



DEPARTMENT OF THE AIR FORCE

377th Civil Engineer Division (AFMC)

3-27-2003



MEMORANDUM FOR MS. MARCY LEAVITT, CHIEF
GROUNDWATER QUALITY BUREAU
NEW MEXICO ENVIRONMENT DEPARTMENT
P.O. BOX 26110
SANTA FE NM 87502

FROM: 377 MSG/CEVR
2050 WYOMING BLVD SE, SUITE 116B
KIRTLAND AFB NM 87117-5270

SUBJECT: Disposal of Long-Term Groundwater Monitoring Plan Purge Water

1. This letter confirms the 6 and 27 Mar 03 conversations between Mr. Mark Holmes of my staff and Ms. Karen Menetrey of your staff, concerning the analytical results of groundwater samples collected during the September and December 2002 (02) Long-Term Groundwater Monitoring (LTM) Plan sampling events at Kirtland Air Force Base (KAFB) and discharging the purge water generated during these sampling events.

2. KAFB is in receipt of the New Mexico Environment Department (NMED) Groundwater Quality Bureau (GWQB) letter dated 12 August 1996 approving the discharge of sample purge water below New Mexico Water Quality Control Commission Regulation (WQCC) Subpart III, 3103, A, B, and C groundwater quality standards. We understand the discharge water cannot contain toxic pollutants defined in WQCC 1101, TT. In addition, we can discharge water with levels observed for parameters without WQCC standards to the ground.

3. For the Sep and Dec 02 sampling events, the following parameters exceeded WQCC standards:

SITE	WELL	ANALYTE	RESULT	STANDARD	VOLUME
LF-08	0312	Nitrate as N	16 mg/l	10 mg/l	151 Gal
	0315	Nitrate as N	16 mg/l	10 mg/l	58 Gal
LF-20	2003 (Duplicate)	Fluoride	2.3/2.4 mg/l	1.6 mg/l	21 Gal
WP-26	0608 (Duplicate)	Nitrate as N	29/29 mg/l	10 mg/l	37 Gal
	0609	Nitrate as N	14 mg/l	10 mg/l	N/A
	0610	Nitrate as N	18 mg/l	10 mg/l	N/A
OT-28	1007	Nitrate as N	10 mg/l	10 mg/l	18 Gal
OT-46	1902 (Duplicate)	Fluoride	3.3/3.2 mg/l	1.6 mg/l	27 Gal
		TDS	1200 mg/l	1000 mg/l	

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SITE	WELL	ANALYTE	RESULT	STANDARD	VOLUME
OT-46	1903	Iron	11,400 ug/l	1000 ug/l	51 Gal
		Fluoride	1.7 mg/l	1.6 mg/l	
		Manganese	267 ug/l	200 ug/l	
	1904	Fluoride	3.0 mg/l	1.6 mg/l	25 Gal
ST-106	1061	Benzene	0.01 mg/l	0.011 mg/l	55 Gal

Notes:

TDS - Total Dissolved Solids

N - nitrate

Gal - gallons

ug/l - micrograms per liter

mg/l - milligrams per liter

N/A - Not applicable: Purge water is no longer accumulated during groundwater sampling at monitor wells KAFB-0609 and 0610, respectively. These two wells also serve as extraction wells, continuously pumping the nitrate-contaminated groundwater into a holding pond that is used as part of a remediation system at the site, obviating the need for containerizing the purge water.

4. As per the subject conversations, KAFB was permitted to discharge the purge water from the monitor wells listed above to the ground, directly adjacent to the monitor wells. KAFB discharged the sample purge water accumulated during the Sep 02 sampling event on 11 Mar 03. We will also discharge the purge water from the two monitor wells sampled during the Dec 02 sampling event, including monitor well KAFB-1061, listed above, on 7 Apr 03.

5. The total volume of sample purge water discharged for all of the monitor wells sampled during both the Sep and Dec 02 events was 1540 gallons. The total volume of purge water discharged to date (FY03) is 2396 gallons. The 2396 gallons breaks down as follows:

- Jul 02, 275 gal, ST-105 TCE sampling event discharged in Nov 02
- Jul 02, 581 gal, ST-105 nitrate sampling event discharged in Jan 03
- Sep 02, 1485 gal, LTM sampling event discharged in Mar 03
- Dec 02, 55 gal, LTM sampling event discharged in Mar 03

In our 6 Jul 01 letter to NMED-GWQB we proposed to discharge a maximum of 6260 gallons of purge water per year, which we have not exceeded. In a letter dated 18 Feb 03, we requested NMED-GWQB approval of our continued exemption from a discharge plan requirement. The letter also proposed an increase in the volume of purge water to be discharged to 10,580 gallons per year, due to the addition of fifteen monitor wells to our monitoring programs.

6. The purge volumes and analytical results for the LTM sampling events conducted during Fiscal Year 2002 (FY02) will be documented in the FY02 LTM Annual Report, planned submittal of Apr 03.

7. The KAFB LTM results are compared to the applicable WQCC groundwater and Solid Waste Management Regulation (SWMR) standards. Exceedences of these regulatory standards as outlined in this letter have previously occurred and been reported to the NMED Groundwater Quality Bureau or Hazardous Waste Bureau respectively and do not require additional notification.

8. For future sampling events, we will continue to obtain approval to discharge purge water containing constituents above WQCC standards. If you have questions or need additional information please contact Mr. Mark Holmes at (505) 846-9005.



CARL LANZ, GS-13
Chief, Restoration Section

cc:

NMED-HWB (Mr. Kieling)
NMED-HWB KAFB (Mr. Moats)
NMED-GWQB (Ms. Menetrey)
EPA Region 6 (Ms. Thomas)
AFMC-CEVR (Ms. Linthicum)
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