	35.0	38.3	43.7
Iron	0.20			3.1	na	na	na	na	na
Magnesium	56.0	30.0	17.0	24.0	5.0	5.0	6.0	11.7	10.4
Manganese	1.2			na	na	na	na	na	na
Silicon	0.20	1.5	0.40	1.9	na	na	na	na	na
Strontium	1.3	1.10	0.50	0.70	na	na	na	na	na
Zinc				0.20	na	na	na	na	na
Sodium	395	na	na	388	24.0	24.0	25.0	38.8	28.8
Potassium	31.0	na	na	4.0	3.0	4.0	3.0	3.9	2.8
Bicarbonate	550	na	na	476	136	125	140	126	130
Carbonate		na	na						
Chloride	469	na	na	134	7.4	10.4	29.8	11.3	10.0
Sulfate	121	na	na	58.6	27.7	29.9	29.8	39	38
TDS	3836	na	na	782	206	214	224	320	260
NO ₂ +NO ₃ as N	0.57	na	na	3.98	0.39	0.52	0.40	5.6	3.0
Ammonia	0.15								
TKN	0.27								
Benzene				<0.001					
Toluene				0.0012					
Xylenes				<0.001					
Vinyl acetate								<0.001	<0.001
Di-n-butylphthalate					<0.01				
Bis(2-ethylhexyl) phthalate					<0.01				
Gross alpha (pCi/L), Am-241 reference	11.4	6.5	6.0	10.6	na	na	na	na	na
Gross beta (pCi/L), Cs-137 reference	34.1	3.3	1.6	7.10	na	na	na	na	na

Note: Starred results for calcium at Coyote Spring are a result of differing results obtained with different laboratory methods. ICAP results were 260 mg/L; wet chemistry results were 87 mg/L. Other reported calcium results in table were ICAP results.