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Annual Groundwater Monitoring Report

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Sandia National Laboratories
Albuquerque, New Mexico

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Groundwater Protection Program

Sandia National Laboratories, New Mexico

March 2007

Prepared by:
Environmental Planning Department (10331) and
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acknowledgments

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Mixed Waste Landfill Drilling Operations

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Subject Areas

GWPP, SNL/NM site and hydrogeological setting

Chemical Waste Landfill (CWL)

Mixed Waste Landfill (MWL)

Mixed Waste Landfill (MWL)

Tijeras Arroyo Groundwater (TAG) Investigation, Technical Area V (TA-V), and Burn Site Groundwater Area

ABSTRACT

Sandia National Laboratories, New Mexico (SNL/NM) is a government-owned/contractor-operated laboratory. Sandia Corporation, a wholly-owned subsidiary of Lockheed Martin Corporation, manages and operates the laboratory for the U.S. Department of Energy (DOE), National Nuclear Security Administration (NNSA). The DOE/NNSA Sandia Site Office (SSO) administers the contract and oversees contractor operations at the site. This annual report summarizes data and the compliance status of Sandia Corporation's environmental protection and monitoring programs through December 31, 2005. Major environmental programs include air quality, water quality, groundwater protection, terrestrial surveillance, waste management, pollution prevention (P2), environmental restoration (ER), oil and chemical spill prevention, and the National Environmental Policy Act (NEPA). Environmental monitoring and surveillance programs are required by DOE Order 450.1, *Environmental Protection Program* (DOE 2005) and DOE Order 231.1A, *Environment, Safety, and Health Reporting* (DOE 2004).

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Note: Appendices can be found either at the back of this document or on a CD affixed to the back cover of this document.

Chapter Tables

Chapter Figures

Chapter Figures (continued)

Abbreviations and Acronyms

bgs	below ground surface
CFR	Code of Federal Regulations
$CaCO_3$	calcium carbonate
CAMU	Corrective Action Management Unit
CWL	Chemical Waste Landfill
COA	City of Albuquerque
COC	Contaminant of Concern
COOC	Compliance Order on Consent
DCG	derived concentration guide (established by DOE)
DOE	U.S. Department of Energy
DU	depleted uranium
EOD	Explosive Ordnance Disposal
E_H	oxidation-reduction potential (redox)
EPA	U.S. Environmental Protection Agency
ER	Environmental Restoration
ERCL	Environmental Restoration Chemistry Laboratory
FOP	field operating procedure
FY	Fiscal Year
GEL	General Engineering Labs
GIP	Groundwater Investigation Plan
GIS	Geographical Information System
GWPP	Groundwater Protection Program
GWS	groundwater system
HE	high explosives
HPT	High Performance Team
HSWA	Hazardous and Solid Waste Amendments
HWB	Hazardous Waste Bureau
IRP	Installation Restoration Program (Air Force)
"J"	data qualifier (indicating an estimated constituent concentration that was detected but is below the laboratory practical quantification limit)
KAFB	Kirtland Air Force Base
LCS	laboratory control sample
LWDS	Liquid Waste Disposal System
MAC	maximum allowable concentration (established by the NMED)
MCL	maximum contaminant level
MWL	Mixed Waste Landfill
Ma	million years ago
NFA	No Further Action
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMWQCC	New Mexico Water Quality Control Commission
NNSA	National Nuclear Security Administration
NOV	Notice of Violation
NTU	nephelometric turbidity units
OU	Operable Unit
PCBs	polychlorinated biphenyls
PCE	tetrachloroethene
PGWS	Perched Groundwater System
pH	potential of hydrogen (hydrogen ion concentration)
PQL	practical quantification limit
QA	quality assurance
QC	quality control
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
SAP	Sampling and Analysis Plan

Abbreviations and Acronyms *(continued)*

SC	specific conductance
SERF	Sandia Experimental Reactor Facility
SGWS	Shallow Groundwater System
SMO	Sample Management Office
SNL/NM	Sandia National Laboratories/New Mexico
SVOC	semi-volatile organic compound
SWMU	Solid Waste Management Unit
SWHC	Site-Wide Hydrologic Characterization (Task)
TA	Technical Area
TAG	Tijeras Arroyo Groundwater (Investigation)
TAL	Target Analyte List
TCE	trichloroethene (equivalent to trichlorethylene)
TKN	total kjeldahl nitrogen
TOX	total halogenated organics
USAF	United States Air Force
USGS	United States Geological Survey
VCM	Voluntary Corrective Measure
VE	Vapor Extraction
VOC	volatile organic compound
WQ	water quality
WL	water level

Monitor Well Location Descriptions

AVN-#	Area V (North)
CTF-#	Coyote Test Field
CWL-#	Chemical Waste Landfill
CYN-#	Lurance Canyon
LWDS-#	Liquid Waste Disposal
MP-#	Montessa Park
MRN-#	Magazine Road North
MVMWJ	Mountain View Monitor Well J
MVMWK	Mountain View Monitor Well K
MWL-#	Mixed Waste Landfill
NMED-#	New Mexico Environment Department
NWTA3-#	Northwest Tech Area III
PGS-#	Parade Ground South
PL-#	Power Line Road
SFR-#	South Fence Road
STW-#	Solar Tower (West)
SWTA-#	Southwest Tech Area III
TA1-W-#	Tech Area I (Well)
TA2-NW-#	Tech Area II (Northwest)
TA2-SW-#	Tech Area II (Southwest)
TA2-W-#	Tech Area II (Well)
TAV-#	Tech Area V
TJA-#	Tijeras Arroyo
TRE-#	Thunder Road East
TRN-#	Target Road North
TRS-#	Target Road South
TSA-#	Transportation Safeguards Academy
WYO-#	Wyoming
12AUP-#	ER Site 12A Underflow Piezometer

Units

°C	degree Celsius
ac ft	acre feet
Ci	Curie
Ci/yr	curies per year
ft, ft^3	foot, cubic feet
ft/yr	feet per year
gal	gallon
gpm	gallons per minute
in	inches
in/yr	inches per year
km	kilometer
m	meter
Ma	mega annum
mg/L	milligram per liter
ml	milliliter
mRem/yr	millirem per year
mV	millivolt
NTU	nephelometric turbidity units
pCi/g	picocuries per gram
pCi/L	picocuries per liter
pH	potential of hydrogen
ppb	part(s) per billion, equivalent to µg/L in water
µg/L	microgram per liter
µmho/cm	micromhos per centimeter (unit of specific conductance)
yd, yd^3	yard, cubic yards

Annual Groundwater Report

document summary

Sandia National Laboratories, New Mexico (SNL/NM), managed and operated for the U.S. Department of Energy /National Nuclear Security Administration (DOE/NNSA) by Sandia Corporation, a wholly-owned subsidiary of Lockheed Martin Corporation, is located on Kirtland Air Force Base (KAFB). The purpose of this Annual Groundwater Monitoring Report is to document the groundwater monitoring results conducted in Fiscal Year 2006 (FY06), which extended from October 1, 2005 to September 30, 2006. This includes both water quality sampling results and water level measurements.

SNL/NM Groundwater Monitoring Tasks

Two groups that conduct groundwater monitoring at SNL/NM are (1) the Environmental Restoration (ER) Project and (2) the Groundwater Protection Program (GWPP). The ER Project conducts groundwater monitoring at five ER Project areas where there is groundwater contamination or the potential for groundwater contamination from surface or near-surface legacy hazardous waste sources. The GWPP conducts general site-wide groundwater surveillance. Additionally, water level data is gathered from DOD/NNSA-owned wells and outside agency wells to determine trends in the regional water table. In FY06, water level measurements were obtained from 141 wells within and immediately outside the boundaries of KAFB, which were used to construct a regional water table elevation map.

SNL/NM's groundwater monitoring is divided into the following project areas:

- GWPP
- Chemical Waste Landfill (CWL)

- Mixed Waste Landfill (MWL)
- Technical Area V (TA-V)
- Tijeras Arroyo Groundwater (TAG) Investigation - (TAs I and II and Tijeras Arroyo)
- Burn Site Groundwater (formerly Canyons Area)

Site Location and Geologic Setting
The regional aquifer supplying the City of Albuquerque (COA) and KAFB is located within the Albuquerque Basin. The basin was created by the extension of the Rio Grande Rift that began forming approximately 30 million years ago (Ma) and has since filled with almost three miles of unconsolidated fluvial, alluvial, and windblown sediments. Almost all of the basin fill sediments belong to the Santa Fe Group, which is divided into three units (lower, middle, and upper). The regional aquifer is mostly contained within the upper unit and, to some extent, the middle unit of the Santa Fe Group. The edge of the basin on the east side is defined by the Sandia, Manzanita, and Manzano Mountains, which have uplifted along normal faults. KAFB straddles the east side of the basin and is divided approximately in half by bounding faults. On KAFB, the basin is primarily defined by the north-south trending Sandia fault and the Hubbell Springs fault. The Tijeras fault, a strike-slip fault that trends northeast-southwest, intersects the Sandia and Hubbell Springs faults forming a system of faults collectively referred to as the Tijeras fault complex. The faults form a distinct hydrogeological boundary between the regional aquifer within the basin (approximately 500 feet [ft] below ground surface [bgs]) and the more shallow bedrock aquifer systems within the uplifted areas (generally between 50 to 250 ft bgs).

Groundwater Water Quality Monitoring Results
In FY06, water samples were collected and analyzed from 71 monitoring wells and one spring at SNL/NM by the GWPP and the ER Project. Results from both groups are compared to maximum contaminant levels (MCLs) established by the U.S. Environmental Protection Agency (EPA). GWPP results were also compared to maximum allowable concentrations (MACs) per human health standards for groundwater promulgated by the State of New Mexico Water Quality Control Commission (NMWQCC). All results are discussed in detail in Chapter 4, and data is presented in the attached appendices of this report.

- **GWPP –** Annual sampling was conducted in 15 wells and one spring in FY06. Samples were analyzed for dissolved metals, total mercury, volatile organic compounds (VOCs), inorganics (including total alkalinity, major anions, nitrate plus nitrite (NPN), and total cyanide), total phenols, total halogenated organics (TOX), gross alpha and beta, and selected radionuclides. As required by the Compliance Order on Consent (COOC) between the New Mexico Environment Department (NMED) and DOE/NSSA and Sandia Corporation, groundwater samples from four monitor wells, NWTA-MW2, MRN-2, MRN-3D, and SWTA3-MW4 were analyzed for perchlorate using EPA Method 314. No perchlorate was detected above the screening level of 4 micrograms per liter (µg/L). Concentrations of naturally occurring chemical substances exceeded the regulatory criteria for beryllium and fluoride. Fluoride concentrations in excess of the NMWQCC standard of 1.6 milligrams per liter (mg/L) were exceeded in four monitoring wells and Coyote Springs. The National Drinking Water Standard for fluoride is 4 mg/L. The beryllium concentration of 8.05 µg/L in the Coyote Springs water sample exceeded the EPA Primary Drinking Water Standard MCL of 4.0 µg/L. The uranium concentrations of 39 µg/L in the EOD Hill well exceeded the recently promulgated National Drinking Water Standard of 30 µg/L. The EOD Hill well sample also exceeded the MCL for gross alpha. An activity concentration of 8.24 picocuries per liter (pCi/L) of Radium 226 exceeded the established MCL activity for combined radium 226 and 228 of 5 pCi/L in the SFR-2S water sample. Perchlorate was not detected greater than MDL in wells sampled per the COOC. Perchlorate was detected in the EOD Hill well at concentrations of 1.26 mg/L and 1.08 mg/L.

- **CWL –** Groundwater monitoring in FY06 was performed during October 2005 and April 2006. Samples were collected from nine monitoring wells. Analytes included Appendix IX VOCs, Appendix IX semi-volatile organic compounds (SVOCs), Appendix IX chlorinated herbicides, Appendix IX metals plus iron, polychlorinated biphenyls (PCBs), cyanide, sulfide, and total dissolved chromium. Of the analytes sampled for at the CWL, none were detected above established MCLs.

- **MWL –** Groundwater sampling in FY06 consisted of annual sampling for a wide suite of parameters in seven wells. Annual sampling was conducted in April 2006. No parameters in MWL groundwater exceeded EPA MCLs, except chromium. Chromium was detected above the MCL of 0.1 mg/L in monitoring wells

MWL-MW1 and MWL-MW3. The most likely source of chromium is corrosion of the stainless steel screens on the monitoring wells.

- **TA-V –** Quarterly sampling was conducted at 13 wells in FY06. Analytes included VOCs, PDBs, metals, NPN, anions, radionuclides, and analytes useful for evaluating monitored natural attenuation processes. Trichloroethene (TCE) has consistently been detected in one well (LWDS-MW1) in excess of the MCL of 5 µg/L, with a maximum concentration of 15.8 µg/L in FY06. The most likely sources of TCE are the drainfield for the Liquid Waste Disposal System (LWDS) and the TA-V Seepage Pits. TCE was also detected in TAV-MW1 and TAV-MW6 at levels that exceed the MCL, with maximum concentrations of 5.81 µg/L and 6.34 µg/L, respectively. In FY06, NPN levels were elevated above the nitrate MCL of 10 mg/L in LWDS-MW1 and TAV-MW1, with maximum concentrations of 13.3 mg/L and 12.0 mg/L, respectively.

- **TAG –** Wells in the TAG Investigation area are completed either in the regional aquifer or a localized perched groundwater system (GWS). Ten perched GWS wells and eleven regional monitoring wells were sampled either quarterly, semi-annually, or annually in FY06. TCE was identified in two of the perched GWS wells at a level slightly above the MCL of 5.0 µg/L. A maximum concentration of 7.87 µg/L was found in WYO-4, and a maximum concentration of 5.07 µg/L was found in well TA2-W-19. Nitrate is also a contaminant of concern (COC) in the TAG Investigation area, and samples from five wells (four perched, one regional) showed nitrate concentrations exceeding the MCL of 10 mg/L. The maximum nitrate concentration detected was 29.0 mg/L in TJA-4.

- **Burn Site Groundwater** – In FY06, six monitoring wells were sampled either quarterly or semi-annually. The Burn Site Groundwater study includes the general vicinity associated with the active Burn Site Facility in Lurance Canyon. This facility conducts thermal tests using jet fuel, gasoline, and diesel fuel. Low levels of high explosives (HE), petroleum products (diesel-range organics and gasoline-range organics), and SVOCs have been detected in monitoring wells on site. Other analytes sampled for included VOCs, metals, radionuclides, major ions, perchlorate, and nitrate. Nitrate has been detected above the MCL in one well, CYN-MW6. In FY06, the highest level of nitrate was found in CYN-MW6 at 32.6 mg/L, as compared to the MCL of 10 mg/L. All detected SVOCs, HE, and petroleum products have been at trace levels and below standards, where established. The samples from CYN-MW4 and CYN-MW8 exceeded the MCL for gross alpha at activities of 37.8 ± 11.1 and 34.0 ± 10.6 pCi/L, respectively. Perhclorate samples were collected in three wells required by the COOC. Perchlorate was detected in CYN-MW6 only, with a maximum concentration of 0.00752 mg/L.

Water Level Elevation Monitoring

Water levels measured in 141 wells owned by DOE/NNSA, KAFB, COA, and the State of New Mexico were analyzed, and representative values were used to construct a contour map of the regional water table for KAFB and its immediate vicinity. The contour map represents the regional water table in September and October of 2006. In addition, water levels from the same period of the previous year were used to construct a map of changes in the regional water table over the previous 12 months. A prominent water table depression or trough is present on the west side of KAFB extending southward from the water supply well fields located along the northern KAFB boundary to the northern boundary of the Pueblo of Isleta reservation. Water table declines of up to 1.2 feet per year (ft/yr) occur in the southern part of the trough. The groundwater elevation gradients demonstrated by the contour lines indicate groundwater flow westward from the direction of TA III toward the axis of the trough, and then northward to the groundwater withdrawal areas along the northern KAFB boundary.

A similar procedure was used to construct a contour map of the elevation of the first water encountered in the perched GWS that underlies the north-central part of KAFB. Water level measurements obtained from 15 monitor wells completed in the perched GWS were used to create a first water elevation map. The shape and location of the contours for the 2006 water level elevation differ very little from those of the previous year. The contours indicate groundwater flow in the perched GWS is to the southeast. Similarly, the differences in water elevations between the same periods in 2005 and 2006 in the same wells were contoured to demonstrate the changes in the perched GWS over the previous 12 month period. Water level changes indicate continued draining of the system to the southeast where the system likely merges with the regional GWS.

Hydrographs for 97 monitor wells are presented to demonstrate the trend in water level elevations over

the previous three years. The data are analyzed using a linear regression trending procedure to provide a quantitative measure for the changes in water level elevation.

The precipitation recorded at the Albuquerque International Airport (AIA) during the FY06 period was 11.56 in. The 30 year annual norm for precipitation at the same location adjacent to KAFB is 9.47 in. Measurements for 3 locations on KAFB are presented to demonstrate the variable distribution of precipitation on KAFB.

The water supply for SNL/NM is provided by KAFB production wells located in the northern portion of the KAFB reservation. Groundwater withdrawal from the KAFB wells and a large COA well field immediately north of KAFB dominate the dynamics of the groundwater system under KAFB. In the period of FY06, annual groundwater production by KAFB was 1,083 million gallons (gal) (3,323 acre/feet [ac/ft]).

SNL/NM is managed and operated for the DOE/NNSA. DOE/NNSA and Sandia Corporation conduct general groundwater surveillance on a site-wide basis and specific groundwater monitoring at ER Project sites with groundwater issues. The purpose of this document is to report SNL/NM groundwater monitoring results for FY06, which extended from October 1, 2005 to September 30, 2006.

Chapter One
introduction

SNL/NM is located on KAFB. The groundwater regime at KAFB is divided into two distinct areas. The regional groundwater underlying the majority of KAFB is within the Albuquerque Basin (also known as the Middle Rio Grande Basin) and is the primary aquifer supplying KAFB and COA. A separate shallow GWS exists within the foothills and mountains on the east side of KAFB where the basin margin is delineated by uplifted blocks along north and northeast trending faults. DOE/NNSA and Sandia Corporation conducts groundwater monitoring within both groundwater regimes to determine potential impacts to groundwater sources resulting from its current operations or past activities. The following two groups conduct groundwater monitoring at SNL/NM.

The **ER Project** conducts groundwater monitoring at five general ER Project areas where there is groundwater contamination or the potential for groundwater contamination from surface or near surface contamination. ER Project groundwater monitoring wells are located upgradient and downgradient of known surface contamination and potential sources for groundwater contamination.

The **GWPP** conducts general groundwater surveillance monitoring through a network of wells on KAFB, most of which are located in areas near SNL/NM past and/or present operational sites. General groundwater surveillance monitoring allows for a determination of the impact, if any, of operations at SNL/NM facilities.

Echinocerus triglochidatus at SNL/NM

Regulatory Drivers and DOE Orders

Groundwater monitoring performed by the GWPP and the ER Project are directed by three different sets of regulations and requirements. General groundwater surveillance conducted by the GWPP is directed by DOE Order 450.1, Environmental Protection Program (DOE 2005). This DOE order establishes the criteria and guidelines for developing general Groundwater Protection Management Programs for all DOE facilities.

Groundwater monitoring results from both the GWPP and the ER Project are compared to federal and state water quality standards and DOE drinking water guidelines, where established.

In addition to DOE orders, ER sites at SNL/NM are identified, characterized, and remediated (if required) under Resource Conservation and Recovery Act (RCRA) regulations. In 1984, RCRA was supplemented by the Hazardous and Solid Waste Amendments (HSWA), which specifically addressed Solid Waste Management Units (SWMUs).

At SNL/NM, SWMUs are regulated under the HSWA module of the RCRA permit. In the HSWA module, a SWMU is defined as "any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste." Monitoring and/or corrective action requirements generally are determined on a SWMU-specific basis following a site investigation. Some groundwater monitoring activities (e.g., TAG, Burn Site, and TA-V investigations) are more regional in nature and have historically been conducted by the ER Project as Voluntary Corrective Measures (VCM).

Three of the ER Project groundwater investigations are under the direction of the NMED Order (NMED 2004). The TAG, TA-V, and Burn Site Groundwater area investigations must comply with requirements set forth in the NMED Order for site characterization and the development of a Corrective Measure Evaluation (CME) for each of these sites. The NMED Order also contains schedules that define dates for the delivery of plans and reports related to the TAG, TA-V, and Burn Site Groundwater areas, and, accordingly, DOE/NNSA and Sandia Corporation were required to complete a CME Report for the TAG, TA-V, and Burn Site Groundwater areas by September 30, 2005. NMED is the regulatory agency responsible for enforcing the requirements identified in the NMED Order for each of the three CMEs. In FY04, CME Work Plans were submitted to the NMED for each of these three sites that summarize prior work, identify potential source areas, and conduct screening of technologies that result in identification of remedial alternatives that will undergo a full evaluation during the CME process.

Groundwater Levels
Monthly and quarterly measurements of depth to water are taken at wells owned by DOE/NNSA, the Air Force Installation Restoration Program (IRP), COA, and others. These data are converted to water level elevations. Water table surface maps of KAFB and the immediate vicinity are constructed from the water level elevation data. Water level data are also used to interpret the groundwater system characteristics, such as groundwater flow directions, groundwater gradients, and regional water level declines. Currently, water levels at a few KAFB wells within the Albuquerque Basin are declining at an average rate of 1.2 ft/yr. This rate fluctuates significantly in areas near production wells where heavy production varies with seasonal water demand. Water level data are also used to identify the extent of the perched GWS present on KAFB that lies above the regional aquifer.

1.1 Report Organization

The six chapters of this report cover the following topics:

Chapter 1 – The purpose and overview of SNL/NM groundwater monitoring activities;

Chapter 2 – The regional geologic and hydrologic settings as they pertain to the groundwater regime in the vicinity of KAFB;

Chapter 3 – The well networks of SNL/NM including location maps, sampling protocol overviews, well monitoring histories, and pertinent regulatory drivers;

Chapter 4 – Groundwater monitoring results, including trend graphs for the GWPP and the ER Project that note any results exceeding established standards in federal or state regulations or DOE guidelines;

Chapter 5 – Construction of groundwater surface elevation maps for the regional aquifer and perched GWS at KAFB. Interpretation and implication of water level elevation contours. Construction and discussion of contour maps of changes in water level elevations from the preceding FY. Analysis of groundwater level trends, presented as hydrographs, over the past 36 months for specific locations throughout KAFB; and

Chapter 6 – References.

1.2 Groundwater Monitoring at SNL/NM

The GWPP works in concert with the ER Project as part of the SNL/NM corporate-wide Groundwater Protection Management Program. An overview of the groundwater monitoring activities conducted by the GWPP and the ER Project are described below.

1.2.1 GWPP Scope

The primary function of the GWPP is groundwater surveillance monitoring, which is conducted by the Groundwater Surveillance Task. Groundwater surveillance serves the following purposes:

- Establishes baseline water quality and groundwater flow information for the groundwater system at SNL/NM;
- Determines the impact, if any, of SNL/NM operations on the quality and quantity of groundwater; and
- Demonstrates compliance with all federal, state, and local groundwater requirements and DOE orders.

Generally, from year to year, the GWPP samples from the same or nearby surveillance wells. Occasionally, wells may be added or removed from the surveillance network based on operational changes, such as facility start-ups or closures. All groundwater samples collected by the GWPP are sent to off-site laboratories for analysis. Analytical laboratory procedures are consistent with EPA analytical methods (EPA 2006). Analytical results for groundwater samples are compared to regulatory standards established by the EPA (40 CFR 141) and the State of New Mexico (20 NMAC 6.2). Groundwater sample results from each year are compared to historical values to determine if there are differences that may indicate a trend of increasing or decreasing contaminant levels. Early detection of increasing trends—even changes that are far below regulatory action levels—allow for proactive identification of potential contaminant sources and institute mitigation measures, as needed. In turn, trends showing decreasing levels or unchanging baseline levels demonstrate the success of SNL/NM groundwater management practices. In FY06, the GWPP sampled 15 wells and one spring.

The GWPP also provides well tracking, routine inspections, and oversight for all DOE/NNSA-owned wells. This includes ER Project wells, GWPP surveillance wells, and characterization boreholes. Working in cooperation with the ER Project, wells are tracked in a Well File Database to record pertinent information such as well location, well ownership, maintenance history, completion date, and other construction information. Annual well inspections verify that wells are being properly maintained and in good working order. If a well is found in need of repair, the owner is contacted and corrections are made; or, the well may be proposed for plugging and abandonment.

1.2.2 ER Project

The SNL/NM ER Project was established to identify, assess, and remediate sites potentially contaminated by past spill, release, or disposal activities. Additionally, the ER Project identifies the nature and extent of contamination present at a site. As part of this process, groundwater characterization is implemented at ER sites where there is a potential for groundwater contamination. ER Project wells are monitored on a quarterly, semi-annual, or annual basis, depending on the site and the nature of the contaminant.

Groundwater monitoring and characterization activities are grouped into the following project areas:

- CWL
- TAG Investigation
- MWL
- Burn Site Groundwater (formerly Canyons)
- TA-V

Regulatory Oversight

The NMED Hazardous Waste Bureau (HWB) provides regulatory oversight of the ER Project, as well as implements and enforces federal regulations mandated by RCRA. NMED has adopted federal regulations by reference. The management of ER sites are permitted on the SNL/NM RCRA Part B Operating Permit, "Special Conditions Pursuant to the 1984 Hazardous and Solid Waste Amendments (HSWA) to RCRA for Sandia National Laboratory" (NMED 1993). The COOC between NMED, DOE and Sandia Corporation was finalized in April 2004 and transferred regulatory authority for the investigation of SWMUs and areas with groundwater contamination from the HWSA module to the COOC. Following the receipt of an NMED certificate of completion for a SWMU, or group of SWMUs, is the submission of a request for a Class 3 Permit Modification for Corrective Action Complete. Where NMED identifies controls (e.g., institutional controls, engineered barriers, and long-term monitoring, operation and maintenance) for Corrective Action Complete, those controls are enforceable under the Permit.

This chapter provides an overview of the important features of the geology and hydrology relevant to the groundwater system at KAFB, with a focus on operational areas at SNL/NM. Because surface and subsurface geologic features play an important role in the occurrence and movement of groundwater, as well as influencing potential pathways for contaminant migration, the characterization of the hydrogeologic system at KAFB has received extensive study. The ER Project has compiled an in depth study of the hydrogeologic setting at KAFB. The findings are detailed in the *Sandia National Laboratories, Site-Wide Hydrogeologic Characterization Project Report* (SNL 1998).

Chapter Two
hydrogeological setting

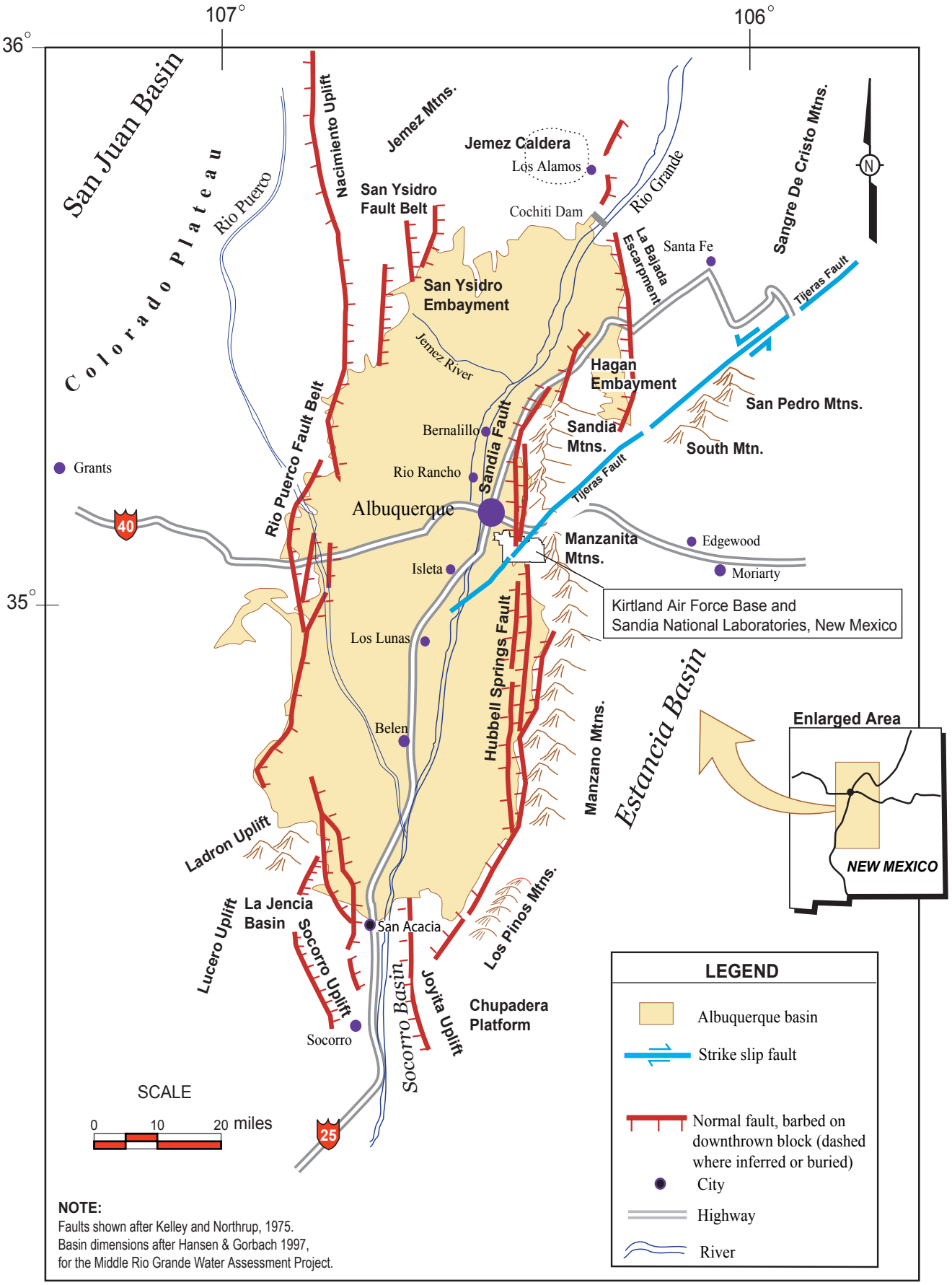
2.1 Geologic Setting

Albuquerque Basin

The Albuquerque Basin (also known as the Middle Rio Grande Basin) is one of a series of north-south trending basins that was formed during the extension of the Rio Grande Rift. Rift formation initiated in the late Oligocene and continued into the early Pleistocene, with the primary period of extension occurring between 30 and 5 Ma. Tectonic activity, which began uplifting the Sandia, Manzanita, and Manzano Mountains, was most prevalent from about 15 to 5 Ma (Thorn et al. 1993). The rift today extends from southern Colorado to northern Mexico. The vertical displacement between the rock units exposed at the top of Sandia Crest and the equivalent units located at the bottom of the basin is over three miles.

Mixed Waste Landfill Drilling Operations

As shown in Figure 2-1, the structural boundaries of the Albuquerque Basin are (1) the Nacimiento uplift and the Jemez Mountains to the north; (2) the La Bajada Escarpment to the northeast; (3) the Sandia, Manzanita, Manzano, and Los Pinos uplifts to the east; (4) the Joyita and Socorro uplifts to the south; (5) the Ladron and Lucero uplifts to the southwest; and (6) the Rio Puerco Fault belt to the west. The basin is approximately 3,000 square miles (sq mi) in area.



GW01-2-1.ai

FIGURE 2-1. Albuquerque Basin, North Central New Mexico

Over the last 30 Ma, the ancestral Rio Grande has meandered across the valley depositing sediments in broad stream channels and flood plains derived from sources to the north. The basin also filled with eolian deposits and alluvial materials shed from surrounding uplifts (Hawley and Haase 1992).

Santa Fe Group

As the Rio Grande Rift continued to form, the Albuquerque Basin subsided and filled with a sequence of sediments several miles thick, almost all of which is from the Santa Fe Group. The Santa Fe Group was deposited contemporaneously with rift formation (Oligocene through Pleistocene) and is up to 14,500 ft (4,420 meters [m]) thick at the center of the basin. The entire sequence consists of unconsolidated sediments, which thin toward the edge of the basin and are truncated by normal faults at the bounding uplifts. Units overlying the Santa Fe Group include Pliocene Ortiz gravel and Rio Grande fluvial deposits, which are inter-bedded with Tertiary and Quaternary basaltic and pyroclastic materials.

The Santa Fe Group is divided into three units.

The **lower unit** (Hawley and Haase 1992) was deposited from 30 to 15 Ma and is dominated by piedmont-slope (sediment debris flows and alluvial fan material), eolian, and basin floor deposits. The deposition of the lower unit occurred within an internally drained (closed) basin and before significant uplift of adjacent mountain ranges.

The **middle unit** (Hawley and Haase 1992) was deposited from 15 to 5 Ma during the tectonically active period that resulted in the uplift of the ranges flanking the basin. Several major river systems from the north, northeast, and southwest carried in significant fluvial deposits and terminated within the basin. These rivers probably flowed into playa lakes at the southern end of the basin (Lozinsky et al. 1991).

The **upper unit** (Hawley and Haase 1992) was deposited 5 to 1 Ma and is characterized by piedmont-slope deposits inter-tonguing with ancestral river and flood plain (basin floor) deposits. The fluvial deposits mark the boundary 5 Ma when the ancestral Rio Grande became a through-flowing river system and formed a large aggradational plain in the central basin area. This upper unit is a heterogeneous mix of coarse to fine-grained sands, silts, and clays with highly variable bed thicknesses.

Regional Basin Aquifer

The upper unit of the Santa Fe Group, and to some extent the middle unit, contain the most productive portion of the regional aquifer that supplies groundwater to COA and KAFB. In general, the high degree of heterogeneity and anisotropy within the upper unit results in a wide variety of hydraulic properties on a local scale. Groundwater flow rates and directional hydraulic conductivity are controlled in large part by buried channels and other bedding features (SNL 1998).

Faults

As shown in Figure 2-2 and Figure 2-3, the four primary faults on the east side of KAFB are (1) the Sandia fault, (2) the West Sandia fault, (3) the Hubbell Springs fault, and (4) the Tijeras fault. The Sandia fault is thought to be the primary boundary between the Sandia Mountains and the Albuquerque Basin and shows evidence of Quaternary motion (Kelley 1977). The Hubbell Springs fault extends northward from Socorro County and terminates on KAFB in the vicinity of the Tijeras fault. It forms a very recognizable fault scarp called the Hubbell Bench with offsets of 15 to 100 ft (5 to 30 m) (Machette 1982). The Sandia and the Hubbell Springs faults are north-south trending, down-to-the-west, en-echelon normal faults bounding the east side of the Albuquerque Basin. Field observations indicate Quaternary movement along the Hubbell Springs Fault (Lozinsky et al. 1991, Woodward 1982, Kelley and Northrup 1975, and Kelly 1977). The Tijeras fault is an ancient strike-slip fault that developed in the Precambrian or early Paleozoic (approximately 600 Ma) and was reactivated in association with the Laramide Orogeny during the Cretaceous (Kelley 1977). The fault

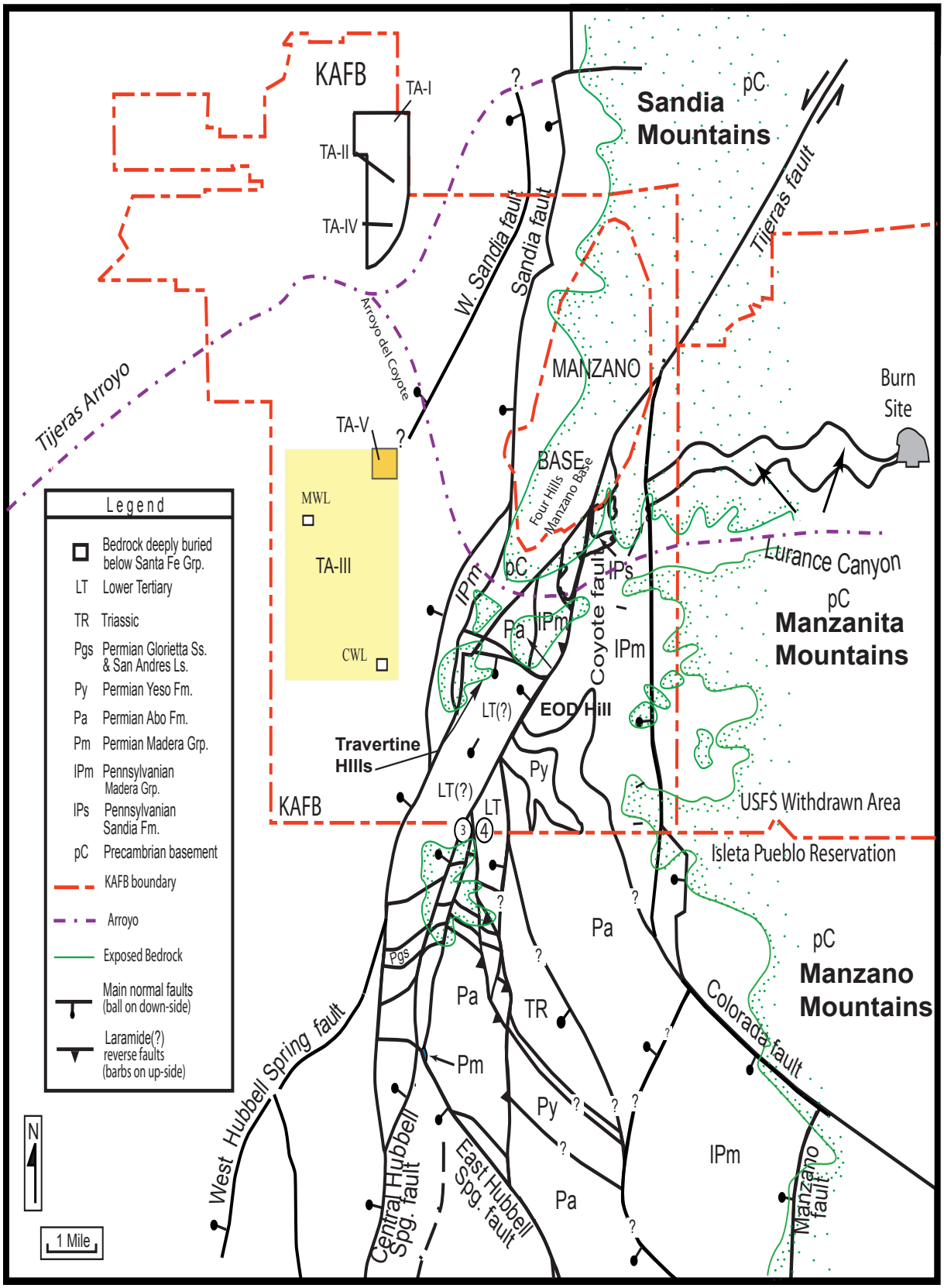


FIGURE 2-2. Generalized Geology in the Vicinity of SNL/KAFB

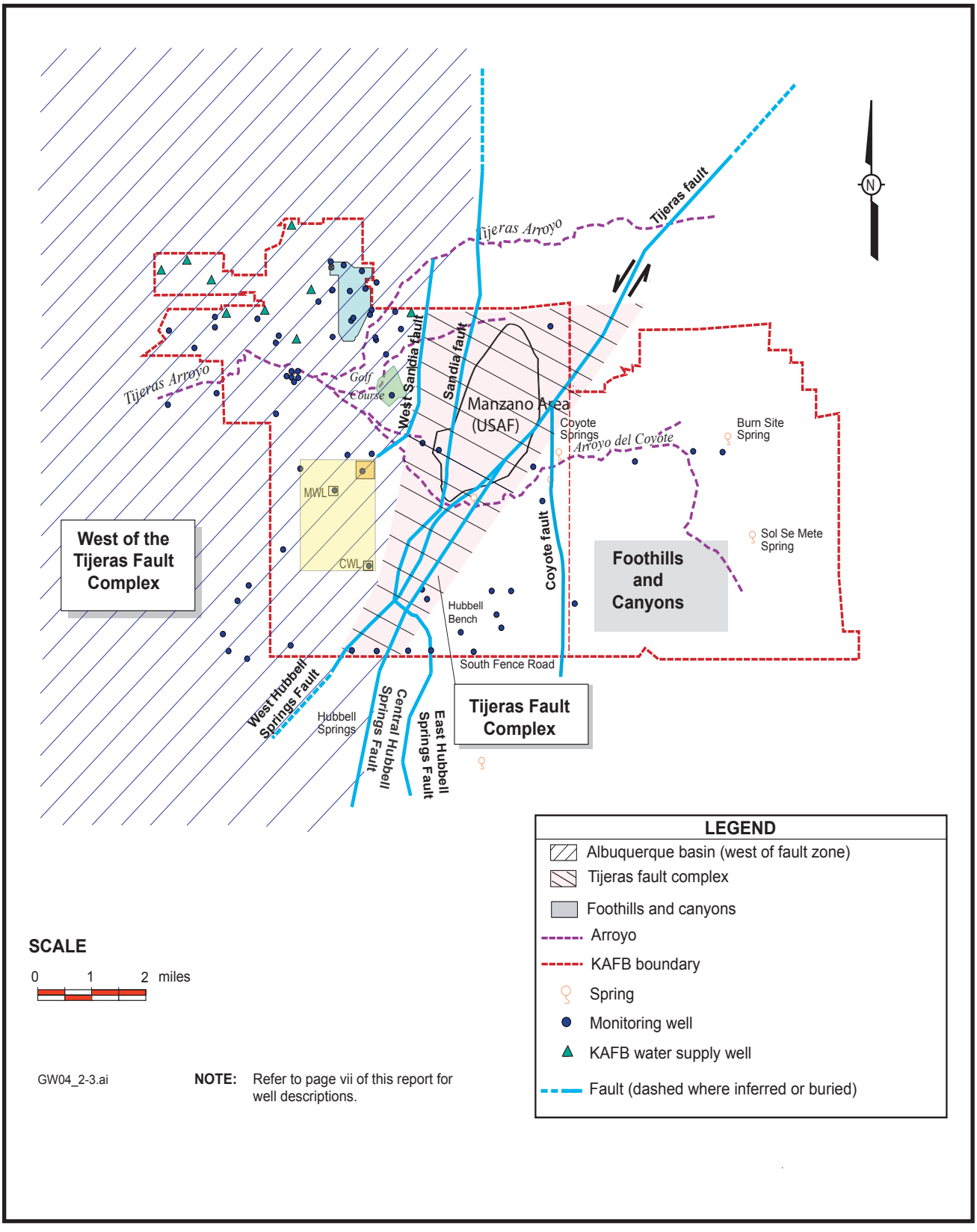


FIGURE 2-3. Hydrogeologically Distinct Areas Primarily Controlled by Faults

also demonstrates Quaternary movement (Kelson et al 1999; GRAM 1995). This fault has been traced at least as far north as Madrid, New Mexico and continues into the Sangre de Cristo Mountains as the Cañoncito fault. Preferential erosion along the fault formed Tijeras Canyon, which divides the Sandia and Manzanita Mountains. The fault trends southwest from Tijeras Canyon, intersects the northwest boundary of KAFB, and crosses KAFB east of Manzano Base. (Manzano Base occupies an uplift of four peaks defined by the Tijeras fault on the east side and the Sandia fault on the west side.) Strike-slip motion along the Tijeras fault is thought to be expressed by southwesterly movement of the northern block (left lateral). The Sandia, Hubbell Springs, and Tijeras faults converge near the south end of TA III. This complicated system of faults, defining the east edge of the basin, is referred to collectively as the Tijeras fault complex.

2.2 Groundwater Hydrology

Groundwater Systems

Figure 2-3 shows three different hydrogeologic regions: the Albuquerque Basin, the Tijeras fault complex, and the foothills and canyons region. The primary division is between the east and west sides of the Tijeras fault complex. The Tijeras fault complex is a transitional zone. This division marks the boundary between the two regional aquifer systems. It is important to note that the boundaries shown on the map are somewhat arbitrary, but identify the approximate hydrologic settings.

A deep aquifer is present within the Albuquerque Basin where the regional water table lies at approximately 500 ft (152 m) below the surface.

There are also multiple perched GWSs lying above the regional aquifer. The perched GWSs extend south to the KAFB Golf Course area, north to portions of TA I, west of TA II, and east of the KAFB Landfill. Possible explanations for the existence of these perched GWSs are inter-arroyo recharge, irrigation of the golf course and other vegetated areas, water leakage from utility distribution lines, and infiltration from an unlined sewage lagoon system (SNL 1998).

East of the Tijeras fault complex, a thin layer of alluvium covers the bedrock. The hydrogeology in this area is poorly understood due to the complicated geology created by the fault systems. On the east side of the Tijeras fault complex the depth to groundwater ranges from about 50 to 200 ft (15 to 61 m). Most of the water supply and monitoring wells east of the faults are completed in fractured bedrock at relatively shallow levels and produce modest yields of groundwater (SNL 1998).

Groundwater Flow

Groundwater in the bedrock aquifers on the east side of KAFB generally flows west out of the canyons toward the Tijeras fault complex. The groundwater gradient is relatively steep, 0.03 ft/ft, crossing the Tijeras fault complex from east to west. The elevation change in the water levels is 350 ft (106 m) over 15,840 ft (4,828 m). Within the sediments of the Albuquerque Basin, the gradient flattens out quickly to about 0.005 ft/ft.

The historic direction of regional groundwater flow within the basin was westward from the mountains toward the Rio Grande. However, due to groundwater pumping by KAFB and COA, a depression in the water table has created a broad trough directing flow towards the well fields at the northwest end of KAFB. The impact of the seasonal variation in water production by both KAFB and COA wells can be observed as fluctuations in the water levels of some SNL/NM and KAFB monitoring wells as far east and south as TA III. A water table surface map and examination of water level trends are discussed in Chapter 5 of this report.

2.3 Surface Water Hydrology

The Rio Grande, located approximately eight miles west of KAFB, is the major surface hydrologic feature in central New Mexico. The Rio Grande originates in the San Juan Mountains of Colorado and terminates at the Gulf of Mexico, near Brownsville, Texas. The Rio Grande has a total length of 1,760 miles (2,832 kilometers [km]) and is the third longest river system in North America.

Surface water (with the exception of several springs) within the boundaries of KAFB is found only as ephemeral streams that flow for short periods from runoff after storm events or during the spring melt of mountain snowpacks. The primary surface water feature that drains the eastern foothills on KAFB is the Tijeras Arroyo. The Arroyo del Coyote joins Tijeras Arroyo just south of TA IV (about one mile west of the golf course [Figure 2-3]). Both Tijeras Arroyo and Arroyo del Coyote carry significant runoff after heavy storms that usually occur from July through October. The Tijeras Arroyo, above the confluence with Arroyo del Coyote, drains about 80 sq mi (207 sq km), while Arroyo del Coyote drains about 39 sq mi (101 sq km) (U.S. Army Corps of Engineers 1979). The total watershed for the Tijeras Arroyo, which includes the Sandia and Manzanita Mountains and portions of KAFB, is approximately 126 sq mi (336 sq km). All active SNL/NM facilities are located outside the 100 year floodplain of both Tijeras Arroyo and Arroyo del Coyote (U.S. Army Corps of Engineers 1979).

Springs

Several springs on KAFB are associated with the uplifts on the east side of the basin: (1) Coyote Springs and G-Spring within Arroyo del Coyote, (2) Burn Site Spring in Lurance Canyon, and (3) Sol se Mete Spring within the Manzanita Mountains. Coyote Springs and Sol se Mete are perennial springs (continuously flowing), while the others are ephemeral springs. Hubbell Springs (a perennial spring) is located just south of KAFB on Isleta Pueblo. The wetland areas created by these springs, though very limited in extent, provide a unique ecological niche in an otherwise arid habitat.

Groundwater Recharge

Groundwater recharge in the vicinity of KAFB is primarily derived from the eastern mountain front and within the major arroyos. However, the amount of recharge occurring in the foothills and canyons is not well characterized. The estimated recharge for that portion of Tijeras Arroyo on KAFB is estimated to be up to 2.2 million ft^3/yr (50 ac-ft/yr) (SNL 1998). The best estimate for the groundwater recharge associated with Arroyo del Coyote is 0.4 million ft^3/yr (9.2 ac-ft/yr). Infiltration studies conducted by the ER Site-Wide Hydrologic Characterization (SWHC) Task determined that recharge is negligible due to the high rate of evapotranspiration for most other areas on KAFB, generally alluvial slopes and flat areas within the basin (SNL 1998).

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This chapter provides background information for the groundwater monitoring and surveillance programs conducted by the GWPP and the ER Project at SNL/NM. An overview of the regulatory drivers, site and groundwater monitoring histories, current well networks, and sampling protocols are described in each section. Figure 3-1 shows the locations of active DOE/NNSA monitoring wells. The map also shows monitoring wells and water production wells owned by KAFB and COA.

Chapter Three
Monitoring Network Information and Sampling Protocols

3.1 Groundwater Protection Program

Principal Contaminants of Concern (COCs) for Groundwater Contamination - Primary drinking water contaminants, NMWQCC groundwater contaminants, and perchlorate (NWTA3-MW2, MRN-2, MRN-3D, EOD Hill, and SWTA3-MW4).
Monitoring Network - Fifteen wells and one spring were monitored during FY06.
Sampling Frequency - Annually.

3.1.1 Groundwater Surveillance Task Well Network

The Groundwater Surveillance Task, which is a component of the GWPP, collects data to determine and document the effects of SNL/NM's operations on groundwater quality and quantity. Groundwater surveillance monitoring allows SNL/NM to detect potential contaminants in groundwater, which may derive from SNL/NM facilities, off-site sources, or naturally-occurring materials present in the local rocks and soils. Figure 3-2 shows the location of the current surveillance network of 15 wells and one spring. The surveillance wells (including the spring) are located on DOE/NNSA and KAFB property. SWTA3-MW4 was installed in the southwest corner of TA-III in FY05. The first annual groundwater sampling of the well occurred in FY06. Table 3-1 lists the installation date for each well and the type of surveillance conducted at the well in FY06.

The Groundwater Surveillance Task began quarterly groundwater sampling in 1991. Starting in March 1995, quarterly surveillance monitoring was changed to annual surveillance monitoring. Prior to each annual sampling event, the Sampling and Analysis Plan (SAP) is updated to provide specific guidance on sampling methods, selected sampling parameters, and selected wells (SNL 2006a).

Snowy day at a SNL/NM monitoring well

3.1.2 Regulations

SNL/NM is required by DOE Order 450.1 to develop and implement a Groundwater Protection Management Program (DOE 2005). Groundwater surveillance is one element within the DOE Environmental Protection Program. The DOE order lists the following requirements for groundwater monitoring programs:

- Obtain data to determine **baseline conditions** of groundwater quality and quantity;
- Demonstrate compliance with and implementation of all applicable **regulations** and DOE orders;
- Provide **data** to detect groundwater pollution or contamination;
- Provide a **reporting mechanism** for detected groundwater pollution or contamination;
- Identify existing and potential groundwater **contamination sources** and maintain surveillance of these sources; and
- Provide data for decisions concerning **land disposal practices** and the management and protection of groundwater sources.

In addition to numerous other requirements, SNL/NM GWPP is required by the COOC to conduct quarterly groundwater sampling and analysis for perchlorate in monitoring wells NWTA3-MW2, MRN-2, and MRN-3D. Also, per the COOC, any newly constructed well will require 4 continuous quarters of sampling and analysis for perchlorate. SWTA3-MW4 was the first well installed subsequent to the implementation of the NMED Order and was sampled for perchlorate quarterly in FY06. The protocol stipulates EPA Method 314 for the analysis and establishes an action level of 4 µg/L. If the sample results indicate the presence of perchlorate at or in excess of 4 µg/L, SNL/NM is required to evaluate the nature and extent of perchlorate contamination and report the results in a RCRA Corrective Measures Evaluation (CME). Sampling and analysis of the non-compliant well will continue until at least four consecutive non-detects are obtained.

TABLE 3-1. Monitoring Wells in the GWPP Network for FY06

Well [1]	Installation Year	WQ	WL	Owner	Comments
Coyote Springs	--	√	N/A	KAFB	Perennial spring in Arroyo del Coyote, east of Manzano Base
EOD Hill	Unknown	√	√	DOE/NNSA	East of TA-III, within Tijeras Fault Zone
Eubank 1	Unknown	√	√	COA	East boundary TA-1
Greystone MW-2	2002	√	√	DOE/NNSA	West of Coyote Springs at the Greystone Ranch Site
MRN-2	1995	√	√	DOE/NNSA	Magazine Road North - Well 2
MRN-3D	2003	√	√	DOE/NNSA	Magazine Road North - Well 3 deep
NWTA3-MW2	2000	√	√	DOE/NNSA	West boundary TA-3
NWTA3-MW3D	2003	√	√	DOE/NNSA	West boundary TA-3
PL-2	1994	√	√	DOE/NNSA	Deep Well Adjacent to PL-3
PL-3	1994	√	√	DOE/NNSA	Power Line Road – Well 3
SFR-2S	1992	√	√	DOE/NNSA	South Fence Road – Well 2, shallow
SFR-4T	1993	√	√	DOE/NNSA	South Fence Road – east of Tijeras Fault
SWTA3-MW2	2002	√	√	DOE/NNSA	SW Corner TA-3
SWTA3-MW3	2004	√	√	DOE/NNSA	SW Corner TA-3
SWTA3-MW4	2005	√	√	DOE/NNSA	SW Corner TA-3, water table
TRE-1	1995	√	√	DOE/NNSA	Thunder Road East – Well 1

NOTE [1] Refer to page xi of this report for well descriptions.
Checkmarks in the water quality (WQ) and water level (WL) columns indicate WQ sampling and WL measurements in FY06.
COA = City of Albuquerque
KAFB = Kirtland Air Force Base
N/A = not applicable
SNL/NM = Sandia National Laboratories, New Mexico
GWPP = Groundwater Protection Program

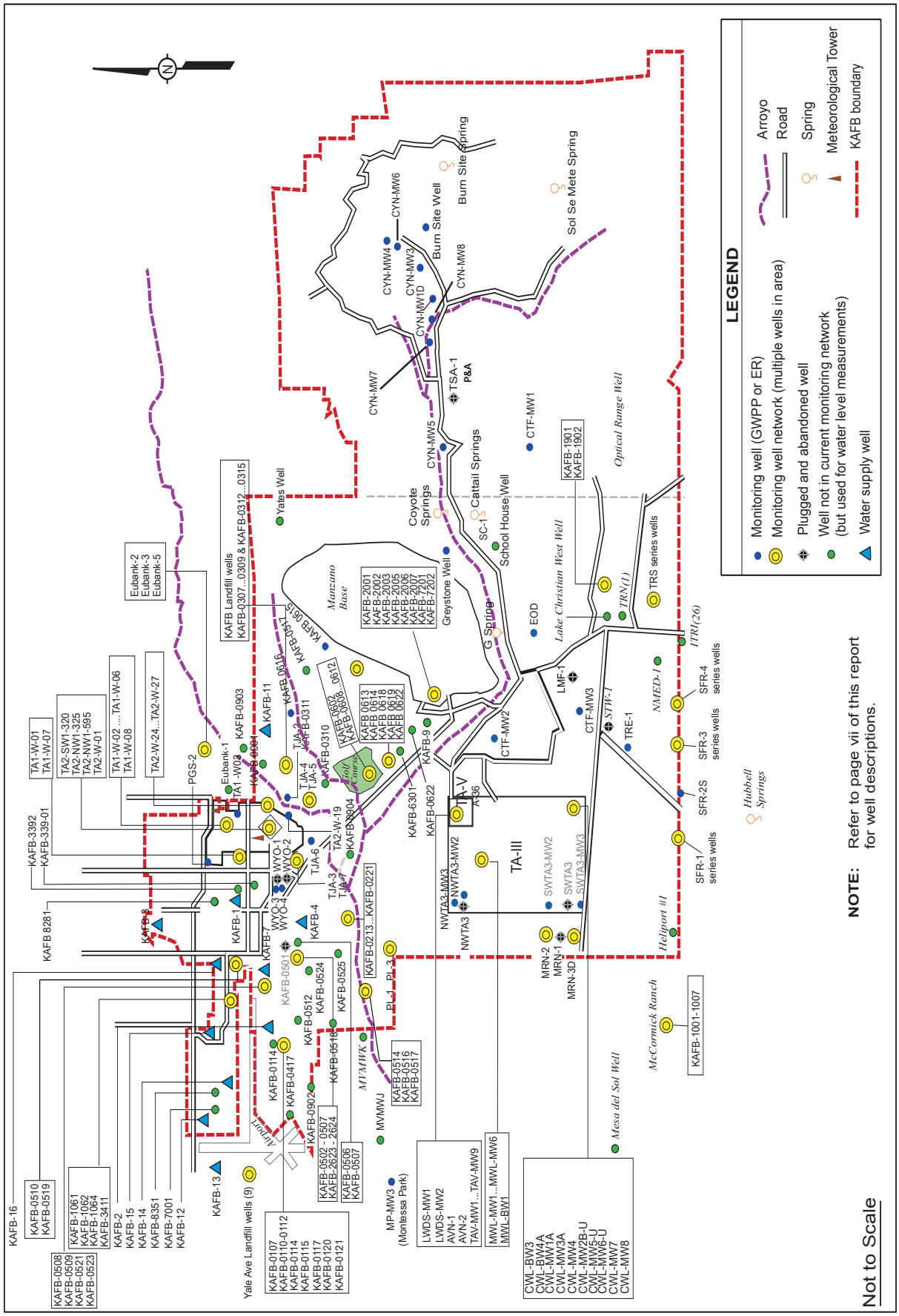

FIGURE 3-1. Wells and Springs on SNL/NM and KAFB

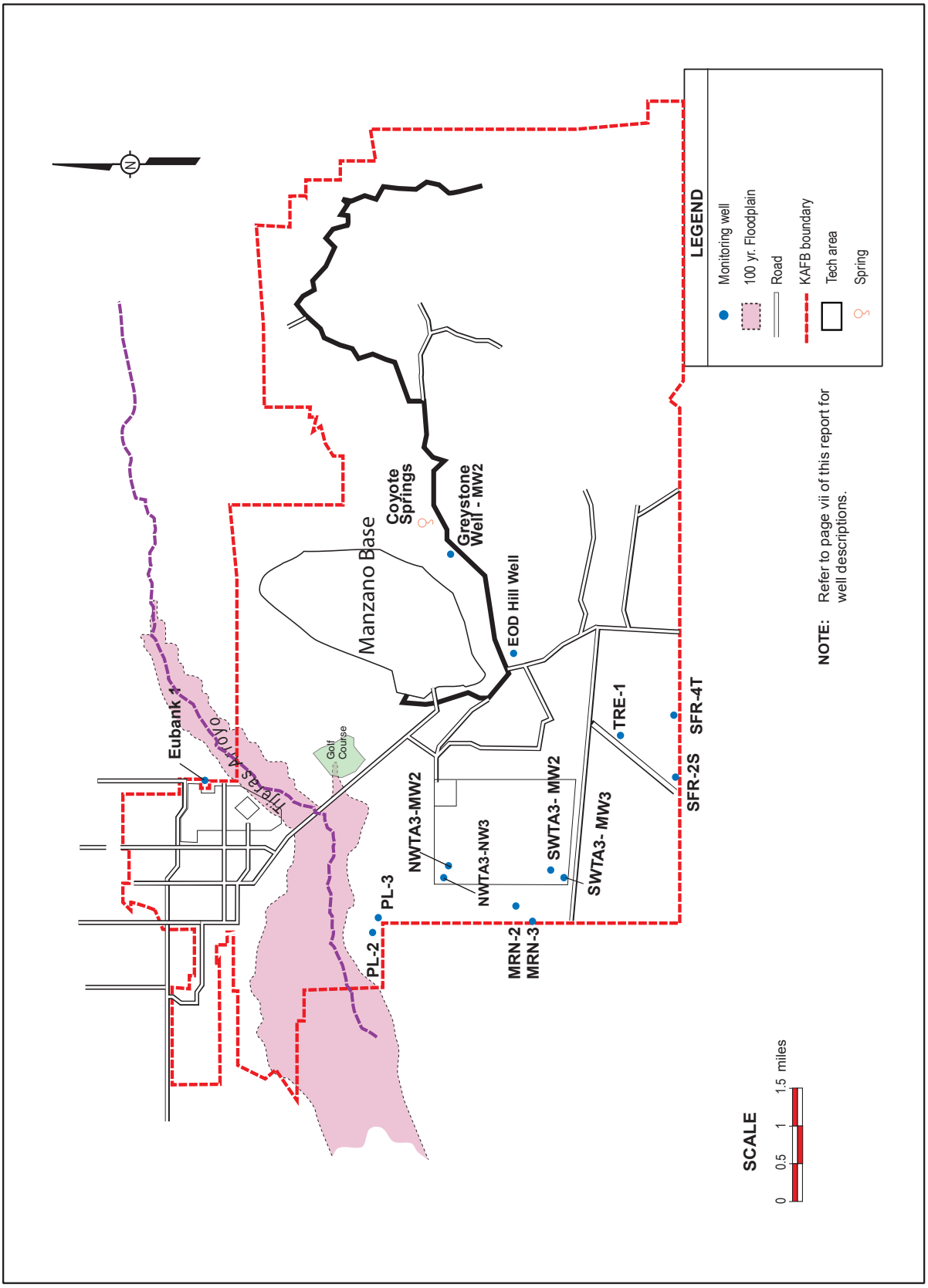

FIGURE 3-2. Groundwater Protection Program (GWPP) Water Quality Network

3.1.3 Sampling Protocols

The GWPP monitoring procedures, as conducted by the Groundwater Surveillance Task, are consistent with procedures identified in the EPA technical enforcement guidance document (EPA 1986). An overview of the GWPP sampling and data collection procedures is discussed in the following pages.

Field Water Quality Measurements

Field water quality measurements are made at the time of sample collection (Table 3-2). Groundwater is pumped to the surface and through a flow-through cell containing measurement probes for various field instruments. Consecutive measurements are made of temperature, pH, and specific conductance (SC) until these values are within the acceptance range of the stabilization parameters shown in Table 3-2. Stability indicates the effectiveness of the well purge in removing stagnant water from the well, and a representative groundwater sample can then be collected. In addition to groundwater stability measurements, other field parameters measured include turbidity, alkalinity, dissolved oxygen, and oxidation-reduction potential (E_H).

Sample Collection and Analysis

Groundwater samples are collected using a nitrogen gas powered portable piston pump (Bennett™). For wells where the casing size is too small to accept the portable pump, a disposable bailer is used (Appendix A, Table GWPP-A9). Monitor well NWTA3-MW2 is equipped with a dedicated low-flow sampling pump. With the exception of samples collected for VOC, mercury, and perchlorate analysis, samples are filtered through a 0.45-micron cartridge filter inserted in the pump discharge line. Samples are filtered to determine dissolved constituents in the groundwater to compare to NMWQCC groundwater standards, which are based on dissolved contaminants (20 NMAC 6.2). Filtered groundwater samples collected by a bailer are first poured into a clean 5-gallon glass container, passed through a filter cartridge using a peristaltic pump, and then collected in the sample container. Annual sampling is conducted for metals, VOCs, inorganics including nitrates, and radiological constituents. Four wells, MRN-2, MRN-3D, NWTA3-MW2 and SWTA3-MW4 were analyzed for perchlorate per the requirements of the COOC. EOD Hill groundwater samples were also analyzed for perchlorate to confirm the results of the previous sample analyses. Results are listed in Appendix A and discussed in Section 4.2.

Quality Assurance (QA) and Quality Control (QC) Procedures

SNL/NM's Sample Management Office (SMO) processes environmental samples collected by both the GWPP and the ER Project. The SMO reviews the SAP, orders sample containers, issues sample control and tracking numbers, tracks the chain-of-custody, and reviews analytical results returned from the labs for laboratory contract compliance (SNL 2003a). All groundwater samples are analyzed by off-site laboratories using EPA specified protocols.

TABLE 3-2. Field Parameters Measured at the Well Head

Field Parameter	Comments
•Potential of hydrogen (pH)	Stability measure: Four consecutive measures within 0.1 pH units
•Temperature (°C)	Stability measure: Four consecutive measures within 1° Celsius
•Specific Conductance (SC) (mmho/cm)	Stability measure: Four consecutive measurements within 5%
•Turbidity (NTU)	Measured in nephelometric turbidity units (NTUs)
•Alkalinity*	Measured in milliliters of calcium carbonate (ml CaCO3). Alkalinity titrations are performed in the field at the time of sample collection.
•Dissolved Oxygen (DO)	Percentage of saturation value and/or measured in milligrams per liter (mg/L)
•Oxidation-Reduction Potential (EH)	Measured in millivolts (mV)

NOTE: *Alkalinity results for field measurements are provided in Appendix A, Table GWS-A1 and laboratory derived alkalinity values are reported in Table GWS-A3 for comparison.

QC samples are collected in the field at the time of environmental sample collection. Field QC samples may include equipment blanks, duplicate samples, split samples, and trip blanks. Field QC samples are used to monitor the sampling process. Equipment blanks are used to verify sampling equipment decontamination procedures. Duplicate samples are used to measure the precision of the sampling process. Split samples are used to verify the performance of the analytical laboratory. Trip blanks are used to determine if VOCs contaminated the sample during preparation, transportation, or handling prior to receipt by the analytical laboratory. QC samples are also prepared at the laboratory to determine if contaminant chemicals are introduced in laboratory processes and procedures. These include method blanks, laboratory control samples (LCSs), and matrix/surrogate spikes. Table 3-3 shows the seven types of QC samples that accompany groundwater quality samples in the sampling and analysis process. Reported laboratory analytical and QC data are reviewed against QA requirements specified in the data validation procedure (SNL 2003b).

3.2 Chemical Waste Landfill (CWL)

Primary COCs - TCE and chromium.
Monitoring Network - Nine monitoring wells were sampled in FY06.
Sampling Frequency - Semi-annual (modified): October 2005 and April 2006.

3.2.1 Site Background and Well Network

Site Background Information

The CWL is a 1.9-acre former disposal site at the southeast corner of TA-III. From 1962 until 1981, the CWL was used for the disposal of chemical, radioactive, and solid waste generated by SNL/NM research activities. From 1981 through 1985, only solid waste was disposed of at CWL. In addition, the CWL was used as a hazardous waste drum storage facility from 1981 to 1989. A comprehensive summary of the CWL disposal history is presented in the NMED-approved Closure Plan (SNL/NM 1992) and Landfill Excavation Voluntary Corrective Measure (LE VCM) Final Report (SNL/NM 2003c).

As part of the LE VCM, the CWL was excavated from September 1998 through February 2002. All former disposal areas were completely excavated, which resulted in the removal of more than 52,000 cubic yards of contaminated soil and debris. A final risk assessment, presented in the LE VCM Final Report (SNL/NM 2003c), demonstrates that the excavation and backfill materials meet the NMED-approved risk-based cleanup standards designed to protect human health and the environment (SNL/NM 2000). The LE VCM Final Report was approved by NMED on December 16, 2003.

TABLE 3-3. QC Sample Types for Groundwater Sample and Analysis

QC Sample Type	Description
FIELD QC	
Equipment blanks*	Determine the effectiveness of decontamination of the portable sampling pump (Bennett™) to ensure that cross-contamination did not occur between wells.
Duplicate samples	Establish the precision of sampling process.
Trip blanks	Deionized water samples submitted along with environmental samples to determine if contamination by VOC occurred during sample handling, shipment, or storage.
Field Blanks	To assess whether contamination of the VOC samples had resulted from ambient field conditions.
LABORATORY QC	
Method blanks	Determines contaminants introduced during the sample preparation and handling process in the laboratory.
Laboratory Control Samples (LCS)	Monitors the accuracy and precision of the lab's analytical method using laboratory prepared samples spiked with a known concentration of an analyte. These samples are analyzed in the same batch with the groundwater samples. LCS results are reported as a percent recovery.
Batch matrix spike samples and duplicate matrix spike samples	Measures the effects of chemical spikes added to an existing sample to determine the sample matrix effect. (The matrix is the groundwater.)

NOTE: *Equipment blanks are done for selected wells only.
QC = Quality Control
VOC = volatile organic compounds

Current Monitoring Network
In FY06, the monitoring network at CWL consisted of 13 active wells, as shown in Figure 3-3 and listed in Table 3-4. A total of nine monitoring network wells were sampled in FY06; including two background wells and seven downgradient monitoring wells.

Monitoring History
To comply with RCRA interim permit groundwater monitoring requirements (40 CFR 265 Subpart F), DOE and Sandia Corporation installed five groundwater monitor wells during the summer of 1985. In response to a Notice of Violation (NOV) from NMED with regard to the inadequate design and construction of the 1985 wells, four of these wells were plugged and abandoned in 1997. In 1988, four additional monitoring wells were installed. In 1990, an additional downgradient well was installed. In 1994, seven more monitoring wells were installed. To complete the on-going chromium assessment, NMED requested installing two additional deep monitoring wells to be monitored for eight quarters. These wells were installed in March and April 2003 with NMED direction regarding location, construction, and well screen placement in the regional aquifer. Monitoring well CWL-MW2A was plugged and abandoned on June 8, 2004 due to well integrity issues.

Until 1990, all groundwater sampling at CWL was conducted on a quarterly basis in accordance with 40 CFR 265.92(c)(1). In 1990, NMED granted a reduction in the sampling frequency from quarterly to semi-annually for groundwater contamination indicator parameters and annually for groundwater quality parameters, as allowed by 40 CFR 265.92(d)(2), since no contaminants had been detected above EPA drinking water standards in any well. In the following sampling quarter (March 1990), TCE was detected above the drinking water standard of 5 µg/L in CWL-MW2A. Additionally, two indicator parameters (pH and SC) also exceeded state guidelines. Two months later, VOCs were re-sampled and the presence of TCE was confirmed. NMED reinstated the quarterly sampling requirement, and, thereafter, all indicator parameters were re-sampled in accordance with 40 CFR 265.93(c)(2).

In 1995, Appendix G of the Closure Plan was revised and updated as part of a Closure Plan Modification Request submitted to NMED on June 30, 1995. In May 2000, NMED partially approved the revised Appendix G, which included reducing the groundwater sampling frequency from quarterly to semi-annually at CWL for VOCs and metals and reducing Appendix IX sampling from annually to semi-annually. This eliminated sampling for pesticides, dioxins, and furans from the semi-annual Appendix IX sampling event.

In December 2003, NMED presented general groundwater characterization requirements (Kieling 2003). In March 2004, these requirements were further discussed, and it was agreed that seven sampling events will use the conventional sampling method (on all CWL monitoring wells with a large enough diameter to accommodate the conventional method equipment). The original NMED comments and the negotiated agreements regarding the required number of events are documented in the CWL CMS Comment Response Document (SNL 2004a).

3.2.2 Regulations
The CWL at SNL/NM is an interim status landfill being closed under 20.4.1.600 New Mexico Administrative Code (NMAC), incorporating 40 Code of Federal Regulations (CFR) 265 Subpart G and the CWL Final Closure Plan and Postclosure Permit Application ([Closure Plan], SNL/NM 2003d). Monitoring details, such as specific analytes and sampling frequencies, are defined in Appendix G of the Post Closure Permit document, SAP for Groundwater Assessment Monitoring at the CWL, and Chemical Waste Landfill Corrective Measures Study, Remedial Action Proposal, Post Closure Plan (SNL 2003e).

3.2.3 Sampling Protocols
Sampling at CWL is conducted on a semi-annual basis. An overview of the sampling protocols for CWL is discussed below.

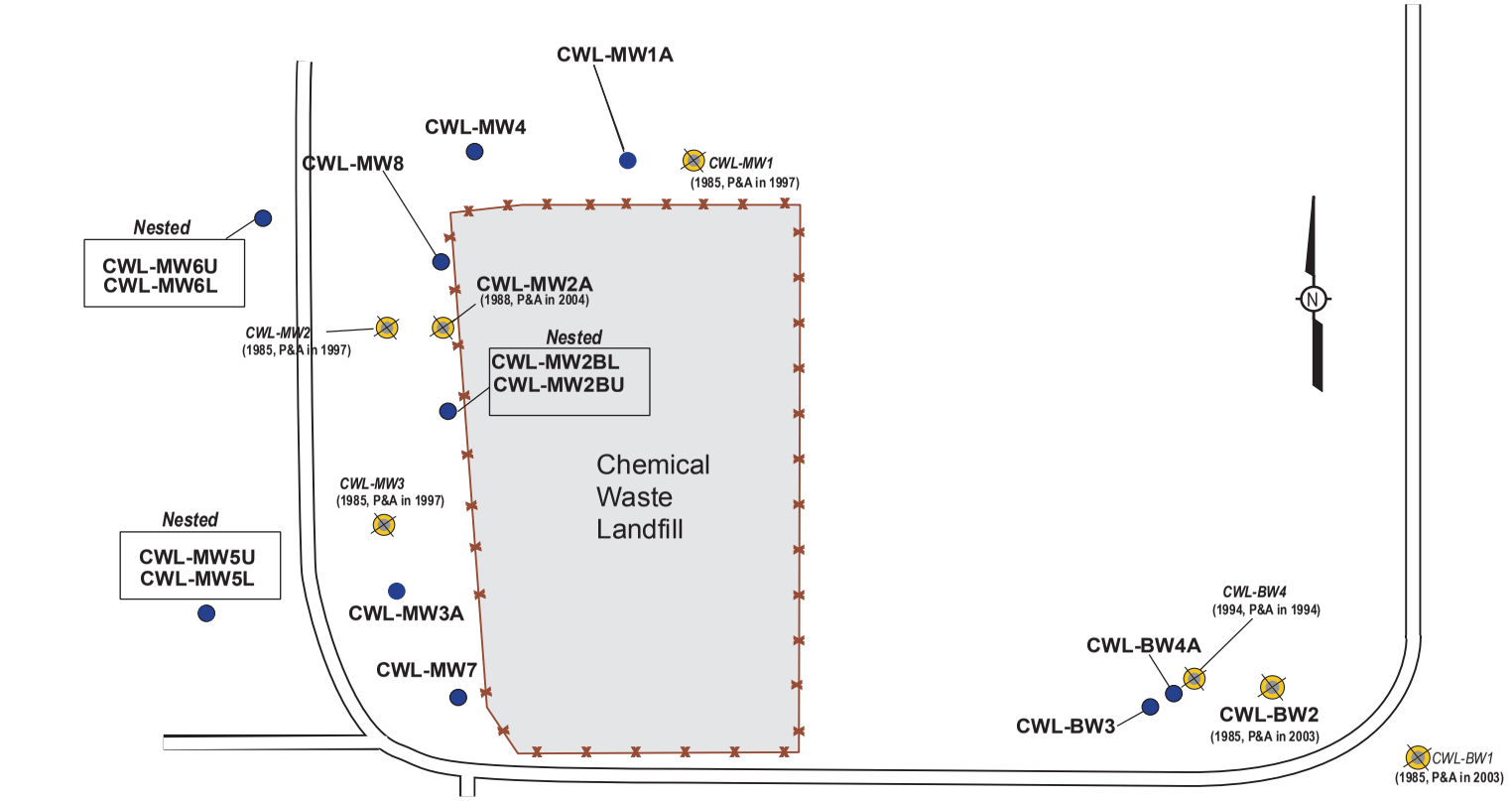

FIGURE 3-3. Chemical Waste Landfill (CWL) Monitoring Well Locations (11 active wells)

TABLE 3-4. Monitoring Wells at the CWL

Well[1]	Installation Year	WQ	WL	Comments
CWL-MW1A	1988			Dry well (filled with sediment during VE VCM)
CWL-MW3A	1988			Dry well (filled with sediment during VE VCM)
CWL-BW3	1988	✓	✓	Background well
CWL-MW4	1990	✓	✓	
CWL-MW2BU	1994	✓	✓	Upper section of nested well
CWL-MW2BL	1994	✓	✓	Lower section of nested well
CWL-MW5U	1994	✓	✓	Upper section of nested well
CWL-MW5L	1994	✓	✓	Lower section of nested well
CWL-MW6U	1994	✓	✓	Upper section of nested well
CWL-MW6L	1994	✓	✓	Lower section of nested well
CWL-BW4A	1994	✓	✓	Background well
CWL-MW7	2003		✓	Deep monitoring well
CWL-MW8	2003		✓	Deep monitoring well

NOTE: [1] Refer to page xi of this report for well descriptions.
Checkmarks in the water quality (WQ) and water level (WL) columns indicate WQ sampling and WL measurements in FY04.
CWL = Chemical Waste Landfill

QA and QC Procedures
Sample QA procedures for groundwater samples are managed through SNL/NM's SMO, as described in Section 3.1.3. QC field samples and QC laboratory samples that were conducted for CWL samples are described in Table 3-3.

Field Water Quality Measurements
Field water quality parameters are measured prior to sampling to determine the effectiveness of well purging. In accordance with Appendix G of the CWL Final Closure Plan, wells are pumped until parameters fall within a specified stability range. Field quality parameters include temperature, specific conductivity, oxidation-reduction, pH, turbidity, and dissolved oxygen.

Sample Collection and Analysis
A portable Bennett™ groundwater sampling system was used to collect samples in all wells, except CWL-MW2BU, CWL-MW5L, and CWL-MW6L. Since these are small diameter wells, less than 2-inches, dedicated low-flow sampling systems (manufactured by QED Micro Purge™) were used to collect samples.

During FY06, groundwater samples were submitted for Appendix IX VOCs, Appendix IX metals plus iron, Appendix IX SVOCs, Appendix IX chlorinated herbicides, PCBs, cyanide, sulfide, and dissolved chromium analyses. All results are listed in Appendix B and discussed in Section 4.3.

3.3 Mixed Waste Landfill (MWL)

Primary COC - The primary COC in soils at MWL is tritium. Tritium has not been detected in the groundwater at the MWL.
Monitoring Network - Seven monitoring wells, including one background well, five downgradient wells, and one on-site well.
Sampling Frequency - Annually (April 2006)

3.3.1 Site Background and Well Network

Site Background Information
MWL is located at TA-III, four miles south of SNL/NM central facilities and five miles southeast of AIA. The landfill is a fenced, 2.6-acre area in the north-central portion of TA-III. MWL was established in 1959 as a disposal area for low-level radioactive waste generated by SNL/NM research facilities. The landfill accepted low-level radioactive waste and minor amounts of mixed waste from March 1959 through December

1988. Approximately 100,000 ft^3 of low-level radioactive waste containing approximately 6300 curies (Ci) of activity were disposed of in the landfill.

MWL consists of two distinct disposal areas: the classified area (occupying 0.6 acres) and the unclassified area (occupying 2.0 acres). Low-level radioactive and mixed waste was disposed of in each of these areas. Classified wastes were buried in unlined, cylindrical pits in the classified area. Unclassified wastes were buried in shallow, unlined trenches in the unclassified area.

A Phase 1 RCRA Facility Investigation (RFI) was conducted in 1989 and 1990 to determine if a release of RCRA contaminants had occurred at the MWL. The Phase 1 RFI indicated that tritium had been released to the environment. A Phase 2 RFI was conducted from 1992 to 1995 to determine the contaminant source, define the nature and extent of contamination, identify potential contaminant transport pathways, evaluate potential risks, and provide remedial action alternatives for the landfill.

The Phase 2 RFI confirmed tritium as the COC. Tritium occurs in surface and near surface soils in and around the classified area of the landfill. Tritium levels range from 1100 pCi/g in surface soils to 206 pCi/g in subsurface soils. The highest tritium levels have been found within 30 ft bgs in soils adjacent to and directly below classified area disposal pits. At depths greater than 30 ft bgs, tritium levels decrease rapidly. Tritium has also been identified as a diffuse air emission from the landfill and is emitted from the landfill at a rate of 0.09 pCi/yr (Anderson 2004).

Current Monitoring Network
MWL has a monitoring network of seven wells shown in Figure 3-4 and listed in Table 3-5. The monitoring network includes one background well, five downgradient wells, and one on-site well. Annual sampling of all MWL wells was conducted in April 2006 for VOCs, target analyte list (TAL) metals and total uranium, nitrate plus nitrite (NPN), major ions, tritium, gross alpha/beta radioactivity, and gamma-emitting radionuclides.

The on-site well MWL-MW4 was drilled at a six-degree angle from vertical and is screened in two completion zones directly beneath Trench D, a trench in the northern half of the unclassified area of the landfill. The lower zone is sealed off with an inflatable packer, which hydraulically isolates the two zones. The upper completion zone is currently monitored for water quality and water levels; the lower zone is not monitored at this time.

Monitoring History
Quarterly sampling was conducted from September 1990 through January 1992. Semi-annual sampling was conducted from January 1992 through 1995. Annual sampling has been conducted from April 1996 to present. Wells MWL-MW5 and MWL-MW6 were installed in 2000 and were sampled quarterly for eight quarters through October 2002, prior to switching to annual sampling. All MWL wells are currently sampled annually in April.

3.3.2 Regulations
MWL is regulated by NMED as a SWMU in accordance with the protocols given in 40 CFR 264, "Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities." Subpart F, "Releases From Solid Waste Management Units," describes groundwater monitoring activities.

3.3.3 Sampling Protocols
All MWL wells were sampled in April 2006. An overview of MWL sampling and data collection procedures is discussed in the following sections.

Field Water Quality Measurements
Field water quality parameters are measured prior to sampling to determine the effectiveness of well purging. As discussed in Section 3.1.3 and listed in Table 3-2, the wells are purged until parameters are consistent within a specified stability range.

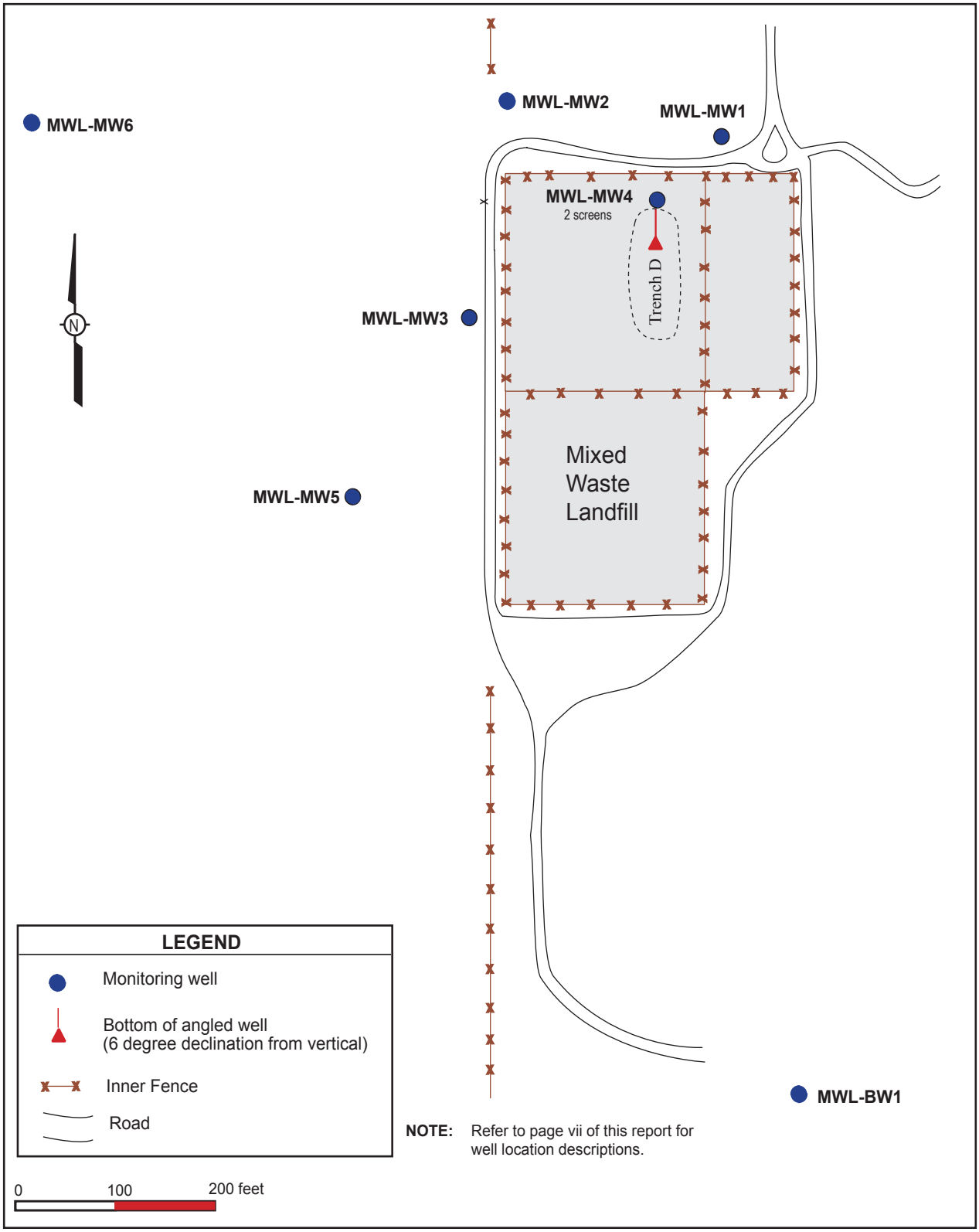

FIGURE 3-4. Mixed Waste Landfill (MWL) Monitoring Well Locations

TABLE 3-5. Monitoring Wells at the MWL

Well [1]	Installation Year	WQ	WL	Comments
MWL-BW1	1989	✓	✓	Background well (Cross-gradient)
MWL-MW1	1988	✓	✓	
MWL-MW2	1989	✓	✓	
MWL-MW3	1989	✓	✓	
MWL-MW4	1993	✓	✓	On-site well, 6 degree angled, dual completion
MWL-MW5	2000	✓	✓	
MWL-MW6	2000	✓	✓	

NOTE: [1] Refer to page xi of this report for well descriptions.
Checks in the water quality (WQ) and water level (WL) columns indicate WQ sampling and WL measurements in FY06.
MWL = Mixed Waste Landfill

Sample Collection and Analysis
With the exception of MWL-MW4, which has a dedicated Bennett™ pump, all other MWL wells are sampled with a portable Bennett™ pump. The pump and tubing bundle are decontaminated prior to sampling each well. Each well is either purged to dryness (if recovery is slow) or purged until parameters stabilize (typically two to three casing volumes). Groundwater samples from MWL wells were collected and shipped using analysis request/chain of custody protocol. Samples were analyzed for VOCs, TAL metals and total uranium, NPN, major ions, tritium, gross alpha/beta radioactivity, and gamma-emitting radionuclides. Groundwater analytical results from FY06 are listed in Appendix C and discussed in Section 4.4.

QA and QC Procedures
Sample QA procedures for groundwater samples are managed through the SNL/NM SMO as described in Section 3.1.3. QC field samples and QC laboratory samples are described in Table 3-3.

3.4 Technical Area V (TA-V)

Principal COCs for Groundwater Contamination - TCE and nitrate.
Monitoring Network - 13 wells were sampled in FY06.
Sampling Frequency - Quarterly: November/December 2005, January/February/March 2006, May 2006, and August/September 2006.

3.4.1 Site Background and Well Network

Site Background Information
The two primary areas of investigation in TA-V are the TA-V Seepage Pits and the LWDS, which are shown in Figure 3-5. The TA-V Seepage Pits (SWMU 275) are comprised of two septic tanks connected to six seepage pits. In the past, at least six buildings at the south end of TA-V had sewer lines connected to the seepage pits. The system operated from the early 1960s up to 1992, at which time the sewer lines were connected to the COA sewer system. It is estimated that as much as 3,000 to 5,000 gals of water were disposed of at the pits on a daily basis. The TA-V Seepage Pits have been proposed and accepted by NMED for No Further Action (NFA).

The LWDS was designed to receive, monitor, and discharge radioactive effluent from the Sandia Experimental Reactor Facility (SERF) in TA-V. The system consists of three individual SWMUs: LWDS Holding Tanks (SWMU 52); LWDS Drainfield (SWMU 5); and LWDS Surface Impoundments, including the discharge lines connecting to the impoundments (SWMU 4). The LWDS Surface Impoundments consist of two unlined impoundments. Starting in 1963, radioactive discharges drained to the LWDS Holding Tanks, where they were monitored, then pumped to the LWDS Drainfield. When the drainfield collapsed in 1967, discharges were directed to the LWDS Surface Impoundments. Radioactive discharges continued until 1971 when SERF was decommissioned. Non-radioactive discharges continued until 1992. From 1963 until 1971, the system

received about 19 million gals of wastewater contaminated with 35 Ci of radionuclides. Approximately 6.5 million gallons went to the drainfield, with the remainder going to the surface impoundment. The LWDS Drainfield (SWMU 5) and the LWDS Surface Impoundments (SWMU 4) have been proposed for NFA, pending approval by NMED. The LWDS Holding Tanks (SWMU 52) are still in use and on the active site list.

Current Network
The 13 wells in the TA-V monitoring network are used to monitor water quality and/or water levels (Figure 3-5, Table 3-6).

Monitoring History
Groundwater monitoring at TA-V began in October 1992. TCE was first detected in LWDS-MW1 in October 1993 and was later detected in TAV-MW1 in September 1995. TCE concentrations in LWDS-MW1 have consistently exceeded the MCL of 5 mg/L. In FY98, TCE was detected at very low, non-quantifiable levels in TAV-MW4. In FY06, TCE was detected above the MCL in LWDS-MW1 during all four sampling events, TAV-MW1 during two sampling events, and TAV-MW6 during one sampling event. Levels of nitrate above the MCL have been detected in LWDS-MW1 during three FY06 sampling events, and in TAV-MW1 during one sample event. Potential sources for TCE in groundwater include both the LWDS and the TA-V Seepage Pits.

3.4.2 Regulations
Groundwater monitoring activities at TA-V are conducted in accordance with the protocols in 40 CFR 264, "Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities." Subpart F, "Releases from Solid Waste Management Units," defines the groundwater monitoring activities. Groundwater monitoring at TA-V was initiated to satisfy the requirements of SNL/NM's HSWA permit for characterization of SWMUs and is currently conducted per the requirements of the COOC. The groundwater monitoring activities for the TA-V investigation are not associated with a single SWMU, but are more regional in nature and have historically been conducted on a voluntary basis by the ER Project. Initially, groundwater monitoring activities at TA-V were initiated to satisfy the requirements of the SNL/NM HSWA permit for characterization of SWMUs.

The COOC, effective April 29, 2004, transferred regulatory authority for corrective action of SWMU and areas with groundwater contamination from the HWSA module to the COOC. The TA-V investigation must comply with requirements set forth in the COOC for site characterization and the development of a CME for this groundwater area of concern (AOC). The COOC also contains schedules that define dates for the delivery of plans and reports related to TA-V. NMED HWB is the regulatory agency responsible for enforcing the requirements identified in the COOC for the TA-V CME.

In response to the requirement for completing a CME, DOE/NNSA and Sandia Corporation submitted the following TA-V documents to NMED: (1) Current Conceptual Model of Groundwater Flow and Contaminant Transport at Sandia National Laboratories Technical Area-V (SNL/NM 2004b), (2) Corrective Measures Evaluation Work Plan Technical Area-V (SNL/NM 2004c), and (3) Corrective Measures Evaluation Report for Technical Area-V Groundwater (SNL/NM 2005a).

The Current Conceptual Model of Groundwater Flow and Contaminant Transport at Sandia National Laboratories Technical Area-V document provided site-specific characteristics by which remedial alternatives were evaluated. The Corrective Measures Evaluation (CME) Work Plan Technical Area-V document was completed to comply with requirements set forth in the COOC, with the guidance of the RCRA Corrective Action Plan (EPA 1994). This work plan provided a description and justification by which remedial alternatives were considered, and the methods and criteria used in the evaluation were to be determined.

In support of the selected remedy, the CME Report included the following documents as attachments: (1) Conceptual Model Update: Contaminant Distribution in Groundwater, (2) Remedial Alternatives Data

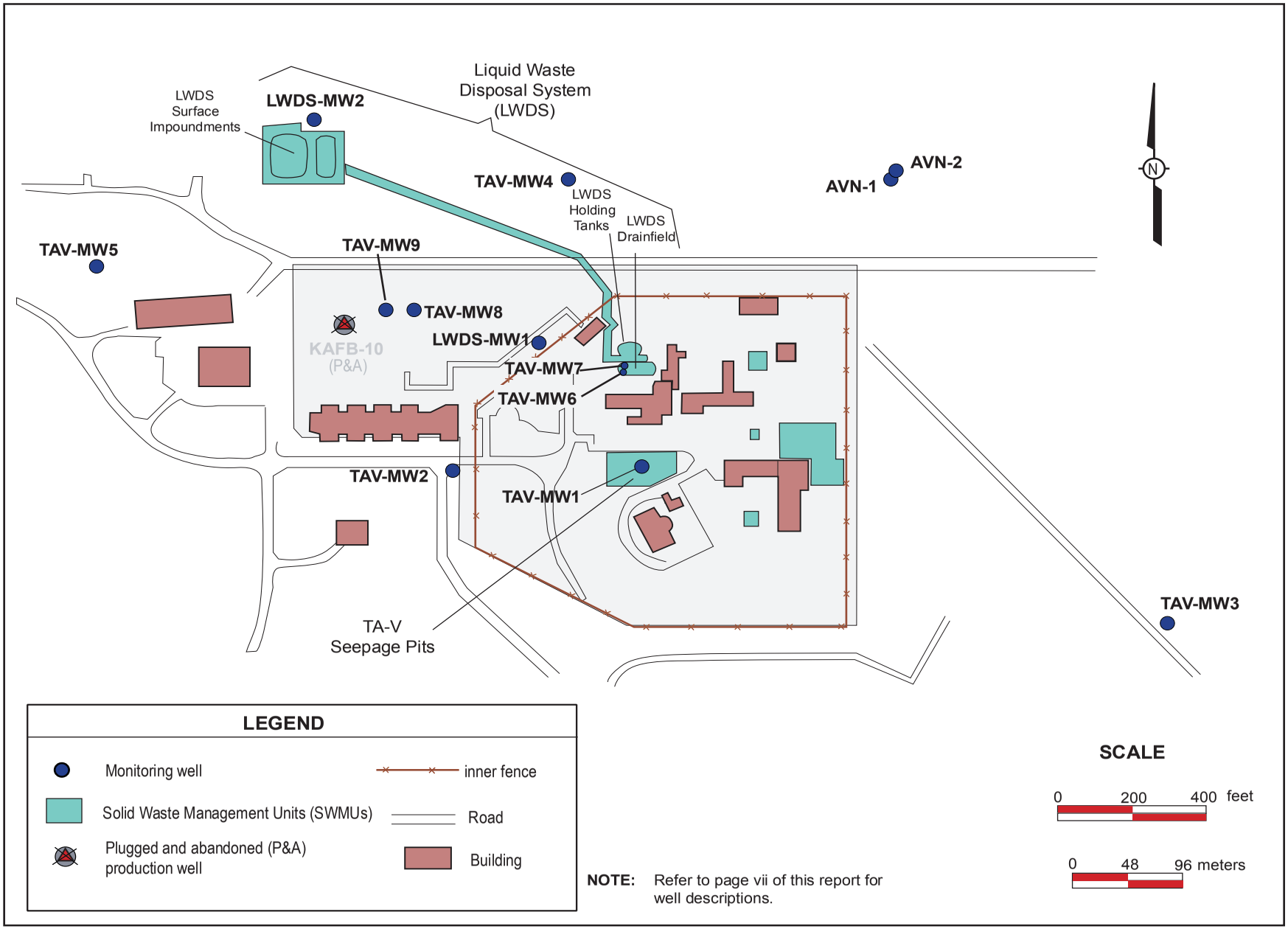

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FIGURE 3-5. Tech Area V Monitoring Well Locations (13 Active Wells)

TABLE 3-6. Monitoring Wells at TA-V

Well [1]	Installation Year	WQ	WL	Comments
LWDS-MW2	1992	✓	✓	Regional aquifer
LWDS-MW1	1993	✓	✓	Regional aquifer
AVN-1	1995	✓	✓	Regional aquifer
AVN-2	1995	✓	✓	Regional aquifer
TAV-MW1	1995	✓	✓	Regional aquifer
TAV-MW2	1995	✓	✓	Regional aquifer
TAV-MW3	1997	✓	✓	Regional aquifer
TAV-MW4	1997	✓	✓	Regional aquifer
TAV-MW5	1997	✓	✓	Regional aquifer
TAV-MW6	2001	✓	✓	Regional aquifer, water table completion
TAV-MW7	2001	✓	✓	Regional aquifer, deep completion (597-617 ft)
TAV-MW8	2001	✓	✓	Regional aquifer, water table completion
TAV-MW9	2001	✓	✓	Regional aquifer, deep completion (582-602 ft)

NOTE: [1] Refer to page xi of this report for well descriptions.
Checkmarks in the water quality (WQ) and water level (WL) columns indicate WQ sampling and WL measurements made in FY06.

Gaps Review, (3) Evaluation of Contaminant Transport in Groundwater, (4) Investigation of Contaminant Biodegradation, and (5) Evaluation of Intrinsic Aerobic Degradation Mechanism (SNL/NM 2005a).

3.4.3 Sampling Protocols

Sampling at TA-V is conducted on a quarterly basis. An overview of the sampling protocols is discussed below.

Field Water Quality Measurements

Field water quality parameters are measured prior to sampling to determine the effectiveness of well purging. As discussed in Section 3.1.3 and listed in Table 3-2, the wells are pumped until the parameters fall within a specified stability range.

Sample Collection and Analysis

All wells in the TA-V investigation were sampled using conventional purging/sampling techniques (using a Bennett™ pump) and following procedures outlined in the COOC. In accordance with SNL/NM Field Operating Procedure (FOP) 94-48, each monitoring well was purged to remove stagnant well casing water prior to sample collection. Quarterly groundwater samples collected from all wells were analyzed for VOCs and NPN (as nitrogen). Additional samples were collected from various wells and analyzed for PCBs, anions (such as bromide, chloride, fluoride, and sulfate), TAL metals, tritium, gross alpha, gross beta, and gamma spectroscopy. All results are listed in Appendix D and discussed in Section 4.5.

QA and QC Procedures

Sample QA procedures for groundwater samples are managed through SNL/NM's SMO as described in Section 3.1.3. QC field samples and QC laboratory samples that were conducted for TA-V samples are described in Table 3-3.

3.5 TAG Investigation

Principal COCs for Groundwater Contamination - TCE and nitrate.
Monitoring Network - 27 wells screened within the perched GWS or regional aquifer (including COA monitoring wells: Eubank-1, Eubank-2, Eubank-3, and Eubank-5).
Sampling Frequency - Quarterly/semi-annually/annually: October/November 2005, January 2006, April/May 2006, and July/August 2006.

3.5.1 Site Background and Well Network

Site Background Information

The TAG investigation collectively includes sites located in TAs I, II, IV, and along Tijeras Arroyo, including neighboring property owned by KAFB and COA. The site history of the TAG investigation area is complex. Since the late 1920s, there have been multiple tenants and facilities located in the area that have conducted a wide variety of activities. Many had the potential to contribute to groundwater contamination, which makes determining the sources of contaminants in the groundwater difficult, if not impossible. Source determination is further complicated by past operations at KAFB and by COA, as well as COA sewer lines currently in use.

In early 1928, the first airport in Albuquerque was constructed where TAs I and II are currently located. In the spring of 1942, during a dismantling operation, 2,250 military aircraft were dismantled adjacent to the runways. In July 1945, the "Z Division" of the Manhattan Engineers District, an extension of the original Los Alamos Laboratories, was established as the forerunner of SNL/NM. At that time, the primary mission of Z Division was to provide engineering, production, stockpiling, and testing support for nuclear weapons components and systems. In the summer of 1949, the major weapons production was transferred to other manufacturing facilities, and the early work of SNL/NM was concentrated on prototype research and the manufacture of experimental devices. Since 1949, SNL/NM has grown from a factory-style ordnance facility to a national laboratory dedicated to research, development, and testing of both defense and non-defense components. The current work performed in TAs I and II can be divided into four main types: nuclear weapon, non-nuclear weapon, technical support, and special research and development. Numerous SNL/NM facilities may have had a potential to release hazardous materials to the soil and groundwater; however, the current research-oriented mission of most SNL/NM laboratories has resulted in an inventory of numerous chemicals in small quantities, which are generally stored and used indoors.

Current Monitoring Network

The TAG Investigation has a monitoring network of 27 active wells as listed in Table 3-7 and shown in Figure 3-6. Twelve wells are completed in the perched GWS, and 15 wells are completed in the regional aquifer. The wells in the TAG monitoring network are used to monitor water quality and/or water levels also listed in Table 3-7.

Beginning in October 2000, meetings of the TAG High Performance Team (HPT) served as a forum for discussing TAG issues. During these meetings, members of the HPT have declared that all groundwater analytical results collected using low-flowing sampling devices are suspect. Based on this perceived inadequacy of the sampling method, TAG quarterly groundwater sampling was suspended until an alternative sampling method could be implemented. In June 2003, SNL/NM submitted the TAG Investigation Work Plan (SNL 2003f) to NMED. This work plan presented a comprehensive scope of work for groundwater investigations that are being jointly conducted by SNL/NM, KAFB, and COA. Based on the requirements of the work plan, quarterly groundwater sampling resumed in July 2003 using conventional groundwater purging/sampling techniques. NMED approved the TAG Investigation Work Plan in September 2003 (NMED 2003). The six quarterly sampling events required by the work plan were completed at the end of FY05. Since that time, TAG wells have been sampled quarterly, semi-annually, or annually; however, all FY06 sampling continued to follow the procedures outlined in the NMED-approved work plan.

Monitoring History

In 1992 and 1993, three monitoring wells were installed as part of the groundwater quality investigations initiated in TA-II. A perched GWS was encountered at a depth of approximately 320 ft bgs. Two of the original wells were completed in this perched GWS. The third well was completed in the regional aquifer at a depth of approximately 530 ft bgs. In October 1994, analytical results from a perched GWS well identified TCE at a concentration of 1.0 µg/L, as compared to the MCL of 5.0 µg/L. In 1995, TCE was again identified in a perched GWS well at a concentration of 1.6 µg/L. Subsequently, a groundwater sample from a well located west of TA-II (on KAFB property) produced a TCE concentration of 8.1 µg/L. Additional investigations were prompted to identify the source of TCE. The ER Project established a separate task called Sandia North (since

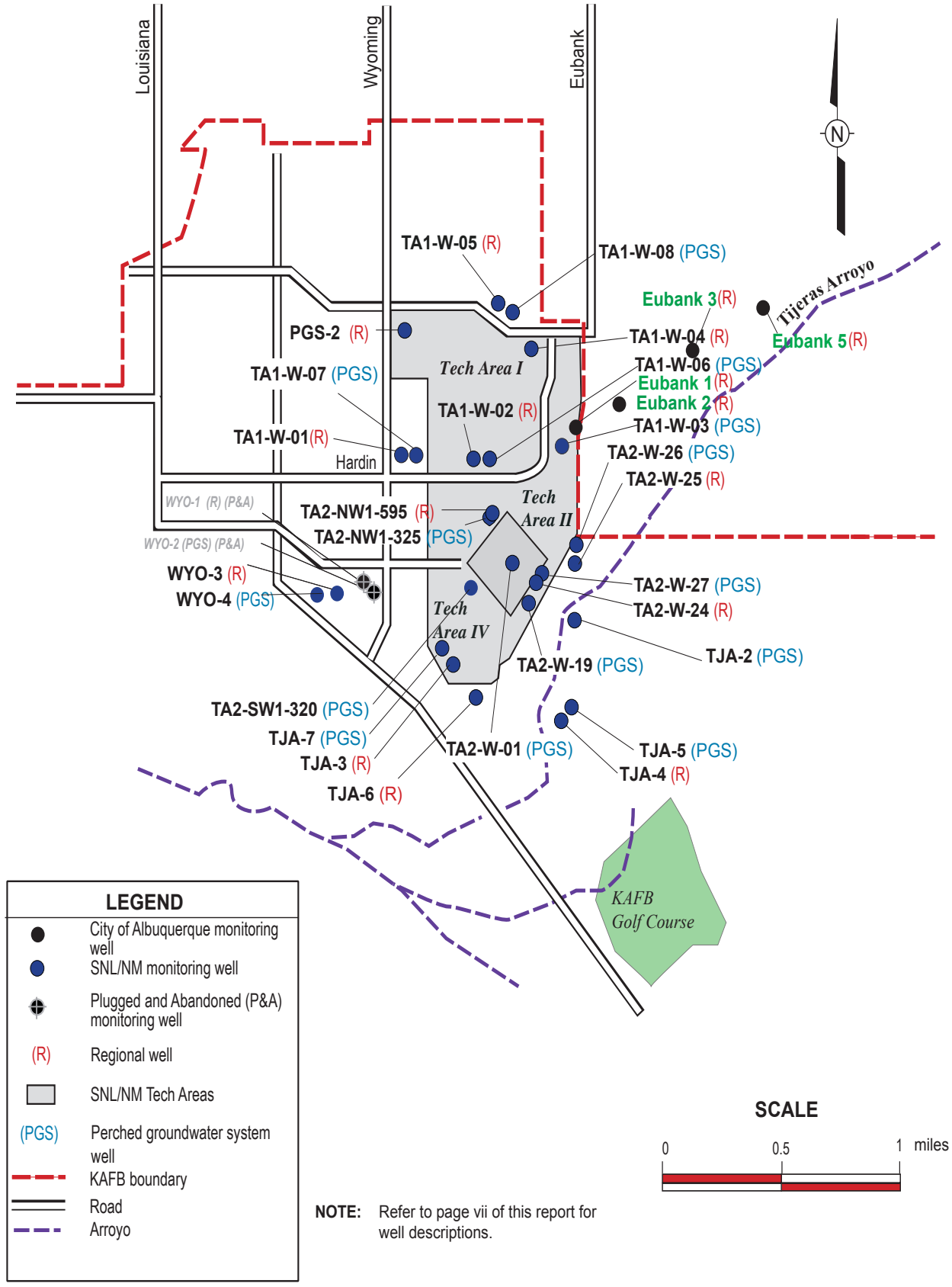

FIGURE 3-6. Tijeras Arroyo Groundwater (TAG) Investigation Monitoring Well Locations (30 active wells)

TABLE 3-7. Monitoring Wells in the TAG Investigation Area

Well [1]	Installation Year	WQ	WL	Comments
Eubank-1	1988		✓	Regional aquifer (COA well)
Eubank-2	1997		✓	Regional aquifer (COA well)
Eubank-3	1997		✓	Regional aquifer (COA well)
Eubank-5	1997		✓	Regional aquifer (COA well)
PGS-2	1995	✓	✓	Regional aquifer
TA1-W-01	1997	✓	✓	Regional aquifer
TA1-W-02	1998	✓	✓	Regional aquifer
TA1-W-03	1998	✓	✓	Perched aquifer
TA1-W-04	1998	✓	✓	Regional aquifer
TA1-W-05	1998	✓	✓	Regional aquifer
TA1-W-06	1998	✓	✓	Perched GWS
TA1-W-08	2001	✓	✓	Perched GWS
TA2-NW1-595	1993	✓	✓	Regional GWS
TA2-SW1-320	1992	✓	✓	Perched GWS
TA2-W-01	1994	✓	✓	Perched GWS
TA2-W-19	1995	✓	✓	Perched GWS
TA2-W-25	1997		✓	Regional GWS
TA2-W-26	1998	✓	✓	Perched GWS
TA2-W-27	1998	✓	✓	Perched GWS
TJA-2	1994	✓	✓	Perched GWS
TJA-3	1998	✓	✓	Regional GWS
TJA-4	1998	✓	✓	Regional GWS
TJA-5	1998		✓	Perched GWS
TJA-6	2001	✓	✓	Regional GWS
TJA-7	2001	✓	✓	Perched GWS
WYO-3	2001	✓	✓	Regional GWS
WYO-4	2001	✓	✓	Perched GWS

NOTE: [1] Refer to page xi of this report for well descriptions.
Checkmarks in the water quality (WQ) and water level (WL) columns indicate WQ sampling and WL measurements in FY06.

changed to the current name of Tijeras Arroyo Groundwater) to plan and conduct groundwater characterization activities in the vicinity of TAs I and II, and Tijeras Arroyo. The investigation plans are documented in the Sandia North Groundwater Investigation Plan (GIP) (SNL 1996a). The results of the investigation were reported in the Tijeras Arroyo Groundwater Continuing Investigation Report (SNL 2002a).

3.5.2 Regulations

These activities are directed by the provisions of the SNL/NM HSWA permit. Oversight is provided by NMED's HWB. Groundwater characterization activities were originally conducted voluntarily as proposed in the GIP (SNL 1996a) and are currently conducted per requirements of the NMED-approved TAG Investigation Work Plan (SNL 2003f) and the COOC. The groundwater monitoring activities for the TAG investigation are not associated with a single SWMU, but are more regional in nature and have historically been conducted by the ER Project. Groundwater characterization activities for TAG were originally conducted voluntarily as proposed in the GIP (SNL/NM 1996a). More recently TAG activities were conducted per requirements of the NMED-approved TAG Investigation Work Plan (SNL/NM 2003f).

The NMED Order transferred regulatory authority for the investigation of SWMUs and areas with groundwater contamination from the HWSA module to the COOC. The TAG investigation must comply with requirements set forth in the COOC for site characterization and the development of a CME for this groundwater AOC. The COOC also contains schedules that define dates for the delivery of plans and reports related to TAG. The NMED HWB is the regulatory agency responsible for enforcing the requirements identified in the NMED Order for the TAG CME.

In response to the requirements for completing a CME, SNL/NM submitted the following TAG documents to the NMED: (1) CME Work Plan Tijeras Arroyo Groundwater (SNL/NM 2004d) and (2) CME Report for Tijeras Arroyo Groundwater (SNL/NM 2005b).

The CME Work Plan Tijeras Arroyo Groundwater document was completed to comply with requirements set forth in the COOC, with the guidance of the RCRA Corrective Action Plan (EPA 1994). The work plan provided a description and justification by which remedial alternatives were considered, and the methods and criteria to be used in the evaluation were determined.

In support of the selected remedy, the CME Report included the following documents as attachments: (1) Contaminant Distribution in Groundwater, (2) Remedial Alternatives Data Gaps Review, (3) Evaluation of Contaminant Transport in Groundwater, (4) Investigation of Anaerobic Biodegradation, and (5) Evaluation of Intrinsic Aerobic Degradation Mechanism (SNL/NM August 2005b).

3.5.3 Sampling Protocols

Sampling in the TAG Investigation area is conducted on a quarterly/semi-annual/annual basis. An overview of the sampling protocols is discussed below.

Field Water Quality Measurements

Field water quality parameters are measured prior to sampling to ensure that formation water is being sampled. As discussed in Section 3.1.3 and listed in Table 3-2, the wells are pumped until parameters fall within the specified stability range.

Sample Collection and Analysis

Wells in the TAG investigation were sampled using conventional purging/sampling techniques (using a Bennett™ pump) and following procedures originally outlined in the TAG Investigation Work Plan (SNL 2003f). Due to well completion restrictions, wells PGS-2 and TA2-SW1-320 could not be purged and sampled by conventional methods. Low-flow sampling methods were used to purge and sample groundwater at these two locations. Groundwater samples were analyzed for VOCs, NPN (as nitrogen), anions, total metals, PCBs, tritium, gross alpha, gross beta, and gamma spectroscopy. All analytical results are listed in Appendix E and discussed in Section 4-6.

QA and QC Procedures

Sample QA procedures for groundwater samples are managed by SMO as described in Section 3.1.3. QC field samples and QC laboratory samples that were collected and analyzed for the TAG investigation are described in Table 3-3.

3.6 Burn Site Goundwater

Principal COCs for Groundwater Contamination - Nitrate and petroleum hydrocarbons.
Monitoring Network - Six monitoring wells, one production well, and two alluvial piezometers.
Sampling Frequency - Quarterly: December 2005, March 2006, June 2006, and September 2006.

3.6.1 Site Background and Well Network

Site Background Information

The Burn Site Groundwater (formerly know as Canyons) Study Area centers around the active Burn Site Facility in Lurance Canyon. This facility is used to conduct thermal testing using JP-4 fuel. Large burns are performed in lined pools on various components, such as very large shipping containers. A release of petroleum hydrocarbons from the area is indicated by groundwater monitoring results, although no constituents presently exceed MCLs.

Current Monitoring Network

There are six groundwater monitoring wells completed in a bedrock aquifer, one non-potable production well

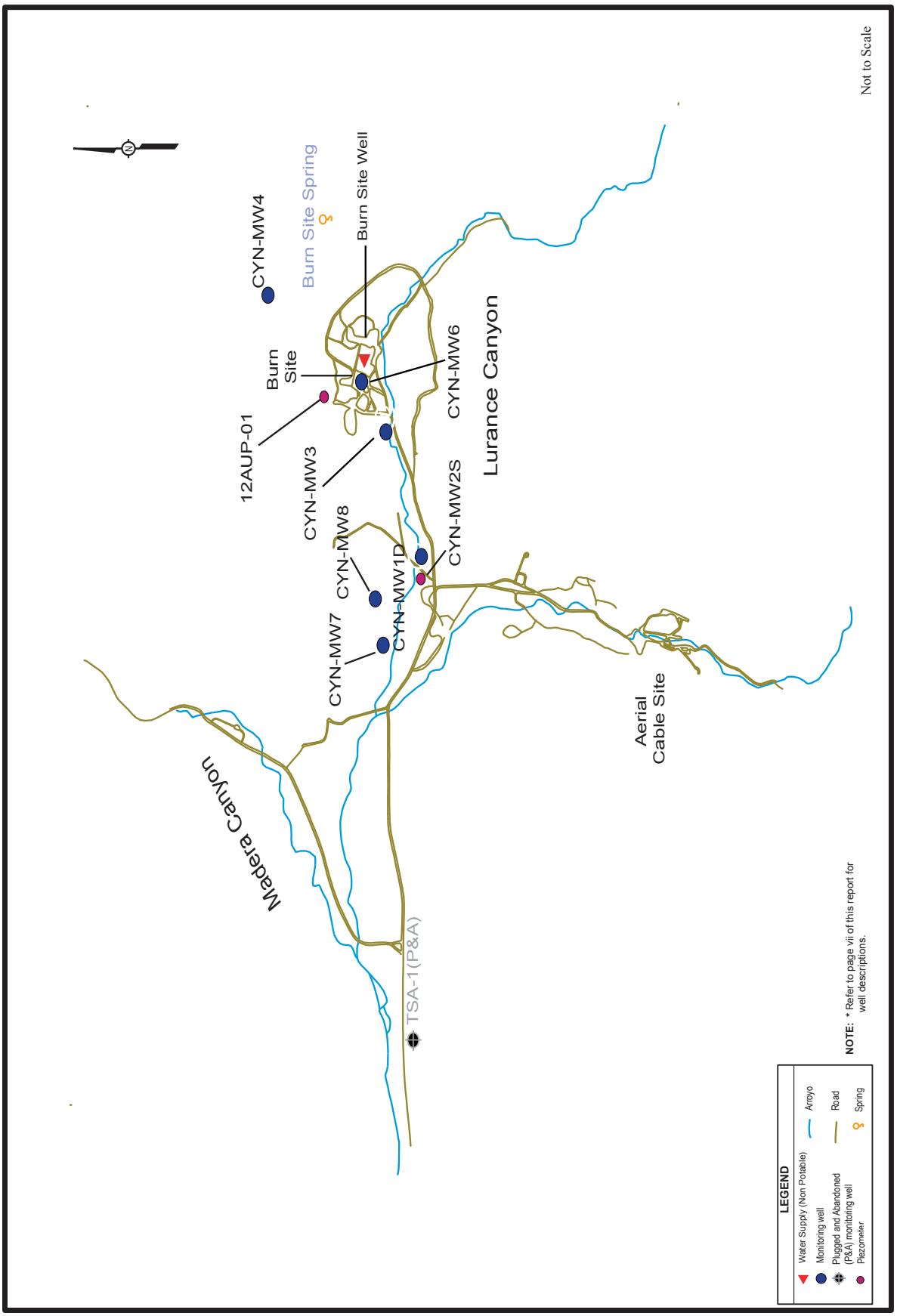

FIGURE 3-7. Wells and Piezometers in the Burn Site Groundwater Study Area (six active wells)

TABLE 3-8. Wells and Piezometers at the Burn Site Groundwater Area

Well [1]	Installation Year	WQ	WL	Comments
12AUP-01	1997			Underflow piezometer (dry)
Burn Site Well*	1986			Utility water supply well
CYN-MW1D	1997	✓	✓	Bedrock groundwater well
CYN-MW2S	1997			Underflow piezometer (dry)
CYN-MW3	1999	✓	✓	Bedrock groundwater well
CYN-MW4	1999	✓	✓	Bedrock groundwater well
CYN-MW6	2006	✓	✓	Bedrock groundwater well
CYN-MW7	2006	✓	✓	Bedrock groundwater well
CYN-MW8	2006	✓	✓	Bedrock groundwater well

NOTE: *Not an Environmental Restoration (ER) well.
[1] Refer to page xi of this report for well descriptions.
Checkmarks in the water quality (WQ) and water level (WL) columns indicate WQ sampling and WL measurements in FY06.

completed in a bedrock aquifer, and two alluvial piezometers in the monitoring network for the Burn Site Groundwater Area, as shown on Figure 3-7. The wells in the Burn Site Groundwater monitoring network are used to monitor water quality and/or water levels (Table 3-8).

Monitoring History
In 1996, elevated nitrate readings of 27 mg/L were first encountered in the Burn Site Well. CYN-MW1D was installed in 1997 to determine the extent of the potential contamination. This monitoring well has revealed nitrate levels up to 28 mg/L in FY04 and detectable levels of petroleum hydrocarbons, but less than MCLs, where applicable. Two shallow piezometers (12AUP-01 and CYN-MW2S) were installed in 1997 to determine if any ephemeral flow was occurring at the alluvium-bedrock interface. Both piezometers have been predominately dry since they were installed. A downgradient well, CYN-MW3, and an upgradient well, CYN-MW4, were installed in 1999 to better define the nature and extent of the contamination at the site. In 2005 and 2006, three additional wells (CYN-MW6, CYN-MW7, and CYN-MW8) were installed at the request of NMED (discussed below). CYN-MW3 has revealed a maximum of 22 mg/L nitrate (as nitrogen) in FY01 and low levels of petroleum hydrocarbons. CYN-MW4 has revealed low levels of petroleum hydrocarbons and has not had any nitrate (as nitrogen) levels above the MCL.

3.6.2 Regulations
Groundwater monitoring activities at the Burn Site Groundwater Study Area are conducted in accordance with the protocols in 40 CFR 264, "Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities." Subpart F, "Releases From Solid Waste Management Units," defines the groundwater monitoring activities. Groundwater monitoring was initiated at the request of NMED and is currently a requirement of the COOC.

The groundwater monitoring activities for the Burn Site Groundwater Study Area are not associated with a single SWMU, but are more regional in nature and have historically been conducted by the ER Project on a volunteer basis. Initially, groundwater monitoring at Burn Site was initiated to satisfy the requirements of the SNL/NM HSWA permit for characterization of SWMUs.

The COOC transferred regulatory authority for the investigation of SWMUs and areas with groundwater contamination from the HWSA module to the COOC. Burn Site Groundwater must comply with requirements set forth in the COOC for site characterization and the development of a CME for this groundwater AOC. The COOC also contains schedules that define dates for the delivery of plans and reports related to Burn Site Groundwater, TAG, and TA-V. NMED HWB is the regulatory agency responsible for enforcing the

requirements identified in the COOC for the Burn Site Groundwater CME.

In response to the requirement for completing a CME, SNL/NM submitted the following two Burn Site Groundwater documents to NMED: (1) Current Conceptual Model of Groundwater Flow and Contaminant Transport at Sandia National Laboratories/New Mexico Burn Site (SNL/NM June 2004e), and (2) Corrective Measures Evaluation Work Plan for Sandia National Laboratories/New Mexico Burn Site (SNL/NM June 2004f). The Current Conceptual Model document provided site-specific characteristics by which remedial alternatives were evaluated. The CME Work Plan document provided a description and justification by which remedial alternatives were considered and the methods and criteria used in the evaluation were determined. The CME Work Plan was completed to comply with requirements set forth in the COOC, with the guidance of the RCRA Corrective Action Plan (EPA 1994).

On March 1, 2005, the DOE/NNSA and Sandia Corporation received a letter from NMED (NMED 2005), which rejected the CME Work Plan and stipulated the following requirements:

•DOE/NNSA and Sandia Corporation must prepare and submit an Interim Measures Work Plan (IMWP) within 90 days from the receipt of the letter (by May 30, 2005).

•NMED requires additional characterization of the nitrate-contaminated groundwater near the Burn Site; specifically, the downgradient extent of groundwater with nitrate concentrations >10 mg/L shall be determined.

•NMED does not accept the CME Work Plan for SNL/NM Burn Site (SNL/NM 2004f) because they are not satisfied with the existing characterization of nitrate-contaminated groundwater near the Burn Site.

•NMED also required the installation of one additional monitoring well "adjacent to SWMU-94F in order to establish groundwater conditions in this petroleum contamination source area."

DOE/NNSA and Sandia Corporation submitted an IMWP to NMED in May 2005 that proposed the installation of additional groundwater monitoring wells to characterize the extent of nitrate contamination in the aquifer downgradient of CYN-MW1D and fuel-related compounds downgradient of SWMU 94F (SNL/NM 2005c). Data derived from NMED required groundwater monitoring wells be used to support a revised conceptual model and revised CME Work Plan. The selected interim measures described in the IMWP included additional well installation, groundwater monitoring, and institutional controls. These interim measures were proposed to serve three purposes: 1) provide data to support the CME, 2) monitor the migration of the nitrate plume in order to provide an early warning system to trigger an action if a danger to downgradient ecological receptors (Coyote Springs) becomes apparent, and 3) protect human health and the environment by limiting exposure to contaminated groundwater by restricting access to the monitoring wells by means of locks and posting warning signs near well heads.

In support of the selected interim measures, the IMWP included the following reports as attachments: (1) Remedial Alternatives Data Gaps Review, (2) Nitrate Source Evaluation, and (3) Evaluation of Contaminant Transport. The Data Gaps Review document included detailed definitions of remedial alternatives and a preliminary evaluation of remedial alternatives with the purpose of identifying data gaps. One of the data gaps identified included determining background nitrate concentrations and evaluating the potential for a residual source of nitrate in the vadose zone. The investigation initiated to fill this data gap and the analytical results were presented in the Nitrate Source Evaluation report. The Evaluation of Contaminant Transport report consisted of a simplified cross-sectional modeling approach to simulate transport and dilution of nitrate between the current location of nitrate in Burn Site groundwater and potential human and ecological receptors (SNL/NM 2005c).

3.6.3 Sampling Protocols

Sampling is conducted quarterly. An overview of the sampling protocol is discussed below.

Field Water Quality Analysis

Field water quality parameters are measured prior to sampling to determine the effectiveness of well purging. As discussed in Section 3.1.3 and listed in Table 3-2, the wells are pumped until the parameters fall within a specified stability range.

Sample Collection and Analysis

For the FY06 quarterly sampling events, all six monitoring wells in the Burn Site Groundwater Area were sampled by conventional purging/sampling techniques using a Bennett™ pump. The production well has a dedicated submersible pump, but this well was not sampled in FY06. The alluvial piezometers have continued to be predominately dry, and no groundwater samples have been collected from these wells. Samples are analyzed for NPN (as nitrogen), VOCs, SVOCs, HE, diesel-range organics, gasoline-range organics, perchlorate, metals, radionuclides, anions, and total dissolved solids. All results are listed in Appendix F and discussed in Section 4.7.

QA and QC Procedures

Sample QA procedures for groundwater samples are managed through SNL/NM SMO, as described in Section 3.1.3. QC field samples and QC laboratory samples that were conducted for the Burn Site Groundwater are described in Table 3-3.

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This chapter details the analytical results for groundwater monitoring activities conducted by the GWPP and the ER Project in FY06. A table within each section lists the specific wells that were sampled in each sampling period and the type of analyses that were conducted (e.g., metals, organics, and radionuclides). Any analytical results exceeding parameter-specific MCLs established by the EPA, MACs established by the NMWQCC, and/or DOE drinking water guidelines are presented in tables within each section, and trend graphs in Section 4-8. DOE drinking water guidelines are calculated as four percent of the published derived concentration guide (DCG) for ingested water (DOE 1993). All analytical results are presented in Appendices A through G.

Chapter Four
groundwater water quality monitoring results

4.1 Regulatory Criteria

Groundwater sample analytical results are compared to one or more federal, state, or DOE standards as shown in Table 4-1.

4.2 GWPP Results

Annual groundwater sampling was conducted by the Groundwater Surveillance Task under the GWPP during the period of February 14 to March 13, 2006. In addition, quarterly perchlorate sampling was performed per requirements of the NMED Order. Well locations are shown in Figure 3-1.

Installation of the Pneumatic Packer into a monitoring well

GWPP Surveillance Network		
Coyote Springs	EOD Hill	Eubank 1
Greystone-MW2	MRN-2	MRN-3D
NWTA3-MW2	NWTA3-MW3D	PL-2
PL-3	SFR-2S	SFR-4T
SWTA3-MW2	SWTA3-MW3	TRE-1
SWTA3-MW4		

NOTE: Refer to page xi of this report for well descriptions.

TABLE 4-1. Regulations and Requirements Pertinent to Groundwater Contaminant Levels

Regulation/Requirements	Standards and Guides	Regulating Agency
National Primary Drinking Water Regulations (this is an enforceable health standard) (40 CFR 141)	Maximum Contaminant Level (MCL)	U.S. Environmental Protection Agency (EPA)
New Mexico Water Quality Control Commission (NMWQCC) [(1)] Standards for Groundwater (20 NMAC 6.2)	Maximum Allowable Concentration (MAC) for Human Health Standards	NMWQCC

NOTE: [(1)] MACs for Human Health Standards are identified in the analytical results tables in the appendices.

Analytes Sampled
Results are presented in Appendix A, Tables GWPP-A1 through GWPP-A9. Prior to the collection of samples at each well, field parameters were measured as discussed in Section 3.1.3. Sample results are presented in Appendix A, Table GWPP-A9. A field alkalinity titration was also performed at the time of sample collection. All GWPP groundwater samples were sent to an off-site laboratory and analyzed using EPA-approved analytical methods. Groundwater analysis was conducted for the following constituents:

- VOCs – EPA SW-846 Method 8260 B Target Compound List
- Total phenols
- Metals
- Inorganic chemicals (major anions including nitrate and cyanide)
- Gross alpha and beta activity
- Radioisotope activity by gamma spectroscopy
- Alkalinity
- TOX
- Radioisotopes by radiochemistry & alpha spectroscopy (radium-226 and -228, uranium-238, -235, and -234)

The samples collected by the Groundwater Surveillance Task for metals, radionuclides, and inorganic chemicals were passed through a 0.45 µm filter and analyzed for the dissolved analyte fraction to conform to NMWQCC standards for groundwater (20 NMAC 6.2). The samples collected for VOCs, mercury, and perchlorate determination were not filtered. Field water quality parameters measured at the time of sample collection are provided in Table GWPP A-9.

4.2.1 VOC Analyses
Results for detected VOCs are presented in Appendix A, Table GWPP-A1 and associated MDLs are listed on Table GWPP-A2. VOCs were detected in water samples from 9 monitor wells. Acetone and methylene chloride were detected in the sample from the EOD Hill well. Acetone was also identified in the trip blank. This suggests that the sample may have been contaminated during shipment or in the laboratory. Similarly, methylene chloride was detected in an associated laboratory method blank indicating laboratory contamination of the sample. Seven wells (Greystone-MW2, MRN-2, MRN-3D, NWTA3-MW2, NWTA3-MW3D, PL-2, and PL-3) had detections of carbon disulfide. In all but PL-2, the results are "J" qualified, which indicates the amount detected was above the detection limit but not in sufficient amounts to be reliably quantified. Carbon disulfide was also detected in all associated trip blank samples, except those from NWTA3-MW2 and NWTA3-MW3D. No MCL or MAC concentrations have been established for carbon disulfide. Chloroform was detected at 0.887 µg/L in the sample from the TRE-1 well. The analytical result was also qualified with a "J" designation. Although there is no specific MCL established for chloroform, an MCL of 0.1 mg/L is established for total trihalomethanes, like chloroform. In drinking water systems, trihalomethanes are the product of disinfection chemicals. The MAC established by the NMWQCC for chloroform is 100 µg/L.

4.2.2 Inorganic Compounds and Phenolics
Non-metallic inorganic constituents analyzed in groundwater samples included phenolics and TOX, total cyanide, alkalinity, and ions (including bromide, chloride, fluoride, sulfate, and NPN [reported as nitrogen]). Perchlorate analysis was conducted on the samples collected from EOD Hill and designated COOC wells. Analytical results are given in Appendix A, Table GWPP-A4, with MCLs and MACs included for comparison.

None of the analytes exceeded the MCLs associated with drinking water standards at any of the wells sampled. Fluoride concentrations in 4 wells and 1 spring exceeded the MAC of 1.6 mg/L as established by the NMWQCC as the human health standard for groundwater. The wells TRE-1, Coyote Springs, SFR-2S, and SFR-4T are located east of the Tijeras fault zone. The fluoride values in these wells range from 1.61 mg/L in SFR-2S to 2.67 mg/L in SFR-4T. The fluoride concentration in the TRE-1 well was reported as 1.67 mg/L. Groundwater in this region is highly mineralized and lies outside the main aquifer system in the Albuquerque Basin. In one well, SWTA3-MW4, located in the southwest corner of TA-III on the eastern fringe of the Albuquerque Basin aquifer, a fluoride concentration of 1.82 mg/L was detected; however, that is not characteristic of water in this aquifer where fluoride concentration values are less than 1 mg/L. None of the groundwater samples exceeded the NMED Drinking MCL of 4 mg/L. Perchlorate was not detected greater than MDL in wells sampled per the COOC. Perchlorate was detected in the EOD Hill well at concentrations of 1.26 mg/L and 1.08 mg/L. Perchlorate results are summarized in Appendix A, Table GWPP A-3.

4.2.3 Metals
Dissolved metals and total mercury results are listed in Appendix A, Tables GWPP-A5 and GWPP-A6. Results are consistent with results reported for the same locations in previous years. Starting in March 1996,

groundwater samples for inorganics were filtered and analyzed for dissolved metals as required by NMWQCC standards for groundwater. Prior to 1996, metals analyses were performed on unfiltered groundwater, giving a total metals content. Dissolved metals analysis results generally report concentrations comparable to or lower than concentrations reported for total metals analysis, since the total metals analysis may include natural constituents present such as undissolved, suspended particles. Dissolved metals usually occur as natural trace concentrations and are significantly below regulatory limits.

Groundwater samples were analyzed for the following dissolved metals:

Aluminum	Antimony	Arsenic	Barium
Beryllium	Cadmium	Calcium	Chromium
Cobalt	Copper	Iron	Lead
Magnesium	Manganese	Nickel	Potassium
Selenium	Silver	Sodium	Thallium
Zinc	Uranium	Vanadium	

Mercury was also analyzed from an unfiltered sample and is reported as total mercury. The analysis of the water sample from Coyote Springs yielded a beryllium concentration of 8.05 µg/L, which exceeds the 4.0 µg/L MCL for beryllium. Beryllium is a natural constituent of groundwater at this location. A graph of the trend of beryllium concentrations in water samples from Coyote Springs is provided in Figure 4-5. The uranium concentration in the EOD well, 39 µg/L, exceeded the recently established MCL of 39 µg/L (Figure 4-6). This MCL was based on the toxic characteristics of uranium as a metal. All other analytical results for metals were below MCLs and MACs. Mercury was not detected in any of the groundwater samples.

4.2.4 Radionuclide Activities

Gamma Spectroscopy

Analytical results for radionuclides using gamma spectroscopy are presented in Appendix A, Table GWPP-A7. The analyses were limited to americium-241, cesium-137, cobalt-60, and potassium-40. No specific MCLs or MACs are established for these radioisotopes. None of the radioisotopes were detected above the MDA (minimum detectable activity),

Radioisotopic Analysis

Radiometric analyses of samples were conducted for gross alpha, gross beta, radium-226, radium-228, and isotopic uranium. Results are reported as activity levels in Appendix A, Table GWPP-A8 and compared to EPA MCLs, where established.

Uncorrected gross alpha activities for samples from EOD Hill, Greystone-MW2SFR-2S, and TRE-1 exceeded the MCL of 15 pCi/L. When the results are corrected by subtracting the uranium activities at these locations, only the results from the EOD Hill groundwater sample (Figure 4-7) exceed the MCL. Wells with elevated uranium are located east of the Tijeras fault complex (Figure 2-3). In this region, groundwater contacts bedrock material that naturally contains minerals high in uranium.

The radium-226 pCi/L concentration in the SFR-2S well sample (Figure 4-8) was above the MCL of 5 pCi/L for combined radium-226 and radium 228. In this instance the combined concentration value is 8.24 pCi/L.

4.2.5 Conclusions

Annual groundwater surveillance sampling for FY06 was conducted during the period of February 14 to March 13, 2006. Fifteen wells and one spring in the GWPP surveillance network were sampled to determine the effects, if any, SNL/NM operations have on groundwater quality at SNL/NM and adjacent areas of KAFB. Groundwater samples were analyzed for VOCs, general inorganic substances, including major ions, metals, and selected radioisotopes (using gamma and alpha spectroscopy and gross alpha and beta counting). Analytical results suggest there is no anthropogenic contamination of groundwater in the locations sampled. Unexplained detections of carbon disulfide occurred in 7 well samples; however, these results are viewed as anomalous since they occurred at locations widely dispersed over the facility, and carbon disulfide has not been previously detected in any of the wells and is not a substance in general use. As expected from historical sampling data, fluoride was slightly above the NMWQCC MAC of 1.6 mg/L in several of the wells located in the eastern portion of KAFB. This is consistent with the composition

of groundwater in contact with bedrock in a highly mineralized area. Beryllium and uranium were the only metals that exceeded the established MCL. Elevated beryllium has been consistently detected in the water from Coyote Springs and is deemed to be of natural origin as a consequence of groundwater in contact with the bedrock in this highly faulted location. The same explanation applies to the elevated uranium in the EOD Hill groundwater sample. None of the select radioisotopes examined with gamma spectroscopy exceed DOE drinking water standards. The exceedance of the MCL for gross alpha at EOD Hill is derived from the elevated concentration of naturally occurring uranium at this location. The radium-226 activity at SFR-2S was 7.49 pCi/L, which exceeds the EPA standard of 5 pCi/L for the sum of radium-226 and radium-226 activities.

4.3 CWL Results

Groundwater monitoring at CWL was performed during October 2005 and April 2006. Groundwater samples were collected from nine monitoring wells. Table 4-2 lists the parameters and wells sampled.

Analytes Sampled

Analytical results are presented in Appendix B, Tables CWL B-1 through CWL B-8. In addition, the Quarterly Closure Progress Reports (SNL 2006b) for CWL provide full details of each sampling event. All analytical results were compared with MCLs. During FY06, groundwater samples were submitted for Appendix IX VOCs, Appendix IX metals plus iron, Appendix IX SVOCs, Appendix IX chlorinated herbicides, PCBs, cyanide, sulfide, and dissolved chromium analyses.

4.3.1 Appendix IX VOC, SVOC, Herbicide, and PCB Analyses

Detected VOC, SVOC, herbicide, and PCB results are presented in Appendix B, Table CWL B-1. Associated MDLs for these compounds are provided in Tables CWL B2 through CWL B-4. No VOCs or SVOCs were detected above established MCLs during FY06. No herbicides or PCBs were detected above laboratory MDLs.

4.3.2 Cyanide and Sulfide

Cyanide and sulfide results are presented in Appendix B, Table CWL B-5. Cyanide was not detected above the MCL concentration of 0.2 mg/L in FY06 CWL groundwater samples. Cyanide was reported at concentrations from 'not detected at the MDL' to 0.00427 mg/L. There are no established regulatory limits for sulfide. During FY06, sulfide concentrations ranged from 'not detected at the MDL' to 2.40 mg/L.

4.3.3 Total Metals

No metals parameters were detected above established MCLs. Detected metals concentrations were comparable to historical values. Results for metals parameters are presented in Appendix B, Table CWL B-6.

4.3.4 Dissolved Metals

Appendix B, Table CWL B-7 summarizes dissolved chromium results in CWL groundwater samples. Dissolved chromium was not detected above the MDL in any sample, except at CWL-MW6U. Chromium was detected in CWL-MW6U below the MCL of 0.10 mg/L at a concentration of 0.0018 mg/L.

4.3.5 Water Quality Parameters

Appendix B, Table CWL B-8 summarizes field water quality measurements prior to sampling and includes temperature, specific conductivity, oxidation-reduction, pH, turbidity, and dissolved oxygen.

4.3.6 Conclusions

All detected analytes from FY06 groundwater samples were detected at concentrations comparable to historical values.

4.4 MWL Results

Analytical results for MWL groundwater samples are presented in Appendix C, Tables MWL-C1 through MWL-C6. MWL groundwater samples were analyzed for VOCs, TAL metals and total uranium, NPN, major anions, tritium, gross alpha/beta radioactivity, and gamma-emitting radionuclides. Sampling results were

compared with MCLs, where established. Table 4-3 lists the parameters and wells sampled. Water quality parameters measured at the time of sample collection are provided in Appendix C, Table MWL-C7.

4.4.1 VOC Analyses

Appendix C, Table MWL-C1 presents detected VOCs in MWL groundwater for FY06. Table MWL-C2 presents the MDLs for VOCs analyzed. Groundwater samples from MWL monitoring wells showed no detections for VOCs greater than the practical quantitation limits (PQLs), except in one sample. Acetone was detected in the sample from MWL-MW6 at an estimated concentration of 1.89 µg/L which is less than the PQL, but greater than the MDL. Detections of acetone in MWL-MW, MWL-MW3, MWL-MW4, and MWL-MW5 were qualified as 'not detected during data validation' due to results from the QC samples. Acetone was also detected in the sample from MWL-BW1, but the result was qualified as 'not detected due to a contamination source' introduced at the laboratory from samples that were not from SNL/NM.

Samples from MWL-MW1 and MWL-MW2 contained low concentrations of carbon disulfide and toluene. These results were qualified as 'not detected during data validation' because of similar concentrations of the compounds in associated QC samples.

4.4.2 NPN

NPN (as nitrogen) was detected below the MCL of 10 mg/L at concentrations ranging from 0.877 mg/L at MWL-MW6 to 4.58 mg/L at MWL-BW1. Analytical results for NPN are presented in Appendix C, Table MWL-C3.

4.4.3 Major Anions and Alkalinity

Appendix C, Table MWL-C4 summarizes major anions and alkalinity results for MWL groundwater samples collected during FY06. Fluoride, the only ion analyzed for with a regulatory limit, was detected below the MCL of 4.0 mg/L at concentrations ranging from 0.766 mg/L at MWL-BW1 to 0.997 mg/L at MWL MW4.

4.4.4 Metals

Analytical results for total metals are presented in Appendix C, Table MWL-C5. Unfiltered samples were analyzed for total TAL metals. Chromium concentrations in the sample and duplicate sample from MWL-MW1 (0.219 and 0.208 mg/L, respectively) in Figure 4-9 and in the sample from MWL-MW3 (0.133 mg/L) in Figure 4-10 exceed the EPA MCL of 0.1 mg/L. The samples were reanalyzed for chromium on June 14, 2006, and the reanalyses results confirmed the original analyses. The analytical results for both the original analyses and the reanalyses are included in Table MWL-C5. The chromium concentration in MWL-MW3 represents the first time the MCL has been exceeded in this well. Nickel is only regulated in groundwater for irrigation sources in New Mexico, and, as such, this standard is not applicable to the MWL. Chromium concentrations exceeding EPA MCL values correlate with nickel results and may be attributed to corrosion of Type 304 stainless steel well screens (Oakley & Korte 1996, Goering, T. et al. 2002).

Total uranium results from the April 2006 samples were consistent with data from previous sampling events and are well within the range of total uranium concentrations established by the U.S. Geological Survey (USGS) for the Middle Rio Grande Basin (USGS 2002).

4.4.5 Radionuclide Activities

Radionuclides analyzed in MWL groundwater samples included tritium, gross alpha/beta activities, and gamma-emitting radionuclides. Analytical results are presented in Appendix C, Table MWL-C6 and are compared with EPA MCLs, where established. No radiological parameters were detected above established MCLs.

Gross alpha and beta activity levels were detected above laboratory reporting limits in all environmental samples. Gross alpha activity levels range from 2.13 ± 0.547 pCi/L in the MWL-BW1 sample to 14.7 ± 2.23 pCi/L in the MWL-MW3 sample. Gross beta activity levels range from 3.11 ± 0.963 pCi/L in the MWL-BW1 sample to 16.1 ± 2.65 pCi/L in the MWL-MW3 sample.

Neither tritium (analyzed by EPA Method 906.0) nor gamma-emitting isotopes (analyzed by EPA Method 901.1) were detected above the minimum detectable activity (MDA) in any of the groundwater samples. Uranium-238 and -235 were determined as mass concentrations during metals analysis on the inductively-

TABLE 4-2. Parameters Analyzed at CWL Wells for Each Sampling Period

Parameter	Oct 05		April 06	
Appendix IX VOCs	CWL-BW3 CWL-MW2BL CWL-MW4 CWL-MW5U CWL-MW6U CWL-MW4 (dup)	CWL-BW4A CWL-MW2BU CWL-MW5L CWL-MW6L CWL-MW2BL (dup) CWL-MW2BU	CWL-BW3 CWL-MW2BL CWL-MW4 CWL-MW5U CWL-MW6U CWL-MW6L (dup)	CWL-BW4A CWL-MW2BU CWL-MW5L CWL-MW6L CWL-BW4A (dup)
Appendix IX SVOCs, PCBs, Herbicides, and Sulfide	CWL-BW3 CWL-MW2BL CWL-MW5L CWL-MW6L CWL-MW2BL (dup)	CWL-BW4A CWL-MW4 CWL-MW5U CWL-MW6U CWL-MW4 (dup)		
Total Cyanide	CWL-BW3 CWL-MW2BL CWL-MW4 CWL-MW5U CWL-MW6U CWL-MW4 (dup)	CWL-BW4A CWL-MW2BU CWL-MW5L CWL-MW6L CWL-MW2BL (dup)		
Total Metals (Appendix IX plus iron)	CWL-BW3 CWL-MW2BL CWL-MW5L CWL-MW6L CWL-MW2BL (dup) CWL-MW2BU	CWL-BW4A CWL-MW4 CWL-MW5U CWL-MW6U CWL-MW4 (dup)	CWL-BW3 CWL-MW2BL CWL-MW4 CWL-MW5U CWL-MW6U CWL-MW6L (dup)	CWL-BW4A CWL-MW2BU CWL-MW5L CWL-MW6L CWL-BW4A (dup)
Dissolved Chromium	CWL-BW3 CWL-MW2BL CWL-MW5L CWL-MW6L CWL-MW2BL (dup)	CWL-BW4A CWL-MW4 CWL-MW5U CWL-MW6U CWL-MW4 (dup)		

NOTE: Refer to page xi of this report for well descriptions. U and L denote upper and lower completions for nested wells in the same borehole.

coupled plasma mass spectrometer using EPA Method 6020.

4.4.6 Conclusions

Annual groundwater sampling was conducted at MWL in April 2006. Chromium in the samples from MWL-MW1 and MWL-MW3 exceed the EPA MCL. The chromium concentration in MWL-MW3 represents the first time the MCL has been exceeded in this well. Sample reanalysis for chromium confirmed the original results. No other inorganic or organic parameters were detected above the corresponding MCLs in any samples.

Groundwater samples collected in April 2006 from MWL monitoring wells showed no organic compounds detected greater than the PQL after data validation and assignment of qualifiers. Estimated concentrations for acetone, less than the PQL but greater than the MDL, are likely inadvertent laboratory-introduced contamination.

Metals analytical results greater than the established MCL were reported for chromium in groundwater samples from MWL-MW1 and MWL-MW3 in April 2006. The chromium concentrations are attributed to corrosion of the stainless steel screens in the monitoring wells (Oakley and Korte 1996, Goering, T. et al. 2002). Total uranium results from the April 2006 samples were consistent with data from previous sampling events, and are well within the range of total uranium concentrations established by the USGS for the Middle Rio Grande Basin (USGS 2002).

No general chemistry parameters exceeded established MCLs in any of the groundwater samples. Radioactivity and radionuclides were not detected at levels greater than the corresponding MCL.

4.5 TA-V Results

Quarterly groundwater sampling at TA-V was performed in November/December 2005, January/February/March 2006, May 2006, and August/September 2006. Monitoring well locations are shown in Figure 3-5.

Analytes Sampled

Analytical results from all TA-V wells are presented in Appendix D, Tables TAV-D1 through TAV-D7. Table 4-4 lists the wells and the parameters that were sampled for each quarter in FY06.

4.5.1 VOC and PCB Analyses

VOC and PCB results are listed in Appendix D, Table TAV-D1, and the VOC and PCB MDLs are listed in Table TAV-D2. VOCs were detected in samples from TA-V wells at concentrations exceeding MCLs in monitoring wells LWDS-MW1, TAV-MW1, and TAV-MW6. Table 4-7 lists wells that exceeded the TCE MCL of 5 µg/L in FY06. Figure 4-11 shows that the TCE concentrations in LWDS-MW1 are slightly decreasing over time. Figure 4-12 shows that the TCE concentrations in TAV-MW1 are slightly increasing over time. Figure 4-13 shows that the TCE concentrations in TAV-MW6 are increasing over time.

4.5.2 Inorganic and Other Chemical Analyses

Inorganic chemical analysis results for anions are reported in Appendix D, Table TAV-D4. NPN (reported as nitrogen) results are shown in Appendix D, Table TAV-D3. Table 4-7 shows that nitrate concentrations exceeded the MCL of 10 mg/L in LWDS-MW1 for three of the four quarters of FY06, and TAV-MW1 for the third quarter of FY06. Figure 4-14 shows that the nitrate in LWDS-MW1 has consistently exceeded the MCL over the past six years, and the nitrate concentrations appear to be slightly decreasing over time. Figure 4-15 shows that nitrate in TAV-MW1 rarely exceeds the MCL and appears to be slightly increasing over time.

4.5.3 Metals

In FY06, total metals analyses were conducted for various wells (Table 4-4). No metals were detected above established MCLs. Results for all metals analyses are shown in Appendix D, Table TAV-D5.

TABLE 4-3. Parameters Sampled at the MWL

Parameter	April 2006 (Annual Sampling)	
VOCs	MWL-BW1	MWL-MW1 (dup)
	MWL-MW2	MWL-MW2
	MWL-MW3	MWL-MW4
	MWL-MW5	MWL-MW6
NPN (as Nitrogen)	MWL-BW1	MWL-MW1 (dup)
	MWL-MW2	MWL-MW2
	MWL-MW3	MWL-MW4
	MWL-MW5	MWL-MW6
TAL Metals and Total Uranium	MWL-BW1	MWL-MW1 (dup)
	MWL-MW2	MWL-MW2
	MWL-MW3	MWL-MW4
	MWL-MW5	MWL-MW6
Major Anions	MWL-BW1	MWL-MW1 (dup)
	MWL-MW2	MWL-MW2
	MWL-MW3	MWL-MW4
	MWL-MW5	MWL-MW6
Gross Alpha/Beta	MWL-BW1	MWL-MW1 (dup)
	MWL-MW2	MWL-MW2
	MWL-MW3	MWL-MW4
	MWL-MW5	MWL-MW6
Tritium	MWL-BW1	MWL-MW1 (dup)
	MWL-MW2	MWL-MW2
	MWL-MW3	MWL-MW4
	MWL-MW5	MWL-MW6
Gamma Spectroscopy	MWL-BW1	MWL-MW1 (dup)
	MWL-MW2	MWL-MW2
	MWL-MW3	MWL-MW4
	MWL-MW5	MWL-MW6

NOTE: Refer to page xi of this report for well descriptions.
VOC = Volatile Organic Compound
TAL =target analyte list
MWL = Mixed Waste Landfill
dup = duplicate

4.5.4 Radionuclide Activities

Gamma spectroscopy, gross alpha/beta, and tritium analyses were conducted on all wells in FY06. Most radionuclide activities were below MCLs, where established. Gross alpha activity in LWDS-MW2 was 15.7 ± 1.92 pCi/L in the August/September 2006 sample, which slightly exceeds the MCL of 15 pCi/L. A reanalysis of this sample had a result of 5.42 ± 1.42 pCi/L. Figure 4-16 shows that gross alpha activities in LWDS-MW2 rarely exceed the MCL. Gamma spectroscopy analysis did not detect any isotopes above associated MDAs, except for potassium-40. Potassium-40 activities were reported in TAV-MW3 and TAV-MW5 at 57 ± 50.4 pCi/L and 90.9 ± 62.3 pCi/L, respectively. Results for gross alpha/beta and tritium are presented in Appendix D, Table TAV-D6.

4.5.5 Field Water Quality Measurements

Field water quality parameters are measured during pre-sample purging of each well and include temperature, specific conductivity, oxidation-reduction potential, pH, turbidity, and dissolved oxygen. The parameter measurements made immediately before collecting the sample are presented in Appendix D, Table TAV-D7.

TABLE 4-4. Parameters Sampled at TA-V Wells for Each Sampling Quarter

Parameter	Nov/Dec 2005	Parameter	Jan/Feb/Mar/2006
NPN (reported as Nitrogen) VOCs	AVN-1 AVN-2 LWDS-MW1 LWDS-MW1 (dup) LWDS-MW2 TAV-MW1 TAV-MW1 (dup) TAV-MW2 TAV-MW2 (dup) TAV-MW3 TAV-MW4 TAV-MW5 TAV-MW6 TAV-MW7 TAV-MW8 TAV-MW9	NPN (reported as Nitrogen) VOCs	AVN-1 AVN-2 LWDS-MW1 LWDS-MW2 TAV-MW1 TAV-MW2 TAV-MW3 TAV-MW4 TAV-MW5 TAV-MW5 (dup) TAV-MW6 TAV-MW7 TAV-MW7 (dup) TAV-MW8 TAV-MW9
Parameter	**May 2006**	**Parameter**	**Aug/Sep 2006**
NPN (reported as Nitrogen) VOCs	AVN-1 AVN-2 LWDS-MW1 LWDS-MW2 TAV-MW1 TAV-MW2 TAV-MW2 (dup) TAV-MW3 TAV-MW4 TAV-MW5 TAV-MW6 TAV-MW6 (dup) TAV-MW7 TAV-MW8 TAV-MW9	Anions Gamma Spec Gross Alpha/Beta Metals NPN (reported as Nitrogen) PCBs Total Uranium Tritium VOCs	AVN-1 AVN-1 (dup) AVN-2 LWDS-MW1 LWDS-MW2 TAV-MW1 TAV-MW1 (dup) TAV-MW2 TAV-MW3 TAV-MW4 TAV-MW5 TAV-MW6 TAV-MW7 TAV-MW8 TAV-MW9

NOTE: Refer to page xi of this report for well descriptions.
PCB = Polychlorinated bephenyl
NPN = Nitrate plus Nitrite
dup = duplicate

4.5.6 Conclusions

The TA-V groundwater investigation continues to monitor for the site specific COCs of TCE and nitrate. Analytical results from samples collected during FY06 are similar to results from previous years:

- TCE was detected in samples from three TA-V wells at concentrations exceeding the MCL of 5 ug/L. TCE concentrations in these wells vary from slightly decreasing over time to increasing over time;
- Nitrate concentrations exceeded the MCL of 10 mg/L in two TA-V wells, and concentrations range from slightly decreasing to slightly increasing over time; and
- Gross alpha activity in one TA-V 2006 sample slightly exceeding the MCL; however, a reanalysis of this sample had a result of much less than the MCL.

SNL/NM currently is implementing a CME process to address these COCs in TA-V groundwater. A Draft CME Report has been submitted to NMED and is awaiting regulatory review and approval.

4.6 TAG Investigation Results

TAG wells are either screened in the regional aquifer or within a perched GWS several hundred feet above the regional aquifer. COCs include TCE and nitrate, which have been detected at concentrations exceeding the EPA established MCLs for drinking water. Samples were collected from 21 wells (Figure 3-6), including ten perched GWS wells and eleven regional aquifer wells (Table 3-6). Based on the requirements of the TAG Investigation Work Plan, five TAG wells (TA1-W-07, TA2-NW1-325, TA2-W-24, TA2-W-25, and TJA-5) that were sampled prior to FY03 are no longer sampled.

Analytes Sampled

Analytical results are presented in Appendix E, Tables TAG-E1 through TAG-E7. Detailed results of the TAG investigation, including the most recent hydrogeologic conceptual model, are presented in the *Tijeras Arroyo Groundwater Continuing Investigation Report* (SNL 2002a). Field water quality measurements were taken at each well before samples were collected. Table 4-5 lists the analytical parameters for each well sampled.

4.6.1 VOC and PCB Analyses

Results for detected VOCs and PCBs are presented in Appendix E, Table TAG-E1, and the VOC PCB MDLs are listed in Table TAG-E2. TCE was detected in groundwater samples from several wells in the perched GWS. Monitoring well WYO-4 (perched GWS) consistently had TCE concentrations above the MCL (5.0 µg/L) with a maximum TCE concentration of 7.87 µg/L. Figure 4-17 shows that TCE concentrations in well WYO-4 have been consistent to slightly increasing over the short life of the well. In addition, monitoring well TA2-W-19 (perched GWS) had TCE concentrations above the MCL during the October 2005 sampling event, with a maximum concentration of 5.01 µg/L. Figure 4-18 shows that the TCE concentrations in well TA2-W-19 have been generally increasing over the life of the well, but are relatively consistent over the last three years.

4.6.2 Inorganic Chemical Analyses

Inorganic chemical analyses of quarterly groundwater samples consisted of NPN (reported as nitrogen); major anions such as bromide, chloride, fluoride, and sulfate; and total metals. The results are presented in Appendix E, Table TAG-E3 through TAG-E5.

During FY06 sampling, nitrate exceeded the MCL in five wells. TJA-7, TA2-SW1-320, and TJA-4 had nitrate concentrations two to three times the MCL; whereas, TA2-W-19 and TJA-2 had nitrate concentrations that only slightly exceeded the MCL. Figures 4-19 through 4-23 show that nitrate concentrations in these five wells are generally stable to slightly decreasing over time. All other inorganic analytes were below MCLs, where established.

4.6.3 Radionuclide Activities

Gamma spectroscopy, gross alpha/beta, and tritium analyses were conducted on 21 wells in FY06. All radionuclide activities were below MCLs, where established. Results for tritium, gross alpha/beta, and gamma spectroscopy are presented in Appendix E, Table E-6.

4.6.4 Field Water Quality Measurements

Field water quality parameters are measured during pre-sample purging of each well and include temperature, specific conductivity, oxidation-reduction potential, pH, turbidity, and dissolved oxygen. The parameter measurements made immediately before collecting the sample are presented in Appendix E, Table TAG-E7.

4.6.5 Conclusions

The TAG groundwater investigation continues to monitor for the site specific COCs of TCE and nitrate. Analytical results from samples collected during FY06 are similar to results from previous years.

- TCE was detected in samples from two TAG wells at concentrations exceeding the MCL of 5 ug/L. TCE concentrations in these wells vary from stable over time to slightly increasing over time; and
- Nitrate concentrations exceeded the MCL of 10 mg/L in five TAG wells, and concentrations range

from slightly decreasing to stable over time.

DOE/NNSA and Sandia Corporation currently are implementing a CME process to address these COCs in TAG groundwater. A Draft CME Report has been submitted to NMED and is awaiting regulatory review and approval.

4.7 Burn Site Groundwater Results

Quarterly sampling at Burn Site Groundwater monitoring wells in Lurance Canyon was conducted in December 2005, March 2006, June 2006, and September 2006.

Analytes Sampled

Analytical results from all Burn Site Groundwater wells are presented in Appendix F, Tables CYN-F1 through CYN-F9. Table 4-6 lists the wells and the parameters that were sampled for each quarter in FY06.

4.7.1 VOCs and Other Organic Compounds

A summary of detected VOCs, SVOCs, and HE results are presented in Appendix F, Table CYN-F1. The MDLs for VOCs, SVOCs, and HE are listed in Table CYN-F2. Results are listed for the diesel-range organics and gasoline-range organics in Appendix F, Table CYN-F5.

No VOCs, SVOCs, or HE compounds were detected above MCLs. Other organics found in groundwater samples included low levels of diesel-range organics in all wells, with up to 61.8 µg/L in a sample from CYN-MW8. All but one of the detections of diesel-range organics were qualified as non-detect during the data validation process. All analyses of samples from monitor wells for gasoline-range organics were non-detect. MCLs have not been established for diesel-range organics or gasoline-range organics.

4.7.2 Inorganic and Other Chemical Analyses

Quarterly analytical results for NPN (reported as nitrogen), perchlorate, and major ions are presented in Appendix F, Tables CYN-F3, CYN-F4, and CYN-F6, respectively.

NPN results exceeded the MCL of 10 mg/L in all samples from CYN-MW6 in all sampling events. Figure 4-24 shows that nitrate concentrations in this well have consistently exceeded the MCL. The samples from well CYN-MW6 consistently had perchlorate above the 0.004 mg/L detection limit. No MCL currently exists for perchlorate in groundwater. All other major ion results were below established MCLs.

4.7.3 Metals

Metal analysis results are presented in Appendix F, Table CYN-F7. There were no metal results that exceeded established MCLs.

4.7.4 Radionuclide Activities

Groundwater samples were analyzed for gross alpha, gross beta, tritium, and gamma spectroscopy. Results for gross alpha, gross beta, and tritium are presented in the table in Appendix F, CYN-F8. All radionuclide activities were below MCLs, except for gross alpha in wells CYN-MW4 and CYN-MW8. Figure 4-25 shows that gross alpha in CYN-MW4 has consistently exceeded the MCL over the life of the well. CYN-MW8 has only been sampled once for gross alpha; therefore, no trend graph is provided. Gamma spectroscopy analysis did not detect any isotopes above associated MDAs.

4.7.5 Field Water Quality Measurements

Field water quality parameters are measured during pre-sample purging of each well and include temperature, specific conductivity, oxidation-reduction potential, pH, turbidity, and dissolved oxygen. The parameter measurements made immediately before collecting the sample are presented in Appendix F, Table CYN-F9.

4.7.6 Conclusions

TABLE 4-5. Parameters Sampled at the TAG Wells

Parameter	Oct/Nov 2005	Parameter	Jan/Feb 2006	Parameter	April/May 2006	Parameter	July/Aug 2006
Nitrate plus Nitrite (reported as Nitrogen) VOCs	TA2-SW1-320 (QED) TA2-W-19 TA2-W-26 TJA-2 TJA-4 TJA-7 WYO-4	Nitrate plus Nitrite (reported as Nitrogen) VOCs	TA2-SW1-320 (QED) TA2-W-01 TA2-W-19 TA2-W-19 (dup) TA2-W-26 TA2-W-27 TJA-2 TJA-3 TJA-4 TJA-6 TJA-6 (dup) TJA-7 WYO-4	Nitrate plus Nitrite (reported as Nitrogen) VOCs	TA2-SW1-320 (QED) TA2-SW1-320 (QED) (dup) TA2-W-01 TA2-W-19 TA2-W-19 (dup) TA2-W-26 TA2-W-26 (dup) TA2-W-27 TJA-2 TJA-3 TJA-4 TJA-6 TJA-7 WYO-3 WYO-4 WYO-4 (dup)	Anions Gamma spec Gross alpha/beta Metals Nitrate plus Nitrite (reported as Nitrogen) PCBs Tritium VOCs	PGS-2 (QED) TA1-W-01 TA1-W-02 TA1-W-03 TA1-W-04 TA1-W-05 TA1-W-06 TA1-W-08 TA1-W-08 (dup) TA2-NW1-595 TA2-SW1-320 (QED) TA2-W-01 TA2-W-19 TA2-W-26 TA2-W-27 TJA-2 TJA-3 TJA-4 TJA-4 (dup) TJA-6 TJA-7 WYO-3 WYO-4

NOTE: Refer to page xi of this report for well descriptions.
VOC = Volatile Organic Compound; TAG = Tijeras Arroyo Groundwater; dup = duplicate, QED = micro-purge, low-flow sampling method

TABLE 4-6. Parameters Sampled at Burn Site Groundwater Wells for Each Sampling Quarter

Parameter	Dec 2005	Parameter	Mar 2006
Nitrate plus Nitrite (reported as Nitrogen) Perchlorate	CYN-MW1D	Nitrate plus Nitrite (reported as Nitrogen) Perchlorate	CYN-MW1D CYN-MW1D (dup) CYN-MW6 CYN-MW6 (dup) CYN-MW7 CYN-MW8
		TPH—DRO TPH—GRO	CYN-MW6 CYN-MW6 (dup)
Parameter	**June 2006**	**Parameter**	**Sep 2006**
Nitrate plus Nitrite (reported as Nitrogen) Perchlorate	CYN-MW1D CYN-MW6 CYN-MW6 (dup) CYN-MW7 CYN-MW8	Nitrate plus Nitrite (reported as Nitrogen)	CYN-MW1D CYN-MW3 CYN-MW4 CYN-MW6 CYN-MW7 CYN-MW8 CYN-MW8 (dup)
TPH—DRO TPH—GRO	CYN-MW1D CYN-MW3 CYN-MW4 CYN-MW6 CYN-MW6 (dup) CYN-MW7 CYN-MW8	Perchlorate	CYN-MW1D CYN-MW6 CYN-MW7 CYN-MW8 CYN-MW8 (dup)
Anions Gamma Spec Gross Alpha/Beta HE Metals SVOCs Tritium VOCs	CYN-MW1D CYN-MW3 CYN-MW4 CYN-MW6 CYN-MW7 CYN-MW8	TPH—DRO TPH—GRO	CYN-MW6

NOTE: Refer to page xi of this report for well descriptions.
TPH-DRO = Total Petroleum Hydrocarbons-Diesel Range Organics
TPH-GRO = Total Petroleum Hydrocarbons-Gasoline Range Organics
VOC = Volatile Organic Compound
SVOC = Semi-volatile Organic Compound
NPN = Nitrate Plus Nitrite
TAL = target analyte list
HE = High Explosives

The Burn Site Groundwater investigation continues to monitor for the site-specific COC of nitrate. Analytical results from samples collected during FY06 are considerably different from previous years. Nitrate concentrations exceeded the MCL of 10 mg/L in one newly installed Burn Site Groundwater Area well. Although there is a limited amount of data at this well, concentrations appear to be stable to slightly increasing over time.

DOE/NNSA and Sandia Corporation currently are implementing an Interim Measures and CME process to address these COCs in Burn Site Groundwater. A Draft Interim Measures Work Plan has been submitted to NMED and is currently awaiting regulatory review and approval.

TABLE 4-7. Summary of Exceedances at Sampling Wells in Fiscal Year 2006

Analyte	Wells	Exceedance	Date
BERYLLIUM MCL = 0.004 mg/L	Coyote Springs	0.00805 mg/L	February/March 2006
RADIUM 226 MCL = 5 pCi/L 226 + 228	SFR-2S	8.24 pCi/L	February/March 2006
FLUORIDE MAC = 1.6 mg/L	Coyote Springs	1.64 mg/L	February/March 2006
	SFR-2S	1.61 mg/L	February/March 2006
	SFR-4T	2.67 mg/L	February/March 2006
	SFR-4T (dup)	2.66 mg/L	February/March 2006
	TRE-1	1.62 mg/L	February/March 2006
	SWTA3-MW4	1.82 mg/L	February/March 2006
URANIUM MCL = 0.030 mg/L	EOD	0.039 mg/L	February/March 2006
CHROMIUM MCL = 0.1 mg/L	MWL-MW1	0.219/0.232 mg/L+	April 2006
	MWL-MW1 (dup)	0.208/0.197 mg/L+	April 2006
	MWL-MW3	0.133/0.169 mg/L+	April 2006
TRICHLOROETHENE (TCE) MCL = 5 µg/L	LWDS-MW1	15.3 µg/L	November/December 2005
	LWDS-MW1	15.8 µg/L	January/February/March 2006
	LWDS-MW1	14.9 µg/L	May 2006
	LWDS-MW1	12.9 µg/L	August/September 2006
	TAV-MW1	5.37 µg/L	May 2006
	TAV-MW1 (dup)	5.81 µg/L	November/December 2005
	TAV-MW6	6.34 µg/L	August/September 2006
	TA2-W-19	5.07 µg/L	October/November 2005
	WYO-4	7.61 µg/L	October/November 2005
	WYO-4	7.85 µg/L	January/February 2006
	WYO-4	6.73 µg/L	April/May 2006
	WYO-4	7.87 µg/L	July/August 2006

TABLE 4-7. Summary of Exceedances at Sampling Wells in Fiscal Year 2006 (concluded)

Analyte	Wells	Exceedance	Date
NPN (AS NITROGEN) MCL = 10 mg/L	LWDS-MW1	10.6 mg/L	November/December 2005
	LWDS-MW1	13.3 mg/L	January/February/March 2006
	LWDS-MW1	13.0 mg/L	August/September 2006
	TAV-MW1	12.0 mg/L	May 2006
	TA2-SW1-320	25.2 mg/L	October/November 2005
	TA2-SW1-320	25.2 mg/L	January/February 2006
	TA2-SW1-320	25.5 mg/L	April/May 2006
	TA2-SW1-320 (dup)	24.9 mg/L	April/May 2006
	TA2-SW1-320	28.8 mg/L	July/August 2006
	TA2-W-19	10.2 mg/L	January/February 2006
	TA2-W-19 (dup)	10.2 mg/L	January/February 2006
	TJA-2	10.1 mg/L	January/February 2006
	TJA-7	25.4 mg/L	October/November 2005
	TJA-7	26.1 mg/L	January/February 2006
	TJA-7	25.2 mg/L	April/May 2006
	TJA-7	17.4 mg/L	July/August 2006
	TJA-4	28.0 mg/L	October/November 2005
	TJA-4	29.0 mg/L	January/February 2006
	TJA-4	28.9 mg/L	April/May 2006
	TJA-4	27.5 mg/L	July/August 2006
	TJA-4 (dup)	20.6 mg/L	July/August 2006
	CYN-MW6	23.9 mg/L	March 2006
	CYN-MW6 (dup)	24.1 mg/L	March 2006
	CYN-MW6	32.6 mg/L	June 2006
	CYN-MW6 (dup)	29.5 mg/L	June 2006
	CYN-MW6	30.4 mg/L	September 2006
GROSS ALPHA (CORRECTED) MCL = 15 pCi/L	EOD	21.68 pCi/L*	February/March 2006
GROSS ALPHA (UNCORRECTED) MCL = 15 pCi/L	LWDS-MW2	15.7 ± 1.92 pCi/L	August 2006
	CYN-MW4	37.8 ± 11.1 pCi/L	June 2006
	CYN-MW8	34.0 ± 10.6 pCi/L	June 2006

NOTES: dup = duplicate
µg/L = micrograms per liter
mg/L = milligrams per liter
pCi/L = picocuries per liter
MCL = maximum contaminant level
MAC = maximum allowable concentration

* Uncorrected gross alpha results for GAPP samples from SFR-2S, and TRE-1 exceeded the MCL of 15.0 pCi/L. When the results are corrected by subtracting the uranium activity, the results for SFR-2 and TRE-1 are below the MCL.

+Second values are for samples reanalyzed by the laboratory.

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4.8 Trend Graphs

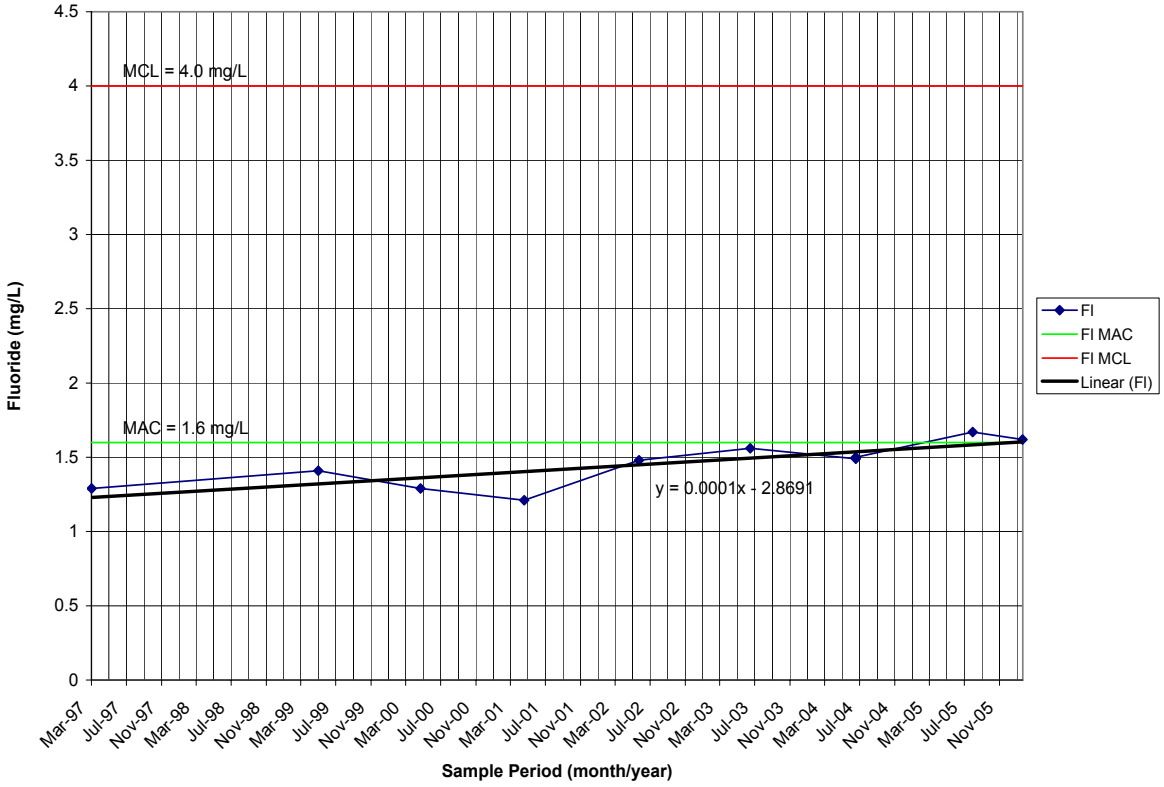

FIGURE 4-1. Fluoride Concentrations, TRE-1

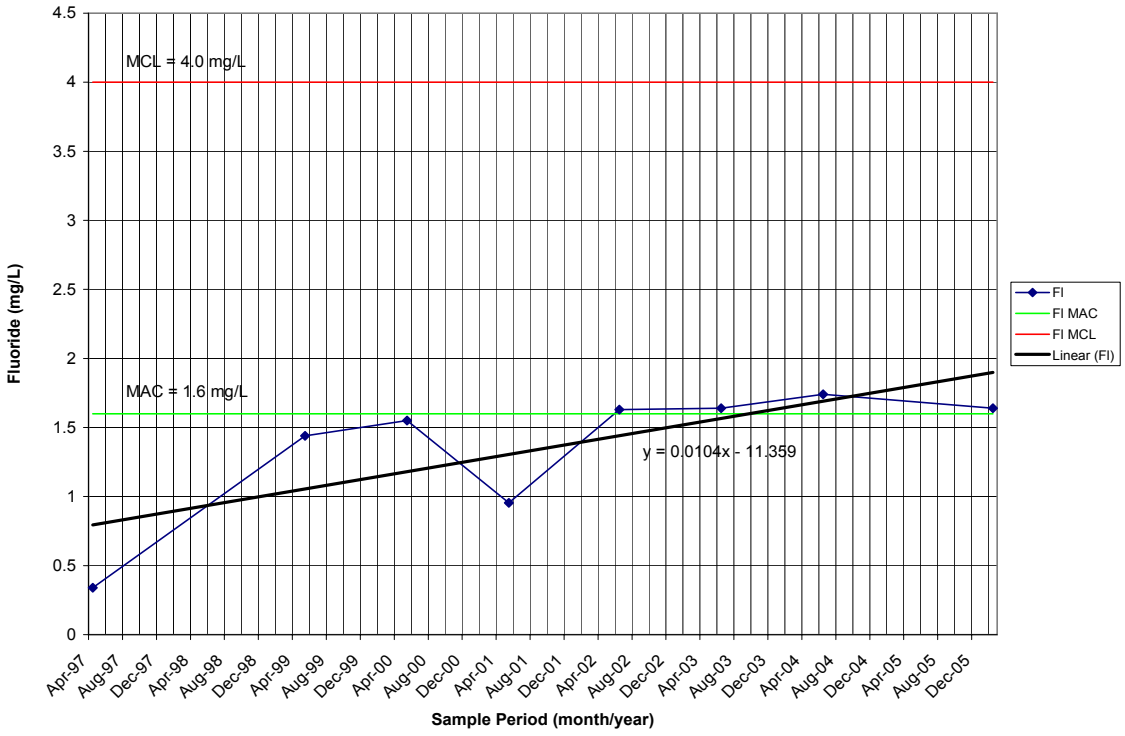

FIGURE 4-2. Fluoride Concentrations, Coyote Springs

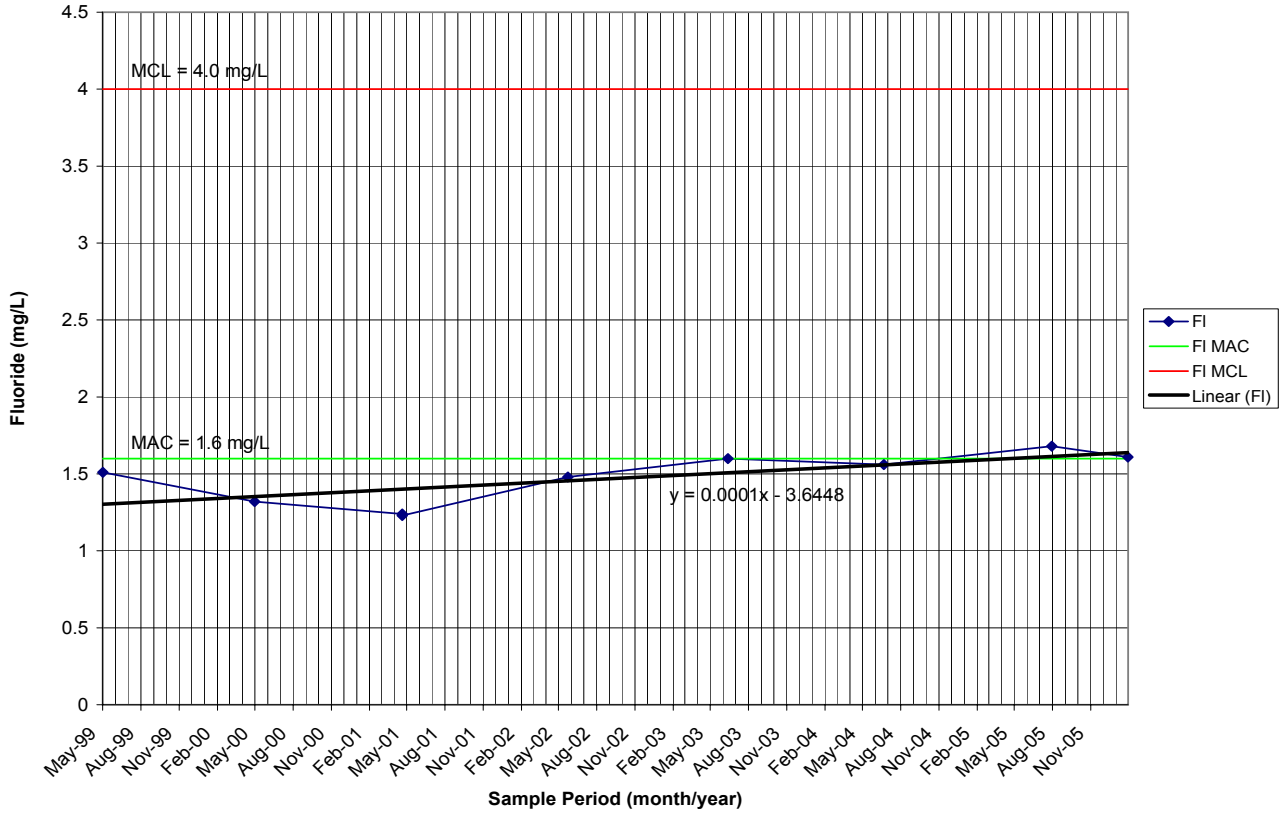

FIGURE 4-3. Fluoride Concentrations, SFR-2S

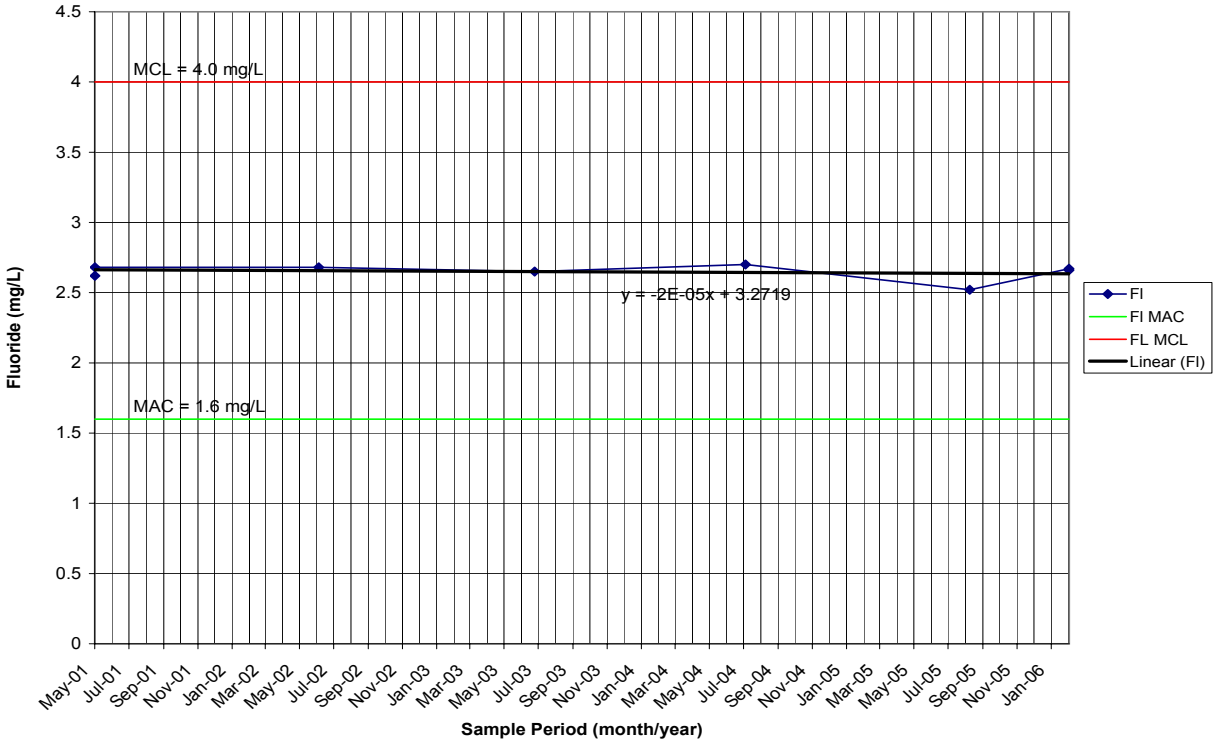

FIGURE 4-4. Fluoride Concentrations, SFR-4T

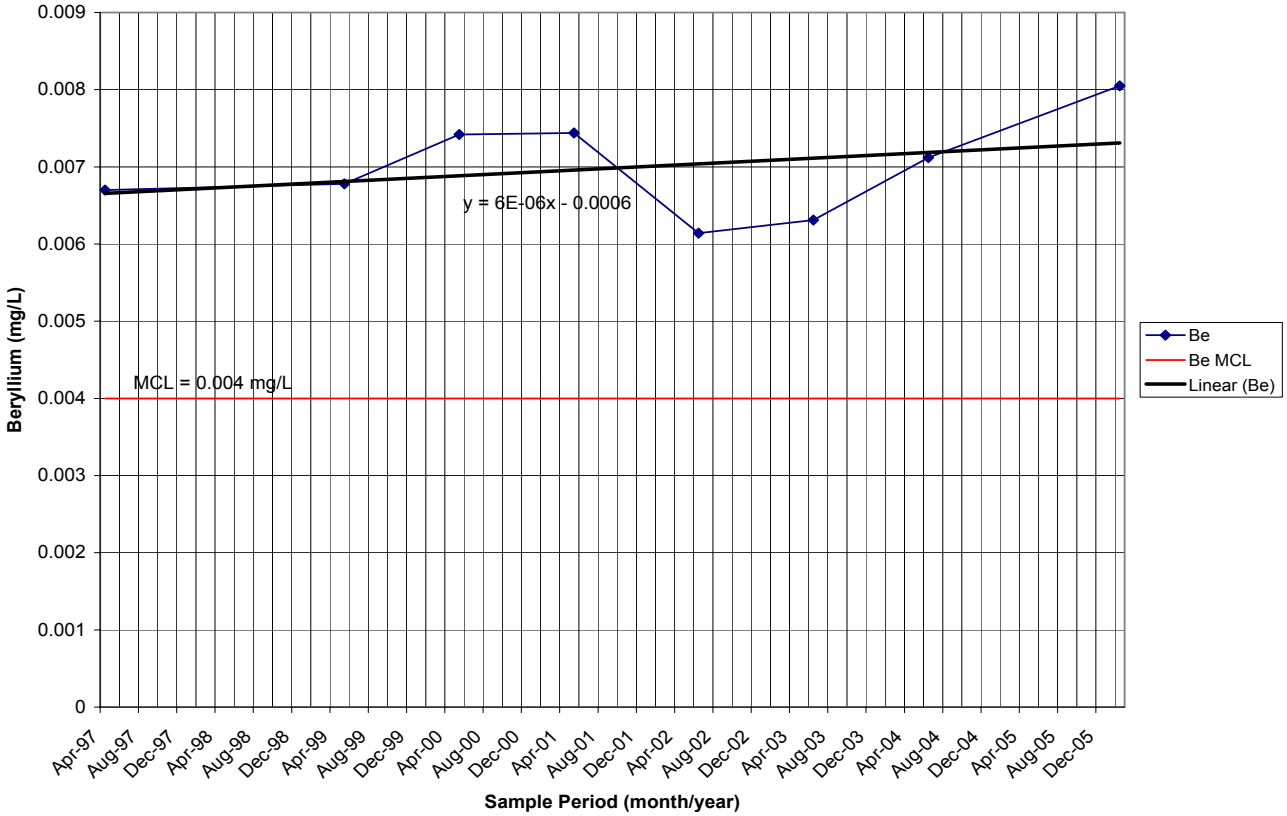

FIGURE 4-5 Beryllium Concentrations, Coyote Springs

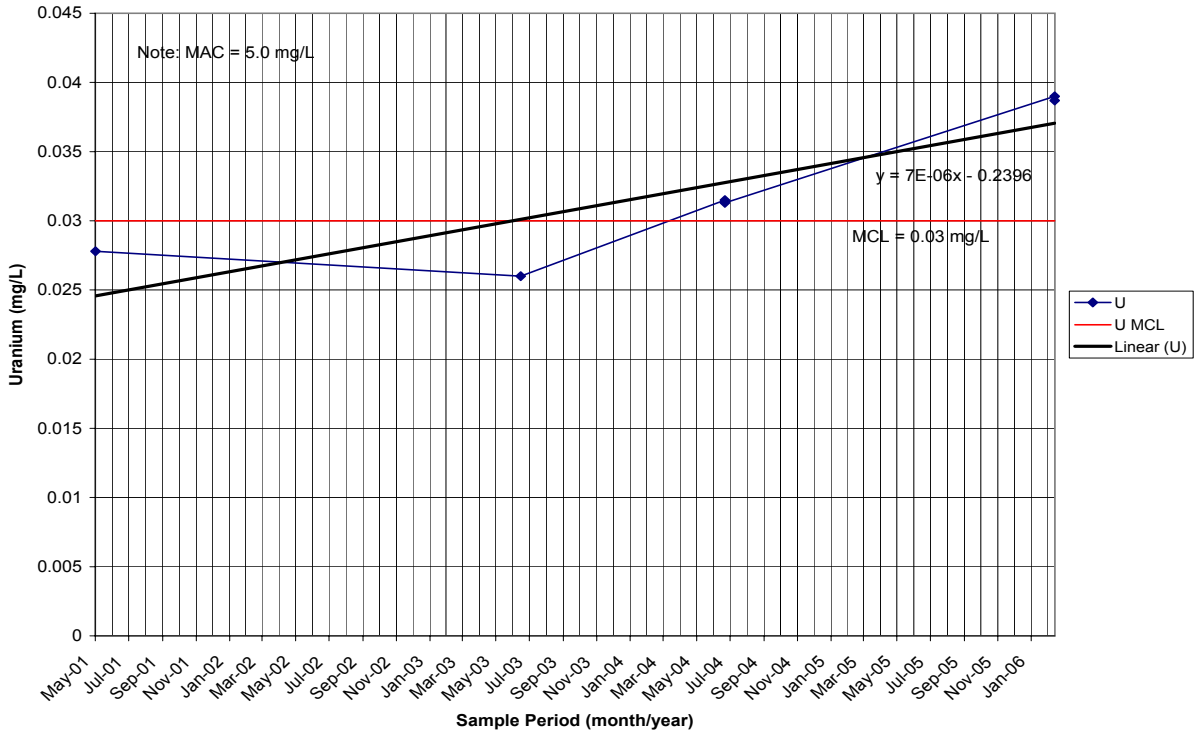

FIGURE 4-6 Uranium Concentrations, EOD Hill

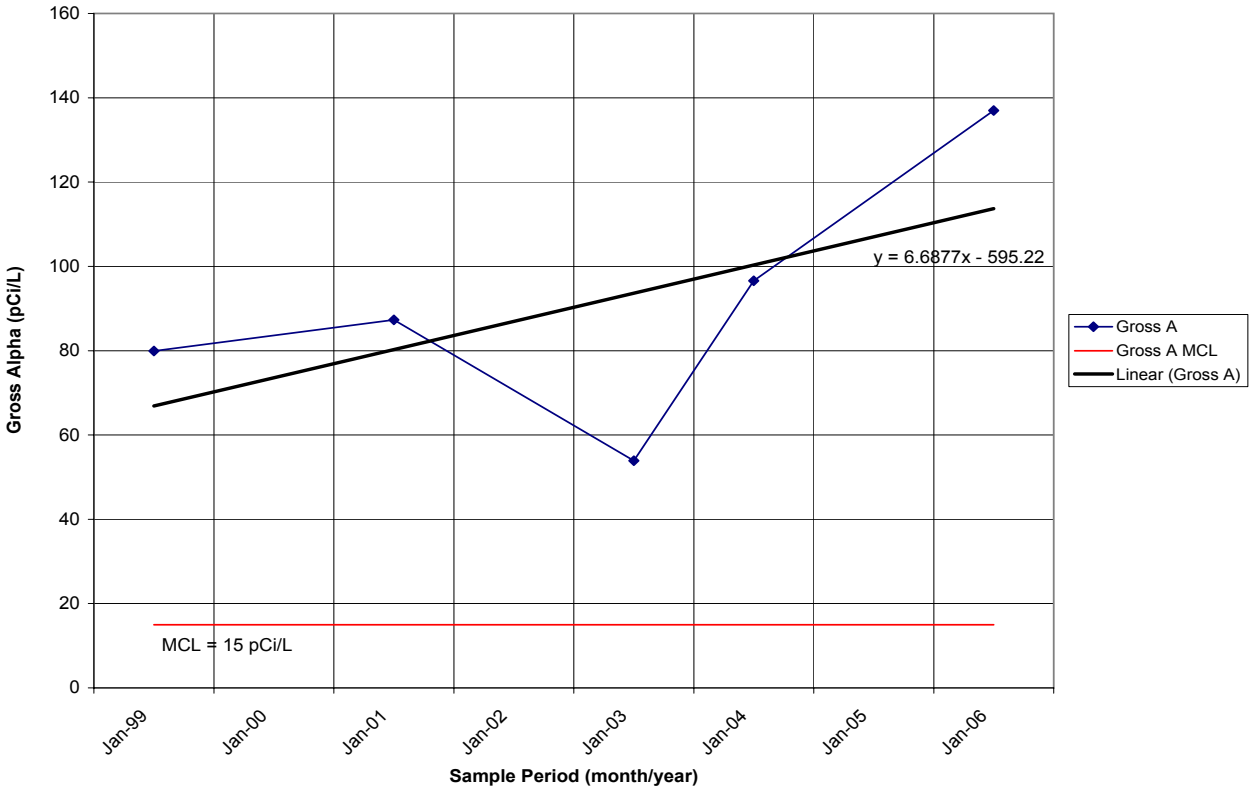

FIGURE 4-7. Gross Alpha Activities, EOD Hill

FIGURE 4-8. Radium-226 Activities, SFR-2S

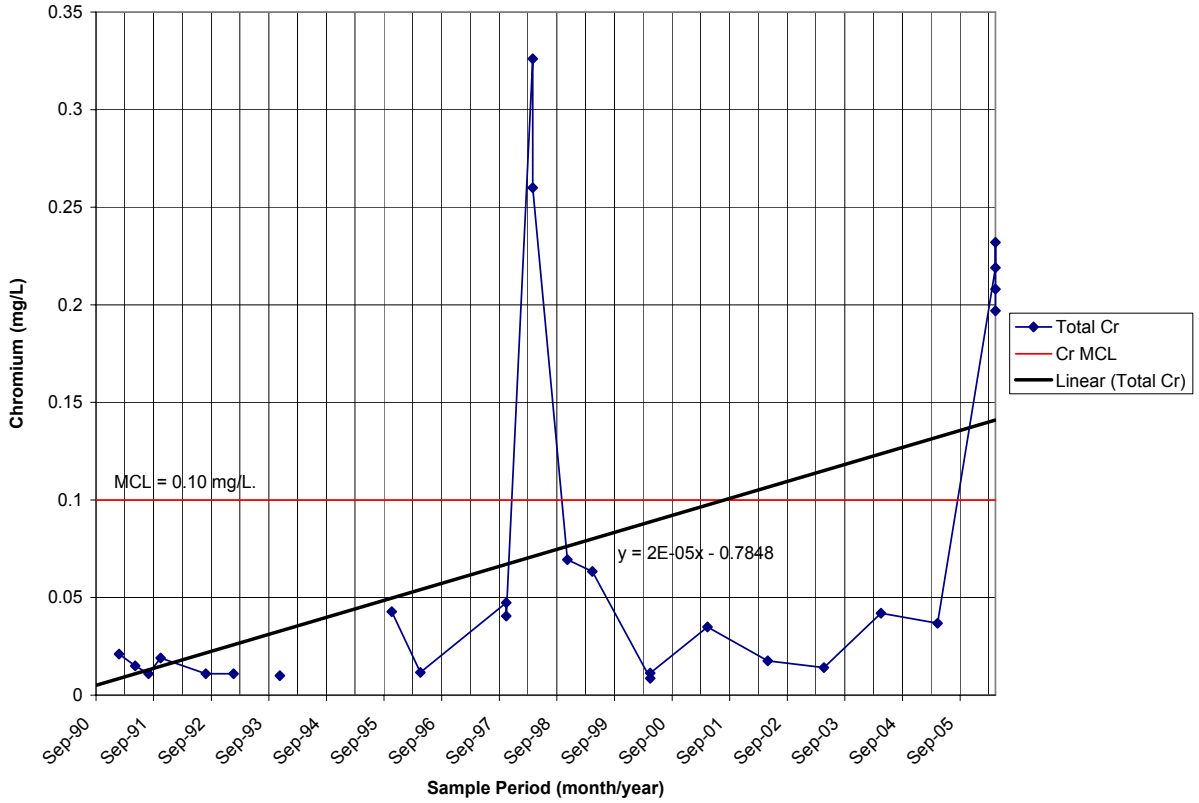

FIGURE 4-9. Chromium Concentrations, MWL-MW1

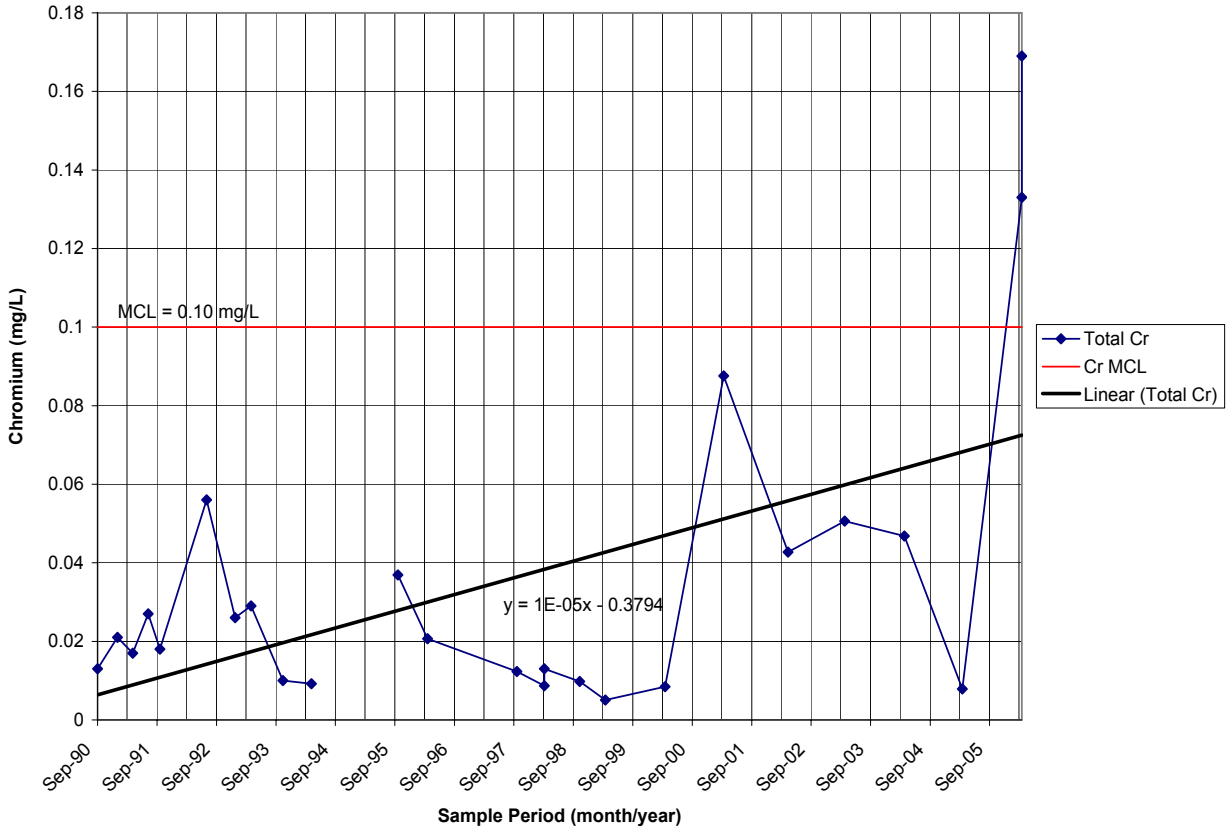

FIGURE 4-10 Chromium Concentrations, MWL-MW3

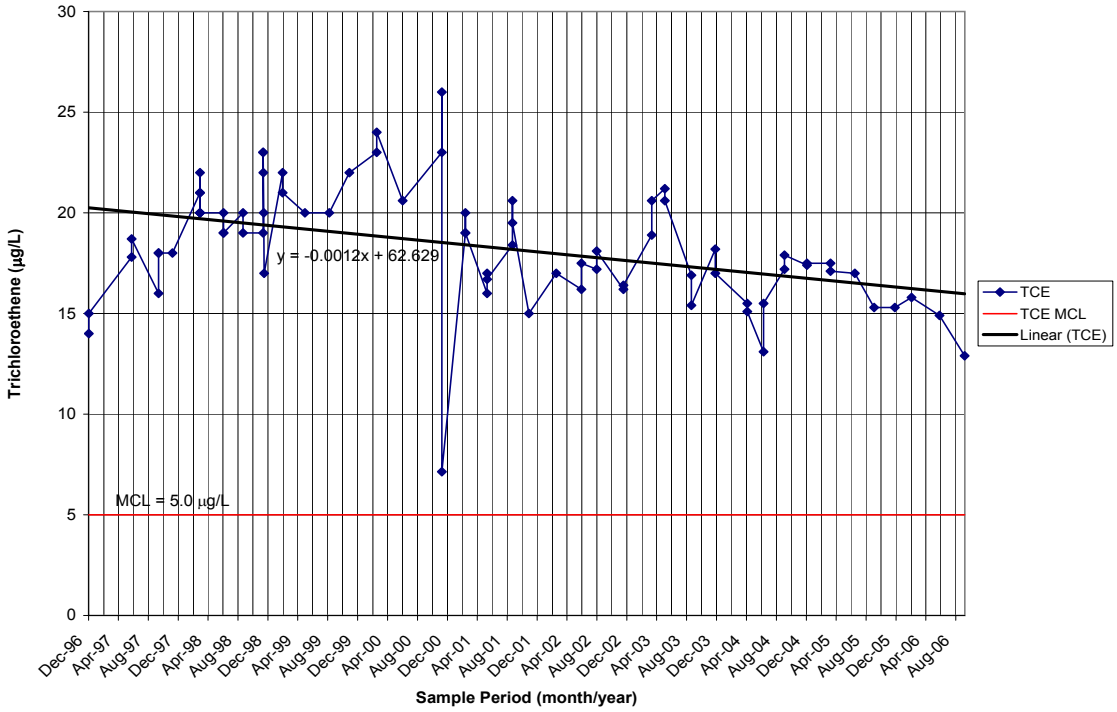

FIGURE 4-11. TCE Concentrations, LWDS-MW1

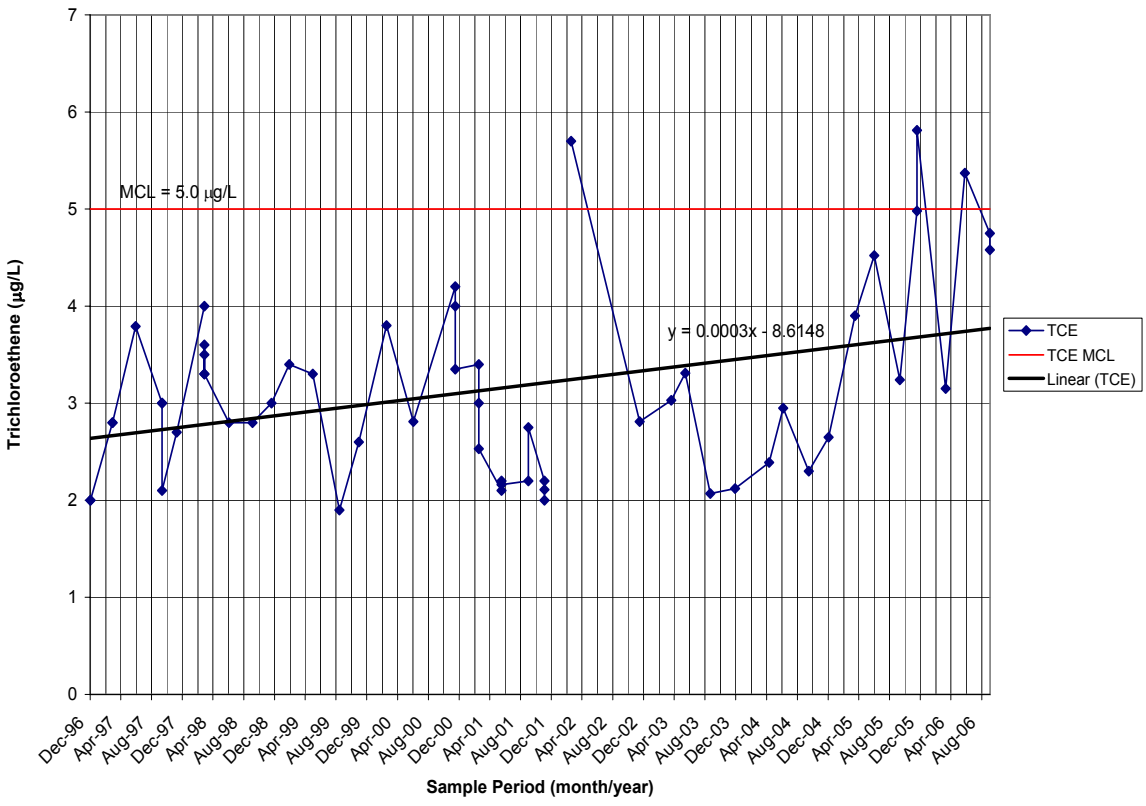

FIGURE 4-12. TCE Concentrations, TAV-MW1

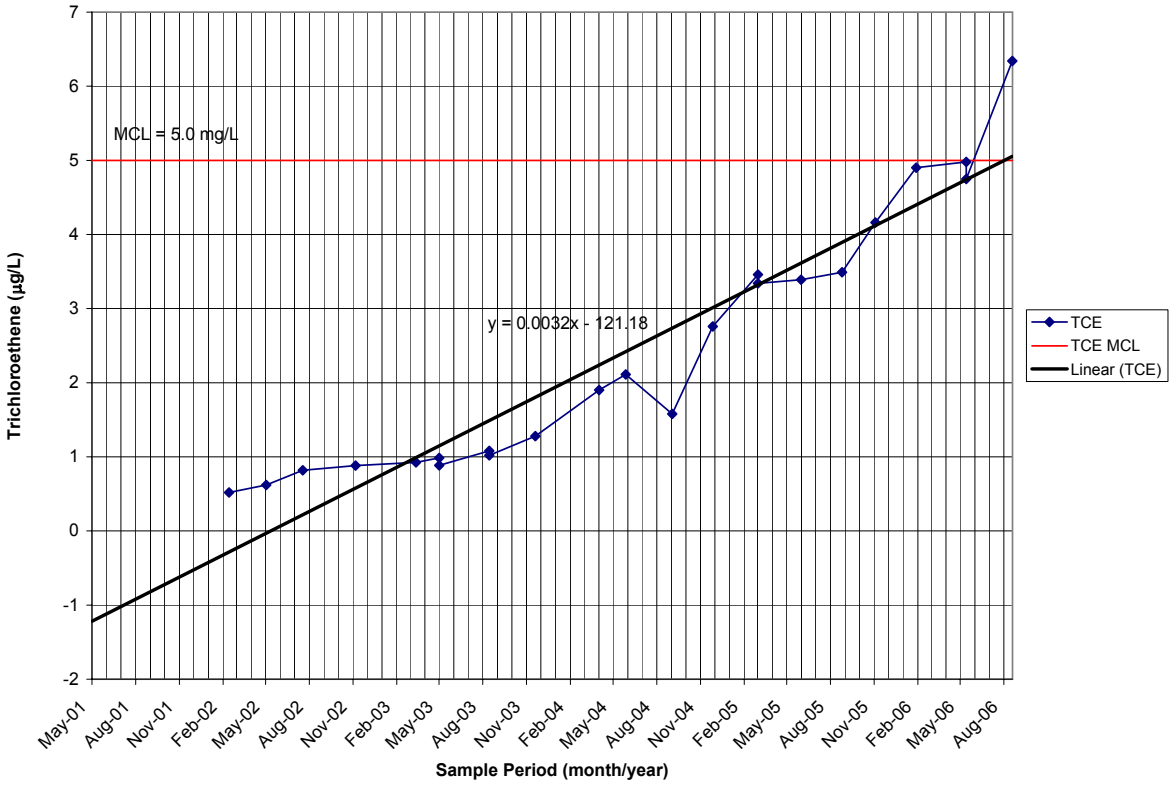

FIGURE 4-13. TCE Concentrations, TAV-MW6

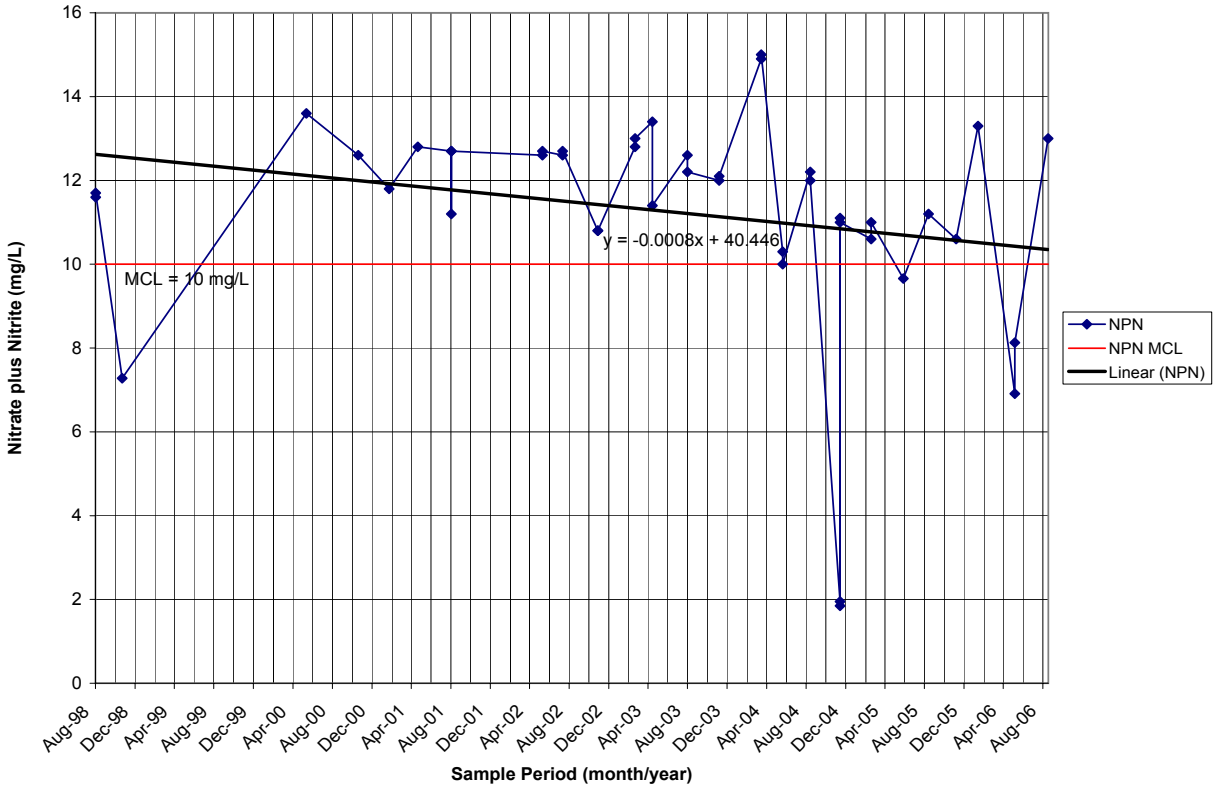

FIGURE 4-14. Nitrate plus Nitrite Concentrations, LWDS-MW1

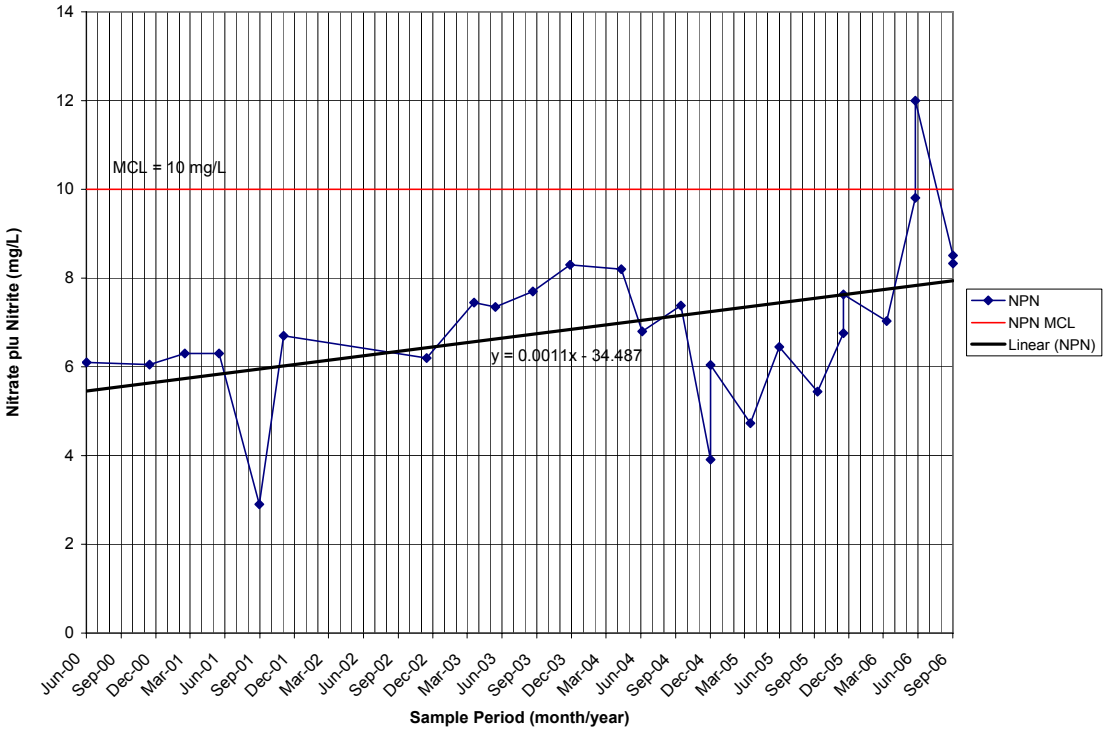

FIGURE 4-15. Nitrate plus Nitrite Concentrations, TAV-MW1

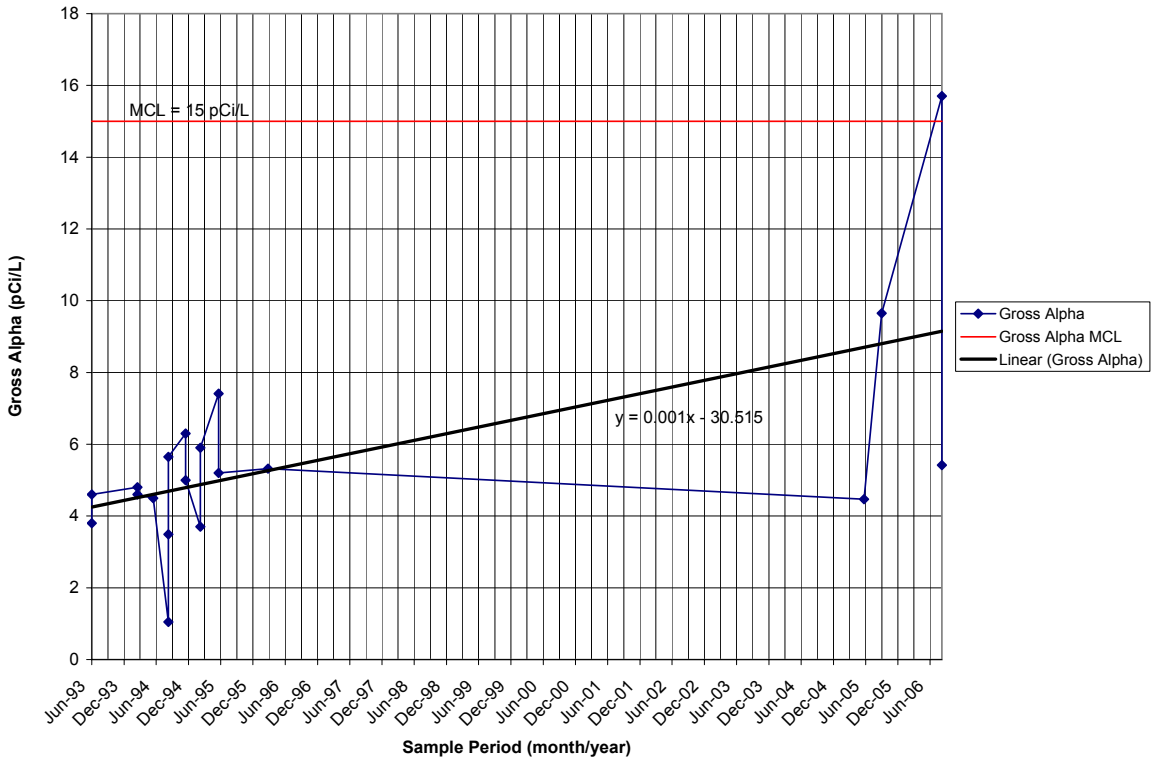

FIGURE 4-16. Gross Alpha Activities, LWDS-MW2

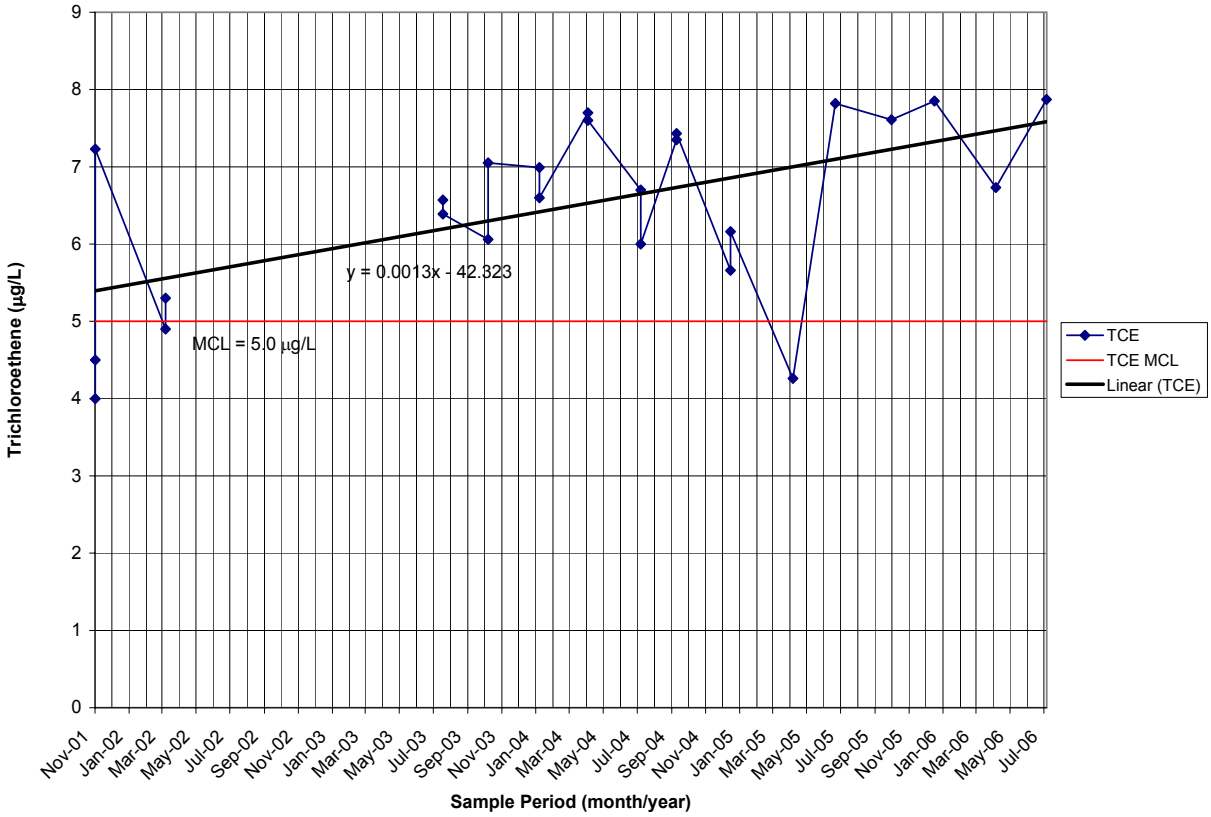

FIGURE 4-17. TCE Concentrations, WYO-4

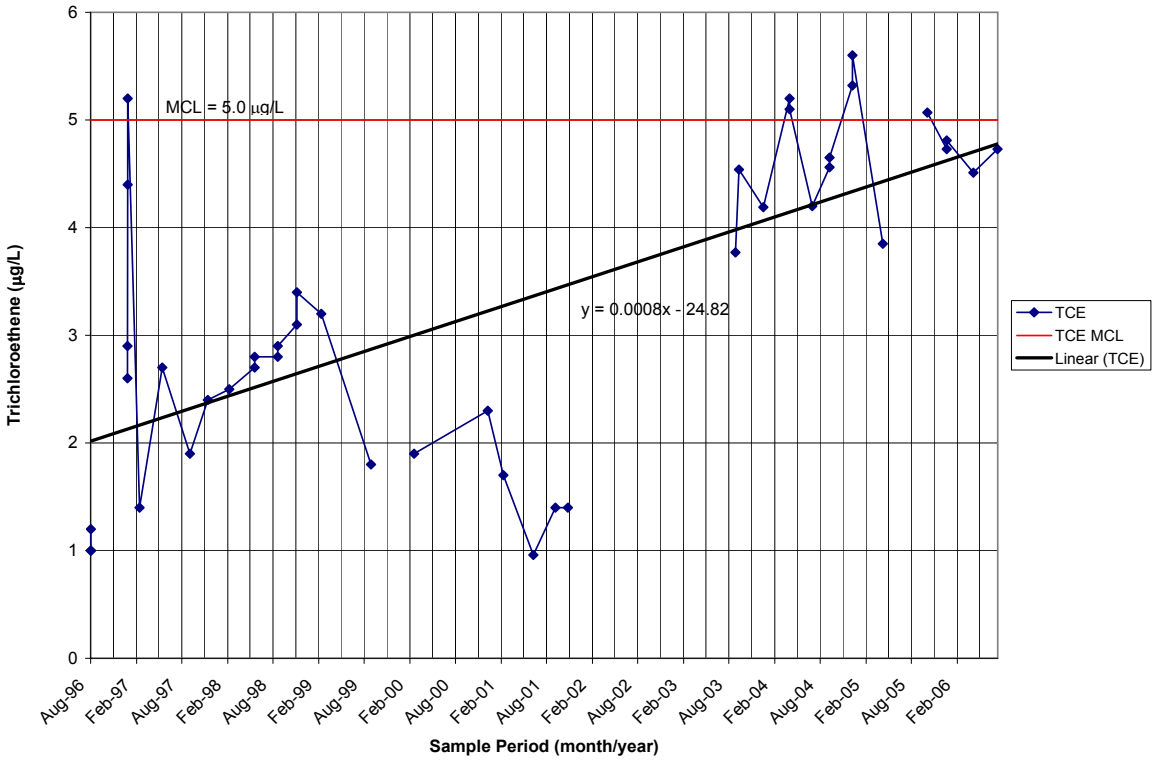

FIGURE 4-18. TCE Concentrations, TA2-W-19

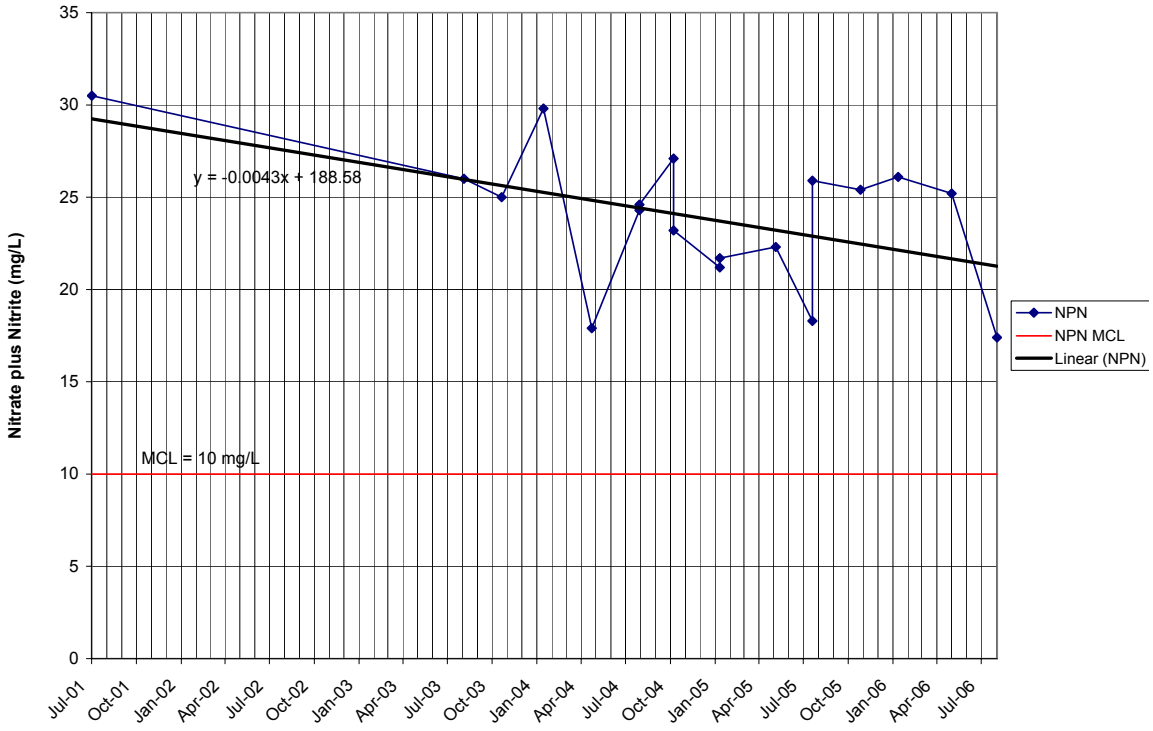

FIGURE 4-19. Nitrate Plus Nitrite Concentrations, TJA-7

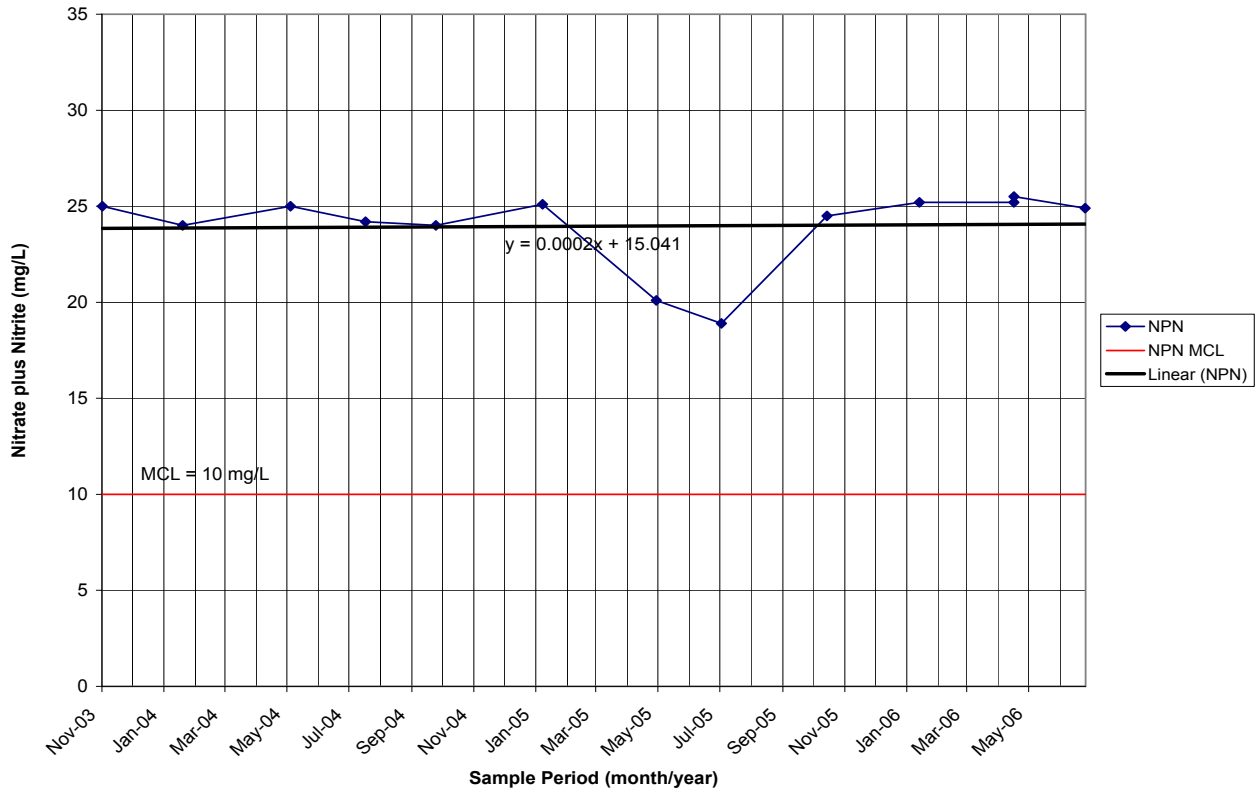

FIGURE 4-20. Nitrate plus Nitrite Concentrations, TA2-SW1-320

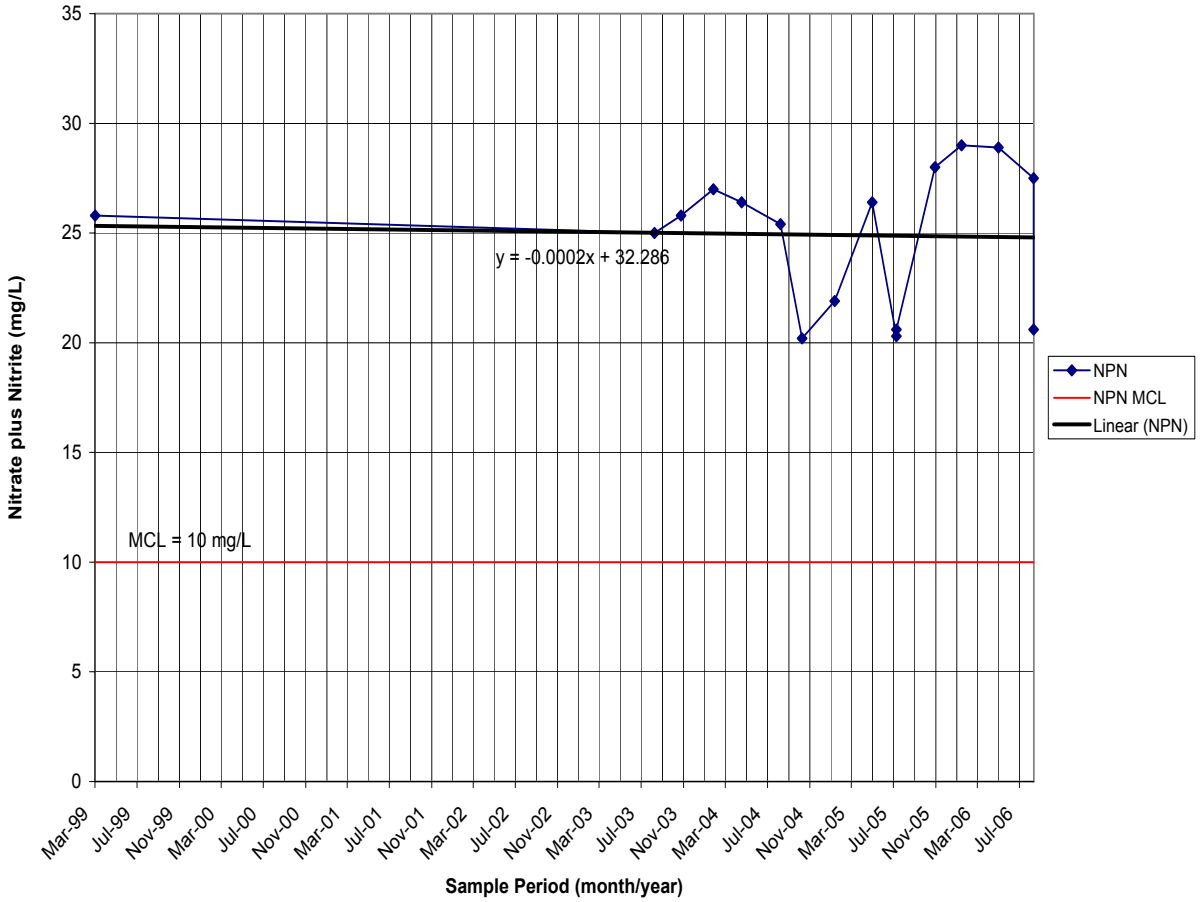

FIGURE 4-21. Nitrate plus Nitrite Concentrations, TJA-4

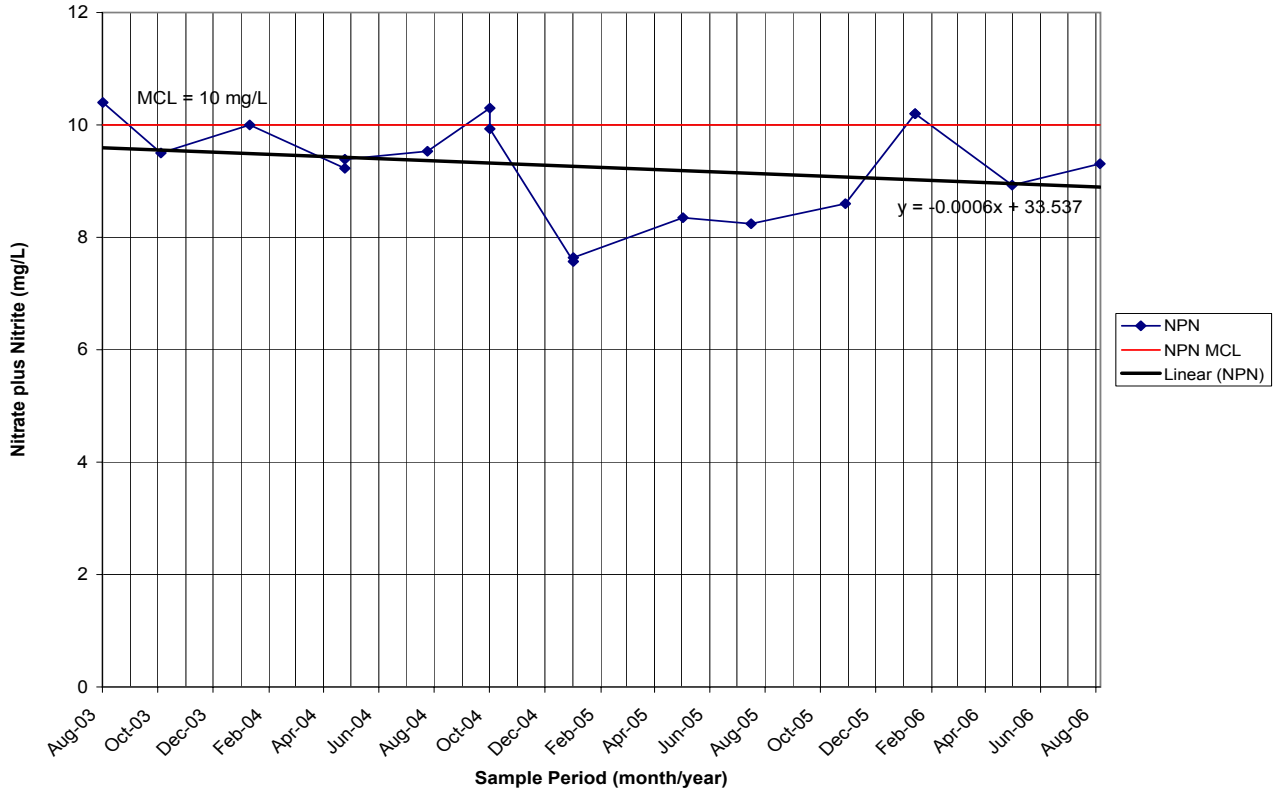

FIGURE 4-22. Nitrate plus Nitrite Concentrations, TA2-W-19

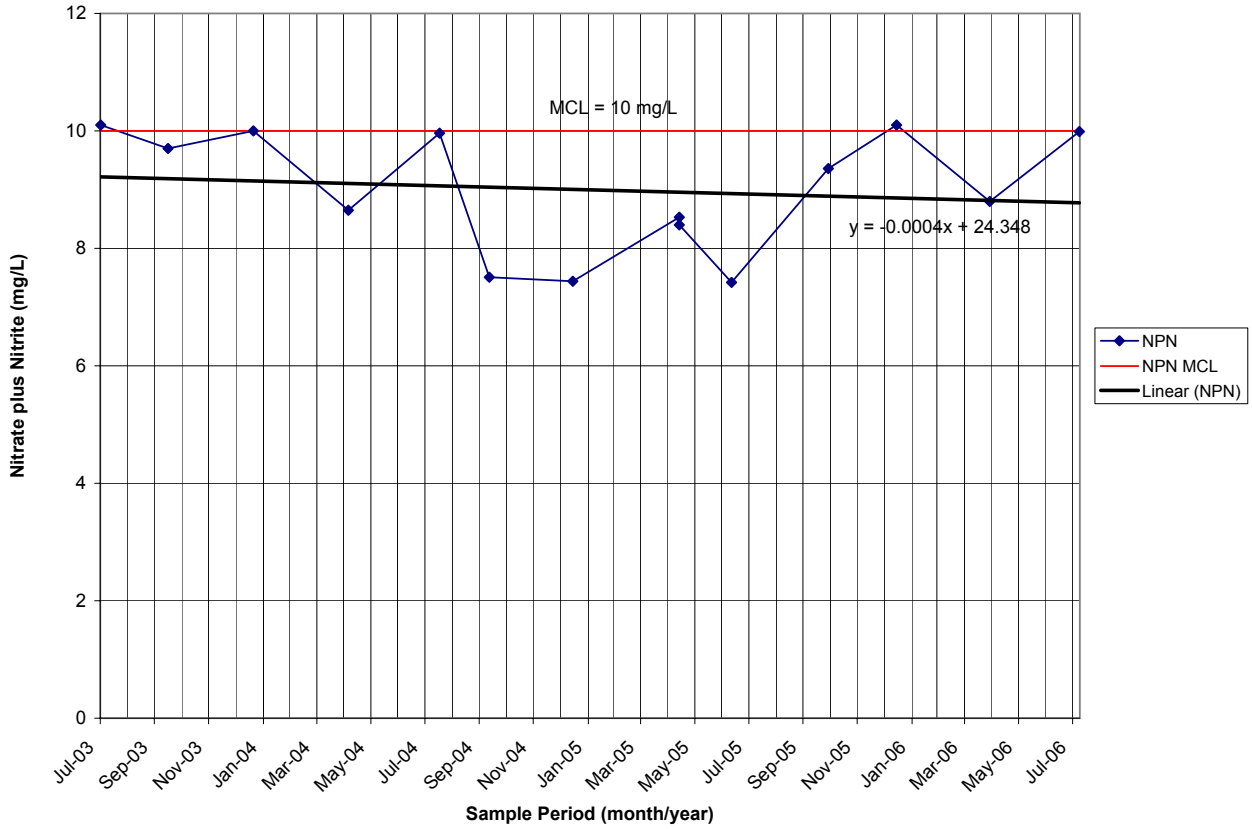

FIGURE 4-23. Nitrate Plus Nitrite Concentrations, TJA-2

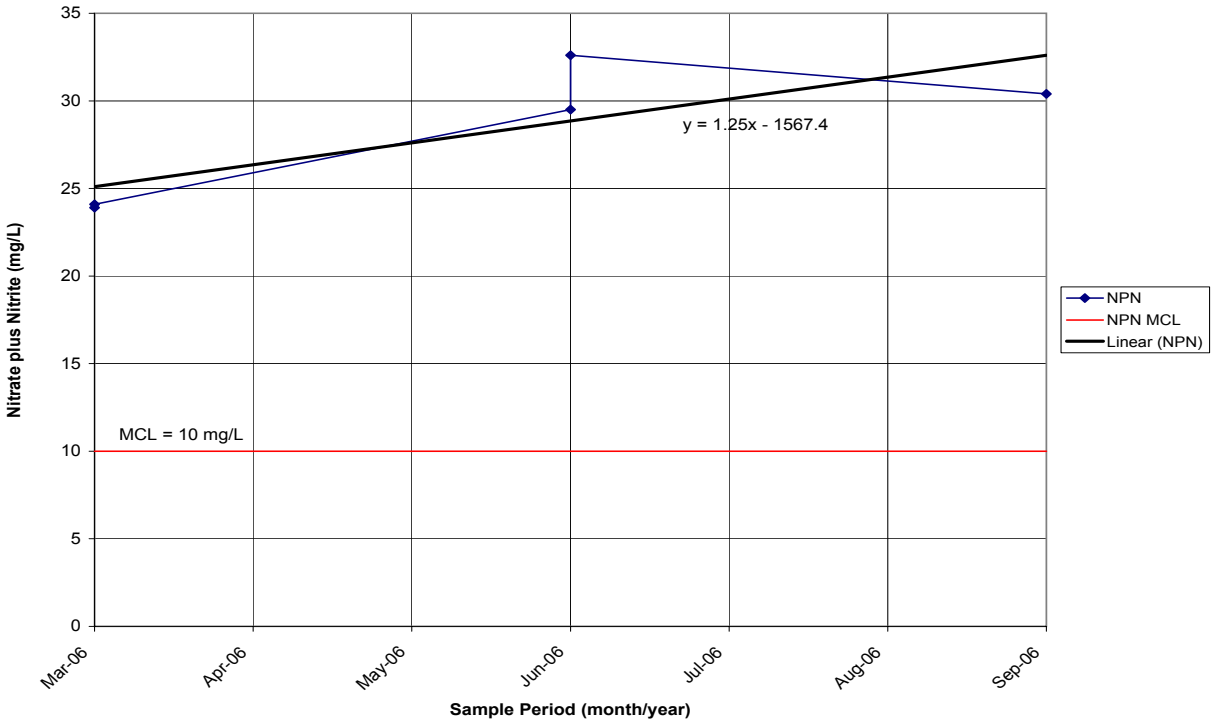

FIGURE 4-24. Nitrate plus Nitrite Concentrations, CYN-MW6

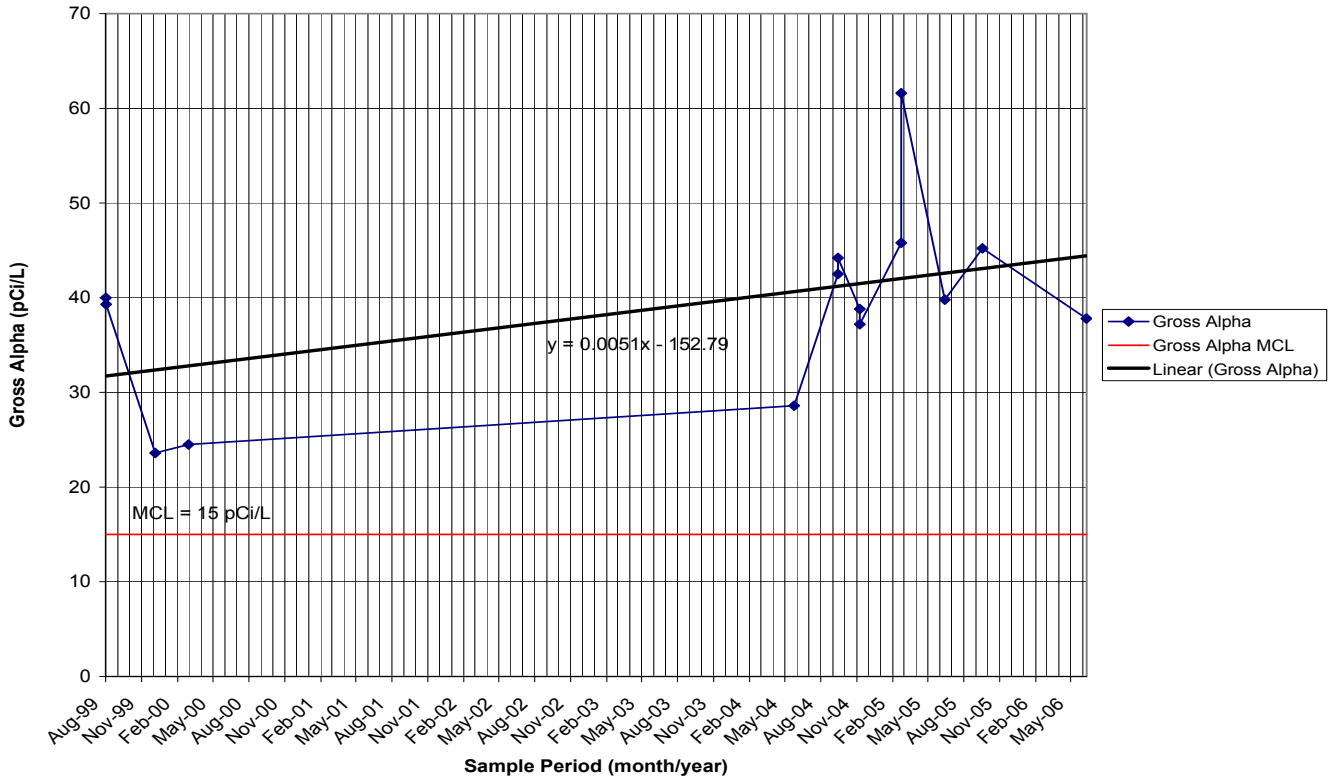

FIGURE 4-25 Gross Alpha Performance, CYN-MW4

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Groundwater levels are a measure of the state of the water balance of this groundwater system. These levels provide a direct measure of the relative amount of water in storage in the aquifer. Changing water levels reflect the difference between recharge and withdrawal from the aquifer. In addition, the rate of change of water levels at a monitor well screened across this water table provides a reliable measure of the useful lifetime of the well. Groundwater recharge is difficult to measure directly. Precipitation can be used as an indirect measure of recharge potential. Available precipitation also impacts demand on groundwater withdrawal. Water pumped by water wells is the principle measure of groundwater withdrawal in the vicinity of KAFB. During FY06, water level measurements were obtained from 141 wells within, and immediately outside, the boundaries of KAFB to determine groundwater flow directions, hydraulic gradients, and changes in water table elevations. Frequency of measurement may be quarterly or monthly, depending on the data source and well characteristics. This chapter describes precipitation, water well production, and water level measurement data collected to better understand the dynamic nature of the groundwater system in the vicinity of SNL/NM.
In FY06, the GWPP and the ER Project measured water levels in 62 monitoring wells on a monthly or

Chapter Five
water level measurements

quarterly basis, depending on the well. Additional water level data were obtained from the 79 wells that are owned by either KAFB, the COA, or the New Mexico State Engineers Office. Table 5-1 shows the number of wells measured by each contributing organization.

Drilling Operations at SNL/NM

5.1 Groundwater Recharge & Withdrawal

Factors influencing water level elevation changes include potential recharge from precipitation and groundwater withdrawal by production wells.

TABLE 5-1. Water Levels Measured by SNL/NM and Other Agencies

Total Wells (1)	Measuring Agency	Well Owner	Location
21	GWPP	DOE/NNSA	Site-wide surveillance network wells
41	ER Project	DOE/NNSA	CWL, MWL, TA-V, TAG Investigation, and Burn Site Groundwater Area
65	USAF IRP Program	KAFB	IRP Long-term Monitoring Program
12	COA	COA	Eubank Landfill north of KAFB and Yale Avenue Landfill west of KAFB
1	USGS	New Mexico State Engineers Office	Mesa del Sol well
1	USGS	COA	MP-MW3 (Montessa Park) well

NOTE: (1) Refer to page xi of this report for well descriptions.
IRP = Installation Restoration Program
GWPP = Groundwater Protection Program
SNL/NM = Sandia National Laboratories, New Mexico
KAFB = Kirtland Air Force Base
USGS = United States Geological Survey
ER = Environmental Restoration
USAF = United States Air Force

5.1.1 Annual Precipitation

The regional climate for the Albuquerque Basin area is semi-arid. Long-term average precipitation ranges from 9.47 inches per year (in/yr) (30 year norm) at AIA to up to 35 in/yr at the crest of the Sandia Mountains. The normal seasonal distribution of precipitation in the Albuquerque area indicates the majority occurring during the period of June through August. Precipitation data significant to KAFB hydrogeology are available from 4 locations. Three meteorological towers are used to measure precipitation on-site at KAFB: the A21 tower east of Tech Area II, the A36 tower located in Tech Area III, and the SC1 tower located near Schoolhouse Well in the foothills of the Manzanita Mountains. The fourth source is the National Weather Service station at AIA, adjacent to KAFB (Figure 3-7). FY06 annual precipitation at the four sites is shown in Table 5-2. The 11.56 inches of precipitation measured at AIA from October 2005 to September 2006 is 2.09 inches above the 30 year norm of 9.47 inches, as computed over the corresponding 12 month interval. The table also shows the precipitation amounts in FY05 for comparison. The FY06 monthly precipitation for all four locations during FY06 is illustrated in Appendix G, Figure G-1.

5.1.2 Groundwater Withdrawal

KAFB production wells (Figure 3-1) are screened over a depth from about 500 to 2,000 ft bgs and extract groundwater from the upper and middle unit of the Santa Fe Group. During FY06, KAFB pumped groundwater from 10 water supply wells. KAFB annual groundwater production in FY05 and FY06 is shown in Table 5-3.

TABLE 5-2. FY05-06 Precipitation Data at KAFB

Site	A21	A36	SC1	AIA
FY05	13.96	12.05	11.72	12.99
FY06	12.92	13.57	12.15	10.97

NOTE: AIA = Albuquerque International Airport
Data are in inches of rainfall

In FY06, KAFB purchased an additional 435,000 gal from COA. KAFB supplies all the water for SNL/NM and other DOE facilities located on KAFB. Appendix G, Figure G-3 shows the FY06 total monthly production for KAFB water supply wells. The highest level of production was 132,548,000 gals in July 2006; the lowest was 54,035,000 gals in March 2006. Appendix G, Figure G-4 shows the FY06 monthly production for each KAFB water supply well. Appendix G, Figure G-5 shows the trend of total annual groundwater production at KAFB by all wells, starting with 1996.

KAFB-1	KAFB-11[3]	KAFB-2	KAFB-14
KAFB-3	KAFB-15	KAFB-4	KAFB-16
KAFB-7[1]	KAFB-17[2]		

NOTE: [1]Water used for Golf Course Irrigation only
[2]Located at the Helicopter landing site along the southern boundary of KAFB
[3]This well pumped briefly for an evaluation period and was shut down for the majority of the year.

TABLE 5-3. Total KAFB Groundwater Production

	FY05	FY06
Million gals	1,096	1,083
Acre-feet	3,362	3,323

5.2 Water Table Elevations

5.2.1 Construction of Regional Water Table Elevation Map

Water level data from monitor wells installed by DOE/NNSA and Sandia Corporation, KAFB IRP, COA, and the State of New Mexico were used to construct the FY06 regional water table elevation contour map shown in Figure 5-1. The extent of the contoured area was constructed using September and October FY06

static water level data from 53 wells completed in the regional aquifer underlying KAFB. The water level data for wells used in this construction should be measured at the same time; however, the time required to collect data from a large number of wells, the frequency of water level measurement, and the reliability of some of the measurements necessitate a broader range of collection dates than is ideal. These wells are screened across the regional water table in the upper unit of the Santa Fe Group. They penetrate different depths into the aquifer and have different lengths of screened interval. Although most of the water level data represent an unconfined water table, some water levels measured in a few wells may represent semi-confined aquifer conditions.

5.2.2 Regional Groundwater Flow System

Contouring regional water level elevations provides information on groundwater dynamics. The direction of groundwater flow is the same as the potentiometric gradient. The orientation of the gradient is perpendicular to the contour lines. The gradient is in the direction from the higher water level contour to the lower contour level. Groundwater flow directions inferred from Figure 5-1 may not accurately represent small-scale, localized groundwater flow patterns; however, the regional water level contours indicate the large-scale horizontal direction of groundwater movement across the KAFB area. In general, the open-to-the-north, U-shaped contour lines depicted in Figure 5-1 define an elongated depression in the water table with a north-south orientation. This depression or trough extends as far south as Isleta Pueblo Reservation. The KAFB and COA Ridgecrest well fields are located near the northern boundary of KAFB. The depression of the water table is the result of the large amount of groundwater withdrawal by the water supply wells.

The contour line gradient indicates groundwater flow towards these supply wells. The flat gradient in the middle of the trough is characteristic of flow through the highly permeable sediments of the ancestral Rio Grande fluvial deposits, which are the most productive aquifer material in this area. The contours define the collective zones of influence of these large well fields. The direction of groundwater flow in the vicinity of KAFB (west of the Tijeras fault complex), as inferred from the contour lines, is west and northwest. This is a radical change from the historical southwesterly direction before Albuquerque entered into a significant period of population growth (Bjorklund and Maxwell 1961). This change in flow direction is a direct result of the dramatic increase in groundwater pumping. The steep gradients in the water table along the eastern edge of the map are primarily due to the presence of faults, shown in Figure 2-2, and Figure 2-3, that impede the westward movement of groundwater.

A comparison between the FY05 and FY06 water table maps reveals that the contour lines defining the trough continue slowly to migrate to the south, indicating an ongoing decline of the water table in this region. The rate of decline in water levels over the past FY continues at a rate of 1.2 ft over the previous year, as illustrated in the Figure 5-2, which represents the change in the FY06 water table water minus the corresponding values for the FY05 water table elevation. Increases in the elevation of the water table in the northeast quadrant of the figure during the period of FY06 are likely due to groundwater recharge from the Tijeras Arroyo.

5.2.3 Perched Groundwater System (PGWS)

During monitor well installation for groundwater characterization in TA-2 in 1993, a shallow water bearing zone was encountered at a depth of 300 ft bgs. This was 200 feet above the regional water table which was the target for the borehole. Subsequent well installations extended the boundaries of the PGWS to its current definition. As currently defined, the areal extent of the SGWS is approximately 3.5 square miles. The western limits appear to be along a northwest line immediately west of the former KAFB sewage lagoons. The northern defined limits coincide with the northern edge of TA-I. To the east, the PGWS has been confirmed in the KAFB IRP monitor wells east of the KAFB Landfill. The southern extent appears to be near the south edge of the golf course.

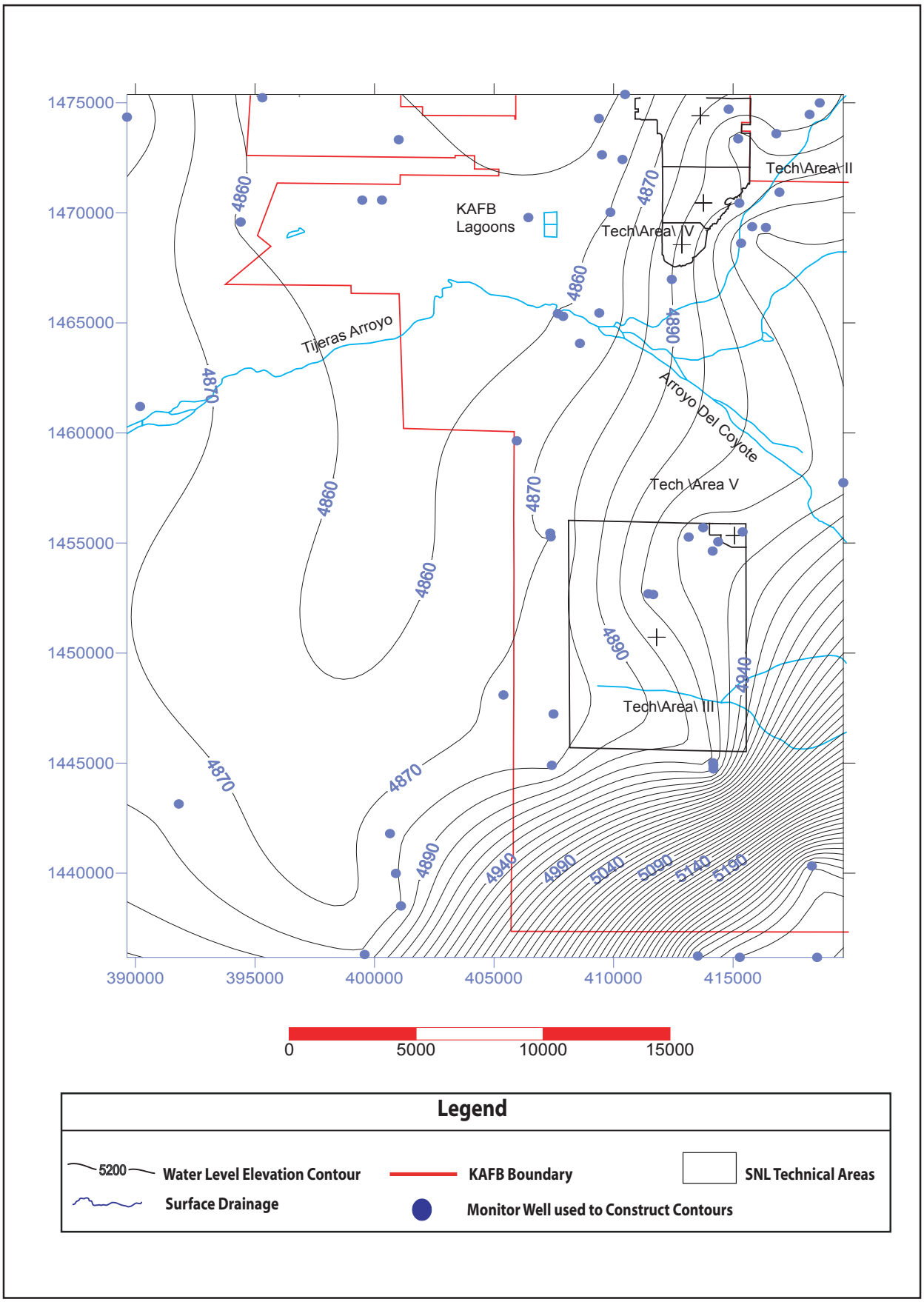

FIGURE 5-1 Regional Groundwater Elevation Map for SNL/KAFB, FY06

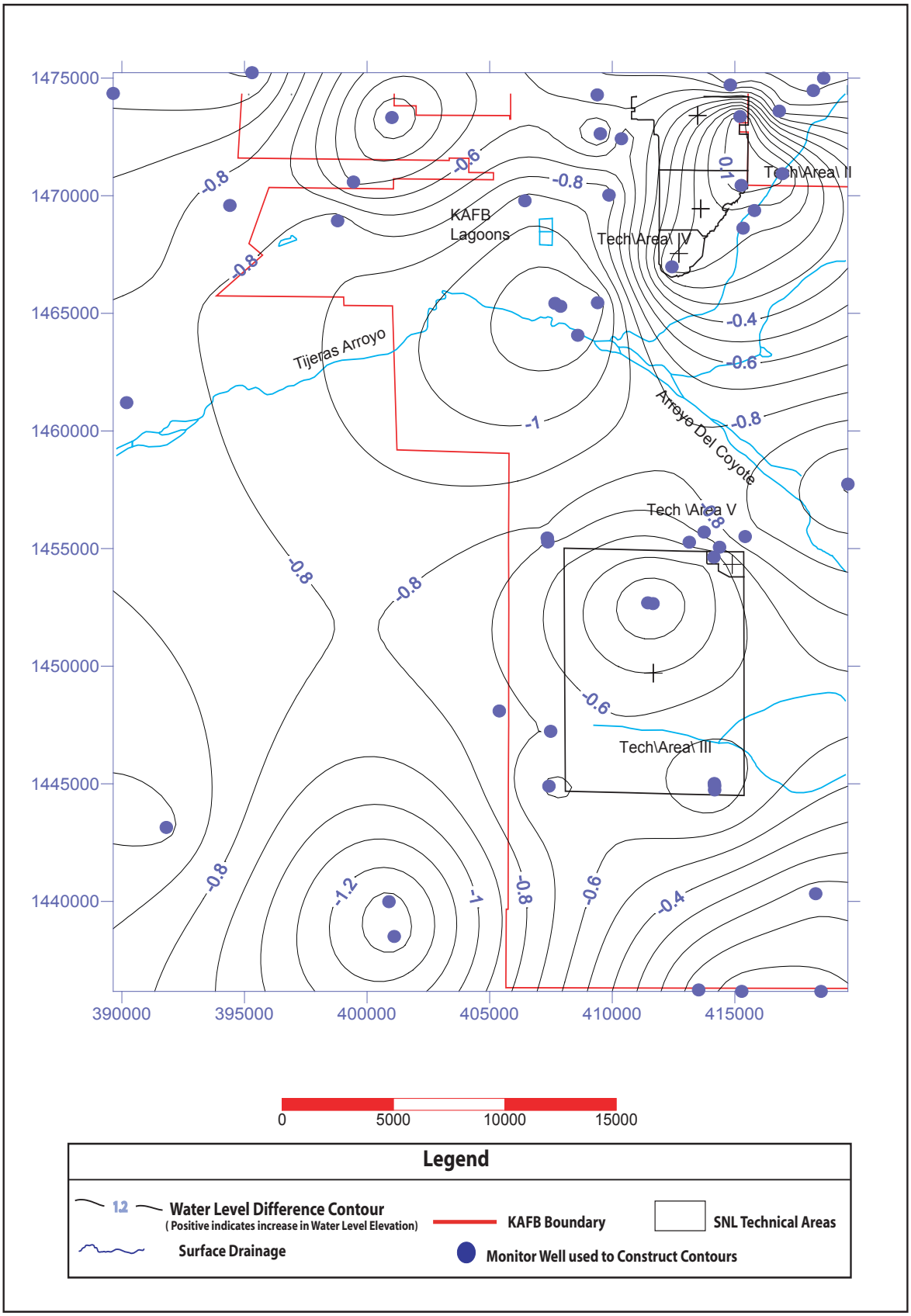

FIGURE 5-2 Annual Regional Groundwater Elevation Difference For SNL/KAFB, FY05-FY06

The elevation data to the first water of the PGWS are contoured on Figure 5-3. The contours indicate a gradient in the PGWS to the east-southeast. Recent correlation of lithologic information obtained from boreholes drilled during monitor well installations has demonstrated a layer of fine sediments that dips to the southeast (Van Hart 2001) and may serve as the perching horizon. No waster is produced from the PGWS. Recharge and drainage to the east drive the dynamics of the system.. Figure 5-4 illustrates the changing water level elevations in the PGWS. In general, the depth to water is increasing in the northwestern section and decreasing toward the eastern portion. The increasing depth to water in the west is dominated by rapidly dropping water levels in the WY0-4 monitor well located west of TA-II. Water levels in the well have dropped 2.35 ft over the previous year. Water levels in the wells in the eastern half of the area have increased in variable amounts of the past year. The concentric contours in the eastern part of the figure are associated with the relatively stable water levels in monitor wells KAFB-0313 and TJA-5. Water level elevations in the extreme eastern portion of the PGWS are difficult to distinguish from regional water table elevations in this area. The merging of the SGWS into the regional aquifer may explain the increasing water level elevations in this area. The decline of water level elevations in the west is the result of the closure of a major recharge source, the KAFB Lagoons in 1987. Two additional, major sources of recharge to the PGWS are Tijeras Arroyo and turf irrigation at the KAFB Golf Course. Other potential sources of recharge to the PGWS are landscape,, leaking water distribution and sewage collection lines. The general pattern that may be inferred from the evaluation of water level declines indicates a general draining of the PGWS toward the east coupled with a decrease of recharge in the west. A more detailed discussion of the PGWS can be found in the Corrective Measures Evaluation Report for Tijeras Arroyo Groundwater (SNL 2005b).

5.3 Monitor Well Hydrographs

This section discusses recent trends in water levels in the vicinity of SNL/NM. Regional water level elevation changes over the current FY are discussed in Section 5.2.2 and illustrated in Figure 5-2. Changes in water level elevations in the perched GWS over the past year are discussed in Section 5.2.3 and illustrated in Figure 5-4. Hydrographs are graphical plots of water level changes over time. Data from quarterly and monthly water level measurements are used to construct the hydrographs in Appendix G. These hydrographs illustrate water level changes over the time period from October 2003 to October 2006. The figures depicting the hydrographs are ordered into groups representing the regional aquifer and the perched GWS on and in the vicinity of SNL/NM and KAFB:

- Regional GWS West of KAFB (COA Yale LF, Mesa del Sol, Montessa Park, McCormick Ranch)
- Regional GWS Northwest KAFB (LF-001, LF-002, FT-13)
- Regional GWS Northeast KAFB (TA-I, TA-II, Tijeras Arroyo, LF-08, COA Eubank LF)
- Shallow GWS (TA-1, TA-II, Tijeras Arroyo, LF-08)
- Regional GWS TA-III (West TA-III, MWL, CWL)
- Regional GWS TA-V
- Regional GWS South KAFB (South Fence Road,)
- KAFB East (East of Tijeras Fault Complex, Coyote Test Field)
- Burn Site Groundwater Area

Well hydrographs are presented in Appendix G, Figures G-6 through G-31. (Data for wells that provide redundant trend information are not plotted.) Each figure contains representative hydrographs for monitor wells located in the same general area and demonstrate similar overall water level elevations and trends. One or more representative hydrographs were selected in each group to demonstrate the mean behavior of groundwater levels in the area. A trend line (dashed) was constructed for the representative hydrographs using a linear regression of data for the recent 36-month period. The trend lines are superimposed on each

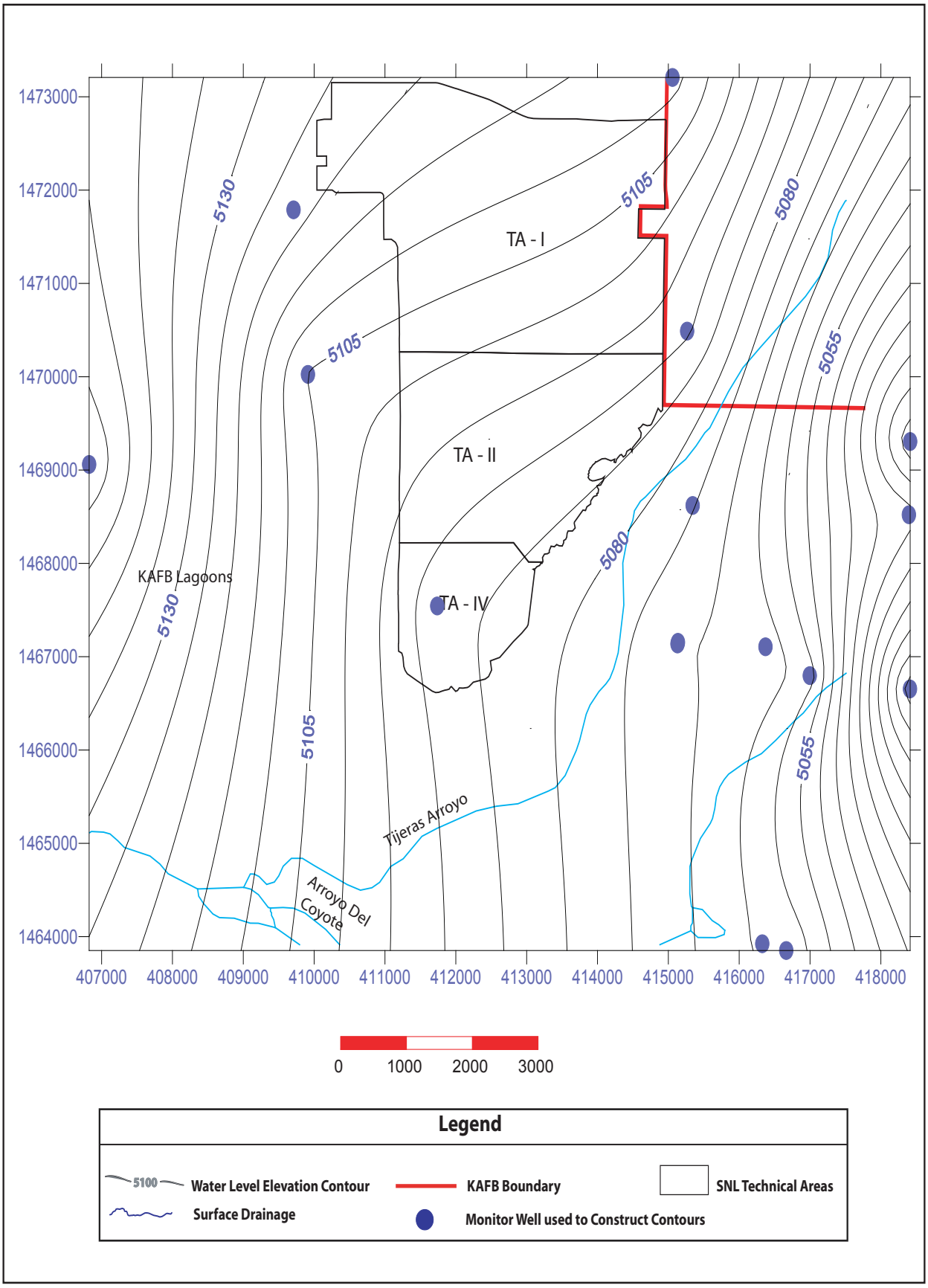

FIGURE 5-3 Shallow Groundwater System Water Elevation Map

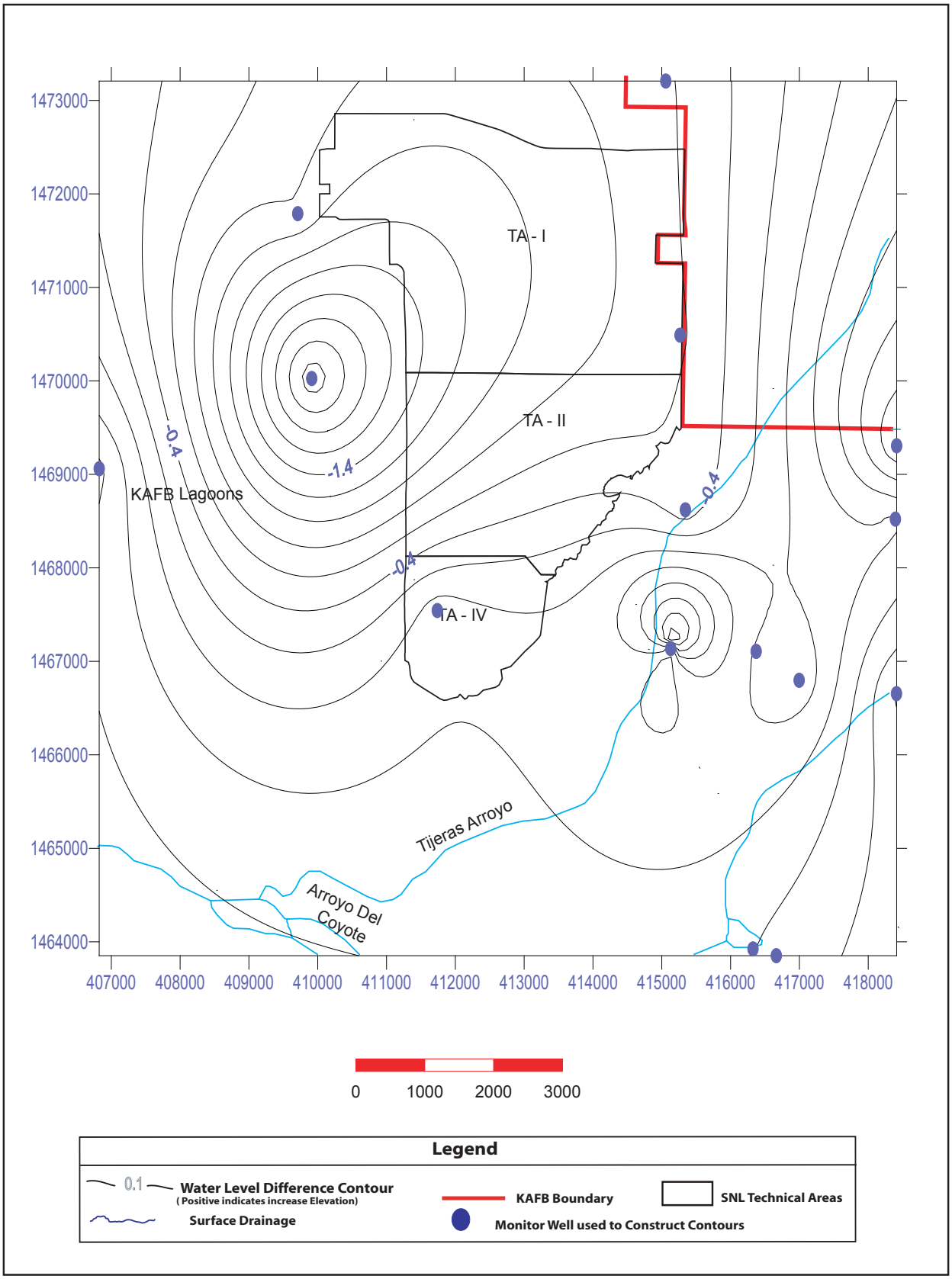

FIGURE 5-4 Shallow Groundwater System Elevation Changes, FY05 - FY06

representative hydrograph and are defined by the equation of slope y = ax + y intercept, where the coefficient of x is the slope of the line and represents water level changes in ft/month. The slope value multiplied by 12 is the annual change in ft/yr. A non-linear curve provided a more appropriate and better fit to water elevation data for some of the wells east of the fault complex. The hydrograph trend lines generally exhibit relatively good fit to the linear models as demonstrated by R2 coefficient values near one. R2 values near zero indicate a poor linear model representation. Most well hydrographs plot as a straight line. On some hydrographs oscillations are prominent. These oscillations correlate with seasonal changes in the rate of groundwater pumping at the supply wells. The more pronounced these oscillations, the closer the monitor well location is to the water supply wells. One additional source of oscillations in hydrographs is delayed recovery from purging the well prior to sampling. This phenomenon is most prominently illustrated in the hydrograph for monitor well SFR-4T in Figure G-27. The declining water table has resulted in the water levels in some wells dropping below the bottom of the screened interval. This renders the wells useless for the measurement of water levels and for the collection of groundwater samples.

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Chapter Six

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APPENDIX A

SNL/NM Groundwater Protection Program Groundwater Surveillance Task

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Table GWPP A-1
Summary of Detected Volatile Organic Compounds
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2006

Well ID	Analyte	Result[a] (µg/L)	MDL[b] (µg/L)	PQL[c] (µg/L)	MCL / MAC[d] (µg/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
EOD Hill 13-Mar-06	Acetone	10.4	1.25	5.0	NE	NE		10.4UJ, B1	075759-001	SW846 8260
	Methylene Chloride	2.62	2.0	5.0	5	100	B, J	5.0U, B	075759-001	SW846 8260
Greystone-MW2 24-Feb-06	Carbon Disulfide	3.96	1.25	5.0	NE	NE	J	5.0U, B1	075740-001	SW846 8260
MRN-2 07-Mar-06	Carbon Disulfide	3.26	1.25	5.0	NE	NE	J	5.0U, B1, B2	075754-001	SW846 8260
MRN-2 (Duplicate) 07-Mar-06	Carbon Disulfide	2.01	1.25	5.0	NE	NE	J	5.0U, B1, B2	075755-001	SW846 8260
MRN-3D 08-Mar-06	Carbon Disulfide	1.33	1.25	5.0	NE	NE	J	5.0U, B1	075757-001	SW846 8260
NWTA3-MW2 21-Feb-06	Carbon Disulfide	3.16	1.25	5.0	NE	NE	J		075734-001	SW846 8260
NWTA3-MW3D 22-Feb-06	Carbon Disulfide	1.95	1.25	5.0	NE	NE	J		075736-001	SW846 8260
PL-2 03-Mar-06	Carbon Disulfide	15.2	1.25	5.0	NE	NE		15.2U, B1	075748-001	SW846 8260
PL-3 06-Mar-06	Carbon Disulfide	1.89	1.25	5.0	NE	NE	J	5.0U, B1	075750-001	SW846 8260
TRE-1 15-Feb-06	Chloroform	0.887	0.25	1.0	NE	100	J		075725-001	SW846 8260

Refer to footnotes on page 44

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Table GWPP A-2
Method Detection Limits for Volatile Organic Compounds
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2006

Analyte	Method Detection Limit (µg/L)	Analytical Method[g]
1,1,1-Trichloroethane	0.3	SW846 8260
1,1,2,2-Tetrachloroethane	0.25	SW846 8260
1,1,2-Trichloroethane	0.25	SW846 8260
1,1-Dichloroethane	0.3	SW846 8260
1,1-Dichloroethene	0.3	SW846 8260
1,2,4-Trichlorobenzene	0.3	SW846 8260
1,2-Dichlorobenzene	0.25	SW846 8260
1,2-Dichloroethane	0.25	SW846 8260
1,2-Dichloropropane	0.25	SW846 8260
1,4-Dichlorobenzene	0.25	SW846 8260
2-Butanone	1.25	SW846 8260
2-Hexanone	1.25	SW846 8260
4-methyl-, 2-Pentanone	1.25	SW846 8260
Acetone	1.25	SW846 8260
Benzene	0.3	SW846 8260
Bromodichloromethane	0.25	SW846 8260
Bromoform	0.25	SW846 8260
Bromomethane	0.5	SW846 8260
Carbon disulfide	1.25	SW846 8260
Carbon tetrachloride	0.25	SW846 8260
Chlorobenzene	0.25	SW846 8260
Chloroethane	0.5	SW846 8260
Chloroform	0.25	SW846 8260
Chloromethane	0.5	SW846 8260
Dibromochloromethane	0.25	SW846 8260
Ethyl benzene	0.25	SW846 8260
Methylene chloride	2	SW846 8260
Styrene	0.25	SW846 8260
Tetrachloroethene	0.25	SW846 8260
Toluene	0.25	SW846 8260
Trichloroethene	0.25	SW846 8260
Vinyl acetate	1.5	SW846 8260
Vinyl chloride	0.5	SW846 8260
Xylene	0.25	SW846 8260
cis-1,2-Dichloroethene	0.3	SW846 8260
cis-1,3-Dichloropropene	0.25	SW846 8260
trans-1,2-Dichloroethene	0.3	SW846 8260
trans-1,3-Dichloropropene	0.25	SW846 8260

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Table GWPP A-3
Summary of Perchlorate Results
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2006

Well ID	Sample Date	Perchlorate Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL / MAC[d] (mg/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
EOD HILL	13-Mar-06	1.26	0.200	0.600	NE	NE			075759-020	EPA 314.0
	13-Mar-06	1.08	0.250	1.0	NE	NE		P2	075759-020	EPA 6850 M
MRN-2	09-Dec-05	ND	0.004	0.012	NE	NE	U		073547-020	EPA 314.0
	07-Mar-06	ND	0.004	0.012	NE	NE	U		075754-020	EPA 314.0
	06-Jun-06	ND	0.004	0.012	NE	NE	U		078671-020	EPA 314.0
	21-Sep-06	ND	0.004	0.012	NE	NE	U		081627-020	EPA 314.0
MRN-2 (Duplicate)	07-Mar-06	ND	0.004	0.012	NE	NE	U		075755-020	EPA 314.0
MRN-3D	12-Dec-05	ND	0.004	0.012	NE	NE	U		073549-020	EPA 314.0
	08-Mar-06	ND	0.004	0.012	NE	NE	U		075757-020	EPA 314.0
	08-Jun-06	ND	0.004	0.012	NE	NE	U		078672-020	EPA 314.0
	25-Sep-06	ND	0.004	0.012	NE	NE	U		081629-020	EPA 314.0
MRN-3D (Duplicate)	25-Sep-06	ND	0.004	0.012	NE	NE	U		081630-020	EPA 314.0
NWTA3-MW2	14-Dec-05	ND	0.004	0.012	NE	NE	U		073546-020	EPA 314.0
	21-Feb-06	ND	0.004	0.012	NE	NE	U		075734-020	EPA 314.0
	05-Jun-06	ND	0.004	0.012	NE	NE	U		078670-020	EPA 314.0
SWTA3-MW4	01-Mar-06	ND	0.004	0.012	NE	NE	U		075746-020	EPA 314.0
	12-Jun-06	ND	0.004	0.012	NE	NE	U		078674-020	EPA 314.0
	22-Sep-06	ND	0.004	0.012	NE	NE	U		081631-020	EPA 314.0
SWTA3-MW4 (Duplicate)	12-Jun-06	ND	0.004	0.012	NE	NE	U		078675-020	EPA 314.0

Refer to footnotes on page 43.

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Table GWPP A-4
Summary of Alkalinity, Anions, Nitrate plus Nitrate, Total Organic Halogens, Total Phenols, and Total Cyanide Results
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL / MAC[d] (mg/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
Coyote Springs 20-Feb-06	Alkalinity as CACO3	1,040	1.45	2.0	NE	NE			075732-016	EPA 310.1
	Bromide	1.90	0.041	0.2	NE	NE			075732-016	SW846 9056
	Chloride	473	5.3	20	NE	NE	B		075732-016	SW846 9056
	Fluoride	**1.64**	0.03	0.1	4.0	1.6	B		075732-016	SW846 9056
	Nitrate plus nitrite as N	ND	0.017	0.05	10	10	U		075732-018	EPA 353.1
	Sulfate	123	5.7	40	NE	NE	B		075732-016	SW846 9056
	Total Organic Halogens	0.0234	0.003	0.01	NE	NE		B3, J	075732-003	SW846 9020
	Total Phenols	ND	0.002	0.01	NE	NE	U	B3, UJ	075732-026	SW846 9066
	Total Cyanide	ND	0.0025	0.005	0.2	0.2	U		075732-027	SW846 9012
Eubank-1 14-Feb-06	Alkalinity as CACO3	168	1.45	2.0	NE	NE			075723-022	EPA 310.1
	Bromide	0.134	0.041	0.2	NE	NE	J		075723-016	SW846 9056
	Chloride	12.1	0.053	0.2	NE	NE	B		075723-016	SW846 9056
	Fluoride	0.406	0.03	0.1	4.0	1.6	B		075723-016	SW846 9056
	Nitrate plus nitrite as N	1.70	0.085	0.25	10	10			075723-018	EPA 353.1
	Sulfate	71.4	0.57	4.0	NE	NE	B		075723-016	SW846 9056
	Total Organic Halogens	ND	0.003	0.01	NE	NE	U		075723-003	SW846 9020
	Total Phenols	ND	0.001	0.005	NE	NE	U		075723-026	SW846 9066
	Total Cyanide	ND	0.0025	0.005	0.2	0.2	U	B3, UJ	075723-027	SW846 9012
EOD Hill 13-Mar-06	Alkalinity as CACO3	1,390	1.45	2.0	NE	NE			075759-016	EPA 310.1
	Bromide	1.56	0.041	0.2	NE	NE			075759-016	SW846 9056
	Chloride	337	2.65	10	NE	NE			075759-016	SW846 9056
	Fluoride	1.48	0.03	0.1	4.0	1.6			075759-016	SW846 9056
	Nitrate plus nitrite as N	ND	0.085	0.25	10	10	U	A2, R	075759-018	EPA 353.1
	Sulfate	115	0.57	4.0	NE	NE			075759-016	SW846 9056
	Total Organic Halogens	0.0727	0.003	0.01	NE	NE			075759-003	SW846 9020
	Total Phenols	ND	0.001	0.005	NE	NE	B, U	B3, UJ	075759-026	SW846 9066
	Total Cyanide	0.00928	0.0025	0.005	0.2	0.2			075759-027	SW846 9012
Greystone-MW2 24-Feb-06	Alkalinity as CACO3	456	1.45	2.00	NE	NE			075740-016	EPA 310.1
	Bromide	0.523	0.041	0.2	NE	NE			075740-016	SW846 9056
	Chloride	110	0.053	0.2	NE	NE	B		075740-016	SW846 9056
	Fluoride	0.845	0.03	0.1	4.0	1.6	B		075740-016	SW846 9056
	Nitrate plus nitrite as N	4.93	0.085	0.25	10	10			075740-018	EPA 353.1
	Sulfate	47.3	0.57	4.0	NE	NE	B		075740-016	SW846 9056
	Total Organic Halogens	0.00478	0.003	0.01	NE	NE	J	B2, B3, J	075740-003	SW846 9020
	Total Phenols	ND	0.001	0.005	NE	NE	U	B3, P1, UJ	075740-026	SW846 9066
	Total Cyanide	ND	0.0025	0.005	0.2	0.2	U		075740-027	SW846 9012

Refer to footnotes on page 43.

Table GWPP A-4
Summary of Alkalinity, Anions, Nitrate plus Nitrate, Total Organic Halogens, Total Phenols, and Total Cyanide Results
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL / MAC[d] (mg/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
MRN-2 07-Mar-06	Alkalinity as CACO3	149	1.45	2.0	NE	NE			075754-016	EPA 310.1
	Bromide	0.196	0.041	0.2	NE	NE	J		075754-016	SW846 9056
	Chloride	14.9	0.053	0.2	NE	NE			075754-016	SW846 9056
	Fluoride	0.630	0.03	0.1	4.0	1.6			075754-016	SW846 9056
	Nitrate plus nitrite as N	4.73	0.017	0.05	10	10			075754-018	EPA 353.1
	Sulfate	54.7	0.285	2.0	NE	NE			075754-016	SW846 9056
	Total Organic Halogens	0.00426	0.003	0.01	NE	NE	J	B2, B3, J	075754-003	SW846 9020
MRN-2 Duplicate 07-Mar-06	Total Phenols	0.00481	0.001	0.005	NE	NE	J	B2, B3, J	075754-026	SW846 9066
	Total Cyanide	ND	0.0025	0.005	0.2	0.2	B, U		075754-027	SW846 9012
	Alkalinity as CACO3	151	1.45	2.0	NE	NE			075755-016	EPA 310.1
	Bromide	0.209	0.041	0.2	NE	NE			075755-016	SW846 9056
	Chloride	15.2	0.053	0.2	NE	NE			075755-016	SW846 9056
	Fluoride	0.632	0.03	0.1	4.0	1.6			075755-016	SW846 9056
	Nitrate plus nitrite as N	4.77	0.017	0.05	10	10			075755-018	EPA 353.1
	Sulfate	53.5	0.285	2.0	NE	NE			075755-016	SW846 9056
	Total Organic Halogens	0.00436	0.003	0.01	NE	NE	J	B2, B3, J	075755-003	SW846 9020
	Total Phenols	0.00158	0.001	0.005	NE	NE	J	B2, B3, J	075755-026	SW846 9066
	Total Cyanide	ND	0.0025	0.005	0.2	0.2	B, U		075755-027	SW846 9012
MRN-3D 08-Mar-06	Alkalinity as CACO3	159	1.45	2.0	NE	NE			075757-016	EPA 310.1
	Bromide	0.181	0.041	0.2	NE	NE	J		075757-016	SW846 9056
	Chloride	19.4	0.053	0.2	NE	NE	B		075757-016	SW846 9056
	Fluoride	0.579	0.03	0.1	4.0	1.6	B		075757-016	SW846 9056
	Nitrate plus nitrite as N	0.659	0.017	0.05	10	10			075757-018	EPA 353.1
	Sulfate	65.8	0.57	4.0	NE	NE	B		075757-016	SW846 9056
	Total Organic Halogens	0.00522	0.003	0.01	NE	NE	J	B3, J	075757-003	SW846 9020
	Total Phenols	ND	0.001	0.005	NE	NE	U	B3, UJ	075757-026	SW846 9066
	Total Cyanide	ND	0.0025	0.005	0.2	0.2	U		075757-027	SW846 9012
NWTA3-MW2 21-Feb-06	Alkalinity as CACO3	155	1.45	2.0	NE	NE			075734-016	EPA 310.1
	Bromide	0.175	0.041	0.2	NE	NE	J		075734-016	SW846 9056
	Chloride	15.4	0.053	0.2	NE	NE	B		075734-016	SW846 9056
	Fluoride	0.437	0.03	0.1	4.0	1.6	B		075734-016	SW846 9056
	Nitrate plus nitrite as N	5.66	0.17	0.5	10	10			075734-018	EPA 353.1
	Sulfate	46.4	0.57	4.0	NE	NE	B		075734-016	SW846 9056
	Total Organic Halogens	0.0165	0.003	0.01	NE	NE		B3, J	075734-003	SW846 9020
	Total Phenols	ND	0.001	0.005	NE	NE	U	B3, UJ	075734-026	SW846 9066
	Total Cyanide	ND	0.0025	0.005	0.2	0.2	U		075734-027	SW846 9012

Refer to footnotes on page 43.

Table GWPP A-4
Summary of Alkalinity, Anions, Nitrate plus Nitrate, Total Organic Halogens, Total Phenols, and Total Cyanide Results
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL / MAC[d] (mg/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
NWTA3-MW3D 22-Feb-06	Alkalinity as CACO3	140	1.45	2.0	NE	NE			075736-016	EPA 310.1
	Bromide	ND	0.041	0.2	NE	NE	U		075736-016	SW846 9056
	Chloride	11.7	0.053	0.2	NE	NE	B		075736-016	SW846 9056
	Fluoride	0.765	0.03	0.1	4.0	1.6	B		075736-016	SW846 9056
	Nitrate plus nitrite as N	0.747	0.017	0.05	10	10			075736-018	EPA 353.1
	Sulfate	45.4	0.57	4.0	NE	NE	B		075736-016	SW846 9056
	Total Organic Halogens	0.00317	0.003	0.01	NE	NE	J	B3, J	075736-003	SW846 9020
	Total Phenols	ND	0.00107	0.00536	NE	NE	U	B3, UJ	075736-026	SW846 9066
	Total Cyanide	ND	0.0025	0.005	0.2	0.2	U		075736-027	SW846 9012
PL-2 03-Mar-06	Alkalinity as CACO3	138	1.45	2.0	NE	NE			075748-016	EPA 310.1
	Bromide	0.185	0.041	0.2	NE	NE	J		075748-016	SW846 9056
	Chloride	13.1	0.053	0.2	NE	NE			075748-016	SW846 9056
	Fluoride	0.556	0.03	0.1	4.0	1.6			075748-016	SW846 9056
	Nitrate plus nitrite as N	1.86	0.017	0.05	10	10			075748-018	EPA 353.1
	Sulfate	60.1	0.285	2.0	NE	NE			075748-016	SW846 9056
	Total Organic Halogens	0.0036	0.003	0.01	NE	NE	J	B3, J	075748-003	SW846 9020
	Total Phenols	ND	0.00114	0.00569	NE	NE	U	B3, UJ	075748-026	SW846 9066
	Total Cyanide	ND	0.0025	0.005	0.2	0.2	B, U		075748-027	SW846 9012
PL-3 06-Mar-06	Alkalinity as CACO3	152	1.45	2.0	NE	NE			075750-016	EPA 310.1
	Bromide	0.216	0.041	0.2	NE	NE			075750-016	SW846 9056
	Chloride	17.0	0.053	0.2	NE	NE			075750-016	SW846 9056
	Fluoride	0.363	0.03	0.1	4.0	1.6			075750-016	SW846 9056
	Nitrate plus nitrite as N	5.05	0.17	0.5	10	10			075750-018	EPA 353.1
	Sulfate	60.9	0.285	2.0	NE	NE			075750-016	SW846 9056
	Total Organic Halogens	0.00316	0.003	0.01	NE	NE	J	B3, J	075750-003	SW846 9020
	Total Phenols	0.00172	0.001	0.005	NE	NE	J	B3, J	075750-026	SW846 9066
	Total Cyanide	ND	0.0025	0.005	0.2	0.2	B, U		075750-027	SW846 9012
SFR-2S 23-Feb-06	Alkalinity as CACO3	385	1.45	2.0	NE	NE			075730-016	EPA 310.1
	Bromide	0.595	0.041	0.2	NE	NE			075730-016	SW846 9056
	Chloride	129	0.53	2.0	NE	NE	B		075730-016	SW846 9056
	Fluoride	**1.61**	0.03	0.1	4.0	1.6	B		075730-016	SW846 9056
	Nitrate plus nitrite as N	0.442	0.017	0.05	10	10			075730-018	EPA 353.1
	Sulfate	68.2	0.57	4.0	NE	NE	B		075730-016	SW846 9056
	Total Organic Halogens	0.0146	0.003	0.01	NE	NE		B3, J	075730-003	SW846 9020
	Total Phenols	ND	0.001	0.005	NE	NE	U	B3, P1, UJ	075730-026	SW846 9066
	Total Cyanide	ND	0.0025	0.005	0.2	0.2	U		075730-027	SW846 9012

Refer to footnotes on page 43.

Table GWPP A-4
Summary of Alkalinity, Anions, Nitrate plus Nitrate, Total Organic Halogens, Total Phenols, and Total Cyanide Results
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL / MAC[d] (mg/L)			Validation Qualifier[f]	Sample No.	Analytical Method[g]
SFR-4T 16-Feb-06	Alkalinity as CACO3	104	1.45	2.0	NE	NE			075727-016	EPA 310.1
	Bromide	4.89	0.041	0.2	NE	NE			075727-016	SW846 9056
	Chloride	206	5.3	20	NE	NE	B		075727-016	SW846 9056
	Fluoride	**2.67**	0.03	0.1	4.0	1.6	B		075727-016	SW846 9056
	Nitrate plus nitrite as N	0.165	0.017	0.05	10	10			075727-018	EPA 353.1
	Sulfate	1,770	5.7	40	NE	NE	B		075727-016	SW846 9056
	Total Organic Halogens	0.0203	0.003	0.01	NE	NE		B, J	075727-003	SW846 9020
	Total Phenols	0.0249	0.001	0.005	NE	NE			075727-026	SW846 9066
	Total Cyanide	ND	0.0025	0.005	0.2	0.2	U	B3, UJ	075727-027	SW846 9012
SFR-4T Duplicate 16-Feb-06	Alkalinity as CACO3	102	1.45	2.0	NE	NE			075728-016	EPA 310.1
	Bromide	5.07	0.041	0.2	NE	NE			075728-016	SW846 9056
	Chloride	190	5.3	20	NE	NE	B		075728-016	SW846 9056
	Fluoride	**2.66**	0.03	0.1	4.0	1.6	B		075728-016	SW846 9056
	Nitrate plus nitrite as N	0.163	0.017	0.05	10	10			075728-018	EPA 353.1
	Sulfate	1,770	5.7	40	NE	NE	B		075728-016	SW846 9056
	Total Organic Halogens	0.0357	0.003	0.01	NE	NE		B, J	075728-003	SW846 9020
	Total Phenols	ND	0.002	0.01	NE	NE	U		075728-026	SW846 9066
	Total Cyanide	ND	0.0025	0.005	0.2	0.2	U	B3, UJ	075728-027	SW846 9012
SWTA3-MW2 27-Feb-06	Alkalinity as CACO3	160	1.45	2.0	NE	NE			075742-016	EPA 310.1
	Bromide	0.137	0.041	0.2	NE	NE	J		075742-016	SW846 9056
	Chloride	13.8	0.053	0.2	NE	NE	B		075742-016	SW846 9056
	Fluoride	0.969	0.03	0.1	4.0	1.6	B		075742-016	SW846 9056
	Nitrate plus nitrite as N	1.0	0.017	0.05	10	10			075742-018	EPA 353.1
	Sulfate	53.6	0.57	4.0	NE	NE	B		075742-016	SW846 9056
	Total Organic Halogens	0.00325	0.003	0.01	NE	NE	J	B3, J	075742-003	SW846 9020
	Total Phenols	ND	0.002	0.01	NE	NE	U	B3, P1, UJ	075742-026	SW846 9066
	Total Cyanide	ND	0.0025	0.005	0.2	0.2	U		075742-027	SW846 9012
SWTA3-MW3 28-Feb-06	Alkalinity as CACO3	154	1.45	2.0	NE	NE			075744-016	EPA 310.1
	Bromide	0.136	0.041	0.2	NE	NE	J		075744-016	SW846 9056
	Chloride	14.0	0.053	0.2	NE	NE	B		075744-016	SW846 9056
	Fluoride	1.26	0.03	0.1	4.0	1.6	B		075744-016	SW846 9056
	Nitrate plus nitrite as N	0.480	0.017	0.05	10	10			075744-018	EPA 353.1
	Sulfate	61.9	0.57	4.0	NE	NE	B		075744-016	SW846 9056
	Total Organic Halogens	ND	0.003	0.01	NE	NE	U		075744-003	SW846 9020
	Total Phenols	ND	0.001	0.005	NE	NE	U	B3, UJ	075744-026	SW846 9066
	Total Cyanide	ND	0.0025	0.005	0.2	0.2	U		075744-027	SW846 9012

Refer to footnotes on page 43.

Table GWPP A-4 *(Concluded)*
Summary of Alkalinity, Anions, Nitrate plus Nitrate, Total Organic Halogens, Total Phenols, and Total Cyanide Results
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL / MAC[d] (mg/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
SWTA3-MW4	Alkalinity as CACO3	171	1.45	2.0	NE	NE			075746-016	EPA 310.1
01-Mar-06	Bromide	0.176	0.041	0.2	NE	NE	J		075746-016	SW846 9056
	Chloride	15.1	0.053	0.2	NE	NE			075746-016	SW846 9056
	Fluoride	**1.82**	0.03	0.1	4.0	1.6			075746-016	SW846 9056
	Nitrate plus nitrite as N	0.735	0.017	0.05	10	10			075746-018	EPA 353.1
	Sulfate	54.8	0.114	0.8	NE	NE			075746-016	SW846 9056
	Total Organic Halogens	0.0138	0.003	0.01	NE	NE		B3, J	075746-003	SW846 9020
	Total Phenols	ND	0.00114	0.00569	NE	NE	U	B3, UJ	075746-026	SW846 9066
	Total Cyanide	0.00357	0.0025	0.005	0.2	0.2	B, J	B, J	075746-027	SW846 9012
TRE-1	Alkalinity as CACO3	491	0.725	1.0	NE	NE			075725-022	EPA 310.1
15-Feb-06	Bromide	0.700	0.041	0.2	NE	NE			075725-016	SW846 9056
	Chloride	133	1.06	4.0	NE	NE	B		075725-016	SW846 9056
	Fluoride	**1.62**	0.03	0.1	4.0	1.6	B		075725-016	SW846 9056
	Nitrate plus nitrite as N	1.67	0.085	0.25	10	10			075725-018	EPA 353.1
	Sulfate	98.7	1.14	8.0	NE	NE	B		075725-016	SW846 9056
	Total Organic Halogens	0.0366	0.003	0.01	NE	NE		B, J	075725-003	SW846 9020
	Total Phenols	ND	0.001	0.005	NE	NE	U		075725-026	SW846 9066
	Total Cyanide	ND	0.0025	0.005	0.2	0.2	U	B3, UJ	075725-027	SW846 9012

Refer to footnotes on page 43.

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Table GWPP A-5
Summary of Dissolved (Filtered) Metal Results
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL / MAC[d] (mg/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
Coyote Springs 20-Feb-06	Aluminum	0.204	0.005	0.015	NE	NE			075732-009	SW846 6020
	Antimony	ND	0.0005	0.002	0.006	NE	U		075732-009	SW846 6020
	Arsenic	0.00497	0.0015	0.005	0.01	0.1	B, J	B, J	075732-009	SW846 6020
	Barium	0.0411	0.0025	0.01	2	1			075732-009	SW846 6020
	Beryllium	**0.00805**	0.0001	0.0005	0.004	NE			075732-009	SW846 6020
	Cadmium	0.00013	0.0001	0.001	0.005	0.01	J		075732-009	SW846 6020
	Calcium	293	0.2	1.0	NE	NE			075732-009	SW846 6020
	Chromium	0.00101	0.001	0.003	0.1	0.05	B, J	B, J	075732-009	SW846 6020
	Cobalt	0.0104	0.0001	0.001	NE	NE			075732-009	SW846 6020
	Copper	0.00263	0.0002	0.001	NE	NE			075732-009	SW846 6020
	Iron	1.65	0.01	0.025	NE	NE		J	075732-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	0.05	U		075732-009	SW846 6020
	Magnesium	68.4	0.05	0.15	NE	NE			075732-009	SW846 6020
	Manganese	1.62	0.01	0.05	NE	NE			075732-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	0.002	U		075732-009	SW846 7470
	Nickel	0.0309	0.0005	0.002	NE	NE			075732-009	SW846 6020
	Potassium	28.9	0.08	0.3	NE	NE			075732-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.05	0.05	U		075732-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	0.05	U		075732-009	SW846 6020
	Sodium	456	0.8	2.5	NE	NE			075732-009	SW846 6020
	Thallium	0.0016	0.0004	0.001	0.002	NE			075732-009	SW846 6020
	Uranium	0.00671	0.00005	0.0002	0.03	5			075732-009	SW846 6020
	Uranium-235	0.000049	0.00001	0.00007	0.03	5	J		075732-009	SW846 6020
	Uranium-238	0.00666	0.00005	0.0002	0.03	5			075732-009	SW846 6020
	Vanadium	ND	0.002	0.03	NE	NE	B, U		075732-009	SW846 6020
	Zinc	0.047	0.002	0.01	NE	NE			075732-009	SW846 6020

Refer to footnotes on page 43.

Table GWPP A-5
Summary of Dissolved (Filtered) Metal Results
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL / MAC[d] (mg/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
Eubank-1 14-Feb-06	Aluminum	ND	0.005	0.015	NE	NE	B, U		075723-009	SW846 6020
	Antimony	ND	0.0005	0.002	0.006	NE	U		075723-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.01	0.1	B, U		075723-009	SW846 6020
	Barium	0.0489	0.0005	0.002	2	1			075723-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	NE	U		075723-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	0.01	U		075723-009	SW846 6020
	Calcium	69.7	0.02	0.10	NE	NE	B		075723-009	SW846 6020
	Chromium	ND	0.001	0.003	0.1	0.05	B, U		075723-009	SW846 6020
	Cobalt	0.000152	0.0001	0.001	NE	NE	J		075723-009	SW846 6020
	Copper	0.00314	0.0002	0.001	NE	NE			075723-009	SW846 6020
	Iron	0.337	0.01	0.025	NE	NE			075723-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	0.05	U		075723-009	SW846 6020
	Magnesium	10.1	0.005	0.015	NE	NE	B		075723-009	SW846 6020
	Manganese	ND	0.001	0.005	NE	NE	U		075723-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	0.002	U		075723-009	SW846 7470
	Nickel	0.00328	0.0005	0.002	NE	NE			075723-009	SW846 6020
	Potassium	1.71	0.08	0.30	NE	NE			075723-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.05	0.05	U		075723-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	0.05	U		075723-009	SW846 6020
	Sodium	24.2	0.08	0.25	NE	NE			075723-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	NE	U		075723-009	SW846 6020
	Uranium	**0.0027**	0.00005	0.0002	0.03	5			075723-009	SW846 6020
	Uranium-235	0.000019	0.00001	0.00007	0.03	5	J		075723-009	SW846 6020
	Uranium-238	**0.00269**	0.00005	0.0002	0.03	5			075723-009	SW846 6020
	Vanadium	0.0081	0.002	0.03	NE	NE	B, J	B, J	075723-009	SW846 6020
	Zinc	0.00275	0.002	0.01	NE	NE	B, J	B, J	075723-009	SW846 6020

Refer to footnotes on page 43.

Table GWPP A-5
Summary of Dissolved (Filtered) Metal Results
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL / MAC[d] (mg/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
EOD Hill 13-Mar-06	Aluminum	0.0099	0.005	0.015	NE	NE	J		075759-009	SW846 6020
	Antimony	ND	0.0005	0.002	0.006	NE	U		075759-009	SW846 6020
	Arsenic	0.00969	0.0015	0.005	0.01	0.1			075759-009	SW846 6020
	Barium	0.124	0.0005	0.002	2	1			075759-009	SW846 6020
	Beryllium	0.00159	0.0001	0.0005	0.004	NE			075759-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	0.01	U		075759-009	SW846 6020
	Calcium	478	0.2	1.0	NE	NE			075759-009	SW846 6020
	Chromium	ND	0.001	0.003	0.1	0.05	U		075759-009	SW846 6020
	Cobalt	0.00127	0.0001	0.001	NE	NE			075759-009	SW846 6020
	Copper	0.00229	0.0002	0.001	NE	NE	B		075759-009	SW846 6020
	Iron	14.4	0.1	0.25	NE	NE			075759-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	0.05	U		075759-009	SW846 6020
	Magnesium	102	0.05	0.15	NE	NE			075759-009	SW846 6020
	Manganese	1.11	0.01	0.05	NE	NE			075759-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	0.002	U	B3, UJ	075759-009	SW846 7470
	Nickel	0.00978	0.0005	0.002	NE	NE			075759-009	SW846 6020
	Potassium	38.2	0.08	0.3	NE	NE		J	075759-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.05	0.05	U	A2, UJ	075759-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	0.05	U		075759-009	SW846 6020
	Sodium	446	0.8	2.5	NE	NE			075759-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	NE	U		075759-009	SW846 6020
	Uranium	**0.039**	0.00005	0.0002	0.03	5			075759-009	SW846 6020
	Uranium-235	0.000287	0.00001	0.00007	0.03	5			075759-009	SW846 6020
	Uranium-238	**0.0387**	0.00005	0.0002	0.03	5			075759-009	SW846 6020
	Vanadium	ND	0.002	0.03	NE	NE	U		075759-009	SW846 6020
	Zinc	0.212	0.002	0.01	NE	NE	B		075759-009	SW846 6020

Refer to footnotes on page 43.

Table GWPP A-5
Summary of Dissolved (Filtered) Metal Results
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL / MAC[d] (mg/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
Eubank-1 14-Feb-06	Aluminum	ND	0.005	0.015	NE	NE	B, U		075723-009	SW846 6020
	Antimony	ND	0.0005	0.002	0.006	NE	U		075723-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.01	0.1	B, U		075723-009	SW846 6020
	Barium	0.0489	0.0005	0.002	2	1			075723-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	NE	U		075723-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	0.01	U		075723-009	SW846 6020
	Calcium	69.7	0.02	0.10	NE	NE	B		075723-009	SW846 6020
	Chromium	ND	0.001	0.003	0.1	0.05	B, U		075723-009	SW846 6020
	Cobalt	0.000152	0.0001	0.001	NE	NE	J		075723-009	SW846 6020
	Copper	0.00314	0.0002	0.001	NE	NE			075723-009	SW846 6020
	Iron	0.337	0.01	0.025	NE	NE			075723-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	0.05	U		075723-009	SW846 6020
	Magnesium	10.1	0.005	0.015	NE	NE	B		075723-009	SW846 6020
	Manganese	ND	0.001	0.005	NE	NE	U		075723-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	0.002	U		075723-009	SW846 7470
	Nickel	0.00328	0.0005	0.002	NE	NE			075723-009	SW846 6020
	Potassium	1.71	0.08	0.30	NE	NE			075723-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.05	0.05	U		075723-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	0.05	U		075723-009	SW846 6020
	Sodium	24.2	0.08	0.25	NE	NE			075723-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	NE	U		075723-009	SW846 6020
	Uranium	0.0027	0.00005	0.0002	0.03	5			075723-009	SW846 6020
	Uranium-235	0.000019	0.00001	0.00007	0.03	5	J		075723-009	SW846 6020
	Uranium-238	0.00269	0.00005	0.0002	0.03	5			075723-009	SW846 6020
	Vanadium	0.0081	0.002	0.03	NE	NE	B, J	B, J	075723-009	SW846 6020
	Zinc	0.00275	0.002	0.01	NE	NE	B, J	B, J	075723-009	SW846 6020

Refer to footnotes on page 43.

Table GWPP A-5
Summary of Dissolved (Filtered) Metal Results
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL / MAC[d] (mg/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
MRN-2 07-Mar-06	Aluminum	0.010	0.005	0.015	NE	NE	B, J	B, B2, J	075754-009	SW846 6020
	Antimony	ND	0.0005	0.002	0.006	NE	U		075754-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.01	0.1	U		075754-009	SW846 6020
	Barium	0.061	0.0005	0.002	2	1			075754-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	NE	U		075754-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	0.01	U		075754-009	SW846 6020
	Calcium	52.3	0.1	0.5	NE	NE	B		075754-009	SW846 6020
	Chromium	0.00284	0.001	0.003	0.1	0.05	B, J	B, B2, J	075754-009	SW846 6020
	Cobalt	0.000166	0.0001	0.001	NE	NE	J		075754-009	SW846 6020
	Copper	0.000656	0.0002	0.001	NE	NE	J		075754-009	SW846 6020
	Iron	0.292	0.01	0.025	NE	NE			075754-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	0.05	U		075754-009	SW846 6020
	Magnesium	16.1	0.005	0.015	NE	NE			075754-009	SW846 6020
	Manganese	ND	0.001	0.005	NE	NE	U		075754-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	0.002	U	B3, UJ	075754-009	SW846 7470
	Nickel	0.00188	0.0005	0.002	NE	NE	J		075754-009	SW846 6020
	Potassium	3.74	0.08	0.3	NE	NE			075754-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.05	0.05	U		075754-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	0.05	U		075754-009	SW846 6020
	Sodium	20.0	0.08	0.25	NE	NE			075754-009	SW846 6020
	Thallium	0.000553	0.0004	0.001	0.002	NE	J		075754-009	SW846 6020
	Uranium	0.00364	0.00005	0.0002	0.03	5			075754-009	SW846 6020
	Uranium-235	0.000024	0.00001	0.00007	0.03	5	J		075754-009	SW846 6020
	Uranium-238	0.00361	0.00005	0.0002	0.03	5			075754-009	SW846 6020
	Vanadium	0.00455	0.002	0.03	NE	NE	J		075754-009	SW846 6020
	Zinc	0.0041	0.002	0.01	NE	NE	B, J	B, B2, J	075754-009	SW846 6020

Refer to footnotes on page 43.

Table GWPP A-5
Summary of Dissolved (Filtered) Metal Results
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Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL / MAC[d] (mg/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
MRN-2 Duplicate 07-Mar-06	Aluminum	0.00962	0.005	0.015	NE	NE	B, J	B, B2, J	075755-009	SW846 6020
	Antimony	ND	0.0005	0.002	0.006	NE	U		075755-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.01	0.1	U		075755-009	SW846 6020
	Barium	0.0578	0.0005	0.002	2	1			075755-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	NE	U		075755-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	0.01	U		075755-009	SW846 6020
	Calcium	49.1	0.02	0.1	NE	NE	B		075755-009	SW846 6020
	Chromium	0.00307	0.001	0.003	0.1	0.05	B	B, B2, J	075755-009	SW846 6020
	Cobalt	0.00015	0.0001	0.001	NE	NE	J		075755-009	SW846 6020
	Copper	0.000622	0.0002	0.001	NE	NE	J		075755-009	SW846 6020
	Iron	0.274	0.01	0.025	NE	NE			075755-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	0.05	U		075755-009	SW846 6020
	Magnesium	15.7	0.005	0.015	NE	NE			075755-009	SW846 6020
	Manganese	ND	0.001	0.005	NE	NE	U		075755-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	0.002	U	B3, UJ	075755-009	SW846 7470
	Nickel	0.00181	0.0005	0.002	NE	NE	J		075755-009	SW846 6020
	Potassium	3.49	0.08	0.3	NE	NE			075755-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.05	0.05	U		075755-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	0.05	U		075755-009	SW846 6020
	Sodium	21.4	0.08	0.25	NE	NE			075755-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	NE	U		075755-009	SW846 6020
	Uranium	0.00349	0.00005	0.0002	0.03	5			075755-009	SW846 6020
	Uranium-235	0.000023	0.00001	0.00007	0.03	5	J		075755-009	SW846 6020
	Uranium-238	0.00347	0.00005	0.0002	0.03	5			075755-009	SW846 6020
	Vanadium	0.00261	0.002	0.03	NE	NE	J		075755-009	SW846 6020
	Zinc	0.00357	0.002	0.01	NE	NE	B, J	B, B2, J	075755-009	SW846 6020

Refer to footnotes on page 43.

Table GWPP A-5
Summary of Dissolved (Filtered) Metal Results
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Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL / MAC[d] (mg/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
MRN-3D 08-Mar-06	Aluminum	ND	0.005	0.015	NE	NE	B, U		075757-009	SW846 6020
	Antimony	0.000501	0.0005	0.002	0.006	NE	J	B3, J	075757-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.01	0.1	U		075757-009	SW846 6020
	Barium	0.149	0.0005	0.002	2	1			075757-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	NE	U		075757-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	0.01	U		075757-009	SW846 6020
	Calcium	56.4	0.1	0.5	NE	NE	B		075757-009	SW846 6020
	Chromium	ND	0.001	0.003	0.1	0.05	U		075757-009	SW846 6020
	Cobalt	ND	0.0001	0.001	NE	NE	U		075757-009	SW846 6020
	Copper	0.000764	0.0002	0.001	NE	NE	J		075757-009	SW846 6020
	Iron	0.163	0.01	0.025	NE	NE			075757-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	0.05	U		075757-009	SW846 6020
	Magnesium	11.5	0.005	0.015	NE	NE			075757-009	SW846 6020
	Manganese	0.0303	0.001	0.005	NE	NE			075757-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	0.002	U		075757-009	SW846 7470
	Nickel	0.00137	0.0005	0.002	NE	NE	J		075757-009	SW846 6020
	Potassium	5.11	0.08	0.3	NE	NE			075757-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.05	0.05	U		075757-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	0.05	U		075757-009	SW846 6020
	Sodium	34.6	0.08	0.25	NE	NE			075757-009	SW846 6020
	Thallium	0.000481	0.0004	0.001	0.002	NE	J		075757-009	SW846 6020
	Uranium	0.00383	0.00005	0.0002	0.03	5			075757-009	SW846 6020
	Uranium-235	0.000024	0.00001	0.00007	0.03	5	J		075757-009	SW846 6020
	Uranium-238	0.0038	0.00005	0.0002	0.03	5			075757-009	SW846 6020
	Vanadium	ND	0.002	0.03	NE	NE	U		075757-009	SW846 6020
	Zinc	0.00931	0.002	0.01	NE	NE	B, J	B, J	075757-009	SW846 6020

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Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL / MAC[d] (mg/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
NWTA3-MW2 21-Feb-06	Aluminum	ND	0.005	0.015	NE	NE	U		075734-009	SW846 6020
	Antimony	ND	0.0005	0.002	0.006	NE	U		075734-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.01	0.1	U		075734-009	SW846 6020
	Barium	0.0639	0.0005	0.002	2	1			075734-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	NE	U		075734-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	0.01	U		075734-009	SW846 6020
	Calcium	55.5	0.04	0.2	NE	NE	B		075734-009	SW846 6020
	Chromium	0.00257	0.001	0.003	0.1	0.05	J		075734-009	SW846 6020
	Cobalt	0.000165	0.0001	0.001	NE	NE	J		075734-009	SW846 6020
	Copper	0.00191	0.0002	0.001	NE	NE			075734-009	SW846 6020
	Iron	0.296	0.01	0.025	NE	NE			075734-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	0.05	U		075734-009	SW846 6020
	Magnesium	13.5	0.005	0.015	NE	NE			075734-009	SW846 6020
	Manganese	ND	0.001	0.005	NE	NE	U		075734-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	0.002	U		075734-009	SW846 7470
	Nickel	0.00215	0.0005	0.002	NE	NE			075734-009	SW846 6020
	Potassium	4.19	0.08	0.3	NE	NE			075734-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.05	0.05	U		075734-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	0.05	U		075734-009	SW846 6020
	Sodium	22.9	0.08	0.25	NE	NE			075734-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	NE	U		075734-009	SW846 6020
	Uranium	0.00377	0.00005	0.0002	0.03	5			075734-009	SW846 6020
	Uranium-235	0.000024	0.00001	0.00007	0.03	5	J		075734-009	SW846 6020
	Uranium-238	0.00375	0.00005	0.0002	0.03	5			075734-009	SW846 6020
	Vanadium	0.0021	0.002	0.03	NE	NE	J		075734-009	SW846 6020
	Zinc	0.0591	0.002	0.01	NE	NE	B		075734-009	SW846 6020

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Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL / MAC[d] (mg/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
NWTA3-MW3D 22-Feb-06	Aluminum	ND	0.005	0.015	NE	NE	U		075736-009	SW846 6020
	Antimony	ND	0.0005	0.002	0.006	NE	U		075736-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.01	0.1	U		075736-009	SW846 6020
	Barium	0.0935	0.0005	0.002	2	1			075736-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	NE	U		075736-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	0.01	U		075736-009	SW846 6020
	Calcium	35.6	0.02	0.1	NE	NE	B		075736-009	SW846 6020
	Chromium	0.00162	0.001	0.003	0.1	0.05	J		075736-009	SW846 6020
	Cobalt	ND	0.0001	0.001	NE	NE	U		075736-009	SW846 6020
	Copper	0.00111	0.0002	0.001	NE	NE			075736-009	SW846 6020
	Iron	0.203	0.01	0.025	NE	NE			075736-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	0.05	U		075736-009	SW846 6020
	Magnesium	6.81	0.005	0.015	NE	NE			075736-009	SW846 6020
	Manganese	0.00122	0.001	0.005	NE	NE	J		075736-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	0.002	U		075736-009	SW846 7470
	Nickel	0.0016	0.0005	0.002	NE	NE	J		075736-009	SW846 6020
	Potassium	4.01	0.08	0.3	NE	NE			075736-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.05	0.05	U		075736-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	0.05	U		075736-009	SW846 6020
	Sodium	40.3	0.08	0.25	NE	NE			075736-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	NE	U		075736-009	SW846 6020
	Uranium	0.00352	0.00005	0.0002	0.03	5			075736-009	SW846 6020
	Uranium-235	0.000022	0.00001	0.00007	0.03	5	J		075736-009	SW846 6020
	Uranium-238	0.0035	0.00005	0.0002	0.03	5			075736-009	SW846 6020
	Vanadium	ND	0.002	0.03	NE	NE	U		075736-009	SW846 6020
	Zinc	0.00358	0.002	0.01	NE	NE	B, J	B, J	075736-009	SW846 6020

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Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL / MAC[d] (mg/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
PL-2 03-Mar-06	Aluminum	ND	0.005	0.015	NE	NE	U		075778-009	SW846 6020
	Antimony	ND	0.0005	0.002	0.006	NE	U		075778-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.01	0.1	U		075778-009	SW846 6020
	Barium	0.0801	0.0005	0.002	2	1			075778-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	NE	U		075778-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	0.01	U		075778-009	SW846 6020
	Calcium	54.0	0.1	0.5	NE	NE			075778-009	SW846 6020
	Chromium	0.00395	0.001	0.003	0.1	0.05	B	B, J	075778-009	SW846 6020
	Cobalt	0.000142	0.0001	0.001	NE	NE	J		075778-009	SW846 6020
	Copper	0.000732	0.0002	0.001	NE	NE	J		075778-009	SW846 6020
	Iron	0.294	0.01	0.025	NE	NE			075778-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	0.05	U		075778-009	SW846 6020
	Magnesium	8.98	0.005	0.015	NE	NE			075778-009	SW846 6020
	Manganese	ND	0.001	0.005	NE	NE	U		075778-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	0.002	U	B3, UJ	075778-009	SW846 7470
	Nickel	0.0104	0.0005	0.002	NE	NE			075778-009	SW846 6020
	Potassium	3.49	0.08	0.3	NE	NE			075778-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.05	0.05	U		075778-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	0.05	U		075778-009	SW846 6020
	Sodium	20.6	0.08	0.25	NE	NE			075778-009	SW846 6020
	Thallium	0.000572	0.0004	0.001	0.002	NE	J		075778-009	SW846 6020
	Uranium	0.00315	0.00005	0.0002	0.03	5			075778-009	SW846 6020
	Uranium-235	0.000021	0.00001	0.00007	0.03	5	J		075778-009	SW846 6020
	Uranium-238	0.00313	0.00005	0.0002	0.03	5			075778-009	SW846 6020
	Vanadium	0.00264	0.002	0.03	NE	NE	J		075778-009	SW846 6020
	Zinc	0.0218	0.002	0.01	NE	NE			075778-009	SW846 6020

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Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL / MAC[d] (mg/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
PL-3 06-Mar-06	Aluminum	ND	0.005	0.015	NE	NE	U		075750-009	SW846 6020
	Antimony	ND	0.0005	0.002	0.006	NE	U		075750-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.01	0.1	U		075750-009	SW846 6020
	Barium	0.0564	0.0005	0.002	2	1			075750-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	NE	U		075750-009	SW846 6020
	Cadmium	0.000312	0.0001	0.001	0.005	0.01	J		075750-009	SW846 6020
	Calcium	62.3	0.1	0.5	NE	NE			075750-009	SW846 6020
	Chromium	0.00313	0.001	0.003	0.1	0.05	B	B, J	075750-009	SW846 6020
	Cobalt	0.000168	0.0001	0.001	NE	NE	J		075750-009	SW846 6020
	Copper	0.00105	0.0002	0.001	NE	NE			075750-009	SW846 6020
	Iron	0.347	0.01	0.025	NE	NE			075750-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	0.05	U		075750-009	SW846 6020
	Magnesium	11.7	0.005	0.015	NE	NE			075750-009	SW846 6020
	Manganese	ND	0.001	0.005	NE	NE	U		075750-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	0.002	U	B3, UJ	075750-009	SW846 7470
	Nickel	0.00236	0.0005	0.002	NE	NE			075750-009	SW846 6020
	Potassium	4.85	0.08	0.3	NE	NE			075750-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.05	0.05	U		075750-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	0.05	U		075750-009	SW846 6020
	Sodium	22.2	0.08	0.25	NE	NE			075750-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	NE	U		075750-009	SW846 6020
	Uranium	0.00348	0.00005	0.0002	0.03	5			075750-009	SW846 6020
	Uranium-235	0.000023	0.00001	0.00007	0.03	5	J		075750-009	SW846 6020
	Uranium-238	0.00345	0.00005	0.0002	0.03	5			075750-009	SW846 6020
	Vanadium	ND	0.002	0.03	NE	NE	U		075750-009	SW846 6020
	Zinc	0.00993	0.002	0.01	NE	NE	J		075750-009	SW846 6020

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Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL / MAC[d] (mg/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
SFR-2S 23-Feb-06	Aluminum	ND	0.005	0.015	NE	NE	U		075730-009	SW846 6020
	Antimony	ND	0.0005	0.002	0.006	NE	U		075730-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.01	0.1	U		075730-009	SW846 6020
	Barium	0.0583	0.0005	0.002	2	1			075730-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	NE	U		075730-009	SW846 6020
	Cadmium	0.00031	0.0001	0.001	0.005	0.01	J		075730-009	SW846 6020
	Calcium	122	0.1	0.5	NE	NE			075730-009	SW846 6020
	Chromium	0.0018	0.001	0.003	0.1	0.05	J		075730-009	SW846 6020
	Cobalt	0.000652	0.0001	0.001	NE	NE	J		075730-009	SW846 6020
	Copper	0.00214	0.0002	0.001	NE	NE			075730-009	SW846 6020
	Iron	0.706	0.01	0.025	NE	NE			075730-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	0.05	U		075730-009	SW846 6020
	Magnesium	33.1	0.005	0.015	NE	NE		J	075730-009	SW846 6020
	Manganese	0.00663	0.001	0.005	NE	NE			075730-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	0.002	U		075730-009	SW846 7470
	Nickel	0.0442	0.0005	0.002	NE	NE			075730-009	SW846 6020
	Potassium	7.13	0.08	0.3	NE	NE			075730-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.05	0.05	U		075730-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	0.05	U		075730-009	SW846 6020
	Sodium	85.9	0.4	1.25	NE	NE			075730-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	NE	U		075730-009	SW846 6020
	Uranium	0.017	0.00005	0.0002	0.03	5			075730-009	SW846 6020
	Uranium-235	0.000109	0.00001	0.00007	0.03	5			075730-009	SW846 6020
	Uranium-238	0.0169	0.00005	0.0002	0.03	5			075730-009	SW846 6020
	Vanadium	ND	0.002	0.03	NE	NE	U		075730-009	SW846 6020
	Zinc	0.00615	0.002	0.01	NE	NE	B, J	B, J	075730-009	SW846 6020

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SFR-4T 16-Feb-06	Aluminum	ND	0.005	0.015	NE	NE	U		075727-009	SW846 6020
	Antimony	ND	0.0005	0.002	0.006	NE	U		075727-009	SW846 6020
	Arsenic	0.00478	0.0015	0.005	0.01	0.1	J		075727-009	SW846 6020
	Barium	0.0113	0.0005	0.002	2	1			075727-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	NE	U		075727-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	0.01	U		075727-009	SW846 6020
	Calcium	62.8	0.2	1.0	NE	NE	B		075727-009	SW846 6020
	Chromium	ND	0.001	0.003	0.1	0.05	U		075727-009	SW846 6020
	Cobalt	0.000117	0.0001	0.001	NE	NE	J		075727-009	SW846 6020
	Copper	0.00838	0.0002	0.001	NE	NE	B		075727-009	SW846 6020
	Iron	0.313	0.01	0.025	NE	NE			075727-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	0.05	U		075727-009	SW846 6020
	Magnesium	3.60	0.005	0.015	NE	NE			075727-009	SW846 6020
	Manganese	ND	0.001	0.005	NE	NE	U		075727-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	0.002	U		075727-009	SW846 7470
	Nickel	0.00359	0.0005	0.002	NE	NE			075727-009	SW846 6020
	Potassium	2.47	0.08	0.3	NE	NE			075727-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.05	0.05	U		075727-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	0.05	U		075727-009	SW846 6020
	Sodium	1,130	8.0	25.0	NE	NE			075727-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	NE	U		075727-009	SW846 6020
	Uranium	0.000273	0.00005	0.0002	0.03	5	B	B, J	075727-009	SW846 6020
	Uranium-235	ND	0.00001	0.00007	0.03	5	U		075727-009	SW846 6020
	Uranium-238	0.000271	0.00005	0.0002	0.03	5	B	B, J	075727-009	SW846 6020
	Vanadium	ND	0.002	0.03	NE	NE	U		075727-009	SW846 6020
	Zinc	0.0325	0.002	0.01	NE	NE			075727-009	SW846 6020

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SFR-4T Duplicate 16-Feb-06	Aluminum	ND	0.005	0.015	NE	NE	U		075728-009	SW846 6020
	Antimony	ND	0.0005	0.002	0.006	NE	U		075728-009	SW846 6020
	Arsenic	0.00331	0.0015	0.005	0.01	0.1	J		075728-009	SW846 6020
	Barium	0.0116	0.0005	0.002	2	1			075728-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	NE	U		075728-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	0.01	U		075728-009	SW846 6020
	Calcium	64.8	0.2	1.0	NE	NE	B		075728-009	SW846 6020
	Chromium	0.00174	0.001	0.003	0.1	0.05	J	B3, J	075728-009	SW846 6020
	Cobalt	0.000128	0.0001	0.001	NE	NE	J		075728-009	SW846 6020
	Copper	0.00844	0.0002	0.001	NE	NE	B		075728-009	SW846 6020
	Iron	0.317	0.01	0.025	NE	NE			075728-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	0.05	U		075728-009	SW846 6020
	Magnesium	3.58	0.005	0.015	NE	NE			075728-009	SW846 6020
	Manganese	ND	0.001	0.005	NE	NE	U		075728-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	0.002	U		075728-009	SW846 7470
	Nickel	0.00354	0.0005	0.002	NE	NE			075728-009	SW846 6020
	Potassium	2.50	0.08	0.3	NE	NE			075728-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.05	0.05	U		075728-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	0.05	U		075728-009	SW846 6020
	Sodium	1,100	8.0	25.0	NE	NE			075728-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	NE	U		075728-009	SW846 6020
	Uranium	0.000254	0.00005	0.0002	0.03	5	B	B, J	075728-009	SW846 6020
	Uranium-235	ND	0.00001	0.00007	0.03	5	U		075728-009	SW846 6020
	Uranium-238	0.000252	0.00005	0.0002	0.03	5	B	B, J	075728-009	SW846 6020
	Vanadium	ND	0.002	0.03	NE	NE	U		075728-009	SW846 6020
	Zinc	0.0344	0.002	0.01	NE	NE			075728-009	SW846 6020

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Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL / MAC[d] (mg/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
SWTA3-MW2 27-Feb-06	Aluminum	ND	0.005	0.015	NE	NE	U		075742-009	SW846 6020
	Antimony	ND	0.0005	0.002	0.006	NE	U		075742-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.01	0.1	U		075742-009	SW846 6020
	Barium	0.0702	0.0005	0.002	2	1			075742-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	NE	U		075742-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	0.01	U		075742-009	SW846 6020
	Calcium	43.1	0.02	0.1	NE	NE	B		075742-009	SW846 6020
	Chromium	0.00269	0.001	0.003	0.1	0.05	B, J	B, J	075742-009	SW846 6020
	Cobalt	0.000131	0.0001	0.001	NE	NE	J		075742-009	SW846 6020
	Copper	0.000766	0.0002	0.001	NE	NE	J	J, P1	075742-009	SW846 6020
	Iron	0.248	0.01	0.025	NE	NE			075742-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	0.05	U		075742-009	SW846 6020
	Magnesium	13.5	0.005	0.015	NE	NE			075742-009	SW846 6020
	Manganese	ND	0.001	0.005	NE	NE	U		075742-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	0.002	U		075742-009	SW846 7470
	Nickel	0.00167	0.0005	0.002	NE	NE	J		075742-009	SW846 6020
	Potassium	3.98	0.08	0.3	NE	NE			075742-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.05	0.05	U		075742-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	0.05	U		075742-009	SW846 6020
	Sodium	35.7	0.08	0.25	NE	NE			075742-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	NE	U		075742-009	SW846 6020
	Uranium	0.00314	0.00005	0.0002	0.03	5			075742-009	SW846 6020
	Uranium-235	0.00002	0.00001	0.00007	0.03	5	J		075742-009	SW846 6020
	Uranium-238	0.00312	0.00005	0.0002	0.03	5			075742-009	SW846 6020
	Vanadium	0.00269	0.002	0.03	NE	NE	J		075742-009	SW846 6020
	Zinc	0.00292	0.002	0.01	NE	NE	B, J	B, J	075742-009	SW846 6020

Refer to footnotes on page 43.

Table GWPP A-5
Summary of Dissolved (Filtered) Metal Results
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL / MAC[d] (mg/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
SWTA3-MW3 28-Feb-06	Aluminum	ND	0.005	0.015	NE	NE	U		075744-009	SW846 6020
	Antimony	ND	0.0005	0.002	0.006	NE	B, U		075744-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.01	0.1	U		075744-009	SW846 6020
	Barium	0.0639	0.0005	0.002	2	1			075744-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	NE	U		075744-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	0.01	U		075744-009	SW846 6020
	Calcium	36.7	0.02	0.1	NE	NE	B		075744-009	SW846 6020
	Chromium	0.00209	0.001	0.003	0.1	0.05	B, J	B, J	075744-009	SW846 6020
	Cobalt	0.000115	0.0001	0.001	NE	NE	J		075744-009	SW846 6020
	Copper	0.000675	0.0002	0.001	NE	NE	J		075744-009	SW846 6020
	Iron	0.228	0.01	0.025	NE	NE			075744-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	0.05	U		075744-009	SW846 6020
	Magnesium	10.5	0.005	0.015	NE	NE			075744-009	SW846 6020
	Manganese	ND	0.001	0.005	NE	NE	U		075744-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	0.002	U	B3, UJ	075744-009	SW846 7470
	Nickel	0.00152	0.0005	0.002	NE	NE	J		075744-009	SW846 6020
	Potassium	4.80	0.08	0.3	NE	NE			075744-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.05	0.05	U		075744-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	0.05	U		075744-009	SW846 6020
	Sodium	43.4	0.08	0.25	NE	NE			075744-009	SW846 6020
	Thallium	0.000409	0.0004	0.001	0.002	NE	J	B3, J	075744-009	SW846 6020
	Uranium	0.00261	0.00005	0.0002	0.03	5			075744-009	SW846 6020
	Uranium-235	0.000017	0.00001	0.00007	0.03	5	J		075744-009	SW846 6020
	Uranium-238	0.00259	0.00005	0.0002	0.03	5			075744-009	SW846 6020
	Vanadium	0.00353	0.002	0.03	NE	NE	J		075744-009	SW846 6020
	Zinc	0.00315	0.002	0.01	NE	NE	B, J	B, J	075744-009	SW846 6020

Refer to footnotes on page 43.

Table GWPP A-5
Summary of Dissolved (Filtered) Metal Results
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL / MAC[d] (mg/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
SWTA3-MW4 01-Mar-06	Aluminum	ND	0.005	0.015	NE	NE	U		075746-009	SW846 6020
	Antimony	ND	0.0005	0.002	0.006	NE	U		075746-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.01	0.1	U		075746-009	SW846 6020
	Barium	0.0535	0.0005	0.002	2	1			075746-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	NE	U		075746-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	0.01	U		075746-009	SW846 6020
	Calcium	34.8	0.02	0.1	NE	NE			075746-009	SW846 6020
	Chromium	0.00199	0.001	0.003	0.1	0.05	B, J	B, J	075746-009	SW846 6020
	Cobalt	0.000101	0.0001	0.001	NE	NE	J		075746-009	SW846 6020
	Copper	0.000738	0.0002	0.001	NE	NE	J		075746-009	SW846 6020
	Iron	0.195	0.01	0.025	NE	NE			075746-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	0.05	U		075746-009	SW846 6020
	Magnesium	9.86	0.005	0.015	NE	NE			075746-009	SW846 6020
	Manganese	ND	0.001	0.005	NE	NE	U		075746-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	0.002	U	B3, UJ	075746-009	SW846 7470
	Nickel	0.00136	0.0005	0.002	NE	NE	J		075746-009	SW846 6020
	Potassium	4.02	0.08	0.3	NE	NE			075746-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.05	0.05	U		075746-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	0.05	U		075746-009	SW846 6020
	Sodium	59.3	0.4	1.25	NE	NE			075746-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	NE	U		075746-009	SW846 6020
	Uranium	0.00242	0.00005	0.0002	0.03	5			075746-009	SW846 6020
	Uranium-235	0.000015	0.00001	0.00007	0.03	5	J		075746-009	SW846 6020
	Uranium-238	0.00241	0.00005	0.0002	0.03	5			075746-009	SW846 6020
	Vanadium	ND	0.002	0.03	NE	NE	U		075746-009	SW846 6020
	Zinc	0.013	0.002	0.01	NE	NE	B		075746-009	SW846 6020

Refer to footnotes on page 43.

Table GWPP A-5 *(Concluded)*
Summary of Dissolved (Filtered) Metal Results
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL / MAC[d] (mg/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TRE-1 15-Feb-06	Aluminum	ND	0.005	0.015	NE	NE	U		075725-009	SW846 6020
	Antimony	ND	0.0005	0.002	0.006	NE	U		075725-009	SW846 6020
	Arsenic	0.00153	0.0015	0.005	0.01	0.1	J		075725-009	SW846 6020
	Barium	0.0468	0.0005	0.002	2	1			075725-009	SW846 6020
	Beryllium	0.000211	0.0001	0.0005	0.004	NE	J		075725-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	0.01	U		075725-009	SW846 6020
	Calcium	165	0.2	1.0	NE	NE	B		075725-009	SW846 6020
	Chromium	ND	0.001	0.003	0.1	0.05	U	B3, UJ	075725-009	SW846 6020
	Cobalt	0.000478	0.0001	0.001	NE	NE	J		075725-009	SW846 6020
	Copper	0.00148	0.0002	0.001	NE	NE	B		075725-009	SW846 6020
	Iron	0.787	0.01	0.025	NE	NE			075725-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	0.05	U		075725-009	SW846 6020
	Magnesium	34.6	0.005	0.015	NE	NE			075725-009	SW846 6020
	Manganese	ND	0.001	0.005	NE	NE	U		075725-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	0.002	U		075725-009	SW846 7470
	Nickel	0.00531	0.0005	0.002	NE	NE			075725-009	SW846 6020
	Potassium	6.09	0.08	0.3	NE	NE			075725-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.05	0.05	U		075725-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	0.05	U		075725-009	SW846 6020
	Sodium	120	0.8	2.5	NE	NE			075725-009	SW846 6020
	Thallium	0.000434	0.0004	0.001	0.002	NE	J		075725-009	SW846 6020
	Uranium	0.0164	0.00005	0.0002	0.03	5	B		075725-009	SW846 6020
	Uranium-235	0.000118	0.00001	0.00007	0.03	5			075725-009	SW846 6020
	Uranium-238	0.0163	0.00005	0.0002	0.03	5	B		075725-009	SW846 6020
	Vanadium	ND	0.002	0.03	NE	NE	U		075725-009	SW846 6020
	Zinc	0.00321	0.002	0.01	NE	NE	J		075725-009	SW846 6020

Refer to footnotes on page 43.

Table GWPP A-6
Summary of Total (Unfiltered) Mercury Results (EPA Method[g] SW846-7470)
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2006

Well ID	Sample Date	Mercury Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL / MAC[d] (mg/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
Coyote Springs	20-Feb-06	ND	0.00005	0.0002	0.002	0.002	U		075732-010	SW846 7470
Eubank-1	14-Feb-06	ND	0.00005	0.0002	0.002	0.002	U		075723-010	SW846 7470
EOD Hill	13-Mar-06	ND	0.00005	0.0002	0.002	0.002	U	B3, UJ	075759-010	SW846 7470
Greystone-MW2	24-Feb-06	ND	0.00005	0.0002	0.002	0.002	U		075740-010	SW846 7470
MRN-2	07-Mar-06	ND	0.00005	0.0002	0.002	0.002	U	B3, UJ	075754-010	SW846 7470
MRN-2 (Duplicate)	07-Mar-06	ND	0.00005	0.0002	0.002	0.002	U	B3, UJ	075755-010	SW846 7470
MRN-3D	08-Mar-06	ND	0.00005	0.0002	0.002	0.002	U		075757-010	SW846 7470
NWTA3-MW2	21-Feb-06	ND	0.00005	0.0002	0.002	0.002	U		075734-010	SW846 7470
NWTA3-MW3D	22-Feb-06	ND	0.00005	0.0002	0.002	0.002	U		075736-010	SW846 7470
PL-2	03-Mar-06	ND	0.00005	0.0002	0.002	0.002	U	B3, UJ	075748-010	SW846 7470
PL-3	06-Mar-06	ND	0.00005	0.0002	0.002	0.002	U	B3, UJ	075750-010	SW846 7470
SFR-2S	23-Feb-06	ND	0.00005	0.0002	0.002	0.002	U		075730-010	SW846 7470
SFR-4T	16-Feb-06	ND	0.00005	0.0002	0.002	0.002	U		075727-010	SW846 7470
SFR-4T (Duplicate)	16-Feb-06	ND	0.00005	0.0002	0.002	0.002	U		075728-010	SW846 7470
SWTA3-MW2	27-Feb-06	ND	0.00005	0.0002	0.002	0.002	U		075742-010	SW846 7470
SWTA3-MW3	28-Feb-06	ND	0.00005	0.0002	0.002	0.002	U	B3, UJ	075744-010	SW846 7470
SWTA3-MW4	01-Mar-06	ND	0.00005	0.0002	0.002	0.002	U	B3, UJ	075746-010	SW846 7470
TRE-1	15-Feb-06	ND	0.00005	0.0002	0.002	0.002	U		075725-010	SW846 7470

Refer to footnotes on page 43.

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Table GWPP A-7
Summary of Gamma-Emitting Radionuclides/Short List
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2006

Well ID	Analyte	Activity[a] (pCi/L)	MDA[b] (pCi/L)	Critical Level[c] (pCi/L)	MCL/ MAC[d] (pCi/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
Coyote Springs 20-Feb-06	Americium-241	-9.09 ± 9.12	15.4	7.51	NE	NE	U		075732-033	EPA 901.0
	Cesium-137	0.840 ± 1.81	3.25	1.56	NE	NE	U		075732-033	EPA 901.0
	Cobalt-60	-0.283 ± 2.28	3.43	1.61	NE	NE	U		075732-033	EPA 901.0
	Potassium-40	4.91 ± 59.1	32.2	15.1	NE	NE	U		075732-033	EPA 901.0
Eubank-1 14-Feb-06	Americium-241	-4.76 ± 12.8	20.6	10.0	NE	NE	U		075723-033	EPA 901.0
	Cesium-137	0.0758 ± 1.80	3.15	1.50	NE	NE	U		075723-033	EPA 901.0
	Cobalt-60	0.811 ± 1.89	3.50	1.64	NE	NE	U		075723-033	EPA 901.0
	Potassium-40	4.77 ± 36.5	32.8	15.2	NE	NE	U		075723-033	EPA 901.0
EOD Hill 13-Mar-06	Americium-241	-15.3 ± 9.07	14.9	7.28	NE	NE	U		075759-033	EPA 901.0
	Cesium-137	0.444 ± 1.78	3.18	1.52	NE	NE	U		075759-033	EPA 901.0
	Cobalt-60	-0.75 ± 1.95	3.38	1.59	NE	NE	U		075759-033	EPA 901.0
	Potassium-40	80.5 ± 24.6	80.6	23.8	NE	NE	U		075759-033	EPA 901.0
Greystone-MW2 24-Feb-06	Americium-241	3.07 ± 7.98	13.3	6.47	NE	NE	U		075740-033	EPA 901.0
	Cesium-137	1.03 ± 1.66	3.00	1.43	NE	NE	U		075740-033	EPA 901.0
	Cobalt-60	1.08 ± 1.80	3.37	1.58	NE	NE	U		075740-033	EPA 901.0
	Potassium-40	7.53 ± 39.9	33.3	15.6	NE	NE	U		075740-033	EPA 901.0
MRN-2 07-Mar-06	Americium-241	4.93 ± 10.3	17.2	8.41	NE	NE	U		075754-033	EPA 901.0
	Cesium-137	0.0757 ± 2.02	3.58	1.72	NE	NE	U		075754-033	EPA 901.0
	Cobalt-60	-0.178 ± 2.07	3.73	1.75	NE	NE	U		075754-033	EPA 901.0
	Potassium-40	23.3 ± 49.8	32.8	15.2	NE	NE	U		075754-033	EPA 901.0
MRN-2 (Duplicate) 07-Mar-06	Americium-241	-0.482 ± 4.13	5.18	2.54	NE	NE	U		075755-033	EPA 901.0
	Cesium-137	-0.166 ± 2.56	4.41	2.12	NE	NE	U		075755-033	EPA 901.0
	Cobalt-60	1.52 ± 2.51	4.68	2.20	NE	NE	U		075755-033	EPA 901.0
	Potassium-40	60.1 ± 53.9	37.2	17.2	NE	NE	X	UJ	075755-033	EPA 901.0
MRN-3D 08-Mar-06	Americium-241	2.08 ± 9.79	15.3	7.49	NE	NE	U		075757-033	EPA 901.0
	Cesium-137	-1.5 ± 1.83	3.10	1.49	NE	NE	U		075757-033	EPA 901.0
	Cobalt-60	0.680 ± 1.89	3.38	1.59	NE	NE	U		075757-033	EPA 901.0
	Potassium-40	10.1 ± 49.4	31.3	14.7	NE	NE	U		075757-033	EPA 901.0
NWTA3-MW2 21-Feb-06	Americium-241	-2.22 ± 7.77	13.7	6.68	NE	NE	U		075734-033	EPA 901.0
	Cesium-137	1.16 ± 1.88	2.72	1.29	NE	NE	U		075734-033	EPA 901.0
	Cobalt-60	1.85 ± 1.80	3.55	1.66	NE	NE	U		075734-033	EPA 901.0
	Potassium-40	54.8 ± 22.0	54.9	21.7	NE	NE	U	P1, UJ	075734-033	EPA 901.0
NWTA3-MW3D 22-Feb-06	Americium-241	-11.7 ± 9.18	13.6	6.63	NE	NE	U		075736-033	EPA 901.0
	Cesium-137	-0.164 ± 1.63	2.85	1.37	NE	NE	U		075736-033	EPA 901.0
	Cobalt-60	0.202 ± 1.67	2.99	1.41	NE	NE	U		075736-033	EPA 901.0
	Potassium-40	67.2 ± 21.4	67.2	20.4	NE	NE	U	P1, UJ	075736-033	EPA 901.0

Refer to footnotes on page 35.

Table GWPP A-7 *(Concluded)*
Summary of Detected Gamma-Emitting Radionuclides Exceeding the MDA (EPA Method[g] 901.0)
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2005

Well ID	Analyte	Activity[a] (pCi/L)	MDA[b] (pCi/L)	Critical Level[c] (pCi/L)	MCL/ MAC[d] (pCi/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
PL-2	Americium-241	11.5 ± 11.9	14.3	6.97	NE	NE	U		075748-033	EPA 901.0
03-Mar-06	Cesium-137	-0.095 ± 1.73	3.05	1.45	NE	NE	U		075748-033	EPA 901.0
	Cobalt-60	-0.45 ± 1.96	3.51	1.64	NE	NE	U		075748-033	EPA 901.0
	Potassium-40	52.6 ± 23.2	52.6	22.4	NE	NE	U	P1, UJ	075748-033	EPA 901.0
PL-3	Americium-241	13.0 ± 11.5	19.5	9.50	NE	NE	U		075750-033	EPA 901.0
06-Mar-06	Cesium-137	-0.00684 ± 1.65	2.87	1.37	NE	NE	U		075750-033	EPA 901.0
	Cobalt-60	1.12 ± 1.67	3.15	1.47	NE	NE	U		075750-033	EPA 901.0
	Potassium-40	55.4 ± 21.4	55.4	20.7	NE	NE	U	P1, UJ	075750-033	EPA 901.0
SFR-2S	Americium-241	4.28 ± 12.4	20.6	10.0	NE	NE	U		075730-033	EPA 901.0
23-Feb-06	Cesium-137	-0.322 ± 1.79	3.09	1.47	NE	NE	U		075730-033	EPA 901.0
	Cobalt-60	1.56 ± 1.92	3.65	1.71	NE	NE	U		075730-033	EPA 901.0
	Potassium-40	10.1 ± 48.3	30.9	14.3	NE	NE	U		075730-033	EPA 901.0
SFR-4T	Americium-241	2.18 ± 3.35	5.40	2.64	NE	NE	U		075727-033	EPA 901.0
16-Feb-06	Cesium-137	1.06 ± 2.52	4.44	2.14	NE	NE	U		075727-033	EPA 901.0
	Cobalt-60	-1.16 ± 2.62	4.52	2.12	NE	NE	U		075727-033	EPA 901.0
	Potassium-40	39.2 ± 27.9	41.7	19.5	NE	NE	U		075727-033	EPA 901.0
SFR-4T	Americium-241	3.20 ± 10.7	17.8	8.71	NE	NE	U		075728-033	EPA 901.0
(Duplicate)	Cesium-137	0.758 ± 1.97	3.55	1.70	NE	NE	U		075728-033	EPA 901.0
16-Feb-06	Cobalt-60	-0.491 ± 1.92	3.43	1.59	NE	NE	U		075728-033	EPA 901.0
	Potassium-40	15.4 ± 50.8	33.9	15.8	NE	NE	U		075728-033	EPA 901.0
SWTA3-MW2	Americium-241	1.17 ± 3.08	5.46	2.68	NE	NE	U		075742-033	EPA 901.0
27-Feb-06	Cesium-137	0.577 ± 2.48	4.34	2.09	NE	NE	U		075742-033	EPA 901.0
	Cobalt-60	-0.531 ± 2.42	4.25	1.99	NE	NE	U		075742-033	EPA 901.0
	Potassium-40	40.7 ± 34.6	48.5	22.9	NE	NE	U		075742-033	EPA 901.0
SWTA3-MW3	Americium-241	4.78 ± 13.4	14.0	7.02	NE	NE	U		075744-033	EPA 901.0
28-Feb-06	Cesium-137	0.879 ± 2.23	3.64	1.82	NE	NE	U		075744-033	EPA 901.0
	Cobalt-60	-2.94 ± 2.40	3.51	1.76	NE	NE	U		075744-033	EPA 901.0
	Potassium-40	20.2 ± 56.3	38.2	19.1	NE	NE	U		075744-033	EPA 901.0
SWTA3-MW4	Americium-241	8.66 ± 10.3	15.7	7.84	NE	NE	U		075746-033	EPA 901.0
01-Mar-06	Cesium-137	-1.22 ± 2.08	3.31	1.66	NE	NE	U		075746-033	EPA 901.0
	Cobalt-60	1.18 ± 2.46	4.26	2.13	NE	NE	U		075746-033	EPA 901.0
	Potassium-40	31.5 ± 41.8	35.1	17.6	NE	NE	U		075746-033	EPA 901.0
TRE-1	Americium-241	-6.11 ± 7.79	13.6	6.59	NE	NE	U		075725-033	EPA 901.0
15-Feb-06	Cesium-137	1.28 ± 1.75	3.22	1.54	NE	NE	U		075725-033	EPA 901.0
	Cobalt-60	0.788 ± 1.90	3.58	1.68	NE	NE	U		075725-033	EPA 901.0
	Potassium-40	61.4 ± 23.6	61.5	23.2	NE	NE	U	UJ	075725-033	EPA 901.0

Refer to footnotes on page 43.

Table GWPP A-8
Summary of Radioisotopic Results
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2006

Well ID	Analyte	Activity[a] (pCi/L)	MDA[b] (pCi/L)	Critical Level[c] (pCi/L)	MCL/ MAC[d] (pCi/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
Coyote Springs 20-Feb-06	Gross Alpha	10.7 ± 4.29	4.96	2.14	15	NE			075732-034	EPA 900.0
	Gross Beta	36.1 ± 8.95	13.5	6.55	4mrem/yr	NE			075732-034	EPA 900.0
	Uranium-233/234	10.3 ± 1.33	0.136	0.0281	0.03 mg/L	5 mg/L			075732-035	DOE HASL300 U-02 Mod
	Uranium-235/236	0.259 ± 0.0832	0.0661	0.0213	0.03 mg/L	5 mg/L		J, P1	075732-035	DOE HASL300 U-02 Mod
	Uranium-238	2.34 ± 0.350	0.0764	0.0222	0.03 mg/L	5 mg/L			075732-035	DOE HASL300 U-02 Mod
	Radium-226	0.516 ± 0.298	0.383	0.155	5	30			075732-038	EPA 903.1
	Radium-228	0.712 ± 0.477	0.926	0.415	5	30	U		075732-039	EPA 904.0
Eubank-1 14-Feb-06	Gross Alpha	2.85 ± 1.07	1.34	0.598	15	NE			075723-034	EPA 900.0
	Gross Beta	2.97 ± 1.71	2.78	1.35	4mrem/yr	NE			075723-034	EPA 900.0
	Uranium-233/234	2.07 ± 0.299	0.139	0.0635	0.03 mg/L	5 mg/L			075723-035	DOE HASL300 U-02 Mod
	Uranium-235/236	0.0699 ± 0.0388	0.0672	0.0264	0.03 mg/L	5 mg/L			075723-035	DOE HASL300 U-02 Mod
	Uranium-238	0.953 ± 0.166	0.0778	0.033	0.03 mg/L	5 mg/L			075723-035	DOE HASL300 U-02 Mod
	Radium-226	0.302 ± 0.388	0.648	0.266	5	30	U		075723-038	EPA 903.1
	Radium-228	0.212 ± 0.309	0.697	0.310	5	30	U		075723-039	EPA 904.0
EOD Hill 13-Mar-06	Gross Alpha	**137 ± 19.7**	12.5	5.63	15	NE			075759-034	EPA 900.0
	Gross Beta	54.2 ± 16.1	24.6	12.0	4mrem/yr	NE			075759-034	EPA 900.0
	Uranium-233/234	99.1 ± 15.3	0.272	0.155	0.03 mg/L	5 mg/L			075759-035	DOE HASL300 U-02 Mod
	Uranium-235/236	2.62 ± 0.542	0.136	0.0642	0.03 mg/L	5 mg/L		J, P1	075759-035	DOE HASL300 U-02 Mod
	Uranium-238	13.6 ± 2.21	0.155	0.0804	0.03 mg/L	5 mg/L			075759-035	DOE HASL300 U-02 Mod
	Radium-226	3.35 ± 0.897	0.716	0.289	5	30			075759-038	EPA 903.1
	Radium-228	2.75 ± 0.831	1.10	0.487	5	30			075759-039	EPA 904.0
Greystone-MW2 24-Feb-06	Gross Alpha	**19.7 ± 3.86**	3.55	1.62	15	NE			075740-034	EPA 900.0
	Gross Beta	15.1 ± 3.62	5.29	2.57	4mrem/yr	NE			075740-034	EPA 900.0
	Gross Alpha	1.12 ± 0.260	0.243	0.106	15	NE		A2, J	075740-R33	EPA 900.0
	Gross Beta	8.32 ± 2.47	3.28	1.59	4mrem/yr	NE			075740-R33	EPA 900.0
	Gross Alpha	0.954 ± 0.307	0.452	0.210	15	NE		A2, J	075740-R34A	EPA 900.0
	Gross Beta	8.38 ± 2.39	3.37	1.64	4mrem/yr	NE			075740-R34A	EPA 900.0
	Gross Alpha	1.17 ± 0.240	0.156	0.0625	15	NE		A2, J	075740-R34B	EPA 900.0
	Gross Beta	7.71 ± 2.40	3.72	1.82	4mrem/yr	NE			075740-R34B	EPA 900.0
	Uranium-233/234	10.4 ± 1.06	0.0831	0.0172	0.03 mg/L	5 mg/L			075740-035	DOE HASL300 U-02 Mod
	Uranium-235/236	0.303 ± 0.0692	0.0403	0.0106	0.03 mg/L	5 mg/L		J, P1	075740-035	DOE HASL300 U-02 Mod
	Uranium-238	2.34 ± 0.276	0.0466	0.0105	0.03 mg/L	5 mg/L			075740-035	DOE HASL300 U-02 Mod
	Radium-226	0.202 ± 0.443	0.801	0.332	5	30	U		075740-038	EPA 903.1
	Radium-228	0.381 ± 0.493	1.10	0.493	5	30	U		075740-039	EPA 904.0

Refer to footnotes on page 43.

Table GWPP A-8
Summary of Radioisotopic Results
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2006

Well ID	Analyte	Activity[a] (pCi/L)	MDA[b] (pCi/L)	Critical Level[c] (pCi/L)	MCL/ MAC[d] (pCi/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
MRN-2 07-Mar-06	Gross Alpha	3.18 ± 1.26	1.51	0.658	15	NE			075754-034	EPA 900.0
	Gross Beta	4.09 ± 1.08	1.62	0.786	4mrem/yr	NE			075754-034	EPA 900.0
	Uranium-233/234	2.95 ± 0.415	0.157	0.0343	0.03 mg/L	5 mg/L			075754-035	DOE HASL300 U-02 Mod
	Uranium-235/236	0.146 ± 0.0652	0.076	0.020	0.03 mg/L	5 mg/L			075754-035	DOE HASL300 U-02 Mod
	Uranium-238	1.11 ± 0.195	0.0878	0.0256	0.03 mg/L	5 mg/L			075754-035	DOE HASL300 U-02 Mod
	Radium-226	0.452 ± 0.298	0.374	0.140	5	30			075754-038	EPA 903.1
	Radium-228	0.466 ± 0.565	1.23	0.545	5	30	U	UJ	075754-039	EPA 904.0
MRN-2 (Duplicate) 07-Mar-06	Gross Alpha	3.61 ± 1.16	1.50	0.708	15	NE			075755-034	EPA 900.0
	Gross Beta	2.98 ± 1.19	1.88	0.916	4mrem/yr	NE			075755-034	EPA 900.0
	Uranium-233/234	3.11 ± 0.411	0.107	0.0339	0.03 mg/L	5 mg/L			075755-035	DOE HASL300 U-02 Mod
	Uranium-235/236	0.0744 ± 0.0422	0.0517	0.0192	0.03 mg/L	5 mg/L			075755-035	DOE HASL300 U-02 Mod
	Uranium-238	1.11 ± 0.177	0.0598	0.0233	0.03 mg/L	5 mg/L			075755-035	DOE HASL300 U-02 Mod
	Radium-226	0.108 ± 0.273	0.507	0.205	5	30	U		075755-038	EPA 903.1
	Radium-228	1.19 ± 0.743	1.40	0.627	5	30	U	UJ	075755-039	EPA 904.0
MRN-3D 08-Mar-06	Gross Alpha	3.38 ± 1.32	0.890	0.394	15	NE			075757-034	EPA 900.0
	Gross Beta	2.63 ± 1.73	2.84	1.39	4mrem/yr	NE	U		075757-034	EPA 900.0
	Uranium-233/234	2.55 ± 0.362	0.151	0.0692	0.03 mg/L	5 mg/L			075757-035	DOE HASL300 U-02 Mod
	Uranium-235/236	0.082 ± 0.0469	0.0732	0.0287	0.03 mg/L	5 mg/L			075757-035	DOE HASL300 U-02 Mod
	Uranium-238	1.06 ± 0.186	0.0847	0.036	0.03 mg/L	5 mg/L			075757-035	DOE HASL300 U-02 Mod
	Radium-226	0.328 ± 0.360	0.578	0.234	5	30	U		075757-038	EPA 903.1
	Radium-228	0.933 ± 0.478	0.803	0.351	5	30			075757-039	EPA 904.0
NWTA3-MW2 21-Feb-06	Gross Alpha	5.14 ± 1.50	1.96	0.929	15	NE			075734-034	EPA 900.0
	Gross Beta	6.65 ± 1.77	2.86	1.38	4mrem/yr	NE			075734-034	EPA 900.0
	Uranium-233/234	2.68 ± 0.348	0.0797	0.0201	0.03 mg/L	5 mg/L			075734-035	DOE HASL300 U-02 Mod
	Uranium-235/236	0.102 ± 0.0377	0.0386	0.00719	0.03 mg/L	5 mg/L		J, P1	075734-035	DOE HASL300 U-02 Mod
	Uranium-238	1.24 ± 0.180	0.0447	0.0116	0.03 mg/L	5 mg/L			075734-035	DOE HASL300 U-02 Mod
	Radium-226	2.01 ± 0.656	0.650	0.270	5	30			075734-038	EPA 903.1
	Radium-228	0.387 ± 0.370	0.763	0.335	5	30	U		075734-039	EPA 904.0
NWTA3-MW3D 22-Feb-06	Gross Alpha	3.77 ± 0.886	0.968	0.441	15	NE			075736-034	EPA 900.0
	Gross Beta	5.14 ± 1.36	2.17	1.04	4mrem/yr	NE			075736-034	EPA 900.0
	Uranium-233/234	2.84 ± 0.327	0.0861	0.014	0.03 mg/L	5 mg/L			075736-035	DOE HASL300 U-02 Mod
	Uranium-235/236	0.133 ± 0.0453	0.0417	0.011	0.03 mg/L	5 mg/L		J, P1	075736-035	DOE HASL300 U-02 Mod
	Uranium-238	1.41 ± 0.184	0.0483	0.0109	0.03 mg/L	5 mg/L			075736-035	DOE HASL300 U-02 Mod
	Radium-226	0.799 ± 0.462	0.564	0.219	5	30			075736-038	EPA 903.1
	Radium-228	0.689 ± 0.507	0.991	0.438	5	30	U		075736-039	EPA 904.0

Refer to footnotes on page 35.

Table GWPP A-8
Summary of Radioisotopic Results
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2006

Well ID	Analyte	Activity[a] (pCi/L)	MDA[b] (pCi/L)	Critical Level[c] (pCi/L)	MCL/ MAC[d] (pCi/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
PL-2 03-Mar-06	Gross Alpha	2.43 ± 1.16	1.52	0.657	15	NE			075748-034	EPA 900.0
	Gross Beta	4.92 ± 1.16	1.69	0.819	4mrem/yr	NE			075748-034	EPA 900.0
	Uranium-233/234	2.40 ± 0.334	0.151	0.027	0.03 mg/L	5 mg/L			075748-035	DOE HASL300 U-02 Mod
	Uranium-235/236	0.158 ± 0.0621	0.0733	0.00	0.03 mg/L	5 mg/L			075748-035	DOE HASL300 U-02 Mod
	Uranium-238	1.21 ± 0.198	0.0847	0.0156	0.03 mg/L	5 mg/L			075748-035	DOE HASL300 U-02 Mod
	Radium-226	0.834 ± 0.541	0.683	0.298	5	30			075748-038	EPA 903.1
	Radium-228	0.419 ± 0.547	1.21	0.539	5	30	U		075748-039	EPA 904.0
PL-3 06-Mar-06	Gross Alpha	3.70 ± 1.58	2.00	0.879	15	NE			075750-034	EPA 900.0
	Gross Beta	6.50 ± 1.41	1.99	0.961	4mrem/yr	NE			075750-034	EPA 900.0
	Uranium-233/234	2.31 ± 0.322	0.113	0.0166	0.03 mg/L	5 mg/L			075750-035	DOE HASL300 U-02 Mod
	Uranium-235/236	0.0879 ± 0.0417	0.055	0.0102	0.03 mg/L	5 mg/L			075750-035	DOE HASL300 U-02 Mod
	Uranium-238	1.11 ± 0.179	0.0636	0.0203	0.03 mg/L	5 mg/L			075750-035	DOE HASL300 U-02 Mod
	Radium-226	0.301 ± 0.227	0.291	0.123	5	30			075750-038	EPA 903.1
	Radium-228	0.410 ± 0.503	1.10	0.488	5	30	U		075750-039	EPA 904.0
SFR-2S 23-Feb-06	Gross Alpha	**24.6 ± 3.41**	2.23	0.989	15	NE			075730-034	EPA 900.0
	Gross Beta	9.83 ± 4.03	6.95	3.35	4mrem/yr	NE			075730-034	EPA 900.0
	Uranium-233/234	18.6 ± 1.94	0.105	0.0154	0.03 mg/L	5 mg/L			075730-035	DOE HASL300 U-02 Mod
	Uranium-235/236	1.68 ± 0.236	0.051	0.0164	0.03 mg/L	5 mg/L	X	R	075730-035	DOE HASL300 U-02 Mod
	Uranium-238	6.10 ± 0.676	0.059	0.0133	0.03 mg/L	5 mg/L			075730-035	DOE HASL300 U-02 Mod
	Radium-226	**7.49 ± 1.70**	1.17	0.464	5	30			075730-038	EPA 903.1
	Radium-228	0.751 ± 0.537	1.07	0.481	5	30	U		075730-039	EPA 904.0
SFR-4T 16-Feb-06	Gross Alpha	2.07 ± 5.32	9.24	4.14	15	NE	U		075727-034	EPA 900.0
	Gross Beta	11.4 ± 7.85	12.9	6.24	4mrem/yr	NE	U		075727-034	EPA 900.0
	Uranium-233/234	0.785 ± 0.138	0.110	0.016	0.03 mg/L	5 mg/L			075727-035	DOE HASL300 U-02 Mod
	Uranium-235/236	0.0596 ± 0.0341	0.0532	0.0099	0.03 mg/L	5 mg/L		P1, J	075727-035	DOE HASL300 U-02 Mod
	Uranium-238	0.410 ± 0.0891	0.0615	0.0139	0.03 mg/L	5 mg/L			075727-035	DOE HASL300 U-02 Mod
	Radium-226	0.490 ± 0.350	0.494	0.200	5	30	U		075727-038	EPA 903.1
	Radium-228	0.697 ± 0.362	0.627	0.277	5	30			075727-039	EPA 904.0
SFR-4T (Duplicate) 16-Feb-06	Gross Alpha	0.672 ± 3.61	6.70	2.89	15	NE	U		075728-034	EPA 900.0
	Gross Beta	3.50 ± 9.69	16.5	8.04	4mrem/yr	NE	U		075728-034	EPA 900.0
	Uranium-233/234	0.445 ± 0.0907	0.0952	0.017	0.03 mg/L	5 mg/L			075728-035	DOE HASL300 U-02 Mod
	Uranium-235/236	0.0258 ± 0.0194	0.0461	0.00	0.03 mg/L	5 mg/L	U	P1, UJ	075728-035	DOE HASL300 U-02 Mod
	Uranium-238	0.125 ± 0.0439	0.0534	0.0139	0.03 mg/L	5 mg/L			075728-035	DOE HASL300 U-02 Mod
	Radium-226	0.634 ± 0.365	0.471	0.190	5	30			075728-038	EPA 903.1
	Radium-228	0.601 ± 0.351	0.649	0.290	5	30	U		075728-039	EPA 904.0

Refer to footnotes on page 44

Table GWPP A-8 (Concluded)
Summary of Radioisotopic Results
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2006

Well ID	Analyte	Activity[a] (pCi/L)	MDA[b] (pCi/L)	Critical Level[c] (pCi/L)	MCL/ MAC[d] (pCi/L)		Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
SWTA3-MW2 27-Feb-06	Gross Alpha	4.50 ± 1.11	1.31	0.611	15	NE			075742-034	EPA 900.0
	Gross Beta	5.46 ± 1.37	2.07	1.01	4mrem/yr	NE			075742-034	EPA 900.0
	Uranium-233/234	3.32 ± 0.390	0.101	0.018	0.03 mg/L	5 mg/L			075742-035	DOE HASL300 U-02 Mod
	Uranium-235/236	0.125 ± 0.0464	0.0488	0.00908	0.03 mg/L	5 mg/L		J, P1	075742-035	DOE HASL300 U-02 Mod
	Uranium-238	1.06 ± 0.157	0.0565	0.018	0.03 mg/L	5 mg/L			075742-035	DOE HASL300 U-02 Mod
	Radium-226	0.043 ± 0.348	0.683	0.283	5	30	U		075742-038	EPA 903.1
	Radium-228	1.08 ± 0.467	0.763	0.339	5	30			075742-039	EPA 904.0
SWTA3-MW3 28-Feb-06	Gross Alpha	2.69 ± 1.28	1.55	0.679	15	NE			075744-034	EPA 900.0
	Gross Beta	5.21 ± 1.19	1.76	0.857	4mrem/yr	NE			075744-034	EPA 900.0
	Uranium-233/234	2.25 ± 0.271	0.0889	0.0172	0.03 mg/L	5 mg/L			075744-035	DOE HASL300 U-02 Mod
	Uranium-235/236	0.0896 ± 0.0426	0.0431	0.0196	0.03 mg/L	5 mg/L		J, P1	075744-035	DOE HASL300 U-02 Mod
	Uranium-238	0.853 ± 0.128	0.0498	0.0112	0.03 mg/L	5 mg/L			075744-035	DOE HASL300 U-02 Mod
	Radium-226	0.00 ± 0.335	0.679	0.282	5	30	U		075744-038	EPA 903.1
	Radium-228	1.02 ± 0.531	0.943	0.421	5	30			075744-039	EPA 904.0
SWTA3-MW4 01-Mar-06	Gross Alpha	3.73 ± 1.53	1.98	0.890	15	NE			075746-034	EPA 900.0
	Gross Beta	6.04 ± 2.33	3.64	1.77	4mrem/yr	NE			075746-034	EPA 900.0
	Uranium-233/234	2.47 ± 0.322	0.121	0.0264	0.03 mg/L	5 mg/L			075746-035	DOE HASL300 U-02 Mod
	Uranium-235/236	0.0935 ± 0.0495	0.0585	0.0218	0.03 mg/L	5 mg/L			075746-035	DOE HASL300 U-02 Mod
	Uranium-238	0.817 ± 0.141	0.0676	0.0249	0.03 mg/L	5 mg/L			075746-035	DOE HASL300 U-02 Mod
	Radium-226	0.401 ± 0.401	0.636	0.264	5	30	U		075746-038	EPA 903.1
	Radium-228	0.726 ± 0.562	1.13	0.506	5	30	U	UJ	075746-039	EPA 904.0
TRE-1 15-Feb-06	Gross Alpha	**28.7 ± 4.57**	3.19	1.43	15	NE			075725-034	EPA 900.0
	Gross Beta	14.8 ± 4.50	6.98	3.41	4mrem/yr	NE			075725-034	EPA 900.0
	Uranium-233/234	23.6 ± 2.80	0.159	0.0284	0.03 mg/L	5 mg/L			075725-035	DOE HASL300 U-02 Mod
	Uranium-235/236	0.567 ± 0.135	0.077	0.0203	0.03 mg/L	5 mg/L		J, P1	075725-035	DOE HASL300 U-02 Mod
	Uranium-238	6.17 ± 0.789	0.0891	0.0232	0.03 mg/L	5 mg/L			075725-035	DOE HASL300 U-02 Mod
	Radium-226	0.679 ± 0.379	0.469	0.186	5	30			075725-038	EPA 903.1
	Radium-228	0.411 ± 0.424	0.901	0.399	5	30	U		075725-039	EPA 904.0

Refer to footnotes on page 43.

Table GWPP A-9
Summary of Field Water Quality Measurements[h]
Groundwater Protection Program Groundwater Surveillance Task

Fiscal Year 2006

Well ID	Sample Date	Sampling Type	Initial Depth to water (fbtoc)	Sampling Depth (fbtoc)	Purge Volume (gal)	Temperature (^{0}C)	Specific	Oxidation Reduction Potential (mV)	pH	Turbidity (NTU)	Dissolved Oxygen (%Sat)	Alkalinity (mg/L $CaCO_3$ at 4.5 pH)
Coyote Springs	20-Feb-06	n/a	n/a	n/a	n/a	10.66	3,109	223.7	6.20	2.13	50.5	998
Eubank-1	14-Feb-06	Bennett Pump	552.75	609	107	18.76	467	171.0	7.60	0.51	60.2	164
EOD Hill	13-Mar-06	Bennett Pump	142.00	213	50	15.01	3,675	-84.3	6.05	3.99	13.0	1,780
Greystone-MW2	24-Feb-06	Bennett Pump	51.57	82	58	15.85	1,095	115.6	6.52	2.23	70.4	460
MRN-2	09-Dec-05	Bennett Pump	431.68	442	42	17.91	431	**86.0**	7.59	1.95	67.9	n/a
	07-Mar-06	Bennett Pump	431.66	442	40	18.57	441	235.4	7.74	0.46	75.1	156
	06-Jun-06	Bennett Pump	431.97	442	40	21.09	459	20.6	7.31	0.61	69.6	n/a
	21-Sep-06	Bennett Pump	432.16	442	40	18.39	420	326.6	7.57	0.65	70.8	n/a
MRN-3D	12-Dec-05	Bennett Pump	432.22	683	62	18.97	469	51.7	7.45	4.31	1.6	n/a
	08-Mar-06	Bennett Pump	432.02	682	62	18.66	475	105.3	7.57	1.36	1.9	157
	08-Jun-06	Bennett Pump	432.85	683	62	20.76	492	10.7	7.35	0.99	2.1	n/a
	25-Sep-06	Bennett Pump	432.23	683	62	20.81	450	303.9	7.44	0.46	2.5	n/a
NWTA3-MW2	14-Dec-05	QED Pump	464.85	477	12 Liters	11.57	424	69.7	7.84	1.35	72.8	n/a
	21-Feb-06	QED Pump	464.96	470	12 Liters	14.37	425	231.9	7.77	0.19	69.5	142
	05-Jun-06	QED Pump	465.36	477	12 Liters	26.38	446	23.8	7.21	0.29	78.0	n/a
NWTA3-MW3D	22-Feb-06	Bennett Pump	464.24	675	62	18.66	378	236.0	7.77	0.53	36.5	141
PL-2	03-Mar-06	Bennett Pump	466.91	599	57	18.19	406	195.9	7.84	0.31	63.4	144
PL-3*	06-Mar-06	Bennett Pump	465.25	467	7	17.93	470	210.3	7.74	1.91	72.8	148
SFR-2S	23-Feb-06	Bennett Pump	99.47	118	44	15.60	1,102	91.1	6.94	9.03	72.8	365
SFR-4T	16-Feb-06	Bennett Pump	146.60	358	74	15.79	4,072	148.6	8.08	0.68	12.8	105
SWTA3-MW2	27-Feb-06	Bennett Pump	446.55	476	58	19.60	413	100.4	7.60	0.66	44.4	166
SWTA3-MW3	28-Feb-06	Bennett Pump	443.78	641	56	20.41	438	188.5	7.79	0.69	46.7	148
SWTA3-MW4	01-Mar-06	Bennett Pump	444.23	453	25	20.30	446	240.3	7.83	1.15	77.3	168
	12-Jun-06	Bennett Pump	444.70	453	26	21.36	469	16.8	7.35	1.65	70.2	n/a
	22-Sep-06	Bennett Pump	444.63	453	22	18.74	426	322.9	7.65	1.33	71.5	n/a
TRE-1	15-Feb-06	Bennett Pump	174.46	296	114	16.35	1,297	231.6	6.75	0.35	70.6	445

Refer to footnotes on page 43.

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[a]**Result and/or Activity**
- Values in bold exceed the established MCL and/or MAC.
- ND = not detected (at method detection limit).
- Activities of zero or less are considered to be not detected.
- µg/L = micrograms per liter
- mg/L = milligrams per liter
- pCi/L = picocuries per liter

[b]**MDL or MDA**
Method detection limit. The minimum concentration or activity that can be measured and reported with 99% confidence that the analyte is greater than zero, analyte is matrix specific.
The minimal detectable activity or minimum measured activity in a sample required to ensure a 95% probability that the measured activity is accurately quantified above the critical level

[c]**PQL or Critical Level**
Practical quantitation limit. The lowest concentration of analytes in a sample that can be reliably determined within specified limits of precision and accuracy by that indicated method under routine laboratory operating conditions.
The minimum activity that can be measured and reported with 99% confidence that the analyte is greater than zero, analyte is matrix specific

[d]**MCL/MAC**
Maximum contaminant level. Established by the U.S. Environmental Protection Agency Primary Water Regulations (40 CFR 141.11(b)), and subsequent amendments or the New Mexico Environmental Improvement Board in Title 20, Chapter 7, Part 1 of the New Mexico Administrative Code (20MAC 7.1).
Maximum Allowable Concentration in groundwater for the contaminants specified in 20 NMAC 6.2, Sec 3103, Human Health Standards.
NE = not established.
15 pCi/L = the maximum gross alpha activity, including radium-226, but excluding radon and total uranium.
4 mrem/yr = any combination of beta and/or gamma emitting radionuclides (as dose rate).

[e]**Lab Qualifier**
- B = Analyte is detected in associated laboratory method blank.
- J = Amount detected is below the practical quantitation limit (PQL).
- U = Analyte is absent or below the method detection limit.
- X = Data rejected due to low abundance.

[f]**Validation Qualifier**
If cell is blank, then all quality control samples meet acceptance criteria with respect to submitted samples.
- A2 = Laboratory accuracy and/or bias measurements for the associated matrix spike and/or matrix spike duplicate do not meet acceptance criteria.
- B = Analyte present in associated laboratory method blank.
- B1 = Analyte present in associated trip blank sample.
- B2 = Analyte present in associated equipment blank.
- B3 = Analyte present in associated continuing calibration blank.
- J = The associate value is an estimated quantity.
- P1 = The laboratory precision measurements for the associated matrix spike and/or matrix spike duplicate do not meet acceptance criteria.
- P2 = Insufficient quality control data to determine laboratory precision.
- R = The data are unusable for their intended purpose. The analyte may or may not be present.
- #U = Analyte was qualified as not detected at the listed value.
- #UJ = Analyte was qualified as not detected at the listed value. The value is an estimate.
- UJ = Analyte not detected above laboratory method detection limit, but associated value is an estimate and may be inaccurate or imprecise.

[g]**Analytical Method**

U.S. Environmental Protection Agency, 1990, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd ed.

U.S. Environmental Protection Agency, 1983, "The Determination of Inorganic Anions in Water by Ion Chromatography-Method 300.0,"
EPA-600/4-84-017.

U.S. Environmental Protection Agency, 1999, "Perchlorate in Drinking Water Using Ion Chromatography," EPA 815/R-00-014.

U.S. Environmental Protection Agency, 2005, "Perchlorate in Water, Soils, and Solids Using High Performance Liquid Chromatography/Electrospray Ionization/Mass Spectrometry (HPLC/ESI/MS)," draft, Method 6850.

Analytical method used to detect radionuclides is HASL 300 4.5.2.3;

U.S. Department of Energy, Environmental Measurements Laboratory, 1997, "EML Procedures Manual," 27th ed., Vol. 1, Rev. 1992, HASL-300.

EPA 9310: U.S. Environmental Protection Agency, 1990, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd ed.

EPA 903.0/904.0: U.S. Environmental Protection Agency, 1980, "Prescribed Procedures for Measurement of Radioactivity in Drinking Water," EPA-600/4-80-032.

[h]**Field Water Quality Measurements**

Field measurements collected prior to sampling.

^{O}C	= degrees Celsius
% Sat	= percent saturation
fbtoc	= feet below top of casing
gal	= gallons
µmho/cm	= micromhos per centimeter
mg/L	= milligrams per liter
mV	= millivolts
NTU	= nephelometric turbidity units
pH	= potential of hydrogen (negative logarithm of the hydrogen ion concentration)
PL-3*	= last measurement prior to well going dry

APPENDIX B

Chemical Waste Landfill Groundwater Surveillance Task

Table of Contents

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Table CWL B-1
Summary of Detected Volatile and Semi-Volatile Organic Compounds, Chlorinated Herbicides, and Polychlorinated Biphenyls
Chemical Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (µg/L)	MDL[b] (µg/L)	PQL[c] (µg/L)	MCL[d] (µg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CWL-BW3 03-Oct-05	bis(2-Ethylhexyl)phthalate	2.02	1.92	9.62	6.0	J		071806-002	SW846 8270
CWL-BW4A 12-Oct-05	bis(2-Ethylhexyl)phthalate	4.80	2.02	10.1	6.0	J	J	071808-002	SW846 8270
CWL-MW2BU 20-Oct-05	Trichloroethene	0.945	0.250	1.00	5.0	J		071814-001	SW846 8260
CWL-MW5U 17-Oct-05	Trichloroethene	0.683	0.250	1.00	5.0	J		071825-001	SW846 8260
CWL-MW6L 13-Oct-05	bis(2-Ethylhexyl)phthalate	3.58	2.00	10.0	6.0	J	J	071827-002	SW846 8270
CWL-MW6U	Trichloroethene	0.383	0.250	1.00	5.0	J		071830-001	SW846 8260
19-Oct-05	bis(2-Ethylhexyl)phthalate	4.86	1.98	9.90	6.0	J		071830-002	SW846 8270
CWL-BW3	Acetone	1.87	1.25	5.00	NE	J	5.0U, B1	076886-001	SW846 8260
07-Apr-06	Toluene	0.409	0.250	1.00	1,000	J		076886-001	SW846 8260
CWL-BW4A 05-Apr-06	Toluene	0.844	0.250	1.00	1,000	J		076891-001	SW846 8260
CWL-BW4A (Duplicate)	Methylene chloride	2.01	2.00	5.00	5.0	J		076892-001	SW846 8260
05-Apr-06	Toluene	0.696	0.250	1.00	1,000	J		076892-001	SW846 8260
CWL-MW2BL 26-Apr-06	Acetone	1.75	1.25	5.00	NE	J	11.3U	076894-001	SW846 8260
CWL-MW2BU	Acetone	2.75	1.25	5.00	NE	J	11.3U	076896-001	SW846 8260
24-Apr-06	Trichloroethene	3.34	0.250	1.00	5.0			076896-001	SW846 8260
CWL-MW4 11-Apr-06	Acetone	3.70	1.25	5.00	NE	J		076898-001	SW846 8260
CWL-MW5L	Acetone	3.07	1.25	5.00	NE	J	11.3UJ	076900-001	SW846 8260
18-Apr-06	Acetonitrile	7.15	6.25	25.0	NE	J	J	076900-001	SW846 8260
	Trichloroethene	0.818	0.250	1.00	5.0	J		076900-001	SW846 8260
CWL-MW5U	Acetone	4.14	1.25	5.00	NE	J	11.3UJ	076903-001	SW846 8260
14-Apr-06	Toluene	0.623	0.250	1.00	1,000	J		076903-001	SW846 8260
	Trichloroethene	1.64	0.250	1.00	5.0			076903-001	SW846 8260

Refer to footnotes on page 29.

Table CWL B-1 (*Concluded*)
Summary of Detected Volatile and Semi-Volatile Organic Compounds, Chlorinated Herbicides, and Polychlorinated Biphenyls
Chemical Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (µg/L)	MDL[b] (µg/L)	PQL[c] (µg/L)	MCL[d] (µg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CWL-MW6L 20-Apr-06	Trichloroethene	0.714	0.250	1.00	5.0	J		076905-001	SW846 8260
CWL-MW6L (Duplicate) 20-Apr-06	Trichloroethene	0.644	0.250	1.00	5.0	J		076906-001	SW846 8260
CWL-MW6U	Acetone	17.5	1.25	5.00	NE		17.5UJ, B1,B2	076910-001	SW846 8260
18-Apr-06	Toluene	0.403	0.250	1.00	1,000	J		076910-001	SW846 8260
	Trichloroethene	0.458	0.250	1.00	5.0	J		076910-001	SW846 8260

Refer to footnotes on page 29.

Table CWL B-2
Method Detection Limits for Appendix IX Volatile Organic Compounds
Chemical Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Analyte	MDL[b] (µg/L)	Analytical Method[g]	Analyte	MDL[b] (µg/L)	Analytical Method[g]
1,1,1,2-Tetrachloroethane	0.250	SW846 8260	Chloroform	0.250	SW846 8260
1,1,1-Trichloroethane	0.300	SW846 8260	Chloromethane	0.500	SW846 8260
1,1,2,2-Tetrachloroethane	0.250	SW846 8260	Chloroprene	0.300	SW846 8260
1,1,2-Trichloroethane	0.250	SW846 8260	Dibromochloromethane	0.250	SW846 8260
1,1-Dichloroethane	0.300	SW846 8260	Dibromomethane	0.300	SW846 8260
1,1-Dichloroethene	0.300	SW846 8260	Dichlorodifluoromethane	0.500	SW846 8260
1,2,3-Trichloropropane	0.300	SW846 8260	Ethyl benzene	0.250	SW846 8260
1,2,4-Trichlorobenzene	0.300	SW846 8260	Ethyl cyanide	1.50	SW846 8260
1,2-Dibromo-3-chloropropane	0.500	SW846 8260	Ethyl methacrylate	1.00	SW846 8260
1,2-Dibromoethane	0.250	SW846 8260	Iodomethane	1.25	SW846 8260
1,2-Dichloroethane	0.250	SW846 8260	Isobutanol	12.5	SW846 8260
1,2-Dichloropropane	0.250	SW846 8260	Methacrylonitrile	1.00	SW846 8260
2-Butanone	1.25	SW846 8260	Methyl methacrylate	1.00	SW846 8260
2-Hexanone	1.25	SW846 8260	Methylene chloride	2.00	SW846 8260
4-methyl-, 2-Pentanone	1.25	SW846 8260	Pentachloroethane	1.00	SW846 8260
Acetone	1.25	SW846 8260	Styrene	0.250	SW846 8260
Acetonitrile	6.25	SW846 8260	Tetrachloroethene	0.250	SW846 8260
Acrolein	3.00	SW846 8260	Toluene	0.250	SW846 8260
Acrylonitrile	1.00	SW846 8260	Trichloroethene	0.250	SW846 8260
Allyl chloride	3.70	SW846 8260	Trichlorofluoromethane	0.310	SW846 8260
Benzene	0.300	SW846 8260	Vinyl acetate	1.50	SW846 8260
Bromodichloromethane	0.250	SW846 8260	Vinyl chloride	0.500	SW846 8260
Bromoform	0.250	SW846 8260	Xylene	0.250	SW846 8260
Bromomethane	0.500	SW846 8260	bis-Chloroisopropyl ether	1.50	SW846 8260
Carbon disulfide	1.25	SW846 8260	cis-1,3-Dichloropropene	0.250	SW846 8260
Carbon tetrachloride	0.250	SW846 8260	trans-1,2-Dichloroethene	0.300	SW846 8260
Chlorobenzene	0.250	SW846 8260	trans-1,3-Dichloropropene	0.250	SW846 8260
Chloroethane	0.500	SW846 8260	trans-1,4-Dichloro-2-butene	1.00	SW846 8260

Refer to footnotes on page 29.

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Table CWL B-3
Method Detection Limits for Appendix IX Semi-Volatile Organic Compounds
Chemical Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Analyte	MDL[b] (µg/L)	Analytical Method[g]	Analyte	MDL[b] (µg/L)	Analytical Method[g]
.alpha.,.alpha. Dimethylphenethylamine	3.85 - 4.4	SW846 8270	3-Nitroaniline	1.92 - 2.2	SW846 8270
1,2,4,5-Tetrachlorobenzene	1.92 - 2.2	SW846 8270	3-benzodioxole, 5-(2-Propenyl)-1	1.92 - 2.2	SW846 8270
1,2,4-Trichlorobenzene	1.92 - 2.2	SW846 8270	4-Aminobiphenyl	2.88 - 3.3	SW846 8270
1,2-Dichlorobenzene	1.92 - 2.2	SW846 8270	4-Bromophenyl phenyl ether	1.92 - 2.2	SW846 8270
1,2-Diphenylhydrazine	1.92 - 2.2	SW846 8270	4-Chloro-3-methylphenol	1.92 - 2.2	SW846 8270
1,3,5-Trinitrobenzene	1.92 - 2.2	SW846 8270	4-Chlorobenzenamine	1.92 - 2.2	SW846 8270
1,3-Dichlorobenzene	1.92 - 2.2	SW846 8270	4-Chlorophenyl phenyl ether	1.92 - 2.2	SW846 8270
1,3-Dinitrobenzene	1.92 - 2.2	SW846 8270	4-Dimethylaminoazobenzene	1.92 - 2.2	SW846 8270
1,4-Dichlorobenzene	1.92 - 2.2	SW846 8270	4-Nitroaniline	2.88 - 3.3	SW846 8270
1,4-Dioxane	0.962 - 1.1	SW846 8270	4-Nitrophenol	1.92 - 2.2	SW846 8270
1,4-Naphthoquinone	1.92 - 2.2	SW846 8270	4-Nitroquinoline-1-oxide	2.88 - 3.3	SW846 8270
1-Methylnaphthalene	0.288 - 0.33	SW846 8270	5-Nitro-o-toluidine	1.92 - 2.2	SW846 8270
1-Naphthylamine	1.92 - 2.2	SW846 8270	7,12-Dimethylbenz(a)anthrace	1.92 - 2.2	SW846 8270
2,3,4,6-Tetrachlorophenol	1.92 - 2.2	SW846 8270	Acenaphthene	0.298 - 0.341	SW846 8270
2,4,5-Trichlorophenol	0.962 - 1.1	SW846 8270	Acenaphthylene	0.192 - 0.22	SW846 8270
2,4,6-Trichlorophenol	1.92 - 2.2	SW846 8270	Acetophenone	1.92 - 2.2	SW846 8270
2,4-Dichlorophenol	1.92 - 2.2	SW846 8270	Aniline	2.4 - 2.75	SW846 8270
2,4-Dimethylphenol	1.92 - 2.2	SW846 8270	Anthracene	0.192 - 0.22	SW846 8270
2,4-Dinitrophenol	9.62 - 11	SW846 8270	Aramite	2.88 - 3.3	SW846 8270
2,4-Dinitrotoluene	1.92 - 2.2	SW846 8270	Benzidine	1.92 - 2.2	SW846 8270
2,6-Dichlorophenol	1.92 - 2.2	SW846 8270	Benzo(a)anthracene	0.192 - 0.22	SW846 8270
2,6-Dinitrotoluene	1.92 - 2.2	SW846 8270	Benzo(a)pyrene	0.192 - 0.22	SW846 8270
2-Acetylaminofluorene	1.92 - 2.2	SW846 8270	Benzo(b)fluoranthene	0.192 - 0.22	SW846 8270
2-Chloronaphthalene	0.337 - 0.385	SW846 8270	Benzo(ghi)perylene	0.192 - 0.22	SW846 8270
2-Chlorophenol	1.92 - 2.2	SW846 8270	Benzo(k)fluoranthene	0.192 - 0.22	SW846 8270
2-Methylnaphthalene	0.288 - 0.33	SW846 8270	Benzoic acid	5.77 - 6.59	SW846 8270
2-Methylpyridine	1.92 - 2.2	SW846 8270	Benzyl alcohol	1.92 - 2.2	SW846 8270
2-Naphthalenamine	1.92 - 2.2	SW846 8270	Butylbenzyl phthalate	1.92 - 2.2	SW846 8270
2-Nitroaniline	1.92 - 2.2	SW846 8270	Carbazole	0.192 - 0.22	SW846 8270
2-Nitrophenol	1.92 - 2.2	SW846 8270	Chlorobenzilate	1.92 - 2.2	SW846 8270
3,3'-Dichlorobenzidine	0.962 - 1.1	SW846 8270	Chrysene	0.192 - 0.22	SW846 8270
3,3'-Dimethylbenzidine	1.92 - 2.2	SW846 8270	Di-n-butyl phthalate	1.92 - 2.2	SW846 8270
3-Methylcholanthrene	1.92 - 2.2	SW846 8270	Di-n-octyl phthalate	2.88 - 3.3	SW846 8270

Refer to footnotes on page 29.

Table CWL B-3 *(Concluded)*
Method Detection Limits for Appendix IX Semi-Volatile Organic Compounds
Chemical Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Analyte	MDL[b] (µg/L)	Analytical Method[g]	Analyte	MDL[b] (µg/L)	Analytical Method[g]
Diallate	1.92 - 2.2	SW846 8270	O,O,O-Triethylphosphorothioate	1.92 - 2.2	SW846 8270
Dibenz[a,h]anthracene	0.192 - 0.22	SW846 8270	Parathion	2.88 - 3.3	SW846 8270
Dibenzofuran	1.92 - 2.2	SW846 8270	Pentachlorobenzene	1.92 - 2.2	SW846 8270
Diethylphthalate	1.92 - 2.2	SW846 8270	Pentachloroethane	1.92 - 2.2	SW846 8270
Dimethoate	1.92 - 2.2	SW846 8270	Pentachloronitrobenzene	1.92 - 2.2	SW846 8270
Dimethylphthalate	1.92 - 2.2	SW846 8270	Pentachlorophenol	1.92 - 2.2	SW846 8270
Dinitro-o-cresol	2.88 - 3.3	SW846 8270	Phenacetin	1.92 - 2.2	SW846 8270
Dinoseb	1.92 - 2.2	SW846 8270	Phenanthrene	0.192 - 0.22	SW846 8270
Diphenyl amine	2.88 - 3.3	SW846 8270	Phenol	0.962 - 1.1	SW846 8270
Disulfoton	1.92 - 2.2	SW846 8270	Phorate	1.92 - 2.2	SW846 8270
Ethyl methacrylate	1.92 - 2.2	SW846 8270	Pronamide	1.92 - 2.2	SW846 8270
Ethyl methanesulfonate	1.92 - 2.2	SW846 8270	Pyrene	0.288 - 0.33	SW846 8270
Famphur	1.92 - 2.2	SW846 8270	Pyridine	0.962 - 1.1	SW846 8270
Fluoranthene	0.192 - 0.22	SW846 8270	Sulfotepp	1.92 - 2.2	SW846 8270
Fluorene	0.192 - 0.22	SW846 8270	Thionazin	1.92 - 2.2	SW846 8270
Hexachlorobenzene	1.92 - 2.2	SW846 8270	Tributylphosphate	1.92 - 2.2	SW846 8270
Hexachlorobutadiene	1.92 - 2.2	SW846 8270	bis(2-Chloroethoxy)methane	2.88 - 3.3	SW846 8270
Hexachlorocyclopentadiene	1.92 - 2.2	SW846 8270	bis(2-Chloroethyl)ether	1.92 - 2.2	SW846 8270
Hexachloroethane	1.92 - 2.2	SW846 8270	bis(2-Ethylhexyl)phthalate	1.92 - 2.2	SW846 8270
Hexachlorophene	192 - 220	SW846 8270	bis-Chloroisopropyl ether	1.92 - 2.2	SW846 8270
Hexachloropropene	1.92 - 2.2	SW846 8270	m,p-Cresol	2.88 - 3.3	SW846 8270
Indeno(1,2,3-c,d)pyrene	0.192 - 0.22	SW846 8270	n-Nitroso-di-n-butylamine	1.92 - 2.2	SW846 8270
Isodrin	1.92 - 2.2	SW846 8270	n-Nitrosodiethylamine	1.92 - 2.2	SW846 8270
Isophorone	1.92 - 2.2	SW846 8270	n-Nitrosodimethylamine	1.92 - 2.2	SW846 8270
Isosafrole	1.92 - 2.2	SW846 8270	n-Nitrosodipropylamine	1.92 - 2.2	SW846 8270
Kepone	1.92 - 2.2	SW846 8270	n-Nitrosomethylethylamine	1.92 - 2.2	SW846 8270
Methapyrilene	1.92 - 2.2	SW846 8270	n-Nitrosomorpholine	1.92 - 2.2	SW846 8270
Methoxychlor	1.92 - 2.2	SW846 8270	n-Nitrosopiperidine	1.92 - 2.2	SW846 8270
Methyl methacrylate	1.92 - 2.2	SW846 8270	n-Nitrosopyrrolidine	1.92 - 2.2	SW846 8270
Methyl methanesulfonate	1.92 - 2.2	SW846 8270	o-Cresol	1.92 - 2.2	SW846 8270
Methyl parathion	1.92 - 2.2	SW846 8270	o-Toluidine	1.92 - 2.2	SW846 8270
Naphthalene	0.288 - 0.33	SW846 8270	para-Phenylenediamine	1.92 - 2.2	SW846 8270
Nitro-benzene	2.88 - 3.3	SW846 8270			

Refer to footnotes on page 29.

Table CWL B-4
Method Detection Limits for Chlorinated Herbicides and Polychlorinated Biphenyls
Chemical Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Analyte	MDL[b] (µg/L)	Analytical Method[g]
2,4,5-T	0.0943 – 0.108	SW846-8151A
2,4,5-TP	0.0943 – 0.108	SW846-8151A
2,4-D	0.0943 – 0.108	SW846-8151A
Aroclor 1016	0.0435 – 0.0588	SW846-8082
Aroclor 1221	0.0724 – 0.098	SW846-8082
Aroclor 1232	0.0435 – 0.0588	SW846-8082
Aroclor 1242	0.0522 – 0.0706	SW846-8082
Aroclor 1248	0.0435 – 0.0588	SW846-8082
Aroclor 1254	0.0435 – 0.0588	SW846-8082
Aroclor 1260	0.0435 – 0.0588	SW846-8082

Refer to footnotes on page 29.

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Table CWL B-5
Summary of Sulfide and Total Cyanide Results
Chemical Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CWL-BW3	Sulfides	0.801	0.385	2.50	NE	J		071806-029	SW846 9034
03-Oct-05	Total Cyanide	ND	0.0025	0.005	0.2	U		071806-027	SW846 9012
CWL-BW4A	Sulfides	ND	0.385	2.50	NE	U		071808-029	SW846 9034
12-Oct-05	Total Cyanide	ND	0.0025	0.005	0.2	U		071808-027	SW846 9012
CWL-MW2BL	Sulfides	2.40	0.385	2.50	NE	J		071811-029	SW846 9034
05-Oct-05	Total Cyanide	0.00427	0.0025	0.005	0.2	J		071811-027	SW846 9012
CWL-MW2BL (Duplicate)	Sulfides	1.60	0.385	2.50	NE	J		071812-029	SW846 9034
05-Oct-05	Total Cyanide	ND	0.0025	0.005	0.2	U		071812-027	SW846 9012
CWL-MW2BU 20-Oct-05	Total Cyanide	ND	0.0025	0.005	0.2	U		071814-027	SW846 9012
CWL-MW4	Sulfides	ND	0.385	2.50	NE	U		071818-029	SW846 9034
10-Oct-05	Total Cyanide	ND	0.0025	0.005	0.2	U		071818-027	SW846 9012
CWL-MW4 (Duplicate)	Sulfides	0.468	0.385	2.50	NE	J		071819-029	SW846 9034
10-Oct-05	Total Cyanide	ND	0.0025	0.005	0.2	U		071819-027	SW846 9012
CWL-MW5L	Sulfides	0.401	0.385	2.50	NE	J		071821-029	SW846 9034
04-Oct-05	Total Cyanide	ND	0.0025	0.005	0.2	U		071821-027	SW846 9012
CWL-MW5U	Sulfides	0.401	0.385	2.50	NE	J	B2, J	071825-029	SW846 9034
17-Oct-05	Total Cyanide	0.00321	0.0025	0.005	0.2	B, J	B, B3, J	071825-027	SW846 9012
CWL-MW6L	Sulfides	ND	0.385	2.50	NE	U		071827-029	SW846 9034
13-Oct-05	Total Cyanide	ND	0.0025	0.005	0.2	U		071827-027	SW846 9012
CWL-MW6U	Sulfides	ND	0.385	2.50	NE	U		071830-029	SW846 9034
19-Oct-05	Total Cyanide	0.00254	0.0025	0.005	0.2	J		071830-027	SW846 9012

Refer to footnotes on page 29.

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Table CWL B-6
Summary of Total Metal Results
Chemical Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CWL-BW3 03-Oct-05	Antimony	ND	0.0005	0.002	0.006	U		071806-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.010	U		071806-009	SW846 6020
	Barium	0.00541	0.0005	0.002	2.0			071806-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		071806-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		071806-009	SW846 6020
	Chromium	0.0019	0.001	0.003	0.10	J		071806-009	SW846 6020
	Cobalt	ND	0.0001	0.001	NE	U		071806-009	SW846 6020
	Copper	0.0003	0.0002	0.001	NE	J		071806-009	SW846 6020
	Iron	0.0826	0.010	0.025	NE			071806-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	U		071806-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U	B3, UJ	071806-009	SW846 7470
	Nickel	0.0141	0.0005	0.002	NE			071806-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		071806-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		071806-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	U		071806-009	SW846 6020
	Tin	ND	0.001	0.005	NE	U		071806-009	SW846 6020
	Vanadium	ND	0.002	0.030	NE	U		071806-009	SW846 6020
	Zinc	0.00406	0.002	0.010	NE	J		071806-009	SW846 6020
CWL-BW3 07-Apr-06	Antimony	ND	0.0005	0.002	0.006	U		076886-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.010	B, U		076886-009	SW846 6020
	Barium	0.0571	0.0005	0.002	2.0			076886-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		076886-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		076886-009	SW846 6020
	Chromium	0.0368	0.001	0.003	0.10	B	J, P1	076886-009	SW846 6020
	Cobalt	0.00185	0.0001	0.001	NE			076886-009	SW846 6020
	Copper	0.00302	0.0002	0.001	NE			076886-009	SW846 6020
	Iron	0.812	0.010	0.025	NE			076886-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	U	P1, UJ	076886-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U	B3, UJ	076886-009	SW846 7470
	Nickel	0.191	0.0005	0.002	NE			076886-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		076886-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		076886-009	SW846 6020
	Thallium	0.000617	0.0004	0.001	0.002	J		076886-009	SW846 6020
	Tin	ND	0.001	0.005	NE	U		076886-009	SW846 6020
	Vanadium	ND	0.002	0.030	NE	U	A2, UJ	076886-009	SW846 6020
	Zinc	0.010	0.002	0.010	NE	B, J	B, J	076886-009	SW846 6020

Refer to footnotes on page 29.

Table CWL B-6
Summary of Total Metal Results
Chemical Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CWL-BW4A 12-Oct-05	Antimony	ND	0.0005	0.002	0.006	U		071808-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.010	U		071808-009	SW846 6020
	Barium	0.0546	0.0005	0.002	2.0			071808-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		071808-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		071808-009	SW846 6020
	Chromium	ND	0.001	0.003	0.10	U		071808-009	SW846 6020
	Cobalt	0.00034	0.0001	0.001	NE	J		071808-009	SW846 6020
	Copper	0.0012	0.0002	0.001	NE			071808-009	SW846 6020
	Iron	0.632	0.010	0.025	NE	B		071808-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	U		071808-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U		071808-009	SW846 7470
	Nickel	0.00453	0.0005	0.002	NE		J	071808-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		071808-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		071808-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	U		071808-009	SW846 6020
	Tin	ND	0.001	0.005	NE	U		071808-009	SW846 6020
	Vanadium	ND	0.002	0.030	NE	U		071808-009	SW846 6020
	Zinc	0.00943	0.002	0.010	NE	J		071808-009	SW846 6020
CWL-BW4A 05-Apr-06	Antimony	ND	0.0005	0.002	0.006	U		076891-009	SW846 6020
	Arsenic	0.00356	0.0015	0.005	0.010	B, J	B, B2, J	076891-009	SW846 6020
	Barium	0.0538	0.0005	0.002	2.0			076891-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		076891-009	SW846 6020
	Cadmium	0.000226	0.0001	0.001	0.005	J		076891-009	SW846 6020
	Chromium	0.00205	0.001	0.003	0.10	B, J	B, B2, J	076891-009	SW846 6020
	Cobalt	0.000323	0.0001	0.001	NE	J		076891-009	SW846 6020
	Copper	0.00299	0.0002	0.001	NE	B		076891-009	SW846 6020
	Iron	0.730	0.010	0.025	NE			076891-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	U		076891-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U	B3, UJ	076891-009	SW846 7470
	Nickel	0.00418	0.0005	0.002	NE			076891-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		076891-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		076891-009	SW846 6020
	Thallium	0.000491	0.0004	0.001	0.002	J		076891-009	SW846 6020
	Tin	ND	0.001	0.005	NE	B, U		076891-009	SW846 6020
	Vanadium	0.00752	0.002	0.030	NE	B, J	B, B2, J	076891-009	SW846 6020
	Zinc	0.0267	0.002	0.010	NE			076891-009	SW846 6020

Refer to footnotes on page 29.

Table CWL B-6
Summary of Total Metal Results
Chemical Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CWL-BW4A (Duplicate) 05-Apr-06	Antimony	ND	0.0005	0.002	0.006	U		076892-009	SW846 6020
	Arsenic	0.00332	0.0015	0.005	0.010	B, J	B, B2, J	076892-009	SW846 6020
	Barium	0.0536	0.0005	0.002	2.0			076892-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		076892-009	SW846 6020
	Cadmium	0.000218	0.0001	0.001	0.005	J		076892-009	SW846 6020
	Chromium	0.00201	0.001	0.003	0.10	B, J	B, B2, J	076892-009	SW846 6020
	Cobalt	0.000331	0.0001	0.001	NE	J		076892-009	SW846 6020
	Copper	0.003	0.0002	0.001	NE	B		076892-009	SW846 6020
	Iron	0.740	0.010	0.025	NE			076892-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	U		076892-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U	B3, UJ	076892-009	SW846 7470
	Nickel	0.00418	0.0005	0.002	NE			076892-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		076892-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		076892-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	U		076892-009	SW846 6020
	Tin	ND	0.001	0.005	NE	B, U		076892-009	SW846 6020
	Vanadium	0.0106	0.002	0.030	NE	B, J	B, B2, J	076892-009	SW846 6020
	Zinc	0.0409	0.002	0.010	NE			076892-009	SW846 6020
CWL-MW2BL 05-Oct-05	Antimony	ND	0.0005	0.002	0.006	U		071811-009	SW846 6020
	Arsenic	0.0016	0.0015	0.005	0.010	J		071811-009	SW846 6020
	Barium	0.0057	0.0005	0.002	2.0			071811-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		071811-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		071811-009	SW846 6020
	Chromium	ND	0.001	0.003	0.10	U		071811-009	SW846 6020
	Cobalt	ND	0.0001	0.001	NE	U		071811-009	SW846 6020
	Copper	0.000273	0.0002	0.001	NE	J		071811-009	SW846 6020
	Iron	0.0824	0.010	0.025	NE			071811-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	U		071811-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U	B3, UJ	071811-009	SW846 7470
	Nickel	ND	0.0005	0.002	NE	U		071811-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		071811-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		071811-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	U		071811-009	SW846 6020
	Tin	ND	0.001	0.005	NE	U		071811-009	SW846 6020
	Vanadium	ND	0.002	0.030	NE	U		071811-009	SW846 6020
	Zinc	0.00389	0.002	0.010	NE	J		071811-009	SW846 6020

Refer to footnotes on page 29.

Table CWL B-6
Summary of Total Metal Results
Chemical Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CWL-MW2BL (Duplicate) 05-Oct-05	Antimony	ND	0.0005	0.002	0.006	U		071812-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.010	U		071812-009	SW846 6020
	Barium	0.0057	0.0005	0.002	2.0			071812-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		071812-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		071812-009	SW846 6020
	Chromium	ND	0.001	0.003	0.10	U		071812-009	SW846 6020
	Cobalt	ND	0.0001	0.001	NE	U		071812-009	SW846 6020
	Copper	0.000389	0.0002	0.001	NE	J		071812-009	SW846 6020
	Iron	0.0854	0.010	0.025	NE			071812-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	U		071812-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U	B3, UJ	071812-009	SW846 7470
	Nickel	ND	0.0005	0.002	NE	U		071812-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		071812-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		071812-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	U		071812-009	SW846 6020
	Tin	ND	0.001	0.005	NE	U		071812-009	SW846 6020
	Vanadium	0.0024	0.002	0.030	NE	J		071812-009	SW846 6020
	Zinc	ND	0.002	0.010	NE	U		071812-009	SW846 6020
CWL-MW2BL 26-Apr-06	Antimony	ND	0.0005	0.002	0.006	U		076894-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.010	U		076894-009	SW846 6020
	Barium	0.0574	0.0005	0.002	2.0			076894-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		076894-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		076894-009	SW846 6020
	Chromium	0.00151	0.001	0.003	0.10	B, J	B, J	076894-009	SW846 6020
	Cobalt	0.000303	0.0001	0.001	NE	J		076894-009	SW846 6020
	Copper	0.00077	0.0002	0.001	NE	J		076894-009	SW846 6020
	Iron	0.596	0.010	0.025	NE			076894-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	U		076894-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U	B3, UJ	076894-009	SW846 7470
	Nickel	0.0022	0.0005	0.002	NE			076894-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		076894-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		076894-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	U		076894-009	SW846 6020
	Tin	ND	0.001	0.005	NE	U		076894-009	SW846 6020
	Vanadium	0.00298	0.002	0.030	NE	J		076894-009	SW846 6020
	Zinc	0.0025	0.002	0.010	NE	B, J	B, J	076894-009	SW846 6020

Refer to footnotes on page 29.

Table CWL B-6
Summary of Total Metal Results
Chemical Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CWL-MW2BU 20-Oct-05	Antimony	0.000594	0.0005	0.002	0.006	J		071814-009	SW846 6020
	Arsenic	0.00439	0.0015	0.005	0.010	J		071814-009	SW846 6020
	Barium	0.0661	0.0005	0.002	2.0			071814-009	SW846 6020
	Beryllium	0.000247	0.0001	0.0005	0.004	J		071814-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		071814-009	SW846 6020
	Chromium	0.0218	0.001	0.003	0.10			071814-009	SW846 6020
	Cobalt	0.000507	0.0001	0.001	NE	J		071814-009	SW846 6020
	Copper	0.00717	0.0002	0.001	NE			071814-009	SW846 6020
	Iron	2.46	0.010	0.025	NE			071814-009	SW846 6020
	Lead	0.00476	0.0005	0.002	NE			071814-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U	B3, UJ	071814-009	SW846 7470
	Nickel	0.0357	0.0005	0.002	NE			071814-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		071814-009	SW846 6020
	Silver	0.000416	0.0002	0.001	NE	J		071814-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	U		071814-009	SW846 6020
	Tin	0.00244	0.001	0.005	NE	J		071814-009	SW846 6020
	Vanadium	0.00481	0.002	0.030	NE	J		071814-009	SW846 6020
	Zinc	0.0476	0.002	0.010	NE	B		071814-009	SW846 6020
CWL-MW2BU 24-Apr-06	Antimony	0.000588	0.0005	0.002	0.006	J	B3, J	076896-009	SW846 6020
	Arsenic	0.0041	0.0015	0.005	0.010	J		076896-009	SW846 6020
	Barium	0.0932	0.0005	0.002	2.0			076896-009	SW846 6020
	Beryllium	0.000312	0.0001	0.0005	0.004	J		076896-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		076896-009	SW846 6020
	Chromium	0.0336	0.001	0.003	0.10	B		076896-009	SW846 6020
	Cobalt	0.00082	0.0001	0.001	NE	J		076896-009	SW846 6020
	Copper	0.00864	0.0002	0.001	NE			076896-009	SW846 6020
	Iron	3.87	0.010	0.025	NE			076896-009	SW846 6020
	Lead	0.00743	0.0005	0.002	NE			076896-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U	B3, UJ	076896-009	SW846 7470
	Nickel	0.0443	0.0005	0.002	NE			076896-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		076896-009	SW846 6020
	Silver	0.00082	0.0002	0.001	NE	J		076896-009	SW846 6020
	Thallium	0.000587	0.0004	0.001	0.002	J		076896-009	SW846 6020
	Tin	0.00404	0.001	0.005	NE	J		076896-009	SW846 6020
	Vanadium	0.00378	0.002	0.030	NE	J		076896-009	SW846 6020
	Zinc	0.065	0.002	0.010	NE	B		076896-009	SW846 6020

Refer to footnotes on page 29.

Table CWL B-6
Summary of Total Metal Results
Chemical Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CWL-MW4 11-Apr-06	Antimony	ND	0.0005	0.002	0.006	U		076898-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.010	B, U		076898-009	SW846 6020
	Barium	0.0626	0.0005	0.002	2.0			076898-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		076898-009	SW846 6020
	Cadmium	0.000198	0.0001	0.001	0.005	J		076898-009	SW846 6020
	Chromium	0.00312	0.001	0.003	0.10	B	B, J, P1	076898-009	SW846 6020
	Cobalt	0.00477	0.0001	0.001	NE			076898-009	SW846 6020
	Copper	0.00229	0.0002	0.001	NE			076898-009	SW846 6020
	Iron	0.935	0.010	0.025	NE			076898-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	U	P1, UJ	076898-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U	B3, UJ	076898-009	SW846 7470
	Nickel	0.460	0.0005	0.002	NE			076898-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		076898-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		076898-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	U		076898-009	SW846 6020
	Tin	ND	0.001	0.005	NE	U		076898-009	SW846 6020
	Vanadium	ND	0.002	0.030	NE	U	A2, UJ	076898-009	SW846 6020
	Zinc	0.00528	0.002	0.010	NE	B, J	B, J	076898-009	SW846 6020
CWL-MW5L 04-Oct-05	Antimony	ND	0.0005	0.002	0.006	U		071821-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.010	U		071821-009	SW846 6020
	Barium	0.00467	0.0005	0.002	2.0			071821-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		071821-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		071821-009	SW846 6020
	Chromium	ND	0.001	0.003	0.10	U		071821-009	SW846 6020
	Cobalt	ND	0.0001	0.001	NE	U		071821-009	SW846 6020
	Copper	ND	0.0002	0.001	NE	U		071821-009	SW846 6020
	Iron	0.0658	0.010	0.025	NE			071821-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	U		071821-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U	B3, UJ	071821-009	SW846 7470
	Nickel	ND	0.0005	0.002	NE	U		071821-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		071821-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		071821-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	U		071821-009	SW846 6020
	Tin	ND	0.001	0.005	NE	U		071821-009	SW846 6020
	Vanadium	ND	0.002	0.030	NE	U		071821-009	SW846 6020
	Zinc	ND	0.002	0.010	NE	U		071821-009	SW846 6020

Refer to footnotes on page 29.

Table CWL B-6
Summary of Total Metal Results
Chemical Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CWL-MW4 11-Apr-06	Antimony	ND	0.0005	0.002	0.006	U		076898-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.010	B, U		076898-009	SW846 6020
	Barium	0.0626	0.0005	0.002	2.0			076898-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		076898-009	SW846 6020
	Cadmium	0.000198	0.0001	0.001	0.005	J		076898-009	SW846 6020
	Chromium	0.00312	0.001	0.003	0.10	B	B, J, P1	076898-009	SW846 6020
	Cobalt	0.00477	0.0001	0.001	NE			076898-009	SW846 6020
	Copper	0.00229	0.0002	0.001	NE			076898-009	SW846 6020
	Iron	0.935	0.010	0.025	NE			076898-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	U	P1, UJ	076898-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U	B3, UJ	076898-009	SW846 7470
	Nickel	0.460	0.0005	0.002	NE			076898-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		076898-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		076898-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	U		076898-009	SW846 6020
	Tin	ND	0.001	0.005	NE	U		076898-009	SW846 6020
	Vanadium	ND	0.002	0.030	NE	U	A2, UJ	076898-009	SW846 6020
	Zinc	0.00528	0.002	0.010	NE	B, J	B, J	076898-009	SW846 6020
CWL-MW5L 04-Oct-05	Antimony	ND	0.0005	0.002	0.006	U		071821-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.010	U		071821-009	SW846 6020
	Barium	0.00467	0.0005	0.002	2.0			071821-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		071821-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		071821-009	SW846 6020
	Chromium	ND	0.001	0.003	0.10	U		071821-009	SW846 6020
	Cobalt	ND	0.0001	0.001	NE	U		071821-009	SW846 6020
	Copper	ND	0.0002	0.001	NE	U		071821-009	SW846 6020
	Iron	0.0658	0.010	0.025	NE			071821-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	U		071821-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U	B3, UJ	071821-009	SW846 7470
	Nickel	ND	0.0005	0.002	NE	U		071821-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		071821-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		071821-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	U		071821-009	SW846 6020
	Tin	ND	0.001	0.005	NE	U		071821-009	SW846 6020
	Vanadium	ND	0.002	0.030	NE	U		071821-009	SW846 6020
	Zinc	ND	0.002	0.010	NE	U		071821-009	SW846 6020

Refer to footnotes on page 29.

Table CWL B-6
Summary of Total Metal Results
Chemical Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CWL-MW5L 18-Apr-06	Antimony	ND	0.0005	0.002	0.006	U		076900-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.010	U		076900-009	SW846 6020
	Barium	0.0573	0.0005	0.002	2.0			076900-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		076900-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		076900-009	SW846 6020
	Chromium	0.00578	0.001	0.003	0.10			076900-009	SW846 6020
	Cobalt	0.000491	0.0001	0.001	NE	J		076900-009	SW846 6020
	Copper	0.00231	0.0002	0.001	NE			076900-009	SW846 6020
	Iron	0.524	0.010	0.025	NE			076900-009	SW846 6020
	Lead	0.00055	0.0005	0.002	NE	J		076900-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U	B3, UJ	076900-009	SW846 7470
	Nickel	0.00559	0.0005	0.002	NE			076900-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		076900-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		076900-009	SW846 6020
	Thallium	0.000465	0.0004	0.001	0.002	J		076900-009	SW846 6020
	Tin	ND	0.001	0.005	NE	U		076900-009	SW846 6020
	Vanadium	0.00371	0.002	0.030	NE	J		076900-009	SW846 6020
	Zinc	0.0151	0.002	0.010	NE	B		076900-009	SW846 6020
CWL-MW5U 17-Oct-05	Antimony	ND	0.0005	0.002	0.006	U		071825-009	SW846 6020
	Arsenic	0.00203	0.0015	0.005	0.010	J		071825-009	SW846 6020
	Barium	0.0733	0.0005	0.002	2.0			071825-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		071825-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		071825-009	SW846 6020
	Chromium	ND	0.001	0.003	0.10	U		071825-009	SW846 6020
	Cobalt	0.000134	0.0001	0.001	NE	J		071825-009	SW846 6020
	Copper	0.00124	0.0002	0.001	NE		B2, J	071825-009	SW846 6020
	Iron	0.387	0.010	0.025	NE			071825-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	U		071825-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U	B3, UJ	071825-009	SW846 7470
	Nickel	0.00216	0.0005	0.002	NE			071825-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		071825-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		071825-009	SW846 6020
	Thallium	0.000453	0.0004	0.001	0.002	J		071825-009	SW846 6020
	Tin	ND	0.001	0.005	NE	U		071825-009	SW846 6020
	Vanadium	ND	0.002	0.030	NE	U		071825-009	SW846 6020
	Zinc	0.0452	0.002	0.010	NE	B		071825-009	SW846 6020

Refer to footnotes on page 20.

Table CWL B-6
Summary of Total Metal Results
Chemical Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CWL-MW5U 14-Apr-06	Antimony	ND	0.0005	0.002	0.006	U		076903-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.010	U		076903-009	SW846 6020
	Barium	0.0683	0.0005	0.002	2.0			076903-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		076903-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		076903-009	SW846 6020
	Chromium	0.0015	0.001	0.003	0.10	J		076903-009	SW846 6020
	Cobalt	0.000174	0.0001	0.001	NE	J		076903-009	SW846 6020
	Copper	0.00202	0.0002	0.001	NE			076903-009	SW846 6020
	Iron	0.292	0.010	0.025	NE			076903-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	U		076903-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U		076903-009	SW846 7470
	Nickel	0.00239	0.0005	0.002	NE			076903-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		076903-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		076903-009	SW846 6020
	Thallium	0.000857	0.0004	0.001	0.002	J	B3, J	076903-009	SW846 6020
	Tin	ND	0.001	0.005	NE	U		076903-009	SW846 6020
	Vanadium	ND	0.002	0.030	NE	U		076903-009	SW846 6020
	Zinc	0.0423	0.002	0.010	NE	B		076903-009	SW846 6020
CWL-MW6L 13-Oct-05	Antimony	ND	0.0005	0.002	0.006	U		071827-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.010	U		071827-009	SW846 6020
	Barium	0.0564	0.0005	0.002	2.0			071827-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		071827-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		071827-009	SW846 6020
	Chromium	ND	0.001	0.003	0.10	U		071827-009	SW846 6020
	Cobalt	0.000326	0.0001	0.001	NE	J		071827-009	SW846 6020
	Copper	0.000912	0.0002	0.001	NE	J		071827-009	SW846 6020
	Iron	0.554	0.010	0.025	NE	B		071827-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	U		071827-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U		071827-009	SW846 7470
	Nickel	0.00332	0.0005	0.002	NE		J	071827-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		071827-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		071827-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	U		071827-009	SW846 6020
	Tin	ND	0.001	0.005	NE	U		071827-009	SW846 6020
	Vanadium	ND	0.002	0.030	NE	U		071827-009	SW846 6020
	Zinc	ND	0.002	0.010	NE	U		071827-009	SW846 6020

Refer to footnotes on page 29.

Table CWL B-6
Summary of Total Metal Results
Chemical Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CWL-MW6L 20-Apr-06	Antimony	ND	0.0005	0.002	0.006	U		076905-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.010	U		076905-009	SW846 6020
	Barium	0.060	0.0005	0.002	2.0	B		076905-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		076905-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		076905-009	SW846 6020
	Chromium	ND	0.001	0.003	0.10	U		076905-009	SW846 6020
	Cobalt	0.000262	0.0001	0.001	NE	J		076905-009	SW846 6020
	Copper	0.000833	0.0002	0.001	NE	J		076905-009	SW846 6020
	Iron	0.492	0.010	0.025	NE	B		076905-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	B, U		076905-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U		076905-009	SW846 7470
	Nickel	0.00175	0.0005	0.002	NE	J		076905-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		076905-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		076905-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	U		076905-009	SW846 6020
	Tin	ND	0.001	0.005	NE	U		076905-009	SW846 6020
	Vanadium	ND	0.002	0.030	NE	U		076905-009	SW846 6020
	Zinc	0.00677	0.002	0.010	NE	B, J	B, J	076905-009	SW846 6020
CWL-MW6L (Duplicate) 20-Apr-06	Antimony	ND	0.0005	0.002	0.006	U		076906-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.010	U		076906-009	SW846 6020
	Barium	0.0605	0.0005	0.002	2.0	B		076906-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		076906-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		076906-009	SW846 6020
	Chromium	ND	0.001	0.003	0.10	U		076906-009	SW846 6020
	Cobalt	0.000238	0.0001	0.001	NE	J		076906-009	SW846 6020
	Copper	0.00072	0.0002	0.001	NE	J		076906-009	SW846 6020
	Iron	0.474	0.010	0.025	NE	B		076906-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	B, U		076906-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U		076906-009	SW846 7470
	Nickel	0.00165	0.0005	0.002	NE	J		076906-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		076906-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		076906-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	U		076906-009	SW846 6020
	Tin	ND	0.001	0.005	NE	U		076906-009	SW846 6020
	Vanadium	ND	0.002	0.030	NE	U		076906-009	SW846 6020
	Zinc	0.00269	0.002	0.010	NE	B, J	B, J	076906-009	SW846 6020

Refer to footnotes on page 29.

Table CWL B-6 *(Concluded)*
Summary of Total Metal Results
Chemical Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CWL-MW6U 19-Oct-05	Antimony	ND	0.0005	0.002	0.006	U		071830-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.010	U		071830-009	SW846 6020
	Barium	0.0682	0.0005	0.002	2.0			071830-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		071830-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		071830-009	SW846 6020
	Chromium	0.00115	0.001	0.003	0.10	J		071830-009	SW846 6020
	Cobalt	0.000151	0.0001	0.001	NE	J		071830-009	SW846 6020
	Copper	0.0011	0.0002	0.001	NE			071830-009	SW846 6020
	Iron	0.414	0.010	0.025	NE			071830-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	U		071830-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U	B3, UJ	071830-009	SW846 7470
	Nickel	0.00165	0.0005	0.002	NE	J		071830-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		071830-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		071830-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	U		071830-009	SW846 6020
	Tin	ND	0.001	0.005	NE	U		071830-009	SW846 6020
	Vanadium	ND	0.002	0.030	NE	U		071830-009	SW846 6020
	Zinc	0.00738	0.002	0.010	NE	B, J		071830-009	SW846 6020
CWL-MW6U 18-Apr-06	Antimony	ND	0.0005	0.002	0.006	B, U		076910-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.010	U		076910-009	SW846 6020
	Barium	0.0733	0.0005	0.002	2.0			076910-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		076910-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		076910-009	SW846 6020
	Chromium	0.00195	0.001	0.003	0.10	J		076910-009	SW846 6020
	Cobalt	0.000175	0.0001	0.001	NE	J		076910-009	SW846 6020
	Copper	0.00113	0.0002	0.001	NE		B, B2, J	076910-009	SW846 6020
	Iron	0.374	0.010	0.025	NE			076910-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	U		076910-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U	B3, UJ	076910-009	SW846 7470
	Nickel	0.00187	0.0005	0.002	NE	J		076910-009	SW846 6020
	Selenium	0.00277	0.0025	0.005	0.050	J		076910-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		076910-009	SW846 6020
	Thallium	0.000528	0.0004	0.001	0.002	J		076910-009	SW846 6020
	Tin	ND	0.001	0.005	NE	U		076910-009	SW846 6020
	Vanadium	0.00249	0.002	0.030	NE	J		076910-009	SW846 6020
	Zinc	0.00975	0.002	0.010	NE	B, J	B, B2, J	076910-009	SW846 6020

Refer to footnotes on page 29.

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Table CWL B-7
Summary of Dissolved Chromium Results
Chemical Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CWL-BW3 03-Oct-05	Dissolved Chromium	ND	0.001	0.003	0.10	U		071806-013	SW846 6020
CWL-BW4A 12-Oct-05	Dissolved Chromium	ND	0.001	0.003	0.10	U		071808-013	SW846 6020
CWL-MW2BL 05-Oct-05	Dissolved Chromium	ND	0.001	0.003	0.10	U		071811-013	SW846 6020
CWL-MW2BL (Duplicate) 05-Oct-05	Dissolved Chromium	ND	0.001	0.003	0.10	U		071812-013	SW846 6020
CWL-MW4 10-Oct-05	Dissolved Chromium	ND	0.001	0.003	0.10	U		071818-013	SW846 6020
CWL-MW4 (Duplicate) 10-Oct-05	Dissolved Chromium	ND	0.001	0.003	0.10	U		071819-013	SW846 6020
CWL-MW5L 04-Oct-05	Dissolved Chromium	ND	0.001	0.003	0.10	U		071821-013	SW846 6020
CWL-MW5U 17-Oct-05	Dissolved Chromium	ND	0.001	0.003	0.10	U		071825-013	SW846 6020
CWL-MW6L 13-Oct-05	Dissolved Chromium	ND	0.001	0.003	0.10	U		071827-013	SW846 6020
CWL-MW6U 19-Oct-05	Dissolved Chromium	0.0018	0.001	0.003	0.10	J		071830-013	SW846 6020

Refer to footnotes on page 29.

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Table CWLB-8
Summary of Field Water Quality Measurements[i]
Chemical Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Sample Date	Temperature (°C)	Specific Conductivity (µmho/cm)	Oxidation Reduction Potential (mV)	pH	Turbidity (NTU)	Dissolved Oxygen (% Sat)	Dissolved Oxygen (mg/L)
CWL-BW3	03-Oct-05	18.64	908	156.1	7.63	4.12	88.9	8.60
	07-Apr-06	15.83	893	-16.8	7.48	5.39	72.8	7.14
CWL-BW4A	12-Oct-05	15.46	1,050	184.3	7.07	1.95	25.3	2.51
	05-Apr-06	17.42	1,031	130.0	6.83	0.77	66.1	6.30
CWL-MW2BL	05-Oct-05	21.01	1,099	217.9	6.77	1.29	22.7	2.01
	26-Apr-06	22.11	1,078	209.3	6.93	0.38	70.1	6.29
CWL-MW2BU	20-Oct-05	14.28	920	109.0	8.65	1.31	41.0	4.52
	24-Apr-06	14.23	886	203.0	8.67	32.5	90.7	9.26
CWL-MW4	10-Oct-05	18.91	970	23.7	6.90	9.50	17.6	1.65
	11-Apr-06	18.49	947	34.4	6.61	4.50	57.5	5.37
CWL-MW5L	04-Oct-05	19.19	1,070	189.6	6.98	1.32	86.3	7.96
	18-Apr-06	16.38	1,046	206.5	6.93	3.38	81.4	7.93
CWL-MW5U	17-Oct-05	17.34	972	172.4	7.01	1.87	50.6	4.82
	14-Apr-06	18.44	928	96.2	6.83	0.41	59.3	5.52
CWL-MW6L	13-Oct-05	16.27	1,032	198.3	6.85	1.53	37.2	3.65
	20-Apr-06	15.91	1,026	210.8	6.95	0.55	74.9	7.52
CWL-MW6U	19-Oct-05	17.69	929	191.1	7.05	1.16	61.1	5.81
	18-Apr-06	14.92	909	110.0	7.16	0.36	61.0	6.10

Refer to footnotes on page 29.

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Footnotes for ***Chemical Waste Landfill Groundwater Monitoring***

[a]Result
- Values in bold exceed the established MCL.
- ND = not detected (at method detection limit).
- µg/L = micrograms per liter
- mg/L = milligrams per liter

[b]MDL
Method detection limit. The minimum concentration that can be measured and reported with 99% confidence that the analyte is greater than zero, analyte is matrix specific.

[c]PQL
Practical quantitation limit. The lowest concentration of analytes in a sample that can be reliably determined within specified limits of precision and accuracy by that indicated method under routine laboratory operating conditions.

[d]MCL
MCL = Maximum contaminant level. Established by the U.S. Environmental Protection Agency Primary Water Regulations (40 CFR 141.11(b)), and subsequent amendments or the New Mexico Environmental Improvement Board in Title 20, Chapter 7, Part 1 of the New Mexico Administrative Code (20 NMAC 7.1).
NE = not established.

[e]Lab Qualifier
B = Analyte is detected in associated laboratory method blank.
J = Amount detected is below the practical quantitation limit (PQL).
U = Analyte is absent or below the method detection limit.

[f]Validation Qualifier
If cell is blank, then all quality control samples met acceptance criteria with respect to submitted samples.
A2 = Laboratory accuracy and/or bias measurements for the matrix spike and/or matrix spike duplicate samples do not acceptance criteria.
B = Analyte present in associated laboratory method blank.
B1 = Analyte present in associated trip blank sample.
B2 = Analyte present in associated equipment blank sample.
B3 = Analyte present in associated continuing calibration blank.
J = Associate value is an estimated quantity.
P1 = Laboratory precision measurements for the matrix spike and matrix spike duplicate do not meet acceptance criteria.
UJ = Analyte not detected above laboratory method detection limit, but associated value is an estimate and may be inaccurate or imprecise.
#U = Analyte was qualified as not detected at listed value.
#UJ = Analyte was qualified as not detected at listed estimated value.

[g]Analytical Method
U.S. Environmental Protection Agency, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846.
U.S. Environmental Protection Agency, 1983, "The Determination of Inorganic Anions in Water by Ion Chromatography-Method 300.0," EPA-600/4-84-017.

*Footnotes for **Chemical Waste Landfill Groundwater Monitoring** (Concluded)*

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[h]**Field Water Quality Measurements**

Field measurements collected prior to sampling.

°C = degrees Celsius
% Sat = percent Saturation
µmho/cm = micromhos per centimeter
mg/L = milligrams per liter
mV = millivolts
NTU = nephelometric turbidity units
pH = potential of hydrogen (negative logarithm of the hydrogen ion concentration)

APPENDIX C
Mixed Waste Landfill Groundwater Monitoring Surveillance Task

Table of Contents

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Table MWL C-1
Summary of Detected Volatile Organic Compounds
Mixed Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (µg/L)	MDL[b] (µg/L)	PQL[c] (µg/L)	MCL[d] (µg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
MWL-BW1 18-Apr-06	Acetone	2.03	1.25	5.0	NE	J	11.3U	076300-001	SW846 8260
MWL-MW1 12-Apr-06	Acetone	3.67	1.25	5.0	NE	J	5.0U, B2	076304-001	SW846 8260
	Carbon disulfide	1.27	1.25	5.0	NE	J	5.0U, B2	076304-001	SW846 8260
MWL-MW2 10-Apr-06	Toluene	0.326	0.25	1.0	1,000	J	1.0U, B1	076307-001	SW846 8260
MWL-MW3 13-Apr-06	Acetone	6.53	1.25	5.0	NE		6.53U, B2	076311-001	SW846 8260
MWL-MW4 06-Apr-06	Acetone	4.56	1.25	5.0	NE	J	5.0U, B1	076313-001	SW846 8260
MWL-MW5 14-Apr-06	Acetone	1.59	1.25	5.0	NE	J	5.0U, B2	076317-001	SW846 8260
MWL-MW6 17-Apr-06	Acetone	1.89	1.25	5.0	NE	J		076319-001	SW846 8260

Refer to footnotes on page 23.

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Table MWL C-2
Method Detection Limits for Volatile Organic Compounds
Mixed Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Analyte	MDL[b] (µg/L)	Analytical Method[g]
1,1,1-Trichloroethane	0.300	SW846-8260
1,1,2,2-Tetrachloroethane	0.250	SW846-8260
1,1,2-Trichloroethane	0.250	SW846-8260
1,1-Dichloroethane	0.300	SW846-8260
1,1-Dichloroethene	0.300	SW846-8260
1,2-Dichloroethane	0.250	SW846-8260
1,2-Dichloropropane	0.250	SW846-8260
2-Butanone	1.25	SW846-8260
2-Hexanone	1.25	SW846-8260
4-methyl-, 2-Pentanone	1.25	SW846-8260
Acetone	1.25	SW846-8260
Benzene	0.300	SW846-8260
Bromodichloromethane	0.250	SW846-8260
Bromoform	0.250	SW846-8260
Bromomethane	0.500	SW846-8260
Carbon disulfide	1.25	SW846-8260
Carbon tetrachloride	0.250	SW846-8260
Chlorobenzene	0.250	SW846-8260
Chloroethane	0.500	SW846-8260
Chloroform	0.250	SW846-8260
Chloromethane	0.500	SW846-8260
Dibromochloromethane	0.250	SW846-8260
Ethyl benzene	0.250	SW846-8260
Methylene chloride	2.00	SW846-8260
Styrene	0.250	SW846-8260
Tetrachloroethene	0.250	SW846-8260
Toluene	0.250	SW846-8260
Trichloroethene	0.250	SW846-8260
Vinyl acetate	1.50	SW846-8260
Vinyl chloride	0.500	SW846-8260
Xylene	0.250	SW846-8260
cis-1,2-Dichloroethene	0.300	SW846-8260
cis-1,3-Dichloropropene	0.250	SW846-8260
trans-1,2-Dichloroethene	0.300	SW846-8260
trans-1,3-Dichloropropene	0.250	SW846-8260

Refer to footnotes on page 23.

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Table MWL C-3
Summary of Nitrate plus Nitrite Results
Mixed Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
MWL-BW1 18-Apr-06	Nitrate plus nitrite as N	4.58	0.140	0.500	10			076300-018	EPA 353.1
MWL-MW1 12-Apr-06	Nitrate plus nitrite as N	4.49	0.070	0.250	10			076304-018	EPA 353.1
MWL-MW1 (Duplicate) 12-Apr-06	Nitrate plus nitrite as N	4.47	0.070	0.250	10			076305-018	EPA 353.1
MWL-MW2 10-Apr-06	Nitrate plus nitrite as N	3.23	0.014	0.050	10			076307-018	EPA 353.1
MWL-MW3 13-Apr-06	Nitrate plus nitrite as N	3.79	0.070	0.250	10			076311-018	EPA 353.1
MWL-MW4 06-Apr-06	Nitrate plus nitrite as N	1.91	0.070	0.250	10	B		076313-018	EPA 353.1
MWL-MW5 14-Apr-06	Nitrate plus nitrite as N	0.911	0.140	0.500	10			076317-018	EPA 353.1
MWL-MW6 17-Apr-06	Nitrate plus nitrite as N	0.877	0.014	0.050	10			076319-018	EPA 353.1

Refer to footnotes on page 23.

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Table MWL C-4
Summary of Anion and Alkalinity Results
Mixed Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
MWL-BW1 18-Apr-06	Bromide	0.234	0.066	0.200	NE			076300-016	SW846 9056
	Chloride	26.8	0.132	0.400	NE			076300-016	SW846 9056
	Fluoride	0.766	0.033	0.100	4.0			076300-016	SW846 9056
	Sulfate	42.2	0.200	0.800	NE			076300-016	SW846 9056
	Alkalinity	193	N/A	N/A	NE	None	None	FIELD	HACH 8203
MWL-MW1 12-Apr-06	Bromide	0.243	0.066	0.200	NE			076304-016	SW846 9056
	Chloride	32.1	0.330	1.00	NE			076304-016	SW846 9056
	Fluoride	0.927	0.033	0.100	4.0			076304-016	SW846 9056
	Sulfate	44.2	0.500	2.00	NE			076304-016	SW846 9056
	Alkalinity	192	N/A	N/A	NE	None	None	FIELD	HACH 8203
MWL-MW1 (Duplicate) 12-Apr-06	Bromide	0.230	0.066	0.200	NE			076305-016	SW846 9056
	Chloride	32.3	0.330	1.00	NE			076305-016	SW846 9056
	Fluoride	0.903	0.033	0.100	4.0			076305-016	SW846 9056
	Sulfate	43.6	0.500	2.00	NE			076305-016	SW846 9056
MWL-MW2 10-Apr-06	Bromide	0.249	0.066	0.200	NE			076307-016	SW846 9056
	Chloride	39.5	0.660	2.00	NE			076307-016	SW846 9056
	Fluoride	0.838	0.033	0.100	4.0	B		076307-016	SW846 9056
	Sulfate	38.6	0.100	0.400	NE	B		076307-016	SW846 9056
	Alkalinity	196	N/A	N/A	NE	None	None	FIELD	HACH 8203
MWL-MW3 13-Apr-06	Bromide	0.263	0.066	0.200	NE			076311-016	SW846 9056
	Chloride	31.0	0.330	1.00	NE			076311-016	SW846 9056
	Fluoride	0.951	0.033	0.100	4.0			076311-016	SW846 9056
	Sulfate	39.2	0.100	0.400	NE			076311-016	SW846 9056
	Alkalinity	175	N/A	N/A	NE	None	None	FIELD	HACH 8203
MWL-MW4 06-Apr-06	Bromide	0.287	0.066	0.200	NE			076313-016	SW846 9056
	Chloride	49.1	0.660	2.00	NE			076313-016	SW846 9056
	Fluoride	0.997	0.033	0.100	4.0	B		076313-016	SW846 9056
	Sulfate	35.5	0.100	0.400	NE	B		076313-016	SW846 9056
	Alkalinity	186	N/A	N/A	NE	None	None	FIELD	HACH 8203

Refer to footnotes on page 23.

Table MWL C-4 *(Concluded)*
Summary of Anion and Alkalinity Results
Mixed Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
MWL-MW5 14-Apr-06	Bromide	0.486	0.066	0.200	NE			076317-016	SW846 9056
	Chloride	85.1	0.660	2.00	NE			076317-016	SW846 9056
	Fluoride	0.786	0.033	0.100	4.0			076317-016	SW846 9056
	Sulfate	54.7	1.00	4.00	NE			076317-016	SW846 9056
	Alkalinity	298	N/A	N/A	NE	None	None	FIELD	HACH 8203
MWL-MW6 17-Apr-06	Bromide	0.430	0.066	0.200	NE			076319-016	SW846 9056
	Chloride	74.4	0.660	2.00	NE			076319-016	SW846 9056
	Fluoride	0.793	0.033	0.100	4.0			076319-016	SW846 9056
	Sulfate	50.5	1.00	4.00	NE			076319-016	SW846 9056
	Alkalinity	286	N/A	N/A	NE	None	None	FIELD	HACH 8203

Refer to footnotes on page 23.

Table MWL C-5
Summary of Total Metal Results
Mixed Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
MWL-BW1 18-Apr-06	Aluminum	0.091	0.005	0.015	NE			076300-009	SW846 6020
	Antimony	0.000582	0.0005	0.002	0.006	J	B3, J	076300-009	SW846 6020
	Arsenic	0.00189	0.0015	0.005	0.010	J		076300-009	SW846 6020
	Barium	0.0625	0.0005	0.002	2.0			076300-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		076300-009	SW846 6020
	Cadmium	0.000193	0.0001	0.001	0.005	J		076300-009	SW846 6020
	Calcium	26.5	0.020	0.100	NE	B		076300-009	SW846 6020
	Chromium	0.0234	0.001	0.003	0.10			076300-009	SW846 6020
	Cobalt	0.000349	0.0001	0.001	NE	J		076300-009	SW846 6020
	Copper	0.00415	0.0002	0.001	NE			076300-009	SW846 6020
	Iron	0.361	0.010	0.025	NE	B		076300-009	SW846 6020
	Lead	0.00167	0.0005	0.002	NE	J		076300-009	SW846 6020
	Magnesium	19.0	0.005	0.015	NE			076300-009	SW846 6020
	Manganese	0.0054	0.001	0.005	NE			076300-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U	B3, UJ	076300-009	SW846 7470
	Nickel	0.068	0.0005	0.002	NE			076300-009	SW846 6020
	Potassium	4.12	0.080	0.300	NE			076300-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		076300-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		076300-009	SW846 6020
	Sodium	49.3	0.800	2.50	NE			076300-009	SW846 6020
	Thallium	0.00059	0.0004	0.001	0.002	J		076300-009	SW846 6020
	Uranium	0.00554	0.00005	0.0002	0.030			076300-009	SW846 6020
	Uranium-235	0.000039	0.00001	0.00007	0.030	J		076300-009	SW846 6020
	Uranium-238	0.0055	0.00005	0.0002	0.030			076300-009	SW846 6020
	Vanadium	0.00434	0.002	0.030	NE	J		076300-009	SW846 6020
	Zinc	0.0455	0.002	0.010	NE	B		076300-009	SW846 6020

Refer to footnotes on page23.

Table MWL C-5
Summary of Total Metal Results
Mixed Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
MWL-MW1	Aluminum	0.0244	0.005	0.015	NE	B	B, B2, J	076304-009	SW846 6020
12-Apr-06	Antimony	0.000535	0.0005	0.002	0.006	B, J	B, B3, J	076304-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.010	U		076304-009	SW846 6020
	Barium	0.0636	0.0005	0.002	2.0			076304-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		076304-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		076304-009	SW846 6020
	Calcium	47.5	0.020	0.100	NE	B		076304-009	SW846 6020
	Chromium	0.219	0.001	0.003	0.10			076304-009	SW846 6020
	Chromium (reanalysis)	0.232	0.001	0.003	0.10		J	076304-R09	SW846 6020
	Cobalt	0.00177	0.0001	0.001	NE			076304-009	SW846 6020
	Copper	0.00703	0.0002	0.001	NE		B, J	076304-009	SW846 6020
	Iron	1.67	0.010	0.025	NE	B		076304-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	U		076304-009	SW846 6020
	Magnesium	17.2	0.005	0.015	NE			076304-009	SW846 6020
	Manganese	0.0236	0.001	0.005	NE			076304-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U		076304-009	SW846 7470
	Nickel	0.467	0.0005	0.002	NE			076304-009	SW846 6020
	Potassium	3.13	0.080	0.300	NE			076304-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		076304-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		076304-009	SW846 6020
	Sodium	44.3	0.080	0.250	NE			076304-009	SW846 6020
	Thallium	0.000518	0.0004	0.001	0.002	J		076304-009	SW846 6020
	Uranium	0.00531	0.00005	0.0002	0.030			076304-009	SW846 6020
	Uranium-235	0.000037	0.00001	0.00007	0.030	J		076304-009	SW846 6020
	Uranium-238	0.00527	0.00005	0.0002	0.030			076304-009	SW846 6020
	Vanadium	ND	0.002	0.030	NE	U		076304-009	SW846 6020
	Zinc	0.0111	0.002	0.010	NE	B	B, B2, J	076304-009	SW846 6020

Refer to footnotes on page 23

Table MWL C-5
Summary of Total Metal Results
Mixed Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
MWL-MW1 (Duplicate) 12-Apr-06	Aluminum	0.0302	0.005	0.015	NE	B		076305-009	SW846 6020
	Antimony	ND	0.0005	0.002	0.006	B, U		076305-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.010	U		076305-009	SW846 6020
	Barium	0.0655	0.0005	0.002	2.0			076305-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		076305-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		076305-009	SW846 6020
	Calcium	48.3	0.020	0.100	NE	B		076305-009	SW846 6020
	Chromium	**0.208**	0.001	0.003	0.10			076305-009	SW846 6020
	Chromium (reanalysis)	**0.197**	0.001	0.003	0.10		J	076305-R09	SW846 6020
	Cobalt	0.00178	0.0001	0.001	NE			076305-009	SW846 6020
	Copper	0.00677	0.0002	0.001	NE		B, J	076305-009	SW846 6020
	Iron	1.64	0.010	0.025	NE	B		076305-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	U		076305-009	SW846 6020
	Magnesium	17.4	0.005	0.015	NE			076305-009	SW846 6020
	Manganese	0.0232	0.001	0.005	NE			076305-009	SW846 6020
	Mercury	0.00081	0.00005	0.0002	0.002			076305-009	SW846 7470
	Nickel	0.477	0.0005	0.002	NE			076305-009	SW846 6020
	Potassium	3.37	0.080	0.300	NE			076305-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		076305-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		076305-009	SW846 6020
	Sodium	47.7	0.080	0.250	NE			076305-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	U		076305-009	SW846 6020
	Uranium	0.00537	0.00005	0.0002	0.030			076305-009	SW846 6020
	Uranium-235	0.000036	0.00001	0.00007	0.030	J		076305-009	SW846 6020
	Uranium-238	0.00533	0.00005	0.0002	0.030			076305-009	SW846 6020
	Vanadium	ND	0.002	0.030	NE	U		076305-009	SW846 6020
	Zinc	0.0105	0.002	0.010	NE	B	B, B2, J	076305-009	SW846 6020

Refer to footnotes on page 23

Table MWL C-5
Summary of Total Metal Results
Mixed Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
MWL-MW2 10-Apr-06	Aluminum	0.048	0.005	0.015	NE			076307-009	SW846 6020
	Antimony	ND	0.0005	0.002	0.006	U		076307-009	SW846 6020
	Arsenic	0.00203	0.0015	0.005	0.010	J		076307-009	SW846 6020
	Barium	0.0992	0.0005	0.002	2.0			076307-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		076307-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		076307-009	SW846 6020
	Calcium	50.1	0.200	1.00	NE	B		076307-009	SW846 6020
	Chromium	0.00271	0.001	0.003	0.10	J	B, J	076307-009	SW846 6020
	Cobalt	0.000535	0.0001	0.001	NE	J		076307-009	SW846 6020
	Copper	0.0015	0.0002	0.001	NE			076307-009	SW846 6020
	Iron	0.377	0.010	0.025	NE	B	B, J	076307-009	SW846 6020
	Lead	0.00088	0.0005	0.002	NE	J		076307-009	SW846 6020
	Magnesium	18.1	0.005	0.015	NE			076307-009	SW846 6020
	Manganese	0.00551	0.001	0.005	NE			076307-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	B, U	B3, UJ	076307-009	SW846 7470
	Nickel	0.00676	0.0005	0.002	NE			076307-009	SW846 6020
	Potassium	4.52	0.080	0.300	NE			076307-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		076307-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		076307-009	SW846 6020
	Sodium	44.6	0.080	0.250	NE			076307-009	SW846 6020
	Thallium	0.00058	0.0004	0.001	0.002	J		076307-009	SW846 6020
	Uranium	0.00623	0.00005	0.0002	0.030			076307-009	SW846 6020
	Uranium-235	0.000046	0.00001	0.00007	0.030	J		076307-009	SW846 6020
	Uranium-238	0.00619	0.00005	0.0002	0.030			076307-009	SW846 6020
	Vanadium	0.00721	0.002	0.030	NE	J		076307-009	SW846 6020
	Zinc	0.0286	0.002	0.010	NE	B		076307-009	SW846 6020

Refer to footnotes on page 23.

Table MWL C-5
Summary of Total Metal Results
Mixed Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
MWL-MW3 13-Apr-06	Aluminum	3.63	0.025	0.075	NE		A2, J	076311-009	SW846 6020
	Antimony	ND	0.0005	0.002	0.006	U		076311-009	SW846 6020
	Arsenic	0.00244	0.0015	0.005	0.010	B, J	B, J	076311-009	SW846 6020
	Barium	0.11	0.0005	0.002	2.0			076311-009	SW846 6020
	Beryllium	0.000208	0.0001	0.0005	0.004	J		076311-009	SW846 6020
	Cadmium	0.000569	0.0001	0.001	0.005	J		076311-009	SW846 6020
	Calcium	50.5	0.100	0.500	NE	B		076311-009	SW846 6020
	Chromium	**0.133**	0.001	0.003	0.10	B	J, P1	076311-009	SW846 6020
	Chromium (reanalysis)	**0.169**	0.001	0.003	0.10		J	076311-R09	SW846 6020
	Cobalt	0.00331	0.0001	0.001	NE			076311-009	SW846 6020
	Copper	0.0136	0.0002	0.001	NE			076311-009	SW846 6020
	Iron	4.22	0.010	0.025	NE			076311-009	SW846 6020
	Lead	0.00558	0.0005	0.002	NE		J, P1	076311-009	SW846 6020
	Magnesium	14.5	0.005	0.015	NE		J	076311-009	SW846 6020
	Manganese	0.0771	0.001	0.005	NE			076311-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U		076311-009	SW846 7470
	Nickel	0.157	0.0005	0.002	NE			076311-009	SW846 6020
	Potassium	4.36	0.080	0.300	NE			076311-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		076311-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		076311-009	SW846 6020
	Sodium	43.6	0.400	1.25	NE			076311-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	U		076311-009	SW846 6020
	Uranium	0.005	0.00005	0.0002	0.030			076311-009	SW846 6020
	Uranium-235	0.000035	0.00001	0.00007	0.030	J		076311-009	SW846 6020
	Uranium-238	0.00496	0.00005	0.0002	0.030			076311-009	SW846 6020
	Vanadium	ND	0.010	0.150	NE	U	A2, UJ	076311-009	SW846 6020
	Zinc	0.126	0.002	0.010	NE	B		076311-009	SW846 6020

Refer to footnotes on page 23.

Table MWL C-5
Summary of Total Metal Results
Mixed Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
MWL-MW4 06-Apr-06	Aluminum	0.045	0.005	0.015	NE	B	J, P1	076313-009	SW846 6020
	Antimony	ND	0.0005	0.002	0.006	U		076313-009	SW846 6020
	Arsenic	0.00813	0.0015	0.005	0.010	B	B, J	076313-009	SW846 6020
	Barium	0.0925	0.0005	0.002	2.0			076313-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		076313-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		076313-009	SW846 6020
	Calcium	58.8	0.200	1.00	NE			076313-009	SW846 6020
	Chromium	0.00265	0.001	0.003	0.10	B, J	B, J	076313-009	SW846 6020
	Cobalt	0.00028	0.0001	0.001	NE	J		076313-009	SW846 6020
	Copper	0.00116	0.0002	0.001	NE	B	B, J	076313-009	SW846 6020
	Iron	0.441	0.010	0.025	NE			076313-009	SW846 6020
	Lead	0.00145	0.0005	0.002	NE	J		076313-009	SW846 6020
	Magnesium	18.7	0.005	0.015	NE			076313-009	SW846 6020
	Manganese	0.00844	0.001	0.005	NE			076313-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U	B3, UJ	076313-009	SW846 7470
	Nickel	0.00297	0.0005	0.002	NE			076313-009	SW846 6020
	Potassium	4.77	0.080	0.300	NE			076313-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		076313-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		076313-009	SW846 6020
	Sodium	39.5	0.080	0.250	NE			076313-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	U		076313-009	SW846 6020
	Uranium	0.00595	0.00005	0.0002	0.030			076313-009	SW846 6020
	Uranium-235	0.000041	0.00001	0.00007	0.030	J		076313-009	SW846 6020
	Uranium-238	0.00591	0.00005	0.0002	0.030			076313-009	SW846 6020
	Vanadium	0.0189	0.002	0.030	NE	B, J	B, J	076313-009	SW846 6020
	Zinc	0.0197	0.002	0.010	NE			076313-009	SW846 6020

Refer to footnotes on page 23.

Table MWL C-5
Summary of Total Metal Results
Mixed Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
MWL-MW5	Aluminum	0.0244	0.005	0.015	NE			076317-009	SW846 6020
14-Apr-06	Antimony	ND	0.0005	0.002	0.006	B, U		076317-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.010	U		076317-009	SW846 6020
	Barium	0.126	0.0005	0.002	2.0			076317-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		076317-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		076317-009	SW846 6020
	Calcium	95.2	0.100	0.500	NE	B		076317-009	SW846 6020
	Chromium	0.00109	0.001	0.003	0.10	J	B2, J	076317-009	SW846 6020
	Cobalt	0.000266	0.0001	0.001	NE	J	B2, J	076317-009	SW846 6020
	Copper	0.000909	0.0002	0.001	NE	J		076317-009	SW846 6020
	Iron	0.411	0.010	0.025	NE			076317-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	U		076317-009	SW846 6020
	Magnesium	31.6	0.005	0.015	NE			076317-009	SW846 6020
	Manganese	0.0132	0.001	0.005	NE			076317-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U	B3, UJ	076317-009	SW846 7470
	Nickel	0.00197	0.0005	0.002	NE	J		076317-009	SW846 6020
	Potassium	5.71	0.080	0.300	NE			076317-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		076317-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		076317-009	SW846 6020
	Sodium	71.8	0.400	1.25	NE			076317-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	U		076317-009	SW846 6020
	Uranium	0.0099	0.00005	0.0002	0.030			076317-009	SW846 6020
	Uranium-235	0.000064	0.00001	0.00007	0.030	J		076317-009	SW846 6020
	Uranium-238	0.00983	0.00005	0.0002	0.030			076317-009	SW846 6020
	Vanadium	0.00659	0.002	0.030	NE	J		076317-009	SW846 6020
	Zinc	0.0077	0.002	0.010	NE	B, J	B, B2, J	076317-009	SW846 6020

Refer to footnotes on page 23.

Table MWL C-5 *(Concluded)*
Summary of Total Metal Results
Mixed Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
MWL-MW6	Aluminum	ND	0.005	0.015	NE	U		076319-009	SW846 6020
17-Apr-06	Antimony	ND	0.0005	0.002	0.006	B, U		076319-009	SW846 6020
	Arsenic	ND	0.0015	0.005	0.010	U		076319-009	SW846 6020
	Barium	0.109	0.0005	0.002	2.0			076319-009	SW846 6020
	Beryllium	ND	0.0001	0.0005	0.004	U		076319-009	SW846 6020
	Cadmium	ND	0.0001	0.001	0.005	U		076319-009	SW846 6020
	Calcium	89.6	0.100	0.500	NE	B		076319-009	SW846 6020
	Chromium	0.00123	0.001	0.003	0.10	J		076319-009	SW846 6020
	Cobalt	0.000225	0.0001	0.001	NE	J		076319-009	SW846 6020
	Copper	0.000939	0.0002	0.001	NE	J		076319-009	SW846 6020
	Iron	0.316	0.010	0.025	NE			076319-009	SW846 6020
	Lead	ND	0.0005	0.002	NE	U		076319-009	SW846 6020
	Magnesium	28.7	0.005	0.015	NE			076319-009	SW846 6020
	Manganese	ND	0.001	0.005	NE	U		076319-009	SW846 6020
	Mercury	ND	0.00005	0.0002	0.002	U	B3, UJ	076319-009	SW846 7470
	Nickel	0.00162	0.0005	0.002	NE	J		076319-009	SW846 6020
	Potassium	5.61	0.080	0.300	NE			076319-009	SW846 6020
	Selenium	ND	0.0025	0.005	0.050	U		076319-009	SW846 6020
	Silver	ND	0.0002	0.001	NE	U		076319-009	SW846 6020
	Sodium	65.9	0.400	1.25	NE			076319-009	SW846 6020
	Thallium	ND	0.0004	0.001	0.002	U		076319-009	SW846 6020
	Uranium	0.0101	0.00005	0.0002	0.030			076319-009	SW846 6020
	Uranium-235	0.000066	0.00001	0.00007	0.030	J		076319-009	SW846 6020
	Uranium-238	0.0101	0.00005	0.0002	0.030			076319-009	SW846 6020
	Vanadium	0.0073	0.002	0.030	NE	J		076319-009	SW846 6020
	Zinc	0.00267	0.002	0.010	NE	B, J	B, J	076319-009	SW846 6020

Refer to footnotes on page 23.

Table MWL C-6
Summary of Tritium, Gross Alpha, Gross Beta, and Gamma Spectroscopy Results
Mixed Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Activity[a] (pCi/L)	MDA[h] (pCi/L)	Critical Level[b] (pCi/L)	MCL[d] (pCi/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
MWL-BW1 18-Apr-06	Tritium	7.40 ± 106	184	88.5	NE	U		076300-036	EPA 906.0 M
	Gross Alpha	2.13 ± 0.547	0.694	0.331	15			076300-034	EPA 900.0
	Gross Beta	3.11 ± 0.963	1.63	0.775	4mrem/yr			076300-034	EPA 900.0
	Americium-241	-3.36 ± 3.39	5.83	2.85	NE	U		076300-033	EPA 901.1
	Cesium-137	-2.39 ± 2.72	4.49	2.14	NE	U		076300-033	EPA 901.1
	Cobalt-60	-0.537 ± 3.03	5.35	2.50	NE	U		076300-033	EPA 901.1
	Potassium-40	65.4 ± 30.9	65.4	29.8	NE	U	UJ	076300-033	EPA 901.1
MWL-MW1 12-Apr-06	Tritium	-77.6 ± 128	230	111	NE	U		076304-036	EPA 906.0 M
	Gross Alpha	8.38 ± 1.40	0.982	0.427	15			076304-034	EPA 900.0
	Gross Beta	6.07 ± 2.02	3.30	1.60	4mrem/yr			076304-034	EPA 900.0
	Americium-241	-3.4 ± 10.7	17.4	8.52	NE	U		076304-033	EPA 901.1
	Cesium-137	0.00848 ± 2.07	3.65	1.75	NE	U		076304-033	EPA 901.1
	Cobalt-60	0.790 ± 3.34	4.16	1.96	NE	U		076304-033	EPA 901.1
	Potassium-40	156 ± 30.8	156	31.9	NE	U	UJ	076304-033	EPA 901.1
MWL-MW1 (Duplicate) 12-Apr-06	Tritium	39.2 ± 135	232	112	NE	U		076305-036	EPA 906.0 M
	Gross Alpha	7.91 ± 1.52	1.11	0.490	15			076305-034	EPA 900.0
	Gross Beta	6.09 ± 1.60	2.40	1.17	4mrem/yr			076305-034	EPA 900.0
	Americium-241	-9.39 ± 15.5	19.1	9.30	NE	U		076305-033	EPA 901.1
	Cesium-137	1.88 ± 1.74	3.17	1.52	NE	U		076305-033	EPA 901.1
	Cobalt-60	2.51 ± 2.33	3.88	1.83	NE	U		076305-033	EPA 901.1
	Potassium-40	38.3 ± 52.9	31.0	14.4	NE	X	R	076305-033	EPA 901.1
MWL-MW2 10-Apr-06	Tritium	-35.5 ± 107	190	91.0	NE	U		076307-036	EPA 906.0 M
	Gross Alpha	11.5 ± 1.78	1.52	0.694	15			076307-034	EPA 900.0
	Gross Beta	10.8 ± 2.11	3.07	1.48	4mrem/yr			076307-034	EPA 900.0
	Americium-241	19.9 ± 16.7	19.9	8.83	NE	U, X		076307-033	EPA 901.1
	Cesium-137	-1.33 ± 1.72	2.87	1.36	NE	U		076307-033	EPA 901.1
	Cobalt-60	-0.26 ± 1.86	3.28	1.53	NE	U		076307-033	EPA 901.1
	Potassium-40	64.6 ± 23.8	64.6	23.2	NE	U	UJ	076307-033	EPA 901.1
MWL-MW3 13-Apr-06	Tritium	144 ± 115	189	90.8	NE	U		076311-036	EPA 906.0 M
	Gross Alpha	14.7 ± 2.23	1.75	0.818	15			076311-034	EPA 900.0
	Gross Beta	16.1 ± 2.65	3.52	1.68	4mrem/yr			076311-034	EPA 900.0
	Americium-241	-1.16 ± 8.30	13.6	6.59	NE	U		076311-033	EPA 901.1
	Cesium-137	0.226 ± 1.70	2.99	1.42	NE	U		076311-033	EPA 901.1
	Cobalt-60	1.79 ± 2.33	3.44	1.61	NE	U		076311-033	EPA 901.1
	Potassium-40	14.7 ± 52.9	28.8	13.3	NE	U		076311-033	EPA 901.1

Refer to footnotes on page 23.

Table MWL C-6
Summary of Tritium, Gross Alpha, Gross Beta, and Gamma Spectroscopy Results
Mixed Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Activity[a] (pCi/L)	MDA[h] (pCi/L)	Critical Level[b] (pCi/L)	MCL[d] (pCi/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
MWL-MW4 06-Apr-06	Tritium	38.9 ± 130	224	108	NE	U		076313-036	EPA 906.0 M
	Gross Alpha	7.75 ± 2.03	2.60	1.24	15			076313-034	EPA 900.0
	Gross Beta	9.47 ± 2.15	3.30	1.60	4mrem/yr			076313-034	EPA 900.0
	Americium-241	-0.318 ± 10.8	12.3	6.16	NE	U		076313-033	EPA 901.1
	Cesium-137	1.63 ± 2.45	2.80	1.40	NE	U		076313-033	EPA 901.1
	Cobalt-60	0.663 ± 1.88	3.21	1.61	NE	U		076313-033	EPA 901.1
	Potassium-40	-42.3 ± 35.6	37.6	18.8	NE	U		076313-033	EPA 901.1
MWL-MW5 14-Apr-06	Tritium	-63.9 ± 106	191	91.6	NE	U		076317-036	EPA 906.0 M
	Gross Alpha	8.59 ± 4.29	6.17	2.58	15			076317-034	EPA 900.0
	Gross Beta	10.3 ± 3.42	5.94	2.81	4mrem/yr		J, P1	076317-034	EPA 900.0
	Americium-241	-49.5 ± 12.8	16.9	8.27	NE	U		076317-033	EPA 901.1
	Cesium-137	1.18 ± 1.97	3.60	1.72	NE	U		076317-033	EPA 901.1
	Cobalt-60	1.14 ± 1.95	3.64	1.69	NE	U		076317-033	EPA 901.1
	Potassium-40	92.8 ± 26.6	92.9	27.1	NE	U		076317-033	EPA 901.1
MWL-MW6 17-Apr-06	Tritium	78.9 ± 113	190	91.3	NE	U		076319-036	EPA 906.0 M
	Gross Alpha	10.3 ± 1.65	0.807	0.343	15			076319-034	EPA 900.0
	Gross Beta	12.8 ± 3.45	5.50	2.59	4mrem/yr		J, P1	076319-034	EPA 900.0
	Americium-241	1.83 ± 11.1	19.8	9.67	NE	U		076319-033	EPA 901.1
	Cesium-137	1.30 ± 1.78	3.17	1.52	NE	U		076319-033	EPA 901.1
	Cobalt-60	0.107 ± 1.93	3.42	1.60	NE	U		076319-033	EPA 901.1
	Potassium-40	70.1 ± 40.3	32.1	15.0	NE			076319-033	EPA 901.1

Refer to footnotes on page 23.

Table MWL C-7
Summary of Field Water Quality Measurements[i]
Mixed Waste Landfill Groundwater Monitoring

Fiscal Year 2006

Well ID	Sample Date	Temperature (^{0}C)	Specific Conductivity (µmho/cm)	Oxidation Reduction Potential (mV)	pH	Turbidity (NTU)	Dissolved Oxygen (% Sat)	Dissolved Oxygen (mg/L)
MWL-BW1	18-Apr-06	14.28	490	42.8	7.24	3.94	84.3	8.36
MWL-MW1	12-Apr-06	18.66	590	75.7	7.64	14.0	69.6	6.52
MWL-MW2	10-Apr-06	20.43	592	68.3	7.78	3.25	29.8	2.68
MWL-MW3	13-Apr-06	16.91	485	83.6	7.56	76.2	91.3	8.89
MWL-MW4	06-Apr-06	19.51	626	290.5	7.39	0.69	13.2	1.21
MWL-MW5	14-Apr-06	20.78	914	32.2	7.14	1.32	32.3	2.80
MWL-MW6	17-Apr-06	21.30	849	-13.9	7.25	0.39	32.3	2.96

Refer to footnotes on page 23.

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Footnotes for ***Mixed Waste Landfill Groundwater Monitoring***

[a]Result and/or Activity
- Values in bold exceed the established MCL.
- ND = not detected (at method detection limit).
- Activities of zero or less are considered to be not detected.
- µg/L = micrograms per liter
- mg/L = milligrams per liter
- pCi/L = picocuries per liter

[b]MDL or Critical level
Method detection limit. The minimum concentration or activity that can be measured and reported with 99% confidence that the analyte is greater than zero, analyte is matrix specific.
- N/A = not applicable

[c]PQL
Practical quantitation limit. The lowest concentration of analytes in a sample that can be reliably determined within specified limits of precision and accuracy by that indicated method under routine laboratory operating conditions.
- N/A = not applicable

[d]MCL
MCL = Maximum contaminant level. Established by the U.S. Environmental Protection Agency Primary Water Regulations (40 CFR 141.11(b)), and subsequent amendments or the New Mexico Environmental Improvement Board in Title 20, Chapter 7, Part 1 of the New Mexico Administrative Code (20 NMAC 7.1).
NE = not established.
The following are the MCLs for gross alpha particles and beta particles in community water systems:
15 pCi/L = Gross alpha particle activity (including radium-226 but excluding radon and total uranium).
4 mrem/yr = any combination of beta and/or gamma emitting radionuclides (as dose rate).

[e]Lab Qualifier
B = Analyte is detected in associated laboratory method blank.
J = Amount detected is below the practical quantitation limit (PQL).
U = Analyte is absent or below the method detection limit.
X = Data rejected due to low abundance.
None = No qualifiers for field analysis.

[f]Validation Qualifier
If cell is blank, then all quality control samples met acceptance criteria with respect to submitted samples.
A2 = Laboratory accuracy and/or bias measurements for the matrix spike and/or matrix spike duplicate samples do not acceptance criteria.
B = Analyte present in associated laboratory method blank.
B1 = Analyte present in associated trip blank sample.
B2 = Analyte present in associated equipment blank sample.
B3 = Analyte present in associated continuing calibration blank.
J = Associate value is an estimated quantity.
P1 =Laboratory precision measurements for the matrix spike and matrix spike duplicate do not meet acceptance criteria.
R = The data are unusable for their intended purpose. The analyte may or may not be present.
UJ = Analyte not detected above laboratory method detection limit, but associated value is an estimate and may be inaccurate or imprecise.
#U = Analyte was qualified as not detected at listed value.
None = Data was not validated.

[g]**Analytical Method**

U.S. Environmental Protection Agency, 1990, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd ed.
U.S. Environmental Protection Agency, 1983, "The Determination of Inorganic Anions in Water by Ion Chromatography-Method 300.0,"
EPA-600/4-84-017.
Analytical method used to detect radionuclides is HASL 300 4.5.2.3;
U.S. Department of Energy, Environmental Measurements Laboratory, 1997, "EML Procedures Manual," 27th ed., Vol. 1, HASL-300.
EPA 903.0/904.0: U.S. Environmental Protection Agency, 1980, "Prescribed Procedures for Measurement of Radioactivity in Drinking Water," EPA-600/4-80-032.

[h]**MDA**

The minimal detectable activity or minimum measured activity in a sample required to ensure a 95% probability that the measured activity is accurately quantified above the critical level.

[i]**Field Water Quality Measurements**

Field measurements collected prior to sampling.

^{O}C = degrees Celsius
% Sat = percent Saturation
µmho/cm = micromhos per centimeter
mg/L = milligrams per liter
mV = millivolts
NTU = nephelometric turbidity units
pH = potential of hydrogen (negative logarithm of the hydrogen ion concentration)

APPENDIX D
Tech Area V Groundwater Monitoring Surveillance Task

Table of Contents

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Table TAV D-1
Summary of Detected Volatile Organic Compounds and Polychlorinated Biphenyls
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (µg/L)	MDL[b] (µg/L)	PQL[c] (µg/L)	MCL[d] (µg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
AVN-2 17-Nov-05	Toluene	0.938	0.25	1.0	1,000	B, J	1.0U, B	072441-001	SW846 8260
LWDS-MW1	Carbon Disulfide	4.92	1.25	5.0	NE	J	5.0U, B1, P2	072454-001	SW846 8260
01-Dec-05	Trichloroethene	**15.3**	0.25	1.0	5.0		P2	072454-001	SW846 8260
	cis-1,2-Dichloroethene	3.06	0.30	1.0	70		P2	072454-001	SW846 8260
TAV-MW1	Trichloroethene	4.98	0.25	1.0	5.0			072447-001	SW846 8260
22-Nov-05	cis-1,2-Dichloroethene	0.576	0.30	1.0	70	J		072447-001	SW846 8260
TAV-MW1 (Duplicate)	Trichloroethene	**5.81**	0.25	1.0	5.0			072448-001	SW846 8260
22-Nov-05	cis-1,2-Dichloroethene	0.655	0.30	1.0	70	J		072448-001	SW846 8260
TAV-MW2 10-Nov-05	Trichloroethene	0.590	0.25	1.0	5.0	J		072429-001	SW846 8260
TAV-MW2 (Duplicate) 10-Nov-05	Trichloroethene	0.603	0.25	1.0	5.0	J		072430-001	SW846 8260
TAV-MW4	Chloroform	0.259	0.25	1.0	NE	J		072434-001	SW846 8260
11-Nov-05	Trichloroethene	0.523	0.25	1.0	5.0	J		072434-001	SW846 8260
TAV-MW6	Toluene	0.620	0.25	1.0	1,000	B, J	1.0U, B	072438-001	SW846 8260
16-Nov-05	Trichloroethene	4.16	0.25	1.0	5.0			072438-001	SW846 8260
	cis-1,2-Dichloroethene	0.502	0.30	1.0	70	J		072438-001	SW846 8260
TAV-MW8 29-Nov-05	Trichloroethene	2.54	0.25	1.0	5.0			072450-001	SW846 8260
LWDS-MW1	Trichloroethene	**15.8**	0.25	1.0	5.0			073768-001	SW846 8260
07-Feb-06	cis-1,2-Dichloroethene	2.90	0.30	1.0	70			073768-001	SW846 8260
TAV-MW1	Acetone	2.78	1.25	5.0	NE	J		073766-001	SW846 8260
16-Mar-06	Trichloroethene	3.15	0.25	1.0	5.0			073766-001	SW846 8260
TAV-MW2 26-Jan-06	Trichloroethene	0.569	0.25	1.0	5.0	J		073746-001	SW846 8260
TAV-MW4	Chloroform	0.300	0.25	1.0	NE	J		073748-001	SW846 8260
27-Jan-06	Trichloroethene	0.461	0.25	1.0	5.0	J		073748-001	SW846 8260
TAV-MW5 (Duplicate) 03-Feb-06	Carbon Disulfide	19.2	1.25	5.0	NE		19.2U, B1	073764-001	SW846 8260
TAV-MW6	Trichloroethene	4.90	0.25	1.0	5.0			073770-001	SW846 8260
10-Feb-06	cis-1,2-Dichloroethene	0.464	0.30	1.0	70	J		073770-001	SW846 8260
TAV-MW8 31-Jan-06	Trichloroethene	1.69	0.25	1.0	5.0			073753-001	SW846 8260

Refer to footnotes on page 31.

Table TAV D-1
Summary of Detected Volatile Organic Compounds and Polychlorinated Biphenyls
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (µg/L)	MDL[b] (µg/L)	PQL[c] (µg/L)	MCL[d] (µg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
AVN-2 24-May-06	Acetone	2.40	1.25	5.0	NE	J		077821-001	SW846 8260
LWDS-MW1 31-May-06	Acetone	1.54	1.25	5.0	NE	J	5.0UJ, B2, TP	077832-001	SW846 8260
	Trichloroethene	**14.9**	0.25	1.0	5.0		J, TP	077832-001	SW846 8260
	cis-1,2-Dichloroethene	2.88	0.30	1.0	70		J, TP	077832-001	SW846 8260
LWDS-MW2 19-May-06	Acetone	1.69	1.25	5.0	NE	J	A, J	077812-001	SW846 8260
	Carbon Disulfide	1.65	1.25	5.0	NE	J		077812-001	SW846 8260
TAV-MW1 31-May-06	Trichloroethene	**5.37**	0.25	1.0	5.0		J, TP	077828-001	SW846 8260
	cis-1,2-Dichloroethene	0.734	0.30	1.0	70	J	J, TP	077828-001	SW846 8260
TAV-MW2 17-May-06	Acetone	7.92	1.25	5.0	NE		7.92U, B1	077807-001	SW846 8260
	Trichloroethene	0.496	0.25	1.0	5.0	J		077807-001	SW846 8260
TAV-MW2 (Duplicate) 17-May-06	Acetone	7.06	1.25	5.0	NE		7.06U, B1	077808-001	SW846 8260
	Trichloroethene	0.555	0.25	1.0	5.0	J		077808-001	SW846 8260
TAV-MW3 15-May-06	Acetone	1.47	1.25	5.0	NE	J	5.0U, B1	077801-001	SW846 8260
TAV-MW4 18-May-06	Acetone	1.76	1.25	5.0	NE	J	A2, J	077810-001	SW846 8260
	Chloroform	0.329	0.25	1.0	NE	J		077810-001	SW846 8260
	Trichloroethene	0.362	0.25	1.0	5.0	J		077810-001	SW846 8260
TAV-MW6 26-May-06	Trichloroethene	4.98	0.25	1.0	5.0			077818-001	SW846 8260
	cis-1,2-Dichloroethene	0.643	0.30	1.0	70	J		077818-001	SW846 8260
TAV-MW6 (Duplicate) 26-May-06	Acetone	3.42	1.25	5.0	NE	J	5.0U, B1	077819-001	SW846 8260
	Trichloroethene	4.75	0.25	1.0	5.0			077819-001	SW846 8260
	cis-1,2-Dichloroethene	0.729	0.30	1.0	70	J		077819-001	SW846 8260
TAV-MW7 25-May-06	Acetone	1.62	1.25	5.0	NE	J		077805-001	SW846 8260
	Carbon Disulfide	17.2	1.25	5.0	NE			077805-001	SW846 8260
	Methylene Chloride	2.10	2.00	5.0	5.0	J	5.0U, B1	077805-001	SW846 8260
TAV-MW8 16-May-06	Acetone	6.87	1.25	5.0	NE		6.87U, B1	077814-001	SW846 8260
	Trichloroethene	1.23	0.25	1.0	5.0			077814-001	SW846 8260
AVN-1 05-Sep-06	Acetone	3.51	1.25	5.0	NE	J	5.0U, B1	081460-001	SW846 8260
	Toluene	0.255	0.25	1.0	1,000	J		081460-001	SW846 8260
AVN-1 (Duplicate) 05-Sep-06	Acetone	3.10	1.25	5.0	NE	J	5.0U, B1	081461-001	SW846 8260
LWDS-MW1 11-Sep-06	Acetone	3.07	1.25	5.0	NE	J		081470-001	SW846 8260
	Toluene	0.424	0.25	1.0	1,000	J		081470-001	SW846 8260
	Trichloroethene	12.9	0.25	1.0	5.0			081470-001	SW846 8260
	cis-1,2-Dichloroethene	3.03	0.30	1.0	70			081470-001	SW846 8260

Refer to footnotes on page 31.

Table TAV D-1 (*Concluded*)
Summary of Detected Volatile Organic Compounds and Polychlorinated Biphenyls
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (µg/L)	MDL[b] (µg/L)	PQL[c] (µg/L)	MCL[d] (µg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TAV-MW1	Trichloroethene	4.75	0.25	1.0	5.0			081467-001	SW846 8260
07-Sep-06	cis-1,2-Dichloroethene	0.558	0.30	1.0	70	J		081467-001	SW846 8260
TAV-MW1 (Duplicate)	Acetone	2.42	1.25	5.0	NE	J	J	081468-001	SW846 8260
07-Sep-06	Trichloroethene	4.58	0.25	1.0	5.0			081468-001	SW846 8260
	cis-1,2-Dichloroethene	0.494	0.30	1.0	70	J		081468-001	SW846 8260
TAV-MW2 24-Aug-06	Trichloroethene	0.362	0.25	1.0	5.0	J		081447-001	SW846 8260
TAV-MW3 21-Aug-06	Toluene	0.256	0.25	1.0	1,000	J	1.0U, B1	081441-001	SW846 8260
TAV-MW4	Chloroform	0.250	0.25	1.0	NE	J		081449-001	SW846 8260
28-Aug-06	Trichloroethene	0.391	0.25	1.0	5.0	J		081449-001	SW846 8260
TAV-MW6	Acetone	3.37	1.25	5.0	NE	J	5.0U, B1	081456-001	SW846 8260
31-Aug-06	Trichloroethene	**6.34**	0.25	1.0	5.0			081456-001	SW846 8260
	cis-1,2-Dichloroethene	0.841	0.30	1.0	70	J		081456-001	SW846 8260
TAV-MW8	Acetone	3.05	1.25	5.0	NE	J	5.0U, B1	081454-001	SW846 8260
30-Aug-06	Trichloroethene	1.47	0.25	1.0	5.0			081454-001	SW846 8260

Refer to footnotes on page 31.

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Table TAV D-2
Method Detection Limits for Volatile Organic Compounds and Polychlorinated Biphenyls
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Analyte	MDL[b] (µg/L)	Analytical Method[g]
1,1,1-Trichloroethane	0.30	SW846 8260
1,1,2,2-Tetrachloroethane	0.25	SW846 8260
1,1,2-Trichloroethane	0.25	SW846 8260
1,1-Dichloroethane	0.30	SW846 8260
1,1-Dichloroethene	0.30	SW846 8260
1,2-Dichloroethane	0.25	SW846 8260
1,2-Dichloropropane	0.25	SW846 8260
2-Butanone	1.25	SW846 8260
2-Hexanone	1.25	SW846 8260
4-methyl-, 2-Pentanone	1.25	SW846 8260
Acetone	1.25	SW846 8260
Benzene	0.30	SW846 8260
Bromodichloromethane	0.25	SW846 8260
Bromoform	0.25	SW846 8260
Bromomethane	0.50	SW846 8260
Carbon disulfide	1.25	SW846 8260
Carbon tetrachloride	0.25	SW846 8260
Chlorobenzene	0.25	SW846 8260
Chloroethane	0.50	SW846 8260
Chloroform	0.25	SW846 8260
Chloromethane	0.50	SW846 8260
Dibromochloromethane	0.25	SW846 8260
Ethyl benzene	0.25	SW846 8260
Methylene chloride	2.0	SW846 8260
Styrene	0.25	SW846 8260
Tetrachloroethene	0.25	SW846 8260
Toluene	0.25	SW846 8260
Trichloroethene	0.25	SW846 8260
Vinyl acetate	1.5	SW846 8260
Vinyl chloride	0.50	SW846 8260
Xylene	0.25	SW846 8260
cis-1,2-Dichloroethene	0.30	SW846 8260
cis-1,3-Dichloropropene	0.25	SW846 8260
trans-1,2-Dichloroethene	0.30	SW846 8260
trans-1,3-Dichloropropene	0.25	SW846 8260
Aroclor-1016	0.032 - 0.0352	SW846 8082
Aroclor-1221	0.032 - 0.0352	SW846 8082
Aroclor-1232	0.032 - 0.0352	SW846 8082
Aroclor-1242	0.032 - 0.0352	SW846 8082
Aroclor-1248	0.032 - 0.0352	SW846 8082
Aroclor-1254	0.032 - 0.0352	SW846 8082
Aroclor-1260	0.032 - 0.0352	SW846 8082

Refer to footnotes on page 31.

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Table TAV D-3
Summary of Nitrate plus Nitrite Results
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Sample Date	Nitrate plus Nitrite Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
AVN-1	28-Nov-05	8.65	0.17	0.50	10			072443-018	EPA 353.1
	02-Feb-06	8.86	0.085	0.25	10			073761-018	EPA 353.1
	25-May-06	7.79	0.14	0.50	10	B		077823-018	EPA 353.1
	05-Sep-06	9.20	0.07	0.25	10			081460-018	EPA 353.1
AVN-1 (Duplicate)	05-Sep-06	9.28	0.07	0.25	10			081461-018	EPA 353.1
AVN-2	17-Nov-05	8.33	0.17	0.50	10			072441-018	EPA 353.1
	01-Feb-06	7.97	0.085	0.25	10			073757-018	EPA 353.1
	24-May-06	6.32	0.14	0.50	10	B		077821-018	EPA 353.1
LWDS-MW1	01-Dec-05	**10.6**	0.17	0.50	10			072454-018	EPA 353.1
	07-Feb-06	**13.3**	0.17	0.50	10			073768-018	EPA 353.1
	31-May-06	6.91	0.14	0.50	10		A2, J, TP	077832-018	EPA 353.1
	11-Sep-06	**13.0**	0.070	0.25	10			081470-018	EPA 353.1
LWDS-MW1 (Reanalysis)	31-May-06	8.13	0.070	0.25	10	H	HT, J, TP	077832-R18	EPA 353.1
LWDS-MW2	14-Nov-05	6.80	0.17	0.50	10			072436-018	EPA 353.1
	30-Jan-06	6.31	0.17	0.50	10			073750-018	EPA 353.1
	19-May-06	6.32	0.14	0.50	10	B		077812-018	EPA 353.1
	29-Aug-06	7.75	0.070	0.25	10			081451-018	EPA 353.1
TAV-MW1	22-Nov-05	6.76	0.17	0.50	10			072447-018	EPA 353.1
	16-Mar-06	7.03	0.17	0.50	10			073766-018	EPA 353.1
	31-May-06	9.81	0.14	0.50	10		A2, J, TP	077828-018	EPA 353.1
	07-Sep-06	8.51	0.07	0.25	10			081467-018	EPA 353.1
TAV-MW1 (Reanalysis)	31-May-06	**12.0**	0.07	0.25	10	H	HT, J, TP	077828-R18	EPA 353.1
TAV-MW1 (Duplicate)	22-Nov-05	7.63	0.17	0.50	10			072448-018	EPA 353.1
	07-Sep-06	8.33	0.070	0.25	10			081468-018	EPA 353.1
TAV-MW2	10-Nov-05	1.22	0.085	0.25	10			072429-018	EPA 353.1
	26-Jan-06	2.57	0.085	0.25	10	H	HT, J	073746-018	EPA 353.1
	17-May-06	2.78	0.014	0.05	10	B		077807-018	EPA 353.1
	24-Aug-06	2.79	0.070	0.25	10	B		081447-018	EPA 353.1
TAV-MW2 (Duplicate)	10-Nov-05	1.30	0.085	0.25	10			072430-018	EPA 353.1
	17-May-06	2.82	0.014	0.05	10	B		077808-018	EPA 353.1
TAV-MW3	07-Nov-05	3.85	0.17	0.50	10			072423-018	EPA 353.1
	24-Jan-06	4.93	0.017	0.05	10			073739-018	EPA 353.1
	15-May-06	4.28	0.014	0.05	10	B		077801-018	EPA 353.1
	21-Aug-06	4.68	0.070	0.25	10			081441-018	EPA 353.1

Refer to footnotes on page 26

Table TAV D-3 (*Concluded*)
Summary of Nitrate plus Nitrite Results
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Sample Date	Nitrate plus Nitrite Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TAV-MW4	11-Nov-05	5.54	0.17	0.50	10		B2, J	072434-018	EPA 353.1
	27-Jan-06	6.07	0.17	0.50	10			073748-018	EPA 353.1
	18-May-06	4.88	0.014	0.050	10	B	A2, J	077810-018	EPA 353.1
	28-Aug-06	6.66	0.028	0.10	10			081449-018	EPA 353.1
TAV-MW5	29-Nov-05	5.69	0.17	0.50	10	B		072445-018	EPA 353.1
	03-Feb-06	7.58	0.17	0.50	10			073763-018	EPA 353.1
	26-May-06	5.96	0.14	0.50	10		A2, J	077826-018	EPA 353.1
	06-Sep-06	7.58	0.070	0.25	10			081465-018	EPA 353.1
TAV-MW5 (Duplicate)	03-Feb-06	7.91	0.17	0.50	10			073764-018	EPA 353.1
TAV-MW6	16-Nov-05	6.95	0.17	0.50	10			072438-018	EPA 353.1
	10-Feb-06	6.69	0.17	0.50	10			073770-018	EPA 353.1
	26-May-06	6.98	0.14	0.50	10		A2, J	077818-018	EPA 353.1
	31-Aug-06	6.17	0.14	0.50	10			081456-018	EPA 353.1
TAV-MW6 (Duplicate)	26-May-06	6.58	0.14	0.50	10		A2, J	077819-018	EPA 353.1
TAV-MW7	09-Nov-05	1.74	0.085	0.25	10			072427-018	EPA 353.1
	27-Jan-06	3.76	0.085	0.25	10			073743-018	EPA 353.1
	25-May-06	3.88	0.014	0.050	10	B		077805-018	EPA 353.1
	23-Aug-06	3.50	0.070	0.25	10	B		081445-018	EPA 353.1
TAV-MW7 (Duplicate)	27-Jan-06	4.35	0.017	0.050	10			073744-018	EPA 353.1
TAV-MW8	29-Nov-05	4.44	0.17	0.50	10	B		072450-018	EPA 353.1
	31-Jan-06	4.61	0.17	0.50	10			073753-018	EPA 353.1
	16-May-06	4.47	0.014	0.050	10	B	A2, J	077814-018	EPA 353.1
	30-Aug-06	4.86	0.014	0.050	10			081454-018	EPA 353.1
TAV-MW9	08-Nov-05	2.44	0.17	0.50	10			072425-018	EPA 353.1
	25-Jan-06	4.17	0.017	0.050	10			073741-018	EPA 353.1
	22-May-06	3.54	0.070	0.25	10	B		077803-018	EPA 353.1
	22-Aug-06	2.92	0.070	0.25	10		A2, J	081443-018	EPA 353.1

Refer to footnotes on page 31.

Table TAV D-4
Summary of Anion Results
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
AVN-1	Bromide	0.133	0.066	0.200	NE	J		081460-016	SW846-9056
05-Sep-06	Chloride	9.07	0.066	0.200	NE		A2, J	081460-016	SW846-9056
	Fluoride	1.20	0.033	0.100	4			081460-016	SW846-9056
	Sulfate	30.7	0.100	0.400	NE			081460-016	SW846-9056
LWDS-MW1	Bromide	0.752	0.066	0.200	NE			081470-016	SW846-9056
11-Sep-06	Chloride	73.0	0.660	2.0	NE			081470-016	SW846-9056
	Fluoride	0.568	0.033	0.100	4			081470-016	SW846-9056
	Sulfate	40.3	1.0	4.0	NE			081470-016	SW846-9056
LWDS-MW2	Bromide	0.186	0.066	0.200	NE	J		081451-016	SW846-9056
29-Aug-06	Chloride	15.3	0.066	0.200	NE			081451-016	SW846-9056
	Fluoride	1.15	0.033	0.100	4			081451-016	SW846-9056
	Sulfate	38.2	0.200	0.800	NE			081451-016	SW846-9056
TAV-MW1	Bromide	0.295	0.066	0.200	NE			081467-016	SW846-9056
07-Sep-06	Chloride	48.9	0.330	1.0	NE			081467-016	SW846-9056
	Fluoride	1.17	0.033	0.100	4			081467-016	SW846-9056
	Sulfate	51.3	0.500	2.0	NE			081467-016	SW846-9056
TAV-MW2	Bromide	0.378	0.066	0.200	NE			081447-016	SW846-9056
24-Aug-06	Chloride	62.7	0.660	2.0	NE			081447-016	SW846-9056
	Fluoride	0.938	0.033	0.100	4			081447-016	SW846-9056
	Sulfate	53.2	1.0	4.0	NE			081447-016	SW846-9056
TAV-MW3	Bromide	0.239	0.066	0.200	NE			081441-016	SW846-9056
21-Aug-06	Chloride	25.8	0.132	0.400	NE			081441-016	SW846-9056
	Fluoride	1.54	0.033	0.100	4			081441-016	SW846-9056
	Sulfate	64.7	0.200	0.800	NE			081441-016	SW846-9056
TAV-MW4	Bromide	0.276	0.066	0.200	NE			081449-016	SW846-9056
28-Aug-06	Chloride	24.7	0.132	0.400	NE			081449-016	SW846-9056
	Fluoride	1.12	0.033	0.100	4			081449-016	SW846-9056
	Sulfate	36.5	0.100	0.400	NE			081449-016	SW846-9056
TAV-MW5	Bromide	0.153	0.066	0.200	NE	J		081465-016	SW846-9056
06-Sep-06	Chloride	17.1	0.066	0.200	NE			081465-016	SW846-9056
	Fluoride	1.22	0.033	0.100	4			081465-016	SW846-9056
	Sulfate	40.5	0.200	0.800	NE			081465-016	SW846-9056
TAV-MW6	Bromide	0.473	0.066	0.200	NE			081456-016	SW846-9056
31-Aug-06	Chloride	46.6	0.660	2.0	NE			081456-016	SW846-9056
	Fluoride	1.13	0.033	0.100	4			081456-016	SW846-9056
	Sulfate	48.2	1.0	4.0	NE			081456-016	SW846-9056

Refer to footnotes on page 31.

Table TAV D-4 (*Concluded*)
Summary of Anion Results
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TAV-MW7	Bromide	ND	0.066	0.200	NE	U		081445-016	SW846-9056
23-Aug-06	Chloride	27.5	0.132	0.400	NE			081445-016	SW846-9056
	Fluoride	1.06	0.033	0.100	4			081445-016	SW846-9056
	Sulfate	63.7	0.200	0.800	NE			081445-016	SW846-9056
TAV-MW8	Bromide	0.251	0.066	0.200	NE			081454-016	SW846-9056
30-Aug-06	Chloride	33.5	0.330	1.0	NE			081454-016	SW846-9056
	Fluoride	1.32	0.033	0.100	4			081454-016	SW846-9056
	Sulfate	49.9	0.500	2.0	NE			081454-016	SW846-9056
TAV-MW9	Bromide	0.223	0.066	0.200	NE			081443-016	SW846-9056
22-Aug-06	Chloride	29.5	0.132	0.400	NE			081443-016	SW846-9056
	Fluoride	0.847	0.033	0.100	4			081443-016	SW846-9056
	Sulfate	51.5	0.200	0.800	NE			081443-016	SW846-9056

Refer to footnotes on page 31.

Table TAV D-5
Summary of Total Metal Results
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
AVN-1	Aluminum	0.00762	0.005	0.015	NE	J		081460-009	SW846 3005
05-Sep-06	Antimony	ND	0.0005	0.002	0.006	B, U		081460-009	SW846 3005
	Arsenic	0.00159	0.0015	0.005	0.01	J		081460-009	SW846 3005
	Barium	0.0723	0.0005	0.002	2			081460-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		081460-009	SW846 3005
	Cadmium	0.00028	0.0001	0.001	0.005	J		081460-009	SW846 3005
	Calcium	36.1	0.02	0.1	NE	B		081460-009	SW846 3005
	Chromium	0.00285	0.001	0.003	0.1	B, J	B, J	081460-009	SW846 3005
	Cobalt	ND	0.0001	0.001	NE	U		081460-009	SW846 3005
	Copper	0.00168	0.0002	0.001	NE	B	B, J	081460-009	SW846 3005
	Iron	0.0959	0.01	0.025	NE			081460-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		081460-009	SW846 3005
	Magnesium	9.44	0.005	0.015	NE			081460-009	SW846 3005
	Manganese	ND	0.001	0.005	NE	U		081460-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U		081460-009	SW846 7470
	Nickel	0.000744	0.0005	0.002	NE	J		081460-009	SW846 3005
	Potassium	3.09	0.08	0.3	NE			081460-009	SW846 3005
	Selenium	ND	0.0025	0.005	0.05	U		081460-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		081460-009	SW846 3005
	Sodium	40.0	0.08	0.25	NE			081460-009	SW846 3005
	Thallium	0.00054	0.0004	0.001	0.002	J		081460-009	SW846 3005
	Uranium	0.00201	0.00005	0.0002	0.03			081460-009	SW846 3005
	Vanadium	0.00582	0.002	0.03	NE	J		081460-009	SW846 3005
	Zinc	0.00635	0.002	0.01	NE	B, J	B, J	081460-009	SW846 3005

Refer to footnotes on page 31.

Table TAV D-5
Summary of Total Metal Results
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
LWDS-MW1	Aluminum	0.0107	0.005	0.015	NE	B, J		081470-009	SW846 3005
11-Sep-06	Antimony	ND	0.0005	0.002	0.006	B, U		081470-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		081470-009	SW846 3005
	Barium	0.0872	0.0005	0.002	2			081470-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		081470-009	SW846 3005
	Cadmium	0.000142	0.0001	0.001	0.005	J		081470-009	SW846 3005
	Calcium	69.6	0.1	0.5	NE			081470-009	SW846 3005
	Chromium	ND	0.001	0.003	0.1	U		081470-009	SW846 3005
	Cobalt	0.000202	0.0001	0.001	NE	J		081470-009	SW846 3005
	Copper	0.00157	0.0002	0.001	NE			081470-009	SW846 3005
	Iron	0.141	0.01	0.025	NE			081470-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		081470-009	SW846 3005
	Magnesium	19.8	0.005	0.015	NE	B		081470-009	SW846 3005
	Manganese	0.00118	0.001	0.005	NE	J		081470-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U	B3, UJ	081470-009	SW846 7470
	Nickel	0.00274	0.0005	0.002	NE			081470-009	SW846 3005
	Potassium	2.98	0.08	0.3	NE			081470-009	SW846 3005
	Selenium	0.00496	0.0025	0.005	0.05	J		081470-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		081470-009	SW846 3005
	Sodium	57.0	0.4	1.25	NE			081470-009	SW846 3005
	Thallium	0.000695	0.0004	0.001	0.002	J	B3, J	081470-009	SW846 3005
	Uranium	0.00357	0.00005	0.0002	0.03			081470-009	SW846 3005
	Vanadium	0.0151	0.002	0.03	NE	B, J	B, J	081470-009	SW846 3005
	Zinc	0.0151	0.002	0.01	NE			081470-009	SW846 3005

Refer to footnotes on page 31.

Table TAV D-5
Summary of Total Metal Results
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
LWDS-MW2	Aluminum	0.0138	0.005	0.015	NE	B, J	B, J	081451-009	SW846 3005
29-Aug-06	Antimony	ND	0.0005	0.002	0.006	B, U		081451-009	SW846 3005
	Arsenic	0.00211	0.0015	0.005	0.01	B, J	B, J	081451-009	SW846 3005
	Barium	0.072	0.0005	0.002	2			081451-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		081451-009	SW846 3005
	Cadmium	0.000276	0.0001	0.001	0.005	J		081451-009	SW846 3005
	Calcium	42.6	0.02	0.1	NE	B		081451-009	SW846 3005
	Chromium	0.0038	0.001	0.003	0.1			081451-009	SW846 3005
	Cobalt	ND	0.0001	0.001	NE	U		081451-009	SW846 3005
	Copper	0.000776	0.0002	0.001	NE	B, J	B, J	081451-009	SW846 3005
	Iron	0.158	0.01	0.025	NE			081451-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		081451-009	SW846 3005
	Magnesium	12.0	0.005	0.015	NE			081451-009	SW846 3005
	Manganese	ND	0.001	0.005	NE	U		081451-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U	B3, UJ	081451-009	SW846 7470
	Nickel	0.00105	0.0005	0.002	NE	B, J	B, J	081451-009	SW846 3005
	Potassium	2.66	0.08	0.3	NE			081451-009	SW846 3005
	Selenium	ND	0.0025	0.005	0.05	U		081451-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		081451-009	SW846 3005
	Sodium	42.7	0.08	0.25	NE			081451-009	SW846 3005
	Thallium	0.00085	0.0004	0.001	0.002	J	B3, J	081451-009	SW846 3005
	Uranium	0.00302	0.00005	0.0002	0.03	B		081451-009	SW846 3005
	Vanadium	0.00347	0.002	0.03	NE	J		081451-009	SW846 3005
	Zinc	0.00263	0.002	0.01	NE	B, J	B, J	081451-009	SW846 3005

Refer to footnotes on page 31.

Table TAV D-5
Summary of Total Metal Results
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TAV-MW1	Aluminum	0.0968	0.005	0.015	NE			081467-009	SW846 3005
07-Sep-06	Antimony	ND	0.0005	0.002	0.006	B, U		081467-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		081467-009	SW846 3005
	Barium	0.0669	0.0005	0.002	2			081467-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		081467-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		081467-009	SW846 3005
	Calcium	60.7	0.1	0.5	NE	B		081467-009	SW846 3005
	Chromium	0.00334	0.001	0.003	0.1	B	B, J	081467-009	SW846 3005
	Cobalt	0.000146	0.0001	0.001	NE	J	B3, J	081467-009	SW846 3005
	Copper	0.000733	0.0002	0.001	NE	B, J	B, J	081467-009	SW846 3005
	Iron	0.196	0.01	0.025	NE			081467-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		081467-009	SW846 3005
	Magnesium	18.8	0.005	0.015	NE			081467-009	SW846 3005
	Manganese	0.00223	0.001	0.005	NE	J		081467-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U		081467-009	SW846 7470
	Nickel	0.00157	0.0005	0.002	NE	J		081467-009	SW846 3005
	Potassium	4.07	0.08	0.3	NE			081467-009	SW846 3005
	Selenium	0.00268	0.0025	0.005	0.05	J		081467-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		081467-009	SW846 3005
	Sodium	62.4	0.4	1.25	NE			081467-009	SW846 3005
	Thallium	ND	0.0004	0.001	0.002	U		081467-009	SW846 3005
	Uranium	0.00417	0.00005	0.0002	0.03	B		081467-009	SW846 3005
	Vanadium	0.00393	0.002	0.03	NE	J		081467-009	SW846 3005
	Zinc	0.00549	0.002	0.01	NE	B, J	B, J	081467-009	SW846 3005

Refer to footnotes on page 31.

Table TAV D-5
Summary of Total Metal Results
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TAV-MW2	Aluminum	0.156	0.005	0.015	NE			081447-009	SW846 3005
24-Aug-06	Antimony	ND	0.0005	0.002	0.006	B, U		081447-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		081447-009	SW846 3005
	Barium	0.0642	0.0005	0.002	2			081447-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		081447-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		081447-009	SW846 3005
	Calcium	66.2	0.1	0.5	NE	B		081447-009	SW846 3005
	Chromium	0.00196	0.001	0.003	0.1	J		081447-009	SW846 3005
	Cobalt	0.000286	0.0001	0.001	NE	J		081447-009	SW846 3005
	Copper	0.000764	0.0002	0.001	NE	J		081447-009	SW846 3005
	Iron	0.372	0.01	0.025	NE			081447-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		081447-009	SW846 3005
	Magnesium	23.4	0.005	0.015	NE			081447-009	SW846 3005
	Manganese	0.0079	0.001	0.005	NE			081447-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U	B3, UJ	081447-009	SW846 7470
	Nickel	0.00192	0.0005	0.002	NE	J		081447-009	SW846 3005
	Potassium	2.99	0.08	0.3	NE			081447-009	SW846 3005
	Selenium	ND	0.0025	0.005	0.05	U		081447-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		081447-009	SW846 3005
	Sodium	64.0	0.4	1.25	NE			081447-009	SW846 3005
	Thallium	ND	0.0004	0.001	0.002	U		081447-009	SW846 3005
	Uranium	0.00686	0.00005	0.0002	0.03			081447-009	SW846 3005
	Vanadium	0.00269	0.002	0.03	NE	J		081447-009	SW846 3005
	Zinc	0.00653	0.002	0.01	NE	J		081447-009	SW846 3005

Refer to footnotes on page 31.

Table TAV D-5
Summary of Total Metal Results
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TAV-MW3	Aluminum	0.109	0.005	0.015	NE	B	J, P1	081441-009	SW846 3005
21-Aug-06	Antimony	ND	0.0005	0.002	0.006	U		081441-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		081441-009	SW846 3005
	Barium	0.0475	0.0005	0.002	2		J, P1	081441-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		081441-009	SW846 3005
	Cadmium	0.000103	0.0001	0.001	0.005	J		081441-009	SW846 3005
	Calcium	25.5	0.2	1.0	NE	B		081441-009	SW846 3005
	Chromium	ND	0.001	0.003	0.1	U		081441-009	SW846 3005
	Cobalt	0.000182	0.0001	0.001	NE	J		081441-009	SW846 3005
	Copper	0.00098	0.0002	0.001	NE	B, J	B, J	081441-009	SW846 3005
	Iron	0.192	0.01	0.025	NE		J, P1	081441-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		081441-009	SW846 3005
	Magnesium	13.5	0.01	0.03	NE			081441-009	SW846 3005
	Manganese	0.00741	0.001	0.005	NE			081441-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U	B3, UJ	081441-009	SW846 7470
	Nickel	0.00101	0.0005	0.002	NE	J		081441-009	SW846 3005
	Potassium	4.20	0.08	0.3	NE			081441-009	SW846 3005
	Selenium	ND	0.0025	0.005	0.05	U		081441-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		081441-009	SW846 3005
	Sodium	23.1	0.8	2.5	NE			081441-009	SW846 3005
	Thallium	0.000976	0.0004	0.001	0.002	J	B3, J	081441-009	SW846 3005
	Uranium	0.00338	0.00005	0.0002	0.03		J, P1	081441-009	SW846 3005
	Vanadium	0.00233	0.002	0.03	NE	J		081441-009	SW846 3005
	Zinc	0.00898	0.002	0.01	NE	B, J	B, J	081441-009	SW846 3005

Refer to footnotes on page 31.

Table TAV D-5
Summary of Total Metal Results
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TAV-MW4	Aluminum	0.0129	0.005	0.015	NE	B, J	B, J	081449-009	SW846 3005
28-Aug-06	Antimony	ND	0.0005	0.002	0.006	U		081449-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		081449-009	SW846 3005
	Barium	0.0869	0.0005	0.002	2			081449-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		081449-009	SW846 3005
	Cadmium	0.000109	0.0001	0.001	0.005	J		081449-009	SW846 3005
	Calcium	43.1	0.02	0.1	NE	B		081449-009	SW846 3005
	Chromium	0.00906	0.001	0.003	0.1			081449-009	SW846 3005
	Cobalt	0.00033	0.0001	0.001	NE	J		081449-009	SW846 3005
	Copper	0.000498	0.0002	0.001	NE	J		081449-009	SW846 3005
	Iron	0.164	0.01	0.025	NE	B		081449-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		081449-009	SW846 3005
	Magnesium	12.7	0.005	0.015	NE			081449-009	SW846 3005
	Manganese	0.00116	0.001	0.005	NE	J		081449-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U	B3, UJ	081449-009	SW846 7470
	Nickel	0.00101	0.0005	0.002	NE	J		081449-009	SW846 3005
	Potassium	2.77	0.08	0.3	NE			081449-009	SW846 3005
	Selenium	0.00279	0.0025	0.005	0.05	J		081449-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		081449-009	SW846 3005
	Sodium	42.2	0.08	0.25	NE			081449-009	SW846 3005
	Thallium	0.000763	0.0004	0.001	0.002	J	B3, J	081449-009	SW846 3005
	Uranium	0.00316	0.00005	0.0002	0.03			081449-009	SW846 3005
	Vanadium	0.00408	0.002	0.03	NE	J		081449-009	SW846 3005
	Zinc	0.00218	0.002	0.01	NE	J		081449-009	SW846 3005

Refer to footnotes on page 31.

Table TAV D-5
Summary of Total Metal Results
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TAV-MW5	Aluminum	0.00674	0.005	0.015	NE	J		081465-009	SW846 3005
06-Sep-06	Antimony	0.00064	0.0005	0.002	0.006	B, J	B, B3, J	081465-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		081465-009	SW846 3005
	Barium	0.0604	0.0005	0.002	2			081465-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		081465-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		081465-009	SW846 3005
	Calcium	50.8	0.1	0.5	NE	B		081465-009	SW846 3005
	Chromium	0.00263	0.001	0.003	0.1	B, J	B, J	081465-009	SW846 3005
	Cobalt	ND	0.0001	0.001	NE	U		081465-009	SW846 3005
	Copper	0.00122	0.0002	0.001	NE	B		081465-009	SW846 3005
	Iron	0.114	0.01	0.025	NE			081465-009	SW846 3005
	Lead	0.000571	0.0005	0.002	NE	J	B3, J	081465-009	SW846 3005
	Magnesium	15.7	0.005	0.015	NE			081465-009	SW846 3005
	Manganese	ND	0.001	0.005	NE	U		081465-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U		081465-009	SW846 7470
	Nickel	0.000919	0.0005	0.002	NE	J		081465-009	SW846 3005
	Potassium	2.78	0.08	0.3	NE			081465-009	SW846 3005
	Selenium	ND	0.0025	0.005	0.05	U		081465-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		081465-009	SW846 3005
	Sodium	49.4	0.4	1.25	NE			081465-009	SW846 3005
	Thallium	0.000562	0.0004	0.001	0.002	J		081465-009	SW846 3005
	Uranium	0.0036	0.00005	0.0002	0.03	B		081465-009	SW846 3005
	Vanadium	0.00643	0.002	0.03	NE	J		081465-009	SW846 3005
	Zinc	0.00324	0.002	0.01	NE	B, J	B, J	081465-009	SW846 3005

Refer to footnotes on page 31.

Table TAV D-5
Summary of Total Metal Results
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TAV-MW6	Aluminum	0.016	0.005	0.015	NE	B	B, J	081456-009	SW846 3005
31-Aug-06	Antimony	ND	0.0005	0.002	0.006	B, U		081456-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		081456-009	SW846 3005
	Barium	0.0582	0.0005	0.002	2			081456-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		081456-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		081456-009	SW846 3005
	Calcium	57.8	0.2	1.0	NE	B		081456-009	SW846 3005
	Chromium	0.00109	0.001	0.003	0.1	J		081456-009	SW846 3005
	Cobalt	ND	0.0001	0.001	NE	U		081456-009	SW846 3005
	Copper	0.00078	0.0002	0.001	NE	J		081456-009	SW846 3005
	Iron	0.151	0.01	0.025	NE			081456-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		081456-009	SW846 3005
	Magnesium	19.4	0.005	0.015	NE			081456-009	SW846 3005
	Manganese	ND	0.001	0.005	NE	U		081456-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U	B3, UJ	081456-009	SW846 7470
	Nickel	0.00119	0.0005	0.002	NE	J		081456-009	SW846 3005
	Potassium	3.40	0.08	0.3	NE			081456-009	SW846 3005
	Selenium	0.00296	0.0025	0.005	0.05	J		081456-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		081456-009	SW846 3005
	Sodium	61.9	0.8	2.5	NE			081456-009	SW846 3005
	Thallium	0.000672	0.0004	0.001	0.002	J	B3, J	081456-009	SW846 3005
	Uranium	0.00401	0.00005	0.0002	0.03			081456-009	SW846 3005
	Vanadium	0.00463	0.002	0.03	NE	J		081456-009	SW846 3005
	Zinc	0.0132	0.002	0.01	NE	B	B, J	081456-009	SW846 3005

Refer to footnotes on page 31.

Table TAV D-5
Summary of Total Metal Results
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TAV-MW7	Aluminum	0.0523	0.005	0.015	NE			081445-009	SW846 3005
23-Aug-06	Antimony	ND	0.0005	0.002	0.006	B, U		081445-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		081445-009	SW846 3005
	Barium	0.054	0.0005	0.002	2			081445-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		081445-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		081445-009	SW846 3005
	Calcium	51.3	0.1	0.5	NE	B		081445-009	SW846 3005
	Chromium	ND	0.001	0.003	0.1	U		081445-009	SW846 3005
	Cobalt	0.000123	0.0001	0.001	NE	J		081445-009	SW846 3005
	Copper	0.000988	0.0002	0.001	NE	B, J	B, J	081445-009	SW846 3005
	Iron	0.211	0.01	0.025	NE			081445-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		081445-009	SW846 3005
	Magnesium	16.3	0.005	0.015	NE			081445-009	SW846 3005
	Manganese	0.00244	0.001	0.005	NE	J		081445-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U	B3, UJ	081445-009	SW846 7470
	Nickel	0.00112	0.0005	0.002	NE	J		081445-009	SW846 3005
	Potassium	3.63	0.08	0.3	NE			081445-009	SW846 3005
	Selenium	ND	0.0025	0.005	0.05	U		081445-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		081445-009	SW846 3005
	Sodium	49.1	0.4	1.25	NE			081445-009	SW846 3005
	Thallium	ND	0.0004	0.001	0.002	U		081445-009	SW846 3005
	Uranium	0.00486	0.00005	0.0002	0.03			081445-009	SW846 3005
	Vanadium	0.00371	0.002	0.03	NE	J		081445-009	SW846 3005
	Zinc	0.00617	0.002	0.01	NE	B, J	B, J	081445-009	SW846 3005

Refer to footnotes on page 31.

Table TAV D-5
Summary of Total Metal Results
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TAV-MW8	Aluminum	0.0131	0.005	0.015	NE	J		081454-009	SW846 3005
30-Aug-06	Antimony	ND	0.0005	0.002	0.006	U		081454-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		081454-009	SW846 3005
	Barium	0.0519	0.0005	0.002	2			081454-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		081454-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		081454-009	SW846 3005
	Calcium	51.7	0.1	0.5	NE	B		081454-009	SW846 3005
	Chromium	0.00292	0.001	0.003	0.1	B, J	B, J	081454-009	SW846 3005
	Cobalt	0.000109	0.0001	0.001	NE	J		081454-009	SW846 3005
	Copper	0.000721	0.0002	0.001	NE	J		081454-009	SW846 3005
	Iron	0.194	0.01	0.025	NE			081454-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		081454-009	SW846 3005
	Magnesium	13.8	0.005	0.015	NE			081454-009	SW846 3005
	Manganese	ND	0.001	0.005	NE	U		081454-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U	B3, UJ	081454-009	SW846 7470
	Nickel	0.000922	0.0005	0.002	NE	J		081454-009	SW846 3005
	Potassium	3.14	0.08	0.3	NE			081454-009	SW846 3005
	Selenium	0.00276	0.0025	0.005	0.05	J		081454-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		081454-009	SW846 3005
	Sodium	47.3	0.4	1.25	NE			081454-009	SW846 3005
	Thallium	ND	0.0004	0.001	0.002	U		081454-009	SW846 3005
	Uranium	0.00306	0.00005	0.0002	0.03			081454-009	SW846 3005
	Vanadium	ND	0.002	0.03	NE	U		081454-009	SW846 3005
	Zinc	0.00516	0.002	0.01	NE	J		081454-009	SW846 3005

Refer to footnotes on page 31.

Table TAV D-5 (*Concluded*)
Summary of Total Metal Results
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TAV-MW9	Aluminum	0.200	0.005	0.015	NE			081443-009	SW846 3005
22-Aug-06	Antimony	ND	0.0005	0.002	0.006	U		081443-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		081443-009	SW846 3005
	Barium	0.0538	0.0005	0.002	2			081443-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		081443-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		081443-009	SW846 3005
	Calcium	47.7	0.02	0.1	NE	B		081443-009	SW846 3005
	Chromium	0.0027	0.001	0.003	0.1	B, J	B, J	081443-009	SW846 3005
	Cobalt	0.000208	0.0001	0.001	NE	J		081443-009	SW846 3005
	Copper	0.00198	0.0002	0.001	NE			081443-009	SW846 3005
	Iron	0.303	0.01	0.025	NE			081443-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		081443-009	SW846 3005
	Magnesium	17.0	0.005	0.015	NE			081443-009	SW846 3005
	Manganese	0.00798	0.001	0.005	NE			081443-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U	B3, UJ	081443-009	SW846 7470
	Nickel	0.00188	0.0005	0.002	NE	J		081443-009	SW846 3005
	Potassium	3.10	0.08	0.3	NE			081443-009	SW846 3005
	Selenium	ND	0.0025	0.005	0.05	U		081443-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		081443-009	SW846 3005
	Sodium	45.4	0.08	0.25	NE		J	081443-009	SW846 3005
	Thallium	0.000884	0.0004	0.001	0.002	J	B3, J	081443-009	SW846 3005
	Uranium	0.00483	0.00005	0.0002	0.03			081443-009	SW846 3005
	Vanadium	ND	0.002	0.03	NE	U		081443-009	SW846 3005
	Zinc	0.018	0.002	0.01	NE	B	B, J	081443-009	SW846 3005

Refer to footnotes on page 31.

Table TAV D-6
Summary of Tritium, Gross Alpha, Gross Beta, and Gamma Spectroscopy Results
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Activity[a] (pCi/L)	MDA[h] (pCi/L)	Critical Level[b] (pCi/L)	MCL[d] (pCi/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
AVN-1	Tritium	-91.9 ± 108	194	93.6	NE	U		081460-036	EPA 906.0 M
05-Sep-06	Gross Alpha	9.16 ± 2.04	1.32	0.596	15			081460-034	EPA 900.0
	Gross Beta	7.16 ± 2.36	3.23	1.49	4mrem/yr			081460-034	EPA 900.0
	Americium-241	-9.94 ± 12.5	19.8	9.61	NE	U		081460-033	EPA 901.1
	Cesium-137	-0.0761 ± 1.69	2.95	1.40	NE	U		081460-033	EPA 901.1
	Cobalt-60	-0.0647 ± 1.76	3.15	1.46	NE	U		081460-033	EPA 901.1
	Potassium-40	60.3 ± 23.3	60.3	22.6	NE	U	P1, UJ	081460-033	EPA 901.1
LWDS-MW1	Tritium	-57.1 ± 109	192	93.0	NE	U		081470-036	EPA 906.0 M
11-Sep-06	Gross Alpha	14.2 ± 1.98	1.44	0.651	15			081470-034	EPA 900.0
	Gross Beta	1.79 ± 0.970	1.55	0.742	4mrem/yr			081470-034	EPA 900.0
	Americium-241	1.02 ± 8.40	12.5	6.24	NE	U		081470-033	EPA 901.1
	Cesium-137	-0.326 ± 1.76	2.89	1.44	NE	U		081470-033	EPA 901.1
	Cobalt-60	0.315 ± 1.84	3.12	1.56	NE	U		081470-033	EPA 901.1
	Potassium-40	-46.0 ± 41.1	38.4	19.2	NE	U	P1, UJ	081470-033	EPA 901.1
LWDS-MW2	Tritium	-43.6 ± 64.8	122	57.1	NE	U		081451-036	EPA 906.0 M
29-Aug-06	Gross Alpha	**15.7 ± 1.92**	1.24	0.555	15			081451-034	EPA 900.0
	Gross Beta	4.47 ± 2.72	4.33	2.04	4mrem/yr			081451-034	EPA 900.0
	Americium-241	11.0 ± 8.57	14.1	6.89	NE	U		081451-033	EPA 901.1
	Cesium-137	2.35 ± 2.14	3.14	1.50	NE	U		081451-033	EPA 901.1
	Cobalt-60	1.18 ± 2.04	3.80	1.78	NE	U		081451-033	EPA 901.1
	Potassium-40	45.0 ± 24.1	47.1	22.4	NE	U		081451-033	EPA 901.1
LWDS-MW2 (Reanalysis)	Gross Alpha	5.42 ± 1.42	1.71	0.795	15			081451-R34	EPA 900.0
29-Aug-06	Gross Beta	6.23 ± 1.51	2.23	1.08	4mrem/yr			081451-R34	EPA 900.0
TAV-MW1	Tritium	-76.3 ± 108	193	93.2	NE	U		081467-036	EPA 906.0 M
07-Sep-06	Gross Alpha	7.36 ± 4.14	4.56	1.60	15			081467-034	EPA 900.0
	Gross Beta	7.85 ± 3.84	5.55	2.48	4mrem/yr			081467-034	EPA 900.0
	Americium-241	-10.3 ± 7.30	11.6	5.81	NE	U		081467-033	EPA 901.1
	Cesium-137	-0.758 ± 1.77	2.83	1.42	NE	U		081467-033	EPA 901.1
	Cobalt-60	-0.325 ± 1.82	2.97	1.49	NE	U		081467-033	EPA 901.1
	Potassium-40	-11.3 ± 34.2	41.0	20.5	NE	U	P1, UJ	081467-033	EPA 901.1

Refer to footnotes on page 31.

Table TAV D-6
Summary of Tritium, Gross Alpha, Gross Beta, and Gamma Spectroscopy Results
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Activity[a] (pCi/L)	MDA[h] (pCi/L)	Critical Level[b] (pCi/L)	MCL[d] (pCi/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TAV-MW2	Tritium	16.0 ± 68.9	121	56.9	NE	U		081447-036	EPA 906.0 M
24-Aug-06	Gross Alpha	11.6 ± 2.29	1.40	0.623	15			081447-034	EPA 900.0
	Gross Beta	5.39 ± 0.990	1.29	0.612	4mrem/yr			081447-034	EPA 900.0
	Americium-241	1.36 ± 3.15	4.96	2.41	NE	U		081447-033	EPA 901.1
	Cesium-137	1.95 ± 2.20	4.05	1.93	NE	U		081447-033	EPA 901.1
	Cobalt-60	1.66 ± 2.24	4.28	1.99	NE	U		081447-033	EPA 901.1
	Potassium-40	23.9 ± 53.7	41.8	19.4	NE	U		081447-033	EPA 901.1
TAV-MW3	Tritium	-18.1 ± 65.6	120	56.2	NE	U		081441-036	EPA 906.0 M
21-Aug-06	Gross Alpha	6.96 ± 1.51	1.42	0.630	15			081441-034	EPA 900.0
	Gross Beta	5.78 ± 1.36	1.94	0.933	4mrem/yr			081441-034	EPA 900.0
	Americium-241	0.112 ± 3.07	5.40	2.65	NE	U		081441-033	EPA 901.1
	Cesium-137	1.96 ± 2.43	4.37	2.10	NE	U		081441-033	EPA 901.1
	Cobalt-60	2.47 ± 2.60	4.93	2.33	NE	U		081441-033	EPA 901.1
	Potassium-40	57.4 ± 50.4	47.6	22.4	NE			081441-033	EPA 901.1
TAV-MW4	Tritium	25.3 ± 69.9	122	57.2	NE	U		081449-036	EPA 906.0 M
28-Aug-06	Gross Alpha	5.73 ± 1.55	1.58	0.720	15			081449-034	EPA 900.0
	Gross Beta	4.11 ± 1.56	2.48	1.21	4mrem/yr			081449-034	EPA 900.0
	Americium-241	0.909 ± 2.53	4.26	2.08	NE	U		081449-033	EPA 901.1
	Cesium-137	-0.752 ± 1.96	3.33	1.60	NE	U		081449-033	EPA 901.1
	Cobalt-60	-0.786 ± 1.94	3.32	1.55	NE	U		081449-033	EPA 901.1
	Potassium-40	23.1 ± 37.8	34.4	16.1	NE	U		081449-033	EPA 901.1
TAV-MW5	Tritium	-57.3 ± 109	193	93.3	NE	U		081465-036	EPA 906.0 M
06-Sep-06	Gross Alpha	6.98 ± 3.37	2.76	0.845	15			081465-034	EPA 900.0
	Gross Beta	4.13 ± 2.57	4.07	1.89	4mrem/yr			081465-034	EPA 900.0
	Americium-241	-0.91 ± 11.1	18.2	8.91	NE	U		081465-033	EPA 901.1
	Cesium-137	-1.04 ± 2.10	3.63	1.74	NE	U		081465-033	EPA 901.1
	Cobalt-60	2.80 ± 2.27	4.42	2.09	NE	U		081465-033	EPA 901.1
	Potassium-40	90.9 ± 62.3	37.1	17.4	NE			081465-033	EPA 901.1
TAV-MW6	Tritium	-64.8 ± 109	193	93.1	NE	U		081456-036	EPA 906.0 M
31-Aug-06	Gross Alpha	7.99 ± 3.77	3.54	1.23	15			081456-034	EPA 900.0
	Gross Beta	4.31 ± 1.49	2.32	1.12	4mrem/yr			081456-034	EPA 900.0
	Americium-241	-1.8 ± 8.08	14.2	6.92	NE	U		081456-033	EPA 901.1
	Cesium-137	2.76 ± 2.13	2.88	1.38	NE	U		081456-033	EPA 901.1
	Cobalt-60	1.43 ± 1.74	3.26	1.53	NE	U		081456-033	EPA 901.1
	Potassium-40	54.0 ± 44.9	28.8	13.5	NE	X	R	081456-033	EPA 901.1

Refer to footnotes on page 31.

Table TAV D-6 (*Concluded*)
Summary of Tritium, Gross Alpha, Gross Beta, and Gamma Spectroscopy Results
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Activity[a] (pCi/L)	MDA[h] (pCi/L)	Critical Level[b] (pCi/L)	MCL[d] (pCi/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TAV-MW7	Tritium	16.0 ± 68.8	121	56.8	NE	U		081445-036	EPA 906.0 M
23-Aug-06	Gross Alpha	8.10 ± 1.59	1.05	0.445	15			081445-034	EPA 900.0
	Gross Beta	5.42 ± 1.35	1.99	0.959	4mrem/yr			081445-034	EPA 900.0
	Americium-241	-0.584 ± 2.55	4.23	2.06	NE	U		081445-033	EPA 901.1
	Cesium-137	-2.19 ± 1.97	3.22	1.54	NE	U		081445-033	EPA 901.1
	Cobalt-60	1.89 ± 2.02	3.79	1.79	NE	U		081445-033	EPA 901.1
	Potassium-40	139 ± 26.8	139	27.8	NE	U		081445-033	EPA 901.1
TAV-MW8	Tritium	-2.27 ± 67.2	121	56.6	NE	U		081454-036	EPA 906.0 M
30-Aug-06	Gross Alpha	5.79 ± 3.40	3.74	1.33	15			081454-034	EPA 900.0
	Gross Beta	5.97 ± 2.88	4.46	2.10	4mrem/yr			081454-034	EPA 900.0
	Americium-241	-1.65 ± 7.91	13.9	6.79	NE	U		081454-033	EPA 901.1
	Cesium-137	0.640 ± 3.10	2.94	1.40	NE	U		081454-033	EPA 901.1
	Cobalt-60	0.468 ± 1.89	3.46	1.62	NE	U		081454-033	EPA 901.1
	Potassium-40	3.65 ± 42.7	29.2	13.5	NE	U		081454-033	EPA 901.1
TAV-MW9	Tritium	-16.2 ± 67.3	123	57.5	NE	U		081443-036	EPA 906.0 M
22-Aug-06	Gross Alpha	6.20 ± 1.76	1.95	0.906	15			081443-034	EPA 900.0
	Gross Beta	4.26 ± 1.24	1.86	0.896	4mrem/yr			081443-034	EPA 900.0
	Americium-241	-0.354 ± 9.68	15.0	7.34	NE	U		081443-033	EPA 901.1
	Cesium-137	2.48 ± 1.86	3.47	1.67	NE	U		081443-033	EPA 901.1
	Cobalt-60	-0.562 ± 1.98	3.37	1.59	NE	U		081443-033	EPA 901.1
	Potassium-40	2.91 ± 49.2	29.6	13.8	NE	U		081443-033	EPA 901.1

Refer to footnotes on page 31.

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Table TAV D-7
Summary of Field Water Quality Measurements[i]
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Sample Date	Temperature (°C)	Specific Conductivity (µmho/cm)	Oxidation Reduction Potential (mV)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)
AVN-1	28-Nov-05	17.91	396	86.8	7.51	2.62	3.75
	02-Feb-06	19.81	379	149.1	7.70	0.31	3.70
	25-May-06	21.72	427	15.1	7.17	0.35	3.87
	05-Sep-06	21.90	399	381.1	7.56	0.75	2.62
AVN-2	17-Nov-05	17.49	425	214.2	7.76	4.20	8.51
	01-Feb-06	14.27	403	263.5	7.73	2.93	8.76
	24-May-06	20.11	426	34.3	7.01	1.53	8.79
LWDS-MW1	01-Dec-05	19.05	706	95.6	7.44	1.83	3.65
	07-Feb-06	17.82	681	149.6	7.47	0.96	4.21
	31-May-06	20.77	752	25.2	7.20	2.01	5.41
	11-Sep-06	20.98	555	270	7.55	0.90	6.12
LWDS-MW2	14-Nov-05	19.53	473	176.9	7.56	3.94	4.38
	30-Jan-06	19.21	456	179.5	7.57	0.47	4.91
	19-May-06	20.25	499	6.3	7.31	0.93	5.01
	29-Aug-06	20.10	465	369.1	7.47	0.61	4.18
TAV-MW1	22-Nov-05	20.18	609	68.5	7.33	62.7	5.15
	16-Mar-06	20.68	585	106.8	7.47	40.2	4.77
	31-May-06	20.17	604	230.2	7.59	5.26	5.06
	07-Sep-06	20.69	460	357.9	7.60	2.84	5.29
TAV-MW2	10-Nov-05	19.66	708	128.7	7.27	1.73	5.05
	26-Jan-06	18.47	650	161.0	7.30	4.42	5.06
	17-May-06	21.33	757	4.4	7.16	1.23	5.30
	24-Aug-06	22.43	705	368.4	7.19	6.63	4.63
TAV-MW3	07-Nov-05	20.97	541	161.2	7.49	2.51	6.84
	24-Jan-06	19.03	478	178.0	7.55	3.33	7.48
	15-May-06	20.38	570	-1.5	7.14	2.95	7.76
	21-Aug-06	21.34	534	366.2	7.41	4.63	6.60
TAV-MW4	11-Nov-05	20.11	486	177.0	7.54	2.50	6.89
	27-Jan-06	18.00	454	219.1	7.59	0.56	5.93
	18-May-06	21.46	522	4.8	7.56	0.76	6.59
	28-Sep-06	22.55	486	364.5	7.46	0.78	4.49
TAV-MW5	29-Nov-05	18.50	473	78.7	7.41	1.48	4.77
	03-Feb-06	19.04	441	160.4	7.59	0.76	5.50
	26-May-06	20.72	509	19.1	7.26	0.62	4.77
	06-Sep-06	22.08	434	312.3	7.49	0.73	4.69

Refer to footnotes on page 31.

Table TAV D-7 (*Concluded*)
Summary of Field Water Quality Measurements[i]
Technical Area V Groundwater Monitoring

Fiscal Year 2006

Well ID	Sample Date	Temperature (°C)	Specific Conductivity (µmho/cm)	Oxidation Reduction Potential (mV)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)
TAV-MW6	16-Nov-05	18.17	603	71.5	7.74	0.74	6.17
	10-Feb-06	18.85	613	183.7	7.49	1.40	4.62
	26-May-06	21.01	614	240.1	7.44	0.43	5.96
	31-Aug-06	20.44	616	388.8	7.33	0.59	5.75
TAV-MW7	09-Nov-05	19.88	578	51.8	7.63	0.43	0.34
	27-Jan-06	18.41	579	8.0	7.40	0.70	0.29
	25-May-06	21.86	579	119.2	7.40	0.47	0.34
	23-Aug-06	21.44	584	303.2	7.28	1.65	0.39
TAV-MW8	29-Nov-05	18.73	539	130.5	7.55	7.28	3.79
	31-Jan-06	19.52	509	105.1	7.53	2.59	4.96
	16-May-06	20.87	584	1.7	7.23	1.77	6.81
	30-Aug-06	22.01	549	382.9	7.40	0.96	5.40
TAV-MW9	08-Nov-05	20.19	578	38.1	7.26	2.61	2.41
	25-Jan-06	19.31	528	61.7	7.29	1.26	1.72
	22-May-06	21.62	629	1.4	7.44	1.55	1.92
	22-Aug-06	21.31	523	205.3	7.21	7.28	1.04

Refer to footnotes on page 31.

*Footnotes for **TA-V Groundwater Monitoring***

[a]Result and/or Activity
- Values in bold exceed the established MCL.
- ND = not detected (at method detection limit).
- Activities of zero or less are considered to be not detected.
- µg/L = micrograms per liter
- mg/L = milligrams per liter
- pCi/L = picocuries per liter

[b]MDL or Critical level
Method detection limit. The minimum concentration or activity that can be measured and reported with 99% confidence that the analyte is greater than zero, analyte is matrix specific.
- N/A = not applicable

[c]PQL
Practical quantitation limit. The lowest concentration of analytes in a sample that can be reliably determined within specified limits of precision and accuracy by that indicated method under routine laboratory operating conditions.
- N/A = not applicable

[d]MCL
MCL = Maximum contaminant level. Established by the U.S. Environmental Protection Agency Primary Water Regulations (40 CFR 141.11(b)), and subsequent amendments or the New Mexico Environmental Improvement Board in Title 20, Chapter 7, Part 1 of the New Mexico Administrative Code (20 NMAC 7.1).
NE = not established.
The following are the MCLs for gross alpha particles and beta particles in community water systems:
15 pCi/L = Gross alpha particle activity (including radium-226 but excluding radon and total uranium).
4 mrem/yr = any combination of beta and/or gamma emitting radionuclides (as dose rate).

[e]Lab Qualifier
- B = Analyte is detected in associated laboratory method blank.
- J = Amount detected is below the practical quantitation limit (PQL).
- U = Analyte is absent or below the method detection limit.
- X = Data rejected due to low abundance.
- None = No qualifiers for field analysis.

[f]Validation Qualifier
If cell is blank, then all quality control samples met acceptance criteria with respect to submitted samples.
- A2 = Laboratory accuracy and/or bias measurements for the matrix spike and/or matrix spike duplicate samples do not acceptance criteria.
- B = Analyte present in associated laboratory method blank.
- B1 = Analyte present in associated trip blank sample.
- B2 = Analyte present in associated equipment blank sample.
- B3 = Analyte present in associated continuing calibration blank.
- J = Associate value is an estimated quantity.
- P1 =Laboratory precision measurements for the matrix spike and matrix spike duplicate do not meet acceptance criteria.
- R = The data are unusable for their intended purpose. The analyte may or may not be present.
- UJ = Analyte not detected above laboratory method detection limit, but associated value is an estimate and may be inaccurate or imprecise.
- #U = Analyte was qualified as not detected at listed value.
- None = Data was not validated.

[g]Analytical Method

U.S. Environmental Protection Agency, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd ed.
U.S. Environmental Protection Agency, 1983, "The Determination of Inorganic Anions in Water by Ion Chromatography-Method 300.0,"
EPA-600/4-84-017.
Analytical method used to detect radionuclides is HASL 300 4.5.2.3;
U.S. Department of Energy, Environmental Measurements Laboratory, 1997, "EML Procedures Manual," 27th ed., Vol. 1, Rev. 1992, HASL-300.
EPA 903.0/904.0: U.S. Environmental Protection Agency, 1980, "Prescribed Procedures for Measurement of Radioactivity in Drinking Water," EPA-600/4-80-032.

[h]MDA

The minimal detectable activity or minimum measured activity in a sample required to ensure a 95% probability that the measured activity is accurately quantified above the critical level.

[i]Field Water Quality Measurements

Field measurements collected prior to sampling.

^{O}C = degrees Celsius
% Sat = percent Saturation
µmho/cm = micromhos per centimeter
mg/L = milligrams per liter
mV = millivolts
NTU = nephelometric turbidity units
pH = potential of hydrogen (negative logarithm of the hydrogen ion concentration)

APPENDIX E
Tijeras Arroyo Groundwater Monitoring Surveillance Task

Table of Contents

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Table TAG E-1
Summary of Detected Volatile Organic Compounds and Polychlorinated Biphenyls
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (µg/L)	MDL[b] (µg/L)	PQL[c] (µg/L)	MCL[d] (µg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TA2-W-19 31-Oct-05	Trichloroethene	**5.07**	0.25	1.0	5.0			072281-001	SW846-8260
	cis-1,2-Dichloroethene	0.846	0.30	1.0	70	J		072281-001	SW846-8260
TA2-W-26 25-Oct-05	Chloroform	0.286	0.25	1.0	NE	J		072272-001	SW846-8260
	Tetrachloroethene	1.17	0.25	1.0	5.0		J	072272-001	SW846-8260
	Trichloroethene	1.21	0.25	1.0	5.0			072272-001	SW846-8260
	cis-1,2-Dichloroethene	0.423	0.30	1.0	70	J		072272-001	SW846-8260
TA2-W-26 (Duplicate) 25-Oct-05	Carbon Disulfide	1.41	1.25	5.0	NE	J		072273-001	SW846-8260
	Chloroform	0.284	0.25	1.0	NE	J		072273-001	SW846-8260
	Tetrachloroethene	1.17	0.25	1.0	5.0		J	072273-001	SW846-8260
	Trichloroethene	1.08	0.25	1.0	5.0			072273-001	SW846-8260
	cis-1,2-Dichloroethene	0.390	0.30	1.0	70	J		072273-001	SW846-8260
TJA-2 28-Oct-05	1,1-Dichloroethane	0.571	0.30	1.0	NE	J		072279-001	SW846-8260
	Trichloroethene	3.31	0.25	1.0	5.0			072279-001	SW846-8260
	cis-1,2-Dichloroethene	0.666	0.30	1.0	70	J		072279-001	SW846-8260
TJA-7 03-Nov-05 WYO-4 27-Oct-05	1,1-Dichloroethene	0.964	0.30	1.0	7.0	J		072286-001	SW846-8260
	1,1-Dichloroethane	0.851	0.30	1.0	NE	J		072277-001	SW846-8260
	Trichloroethene	**7.61**	0.25	1.0	5.0			072277-001	SW846-8260
	cis-1,2-Dichloroethene	1.72	0.30	1.0	70			072277-001	SW846-8260
TA2-SW1-320 23-Jan-06	Acetone	4.24	1.25	5.0	NE	B, J	5.0U, B	073689-001	SW846-8260
TA2-W-01 06-Jan-06	Trichloroethene	1.56	0.25	1.0	5.0			073700-001	SW846-8260
TA2-W-19 16-Jan-06	Trichloroethene	4.73	0.25	1.0	5.0			073708-001	SW846-8260
	cis-1,2-Dichloroethene	0.972	0.30	1.0	70	J		073708-001	SW846-8260
TA2-W-19 (Duplicate) 16-Jan-06	Trichloroethene	4.81	0.25	1.0	5.0			073709-001	SW846-8260
	cis-1,2-Dichloroethene	0.887	0.30	1.0	70	J		073709-001	SW846-8260
TA2-W-26 09-Jan-06	Carbon Disulfide	4.44	1.25	5.0	NE	J	5.0U, B1	073702-001	SW846-8260
	Chloroform	0.364	0.25	1.0	NE	J		073702-001	SW846-8260
	Tetrachloroethene	1.27	0.25	1.0	5.0			073702-001	SW846-8260
	Trichloroethene	1.34	0.25	1.0	5.0			073702-001	SW846-8260
	cis-1,2-Dichloroethene	0.525	0.30	1.0	70	J		073702-001	SW846-8260
TA2-W-27 05-Jan-06	Chloroform	0.344	0.25	1.0	NE	J		073698-001	SW846-8260
	Tetrachloroethene	0.617	0.25	1.0	5.0	J		073698-001	SW846-8260
	Trichloroethene	0.592	0.25	1.0	5.0	J		073698-001	SW846-8260

Refer to footnotes on page 45.

Table TAG E-1
Summary of Detected Volatile Organic Compounds and Polychlorinated Biphenyls
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (µg/L)	MDL[b] (µg/L)	PQL[c] (µg/L)	MCL[d] (µg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TJA-2	1,1-Dichloroethane	0.541	0.30	1.0	NE	J		073706-001	
13-Jan-06	Trichloroethene	3.37	0.25	1.0	5.0			073706-001	
	cis-1,2-Dichloroethene	0.483	0.30	1.0	70	J		073706-001	
TJA-3 04-Jan-06	Trichloroethene	1.54	0.25	1.0	5.0			073696-001	
TJA-4 17-Jan-06	Carbon Disulfide	3.29	1.25	5.0	NE	J	5.0U, B1	073711-001	
WYO-4	1,1-Dichloroethane	0.869	0.30	1.0	NE	J		073704-001	
12-Jan-06	Trichloroethene	**7.85**	0.25	1.0	5.0			073704-001	
	cis-1,2-Dichloroethene	1.66	0.30	1.0	70			073704-001	
TA2-SW1-320	Acetone	2.65	1.25	5.0	NE	J	11.3U	077284-001	
26-Apr-06	Carbon Disulfide	2.91	1.25	5.0	NE	J	J	077284-001	
TA2-SW1-320 (Duplicate)	Acetone	2.41	1.25	5.0	NE	J	11.3U	077285-001	
26-Apr-06	Carbon Disulfide	3.33	1.25	5.0	NE	J	J	077285-001	
TA2-W-19	1,1-Dichloroethane	0.604	0.30	1.0	NE	J		077295-001	
03-May-06	Acetone	4.18	1.25	5.0	NE	J	11.3UJ	077295-001	
	Trichloroethene	4.51	0.25	1.0	5.0			077295-001	
	cis-1,2-Dichloroethene	0.606	0.30	1.0	70	J		077295-001	
TA2-W-26	Acetone	2.33	1.25	5.0	NE	J	11.3U	077287-001	
27-Apr-06	Carbon Disulfide	1.52	1.25	5.0	NE	J	J	077287-001	
	Chloroform	0.358	0.25	1.0	NE	J		077287-001	
	Tetrachloroethene	1.48	0.25	1.0	5.0			077287-001	
	Trichloroethene	1.44	0.25	1.0	5.0			077287-001	
	cis-1,2-Dichloroethene	0.488	0.30	1.0	70	J		077287-001	
TJA-2	1,1-Dichloroethane	0.520	0.30	1.0	NE	J		077293-001	
28-Apr-06	Acetone	1.77	1.25	5.0	NE	J	11.3UJ	077293-001	
	Trichloroethene	2.96	0.25	1.0	5.0			077293-001	
	cis-1,2-Dichloroethene	0.571	0.30	1.0	70	J		077293-001	
TJA-4 04-May-06	Acetone	5.95	1.25	5.0	NE		11.3UJ	077297-001	
TJA-7	Acetone	5.05	1.25	5.0	NE		5.05UJ, B1	077300-001	
09-May-06	Trichloroethene	0.315	0.25	1.0	5.0	J		077300-001	
WYO-4	1,1-Dichloroethane	0.865	0.30	1.0	NE	J		077289-001	
02-May-06	Trichloroethene	**6.73**	0.25	1.0	5.0			077289-001	
	cis-1,2-Dichloroethene	1.51	0.30	1.0	70			077289-001	

Refer to footnotes on page 45

Table TAG E-1
Summary of Detected Volatile Organic Compounds and Polychlorinated Biphenyls
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (µg/L)	MDL[b] (µg/L)	PQL[c] (µg/L)	MCL[d] (µg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
PGS-2 06-Jul-06	Acetone	3.43	1.25	5.0	NE	J	5.0U, B1	079777-001	SW846-8260
TA1-W-01 03-Aug-06	Methylene Chloride	2.93	2.0	5.0	5.0	J	5.0U, B1	079812-001	SW846-8260
TA1-W-02 15-Aug-06	Acetone	3.43	1.25	5.0	NE	J	5.0U, B1	079779-001	SW846-8260
TA1-W-03 26-Jul-06	Chloroform	0.394	0.25	1.0	NE	J		079803-001	SW846-8260
TA1-W-04 20-Jul-06	Toluene	0.358	0.25	1.0	1,000	J	1.0U, B1	079792-001	SW846-8260
TA1-W-05	Acetone	2.69	1.25	5.0	NE	J		079782-001	SW846-8260
11-Jul-06	Toluene	0.347	0.25	1.0	1,000	J		079782-001	SW846-8260
TA1-W-06	Acetone	2.66	1.25	5.0	NE	J	5.0U, B1	079796-001	SW846-8260
10-Jul-06	Chloroform	0.333	0.25	1.0	NE	J	1.0U	079796-001	SW846-8260
	Toluene	0.391	0.25	1.0	1,000	J	1.0U, B1	079796-001	SW846-8260
	Trichloroethene	0.291	0.25	1.0	5.0	J	1.0U	079796-001	SW846-8260
	1,1-Dichloroethene	0.607	0.30	1.0	7.0	J	1.0U	079796-001	SW846-8260
TA2-NW1-595	Acetone	3.80	1.25	5.0	NE	J	5.0U, B1	079788-001	SW846-8260
13-Jul-06	Chloroform	0.258	0.25	1.0	NE	J		079788-001	SW846-8260
	Toluene	0.325	0.25	1.0	1,000	J	1.0U, B1	079788-001	SW846-8260
TA2-SW1-320 05-Jul-06	Acetone	3.64	1.25	5.0	NE	J	5.0U, B1	079775-001	SW846-8260
TA2-W-01 25-Jul-06	Trichloroethene	1.58	0.25	1.0	5.0			079801-001	SW846-8260
TA2-W-19	1,1-Dichloroethane	0.593	0.30	1.0	NE	J		079816-001	SW846-8260
08-Aug-06	Trichloroethene	4.73	0.25	1.0	5.0			079816-001	SW846-8260
	cis-1,2-Dichloroethene	0.678	0.30	1.0	70	J		079816-001	SW846-8260
TA2-W-26	Carbon Disulfide	1.34	1.25	5.0	NE	J	J	079810-001	SW846-8260
02-Aug-06	Chloroform	0.424	0.25	1.0	NE	J		079810-001	SW846-8260
	Tetrachloroethene	1.45	0.25	1.0	5.0			079810-001	SW846-8260
	Toluene	0.262	0.25	1.0	1,000	J		079810-001	SW846-8260
	Trichloroethene	1.73	0.25	1.0	5.0			079810-001	SW846-8260
	cis-1,2-Dichloroethene	0.611	0.30	1.0	70	J		079810-001	SW846-8260
TA2-W-27	Acetone	2.79	1.25	5.0	NE	J		079790-001	SW846-8260
17-Jul-06	Chloroform	0.304	0.25	1.0	NE	J		079790-001	SW846-8260
	Tetrachloroethene	0.599	0.25	1.0	5.0	J		079790-001	SW846-8260
	Toluene	0.339	0.25	1.0	1,000	J	1.0U, B1	079790-001	SW846-8260
	Trichloroethene	0.637	0.25	1.0	5.0	J		079790-001	SW846-8260

Refer to footnotes on page 45.

Table TAG E-1 (Concluded)
Summary of Detected Volatile Organic Compounds and Polychlorinated Biphenyls
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (µg/L)	MDL[b] (µg/L)	PQL[c] (µg/L)	MCL[d] (µg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TJA-2	1,1-Dichloroethane	0.497	0.30	1.0	NE	J		079814-001	SW846-8260
07-Aug-06	Acetone	2.14	1.25	5.0	NE	J	5.0UJ, B1	079814-001	SW846-8260
	Trichloroethene	3.24	0.25	1.0	5.0			079814-001	SW846-8260
	cis-1,2-Dichloroethene	0.532	0.30	1.0	70	J		079814-001	SW846-8260
TJA-3	Acetone	2.83	1.25	5.0	NE	J		079799-001	SW846-8260
24-Jul-06	Carbon Disulfide	3.74	1.25	5.0	NE	J	J	079799-001	SW846-8260
	Toluene	0.300	0.25	1.0	1,000	J	1.0U, B1	079799-001	SW846-8260
	Trichloroethene	2.88	0.25	1.0	5.0			079799-001	SW846-8260
TJA-4	Acetone	4.21	1.25	5.0	NE	J	5.0U, B1, B2	079822-001	SW846-8260
14-Aug-06	Carbon Disulfide	1.69	1.25	5.0	NE	J		079822-001	SW846-8260
	Toluene	0.262	0.25	1.0	1,000	J	1.0U, B1	079822-001	SW846-8260
TJA-4 (Duplicate) 14-Aug-06	Acetone	4.47	1.25	5.0	NE	J	5.0U, B1, B2	079823-001	SW846-8260
TJA-6 19-Jul-06	Acetone	2.27	1.25	5.0	NE	J		079794-001	SW846-8260
TJA-7	Acetone	4.11	1.25	5.0	NE	J	J	079818-001	SW846-8260
10-Aug-06	Methylene Chloride	2.30	2.0	5.0	5.0	J	5.0U, B1	079818-001	SW846-8260
	Toluene	0.279	0.25	1.0	1,000	J	1.0U, B1	079818-001	SW846-8260
	Trichloroethene	0.380	0.25	1.0	5.0	J		079818-001	SW846-8260
WYO-3	Acetone	2.79	1.25	5.0	NE	J	5.0U, B2	079786-001	SW846-8260
12-Jul-06	Toluene	0.358	0.25	1.0	1,000	J	1.0U, B1	079786-001	SW846-8260
WYO-4	1,1-Dichloroethane	1.05	0.30	1.0	NE			079805-001	SW846-8260
01-Aug-06	Tetrachloroethene	0.261	0.25	1.0	5.0	J		079805-001	SW846-8260
	Toluene	0.397	0.25	1.0	1,000	J	1.0U, B1	079805-001	SW846-8260
	Trichloroethene	**7.87**	0.25	1.0	5.0			079805-001	SW846-8260
	Xylenes (total)	0.251	0.25	1.0	10,000	J	1.0U, B1	079805-001	SW846-8260
	cis-1,2-Dichloroethene	2.11	0.30	1.0	70			079805-001	SW846-8260

Refer to footnotes on page 45.

Table TAG E-2
Method Detection Limits for Volatile Organic Compounds and Polychlorinated Biphenyls
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Analyte	MDL[b] (µg/L)	Analytical Method[g]
1,1,1-Trichloroethane	0.30	SW846 8260
1,1,2,2-Tetrachloroethane	0.25	SW846 8260
1,1,2-Trichloroethane	0.25	SW846 8260
1,1-Dichloroethane	0.30	SW846 8260
1,1-Dichloroethene	0.30	SW846 8260
1,2-Dichloroethane	0.25	SW846 8260
1,2-Dichloropropane	0.25	SW846 8260
2-Butanone	1.25	SW846 8260
2-Hexanone	1.25	SW846 8260
4-methyl-, 2-Pentanone	1.25	SW846 8260
Acetone	1.25	SW846 8260
Benzene	0.30	SW846 8260
Bromodichloromethane	0.25	SW846 8260
Bromoform	0.25	SW846 8260
Bromomethane	0.50	SW846 8260
Carbon disulfide	1.25	SW846 8260
Carbon tetrachloride	0.25	SW846 8260
Chlorobenzene	0.25	SW846 8260
Chloroethane	0.50	SW846 8260
Chloroform	0.25	SW846 8260
Chloromethane	0.50	SW846 8260
Dibromochloromethane	0.25	SW846 8260
Ethyl benzene	0.25	SW846 8260
Methylene chloride	2.0	SW846 8260
Styrene	0.25	SW846 8260
Tetrachloroethene	0.25	SW846 8260
Toluene	0.25	SW846 8260
Trichloroethene	0.25	SW846 8260
Vinyl acetate	1.5	SW846 8260
Vinyl chloride	0.50	SW846 8260
Xylene	0.25	SW846 8260
cis-1,2-Dichloroethene	0.30	SW846 8260
cis-1,3-Dichloropropene	0.25	SW846 8260
trans-1,2-Dichloroethene	0.30	SW846 8260
trans-1,3-Dichloropropene	0.25	SW846 8260
Aroclor-1016	0.0308 – 0.0416	SW846 8082
Aroclor-1221	0.0308 – 0.0416	SW846 8082
Aroclor-1232	0.0308 – 0.0416	SW846 8082
Aroclor-1242	0.0308 – 0.0416	SW846 8082
Aroclor-1248	0.0308 – 0.0416	SW846 8082
Aroclor-1254	0.0308 – 0.0416	SW846 8082
Aroclor-1260	0.0308 – 0.0416	SW846 8082

Refer to footnotes on page 45.

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Table TAG E-3
Summary of Nitrate plus Nitrite Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Sample Date	Nitrate plus Nitrite Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
PGS-2	06-Jul-06	0.895	0.014	0.050	10			079777-018	EPA 353.1
TA1-W-01	03-Aug-06	2.76	0.070	0.25	10			079812-018	EPA 353.1
TA1-W-02	15-Aug-06	1.05	0.014	0.050	10			079779-018	EPA 353.1
TA1-W-03	26-Jul-06	6.85	0.070	0.25	10	B		079803-018	EPA 353.1
TA1-W-04	20-Jul-06	1.78	0.014	0.050	10	B		079792-018	EPA 353.1
TA1-W-05	11-Jul-06	1.23	0.014	0.050	10			079782-018	EPA 353.1
TA1-W-06	10-Jul-06	2.89	0.070	0.25	10			079796-018	EPA 353.1
TA1-W-08	27-Jul-06	6.59	0.070	0.25	10			079807-018	EPA 353.1
TA1-W-08 (Re-analysis)	27-Jul-06	7.11	0.070	0.25	10	B, H	HT, J	079807-R18	EPA 353.1
TA1-W-08 (Duplicate)	27-Jul-06	1.23	0.014	0.050	10			079808-018	EPA 353.1
TA1-W-08 (Duplicate Re-analysis)	27-Jul-06	7.10	0.070	0.25	10	B, H	HT, J	079808-R18	EPA 353.1
TA2-NW1-595	13-Jul-06	3.13	0.014	0.050	10			079788-018	EPA 353.1
TA2-SW1-320	24-Oct-05	**25.2**	0.17	0.50	10			072270-018	EPA 353.1
	23-Jan-06	**25.2**	0.17	0.50	10			073689-018	EPA 353.1
	26-Apr-06	**25.5**	0.14	0.50	10			077284-018	EPA 353.1
	05-Jul-06	**28.8**	0.14	0.50	10			079775-018	EPA 353.1
TA2-SW1-320 (Duplicate)	26-Apr-06	**24.9**	0.14	0.50	10			077285-018	EPA 353.1
TA2-W-01	06-Jan-06	3.71	0.085	0.25	10			073700-018	EPA 353.1
	25-Jul-06	4.95	0.070	0.25	10	B		079801-018	EPA 353.1
TA2-W-19	31-Oct-05	8.60	0.17	0.50	10			072281-018	EPA 353.1
	16-Jan-06	**10.2**	0.17	0.50	10			073708-018	EPA 353.1
	03-May-06	8.93	0.14	0.50	10	B		077295-018	EPA 353.1
	08-Aug-06	9.31	0.070	0.25	10	B		079816-018	EPA 353.1
TA2-W-19 (Duplicate)	16-Jan-06	**10.2**	0.17	0.50	10			073709-018	EPA 353.1
TA2-W-26	25-Oct-05	3.48	0.17	0.50	10			072272-018	EPA 353.1
	09-Jan-06	4.35	0.017	0.050	10			073702-018	EPA 353.1
	27-Apr-06	4.42	0.14	0.50	10	B		077287-018	EPA 353.1
	02-Aug-06	4.89	0.070	0.25	10			079810-018	EPA 353.1
TA2-W-26 (Duplicate)	25-Oct-05	3.56	0.17	0.50	10			072273-018	EPA 353.1
TA2-W-27	05-Jan-06	3.91	0.17	0.50	10			073698-018	EPA 353.1
	17-Jul-06	3.75	0.070	0.25	10			079790-018	EPA 353.1

Refer to footnotes on page 45.

Table TAG E-3
Summary of Nitrate plus Nitrite Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Sample Date	Nitrate plus Nitrite Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TJA-2	28-Oct-05	9.36	0.17	0.50	10			072279-018	EPA 353.1
	13-Jan-06	**10.1**	0.17	0.50	10			073706-018	EPA 353.1
	28-Apr-06	8.80	0.14	0.50	10		B2 ,J	077293-018	EPA 353.1
	07-Aug-06	9.99	0.070	0.25	10	B		079814-018	EPA 353.1
TJA-3	04-Jan-06	2.69	0.017	0.050	10			073696-018	EPA 353.1
	24-Jul-06	2.98	0.014	0.050	10	B		079799-018	EPA 353.1
TJA-4	01-Nov-05	**28.0**	0.17	0.50	10			072284-018	EPA 353.1
	17-Jan-06	**29.0**	0.17	0.50	10			073711-018	EPA 353.1
	04-May-06	**28.9**	0.14	0.50	10	B		077297-018	EPA 353.1
	14-Aug-06	**27.5**	0.14	0.50	10			079822-018	EPA 353.1
TJA-4 (Duplicate)	14-Aug-06	**20.6**	0.14	0.50	10			079823-018	EPA 353.1
TJA-6	03-Jan-06	2.36	0.085	0.25	10			073693-018	EPA 353.1
	19-Jul-06	2.72	0.014	0.050	10			079794-018	EPA 353.1
TJA-6 (Duplicate)	03-Jan-06	2.63	0.017	0.050	10			073694-018	EPA 353.1
TJA-7	03-Nov-05	**25.4**	0.17	0.50	10			072286-018	EPA 353.1
	19-Jan-06	**26.1**	0.17	0.50	10		B2, J	073715-018	EPA 353.1
	09-May-06	**25.2**	0.14	0.50	10	B		077300-018	EPA 353.1
	10-Aug-06	**17.4**	0.70	2.5	10			079818-018	EPA 353.1
WYO-3	12-Jul-06	2.21	0.014	0.050	10			079786-018	EPA 353.1
WYO-4	27-Oct-05	2.92	0.017	0.050	10			072277-018	EPA 353.1
	12-Jan-06	2.67	0.085	0.25	10		B3, J	073704-018	EPA 353.1
	02-May-06	2.77	0.14	0.50	10			077289-018	EPA 353.1
	01-Aug-06	2.77	0.070	0.25	10			079805-018	EPA 353.1

Refer to footnotes on page 45.

Table TAG E-4
Summary of Anion Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
PGS-2	Bromide	0.194	0.066	0.200	NE	J		079777-016	SW846-9056
06-Jul-06	Chloride	13.2	0.066	0.200	NE	B		079777-016	SW846-9056
	Fluoride	0.180	0.033	0.100	4	B	B, B3, J	079777-016	SW846-9056
	Sulfate	60.9	1.0	4.0	NE	B		079777-016	SW846-9056
TA1-W-01	Bromide	0.196	0.066	0.200	NE	J		079812-016	SW846-9056
03-Aug-06	Chloride	15.7	0.066	0.200	NE			079812-016	SW846-9056
	Fluoride	0.450	0.033	0.100	4			079812-016	SW846-9056
	Sulfate	77.2	0.500	2.0	NE			079812-016	SW846-9056
TA1-W-02	Bromide	0.161	0.066	0.200	NE	J		079779-016	SW846-9056
15-Aug-06	Chloride	13.6	0.066	0.200	NE			079779-016	SW846-9056
	Fluoride	0.413	0.033	0.100	4			079779-016	SW846-9056
	Sulfate	77.9	0.500	2.0	NE			079779-016	SW846-9056
TA1-W-03	Bromide	3.10	0.066	0.200	NE			079803-016	SW846-9056
26-Jul-06	Chloride	243	1.32	4.0	NE			079803-016	SW846-9056
	Fluoride	0.253	0.033	0.100	4			079803-016	SW846-9056
	Sulfate	431	2.0	8.0	NE			079803-016	SW846-9056
TA1-W-04	Bromide	0.160	0.066	0.200	NE	J		079792-016	SW846-9056
20-Jul-06	Chloride	14.8	0.066	0.200	NE			079792-016	SW846-9056
	Fluoride	0.391	0.033	0.100	4			079792-016	SW846-9056
	Sulfate	54.8	1.0	4.0	NE			079792-016	SW846-9056
TA1-W-05	Bromide	0.161	0.066	0.200	NE	J		079782-016	SW846-9056
11-Jul-06	Chloride	10.4	0.066	0.200	NE	B		079782-016	SW846-9056
	Fluoride	0.315	0.033	0.100	4	B	B, B3, J	079782-016	SW846-9056
	Sulfate	92.2	1.0	4.0	NE	B		079782-016	SW846-9056
TA1-W-06	Bromide	1.21	0.066	0.200	NE			079796-016	SW846-9056
10-Jul-06	Chloride	94.3	0.660	2.0	NE	B		079796-016	SW846-9056
	Fluoride	0.331	0.033	0.100	4	B	B, B3, J	079796-016	SW846-9056
	Sulfate	189	1.0	4.0	NE	B		079796-016	SW846-9056
TA1-W-08	Bromide	2.46	0.066	0.200	NE			079807-016	SW846-9056
27-Jul-06	Chloride	201	1.32	4.0	NE			079807-016	SW846-9056
	Fluoride	0.277	0.033	0.100	4			079807-016	SW846-9056
	Sulfate	657	2.0	8.0	NE			079807-016	SW846-9056
TA2-NW1-595	Bromide	1.10	0.066	0.200	NE			079788-016	SW846-9056
13-Jul-06	Chloride	82.4	0.660	2.0	NE			079788-016	SW846-9056
	Fluoride	0.329	0.033	0.100	4			079788-016	SW846-9056
	Sulfate	107	1.0	4.0	NE			079788-016	SW846-9056

Refer to footnotes on page 45.

Table TAG E-4
Summary of Anion Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TA2-SW1-320 05-Jul-06	Bromide	0.421	0.066	0.200	NE			079775-016	SW846-9056
	Chloride	25.1	0.660	2.0	NE	B		079775-016	SW846-9056
	Fluoride	0.454	0.033	0.100	4	B		079775-016	SW846-9056
	Sulfate	13.5	0.100	0.400	NE	B		079775-016	SW846-9056
TA2-W-01 25-Jul-06	Bromide	1.45	0.066	0.200	NE			079801-016	SW846-9056
	Chloride	99.0	0.660	2.0	NE			079801-016	SW846-9056
	Fluoride	0.318	0.033	0.100	4			079801-016	SW846-9056
	Sulfate	44.0	1.0	4.0	NE			079801-016	SW846-9056
TA2-W-19 08-Aug-06	Bromide	0.970	0.066	0.200	NE			079816-016	SW846-9056
	Chloride	68.8	0.660	2.0	NE			079816-016	SW846-9056
	Fluoride	0.369	0.033	0.100	4			079816-016	SW846-9056
	Sulfate	57.5	1.0	4.0	NE			079816-016	SW846-9056
TA2-W-26 02-Aug-06	Bromide	1.88	0.066	0.200	NE			079810-016	SW846-9056
	Chloride	150	0.660	2.0	NE			079810-016	SW846-9056
	Fluoride	0.293	0.033	0.100	4			079810-016	SW846-9056
	Sulfate	284	1.0	4.0	NE			079810-016	SW846-9056
TA2-W-27 17-Jul-06	Bromide	1.52	0.066	0.200	NE			079790-016	SW846-9056
	Chloride	111	0.660	2.0	NE			079790-016	SW846-9056
	Fluoride	0.310	0.033	0.100	4			079790-016	SW846-9056
	Sulfate	145	1.0	4.0	NE			079790-016	SW846-9056
TJA-2 07-Aug-06	Bromide	0.991	0.066	0.200	NE			079814-016	SW846-9056
	Chloride	68.7	0.660	2.0	NE			079814-016	SW846-9056
	Fluoride	0.353	0.033	0.100	4			079814-016	SW846-9056
	Sulfate	52.9	1.0	4.0	NE			079814-016	SW846-9056
TJA-3 24-Jul-06	Bromide	0.174	0.066	0.200	NE	J		079799-016	SW846-9056
	Chloride	12.7	0.066	0.200	NE			079799-016	SW846-9056
	Fluoride	0.382	0.033	0.100	4			079799-016	SW846-9056
	Sulfate	67.2	1.0	4.0	NE			079799-016	SW846-9056
TJA-4 14-Aug-06	Bromide	0.378	0.066	0.200	NE	H	HT, J	079822-016	SW846-9056
	Chloride	18.9	0.132	0.400	NE			079822-016	SW846-9056
	Fluoride	0.416	0.033	0.100	4			079822-016	SW846-9056
	Sulfate	17.5	0.100	0.400	NE			079822-016	SW846-9056
TJA-6 19-Jul-06	Bromide	0.168	0.066	0.200	NE	J		079794-016	SW846-9056
	Chloride	14.5	0.066	0.200	NE			079794-016	SW846-9056
	Fluoride	0.404	0.033	0.100	4			079794-016	SW846-9056
	Sulfate	57.3	1.0	4.0	NE			079794-016	SW846-9056

Refer to footnotes on page 45.

Table TAG E-4 (Concluded)
Summary of Anion Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TJA-7	Bromide	0.452	0.066	0.200	NE			079818-016	SW846-9056
10-Aug-06	Chloride	27.3	0.132	0.400	NE			079818-016	SW846-9056
	Fluoride	0.391	0.033	0.100	4			079818-016	SW846-9056
	Sulfate	17.9	0.100	0.400	NE			079818-016	SW846-9056
WYO-3	Bromide	0.166	0.066	0.200	NE	J		079786-016	SW846-9056
12-Jul-06	Chloride	14.3	0.066	0.200	NE			079786-016	SW846-9056
	Fluoride	0.423	0.033	0.100	4			079786-016	SW846-9056
	Sulfate	79.1	1.0	4.0	NE			079786-016	SW846-9056
WYO-4	Bromide	1.21	0.066	0.200	NE			079805-016	SW846-9056
01-Aug-06	Chloride	102	0.660	2.00	NE			079805-016	SW846-9056
	Fluoride	0.379	0.033	0.100	4			079805-016	SW846-9056
	Sulfate	43.3	1.0	4.0	NE			079805-016	SW846-9056

Refer to footnotes on page 45.

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Table TAG E-5
Summary of Total Metal Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
PGS-2 06-Jul-06	Aluminum	0.0113	0.005	0.015	NE	B, J	B, J	079777-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	U		079777-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		079777-009	SW846 3005
	Barium	0.0573	0.0005	0.002	2			079777-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		079777-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		079777-009	SW846 3005
	Calcium	47.7	0.02	0.1	NE	B		079777-009	SW846 3005
	Chromium	ND	0.001	0.003	0.1	U		079777-009	SW846 3005
	Cobalt	ND	0.0001	0.001	NE	U		079777-009	SW846 3005
	Copper	0.000554	0.0002	0.001	NE	J		079777-009	SW846 3005
	Iron	0.196	0.01	0.025	NE			079777-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		079777-009	SW846 3005
	Magnesium	10.2	0.025	0.075	NE			079777-009	SW846 3005
	Manganese	ND	0.001	0.005	NE	U		079777-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U		079777-009	SW846 7470
	Nickel	0.0101	0.0005	0.002	NE			079777-009	SW846 3005
	Potassium	2.61	0.08	0.3	NE			079777-009	SW846 3005
	Selenium	ND	0.0025	0.005	0.05	U		079777-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		079777-009	SW846 3005
	Sodium	26.4	0.08	0.25	NE			079777-009	SW846 3005
	Thallium	0.000832	0.0004	0.001	0.002	J	B3, J	079777-009	SW846 3005
	Vanadium	0.00419	0.002	0.03	NE	J		079777-009	SW846 3005
	Zinc	0.00401	0.002	0.01	NE	B, J	B, J	079777-009	SW846 3005

Refer to footnotes on page 45.

Table TAG E-5
Summary of Total Metal Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TA1-W-01 03-Aug-06	Aluminum	0.00814	0.005	0.015	NE	B, J	B, J	079812-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	B, U		079812-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	B, U		079812-009	SW846 3005
	Barium	0.0433	0.0005	0.002	2			079812-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		079812-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		079812-009	SW846 3005
	Calcium	65.0	0.2	1.0	NE		J	079812-009	SW846 3005
	Chromium	0.00135	0.001	0.003	0.1	B, J	B, J	079812-009	SW846 3005
	Cobalt	0.000131	0.0001	0.001	NE	J		079812-009	SW846 3005
	Copper	0.000946	0.0002	0.001	NE	J		079812-009	SW846 3005
	Iron	0.291	0.01	0.025	NE			079812-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		079812-009	SW846 3005
	Magnesium	10.9	0.005	0.015	NE			079812-009	SW846 3005
	Manganese	ND	0.001	0.005	NE	U		079812-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U		079812-009	SW846 7470
	Nickel	0.00141	0.0005	0.002	NE	J		079812-009	SW846 3005
	Potassium	2.24	0.08	0.3	NE			079812-009	SW846 3005
	Selenium	ND	0.0025	0.005	0.05	U		079812-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		079812-009	SW846 3005
	Sodium	25.6	0.08	0.25	NE		J	079812-009	SW846 3005
	Thallium	ND	0.0004	0.001	0.002	U		079812-009	SW846 3005
	Vanadium	0.00269	0.002	0.03	NE	J		079812-009	SW846 3005
	Zinc	0.00314	0.002	0.01	NE	B, J	B, J	079812-009	SW846 3005

Refer to footnotes on page 45.

Table TAG E-5
Summary of Total Metal Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TA1-W-02 15-Aug-06	Aluminum	0.0708	0.005	0.015	NE			079779-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	B, U		079779-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		079779-009	SW846 3005
	Barium	0.0453	0.0005	0.002	2			079779-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		079779-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		079779-009	SW846 3005
	Calcium	69.3	0.1	0.5	NE	B		079779-009	SW846 3005
	Chromium	0.00184	0.001	0.003	0.1	B, J	B, J	079779-009	SW846 3005
	Cobalt	0.000141	0.0001	0.001	NE	J		079779-009	SW846 3005
	Copper	0.00109	0.0002	0.001	NE	B	B, J	079779-009	SW846 3005
	Iron	0.407	0.01	0.025	NE			079779-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		079779-009	SW846 3005
	Magnesium	11.5	0.005	0.015	NE			079779-009	SW846 3005
	Manganese	0.00265	0.001	0.005	NE	J		079779-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U	B3, UJ	079779-009	SW846 7470
	Nickel	0.00194	0.0005	0.002	NE	J		079779-009	SW846 3005
	Potassium	2.11	0.08	0.3	NE	B		079779-009	SW846 3005
	Selenium	ND	0.0025	0.005	0.05	U		079779-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	B, U		079779-009	SW846 3005
	Sodium	22.9	0.08	0.25	NE			079779-009	SW846 3005
	Thallium	ND	0.0004	0.001	0.002	U		079779-009	SW846 3005
	Vanadium	0.00422	0.002	0.03	NE	J		079779-009	SW846 3005
	Zinc	0.00755	0.002	0.01	NE	B, J	B, J	079779-009	SW846 3005

Refer to footnotes on page 45.

Table TAG E-5
Summary of Total Metal Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TA1-W-03 26-Jul-06	Aluminum	0.0249	0.005	0.015	NE	B	B, J	079803-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	B, U		079803-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		079803-009	SW846 3005
	Barium	0.0273	0.0005	0.002	2			079803-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		079803-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		079803-009	SW846 3005
	Calcium	295	0.2	1.0	NE	B		079803-009	SW846 3005
	Chromium	0.00166	0.001	0.003	0.1	B, J	B, J	079803-009	SW846 3005
	Cobalt	0.000486	0.0001	0.001	NE	J		079803-009	SW846 3005
	Copper	0.00179	0.0002	0.001	NE			079803-009	SW846 3005
	Iron	1.20	0.01	0.025	NE	B		079803-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		079803-009	SW846 3005
	Magnesium	29.5	0.005	0.015	NE			079803-009	SW846 3005
	Manganese	ND	0.001	0.005	NE	U		079803-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U		079803-009	SW846 7470
	Nickel	0.00599	0.0005	0.002	NE			079803-009	SW846 3005
	Potassium	2.58	0.08	0.3	NE			079803-009	SW846 3005
	Selenium	0.0294	0.0025	0.005	0.05			079803-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		079803-009	SW846 3005
	Sodium	47.0	0.08	0.25	NE			079803-009	SW846 3005
	Thallium	0.000498	0.0004	0.001	0.002	J		079803-009	SW846 3005
	Vanadium	0.00303	0.002	0.03	NE	J		079803-009	SW846 3005
	Zinc	0.00506	0.002	0.01	NE	B, J	B, J	079803-009	SW846 3005

Refer to footnotes on page 45.

Table TAG E-5
Summary of Total Metal Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TA1-W-04 20-Jul-06	Aluminum	0.0206	0.005	0.015	NE	B	B, J	079792-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	B, U		079792-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		079792-009	SW846 3005
	Barium	0.0462	0.0005	0.002	2			079792-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		079792-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		079792-009	SW846 3005
	Calcium	61.5	0.1	0.5	NE	B		079792-009	SW846 3005
	Chromium	0.00124	0.001	0.003	0.1	J		079792-009	SW846 3005
	Cobalt	0.000153	0.0001	0.001	NE	J		079792-009	SW846 3005
	Copper	0.000755	0.0002	0.001	NE	J		079792-009	SW846 3005
	Iron	0.341	0.01	0.025	NE			079792-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		079792-009	SW846 3005
	Magnesium	10.3	0.005	0.015	NE			079792-009	SW846 3005
	Manganese	ND	0.001	0.005	NE	U		079792-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U		079792-009	SW846 7470
	Nickel	0.00189	0.0005	0.002	NE	J		079792-009	SW846 3005
	Potassium	2.07	0.08	0.3	NE			079792-009	SW846 3005
	Selenium	ND	0.0025	0.005	0.05	U		079792-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		079792-009	SW846 3005
	Sodium	22.3	0.08	0.25	NE			079792-009	SW846 3005
	Thallium	0.000668	0.0004	0.001	0.002	J	B3, J	079792-009	SW846 3005
	Vanadium	0.00293	0.002	0.03	NE	J		079792-009	SW846 3005
	Zinc	0.00361	0.002	0.01	NE	B, J	B, J	079792-009	SW846 3005

Refer to footnotes on page 45.

Table TAG E-5
Summary of Total Metal Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TA1-W-05 11-Jul-06	Aluminum	0.00538	0.005	0.015	NE	B, J		079782-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	U		079782-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		079782-009	SW846 3005
	Barium	0.0345	0.0005	0.002	2	B		079782-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		079782-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		079782-009	SW846 3005
	Calcium	79.1	0.1	0.5	NE	B		079782-009	SW846 3005
	Chromium	ND	0.001	0.003	0.1	U		079782-009	SW846 3005
	Cobalt	0.000224	0.0001	0.001	NE	B, J		079782-009	SW846 3005
	Copper	0.000977	0.0002	0.001	NE	B, J		079782-009	SW846 3005
	Iron	0.351	0.01	0.025	NE	B		079782-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		079782-009	SW846 3005
	Magnesium	10.5	0.005	0.015	NE	B		079782-009	SW846 3005
	Manganese	ND	0.001	0.005	NE	U		079782-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U	B3, UJ	079782-009	SW846 7470
	Nickel	0.00182	0.0005	0.002	NE	B, J		079782-009	SW846 3005
	Potassium	2.01	0.08	0.3	NE	B		079782-009	SW846 3005
	Selenium	ND	0.0025	0.005	0.05	U		079782-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		079782-009	SW846 3005
	Sodium	28.3	0.08	0.25	NE	B		079782-009	SW846 3005
	Thallium	0.000867	0.0004	0.001	0.002	B, J	B3, J	079782-009	SW846 3005
	Vanadium	ND	0.002	0.03	NE	U		079782-009	SW846 3005
	Zinc	0.00295	0.002	0.01	NE	B, J		079782-009	SW846 3005

Refer to footnotes on page 45.

Table TAG E-5
Summary of Total Metal Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TA1-W-06 10-Jul-06	Aluminum	0.00516	0.005	0.015	NE	B, J	B, J	079796-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	U		079796-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		079796-009	SW846 3005
	Barium	0.0252	0.0005	0.002	2			079796-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		079796-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		079796-009	SW846 3005
	Calcium	128	0.2	1.0	NE	B		079796-009	SW846 3005
	Chromium	0.00131	0.001	0.003	0.1	J		079796-009	SW846 3005
	Cobalt	0.000259	0.0001	0.001	NE	J		079796-009	SW846 3005
	Copper	0.00102	0.0002	0.001	NE			079796-009	SW846 3005
	Iron	0.467	0.01	0.025	NE	B		079796-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		079796-009	SW846 3005
	Magnesium	14.8	0.005	0.015	NE			079796-009	SW846 3005
	Manganese	ND	0.001	0.005	NE	U		079796-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U	B3, UJ	079796-009	SW846 7470
	Nickel	0.00226	0.0005	0.002	NE			079796-009	SW846 3005
	Potassium	1.85	0.08	0.3	NE			079796-009	SW846 3005
	Selenium	0.00775	0.0025	0.005	0.05			079796-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		079796-009	SW846 3005
	Sodium	28.9	0.08	0.25	NE			079796-009	SW846 3005
	Thallium	0.000732	0.0004	0.001	0.002	J	B3, J	079796-009	SW846 3005
	Vanadium	ND	0.002	0.03	NE	U		079796-009	SW846 3005
	Zinc	0.00306	0.002	0.01	NE	B, J	B, J	079796-009	SW846 3005

Refer to footnotes on page 45.

Table TAG E-5
Summary of Total Metal Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TA1-W-08 27-Jul-06	Aluminum	0.0191	0.005	0.015	NE			079807-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	U		079807-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		079807-009	SW846 3005
	Barium	0.0224	0.0005	0.002	2			079807-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		079807-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		079807-009	SW846 3005
	Calcium	321	0.2	1.0	NE	B		079807-009	SW846 3005
	Chromium	0.00284	0.001	0.003	0.1	J		079807-009	SW846 3005
	Cobalt	0.000586	0.0001	0.001	NE	J		079807-009	SW846 3005
	Copper	0.00283	0.0002	0.001	NE			079807-009	SW846 3005
	Iron	1.70	0.01	0.025	NE			079807-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		079807-009	SW846 3005
	Magnesium	38.6	0.005	0.015	NE			079807-009	SW846 3005
	Manganese	ND	0.001	0.005	NE	U		079807-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U	B3, UJ	079807-009	SW846 7470
	Nickel	0.00617	0.0005	0.002	NE			079807-009	SW846 3005
	Potassium	3.02	0.08	0.3	NE			079807-009	SW846 3005
	Selenium	0.0241	0.0025	0.005	0.05			079807-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		079807-009	SW846 3005
	Sodium	69.9	0.8	2.5	NE			079807-009	SW846 3005
	Thallium	0.000486	0.0004	0.001	0.002	J		079807-009	SW846 3005
	Vanadium	ND	0.002	0.03	NE	U		079807-009	SW846 3005
	Zinc	0.00483	0.002	0.01	NE	J		079807-009	SW846 3005

Refer to footnotes on page 45.

Table TAG E-5
Summary of Total Metal Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TA2-NW1-595 13-Jul-06	Aluminum	ND	0.005	0.015	NE	U		079788-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	B, U		079788-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		079788-009	SW846 3005
	Barium	0.0437	0.0005	0.002	2			079788-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		079788-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		079788-009	SW846 3005
	Calcium	104	0.4	2.0	NE	B		079788-009	SW846 3005
	Chromium	0.00261	0.001	0.003	0.1	B, J	B, J	079788-009	SW846 3005
	Cobalt	0.000195	0.0001	0.001	NE	J		079788-009	SW846 3005
	Copper	0.00117	0.0002	0.001	NE			079788-009	SW846 3005
	Iron	0.449	0.01	0.025	NE			079788-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		079788-009	SW846 3005
	Magnesium	17.1	0.05	0.15	NE			079788-009	SW846 3005
	Manganese	ND	0.001	0.005	NE	U		079788-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U	B3, UJ	079788-009	SW846 7470
	Nickel	0.00158	0.0005	0.002	NE	J		079788-009	SW846 3005
	Potassium	2.09	0.08	0.3	NE			079788-009	SW846 3005
	Selenium	0.00599	0.0025	0.005	0.05			079788-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		079788-009	SW846 3005
	Sodium	29.8	0.8	2.5	NE			079788-009	SW846 3005
	Thallium	ND	0.0004	0.001	0.002	U		079788-009	SW846 3005
	Vanadium	ND	0.002	0.03	NE	U		079788-009	SW846 3005
	Zinc	0.00352	0.002	0.01	NE	J		079788-009	SW846 3005

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Table TAG E-5
Summary of Total Metal Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TA2-SW1-320 05-Jul-06	Aluminum	0.222	0.005	0.015	NE			079775-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	U		079775-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		079775-009	SW846 3005
	Barium	0.204	0.0005	0.002	2			079775-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		079775-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		079775-009	SW846 3005
	Calcium	60.8	0.1	0.5	NE	B		079775-009	SW846 3005
	Chromium	0.00181	0.001	0.003	0.1	J		079775-009	SW846 3005
	Cobalt	0.000179	0.0001	0.001	NE	J		079775-009	SW846 3005
	Copper	0.000507	0.0002	0.001	NE	J		079775-009	SW846 3005
	Iron	0.412	0.01	0.025	NE			079775-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		079775-009	SW846 3005
	Magnesium	11.0	0.005	0.015	NE			079775-009	SW846 3005
	Manganese	0.0046	0.001	0.005	NE	J		079775-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U		079775-009	SW846 7470
	Nickel	0.00105	0.0005	0.002	NE	J		079775-009	SW846 3005
	Potassium	1.66	0.08	0.3	NE			079775-009	SW846 3005
	Selenium	0.0027	0.0025	0.005	0.05	J		079775-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		079775-009	SW846 3005
	Sodium	17.3	0.08	0.25	NE			079775-009	SW846 3005
	Thallium	0.000572	0.0004	0.001	0.002	J		079775-009	SW846 3005
	Vanadium	0.00545	0.002	0.03	NE	J		079775-009	SW846 3005
	Zinc	0.0024	0.002	0.01	NE	J		079775-009	SW846 3005

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Table TAG E-5
Summary of Total Metal Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TA2-W-01 25-Jul-06	Aluminum	0.036	0.005	0.015	NE			079801-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	B, U		079801-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		079801-009	SW846 3005
	Barium	0.143	0.0005	0.002	2			079801-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		079801-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		079801-009	SW846 3005
	Calcium	81.3	0.1	0.5	NE	B		079801-009	SW846 3005
	Chromium	0.00155	0.001	0.003	0.1	B, J	B, J	079801-009	SW846 3005
	Cobalt	0.000179	0.0001	0.001	NE	J		079801-009	SW846 3005
	Copper	0.000594	0.0002	0.001	NE	J		079801-009	SW846 3005
	Iron	0.400	0.01	0.025	NE			079801-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		079801-009	SW846 3005
	Magnesium	11.6	0.005	0.015	NE			079801-009	SW846 3005
	Manganese	0.00277	0.001	0.005	NE	J		079801-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U		079801-009	SW846 7470
	Nickel	0.00171	0.0005	0.002	NE	J		079801-009	SW846 3005
	Potassium	1.68	0.08	0.3	NE			079801-009	SW846 3005
	Selenium	0.00643	0.0025	0.005	0.05			079801-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		079801-009	SW846 3005
	Sodium	19.1	0.08	0.25	NE			079801-009	SW846 3005
	Thallium	0.000738	0.0004	0.001	0.002	J		079801-009	SW846 3005
	Vanadium	0.00322	0.002	0.03	NE	J	B3, J	079801-009	SW846 3005
	Zinc	0.0035	0.002	0.01	NE	B, J	B, J	079801-009	SW846 3005

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Table TAG E-5
Summary of Total Metal Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TA2-W-19 08-Aug-06	Aluminum	ND	0.005	0.015	NE	U		079816-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	B, U		079816-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		079816-009	SW846 3005
	Barium	0.0436	0.0005	0.002	2			079816-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		079816-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		079816-009	SW846 3005
	Calcium	79.9	0.1	0.5	NE	B		079816-009	SW846 3005
	Chromium	0.00189	0.001	0.003	0.1	B, J	B, J	079816-009	SW846 3005
	Cobalt	0.000188	0.0001	0.001	NE	B, J	B, J	079816-009	SW846 3005
	Copper	0.000748	0.0002	0.001	NE	J		079816-009	SW846 3005
	Iron	0.361	0.01	0.025	NE			079816-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		079816-009	SW846 3005
	Magnesium	10.5	0.005	0.015	NE	B		079816-009	SW846 3005
	Manganese	ND	0.001	0.005	NE	U		079816-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U		079816-009	SW846 7470
	Nickel	0.00108	0.0005	0.002	NE	J		079816-009	SW846 3005
	Potassium	1.70	0.08	0.3	NE			079816-009	SW846 3005
	Selenium	0.00402	0.0025	0.005	0.05	J		079816-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		079816-009	SW846 3005
	Sodium	20.3	0.08	0.25	NE			079816-009	SW846 3005
	Thallium	ND	0.0004	0.001	0.002	U		079816-009	SW846 3005
	Vanadium	0.00609	0.002	0.03	NE	J		079816-009	SW846 3005
	Zinc	ND	0.002	0.01	NE	U		079816-009	SW846 3005

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Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TA2-W-26 02-Aug-06	Aluminum	0.0207	0.005	0.015	NE	B	B, J	079810-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	B, U		079810-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	B, U		079810-009	SW846 3005
	Barium	0.067	0.0005	0.002	2			079810-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		079810-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		079810-009	SW846 3005
	Calcium	182	0.2	1.0	NE		J	079810-009	SW846 3005
	Chromium	0.00154	0.001	0.003	0.1	B, J	B, J	079810-009	SW846 3005
	Cobalt	0.000315	0.0001	0.001	NE	J		079810-009	SW846 3005
	Copper	0.00129	0.0002	0.001	NE			079810-009	SW846 3005
	Iron	0.819	0.01	0.025	NE			079810-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		079810-009	SW846 3005
	Magnesium	21.2	0.005	0.015	NE			079810-009	SW846 3005
	Manganese	ND	0.001	0.005	NE	U		079810-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U		079810-009	SW846 7470
	Nickel	0.00356	0.0005	0.002	NE			079810-009	SW846 3005
	Potassium	2.38	0.08	0.3	NE			079810-009	SW846 3005
	Selenium	0.0131	0.0025	0.005	0.05			079810-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		079810-009	SW846 3005
	Sodium	35.2	0.08	0.25	NE		J	079810-009	SW846 3005
	Thallium	0.000613	0.0004	0.001	0.002	J		079810-009	SW846 3005
	Vanadium	ND	0.002	0.03	NE	U		079810-009	SW846 3005
	Zinc	0.00328	0.002	0.01	NE	B, J	B, J	079810-009	SW846 3005

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Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TA2-W-27 17-Jul-06	Aluminum	0.00863	0.005	0.015	NE	J		079790-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	U		079790-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		079790-009	SW846 3005
	Barium	0.0614	0.0005	0.002	2			079790-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		079790-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		079790-009	SW846 3005
	Calcium	107	0.1	0.5	NE			079790-009	SW846 3005
	Chromium	ND	0.001	0.003	0.1	U		079790-009	SW846 3005
	Cobalt	0.000179	0.0001	0.001	NE	J		079790-009	SW846 3005
	Copper	0.000801	0.0002	0.001	NE	J		079790-009	SW846 3005
	Iron	0.594	0.01	0.025	NE			079790-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		079790-009	SW846 3005
	Magnesium	15.7	0.005	0.015	NE			079790-009	SW846 3005
	Manganese	ND	0.001	0.005	NE	U		079790-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U		079790-009	SW846 7470
	Nickel	0.00258	0.0005	0.002	NE			079790-009	SW846 3005
	Potassium	1.91	0.08	0.3	NE			079790-009	SW846 3005
	Selenium	0.00773	0.0025	0.005	0.05			079790-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		079790-009	SW846 3005
	Sodium	25.3	0.08	0.25	NE			079790-009	SW846 3005
	Thallium	0.000661	0.0004	0.001	0.002	J	B3, J	079790-009	SW846 3005
	Vanadium	0.0042	0.002	0.03	NE	J		079790-009	SW846 3005
	Zinc	0.00349	0.002	0.01	NE	B, J	B, J	079790-009	SW846 3005

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Summary of Total Metal Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TJA-2 07-Aug-06	**Aluminum**	**0.00885**	**0.005**	**0.015**	**NE**	**J**		**079814-009**	**SW846 3005**
	Antimony	ND	0.0005	0.002	0.006	B, U		079814-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		079814-009	SW846 3005
	Barium	0.0433	0.0005	0.002	2			079814-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		079814-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		079814-009	SW846 3005
	Calcium	78.2	0.1	0.5	NE	B		079814-009	SW846 3005
	Chromium	0.00227	0.001	0.003	0.1	B, J	B, J	079814-009	SW846 3005
	Cobalt	0.000203	0.0001	0.001	NE	B, J	B, J	079814-009	SW846 3005
	Copper	0.00103	0.0002	0.001	NE			079814-009	SW846 3005
	Iron	0.361	0.01	0.025	NE			079814-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		079814-009	SW846 3005
	Magnesium	10.2	0.005	0.015	NE	B		079814-009	SW846 3005
	Manganese	ND	0.001	0.005	NE	U		079814-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U		079814-009	SW846 7470
	Nickel	0.00137	0.0005	0.002	NE	J		079814-009	SW846 3005
	Potassium	1.71	0.08	0.3	NE			079814-009	SW846 3005
	Selenium	0.00452	0.0025	0.005	0.05	J		079814-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		079814-009	SW846 3005
	Sodium	20.5	0.08	0.25	NE			079814-009	SW846 3005
	Thallium	ND	0.0004	0.001	0.002	U		079814-009	SW846 3005
	Vanadium	0.00545	0.002	0.03	NE	J		079814-009	SW846 3005
	Zinc	0.00324	0.002	0.01	NE	J		079814-009	SW846 3005

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Table TAG E-5
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Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TJA-3 24-Jul-06	Aluminum	0.00624	0.005	0.015	NE	J		079799-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	U		079799-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		079799-009	SW846 3005
	Barium	0.0409	0.0005	0.002	2			079799-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		079799-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		079799-009	SW846 3005
	Calcium	63.2	0.1	0.5	NE	B		079799-009	SW846 3005
	Chromium	0.00224	0.001	0.003	0.1	B, J	B, J	079799-009	SW846 3005
	Cobalt	0.000114	0.0001	0.001	NE	J		079799-009	SW846 3005
	Copper	0.000482	0.0002	0.001	NE	J		079799-009	SW846 3005
	Iron	0.236	0.01	0.025	NE			079799-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		079799-009	SW846 3005
	Magnesium	10.7	0.005	0.015	NE			079799-009	SW846 3005
	Manganese	ND	0.001	0.005	NE	U		079799-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U		079799-009	SW846 7470
	Nickel	0.00109	0.0005	0.002	NE	J		079799-009	SW846 3005
	Potassium	1.62	0.08	0.3	NE			079799-009	SW846 3005
	Selenium	ND	0.0025	0.005	0.05	U		079799-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		079799-009	SW846 3005
	Sodium	24.3	0.08	0.25	NE			079799-009	SW846 3005
	Thallium	0.000722	0.0004	0.001	0.002	J		079799-009	SW846 3005
	Vanadium	ND	0.002	0.03	NE	U		079799-009	SW846 3005
	Zinc	0.00338	0.002	0.01	NE	B, J	B, J	079799-009	SW846 3005

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Table TAG E-5
Summary of Total Metal Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TJA-4 14-Aug-06	Aluminum	ND	0.005	0.015	NE	U		079822-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	B, U		079822-009	SW846 3005
	Arsenic	0.00157	0.0015	0.005	0.01	J		079822-009	SW846 3005
	Barium	0.162	0.0005	0.002	2			079822-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		079822-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		079822-009	SW846 3005
	Calcium	66.5	0.1	0.5	NE			079822-009	SW846 3005
	Chromium	0.00141	0.001	0.003	0.1	J		079822-009	SW846 3005
	Cobalt	0.000297	0.0001	0.001	NE	J		079822-009	SW846 3005
	Copper	0.00102	0.0002	0.001	NE	B	B, J	079822-009	SW846 3005
	Iron	0.323	0.01	0.025	NE			079822-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		079822-009	SW846 3005
	Magnesium	12.3	0.005	0.015	NE			079822-009	SW846 3005
	Manganese	ND	0.001	0.005	NE	U		079822-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U		079822-009	SW846 7470
	Nickel	0.00161	0.0005	0.002	NE	J		079822-009	SW846 3005
	Potassium	3.18	0.08	0.3	NE			079822-009	SW846 3005
	Selenium	0.00275	0.0025	0.005	0.05	J		079822-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		079822-009	SW846 3005
	Sodium	23.1	0.08	0.25	NE		J	079822-009	SW846 3005
	Thallium	0.000458	0.0004	0.001	0.002	J	B3, J	079822-009	SW846 3005
	Vanadium	0.00373	0.002	0.03	NE	J		079822-009	SW846 3005
	Zinc	0.00713	0.002	0.01	NE	B, J	B, J	079822-009	SW846 3005

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Table TAG E-5
Summary of Total Metal Results
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Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TJA-6 19-Jul-06	Aluminum	0.766	0.005	0.015	NE	B		079794-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	B, U		079794-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		079794-009	SW846 3005
	Barium	0.0743	0.0005	0.002	2			079794-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		079794-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		079794-009	SW846 3005
	Calcium	59.8	0.1	0.5	NE	B		079794-009	SW846 3005
	Chromium	0.00159	0.001	0.003	0.1	J		079794-009	SW846 3005
	Cobalt	0.000328	0.0001	0.001	NE	J		079794-009	SW846 3005
	Copper	0.00156	0.0002	0.001	NE			079794-009	SW846 3005
	Iron	0.811	0.01	0.025	NE			079794-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		079794-009	SW846 3005
	Magnesium	11.8	0.005	0.015	NE			079794-009	SW846 3005
	Manganese	0.0204	0.001	0.005	NE			079794-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U		079794-009	SW846 7470
	Nickel	0.00156	0.0005	0.002	NE	J		079794-009	SW846 3005
	Potassium	2.19	0.08	0.3	NE			079794-009	SW846 3005
	Selenium	ND	0.0025	0.005	0.05	U		079794-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		079794-009	SW846 3005
	Sodium	23.1	0.08	0.25	NE			079794-009	SW846 3005
	Thallium	0.000614	0.0004	0.001	0.002	J		079794-009	SW846 3005
	Vanadium	0.00417	0.002	0.03	NE	J		079794-009	SW846 3005
	Zinc	0.00502	0.002	0.01	NE	B, J	B, J	079794-009	SW846 3005

Refer to footnotes on page 45.

Table TAG E-5
Summary of Total Metal Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TJA-7 10-Aug-06	Aluminum	0.0385	0.005	0.015	NE			079818-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	U		079818-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		079818-009	SW846 3005
	Barium	0.221	0.0005	0.002	2			079818-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		079818-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		079818-009	SW846 3005
	Calcium	65.7	0.1	0.5	NE			079818-009	SW846 3005
	Chromium	ND	0.001	0.003	0.1	U		079818-009	SW846 3005
	Cobalt	0.000322	0.0001	0.001	NE	J		079818-009	SW846 3005
	Copper	0.000539	0.0002	0.001	NE	J		079818-009	SW846 3005
	Iron	0.311	0.01	0.025	NE	B		079818-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		079818-009	SW846 3005
	Magnesium	12.4	0.005	0.015	NE			079818-009	SW846 3005
	Manganese	0.00103	0.001	0.005	NE	J		079818-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U		079818-009	SW846 7470
	Nickel	0.00135	0.0005	0.002	NE	J		079818-009	SW846 3005
	Potassium	1.71	0.08	0.3	NE			079818-009	SW846 3005
	Selenium	0.00437	0.0025	0.005	0.05	J		079818-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		079818-009	SW846 3005
	Sodium	17.8	0.08	0.25	NE			079818-009	SW846 3005
	Thallium	0.000691	0.0004	0.001	0.002	J		079818-009	SW846 3005
	Vanadium	0.00292	0.002	0.03	NE	J		079818-009	SW846 3005
	Zinc	0.0034	0.002	0.01	NE	B, J	B, J	079818-009	SW846 3005

Refer to footnotes on page 45.

Table TAG E-5
Summary of Total Metal Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
WYO-3 12-Jul-06	Aluminum	2.85	0.005	0.015	NE	B		079786-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	U		079786-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		079786-009	SW846 3005
	Barium	0.0748	0.0005	0.002	2			079786-009	SW846 3005
	Beryllium	0.000118	0.0001	0.0005	0.004	J		079786-009	SW846 3005
	Cadmium	0.000108	0.0001	0.001	0.005	J		079786-009	SW846 3005
	Calcium	76.7	0.2	1.0	NE	B		079786-009	SW846 3005
	Chromium	0.00301	0.001	0.003	0.1			079786-009	SW846 3005
	Cobalt	0.00063	0.0001	0.001	NE	J		079786-009	SW846 3005
	Copper	0.00213	0.0002	0.001	NE	B		079786-009	SW846 3005
	Iron	1.89	0.01	0.025	NE			079786-009	SW846 3005
	Lead	0.00163	0.0005	0.002	NE	J		079786-009	SW846 3005
	Magnesium	12.9	0.005	0.015	NE		J	079786-009	SW846 3005
	Manganese	0.0391	0.001	0.005	NE			079786-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U	B3, UJ	079786-009	SW846 7470
	Nickel	0.00255	0.0005	0.002	NE			079786-009	SW846 3005
	Potassium	2.66	0.08	0.3	NE			079786-009	SW846 3005
	Selenium	ND	0.0025	0.005	0.05	U		079786-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		079786-009	SW846 3005
	Sodium	25.4	0.08	0.25	NE			079786-009	SW846 3005
	Thallium	0.000622	0.0004	0.001	0.002	J		079786-009	SW846 3005
	Vanadium	0.00733	0.002	0.03	NE	J	A2, J	079786-009	SW846 3005
	Zinc	0.0159	0.002	0.01	NE	B		079786-009	SW846 3005

Refer to footnotes on page 45.

Table TAG E-5 (Concluded)
Summary of Total Metal Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
WYO-4 01-Aug-06	Aluminum	0.0303	0.005	0.015	NE	B		079805-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	U		079805-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		079805-009	SW846 3005
	Barium	0.172	0.0005	0.002	2			079805-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		079805-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		079805-009	SW846 3005
	Calcium	77.2	0.2	1.0	NE	B		079805-009	SW846 3005
	Chromium	0.00215	0.001	0.003	0.1	B, J	B, J	079805-009	SW846 3005
	Cobalt	0.0002	0.0001	0.001	NE	J		079805-009	SW846 3005
	Copper	0.000659	0.0002	0.001	NE	J		079805-009	SW846 3005
	Iron	0.298	0.01	0.025	NE			079805-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		079805-009	SW846 3005
	Magnesium	13.3	0.005	0.015	NE			079805-009	SW846 3005
	Manganese	ND	0.001	0.005	NE	U		079805-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U		079805-009	SW846 7470
	Nickel	0.00194	0.0005	0.002	NE	J		079805-009	SW846 3005
	Potassium	1.72	0.08	0.3	NE			079805-009	SW846 3005
	Selenium	0.00439	0.0025	0.005	0.05	J		079805-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		079805-009	SW846 3005
	Sodium	19.2	0.08	0.25	NE			079805-009	SW846 3005
	Thallium	0.000515	0.0004	0.001	0.002	J		079805-009	SW846 3005
	Vanadium	ND	0.002	0.03	NE	U		079805-009	SW846 3005
	Zinc	0.0038	0.002	0.01	NE	B, J	B, J	079805-009	SW846 3005

Refer to footnotes on page 45.

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Table TAG E-6
Summary of Tritium, Gross Alpha, Gross Beta, and Gamma Spectroscopy Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Activity[a] (pCi/L)	MDA[h] (pCi/L)	Critical Level[b] (pCi/L)	MCL[d] (pCi/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
PGS-2 06-Jul-06	Tritium	-88 ± 153	242	117	NE	U		079777-036	EPA 906.0 M
	Gross Alpha	1.68 ± 0.888	0.878	0.386	15			079777-034	EPA 900.0
	Gross Beta	4.22 ± 1.64	2.58	1.25	4mrem/yr			079777-034	EPA 900.0
	Americium-241	-25.4 ± 11.0	18.2	8.87	NE	U		079777-033	EPA 901.1
	Cesium-137	0.929 ± 4.31	3.40	1.61	NE	U		079777-033	EPA 901.1
	Cobalt-60	-1.04 ± 2.09	3.51	1.62	NE	U		079777-033	EPA 901.1
	Potassium-40	77.1 ± 26.2	77.1	26.4	NE	U	UJ	079777-033	EPA 901.1
TA1-W-01 03-Aug-06	Tritium	-67.8 ± 108	196	93.9	NE	U		079812-036	EPA 906.0 M
	Gross Alpha	2.92 ± 0.925	1.08	0.480	15			079812-034	EPA 900.0
	Gross Beta	3.35 ± 1.69	2.74	1.34	4mrem/yr			079812-034	EPA 900.0
	Americium-241	0.989 ± 5.29	9.00	4.38	NE	U		079812-033	EPA 901.1
	Cesium-137	-1.41 ± 1.82	3.14	1.49	NE	U		079812-033	EPA 901.1
	Cobalt-60	0.680 ± 2.14	3.83	1.80	NE	U		079812-033	EPA 901.1
	Potassium-40	43.6 ± 23.5	43.9	20.7	NE	U		079812-033	EPA 901.1
TA1-W-02 15-Aug-06	Tritium	236 ± 152	238	115	NE	U		079779-036	EPA 906.0 M
	Gross Alpha	3.86 ± 1.03	0.966	0.418	15			079779-034	EPA 900.0
	Gross Beta	3.54 ± 1.48	2.28	1.11	4mrem/yr			079779-034	EPA 900.0
	Americium-241	-4.49 ± 10.7	17.4	8.49	NE	U		079779-033	EPA 901.1
	Cesium-137	2.78 ± 1.97	3.72	1.79	NE	U		079779-033	EPA 901.1
	Cobalt-60	0.706 ± 2.13	3.94	1.85	NE	U		079779-033	EPA 901.1
	Potassium-40	190 ± 32.1	190	33.8	NE	U		079779-033	EPA 901.1
TA1-W-03 26-Jul-06	Tritium	-70.4 ± 116	209	100	NE	U		079803-036	EPA 906.0 M
	Gross Alpha	2.45 ± 2.26	3.59	1.62	15	U		079803-034	EPA 900.0
	Gross Beta	5.12 ± 3.89	6.41	3.11	4mrem/yr	U		079803-034	EPA 900.0
	Americium-241	-8.29 ± 12.6	20.1	9.77	NE	U		079803-033	EPA 901.1
	Cesium-137	-0.84 ± 1.92	2.84	1.35	NE	U		079803-033	EPA 901.1
	Cobalt-60	1.19 ± 1.88	3.53	1.65	NE	U		079803-033	EPA 901.1
	Potassium-40	61.9 ± 23.8	61.9	23.1	NE	U		079803-033	EPA 901.1
TA1-W-04 20-Jul-06	Tritium	118 ± 137	230	111	NE	U		079792-036	EPA 906.0 M
	Gross Alpha	3.08 ± 1.09	1.28	0.584	15			079792-034	EPA 900.0
	Gross Beta	1.99 ± 1.70	3.22	1.58	4mrem/yr	U		079792-034	EPA 900.0
	Americium-241	-46.6 ± 11.4	15.1	7.37	NE	U		079792-033	EPA 901.1
	Cesium-137	1.04 ± 3.72	3.17	1.52	NE	U		079792-033	EPA 901.1
	Cobalt-60	-0.571 ± 1.91	3.25	1.52	NE	U		079792-033	EPA 901.1
	Potassium-40	75.8 ± 22.1	75.9	22.3	NE	U		079792-033	EPA 901.1

Refer to footnotes on page 45.

Table TAG E-6
Summary of Tritium, Gross Alpha, Gross Beta, and Gamma Spectroscopy Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Activity[a] (pCi/L)	MDA[h] (pCi/L)	Critical Level[b] (pCi/L)	MCL[d] (pCi/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TA1-W-05 11-Jul-06	Tritium	25.4 ± 749	1050	513	NE	U		079782-036	EPA 906.0 M
	Tritium (re-analysis)	60.4 ± 143	234	113	NE	U		079782-R36	EPA 906.0 M
	Gross Alpha	0.719 ± 1.02	1.53	0.709	15	U		079782-034	EPA 900.0
	Gross Beta	2.85 ± 1.44	2.31	1.12	4mrem/yr			079782-034	EPA 900.0
	Americium-241	-3.24 ± 9.35	13.6	6.82	NE	U		079782-033	EPA 901.1
	Cesium-137	-0.484 ± 1.98	3.23	1.62	NE	U		079782-033	EPA 901.1
	Cobalt-60	-0.586 ± 2.04	3.33	1.67	NE	U		079782-033	EPA 901.1
	Potassium-40	21.0 ± 23.6	41.5	20.8	NE	U		079782-033	EPA 901.1
TA1-W-06 10-Jul-06	Tritium	347 ± 170	246	119	NE			079796-036	EPA 906.0 M
	Tritium (re-analysis)	36.9 ± 101	179	81.9	NE	U		079796-R36	EPA 906.0 M
	Gross Alpha	1.61 ± 1.03	1.40	0.635	15			079796-034	EPA 900.0
	Gross Beta	2.29 ± 1.79	2.95	1.44	4mrem/yr	U		079796-034	EPA 900.0
	Americium-241	-2.41 ± 3.96	6.15	3.00	NE	U		079796-033	EPA 901.1
	Cesium-137	1.94 ± 3.11	5.57	2.67	NE	U		079796-033	EPA 901.1
	Cobalt-60	1.70 ± 3.10	5.81	2.72	NE	U		079796-033	EPA 901.1
	Potassium-40	50.4 ± 56.0	51.9	24.1	NE	U		079796-033	EPA 901.1
TA1-W-08 27-Jul-06	Tritium	103 ± 121	204	98.0	NE	U		079807-036	EPA 906.0 M
	Gross Alpha	3.05 ± 2.17	3.27	1.46	15	U		079807-034	EPA 900.0
	Gross Beta	5.71 ± 4.15	6.82	3.31	4mrem/yr	U		079807-034	EPA 900.0
	Americium-241	-3.72 ± 11.5	17.3	8.45	NE	U		079807-033	EPA 901.1
	Cesium-137	-0.0454 ± 2.09	3.68	1.77	NE	U		079807-033	EPA 901.1
	Cobalt-60	0.529 ± 4.76	3.81	1.79	NE	U		079807-033	EPA 901.1
	Potassium-40	170 ± 31.2	171	32.6	NE	U		079807-033	EPA 901.1
TA2-NW1-595 13-Jul-06	Tritium	-100 ± 153	242	117	NE	U		079788-036	EPA 906.0 M
	Gross Alpha	1.13 ± 1.01	1.49	0.684	15	U		079788-034	EPA 900.0
	Gross Beta	0.557 ± 1.54	2.62	1.28	4mrem/yr	U		079788-034	EPA 900.0
	Americium-241	3.08 ± 7.66	13.8	6.73	NE	U		079788-033	EPA 901.1
	Cesium-137	-0.105 ± 1.71	3.02	1.44	NE	U		079788-033	EPA 901.1
	Cobalt-60	-0.155 ± 1.82	3.31	1.54	NE	U		079788-033	EPA 901.1
	Potassium-40	77.5 ± 23.4	77.5	23.8	NE	U		079788-033	EPA 901.1

Refer to footnotes on page 45.

Table TAG E-6
Summary of Tritium, Gross Alpha, Gross Beta, and Gamma Spectroscopy Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Activity[a] (pCi/L)	MDA[h] (pCi/L)	Critical Level[b] (pCi/L)	MCL[d] (pCi/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TA2-SW1-320 05-Jul-06	Tritium	0.00 ± 135	236	113	NE	U	A2, UJ	079775-036	EPA 906.0 M
	Gross Alpha	0.893 ± 1.10	1.81	0.851	15	U		079775-034	EPA 900.0
	Gross Beta	2.97 ± 1.67	2.72	1.33	4mrem/yr			079775-034	EPA 900.0
	Americium-241	-11.2 ± 8.13	12.9	6.45	NE	U		079775-033	EPA 901.1
	Cesium-137	-0.0476 ± 2.04	3.33	1.67	NE	U		079775-033	EPA 901.1
	Cobalt-60	0.175 ± 2.05	3.42	1.71	NE	U		079775-033	EPA 901.1
	Potassium-40	9.56 ± 45.9	34.0	17.0	NE	U		079775-033	EPA 901.1
TA2-W-01 25-Jul-06	Tritium	-23.5 ± 131	229	111	NE	U		079801-036	EPA 906.0 M
	Gross Alpha	2.04 ± 0.932	1.25	0.560	15			079801-034	EPA 900.0
	Gross Beta	2.12 ± 1.65	2.72	1.33	4mrem/yr	U		079801-034	EPA 900.0
	Americium-241	-14.6 ± 10.7	18.0	8.75	NE	U		079801-033	EPA 901.1
	Cesium-137	0.471 ± 2.15	3.88	1.85	NE	U		079801-033	EPA 901.1
	Cobalt-60	0.208 ± 2.11	3.87	1.79	NE	U		079801-033	EPA 901.1
	Potassium-40	41.8 ± 25.6	50.9	24.0	NE	U		079801-033	EPA 901.1
TA2-W-19 08-Aug-06	Tritium	0.00 ± 109	191	91.3	NE	U		079816-036	EPA 906.0 M
	Gross Alpha	2.99 ± 1.14	1.59	0.742	15			079816-034	EPA 900.0
	Gross Beta	2.89 ± 1.47	2.37	1.15	4mrem/yr			079816-034	EPA 900.0
	Americium-241	1.01 ± 9.62	17.1	8.31	NE	U		079816-033	EPA 901.1
	Cesium-137	0.043 ± 2.09	3.62	1.73	NE	U		079816-033	EPA 901.1
	Cobalt-60	1.42 ± 1.99	3.79	1.76	NE	U		079816-033	EPA 901.1
	Potassium-40	5.54 ± 51.3	31.7	14.5	NE	U		079816-033	EPA 901.1
TA2-W-26 02-Aug-06	Tritium	-162 ± 136	242	117	NE	U		079810-036	EPA 906.0 M
	Gross Alpha	3.87 ± 1.69	2.32	1.05	15			079810-034	EPA 900.0
	Gross Beta	3.61 ± 2.88	4.78	2.33	4mrem/yr	U		079810-034	EPA 900.0
	Americium-241	-45.9 ± 13.9	18.9	9.21	NE	U		079810-033	EPA 901.1
	Cesium-137	0.736 ± 3.55	3.65	1.74	NE	U		079810-033	EPA 901.1
	Cobalt-60	-0.581 ± 2.40	4.12	1.93	NE	U		079810-033	EPA 901.1
	Potassium-40	100 ± 27.0	100	28.0	NE	U		079810-033	EPA 901.1
TA2-W-27 17-Jul-06	Tritium	94.0 ± 146	238	115	NE	U		079790-036	EPA 906.0 M
	Gross Alpha	0.625 ± 1.17	1.77	0.803	15	U		079790-034	EPA 900.0
	Gross Beta	3.92 ± 2.35	4.42	2.17	4mrem/yr	U		079790-034	EPA 900.0
	Americium-241	-6.09 ± 10.3	16.8	8.40	NE	U		079790-033	EPA 901.1
	Cesium-137	0.150 ± 2.52	4.15	2.07	NE	U		079790-033	EPA 901.1
	Cobalt-60	2.33 ± 2.80	4.52	2.26	NE	U		079790-033	EPA 901.1
	Potassium-40	-22.6 ± 39.9	55.9	28.0	NE	U		079790-033	EPA 901.1

Refer to footnotes on page 45.

Table TAG E-6
Summary of Tritium, Gross Alpha, Gross Beta, and Gamma Spectroscopy Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Activity[a] (pCi/L)	MDA[h] (pCi/L)	Critical Level[b] (pCi/L)	MCL[d] (pCi/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
TJA-2 07-Aug-06	Tritium	32.3 ± 108	187	89.4	NE	U		079814-036	EPA 906.0 M
	Gross Alpha	2.75 ± 1.07	1.42	0.644	15			079814-034	EPA 900.0
	Gross Beta	2.16 ± 1.54	2.53	1.23	4mrem/yr	U		079814-034	EPA 900.0
	Americium-241	-2.22 ± 9.78	17.0	8.27	NE	U		079814-033	EPA 901.1
	Cesium-137	0.383 ± 2.44	3.82	1.81	NE	U		079814-033	EPA 901.1
	Cobalt-60	-1.26 ± 2.48	4.27	1.98	NE	U		079814-033	EPA 901.1
	Potassium-40	39.7 ± 27.7	54.4	25.6	NE	U		079814-033	EPA 901.1
TJA-3 24-Jul-06	Tritium	0.00 ± 134	232	113	NE	U		079799-036	EPA 906.0 M
	Gross Alpha	2.52 ± 1.13	1.58	0.723	15			079799-034	EPA 900.0
	Gross Beta	4.07 ± 1.82	3.17	1.53	4mrem/yr			079799-034	EPA 900.0
	Americium-241	-5.38 ± 9.17	16.1	7.79	NE	U		079799-033	EPA 901.1
	Cesium-137	-0.193 ± 1.91	3.40	1.60	NE	U		079799-033	EPA 901.1
	Cobalt-60	2.78 ± 2.20	4.50	2.09	NE	U		079799-033	EPA 901.1
	Potassium-40	30.0 ± 53.0	36.6	16.7	NE	U		079799-033	EPA 901.1
TJA-4 14-Aug-06	Tritium	-33.8 ± 110	196	93.6	NE	U		079822-036	EPA 906.0 M
	Gross Alpha	3.35 ± 1.14	1.30	0.576	15			079822-034	EPA 900.0
	Gross Beta	3.61 ± 1.42	2.08	1.00	4mrem/yr			079822-034	EPA 900.0
	Americium-241	-4.04 ± 12.1	19.6	9.51	NE	U		079822-033	EPA 901.1
	Cesium-137	0.848 ± 1.65	2.98	1.42	NE	U		079822-033	EPA 901.1
	Cobalt-60	0.880 ± 1.96	3.62	1.69	NE	U		079822-033	EPA 901.1
	Potassium-40	51.6 ± 23.3	51.6	22.2	NE	U		079822-033	EPA 901.1
TJA-6 19-Jul-06	Tritium	-47.2 ± 131	230	111	NE	U		079794-036	EPA 906.0 M
	Gross Alpha	4.44 ± 1.18	1.18	0.532	15			079794-034	EPA 900.0
	Gross Beta	7.70 ± 1.73	2.58	1.26	4mrem/yr			079794-034	EPA 900.0
	Americium-241	14.4 ± 10.6	12.6	6.32	NE	X	R	079794-033	EPA 901.1
	Cesium-137	0.469 ± 2.26	3.53	1.77	NE	U		079794-033	EPA 901.1
	Cobalt-60	1.82 ± 2.28	3.96	1.98	NE	U		079794-033	EPA 901.1
	Potassium-40	-23 ± 38.3	50.2	25.1	NE	U		079794-033	EPA 901.1
TJA-7 10-Aug-06	Tritium	0.00 ± 108	190	90.8	NE	U		079818-036	EPA 906.0 M
	Gross Alpha	1.70 ± 0.997	1.46	0.652	15			079818-034	EPA 900.0
	Gross Beta	1.92 ± 1.29	2.11	1.02	4mrem/yr	U		079818-034	EPA 900.0
	Americium-241	-1.11 ± 17.2	20.1	9.85	NE	U		079818-033	EPA 901.1
	Cesium-137	0.719 ± 1.63	2.99	1.43	NE	U		079818-033	EPA 901.1
	Cobalt-60	-1.23 ± 1.79	2.99	1.40	NE	U		079818-033	EPA 901.1
	Potassium-40	4.32 ± 43.5	31.7	14.8	NE	U		079818-033	EPA 901.1

Refer to footnotes on page 45.

Table TAG E-6 (Concluded)
Summary of Tritium, Gross Alpha, Gross Beta, and Gamma Spectroscopy Results
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Analyte	Activity[a] (pCi/L)	MDA[h] (pCi/L)	Critical Level[b] (pCi/L)	MCL[d] (pCi/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
WYO-3 12-Jul-06	Tritium	-15.6 ± 144	247	119	NE	U		079786-036	EPA 906.0 M
	Gross Alpha	4.50 ± 1.21	1.15	0.513	15			079786-034	EPA 900.0
	Gross Beta	5.05 ± 1.48	2.26	1.10	4mrem/yr			079786-034	EPA 900.0
	Americium-241	-3.19 ± 5.69	8.66	4.21	NE	U		079786-033	EPA 901.1
	Cesium-137	-0.673 ± 1.77	3.14	1.49	NE	U		079786-033	EPA 901.1
	Cobalt-60	2.06 ± 1.95	3.73	1.75	NE	U		079786-033	EPA 901.1
	Potassium-40	46.1 ± 20.5	46.2	20.2	NE	U		079786-033	EPA 901.1
WYO-4 01-Aug-06	Tritium	-179 ± 137	246	119	NE	U		079805-036	EPA 906.0 M
	Gross Alpha	2.13 ± 0.828	1.03	0.462	15			079805-034	EPA 900.0
	Gross Beta	2.70 ± 1.56	2.54	1.24	4mrem/yr			079805-034	EPA 900.0
	Americium-241	8.83 ± 9.13	16.8	8.14	NE	U		079805-033	EPA 901.1
	Cesium-137	3.96 ± 3.95	3.40	1.60	NE	X	R	079805-033	EPA 901.1
	Cobalt-60	-1.35 ± 2.44	3.56	1.63	NE	U		079805-033	EPA 901.1
	Potassium-40	66.9 ± 24.5	67.0	24.9	NE	U		079805-033	EPA 901.1

Refer to footnotes on page 45.

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Table TAG E-7
Summary of Field Water Quality Measurements[i]
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Sample Date	Temperature (°C)	Specific Conductivity (µmho/cm)	Oxidation Reduction Potential (mV)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)
PGS-2	06-Jul-06	20.81	432	216.4	8.10	0.89	1.46
TA1-W-01	03-Aug-06	21.46	485	300.2	7.33	0.62	5.48
TA1-W-02	15-Aug-06	20.33	470	363.8	7.33	2.40	5.51
TA1-W-03	26-Jul-06	20.57	1,566	274.1	7.31	1.90	4.84
TA1-W-04	20-Jul-06	22.32	451	300.5	7.33	0.98	5.09
TA1-W-05	11-Jul-06	20.50	550	324.5	7.16	0.65	6.50
TA1-W-06	10-Jul-06	20.88	791	275.4	7.45	0.50	7.26
TA1-W-08	27-Jul-06	20.70	1,761	283.2	7.28	1.02	6.26
TA2-NW1-595	13-Jul-06	22.90	718	303.6	7.25	0.88	6.70
TA2-SW1-320	24-Oct-05	15.02	464	193.1	7.98	1.80	7.82
	23-Jan-06	15.17	469	196.0	7.72	18.5	8.01
	26-Apr-06	16.41	490	17.1	7.33	2.91	8.84
	05-Jul-06	18.72	465	284.8	7.59	1.55	8.00
TA2-W-01	06-Jan-06	17.49	594	71.3	7.62	2.61	8.21
	25-Jul-06	21.31	604	268.0	7.49	1.33	7.72
TA2-W-19	31-Oct-05	17.14	572	185.4	7.54	1.05	7.33
	16-Jan-06	16.60	562	28.2	7.73	0.96	1.37
	03-May-06	18.25	602	17.0	7.16	0.59	8.52
	08-Aug-06	18.86	562	278.0	7.48	0.68	6.86
TA2-W-26	25-Oct-05	17.71	1,028	193.1	7.42	1.65	7.60
	09-Jan-06	16.46	1,019	74.3	7.54	1.70	8.11
	27-Apr-06	18.90	1,108	23.6	7.26	0.98	8.61
	02-Aug-06	19.07	1,037	266.9	7.38	1.79	6.79
TA2-W-27	05-Jan-06	16.01	803	64.8	7.57	1.10	6.97
	17-Jul-06	20.15	809	294.0	7.39	0.68	7.65
TJA-2	28-Oct-05	17.56	563	200.5	7.52	2.60	7.50
	13-Jan-06	16.11	557	81.6	7.68	1.13	6.94
	28-Apr-06	18.45	594	35.6	7.15	1.19	9.32
	07-Aug-06	19.75	559	290.9	7.48	1.27	6.96
TJA-3	04-Jan-06	19.24	464	66.3	7.51	1.05	5.03
	24-Jul-06	20.76	453	256.1	7.43	0.60	6.57
TJA-4	01-Nov-05	17.59	529	196.7	7.47	2.06	5.07
	17-Jan-06	16.12	506	14.8	7.67	0.98	5.86
	04-May-06	18.39	560	12.1	7.20	1.37	8.69
	14-Aug-06	19.28	505	327.0	7.43	0.79	4.46

Refer to footnotes on page 45.

Table TAG E-7
Summary of Field Water Quality Measurements[i]
Tijeras Arroyo Groundwater Investigation

Fiscal Year 2006

Well ID	Sample Date	Temperature (^{0}C)	Specific Conductivity (µmho/cm)	Oxidation Reduction Potential (mV)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)
TJA-6	03-Jan-06	19.55	441	89.5	7.52	2.99	5.14
	19-Jul-06	22.47	445	290.0	7.37	25.9	4.67
TJA-7	03-Nov-05	15.89	504	177.7	7.60	1.52	5.51
	19-Jan-06	16.05	500	-25.6	7.66	1.12	9.09
	09-May-06	18.11	535	25.0	7.18	1.78	8.20
	10-Aug-06	19.23	496	247.2	7.49	1.01	7.08
WYO-3	12-Jul-06	23.45	500	322.5	7.43	44.0	6.40
WYO-4	27-Oct-05	16.52	592	167.3	7.63	1.71	7.27
	12-Jan-06	16.73	579	64.3	7.75	1.65	8.19
	02-May-06	19.10	628	16.6	7.26	0.72	8.06
	01-Aug-06	18.20	584	239.4	7.57	0.93	7.38

Refer to footnotes on page 45.

*Footnotes for **Tijeras Arroyo Groundwater Investigation***

[a]Result
- Values in bold exceed the established MCL.
- ND = not detected (at method detection limit).
- Activities of zero or less are considered to be not detected.
- µg/L = micrograms per liter
- mg/L = milligrams per liter
- pCi/L = picocuries per liter

[b]MDL or Critical level
Method detection limit. The minimum concentration or activity that can be measured and reported with 99% confidence that the analyte is greater than zero, analyte is matrix specific.

[c]PQL
Practical quantitation limit. The lowest concentration of analytes in a sample that can be reliably determined within specified limits of precision and accuracy by that indicated method under routine laboratory operating conditions.

[d]MCL
MCL = Maximum contaminant level. Established by the U.S. Environmental Protection Agency Primary Water Regulations (40 CFR 141.11(b)), and subsequent amendments or the New Mexico Environmental Improvement Board in Title 20, Chapter 7, Part 1 of the New Mexico Administrative Code (20 NMAC 7.10).
NE = not established.
The following are the MCLs for gross alpha particles and beta particles in community water systems:
15 pCi/L = Gross alpha particle activity (including radium-226 but excluding radon and total uranium).
4 mrem/yr = any combination of beta and/or gamma emitting radionuclides (as dose rate).

[e]Lab Qualifier
- B = Analyte is detected in associated laboratory method blank.
- H = Analytical holding time was exceeded.
- J = Amount detected is below the practical quantitation limit (PQL).
- U = Analyte is absent or below the method detection limit.
- X = Data rejected due to low abundance.

[f]Validation Qualifier
If cell is blank, then all quality control samples met acceptance criteria with respect to submitted samples.
- A2 = Laboratory accuracy and/or bias measurements for the matrix spike and/or matrix spike duplicate samples do not acceptance criteria.
- B = Analyte present in associated laboratory method blank.
- B1 = Analyte present in associated trip blank sample.
- B2 = Analyte present in associated equipment blank sample.
- B3 = Analyte present in associated continuing calibration blank.
- HT = The holding time was exceeded for the associated sample analysis.
- J = Associate value is an estimated quantity.
- R = The data are unusable for their intended purpose. The analyte may or may not be present.
- UJ = Analyte not detected above laboratory method detection limit, but associated value is an estimate and may be inaccurate or imprecise.
- #U = Analyte was qualified as not detected at listed value.
- #UJ = Analyte was qualified as not detected at the listed value. The value is an estimate.

[g]**Analytical Method**

U.S. Environmental Protection Agency, 1990, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd ed.
U.S. Environmental Protection Agency, 1983, "The Determination of Inorganic Anions in Water by Ion Chromatography-Method 300.0,"
EPA-600/4-84-017.
Analytical method used to detect radionuclides is HASL 300 4.5.2.3;
U.S. Department of Energy, Environmental Measurements Laboratory, 1997, "EML Procedures Manual," 27th ed., Vol. 1, Rev. 1997, HASL-300.
EPA 903.0/904.0: U.S. Environmental Protection Agency, 1980, "Prescribed Procedures for Measurement of Radioactivity in Drinking Water," EPA-600/4-80-032.

[h]**MDA**

The minimal detectable activity or minimum measured activity in a sample required to ensure a 95% probability that the measured activity is accurately quantified above the critical level.

[i]**Field Water Quality Measurements**

Field measurements collected prior to sampling.

^{O}C	= degrees Celsius
µmho/cm	= micromhos per centimeter
mg/L	= milligrams per liter
mV	= millivolts
NTU	= nephelometric turbidity units
pH	= potential of hydrogen (negative logarithm of the hydrogen ion concentration)

APPENDIX F
Burn Site Groundwater Monitoring Surveillance Task

Table of Contents

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Table BSG F-1
Summary of Detected Volatile Organic Compounds, Semi-Volatile Organic Compounds, and High Explosives
Burn Site Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (µg/L)	MDL[b] (µg/L)	PQL[c] (µg/L)	MCL[d] (µg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CYN-MW1D 21-Jun-06	Acetone	4.49	1.25	5.00	NE	J		078684-001	SW846 8260
CYN-MW3 20-Jun-06	Acetone	1.93	1.25	5.00	NE	J		078682-001	SW846 8260
CYN-MW4 19-Jun-06	Acetone	1.91	1.25	5.00	NE	J		078680-001	SW846 8260
CYN-MW7 13-Jun-06	Acetone	2.10	1.25	5.00	NE	J	5.0UJ, A2, B1	078676-001	SW846 8260
CYN-MW8 14-Jun-06	Acetone	4.34	1.25	5.00	NE	J	5.0U, B1	078678-001	SW846 8260
	Nitrobenzene	0.349	0.0649	0.325	NE	P, X	0.349NJ	078678-024	SW846 8330

Refer to footnotes on page 25

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Table BSG F-2
Method Detection Limits for Volatile Organic Compounds, Semi-Volatile Organic Compounds, and High Explosives
Burn Site Groundwater Monitoring

Fiscal Year 2006

Analyte	MDL[b] (µg/L)	Analytical Method[g]	Analyte	MDL[b] (µg/L)	Analytical Method[g]	Analyte	MDL[b] (µg/L)	Analytical Method[g]
1,1,1-Trichloroethane	0.30	8260	1,4-Dichlorobenzene	1.79 - 1.94	8270	Dinitro-o-cresol	2.68 - 2.91	8270
1,1,2,2-Tetrachloroethane	0.25	8260	2,4,5-Trichlorophenol	0.893 - 0.971	8270	Diphenyl amine	2.68 - 2.91	8270
1,1,2-Trichloroethane	0.25	8260	2,4,6-Trichlorophenol	1.79 - 1.94	8270	Fluoranthene	0.179 - 0.194	8270
1,1-Dichloroethane	0.30	8260	2,4-Dichlorophenol	1.79 - 1.94	8270	Fluorene	0.179 - 0.194	8270
1,1-Dichloroethene	0.30	8260	2,4-Dimethylphenol	1.79 - 1.94	8270	Hexachlorobenzene	1.79 - 1.94	8270
1,2-Dichloroethane	0.25	8260	2,4-Dinitrophenol	8.93 - 9.71	8270	Hexachlorobutadiene	1.79 - 1.94	8270
1,2-Dichloropropane	0.25	8260	2,4-Dinitrotoluene	1.79 - 1.94	8270	Hexachlorocyclopentadiene	1.79 - 1.94	8270
2-Butanone	1.25	8260	2,6-Dinitrotoluene	1.79 - 1.94	8270	Hexachloroethane	1.79 - 1.94	8270
2-Hexanone	1.25	8260	2-Chloronaphthalene	0.313 - 0.34	8270	Indeno(1,2,3-c,d)pyrene	0.179 - 0.194	8270
4-methyl-, 2-Pentanone	1.25	8260	2-Chlorophenol	1.79 - 1.94	8270	Isophorone	1.79 - 1.94	8270
Acetone	1.25	8260	2-Methylnaphthalene	0.268 - 0.291	8270	Naphthalene	0.268 - 0.291	8270
Benzene	0.30	8260	2-Nitroaniline	1.79 - 1.94	8270	Nitro-benzene	2.68 - 2.91	8270
Bromodichloromethane	0.25	8260	2-Nitrophenol	1.79 - 1.94	8270	Pentachlorophenol	1.79 - 1.94	8270
Bromoform	0.25	8260	3,3'-Dichlorobenzidine	0.893 - 0.971	8270	Phenanthrene	0.179 - 0.194	8270
Bromomethane	0.50	8260	3-Nitroaniline	1.79 - 1.94	8270	Phenol	0.893 - 0.971	8270
Carbon disulfide	1.25	8260	4-Bromophenyl phenyl ether	1.79 - 1.94	8270	Pyrene	0.268 - 0.291	8270
Carbon tetrachloride	0.25	8260	4-Chloro-3-methylphenol	1.79 - 1.94	8270	bis(2-Chloroethoxy)methane	2.68 - 2.91	8270
Chlorobenzene	0.25	8260	4-Chlorobenzenamine	1.79 - 1.94	8270	bis(2-Chloroethyl)ether	1.79 - 1.94	8270
Chloroethane	0.50	8260	4-Chlorophenyl phenyl ether	1.79 - 1.94	8270	bis(2-Ethylhexyl)phthalate	1.79 - 1.94	8270
Chloroform	0.25	8260	4-Nitroaniline	2.68 - 2.91	8270	bis-Chloroisopropyl ether	1.79 - 1.94	8270
Chloromethane	0.50	8260	4-Nitrophenol	1.79 - 1.94	8270	m,p-Cresols	2.68 - 2.91	8270
Dibromochloromethane	0.25	8260	Acenaphthene	0.277 - 0.301	8270	n-Nitrosodipropylamine	1.79 - 1.94	8270
Ethyl benzene	0.25	8260	Acenaphthylene	0.179 - 0.194	8270	o-Cresol	1.79 - 1.94	8270
Methylene chloride	2.0	8260	Anthracene	0.179 - 0.194	8270	1,3,5-Trinitrobenzene	0.0649	8330
Styrene	0.25	8260	Benzo(a)anthracene	0.179 - 0.194	8270	1,3-Dinitrobenzene	0.0649	8330
Tetrachloroethene	0.25	8260	Benzo(a)pyrene	0.179 - 0.194	8270	2,4,6-Trinitrotoluene	0.162	8330
Toluene	0.25	8260	Benzo(b)fluoranthene	0.179 - 0.194	8270	2,4-Dinitrotoluene	0.162	8330
Trichloroethene	0.25	8260	Benzo(ghi)perylene	0.179 - 0.194	8270	2,6-Dinitrotoluene	0.162	8330
Vinyl acetate	1.5	8260	Benzo(k)fluoranthene	0.179 - 0.194	8270	2-Amino-4,6-dinitrotoluene	0.162	8330
Vinyl chloride	0.50	8260	Butylbenzyl phthalate	1.79 - 1.94	8270	2-Nitrotoluene	0.162	8330
Xylene	0.25	8260	Carbazole	0.179 - 0.194	8270	3-Nitrotoluene	0.126	8330
cis-1,2-Dichloroethene	0.30	8260	Chrysene	0.179 - 0.194	8270	4-Amino-2,6-dinitrotoluene	0.162	8330
cis-1,3-Dichloropropene	0.25	8260	Di-n-butyl phthalate	1.79 - 1.94	8270	4-Nitrotoluene	0.162	8330
trans-1,2-Dichloroethene	0.30	8260	Di-n-octyl phthalate	2.68 - 2.91	8270	HMX	0.162	8330
trans-1,3-Dichloropropene	0.25	8260	Dibenz[a,h]anthracene	0.179 - 0.194	8270	Nitro-benzene	0.0649	8330
1,2,4-Trichlorobenzene	1.79 - 1.94	8270	Dibenzofuran	1.79 - 1.94	8270	RDX	0.162	8330
1,2-Dichlorobenzene	1.79 - 1.94	8270	Diethylphthalate	1.79 - 1.94	8270	Tetryl	0.487	8330
1,3-Dichlorobenzene	1.79 - 1.94	8270	Dimethylphthalate	1.79 - 1.94	8270			

Refer to footnotes on page 25.

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Table BSG F-3
Summary of Nitrate plus Nitrite Results
Burn Site Groundwater Monitoring

Fiscal Year 2006

Well ID	Sample Date	Nitrate plus Nitrite Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CYN-MW1D	06-Dec-05	2.19	0.170	0.50	10	B	B2, J	073545-018	EPA 353.1
	27-Mar-06	0.645	0.014	0.05	10			075982-018	EPA 353.1
	21-Jun-06	0.736	0.014	0.05	10			078684-018	EPA 353.1
	19-Sep-06	3.76	0.014	0.05	10			081624-018	EPA 353.1
CYN-MW1D (Duplicate)	27-Mar-06	0.648	0.014	0.05	10			075983-018	EPA 353.1
CYN-MW3	18-Sep-06	4.10	0.014	0.05	10			081623-018	EPA 353.1
CYN-MW4	15-Sep-06	0.0684	0.014	0.05	10		B3, J	081622-018	EPA 353.1
CYN-MW6	23-Mar-06	**23.9**	0.170	0.50	10			075985-018	EPA 353.1
	22-Jun-06	**32.6**	0.140	0.50	10			078687-018	EPA 353.1
	20-Sep-06	**30.4**	0.014	0.05	10			081626-018	EPA 353.1
CYN-MW6 (Duplicate)	23-Mar-06	**24.1**	0.170	0.50	10			075986-018	EPA 353.1
	22-Jun-06	**29.5**	0.140	0.50	10			078688-018	EPA 353.1
CYN-MW7	20-Mar-06	1.29	0.017	0.05	10			075987-018	EPA 353.1
	13-Jun-06	0.702	0.014	0.05	10		A2, J	078676-018	EPA 353.1
	13-Sep-06	1.37	0.070	0.25	10	B		081619-018	EPA 353.1
CYN-MW8	21-Mar-06	5.70	0.085	0.25	10			075988-018	EPA 353.1
	14-Jun-06	3.63	0.070	0.25	10			078678-018	EPA 353.1
	14-Sep-06	3.96	0.070	0.25	10			081620-018	EPA 353.1
CYN-MW8 (Duplicate)	14-Sep-06	4.03	0.070	0.25	10			081621-018	EPA 353.1

Refer to footnotes on page 25.

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Table BSG F-4
Summary of Perchlorate Results
Burn Site Groundwater Monitoring

Fiscal Year 2006

Well ID	Sample Date	Perchlorate Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CYN-MW1D	06-Dec-05	ND	0.004	0.012	NE	U		073545-020	EPA 314.0
	27-Mar-06	ND	0.004	0.012	NE	U		075982-020	EPA 314.0
	21-Jun-06	ND	0.004	0.012	NE	U		078684-020	EPA 314.0
	19-Sep-06	ND	0.004	0.012	NE	U		081624-020	EPA 314.0
CYN-MW1D (Duplicate)	27-Mar-06	ND	0.004	0.012	NE	U		075983-020	EPA 314.0
CYN-MW6	23-Mar-06	0.00692	0.004	0.012	NE	J		075985-020	EPA 314.0
		0.00639	0.0005	0.002	NE	Hh	HT, J	075985-R20	EPA 6850M
	22-Jun-06	0.00663	0.004	0.012	NE	J		078687-020	EPA 314.0
		0.00699	0.001	0.004	NE			078687-021	EPA 6850M
	20-Sep-06	0.00752	0.004	0.012	NE	J		081626-020	EPA 314.0
		0.00696	0.001	0.004	NE		P2	081626-R20	EPA 6850M
CYN-MW6 (Duplicate)	23-Mar-06	0.00744	0.004	0.012	NE	J		075986-020	EPA 314.0
		0.00648	0.0005	0.002	NE	Hh	HT, J	075986-R20	EPA 6850M
	22-Jun-06	0.00645	0.004	0.012	NE	J		078688-020	EPA 314.0
		0.00692	0.001	0.004	NE			078688-021	EPA 6850M
CYN-MW7	20-Mar-06	ND	0.004	0.012	NE	U		075987-020	EPA 314.0
	13-Jun-06	ND	0.004	0.012	NE	U		078676-020	EPA 314.0
	13-Sep-06	ND	0.004	0.012	NE	U		081619-020	EPA 314.0
CYN-MW8	21-Mar-06	ND	0.004	0.012	NE	U		075988-020	EPA 314.0
	14-Jun-06	ND	0.004	0.012	NE	U		078678-020	EPA 314.0
	14-Sep-06	ND	0.004	0.012	NE	U		081620-020	EPA 314.0
CYN-MW8 (Duplicate)	14-Sep-06	ND	0.004	0.012	NE	U		081621-020	EPA 314.0

Refer to footnotes on page 25.

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Table BSG F-5
Summary of Diesel Range Organics and Gasoline Range Organics Results
Burn Site Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (µg/L)	MDL[b] (µg/L)	PQL[c] (µg/L)	MCL[d] (µg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CYN-MW6	Diesel Range Organics	ND	15.7	47.6	NE	Uh	HT, P2, R	075985-005	SW846 3510C
23-Mar-06	Gasoline Range Organics	ND	25.0	100	NE	U		075985-006	SW846 8015A
CYN-MW6 (Duplicate)	Diesel Range Organics	27.7	15.9	48.1	NE	B, J	48.1U, B, B2, P2	075986-005	SW846 3510C
23-Mar-06	Gasoline Range Organics	ND	25.0	100	NE	U		075986-006	SW846 8015A
CYN-MW1D	Diesel Range Organics	55.3	15.9	48.1	NE	B	55.3U, B	078684-005	SW846 3510C
21-Jun-06	Gasoline Range Organics	ND	25.0	100	NE	U		078684-006	SW846 8015A
CYN-MW3	Diesel Range Organics	16.3	15.9	48.1	NE	B, J	48.1UJ, A2, B	078682-005	SW846 3510C
20-Jun-06	Gasoline Range Organics	ND	25.0	100	NE	U		078682-006	SW846 8015A
CYN-MW4	Diesel Range Organics	18.7	15.9	48.1	NE	B, J	48.1U, B	078680-005	SW846 3510C
19-Jun-06	Gasoline Range Organics	ND	25.0	100	NE	U		078680-006	SW846 8015A
CYN-MW6	Diesel Range Organics	30.3	15.7	47.6	NE	B, J	47.6U, B	078687-005	SW846 3510C
22-Jun-06	Gasoline Range Organics	ND	25.0	100	NE	U		078687-006	SW846 8015A
CYN-MW6 (Duplicate)	Diesel Range Organics	41.6	16.0	48.5	NE	B, J	48.5U, B	078688-005	SW846 3510C
22-Jun-06	Gasoline Range Organics	ND	25.0	100	NE	U		078688-006	SW846 8015A
CYN-MW7	Diesel Range Organics	22.4	16.3	49.5	NE	B, J	49.5U, B	078676-005	SW846 3510C
13-Jun-06	Gasoline Range Organics	ND	25.0	100	NE	U		078676-006	SW846 8015A
CYN-MW8	Diesel Range Organics	61.8	15.9	48.1	NE	B	61.8U, B	078678-005	SW846 3510C
14-Jun-06	Gasoline Range Organics	ND	25.0	100	NE	U		078678-006	SW846 8015A
CYN-MW6	Diesel Range Organics	27.3	18.3	55.6	NE	J, h	HT, J	081626-005	SW846 3510C
20-Sep-06	Gasoline Range Organics	ND	25.0	100	NE	U		081626-006	SW846 8015A

Refer to footnotes on page 25.

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Table BSG F-6
Summary of Anion and Total Dissolved Solid Results
Burn Site Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CYN-MW1D 21-Jun-06	Bromide	0.456	0.066	0.20	NE			078684-016	SW846-9056
	Chloride	26.9	0.66	2.0	NE			078684-016	SW846-9056
	Fluoride	1.84	0.033	0.10	4			078684-016	SW846-9056
	Sulfate	104	1.0	4.0	NE			078684-016	SW846-9056
CYN-MW3 20-Jun-06	Bromide	0.883	0.066	0.20	NE			078682-016	SW846-9056
	Chloride	66.6	0.66	2.0	NE			078682-016	SW846-9056
	Fluoride	0.628	0.033	0.10	4			078682-016	SW846-9056
	Sulfate	167	1.0	4.0	NE			078682-016	SW846-9056
CYN-MW4 19-Jun-06	Bromide	0.399	0.066	0.20	NE			078680-016	SW846-9056
	Chloride	26.5	0.33	1.0	NE			078680-016	SW846-9056
	Fluoride	0.740	0.033	0.10	4			078680-016	SW846-9056
	Sulfate	135	0.50	2.0	NE			078680-016	SW846-9056
CYN-MW6 22-Jun-06	Bromide	0.946	0.066	0.20	NE			078687-016	SW846-9056
	Chloride	71.3	0.66	2.0	NE			078687-016	SW846-9056
	Fluoride	0.640	0.033	0.10	4			078687-016	SW846-9056
	Sulfate	150	1.0	4.0	NE			078687-016	SW846-9056
	Total Dissolved Solids	912	2.38	10.0	NE			078687-019	EPA 160.1
CYN-MW7 13-Jun-06	Bromide	0.535	0.066	0.20	NE			078676-016	SW846-9056
	Chloride	39.0	0.66	2.0	NE	B		078676-016	SW846-9056
	Fluoride	1.26	0.033	0.10	4	B		078676-016	SW846-9056
	Sulfate	71.5	1.0	4.0	NE	B		078676-016	SW846-9056
CYN-MW8 14-Jun-06	Bromide	0.748	0.066	0.20	NE			078678-016	SW846-9056
	Chloride	80.2	0.66	2.0	NE	B		078678-016	SW846-9056
	Fluoride	1.35	0.033	0.10	4	B		078678-016	SW846-9056
	Sulfate	117	1.0	4.0	NE	B		078678-016	SW846-9056

Refer to footnotes on page 25.

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Table BSG F-7
Summary of Total Metal Results
Burn Site Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CYN-MW1D 21-Jun-06	Aluminum	0.0164	0.005	0.015	NE	B	B, J	078684-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	U		078684-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		078684-009	SW846 3005
	Barium	0.0172	0.0005	0.002	2			078684-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		078684-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		078684-009	SW846 3005
	Calcium	34.0	0.02	0.1	NE	B		078684-009	SW846 3005
	Chromium	ND	0.001	0.003	0.1	U		078684-009	SW846 3005
	Cobalt	0.000267	0.0001	0.001	NE	J		078684-009	SW846 3005
	Copper	0.000662	0.0002	0.001	NE	J		078684-009	SW846 3005
	Iron	3.06	0.01	0.025	NE			078684-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		078684-009	SW846 3005
	Magnesium	12.1	0.005	0.015	NE			078684-009	SW846 3005
	Manganese	0.0448	0.001	0.005	NE			078684-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U	B3, UJ	078684-009	SW846 7470
	Nickel	0.00134	0.0005	0.002	NE	J		078684-009	SW846 3005
	Potassium	2.72	0.08	0.3	NE			078684-009	SW846 3005
	Selenium	ND	0.0025	0.005	0.05	U		078684-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		078684-009	SW846 3005
	Sodium	28.7	0.08	0.25	NE			078684-009	SW846 3005
	Thallium	ND	0.0004	0.001	0.002	U		078684-009	SW846 3005
	Uranium	0.000053	0.00005	0.0002	0.03	J		078684-009	SW846 3005
	Vanadium	ND	0.002	0.03	NE	U		078684-009	SW846 3005
	Zinc	0.00312	0.002	0.01	NE	B, J	B, J	078684-009	SW846 3005

Refer to footnotes on page 25.

Table CYN F-7
Summary of Total Metal Results
Burn Site Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CYN-MW3 20-Jun-06	Aluminum	0.00751	0.005	0.015	NE	J		078682-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	U	B3, UJ	078682-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		078682-009	SW846 3005
	Barium	0.0585	0.0005	0.002	2			078682-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		078682-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		078682-009	SW846 3005
	Calcium	135	0.1	0.5	NE	B		078682-009	SW846 3005
	Chromium	ND	0.001	0.003	0.1	U		078682-009	SW846 3005
	Cobalt	0.000337	0.0001	0.001	NE	J		078682-009	SW846 3005
	Copper	0.00172	0.0002	0.001	NE			078682-009	SW846 3005
	Iron	0.502	0.01	0.025	NE			078682-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		078682-009	SW846 3005
	Magnesium	38.0	0.005	0.015	NE			078682-009	SW846 3005
	Manganese	ND	0.001	0.005	NE	U		078682-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U		078682-009	SW846 7470
	Nickel	0.00348	0.0005	0.002	NE			078682-009	SW846 3005
	Potassium	1.98	0.08	0.3	NE			078682-009	SW846 3005
	Selenium	0.00843	0.0025	0.005	0.05			078682-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		078682-009	SW846 3005
	Sodium	40.6	0.08	0.25	NE			078682-009	SW846 3005
	Thallium	ND	0.0004	0.001	0.002	U		078682-009	SW846 3005
	Uranium	0.00704	0.00005	0.0002	0.03			078682-009	SW846 3005
	Vanadium	0.00303	0.002	0.03	NE	J		078682-009	SW846 3005
	Zinc	0.00417	0.002	0.01	NE	B, J	B, J	078682-009	SW846 3005

Refer to footnotes on page 25.

Table BSG F-7
Summary of Total Metal Results
Burn Site Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CYN-MW4 19-Jun-06	Aluminum	0.010	0.005	0.015	NE	J		078680-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	U	B3, UJ	078680-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		078680-009	SW846 3005
	Barium	0.0602	0.0005	0.002	2			078680-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		078680-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		078680-009	SW846 3005
	Calcium	73.2	0.1	0.5	NE	B		078680-009	SW846 3005
	Chromium	ND	0.001	0.003	0.1	U		078680-009	SW846 3005
	Cobalt	0.000283	0.0001	0.001	NE	J		078680-009	SW846 3005
	Copper	0.000929	0.0002	0.001	NE	J		078680-009	SW846 3005
	Iron	0.265	0.01	0.025	NE			078680-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		078680-009	SW846 3005
	Magnesium	31.8	0.005	0.015	NE		J	078680-009	SW846 3005
	Manganese	0.00295	0.001	0.005	NE	J		078680-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U		078680-009	SW846 7470
	Nickel	0.0019	0.0005	0.002	NE	J		078680-009	SW846 3005
	Potassium	5.92	0.08	0.3	NE			078680-009	SW846 3005
	Selenium	0.0105	0.0025	0.005	0.05			078680-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		078680-009	SW846 3005
	Sodium	45.7	0.08	0.25	NE			078680-009	SW846 3005
	Thallium	ND	0.0004	0.001	0.002	U		078680-009	SW846 3005
	Uranium	0.0129	0.00005	0.0002	0.03			078680-009	SW846 3005
	Vanadium	ND	0.002	0.03	NE	U		078680-009	SW846 3005
	Zinc	0.0113	0.002	0.01	NE	B	B, J	078680-009	SW846 3005

Refer to footnotes on page 25.

Table BSG F-7
Summary of Total Metal Results
Burn Site Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CYN-MW6 22-Jun-06	Aluminum	0.284	0.005	0.015	NE	B		078687-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	U		078687-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		078687-009	SW846 3005
	Barium	0.0763	0.0005	0.002	2			078687-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		078687-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		078687-009	SW846 3005
	Calcium	169	0.1	0.5	NE	B		078687-009	SW846 3005
	Chromium	ND	0.001	0.003	0.1	U		078687-009	SW846 3005
	Cobalt	0.000766	0.0001	0.001	NE	J		078687-009	SW846 3005
	Copper	0.00346	0.0002	0.001	NE			078687-009	SW846 3005
	Iron	1.04	0.01	0.025	NE			078687-009	SW846 3005
	Lead	0.000535	0.0005	0.002	NE	J		078687-009	SW846 3005
	Magnesium	41.6	0.005	0.015	NE	B	J	078687-009	SW846 3005
	Manganese	0.0546	0.001	0.005	NE			078687-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U	B3, UJ	078687-009	SW846 7470
	Nickel	0.00417	0.0005	0.002	NE			078687-009	SW846 3005
	Potassium	2.35	0.08	0.3	NE			078687-009	SW846 3005
	Selenium	0.0079	0.0025	0.005	0.05			078687-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		078687-009	SW846 3005
	Sodium	37.8	0.08	0.25	NE			078687-009	SW846 3005
	Thallium	ND	0.0004	0.001	0.002	U		078687-009	SW846 3005
	Uranium	0.0115	0.00005	0.0002	0.03	B		078687-009	SW846 3005
	Vanadium	ND	0.002	0.03	NE	U		078687-009	SW846 3005
	Zinc	0.0146	0.002	0.01	NE	B		078687-009	SW846 3005

Refer to footnotes on page 25.

Table BSG F-7
Summary of Total Metal Results
Burn Site Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CYN-MW7 13-Jun-06	Aluminum	0.244	0.005	0.015	NE	B	J	078676-009	SW846 3005
	Antimony	0.000535	0.0005	0.002	0.006	B, J	B, B3, J	078676-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		078676-009	SW846 3005
	Barium	0.110	0.005	0.02	2			078676-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		078676-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		078676-009	SW846 3005
	Calcium	92.6	0.2	1.0	NE			078676-009	SW846 3005
	Chromium	0.00195	0.001	0.003	0.1	B, J	B, J	078676-009	SW846 3005
	Cobalt	0.000793	0.0001	0.001	NE	J		078676-009	SW846 3005
	Copper	0.00124	0.0002	0.001	NE			078676-009	SW846 3005
	Iron	0.683	0.01	0.025	NE			078676-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		078676-009	SW846 3005
	Magnesium	20.4	0.005	0.015	NE			078676-009	SW846 3005
	Manganese	0.588	0.001	0.005	NE			078676-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U	B3, UJ	078676-009	SW846 7470
	Nickel	0.00272	0.0005	0.002	NE			078676-009	SW846 3005
	Potassium	2.42	0.08	0.3	NE			078676-009	SW846 3005
	Selenium	ND	0.0025	0.005	0.05	U		078676-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		078676-009	SW846 3005
	Sodium	37.5	0.08	0.25	NE			078676-009	SW846 3005
	Thallium	0.00049	0.0004	0.001	0.002	J		078676-009	SW846 3005
	Uranium	0.00648	0.00005	0.0002	0.03	B		078676-009	SW846 3005
	Vanadium	0.00234	0.002	0.03	NE	J		078676-009	SW846 3005
	Zinc	0.00688	0.002	0.01	NE	B, J	B, J	078676-009	SW846 3005

Refer to footnotes on page 25.

Table BSG F-7 *(Concluded)*
Summary of Total Metal Results
Burn Site Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Result[a] (mg/L)	MDL[b] (mg/L)	PQL[c] (mg/L)	MCL[d] (mg/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CYN-MW8 14-Jun-06	Aluminum	0.019	0.005	0.015	NE	B	B, J, P1	078678-009	SW846 3005
	Antimony	ND	0.0005	0.002	0.006	U	B3, UJ	078678-009	SW846 3005
	Arsenic	ND	0.0015	0.005	0.01	U		078678-009	SW846 3005
	Barium	0.0867	0.0005	0.002	2			078678-009	SW846 3005
	Beryllium	ND	0.0001	0.0005	0.004	U		078678-009	SW846 3005
	Cadmium	ND	0.0001	0.001	0.005	U		078678-009	SW846 3005
	Calcium	124	0.1	0.5	NE	B		078678-009	SW846 3005
	Chromium	ND	0.001	0.003	0.1	U		078678-009	SW846 3005
	Cobalt	0.00097	0.0001	0.001	NE	J		078678-009	SW846 3005
	Copper	0.00226	0.0002	0.001	NE			078678-009	SW846 3005
	Iron	0.576	0.01	0.025	NE			078678-009	SW846 3005
	Lead	ND	0.0005	0.002	NE	U		078678-009	SW846 3005
	Magnesium	24.8	0.005	0.015	NE		J	078678-009	SW846 3005
	Manganese	0.448	0.001	0.005	NE			078678-009	SW846 3005
	Mercury	ND	0.00006	0.0002	0.002	U		078678-009	SW846 7470
	Nickel	0.00478	0.0005	0.002	NE	B		078678-009	SW846 3005
	Potassium	2.54	0.08	0.3	NE			078678-009	SW846 3005
	Selenium	0.00498	0.0025	0.005	0.05	J		078678-009	SW846 3005
	Silver	ND	0.0002	0.001	NE	U		078678-009	SW846 3005
	Sodium	64.6	0.4	1.25	NE	B		078678-009	SW846 3005
	Thallium	0.000761	0.0004	0.001	0.002	J	B3, J	078678-009	SW846 3005
	Uranium	0.00803	0.00005	0.0002	0.03			078678-009	SW846 3005
	Vanadium	ND	0.002	0.03	NE	U		078678-009	SW846 3005
	Zinc	0.0183	0.002	0.01	NE	B		078678-009	SW846 3005

Refer to footnotes on page 25.

Table BSG F-8
Summary of Tritium, Gross Alpha, Gross Beta, and Gamma Spectroscopy Results
Burn Site Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Activity[a] (pCi/L)	MDA[h] (pCi/L)	Critical Level[b] (pCi/L)	MCL[d] (pCi/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CYN-MW1D 21-Jun-06	Tritium	117 ± 156	262	128	NE	U		078684-036	EPA 906.0 M
	Gross Alpha	0.449 ± 0.723	1.32	0.608	15	U		078684-034	EPA 900.0
	Gross Beta	2.70 ± 1.17	2.24	1.08	4mrem/yr			078684-034	EPA 900.0
	Americium-241	-43.7 ± 13.5	18.4	8.96	NE	U		078684-033	EPA 901.1
	Cesium-137	4.45 ± 2.25	4.45	2.09	NE	U	UJ	078684-033	EPA 901.1
	Cobalt-60	0.548 ± 2.12	3.83	1.78	NE	U		078684-033	EPA 901.1
	Potassium-40	92.9 ± 28.0	92.9	28.4	NE	U	UJ, P1	078684-033	EPA 901.1
CYN-MW3 20-Jun-06	Tritium	206 ± 159	263	128	NE	U		078682-036	EPA 906.0 M
	Gross Alpha	9.42 ± 2.54	2.70	1.18	15			078682-034	EPA 900.0
	Gross Beta	4.70 ± 3.04	5.68	2.77	4mrem/yr	U		078682-034	EPA 900.0
	Americium-241	1.90 ± 2.92	5.09	2.47	NE	U		078682-033	EPA 901.1
	Cesium-137	-1.58 ± 2.38	4.00	1.91	NE	U		078682-033	EPA 901.1
	Cobalt-60	0.146 ± 2.40	4.29	1.99	NE	U		078682-033	EPA 901.1
	Potassium-40	118 ± 33.1	118	33.1	NE	U		078682-033	EPA 901.1
CYN-MW4 19-Jun-06	Tritium	58.0 ± 152	259	126	NE	U		078680-036	EPA 906.0 M
	Gross Alpha	**37.8 ± 11.1**	7.92	3.08	15			078680-034	EPA 900.0
	Gross Beta	12.2 ± 5.54	10.9	5.26	4mrem/yr			078680-034	EPA 900.0
	Americium-241	2.43 ± 15.8	18.1	8.85	NE	U		078680-033	EPA 901.1
	Cesium-137	3.27 ± 2.30	4.34	2.08	NE	U		078680-033	EPA 901.1
	Cobalt-60	1.71 ± 2.14	4.04	1.89	NE	U		078680-033	EPA 901.1
	Potassium-40	108 ± 25.9	108	27.6	NE	U		078680-033	EPA 901.1
CYN-MW6 22-Jun-06	Tritium	58.1 ± 152	259	126	NE	U		078687-036	EPA 906.0 M
	Gross Alpha	13.6 ± 7.22	7.99	2.98	15			078687-034	EPA 900.0
	Gross Beta	9.58 ± 3.91	7.51	3.62	4mrem/yr			078687-034	EPA 900.0
	Americium-241	-0.198 ± 2.94	5.00	2.43	NE	U		078687-033	EPA 901.1
	Cesium-137	-0.134 ± 2.14	3.75	1.78	NE	U		078687-033	EPA 901.1
	Cobalt-60	2.03 ± 2.56	4.82	2.26	NE	U		078687-033	EPA 901.1
	Potassium-40	104 ± 33.0	104	32.4	NE	U	UJ, P1	078687-033	EPA 901.1

Refer to footnotes on page 25.

Table BSG F-8 (*Concluded*)
Summary of Tritium, Gross Alpha, Gross Beta, and Gamma Spectroscopy Results
Burn Site Groundwater Monitoring

Fiscal Year 2006

Well ID	Analyte	Activity[a] (pCi/L)	MDA[h] (pCi/L)	Critical Level[b] (pCi/L)	MCL[d] (pCi/L)	Laboratory Qualifier[e]	Validation Qualifier[f]	Sample No.	Analytical Method[g]
CYN-MW7 13-Jun-06	Tritium	29.5 ± 154	264	129	NE	U		078676-036	EPA 906.0 M
	Gross Alpha	13.3 ± 6.63	8.69	3.47	15			078676-034	EPA 900.0
	Gross Beta	4.65 ± 2.81	5.24	2.55	4mrem/yr	U		078676-034	EPA 900.0
	Americium-241	2.66 ± 3.81	6.21	3.03	NE	U		078676-033	EPA 901.1
	Cesium-137	-0.272 ± 2.94	5.10	2.43	NE	U		078676-033	EPA 901.1
	Cobalt-60	2.74 ± 3.01	5.81	2.72	NE	U		078676-033	EPA 901.1
	Potassium-40	19.1 ± 28.6	54.4	25.3	NE	U		078676-033	EPA 901.1
CYN-MW8 14-Jun-06	Tritium	29.0 ± 151	259	126	NE	U		078678-036	EPA 906.0 M
	Gross Alpha	**34.0 ± 10.6**	11.1	4.63	15			078678-034	EPA 900.0
	Gross Beta	10.6 ± 4.72	8.99	4.31	4mrem/yr			078678-034	EPA 900.0
	Americium-241	0.0838 ± 2.94	5.02	2.44	NE	U		078678-033	EPA 901.1
	Cesium-137	-0.894 ± 2.30	3.94	1.87	NE	U		078678-033	EPA 901.1
	Cobalt-60	0.00828 ± 2.85	4.38	2.04	NE	U		078678-033	EPA 901.1
	Potassium-40	95.2 ± 29.9	95.3	29.8	NE	U		078678-033	EPA 901.1

Refer to footnotes on page 25.

Table BSG F-9
Summary of Field Water Quality Measurements[i]
Burn Site Groundwater Monitoring

Fiscal Year 2006

Well ID	Sample Date	Temperature (^{0}C)	Specific Conductivity (µmho/cm)	Oxidation Reduction Potential (mV)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)
CYN-MW1D	06-Dec-05	16.39	420	-281.1	8.60	38.5	1.76
	27-Mar-06	17.55	436	-262.4	8.54	49.0	0.46
	21-Jun-06	20.01	436	-293.6	8.49	13.9	0.13
	19-Sep-06	20.05	422	-78.5	8.46	22.0	0.63
CYN-MW3	20-Jun-06	17.69	1,036	30.2	7.12	0.96	2.03
	18-Sep-06	15.23	929	360.8	7.52	0.40	5.61
CYN-MW4	19-Jun-06	18.23	731	24.8	7.14	1.08	2.24
	15-Sep-06	18.84	639	332.6	7.54	0.89	1.87
CYN-MW6	23-Mar-06	15.55	1,124	118.7	7.09	1.39	2.42
	22-Jun-06	18.16	1,080	365.8	7.11	39.9	4.21
	20-Sep-06	16.65	1,061	313.2	7.02	1.14	2.42
CYN-MW7	20-Mar-06	15.27	739	-50.9	7.19	5.65	1.46
	13-Jun-06	19.99	745	-39.4	7.23	5.61	1.53
	13-Sep-06	19.92	561	60.9	7.36	3.39	2.14
CYN-MW8	21-Mar-06	16.69	938	-37.4	7.16	2.16	3.51
	14-Jun-06	20.13	948	8.1	7.19	1.01	0.83
	14-Sep-06	18.60	731	148.5	7.37	1.02	2.03

Refer to footnotes on page 25.

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Footnotes for ***Burn Site Groundwater Monitoring***

[a]Result
- Values in bold exceed the established MCL.
- ND = not detected (at method detection limit).
- Activities of zero or less are considered to be not detected.
- µg/L = micrograms per liter
- mg/L = milligrams per liter
- pCi/L = picocuries per liter

[b]MDL or Critical level
Method detection limit. The minimum concentration or activity that can be measured and reported with 99% confidence that the analyte is greater than zero, analyte is matrix specific.

[c]PQL
Practical quantitation limit. The lowest concentration of analytes in a sample that can be reliably determined within specified limits of precision and accuracy by that indicated method under routine laboratory operating conditions.

[d]MCL
MCL = Maximum contaminant level. Established by the U.S. Environmental Protection Agency Primary Water Regulations (40 CFR 141.11(b)), and subsequent amendments or the New Mexico Environmental Improvement Board in Title 20, Chapter 7, Part 1 of the New Mexico Administrative Code (20 NMAC 7.1).
NE = not established.
The following are the MCLs for gross alpha particles and beta particles in community water systems:
15 pCi/L = Gross alpha particle activity (including radium-226 but excluding radon and total uranium).
4 mrem/yr = any combination of beta and/or gamma emitting radionuclides (as dose rate).

[e]Lab Qualifier
- B = Analyte is detected in associated laboratory method blank.
- h = Prep holding time exceeded.
- H = Analytical holding time was exceeded.
- J = Amount detected is below the practical quantitation limit (PQL).
- P = The response between the confirmation column and the primary column is > 40%.
- U = Analyte is absent or below the method detection limit.
- X = Data rejected due to low abundance.

[f]Validation Qualifier
If cell is blank, then all quality control samples met acceptance criteria with respect to submitted samples.
- A2 = Laboratory accuracy and/or bias measurements for the matrix spike and/or matrix spike duplicate samples do not acceptance criteria.
- B = Analyte present in associated laboratory method blank.
- B1 = Analyte present in associated trip blank sample.
- B2 = Analyte present in associated equipment blank sample.
- B3 = Analyte present in associated continuing calibration blank.
- HT = The holding time was exceeded for the associated sample analysis.
- J = Associate value is an estimated quantity.
- NJ = Presumptive evidence of the presence of the material at an estimated quantity.
- P1 = Laboratory precision measurements for the laboratory control and duplicate samples do not acceptance criteria.
- P2 = Insufficient quality control data to determine laboratory precision.
- R = The data are unusable for their intended purpose. The analyte may or may not be present.
- TP = The method requirements for sample preservation/temperature were not met for the sample analysis.

[f]**Validation Qualifier** (continued)

UJ = Analyte not detected above laboratory method detection limit, but associated value is an estimate and may be inaccurate or imprecise.
#U = Analyte was qualified as not detected at listed value.
#UJ = Analyte was qualified as not detected at the listed value. The value is an estimate.

[g]**Analytical Method**

U.S. Environmental Protection Agency, 1990, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd ed.
U.S. Environmental Protection Agency, 1983, "The Determination of Inorganic Anions in Water by Ion Chromatography-Method 300.0,"
EPA-600/4-84-017.
U.S. Environmental Protection Agency, 1999, "Perchlorate in Drinking Water Using Ion Chromatography," EPA 815/R-00-014.
U.S. Environmental Protection Agency, 2005, "Perchlorate in Water, Soils, and Solids Using High Performance Liquid Chromatography/Electrospray Ionization/Mass Spectrometry (HPLC/ESI/MS)," draft, Method 6850.
Analytical method used to detect radionuclides is HASL 300 4.5.2.3;
U.S. Department of Energy, Environmental Measurements Laboratory, 1990, "EML Procedures Manual," 27th ed., Vol. 1, Rev. 1992, HASL-300.
EPA 903.0/904.0: U.S. Environmental Protection Agency, 1980, "Prescribed Procedures for Measurement of Radioactivity in Drinking Water,"
EPA-600/4-80-032.

[h]**MDA**

The minimal detectable activity or minimum measured activity in a sample required to ensure a 95% probability that the measured activity is accurately quantified above the critical level.

[i]**Field Water Quality Measurements**

Field measurements collected prior to sampling.

^{O}C = degrees Celsius
µmho/cm = micromhos per centimeter
mg/L = milligrams per liter
mV = millivolts
NTU = nephelometric turbidity units
pH = potential of hydrogen (negative logarithm of the hydrogen ion concentration)

APPENDIX G

Hydrographs
Groundwater Surveillance Task

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tables

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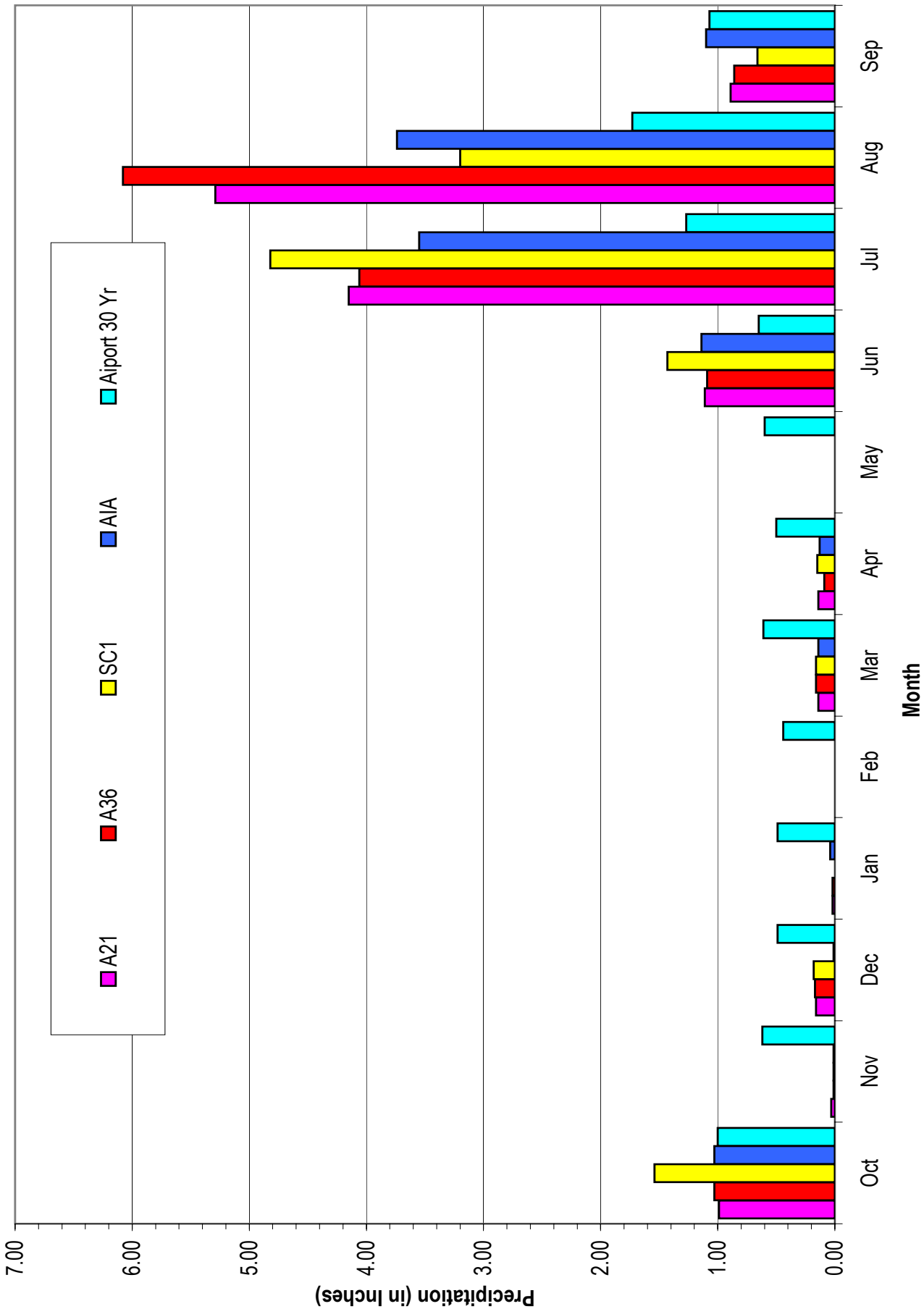

Figure G-1. Precipitation Data for SNL/NM, FY06

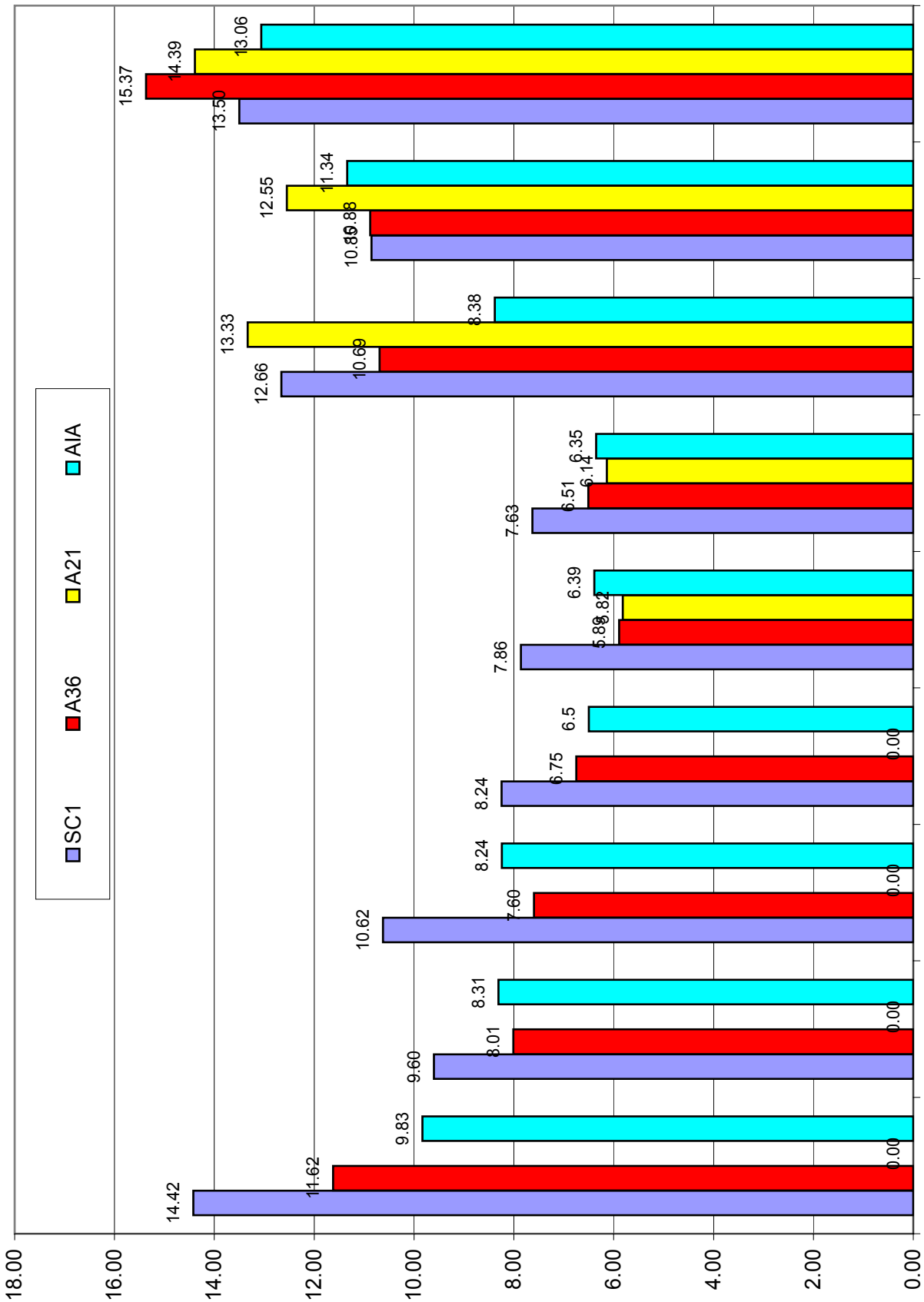

Figure G-2. Annual Precipitation Data for SNL/NM, Jan 1998 to Sept 2006

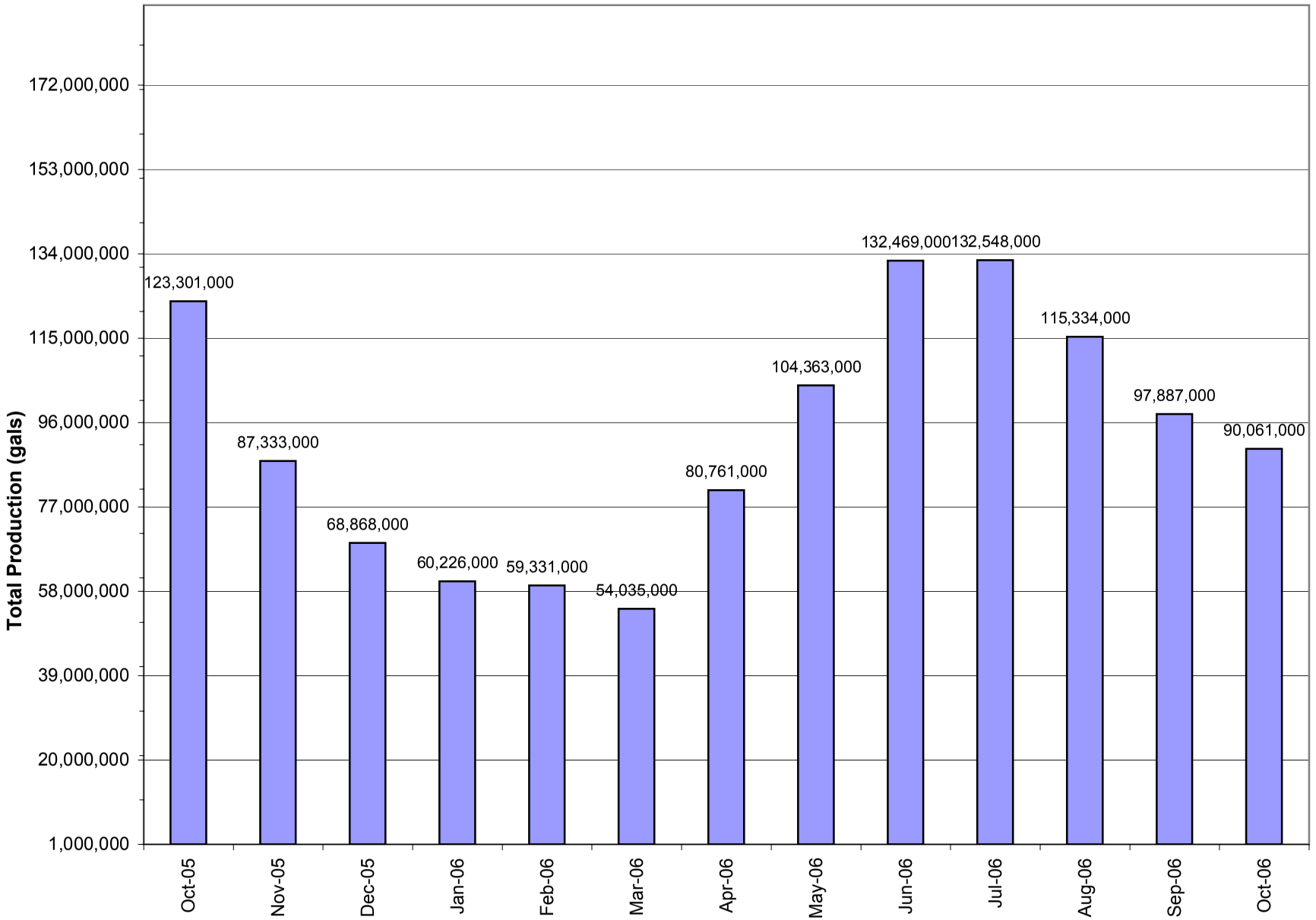

Figure G-3. Total Groundwater Pumped by KAFB Water supply Wells, FY06

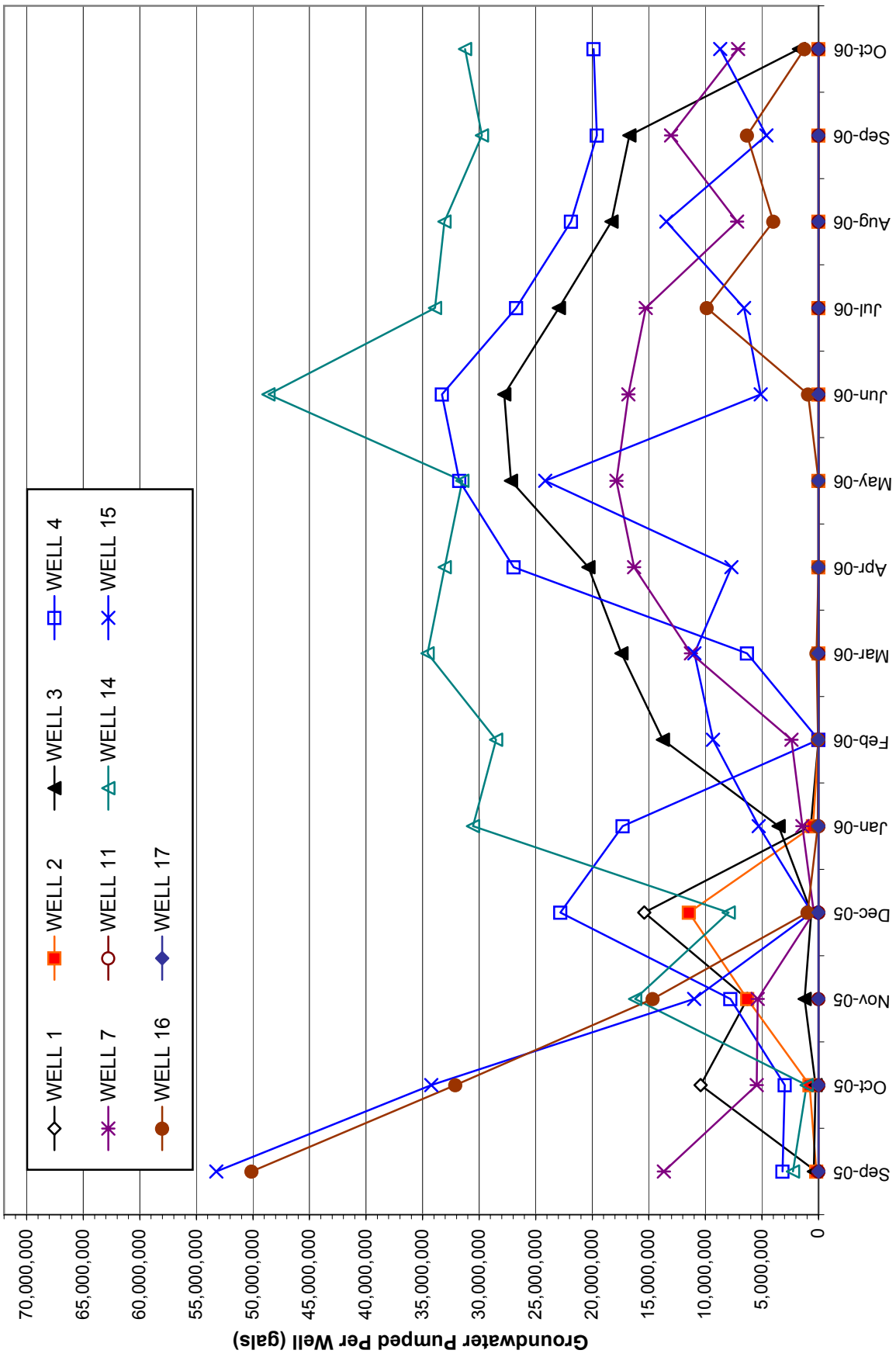

Figure G-4. Groundwater Pumped by KAFB Water Supply Wells, FY06

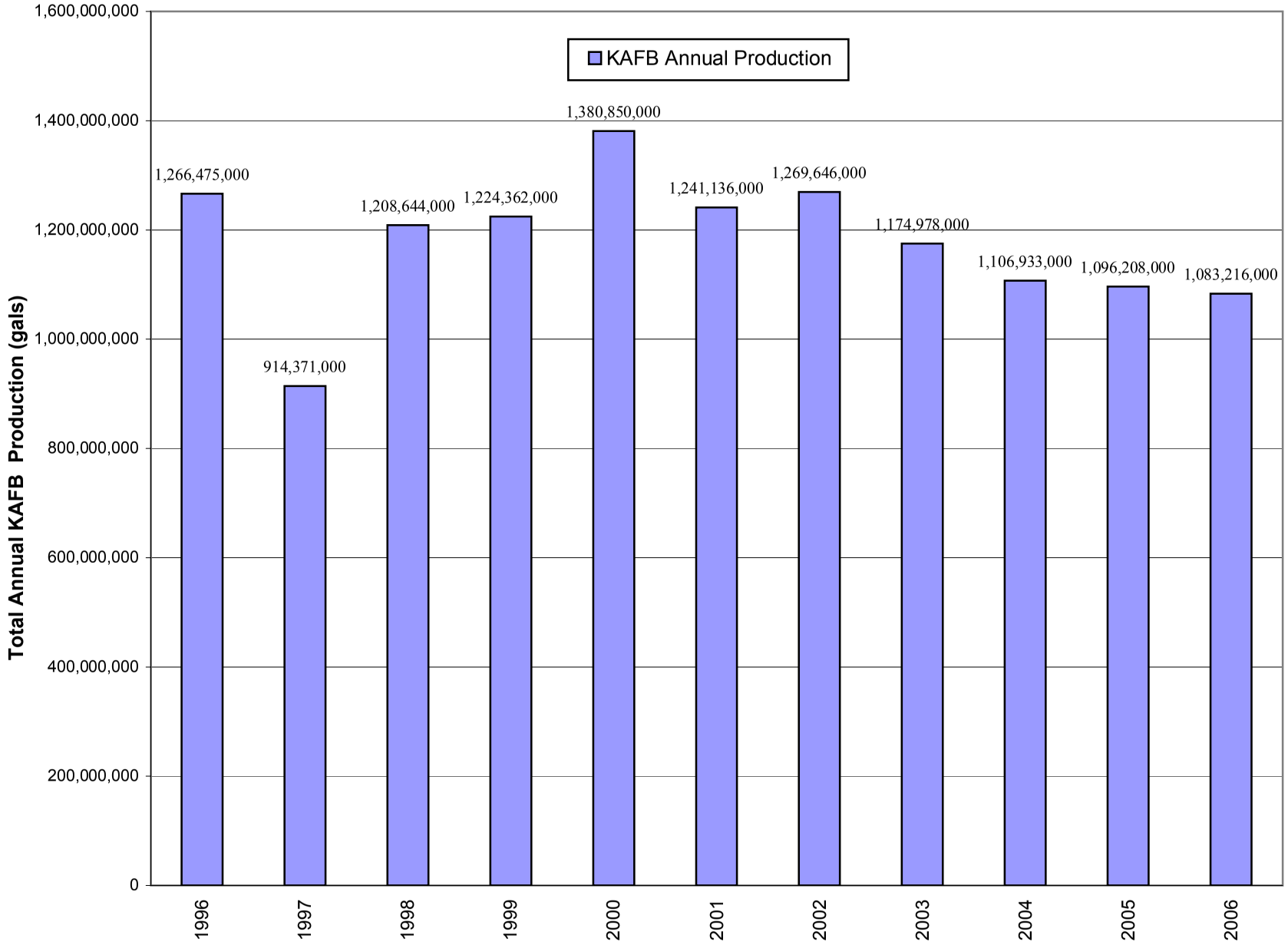

Figure G-5. Annual Groundwater Pumped by KAFB Water Supply Wells, 1996 to 2006

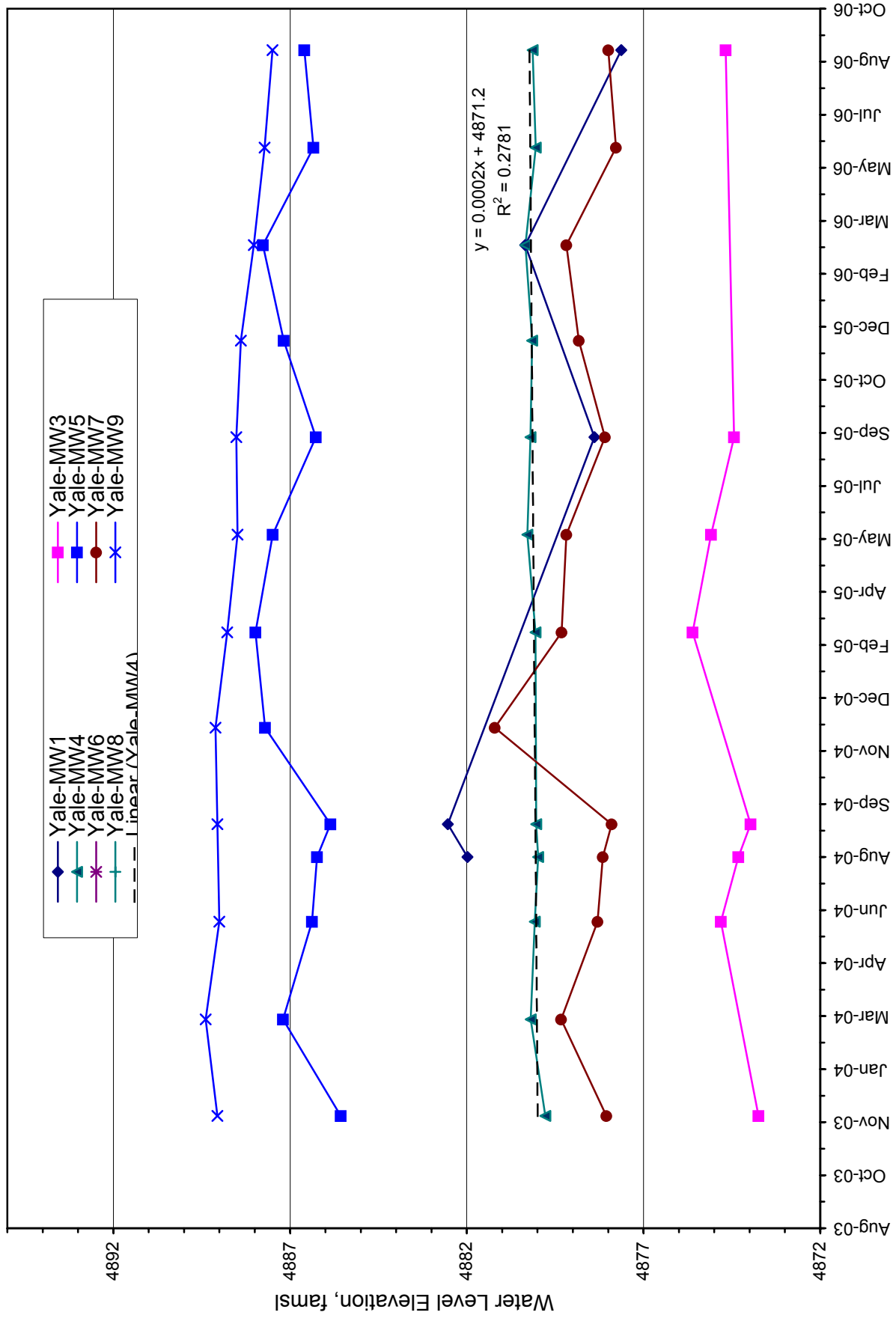

Figure G-6. City of Albuquerque Wells

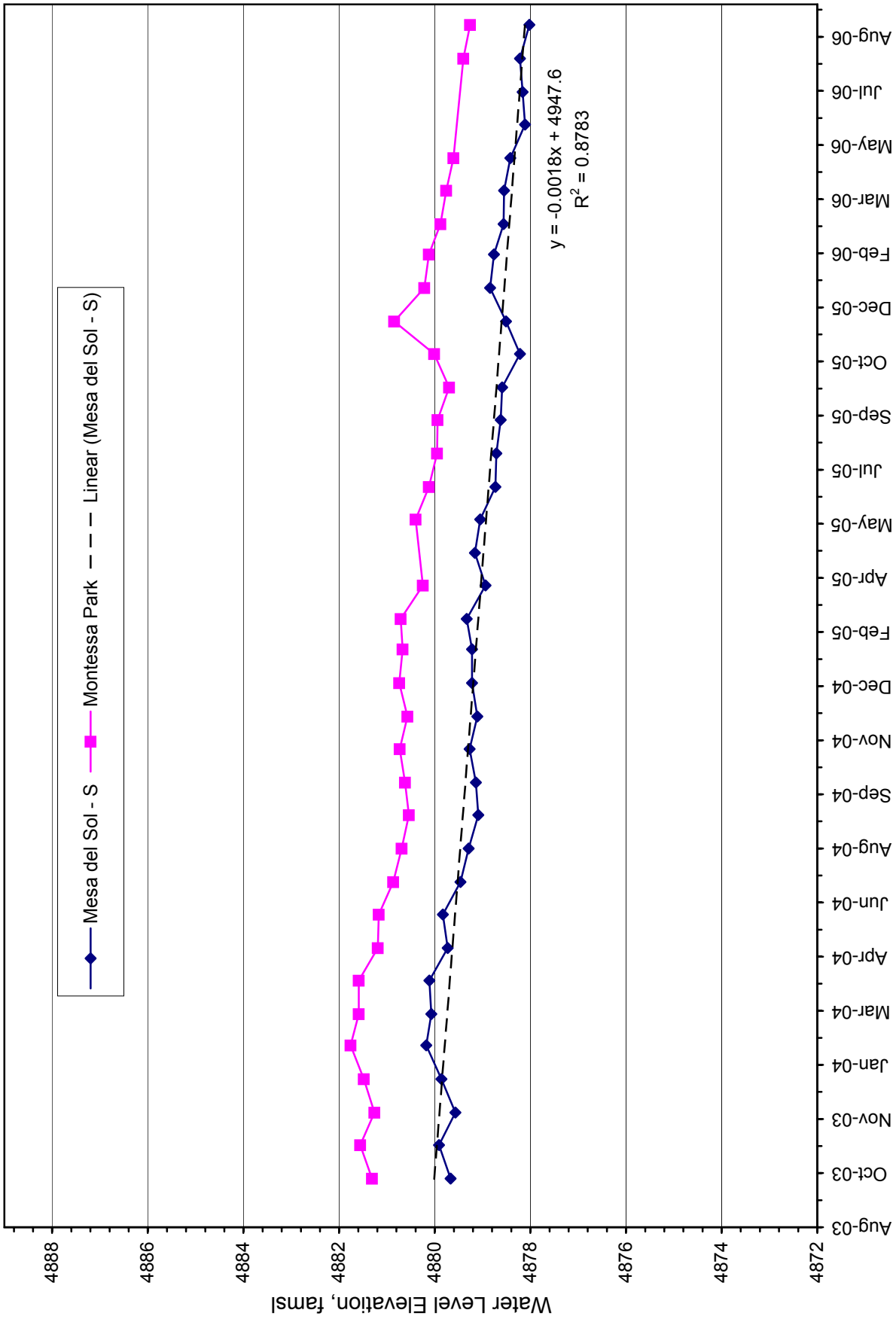

Figure G-7. TA-V Wells

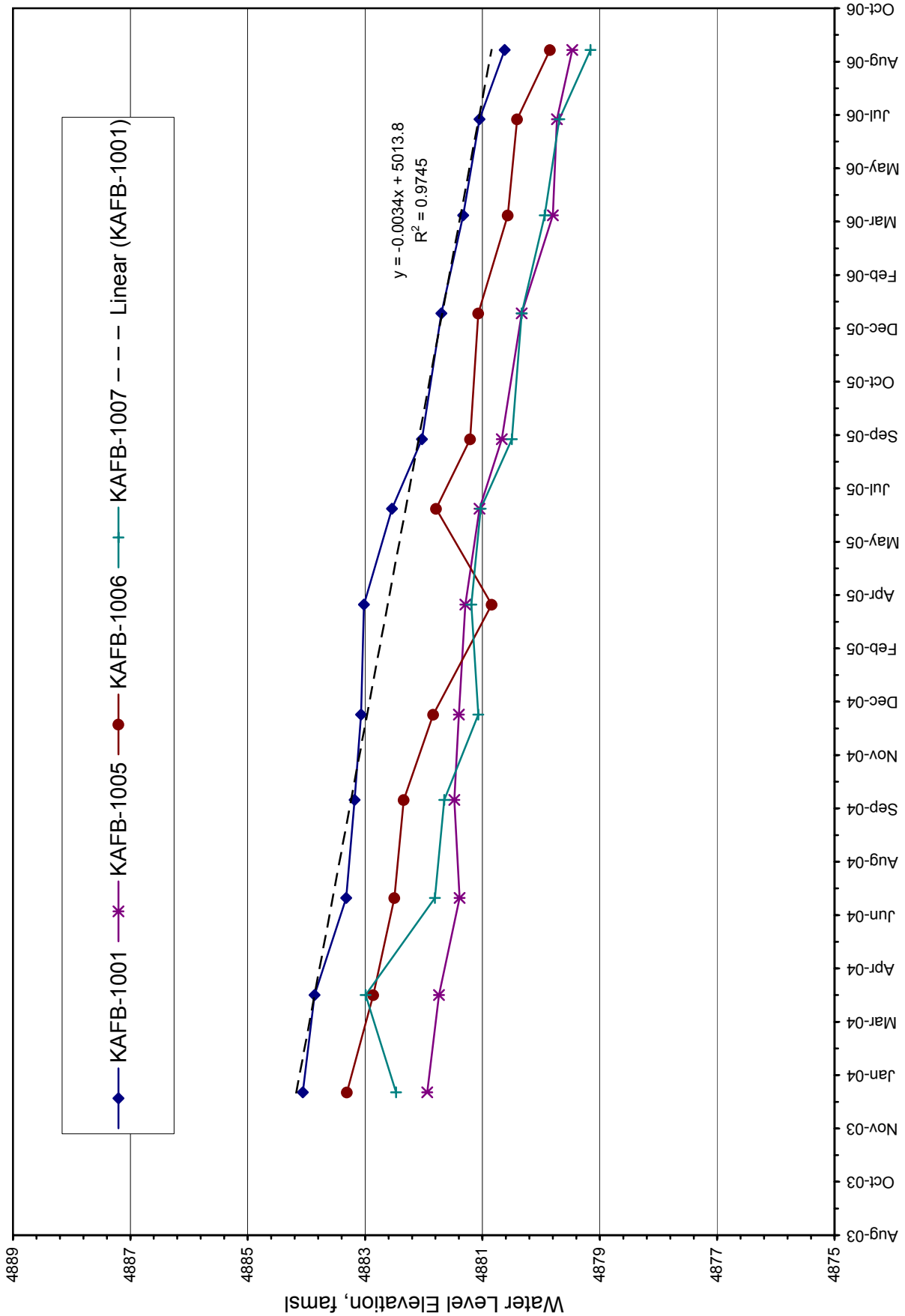

Figure G-8. McCormick Wells

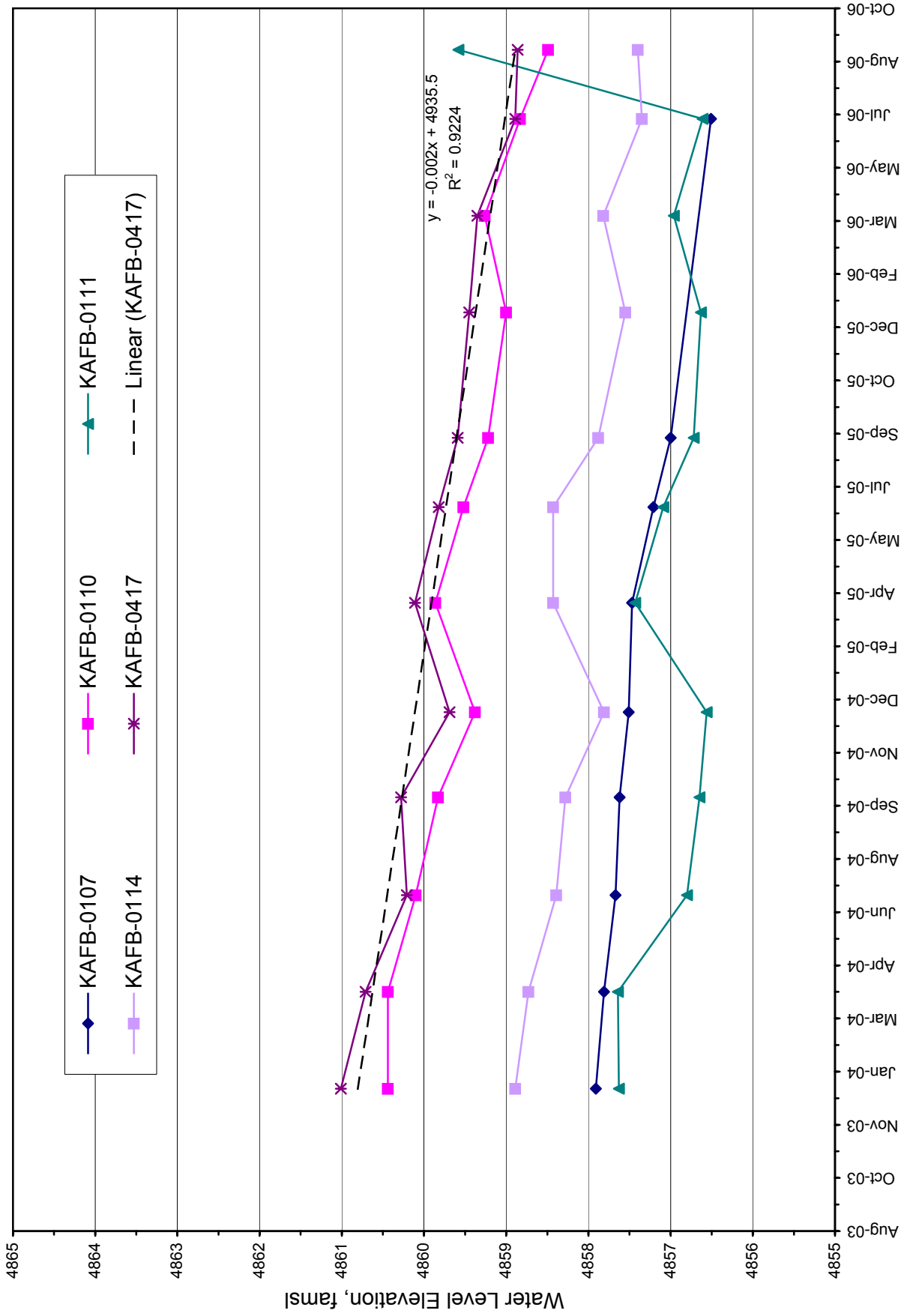

Figure G-9. KABF North Wells (1 of 2)

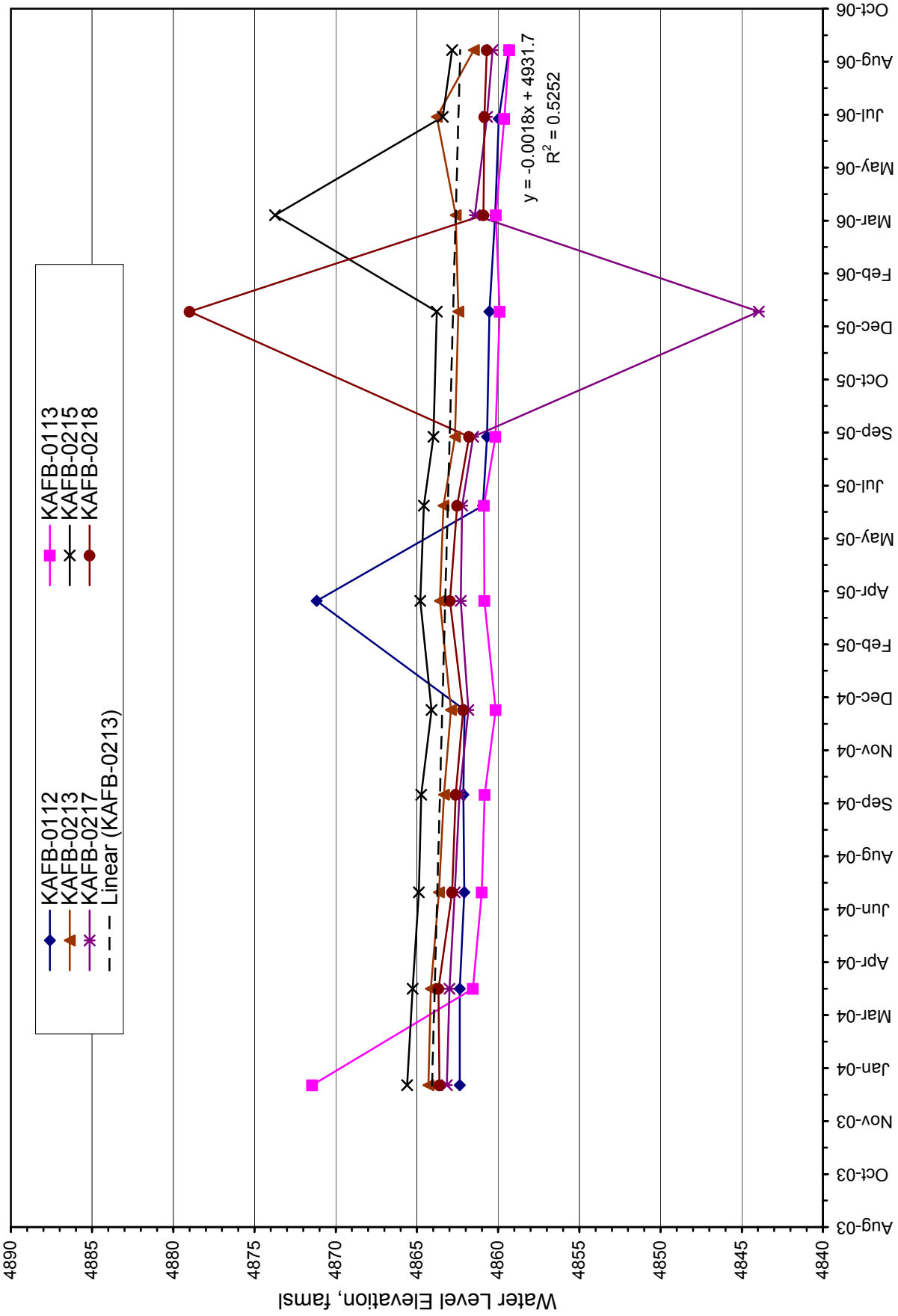

Figure G-10. KABF North Wells (2 of 2)

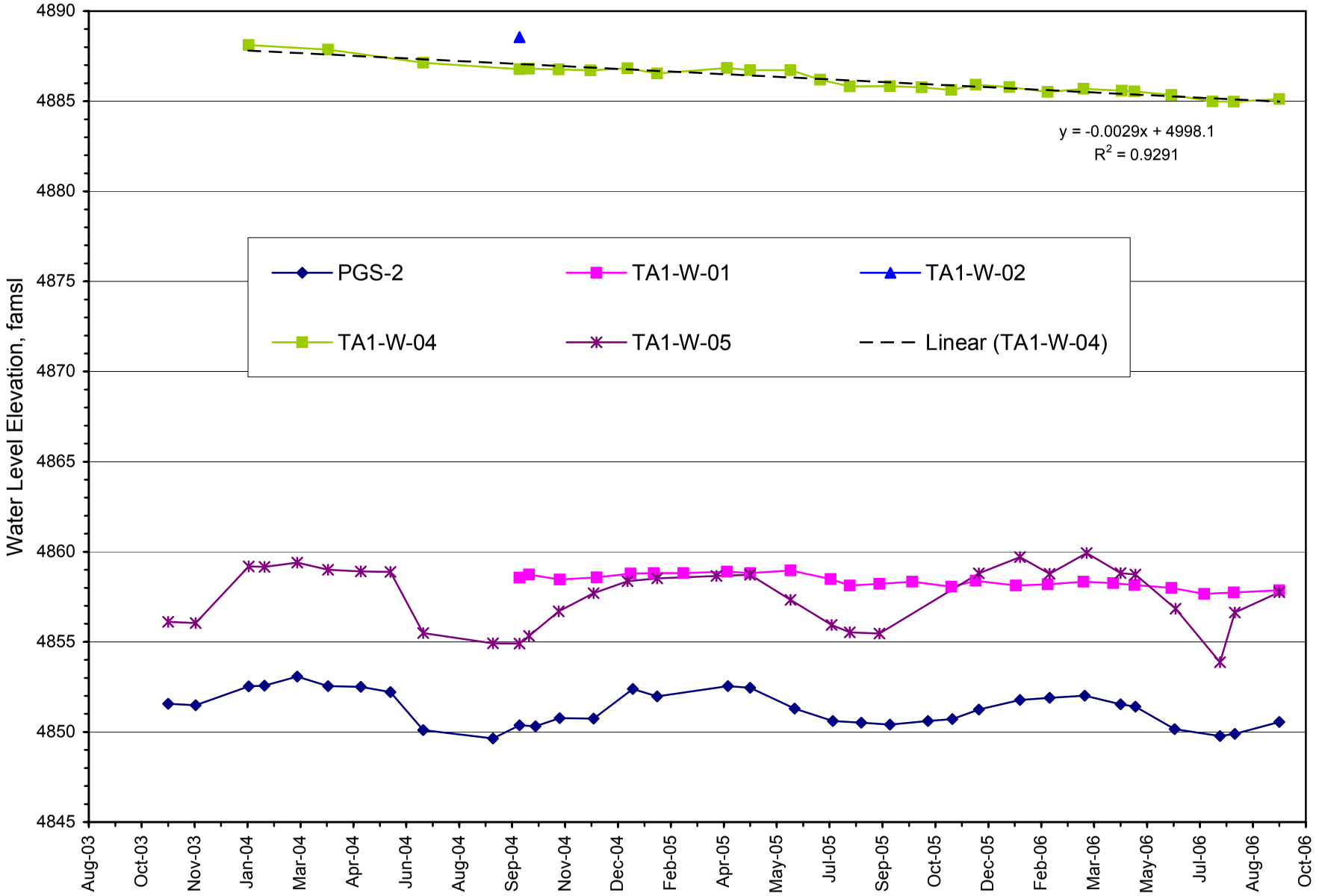

Figure G-11. KABF Northeast Wells (1 of 2)

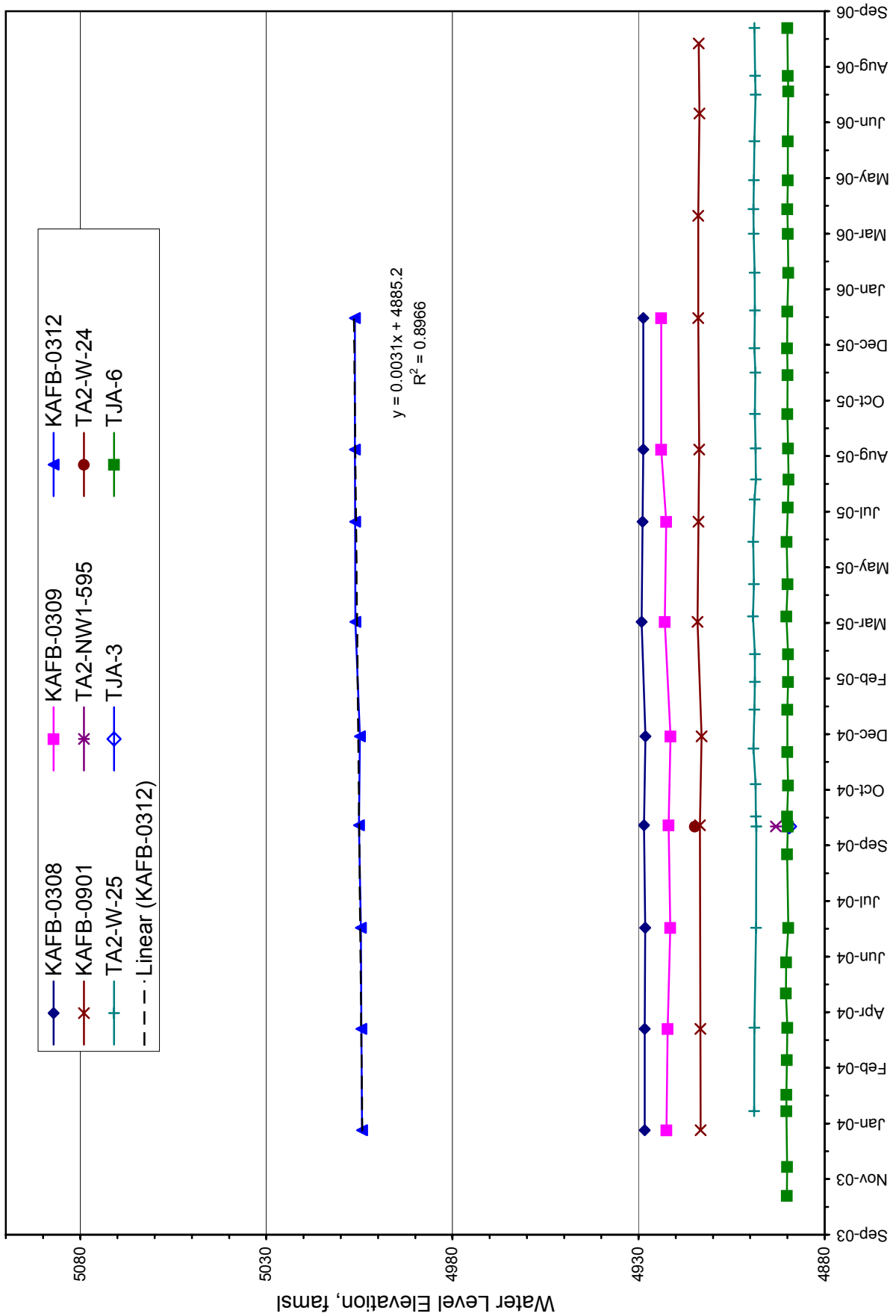

Figure G-12. KABF Northeast Wells (2 of 2)

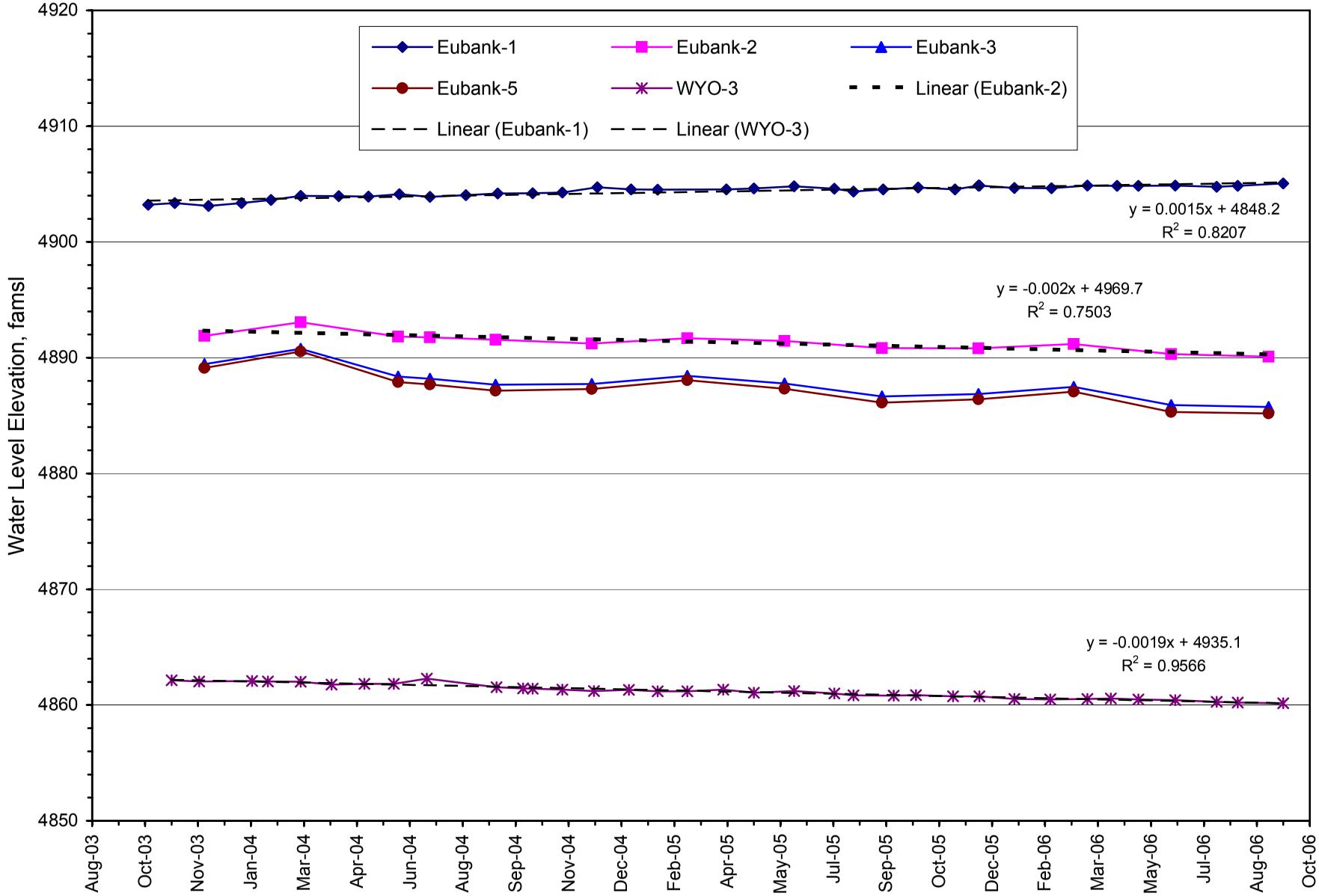

Figure G-13. Eubank Wells

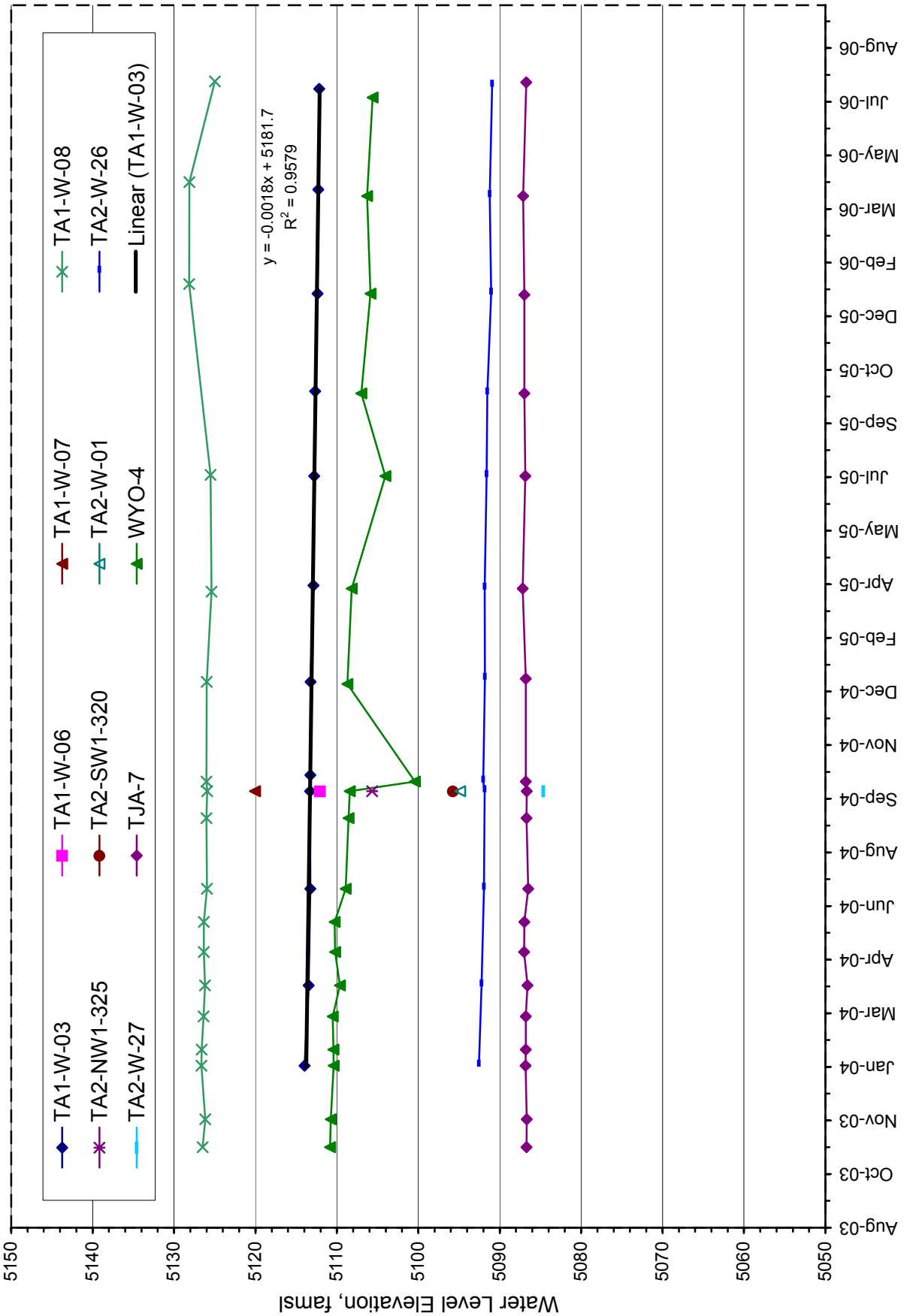

Figure G-14. KABF Shallow Wells (1 of 3)

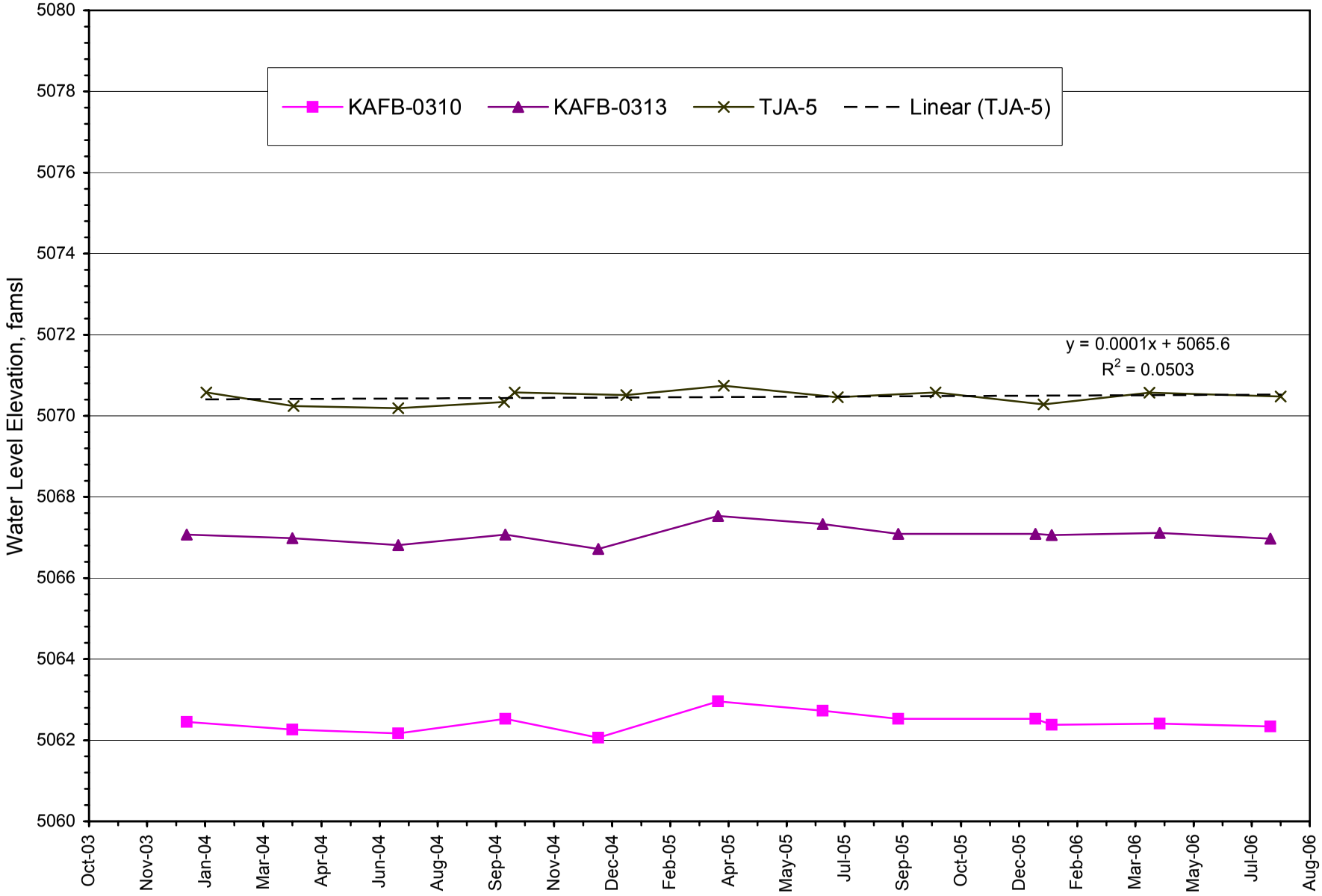

Figure G-15. KABF Shallow Wells (2 of 3)

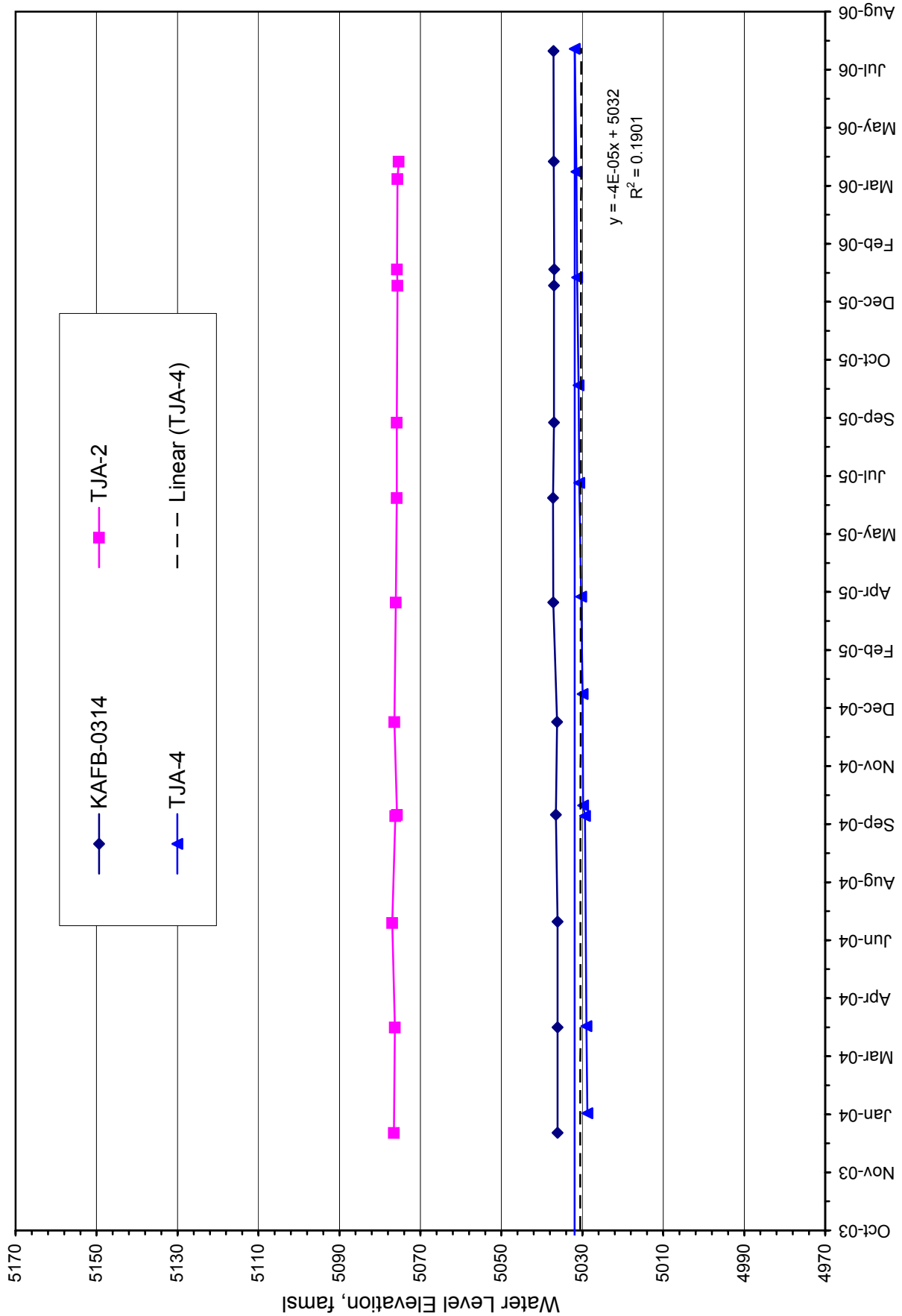

Figure G-16. KABF Shallow Wells (3 of 3)

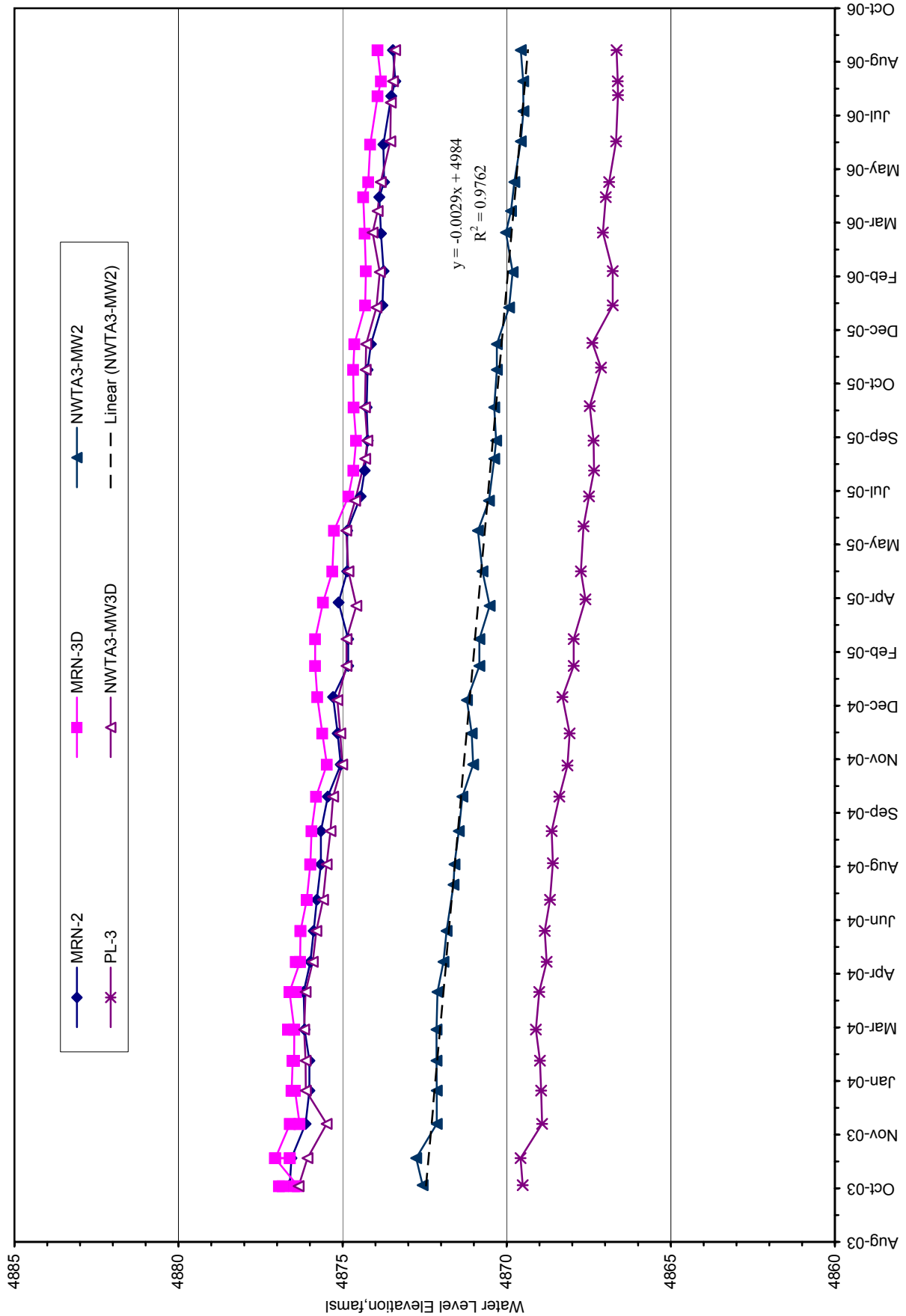

Figure G-17. Wells West of TA-III (1 of 2)

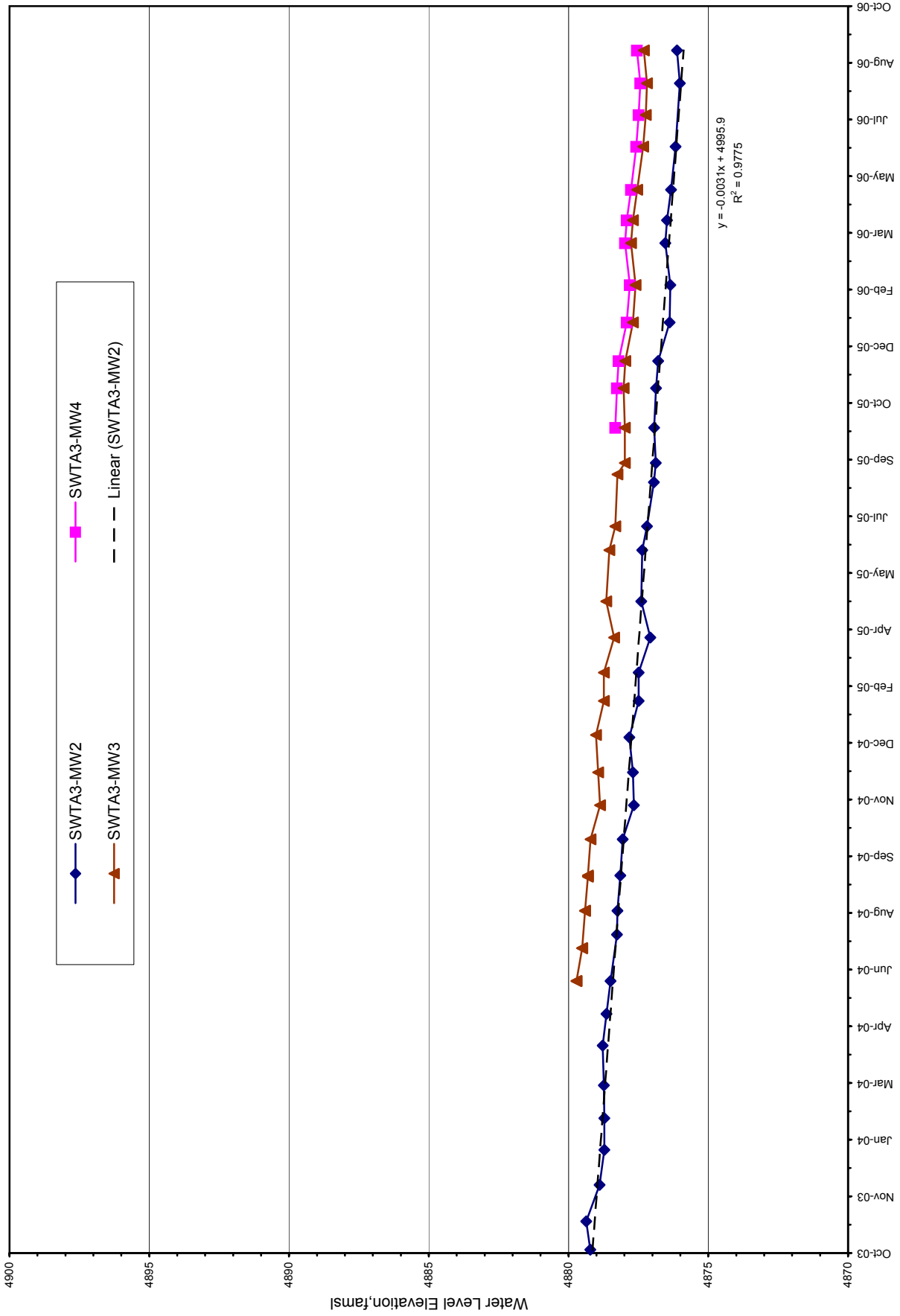

Figure G-18. West of TA-III Wells (2 of 2)

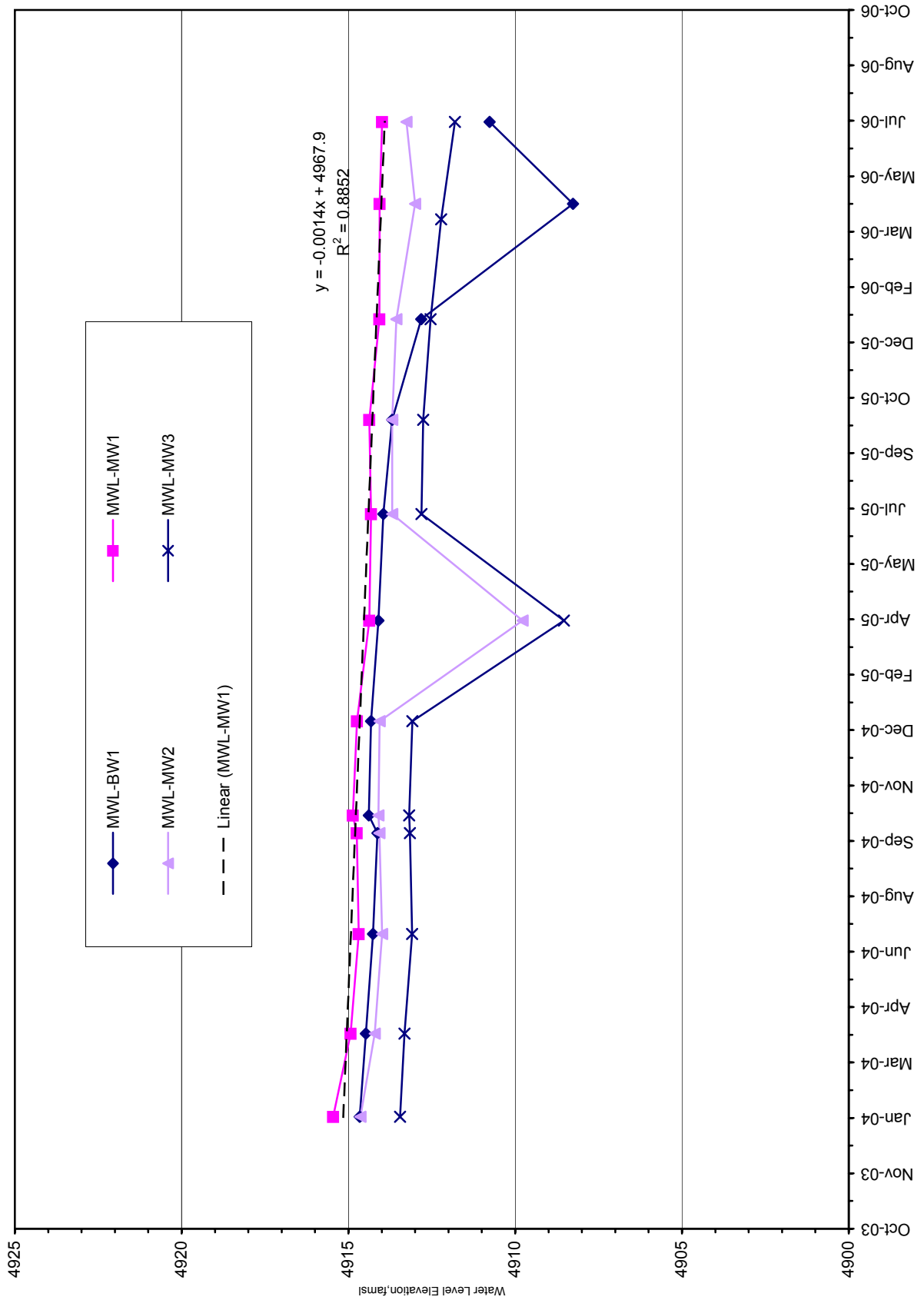

Figure G-19. MWL Area Wells (1 of 2)

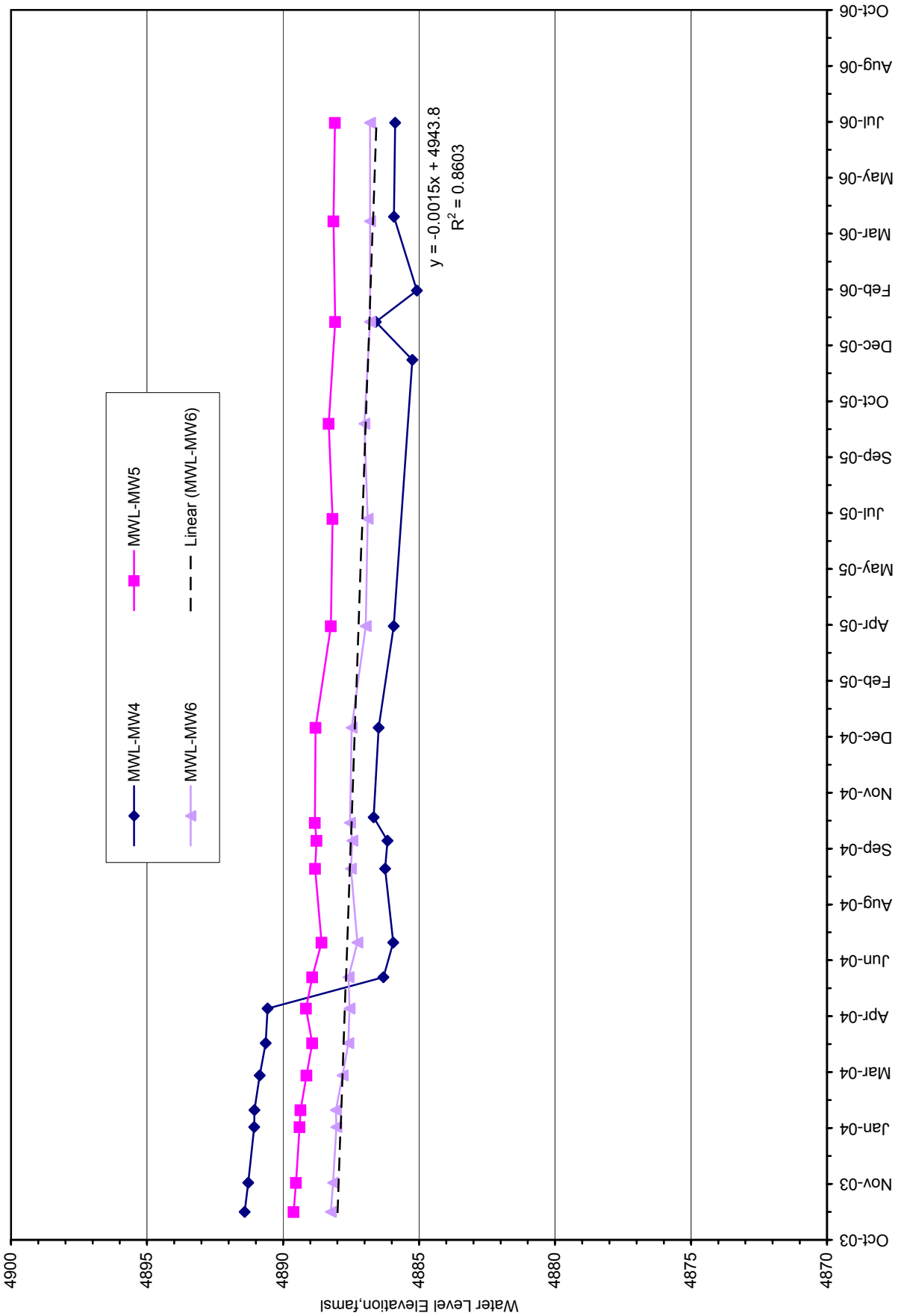

Figure G-20. MWL Area Wells (2 of 2)

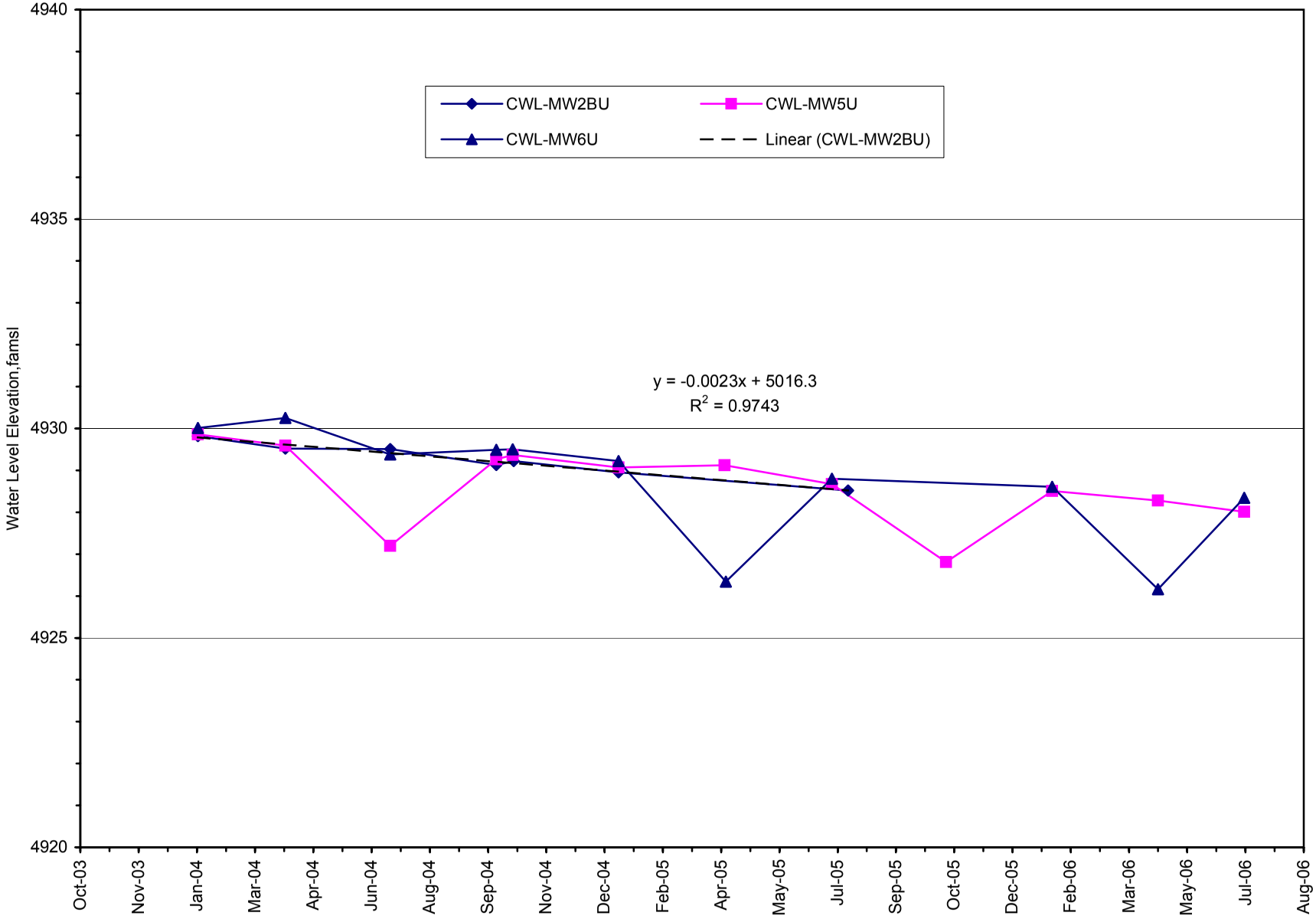

Figure G-21. CWL Area Wells (1 of 2)

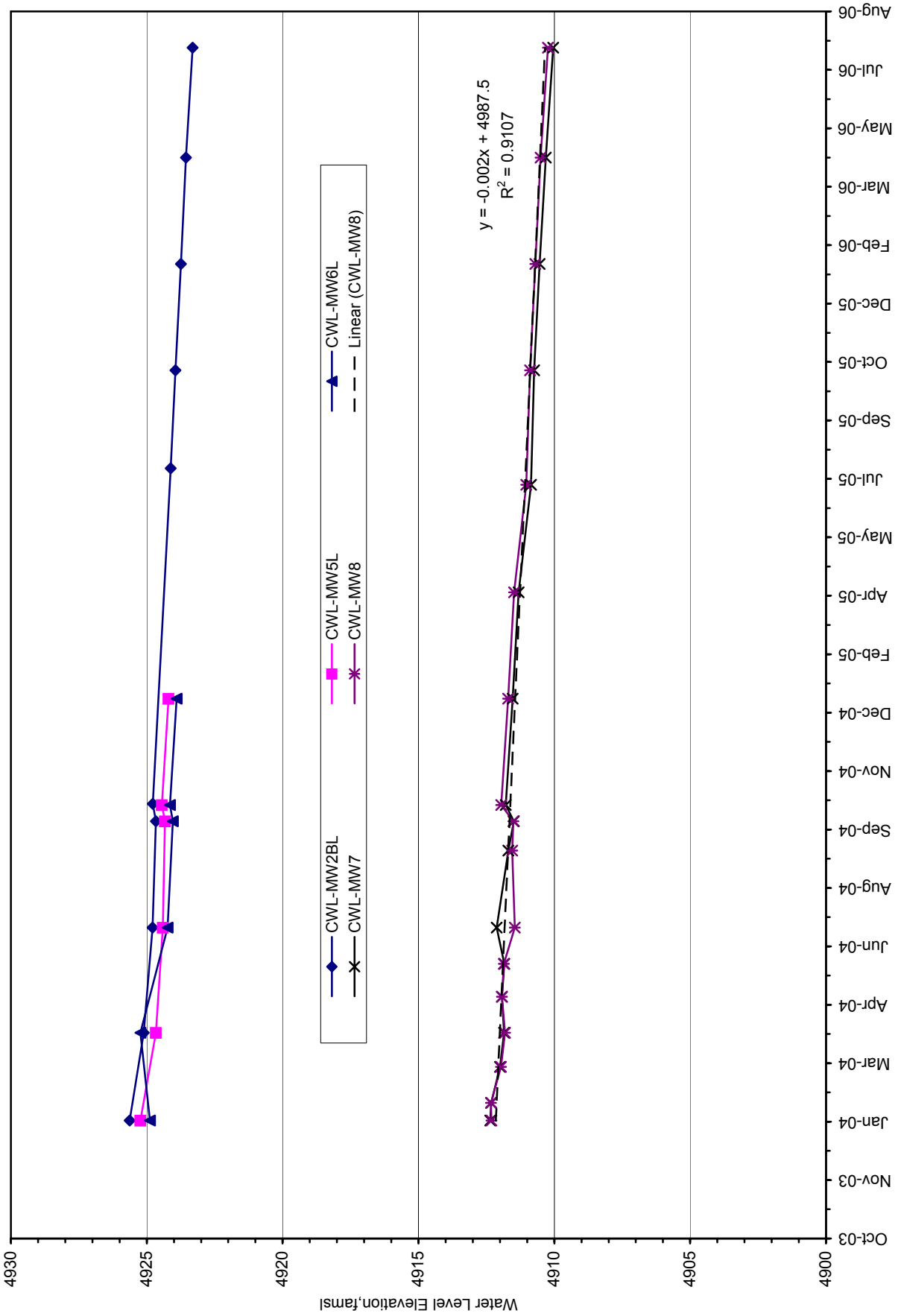

Figure G-22 CWL Area Wells (2 of 2)

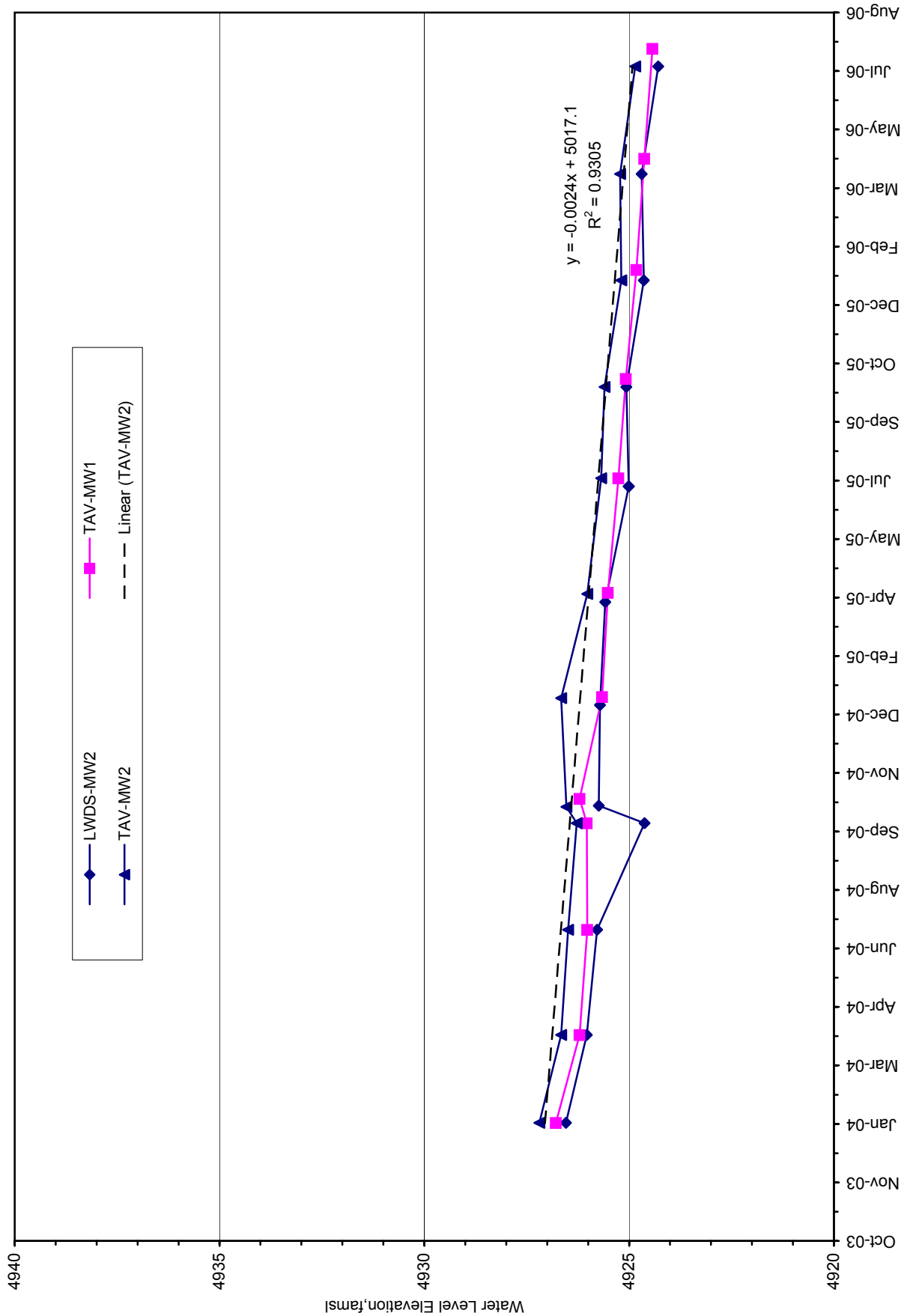

Figure G-23. TA-V Area Wells (1 of 4)

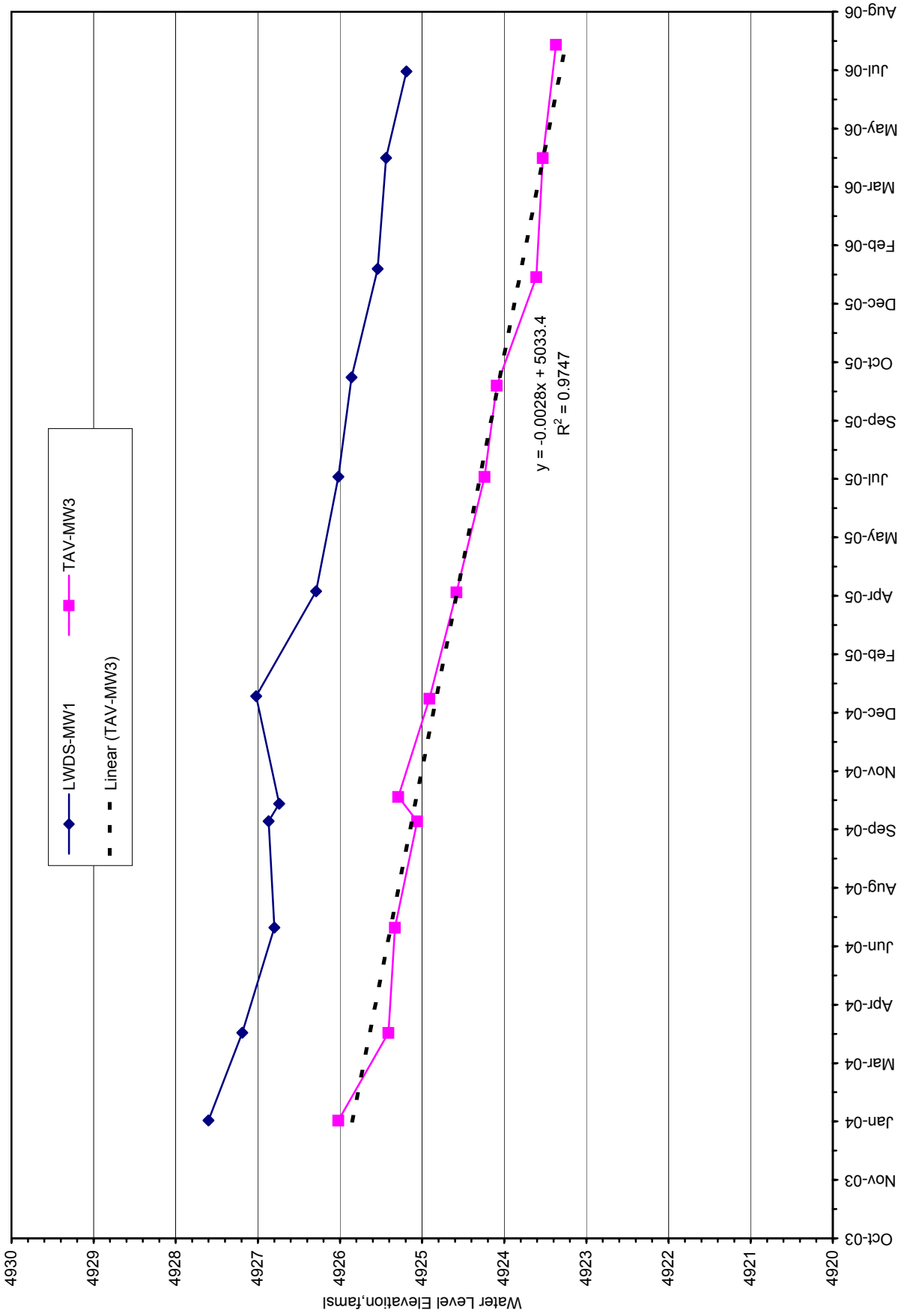

Figure G-24. TA-V Area Wells (2 of 4)

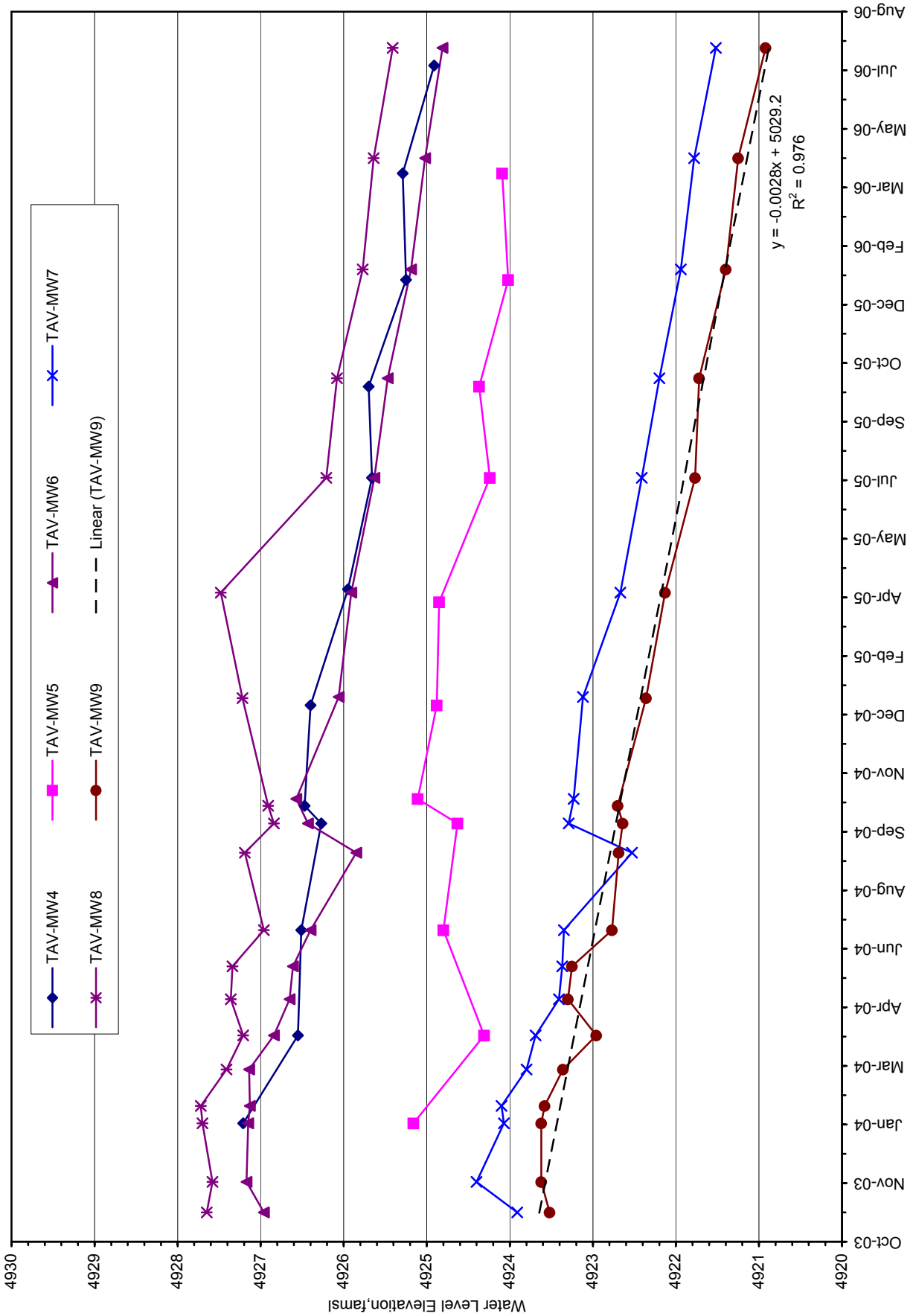

Figure G-25. TA-V Area Wells (3 of 4)

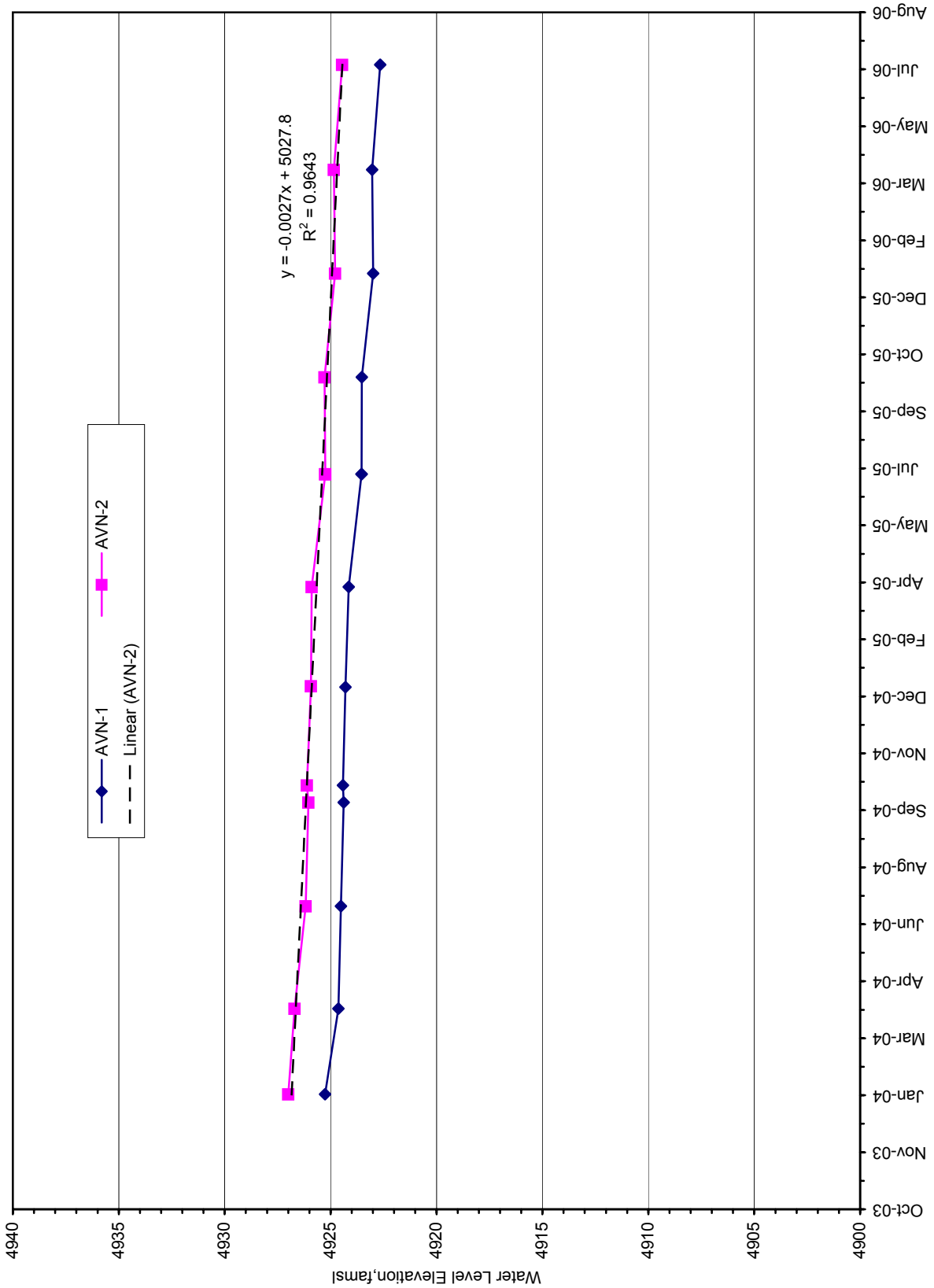

Figure G-26. TA-V Area Wells (4 of 4)

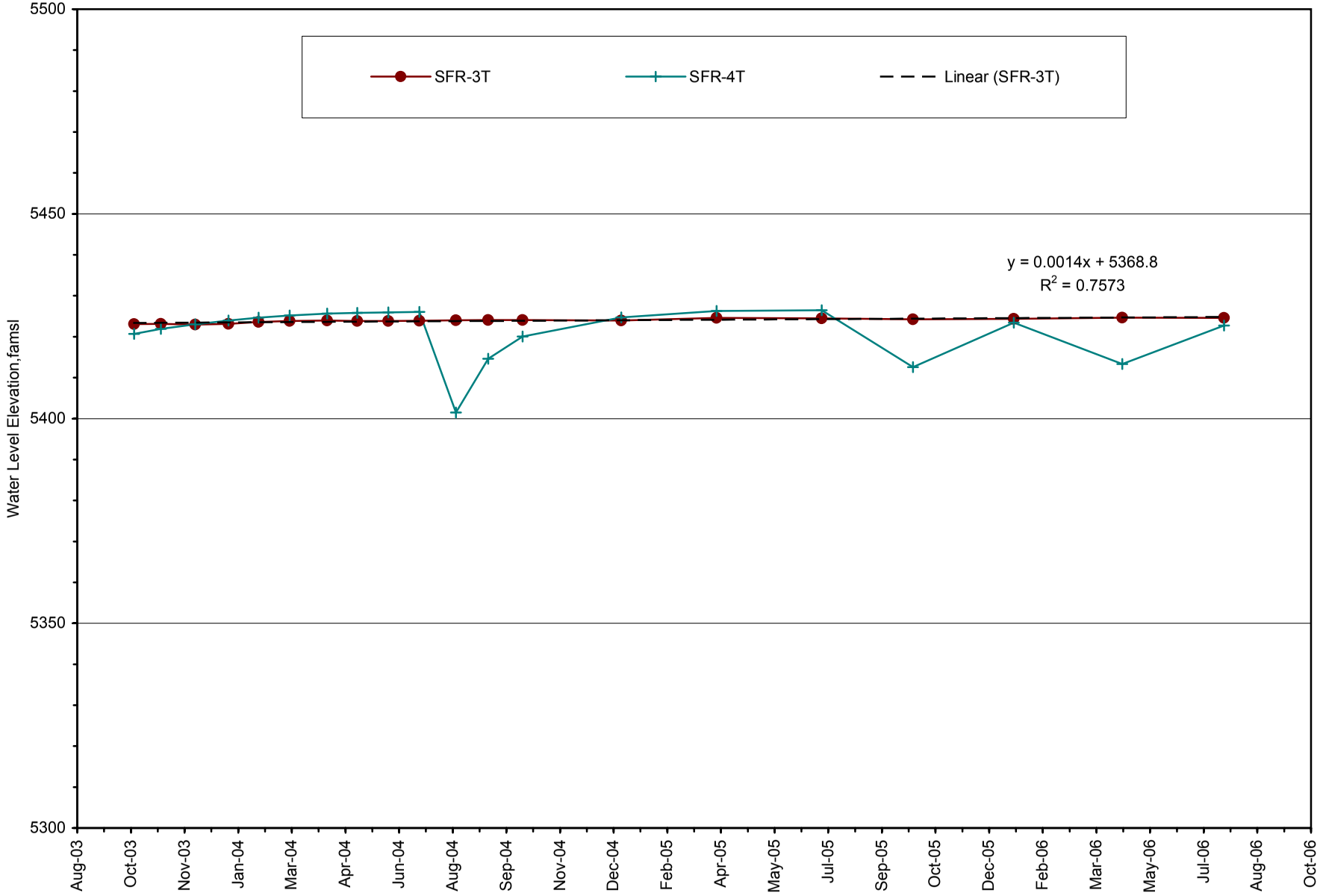

Figure G-27. KAFB South Area Wells (1 of 2)

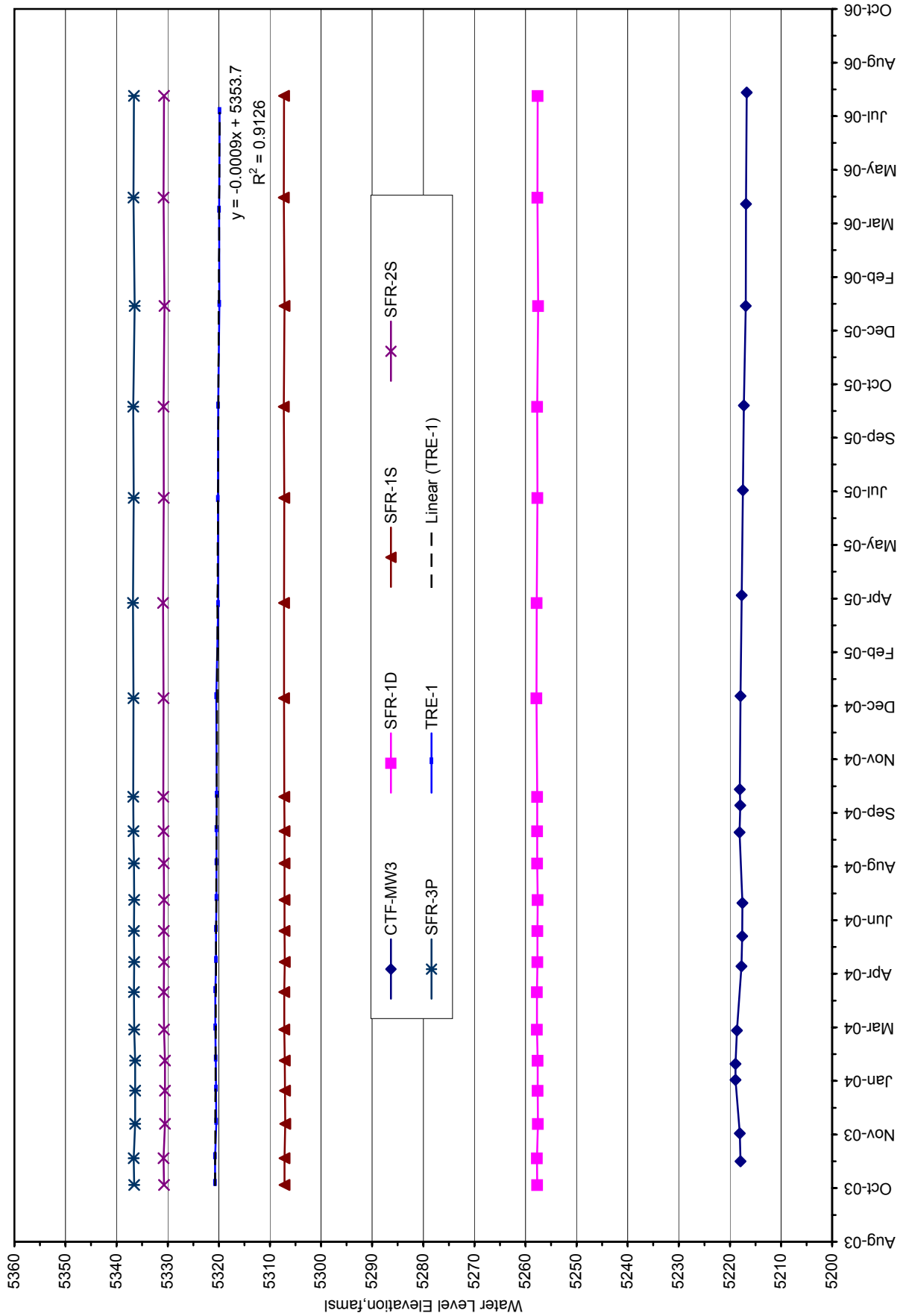

Figure G-28. KAFB South Area Wells (2 of 2)

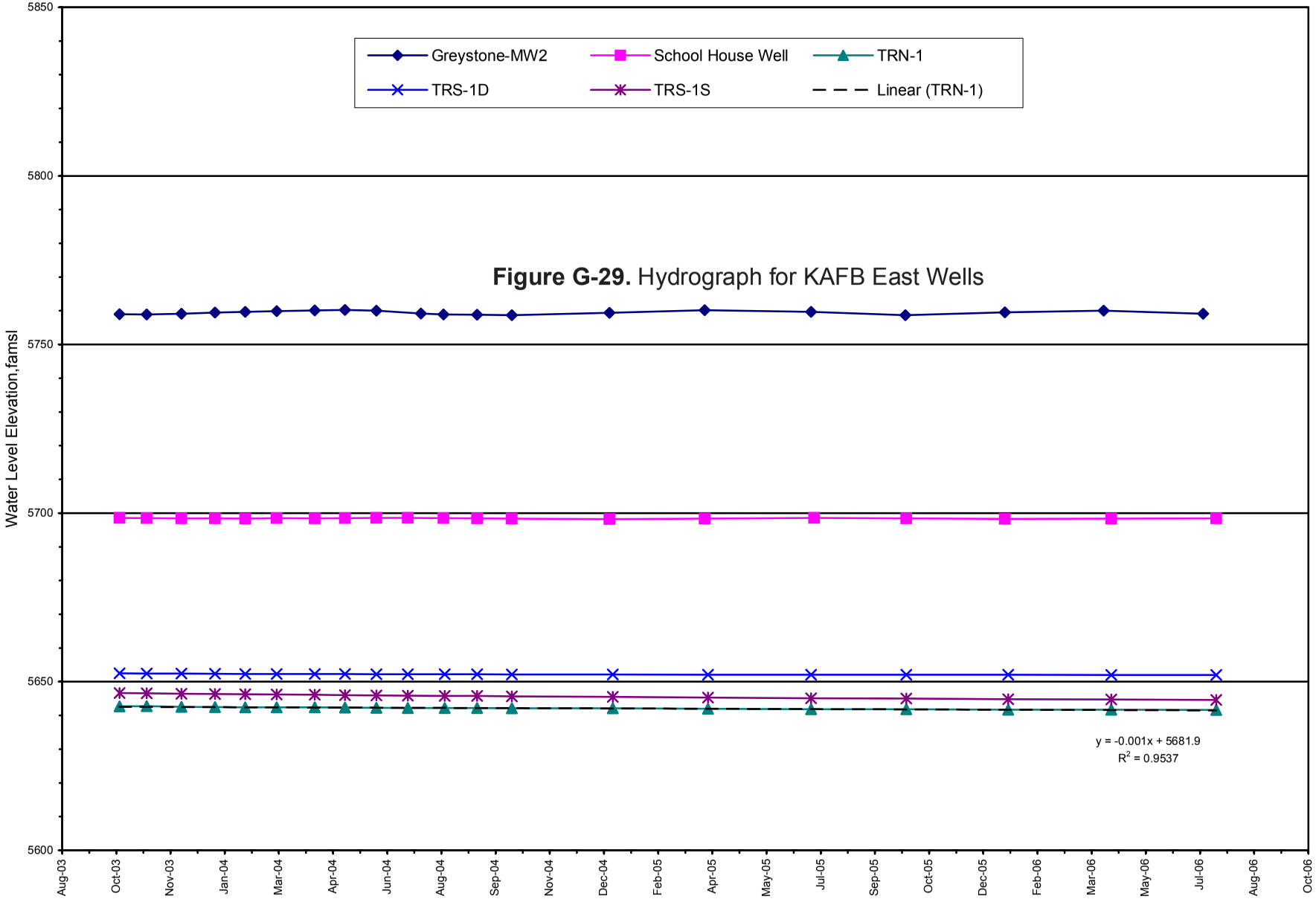

Figure G-29. Hydrograph for KAFB East Wells

Figure G-29. KAFB East Wells

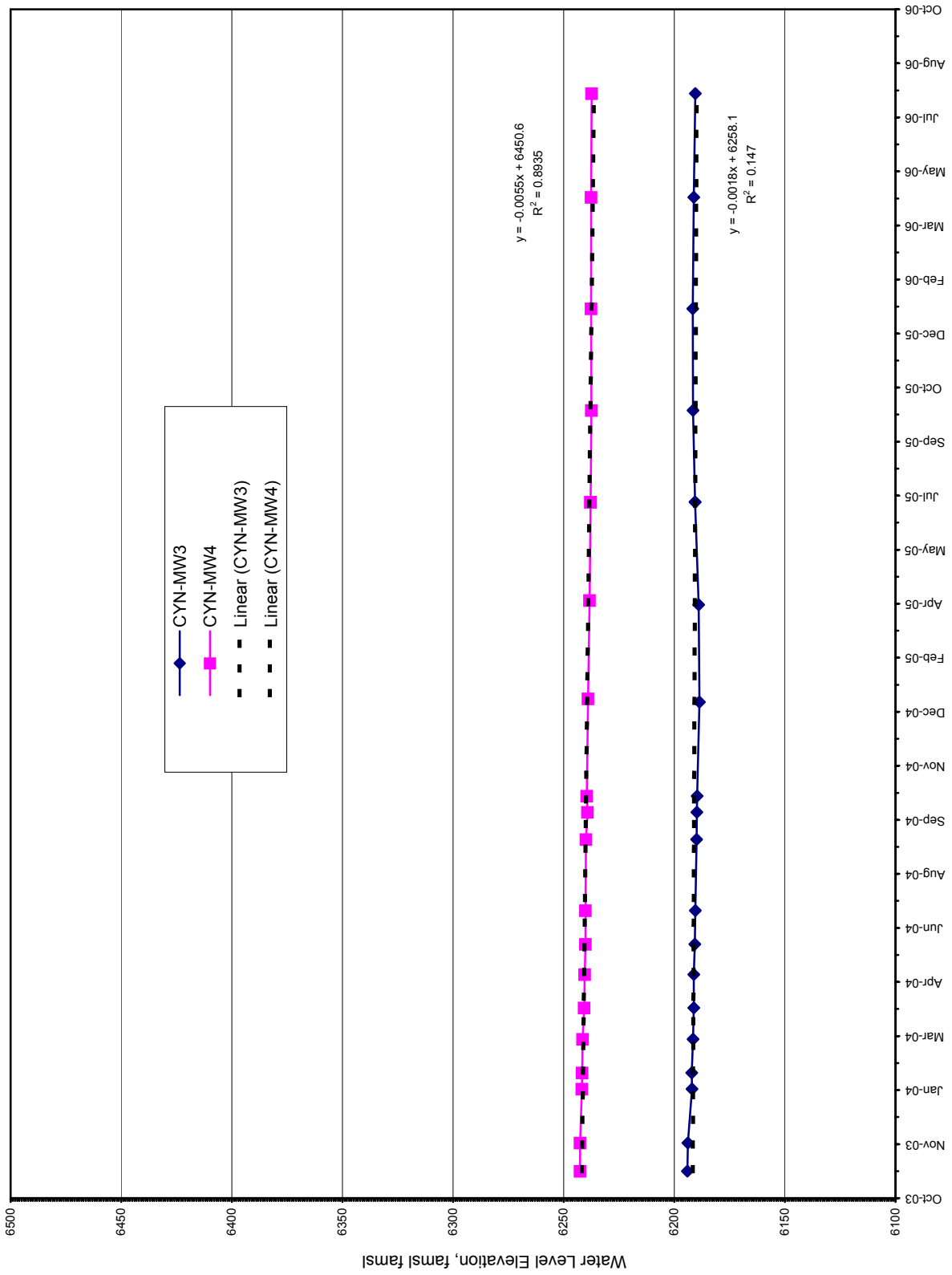

Figure G-30. Burn Site Groundwater Area Wells (1 or 2)

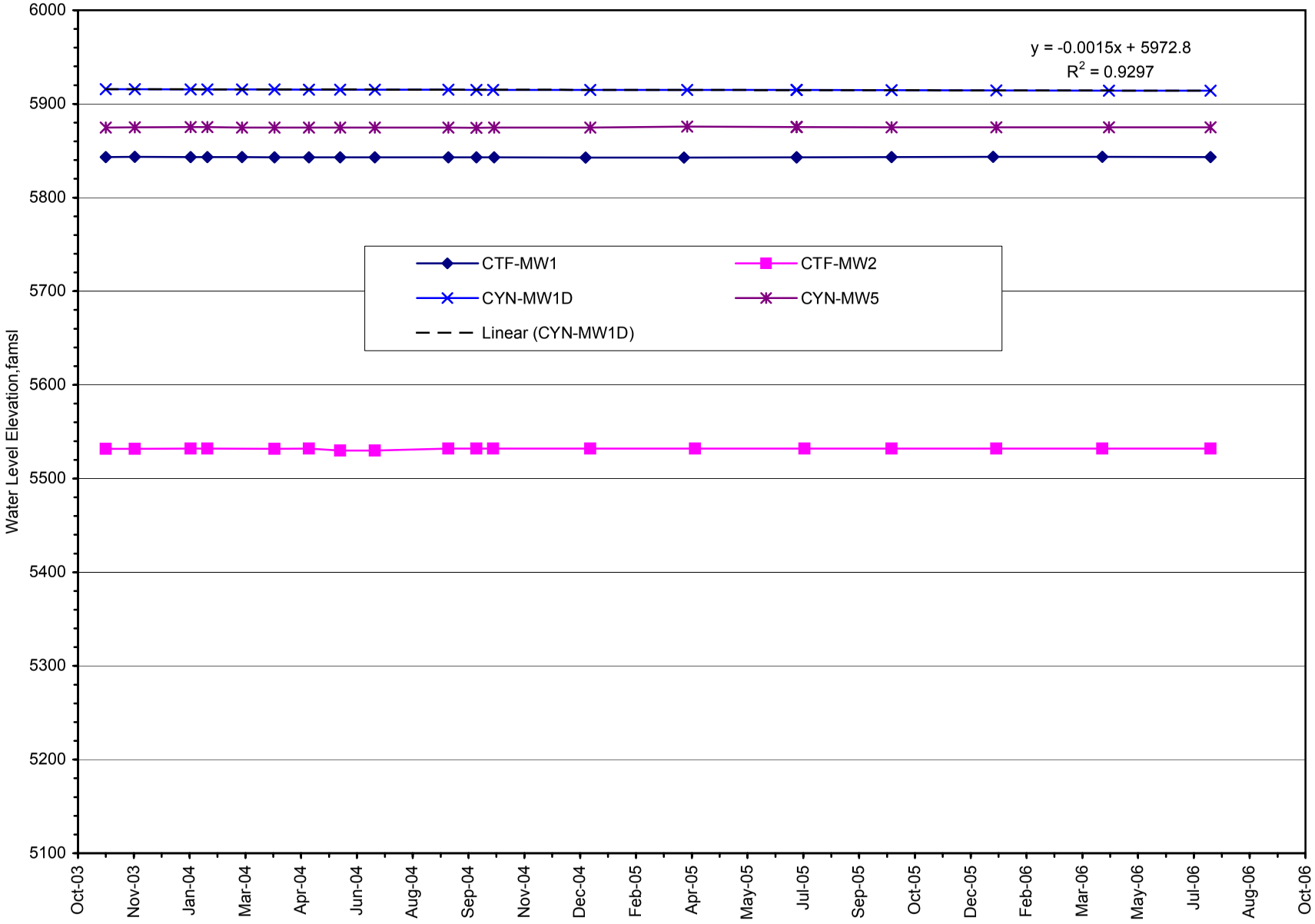

Figure G-31. Burn Site Groundwater Area Wells (2 or 2)

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