FINAL

2019 INTERIM NORTHERN AREA GROUNDWATER MONITORING PLAN

Version 11

Fort Wingate Depot Activity
McKinley County, New Mexico

April 2020

Contract No. W912PP-15-D-0001
W912PP19F0001

Prepared for:

US Army Corps of Engineers

U.S. Army Corps of Engineers
Albuquerque District
4101 Jefferson Plaza NE
Albuquerque, New Mexico 87109

Prepared by:

Environmental Excellence

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April 14, 2020

Base Realignment and Closure Division

Mr. Kevin Pierard
Chief, Hazardous Waste Bureau
New Mexico Environmental Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6313

RE: Final 2019 Interim Northern Area Groundwater Monitoring Plan, Version 11 at Fort Wingate Depot Activity (FWDA), McKinley County, New Mexico EPA# NM6213820974

Dear Mr. Pierard:

The purpose of this letter is to transmit the Final 2019 Interim Northern Area Groundwater Monitoring Plan, Version 11. The enclosed monitoring plan covers activities to be performed at the Fort Wingate Depot Activity (FWDA), authorized under RCRA Permit EPA ID No. NM6213820974. The enclosed monitoring plan provides methods for groundwater elevation measurements and sampling from monitoring wells within the boundaries of the FWDA.

If you have questions or require further information, please contact me at George.h.cushman.civ@mail.mil, 703-455-3234 (Temporary Home Office, preferred) or 703-608-2245 (Mobile).

Sincerely,

George H Cushman IV

George H. Cushman IV
BRAC Environmental Coordinator
Fort Wingate Depot Activity

Enclosures

CF:	Media
Kevin Pierard, NMED, HWB	2 hard copies, 2 Disks
Dave Cobrain	With Pierard
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14. ABSTRACT
This work plan proposes the activities for periodic groundwater monitoring at Fort Wingate Depot Activity. This plan is a revision to the previous version 10 plan and addresses groundwater monitoring in the northern area of the installation. The primary data quality objective is to monitor existing groundwater contaminant plumes. This plan presents field sampling methods, a revised monitoring schedule, laboratory analytical methods, and quality control procedures.

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Ft. Wingate Depot Activity Submission

Quality Control Checklist

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Ft. Wingate Depot Activity, McKinley County, New Mexico

Contract Number: **W912PP19F0001** **Contractor:** **Eco and Associates, Inc.**

USACE PM: **Saqib Khan / Chelsea Montoya**

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Ft. Wingate Depot Activity Submission

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Ft. Wingate Depot Activity Submission

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(CONTRACTOR)

FINAL APPROVAL LETTER PLACEHOLDER

Upon approval by the New Mexico Environment Department - Hazardous Waste Bureau of this 2019 Interim Northern Area Groundwater Monitoring Plan Version 11, a copy of the signed approval letter will be placed here.

DOCUMENT CERTIFICATION

2019 Interim Northern Area Groundwater Monitoring Plan, Version 11

Fort Wingate Depot Activity, McKinley County, New Mexico

40 CFR 270.11

April 2020

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

George H Cushman IV

Mr. George H. Cushman IV
Base Realignment and Closure Environmental Coordinator

PREFACE

This 2019 Interim Northern Area Groundwater Monitoring Plan, Version 11, proposes the activities for periodic groundwater monitoring at Fort Wingate Depot Activity (FWDA), New Mexico. This plan is a revision to the previous version 10 plan and addresses groundwater monitoring in the northern area of the installation. The primary data quality objective is to monitor existing groundwater contaminant plumes. This plan presents field sampling methods, a revised monitoring schedule, laboratory analytical methods, and quality control procedures and fulfills requirements of the performance work statement effective December 19, 2018, under contract number W912PP-15-D-0001.

This Interim Northern Area Groundwater Monitoring Plan was prepared by Eco & Associates, Inc., in July 2019. Mr. Mark Patterson served as the FWDA Defense Base Realignment and Closure Environmental Coordinator, Mr. Steve Smith served as the U.S. Army Corps of Engineers Program Manager, and Mr. Saqib Khan served as the U.S. Army Corps of Engineers Project Manager.

Mohammad Estiri
Program Director

FINAL

2019 INTERIM NORTHERN AREA GROUNDWATER MONITORING PLAN

VERSION 11

Fort Wingate Depot Activity
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Prepared for:
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Project No.: Eco-18-1237

DOCUMENT DISTRIBUTION LIST

2019 Interim Northern Area Groundwater Monitoring Plan
Version 11

Fort Wingate Depot Activity
McKinley County, New Mexico

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ABBREVIATIONS & ACRONYMS

BIA = Bureau of Indian Affairs
BIA-NRO = Bureau of Indian Affairs – Navajo Regional Office
BRACD = U.S. Army Base Realignment and Closure Division
COR = Contracting Officer's Representative
DoI-BIA = Department of the Interior – Bureau of Indian Affairs
EPA 6 = U.S. Environmental Protection Agency Region 6
FWDA = Fort Wingate Depot Activity
FWDA BEC = Fort Wingate Depot Activity Base Realignment and Closure Environmental Coordinator
NM = New Mexico
NMED HWB = New Mexico Environment Department, Hazardous Waste Bureau
NN = Navajo Nation
OH = Ohio
POZ = Pueblo of Zuni
USACE = U.S. Army Corps of Engineers
USACE SWF = U.S. Army Corps of Engineers Fort Worth District

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

LIST OF ABBREVIATIONS AND ACRONYMS

°	degree – measurement of an angle
°F	degree Fahrenheit
µg/L	microgram per liter
ADR	automated data review
amsl	above mean sea level
AOC	area of concern
Army	U.S. Department of the Army
bgs	below ground surface
BRAC	Base Realignment and Closure
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR	Code of Federal Regulations
COPC	contaminant of potential concern
COR	Contracting Officer’s Representative
CSM	conceptual site model
DL	detection limit
DOD	U.S. Department of Defense
DOE	U.S. Department of Energy
DOI	U.S. Department of the Interior
DQE	data quality evaluation
DQO	data quality objective
DRO	diesel range organics
DTW	depth to water
Eco	Eco & Associates, Inc.
EDMS	Electronic Data Management System
ELAP	Environmental Laboratory Accreditation Program
EMAX	EMAX Laboratories, Inc.
EPA	U.S. Environmental Protection Agency
FTR	Functional Test Range
FWDA	Fort Wingate Depot Activity
GMP	Groundwater Monitoring Program
GWMP	Groundwater Monitoring Plan
gpm	gallons per minute
PMR	Groundwater Periodic Monitoring Report
GRO	gasoline range organics
HWB	Hazardous Waste Bureau
HWMU	hazardous waste management unit
IDW	investigation-derived waste
LOD	limit of detection
LOQ	limit of quantitation
lpm	liters per minute
MCL	maximum contaminant level
mg/L	milligram per liter

MI	multi-incremental
mph	miles per hour
MS	matrix spike
MSD	matrix spike duplicate
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NM WQCC	New Mexico Water Quality Control Commission
ORP	oxidation reduction potential
OSE	Office of the State Engineer
PAH	polycyclic aromatic hydrocarbon
PARCCS	precision, accuracy, representativeness, completeness, comparability, and sensitivity
Pb	lead
PCB	polychlorinated biphenyl
QA	quality assurance pH scale used to measure the concentration of hydrogen atoms (acidity) of a sample
QC	quality control
QSM	Quality Systems Manual
RCRA	Resource Conservation and Recovery Act
RDX	hexahydro-1,3,5-trinitro-1,3,5-triazine
RFI	Resource Conservation and Recovery Act Facility Investigation
RSL	regional screening level
SIM	Selective Ion Monitoring
SSL	soil screening level
SVOC	semivolatile organic compound
SWF	Fort Worth District
SWMU	solid waste management unit
TAL	target analyte list
TNT	2,4,6-trinitrotoluene
TPH	total petroleum hydrocarbons
USACE	U.S. Army Corps of Engineers
USGS	U.S. Geological Survey
UST	underground storage tank
VOC	volatile organic compound
ZIST	zone isolation sampling technology

EXECUTIVE SUMMARY

Fort Wingate Depot Activity (FWDA) currently occupies approximately 24 square miles (15,277 acres) of land in western New Mexico in McKinley County. FWDA is located approximately 7 miles east of Gallup and 130 miles west of Albuquerque (Figures 1-2). The main entrance to FWDA is on U.S. Highway 66, west from Exit 33 off Interstate 40. FWDA includes 732 earth-covered igloos located throughout the property; a Workshop Area; and various mission-support service structures located in the Administration Area.

Historical activities at FWDA that may have contributed to soil and groundwater contamination include munitions storage, maintenance, and disposal; the use and storage of petroleum fuels; and equipment maintenance (TPMC, 2008). As part of the planned property transfer to the U.S. Department of the Interior, FWDA has been divided into parcels (Figure 2-1), areas of concern (AOCs), and solid waste management units (SWMUs) (Figure 2-2), as specified by the Resource Conservation and Recovery Act (RCRA) perrmit number NM 6213820974 originally issued in 2005 (New Mexico Environment Department [NMED], 2005) and revised in 2015 (NMED, 2015).

This Interim Northern Area Groundwater Monitoring Plan (GWMP) for FWDA describes the proposed groundwater monitoring of active alluvial and bedrock wells to be sampled as part of the Environmental Restoration Program at FWDA (Figure 2-3). This document has been prepared for submission to the NMED Hazardous Waste Bureau (HWB), as required by the RCRA permit.

The objectives for performing interim groundwater monitoring include:

- compliance with the RCRA permit groundwater cleanup levels,
- monitor groundwater flow and water quality parameters that affect contaminant fate and transport,
- monitor groundwater for the presence of contaminants of potential concern (COPC) from known contaminant releases, and
- monitor the migration and changes to groundwater contaminant plumes.

The groundwater monitoring program is designed to evaluate each COPC from the point of release to the existing groundwater contaminant plume boundary based on known or suspected releases to groundwater. Groundwater elevations are collected quarterly, and groundwater samples are collected on a semiannual monitoring frequency determined by seasonal variations in water levels and the current regulatory-approved monitoring program.

Low flow purging and sampling is the preferred sampling method at FWDA. Other non-traditional sampling techniques for RCRA compliant groundwater monitoring (*i.e.*, borehole purging) are deployed as necessary due to insufficient well yield.
Groundwater samples will be analyzed for the following COPCs:

- Explosives by U.S. Environmental Protection Agency (EPA) Method 8330B
- Herbicides by EPA Method 8151A

- Nitrate and nitrite by EPA Method 9056
- Perchlorate by EPA Method 6860
- Total metals including mercury and dissolved metals including mercury by EPA Method 6020A/7470A
- Polychlorinated biphenyls (PCBs) by EPA Method 8082A
- Pesticides by EPA Method 8081B
- Volatile organic compounds (VOCs) by EPA Method 8260D
- Semi-volatile organic compounds (SVOCs) by EPA Method 8270D
- Total petroleum hydrocarbons (TPH) as gasoline range and diesel range organics (GRO and DRO) by EPA Method 8015C
- 1,4-Dioxane by EPA Method 8270-Selective Ion Monitoring (SIM) – for two consecutive monitoring events (April and October 2020).

This monitoring plan evaluates the COPCs in the northern area of FWDA. The known and suspected points of release to groundwater are as follows:

- Leaching Beds (Solid Waste Management Unit [SWMU] 1, Parcel 21) had releases of 2,4-6-trinitrotoluene (TNT) due to historical munitions activities.
- Building 528 Complex (SWMU 27, Parcel 22) had releases of nitrate, explosives, metals and perchlorate due to historical munitions activities and propellant use.
- Building 6 Gas Station (SWMU 45, Parcel 11) had releases of GROs, DROs, VOCs, SVOCs, and lead (Pb) due to fueling and mechanical operations.
- Building 45 (SWMU 50, Parcel 11) had releases of GROs and DROs, VOCs, and Pb due to historical leaks from former underground storage tank (UST) 7.
- Fire Training Ground (SWMU 7, Parcel 21) had suspected releases of DROs due to historical firefighting operations.

Groundwater elevations will be collected quarterly, and sampling on a semiannual basis. Under this GWMP, groundwater elevations will be collected from 67 monitoring wells and 10 piezometer wells in January and July, followed by the groundwater sampling events in April and October for the 67 monitoring wells. Semiannual groundwater sampling will be performed from the designated monitoring wells to track plume migration and general range in concentrations.

Results of each semiannual monitoring event will be submitted in a semiannual report prepared in accordance with NMED guidance entitled *General Reporting Requirements for Routine Groundwater Monitoring at RCRA Sites* (NMED, 2003).

The Interim Measures Groundwater Periodic Monitoring Report (PMR) will include tabulated field and analytical data. Analytical data will be screened against the FWDA cleanup levels established in the RCRA permit and U.S. Environmental Protection Agency regional screening levels for chemicals where cleanup levels are not established. A discussion of the results, any sampling deviations, and proposed recommendations for future monitoring will be included in the PMR.

1.0 INTRODUCTION

This Interim Northern Area Groundwater Monitoring Plan (GWMP) provides guidance for the groundwater monitoring activities to be conducted during calendar year 2020 at Fort Wingate Depot Activity (FWDA) in McKinley County, New Mexico. This GWMP has been prepared in accordance with the performance work statement under contract number W912PP-15-D-0001.

This Version 11 of the Interim Northern Area GWMP is prepared in accordance with the Resource Conservation and Recovery Act (RCRA) permit NM 6213820974, first issued in December 2005 (New Mexico Environment Department [NMED], 2005) and revised in February 2015 (NMED, 2015). Version 11 is a revision to the previous GWMP, Version 10, Revision 1, dated July 27, 2018, which was approved on May 21, 2019 (NMED, 2019a). The Version 11 GWMP provides guidance for the groundwater monitoring activities to be conducted in the northern area of the installation. The Open Burn/Open Detonation (OB/OD) areas in the southern portion of the installation within Parcel 3 are not included in this version of the Northern Area GWMP and will be covered under a separate Southern Area GWMP.

1.1 PROJECT ORGANIZATION AND MANAGEMENT

The groundwater monitoring program (GMP) at FWDA is managed by the U.S. Army Corps of Engineers (USACE) for the U.S. Department of the Army (Army), Base Realignment, and Closure (BRAC) Division. Stakeholders for the monitoring program are as follows:

- Army, BRAC Division
- New Mexico Environment Department-Hazardous Waste Bureau (NMED-HWB)
- Navajo Nation
- Pueblo of Zuni

USACE manages the program and subcontracts periodic groundwater monitoring with coordination and review by stakeholders on behalf of the Army. Eco & Associates, Inc. (Eco) is the USACE subcontractor responsible for planning and implementing the 2020 groundwater monitoring program. Project plans and reports are submitted to stakeholders for review. NMED-HWB is the regulating authority for the installation and has final approval of primary project documents.

1.2 REGULATORY BACKGROUND

Environmental restoration activities at FWDA began in 1989 under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) guidelines, as part of the Installation Restoration Program. Since that time, NMED has become the lead regulatory agency for FWDA.

In 2002, NMED determined that the remediation pathway would be solely through a RCRA permit for post-closure care of the current OB/OD area with a RCRA corrective action module attached to address requirements for other solid waste management units (SWMUs) and areas of concern

(AOCs). The RCRA permit became effective December 1, 2005 (NMED, 2005). Since the original permit issuance, the RCRA permit has been revised through NMED-issued modifications in 2011, 2014, and 2015. NMED-HWB identified one hazardous waste management unit (HWMU) within the current OB/OD area (Parcel 3) and a total of 93 SWMUs and AOCs in the RCRA permit. All environmental activities at FWDA will be conducted in accordance with the requirements of the 2015 revision of the RCRA permit, which includes the original permit and all subsequent modifications (NMED, 2015). The Army developed a groundwater monitoring program as required by Section V.A (Interim Plan) of the RCRA permit. Groundwater monitoring, sampling, and reporting activities are conducted in compliance with the RCRA permit, applicable RCRA permit attachments, and the most recently approved version of the groundwater monitoring plan. NMED approved the initial groundwater monitoring plan in March 2008, with subsequent annual revisions to the plan.

Attachment 7 of the RCRA permit (NMED, 2015) provides a hierarchy for the selection of cleanup level criteria applicable to the FWDA. Groundwater analytical results are evaluated and compared to the Project Screening Value Flow Chart (Figure 1-1). The following documents and regulations are used to determine whether the concentration of a particular hazardous constituent exceeds the RCRA permit cleanup level (NMED, 2015), as summarized below:

1. New Mexico Water Quality Control Commission (NM WQCC) standards for the analytes listed in the New Mexico Administrative Code (NMAC) 20.6.2.7.WW having the values listed in NMAC 20.6.2.3103.
2. U.S. Environmental Protection Agency (EPA) drinking water maximum contaminant levels (MCLs) provided under 40 Code of Federal Regulations (CFR) 141 and 40 CFR 143.
3. If both an NM WQCC standard and an EPA MCL have been established for a contaminant of potential concern (COPC), the lowest value of 1. and 2. above will be selected.
4. If no NM WQCC standard or EPA MCL has been established for a carcinogenic hazardous constituent, values will be selected from the most recent version of the EPA regional screening levels (RSLs) for tap water, adjusted to a target excess cancer risk level of 1×10^{-5}.
5. If no NM WQCC standard or EPA MCL has been established for a non-carcinogenic hazardous constituent, values will be selected from the most recent version of the EPA RSLs for tap water with a target hazard index of 1.0.
6. No current NM WQCC standard is published for perchlorate. An EPA MCL standard of 15 micrograms per liter (µg/L) was published in November 2017, so this standard will be followed in accordance with Attachment 7 of the RCRA permit for FWDA (NMED, 2015).
7. Although not in the RCRA permit, NMED has set a screening level of 16.7 µg/L for TPH-DRO and a screening level of 10.1 µg/L for TPH-GRO in *Risk Assessment Guidance for Investigations and Remediation Volume 1* (NMED, 2019b).

For some analytes, screening values are selected for a compound with RSLs listed for both carcinogenic risks and non-carcinogenic hazards. In accordance with the RCRA permit, the RSLs for carcinogens are adjusted to a cancer risk of $1x10^{-5}$ and the lower of the adjusted carcinogenic and the non-carcinogenic RSLs will be selected.

Reporting requirements in this GWMP are in accordance with the RCRA permit and consistent with *General Reporting Requirements for Routine Groundwater Monitoring at RCRA Sites* (NMED, 2003).

1.3 PURPOSE

The objectives of performing interim groundwater monitoring at FWDA are as follows:

- Monitor compliance with the RCRA permit groundwater cleanup levels, as identified in Section 7.1 of Attachment 7 to the RCRA permit (NMED, 2015).
- Monitor groundwater flow and field water-quality parameters that affect contaminant fate and transport.
- Monitor groundwater for the presence of COPCs from known contaminant releases.
- Monitor the migration and changes to known groundwater contaminant plumes.

Groundwater monitoring data also provide information to support site characterization and future corrective measure evaluations.

1.4 DATA QUALITY OBJECTIVES

Data quality objectives (DQOs) are qualitative and quantitative statements that clarify the project objectives, specify the most appropriate types of data for project decisions, determine appropriate conditions from which to collect data, and specify tolerable limits on decision errors. DQOs are developed to satisfy specific project objectives in accordance with applicable USACE specifications and NMED and EPA guidance. The DQOs are based on the end uses of data determined through a seven-step process as described in *Guidance on Systematic Planning Using the Data Quality Objectives Process, EPA QA/G-4* (EPA 2006).

The DQOs defined for this GWMP along with the conceptual site model (CSM) information are used to determine the decision logic and provide an effective sampling design. The DQOs assist in identifying the required type, quality, and quantity of data needed for interim groundwater monitoring to meet investigation goals and regulatory requirements. The project DQOs are defined according to the logic presented sequentially in the sections below.

Step 1 - State the Problem

Groundwater contaminants need to be monitored in accordance with the RCRA permit and in support of site characterization and evaluation of potential corrective measures.

Step 2 - Identify the Goals of the Study

Project data will be used to monitor the nature and extent of COPCs in groundwater and evaluate temporal trends. Data will also support site characterization and corrective measures.

The questions the project is intended to answer are the following:

- Are site-related COPCs present in FWDA groundwater at concentrations exceeding cleanup standards?
- What is the lateral and vertical extent of site-related COPCs, at concentrations exceeding cleanup standards, in FWDA groundwater?
- What are the sources of these groundwater contaminants?
- How are contaminants in the groundwater migrating?
- How are COPC concentrations in groundwater changing over time?

Step 3 - Identify Information Inputs

Inputs considered during development of this GWMP include the following:

- The RCRA facility investigations (RFIs) for each FWDA parcel are used to determine the points of contaminant release or suspected points of contaminant release to groundwater.
- Lithologic information from previous boreholes and water elevations from existing groundwater monitoring wells provide data on hydrogeologic structural controls and groundwater flow.
- Historical analytical data from the previous investigations provide information on site conditions.
- Analytical results, field parameters, and groundwater elevations from ongoing interim monitoring are used to determine current site and groundwater contaminant conditions.
- Project screening values are used to evaluate groundwater analytical data.

This information is used to determine the decision rules in Step 5.

Step 4 - Define Boundaries of the Study

Spatial. The FWDA boundary (Figure 1-2) is the study boundary for facility-wide monitoring. The current well network will be used to monitor groundwater contamination under the interim monitoring program. This GWMP covers the Northern Area of FWDA and the Southern Area will be under a separate GWMP, which is inaccessible at this time due to ordinance disposal activities. Final characterization as defined by RFIs for each parcel will be used to determine whether the monitoring network is sufficient to define the extent of groundwater contamination.

Temporal. The temporal boundaries of the investigation are long-term monitoring of groundwater contamination and groundwater flow patterns observable over 6-month intervals. Based on previous groundwater monitoring data from 2008 to 2018, the groundwater elevations are relatively stable and are not subject to wide seasonal fluctuations. Potential temporal contaminant concentration trends will be assessed by semiannual groundwater sample collection and quarterly collection of groundwater elevation measurements.

Step 5 - Develop the Analytical Approach

This step integrates the output from previous steps of the DQO process to design the interim measures groundwater monitoring program. Groundwater analytical results will be compared to the FWDA project screening values to monitor extent and migration of COPCs. Monitoring results will be submitted in Periodic Groundwater Monitoring Reports (PMRs). Corrective actions will be proposed if groundwater contaminant plumes migrate outside of the FWDA boundaries.

Step 6 - Specify Limits on Decision Errors

Analytical data quality will be compared to Quality Systems Manual (QSM) for Environmental Laboratories, Version 5.3 (QSM; U.S. Department of Defense [DoD]/U.S. Department of Energy [DOE], 2019) specifications for precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS). The analytical methods will provide the lowest available analytical reporting limits using standard USACE approved methods that allow the data to be screened against the FWDA project screening values.

Site visits, refining the CSM, and evaluating current and historical analytical data will minimize erroneous conclusions and maintain estimates within acceptable levels. Field measurements will be compared to quality criteria established by field standard operating procedures and by evaluation against previous measurements for representativeness.

Step 7 - Develop the Sampling Plan for Obtaining the Data

Groundwater monitoring will evaluate each groundwater contaminant from the point of release to the existing groundwater plume boundary and at sentinel locations along the property boundary. Each impacted groundwater zone (northern area alluvial and northern area bedrock) will be assessed for presence of COPCs. The groundwater elevation data will be used to evaluate potential downgradient migration of contaminants in groundwater. Historical analytical data will be used when designating monitoring wells for release areas.

Wells designated to monitor a release will be analyzed for the COPCs associated with each specific point of release. Wells designated as upgradient and downgradient of a contaminant plume will be used to monitor plume boundaries and plume migration. Where no contaminant plume can be drawn, downgradient locations will be selected based on the groundwater flow direction from the point of release. Sentinel wells will monitor potential off-site migration of contaminants. Background wells are outside the influence of the release/plume. Some monitoring points will be monitored for multiple COPCs when they are designated for multiple points of release, or when a single point of release is associated with multiple COPCs. Section 5 details point of release assessments for COPCs.

Groundwater monitoring will continue semiannually to be consistent with the monitoring frequency performed since 2008 and with previously approved work plans. Groundwater elevation measurements will be collected quarterly to maintain a similar consistency. This will provide consistency of the data when being compared and evaluated.

The most recently published versions of the NMED-requested analytical methods with FWDA project-specific reporting limits will be used to provide quantitative analytical data to meet the FWDA RCRA permit requirements. Laboratories performing sample analyses will follow the current version of the U.S. Department of Defense (DOD) Environmental Field Sampling Handbook, Revision 1.0 (DoD, 2013) and the current version of the QSM (DOD/DOE, 2019). All laboratory analysis will be performed by independent analytical laboratories with DOD Environmental Laboratory Accreditation Program (ELAP) accreditation. In addition to DOD ELAP accreditation, the laboratory must hold current accreditation for all appropriate fields of testing in New Mexico, which is generally accomplished by the laboratory holding a current national ELAP accreditation for appropriate fields of testing. The independent analytical laboratory must have documentation of current accreditation/certification prior to sample acceptance. The analytical results will be validated in accordance with the current version of the QSM.

Optimization of Sampling Plan

Recommendations for optimization will be made through interim measures. Recommendations may include:

- Installation or abandonment of monitoring locations,
- Changes to field sampling or analytical methods, and
- Changes to monitoring frequency and location.

1.5 DOCUMENT ORGANIZATION

This Interim Northern Area GWMP is organized as follows.

Section 2 — presents the available site history and general description of FWDA and summarizes previous groundwater investigations.

Section 3 — presents the CSM with information about current site conditions and environmental setting of FWDA.

Section 4 — describes the methods and procedures for groundwater sample collection, decontamination, quality assurance (QA), and investigation-derived waste (IDW) characterization and disposal.

Section 5 — presents the groundwater monitoring program, and discusses data validation, data management, and reporting.

Section 6 **—** provides the projected monitoring schedule for calendar year 2019.

Section 7 **—** presents a list of the works cited in this Interim Northern Area GWMP.

2.0 SITE HISTORY AND BACKGROUND

2.1 GENERAL FACILITY DESCRIPTION

FWDA currently occupies approximately 24 square miles (15,277 acres) of land in western New Mexico in McKinley County. FWDA is located approximately 7 miles east of Gallup and about 130 miles west of Albuquerque (Figure 1-2). The main entrance to FWDA is on U.S. Highway 66, west from Exit 33 off Interstate 40. FWDA is surrounded by tribal and federally owned lands, including national forests, Zuni tribal lands, and Navajo tribal lands. North and west of FWDA are Navajo trust and Native American lands, to the east are lands administered by the Bureau of Indian Affairs, and to the south and southeast is the undeveloped Cibola National Forest.

Originally founded in 1860 as a cavalry post, the Army established Fort Wingate as a munitions storage depot in 1918. FWDA has had several missions from 1918 until 1993, including ordnance storage, testing, and demilitarization, as well as missile defense testing. The installation was closed in 1993 under the Defense Authorization Amendments and BRAC Act of 1988. In 2002, the Army reassigned many functions at FWDA to the BRAC Division, including property disposal, caretaker duties, managing caretaker staff, and performing environmental-restoration and compliance activities.

Approximately half of FWDA is currently leased to the Missile Defense Agency and is used for operations related to missile testing. Missile testing activities occur in northeastern and central portions of FWDA, in Parcel 16 and Parcel 19. The remaining FWDA operations are focused on assessing and remediating contamination before property transfer/reuse.

Historical activities at FWDA that may have contributed to soil and groundwater contamination include munitions storage, maintenance, and disposal; the use and storage of petroleum fuels; and equipment maintenance (TPMC, 2008). Efforts to remediate affected areas have concentrated on removing exploded and unexploded ordnance, in addition to characterizing soil across the installation and conducting semiannual groundwater monitoring. As part of the planned property transfer to the U.S. Department of the Interior (DOI), the installation has been divided into reuse parcels (Figure 2-1) with each site being addressed on a parcel-by-parcel basis, as specified by the RCRA permit (NMED, 2015). Currently, Parcel 1, Parcel 4B, Parcel 5A, Parcel 5B, Parcel 8, Parcel 10A, Parcel 10B, Parcel 12, Parcel 14, Parcel 15, Parcel 17, Parcel 18, and Parcel 25 have been transferred; these parcels are located near the northern, eastern, and southern boundaries of FWDA.

Facilities at FWDA include 732 earth-covered igloos located throughout FWDA, two former OB/OD areas (Closed OB/OD area and Current OB/OD area), a Workshop Area, and various mission-support service structures located in the Administration Area. The installation can be divided into several areas based upon location and historical land use. Figure 2-2 provides the various buildings and SWMUs and AOCs throughout the northern area of the installation. Major land use areas include the following.

<u>The Administration Area</u> is located in the northern portion of FWDA. This area consists of former office facilities, housing, equipment maintenance facilities, warehouse buildings, and utility support facilities. Munitions storage and shipping, fuel storage and dispensary, and mechanical maintenance activities were performed in this area.

The Workshop Area is located south of the Administration Area. It is a former industrial area that contained ammunition maintenance and renovation facilities, the TNT washout facility, and the TNT Leaching Beds Area (Solid Waste Management Unit [SWMU] 1). The buildings and other structures were demolished in 2010.

The Magazine (Igloo) Area is located in the central portion of FWDA. This area includes 10 igloo blocks (Igloo A through Igloo H, Igloo J, and Igloo K) that contain 732 earth-covered igloos and 241 earthen revetments previously used for munitions storage.

The OB/OD Area is located in the southwest and western portions of FWDA and separated into two sub-areas based on period of operation.

Closed OB/OD area is inactive OB/OD SWMUs that were used to treat military munitions and explosive-contaminated waste from 1948 to 1955. The Closed OB/OD area includes the Old Burning Ground and Demolition Landfill Area and the Old Demolition Area (Program Management Company [PMC], 1999).

Current OB/OD area is an inactive OB/OD HWMU where burning and detonation operations were performed after 1955 until FWDA closure in 1993 (PMC, 1999). The Current OB/OD area contains the active OB/OD corrective action management unit identified in the recent RCRA permit updates.

Protection and Buffer Areas is located adjacent to the eastern, northern, and western boundaries of the installation. These areas consist of buffer zones surrounding the former magazine and demolition areas.

2.2 PREVIOUS INVESTIGATIONS

From 1980 through issuance of the RCRA permit in December 2005 (and revised February 2015), various environmental investigations were conducted by the Army and other parties (including EPA and DOI) under CERCLA and RCRA guidance (BRAC, 2010). These investigations have been conducted with multiple phases to characterize groundwater over time.

The 2005 RCRA permit identified one HWMU within the OB/OD area (Parcel 3) and 93 SWMUs and AOCs. As of January 2019, 121 groundwater monitoring wells and 10 piezometers have been installed to characterize the nature and extent of contamination across FWDA (northern area and OB/OD area). As of January 2019, there are 67 active monitoring wells and 10 piezometers in the Northern Area and 27 active monitoring wells in the OB/OD area. FWDA well locations are presented in Figure 2-3 and site wells associated with the northern area are presented in Figure 2-4.

Groundwater investigation and characterization efforts have primarily focused on five areas:

1. TNT Leaching Beds Area (SWMU 1 located in Parcel 21)

2. Administration Area (multiple SWMUs and AOCs located in Parcel 6, Parcel 7, and Parcel 11)
3. Eastern Landfill (SWMU 13 located in Parcel 18)
4. Building 542 and Building 600 (SWMU 11 and SWMU 4 located in Parcel 6)
5. OB/OD area (located in Parcel 3).

Well construction information for the northern area wells are included in Table 2-1. A summary of historical detections from 1992 through 2018 are included as Appendix B on disk, and laboratory data for groundwater analytical results from 2017 through 2018 are included as tables in Appendix B.

Results from previous investigations are briefly discussed for each report in the following subsections, and COPCs by site and point of release are summarized in Table 2-2. A summary of groundwater detections and project screening value exceedances (historical through 2018) per analyte group are provided in Table 2-3. The monitoring wells in Table 2-3 are organized by point of release from Table 2-2. The information in Table 2-2 and Table 2-3 has been used to develop the CSM in Section 3.0 and the sampling plan in Section 5.0. The monitoring network by site and point of release is provided in Table 2-4.

2.2.1 ENVIRONMENTAL SURVEY OF FWDA – 1981

In 1981, an environmental survey of FWDA (Environmental Science and Engineering, Inc., 1981) was conducted to determine the potential presence and extent of contamination caused by activities related to munitions storage, munitions recycling, and treatment. Groundwater survey data is described below.

- Eleven monitoring wells (FW07, FW08, FW10, FW11, FW12, FW13, FW26, FW27, FW28, FW29, and FW35) were completed in the northern area during this assessment. Most of these wells are considered dry and have been abandoned, only well FW35 is currently active.
- One monitoring well (FW24), located downstream of the north–south arroyo in Parcel 3, was completed as part of the environmental survey of the OB/OD area in 1981. The well had insufficient water for sampling and is dry and therefore not sampled.
- One background monitoring well, FW31 in Parcel 19, was completed east and south of known potentially contaminated areas during the 1981 environmental survey. This well is currently active.

Most of the wells completed during the 1981 environmental survey have historically lacked sufficient water for interim semiannual sampling as directed by the RCRA permit. The “FW” monitoring wells have either been abandoned or removed except for wells FW24, FW31, and FW35.

2.2.2 GROUNDWATER INVESTIGATIONS AT BUILDING 6 UST AREA – 1993-1995

In January 1993, six underground storage tanks (USTs) were removed from Building 6 within the Administration Area (USACE, 1995a) (Parcel 11). During the removal, a fuel release was suspected, presumably from holes or cracks in the bottoms of several of the tanks or associated piping. This spill was discovered January 19, 1993 and was reported to the NMED Petroleum Storage Tank Bureau (USACE, 1995a).

USACE Albuquerque District conducted a site investigation for the Building 6 USTs. In 1993, 16 soil borings were advanced to an average depth of 60 feet below ground surface (bgs). In October and November 1994, six soil borings were advanced to a depth of 60 feet bgs, and five monitoring wells (MW18S, MW18D, MW20, MW22S, and MW22D) were installed at three locations. Groundwater analytical data from MW20 (located south and west of the UST removal area) indicated benzene contamination exceeding the FWDA cleanup level of 5 µg/L, with maximum results of 110 µg/L. The monitoring wells were resampled in 1995, and results indicated that the benzene concentrations had decreased to below the FWDA cleanup level, with a maximum detection of 4.4 µg/L (USACE, 1995b).

With the decline in benzene concentrations, USACE Albuquerque District approached NMED to suspend the investigation and any further requirements to install additional monitoring wells at the Building 6 location. NMED agreed that additional monitoring wells were not needed at that time, however, a 2-year quarterly groundwater monitoring program was required by NMED and implemented by the Army (USACE, 1995b).

2.2.3 REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT AND RCRA CORRECTIVE ACTION PROGRAM DOCUMENT – 1997

Environmental investigation activities across FWDA were implemented as part of FWDA closure in the fall of 1992 to determine the environmental impact (if any) from previously identified SWMUs and AOCs, and to identify areas requiring environmental restoration before property transfer to DOI. Findings were generated in a 1997 Remedial Investigation/Feasibility Study and RCRA Corrective Action Program Document (ERM Program Management Company, 1997). Groundwater activities and findings are summarized below:

- Four groundwater monitoring wells (TMW01 through TMW04) were completed during 1996 to further characterize groundwater contamination near the TNT Leaching Beds Area.
- A single well (SMW01) was installed in 1996 to monitor potential impacts from the Sewage Treatment Plant.
- A single well (FW38) was completed during November 1993 in an arroyo that drains the current OB/OD area. This well was removed in 2017 as part of the munitions response excavations.
- Explosives and nitrate were detected in monitoring wells completed near the TNT Leaching Beds. Nitrate, pesticides, and metals were detected in the samples collected from SMW01 near the FWDA Sewage Treatment Plant. Explosives,

nitrate/nitrite, and metals were detected in groundwater samples collected from FW38.

2.2.4 MINIMUM SITE ASSESSMENT REPORT – 1998

A Minimum Site Assessment Report (USACE, 1998) summarized the actions taken by USACE Albuquerque District to identify the horizontal and vertical extent of soil contamination and to determine whether groundwater was impacted by potential fuel releases at the UST site adjacent to Building 45.

In November 1996, the assessment included the advancement of six soil borings (SB-1 through SB-6) and the installation of three shallow monitoring wells (MW01, MW02, and MW03) to determine the extent of hydrocarbon contamination. Analytical data from this assessment indicated that hydrocarbon contamination in the soil was limited to a small area. The area affected was restricted to a single soil boring at less than 40 feet bgs, with a single detection of benzene at a concentration below the FWDA cleanup level from well MW01.

2.2.5 RCRA INTERIM STATUS CLOSURE PLAN – OB/OD AREA PHASE 1B REPORT – 1999

Environmental characterization efforts to support closing the OB/OD area (Parcel 3) were conducted during 1996, 1997, 1998, and 1999. These efforts consisted of a seismic profile survey, monitoring well installation and sampling, groundwater elevation measurements, a well network survey, geologic mapping, surface water sampling, and sediment sampling (PMC, 1999).

The objective of the 1996 investigation was to assess the presence and quality of shallow groundwater and to characterize the shallow hydrogeologic regime in the OB/OD area. This investigation consisted of drilling and sampling multiple soil borings; completing shallow and intermediate depth monitoring wells; performing downhole video logging and slug tests on newly installed monitoring wells; and collecting groundwater, surface water, and sediment samples. Three groundwater monitoring wells (KMW09, KMW10, and KMW11) were installed in the Closed OB/OD area (SWMU 14 and SWMU 15) and 11 groundwater monitoring wells (CMW02, CMW04, CMW06, CMW07, CMW10, CMW14, and CMW16 through CMW20) were installed in the Current OB/OD area (HWMU). Explosive constituents were detected in wells located in Current and Closed OB/OD areas; however, the extent could not be defined by the 1996 investigation and required further characterization efforts.

In 1998, two groundwater monitoring wells (KMW12 and KMW13) were installed in the Old Demolition Area (SWMU 15), and four groundwater monitoring wells (CMW21, CMW22, CMW23, and CMW25) were installed north of monitoring well CMW16 located downgradient of the Current OB/OD area (HWMU) to identify the northern extent of impacted groundwater within the unconsolidated and bedrock water-bearing zones. In addition, CMW24 was installed downgradient of the Old Burning Ground and Demolition Landfill Area (SWMU 14) (PMC, 1999).

2.2.6 OB/OD GROUNDWATER MONITORING – 1999-2005

Several quarterly sampling events have been completed in the OB/OD area (Parcel 3) since the RCRA Interim Status Closure Plan Phase 1B Report was issued (PMC, 1999). Quarterly groundwater monitoring events were conducted during 2000 (PMC, 2001a), 2001 (PMC, 2002a), and 2002 (PMC, 2003); an additional sampling event was completed in August 2005 (TPMC, 2005). These events were documented in quarterly letter reports and an annual inclusive report for each year.

During the initial sampling investigation, a subset of nine wells (CMW02, CMW16, CMW18, CMW21, CMW22, CMW25, KMW09, KMW12, and KMW13) were sampled during 2000 and the first half of 2001. Monitoring well CMW23 was added midway through 2001, and a subset of 10 wells were sampled until 2005.

2.2.7 RCRA FACILITY INVESTIGATION REPORT OF THE TNT LEACHING BEDS AREA – 2001

From 1998 to 2001, additional groundwater investigations were completed in the TNT Leaching Beds Area (Parcel 21, SWMU 1) and the Administration Area (Parcel 11, various SWMUs and AOCs) (PMC, 2001b). Seven groundwater monitoring wells (TMW05 through TMW08, TMW10, TMW11, and TMW13) were installed to further characterize the hydrogeologic setting and potential environmental impacts caused by the former operations. During these investigations, groundwater was found to be impacted by explosives, metals, nitrate, and nitrite. In addition, groundwater was found to be impacted by VOCs within the Administration Area.

2.2.8 PHASE 1 RCRA FACILITY INVESTIGATION REPORT FOR BUILDINGS 600 AND 542 – 2002

In 2001, soil and groundwater were investigated to determine whether previous detections of explosives in TMW11 were the result of activities at Building 600 (Parcel 6, SWMU 4) and Building 542 (Parcel 6, SWMU 11) in the Workshop Area (PMC, 2002b). Soil and sediment samples were collected and analyzed for explosives, VOCs, semi-volatile organic compounds (SVOCs), and target analyte list (TAL) metals. For Building 600 (SWMU 4), all soil and sediment sample result concentrations were below applicable cleanup criteria/project screening levels. For Building 542 (SWMU 11) two polycyclic aromatic hydrocarbons (PAHs) were detected in surface soils at levels exceeding NMED soil screening levels (SSLs).

Monitoring well TMW11, installed cross gradient from the TNT Leaching Beds area was intended to provide groundwater chemical characterization data in an area thought to be un-impacted by historical operations. One explosive constituent— hexahydro-1,3,5-trinitro-1,3,5-triazine (or RDX)—was detected at concentrations close to the laboratory reporting limit during five of six sampling events conducted between October 1998 and January 2000. These detections of RDX initiated an investigation to identify other potential sources of explosives in the area.

Six monitoring wells (TMW14A through TMW19) were completed near Building 600 and Building 542 (SWMU 4 and SWMU 11) to determine the source of the contamination at TMW11.

Monitoring well TMW15 and TMW11 were completed in the unconsolidated aquifer. Monitoring wells TMW14A, TMW16, TMW17, TMW18, and TMW19 were completed in the deeper, sandstone bedrock aquifer. TMW14A was also installed as a potential background well. Fluoride was detected at concentrations exceeding cleanup criteria/project screening levels. In addition, one VOC, explosives, perchlorate, nitrate, nitrite, and a variety of metals were also detected.

2.2.9 GROUNDWATER INVESTIGATION REPORT OF THE EASTERN LANDFILL – 2005

The Eastern Landfill (Parcel 18, SWMU 13) is located approximately one-half mile east of the Administration Area and is reported to have been used to dispose of municipal waste and construction debris from the Administration Area. The area was also reportedly used to burn other solid waste. In 1968, the landfill was closed and covered with a layer of soil. During the remedial investigation phase, the Eastern Landfill was located using a geophysical survey, and soil sampling and a soil gas survey were conducted. The soil analytical results indicated that lead, mercury, and barium were present at levels slightly above background levels. Pesticides, VOCs, and SVOCs were not detected. The results of the soil gas survey indicated that low levels of methane were present. In October 1999, Safe Environment, Inc., removed surface debris in the area of the Eastern Landfill, which consisted of metal ammunition lids, wire rope, I-beams, pipe, tires, wire fencing, concrete blocks, expended ammunition casings, scrap wood, and tree branches/trunks (Tetra Tech NUS, Inc., 2005).

The primary objective of the 2005 groundwater investigation was to determine whether contaminants have impacted the groundwater beneath the Eastern Landfill (Tetra Tech NUS, Inc., 2005). During the investigation, four bedrock wells (EMW01 through EMW04) were installed in 2004. Several explosives, metals, pesticides, VOCs, SVOCs, nitrate, and nitrite were detected in these samples collected from the sampling event after well installation, with RDX, pesticides, and dissolved metals detected above cleanup criteria/project screening levels.

The Eastern Landfill waste material was subsequently excavated and removed in 2013 followed by backfilling with soil from an on-site borrow source. Upon removal of all buried and surface waste materials, confirmation sampling was initiated to verify that all waste materials had been removed and that its former presence had not impacted the underlying soils. Confirmation sampling was conducted, and results were provided to NMED for approval. Upon review and approval of the confirmation results, a final round of sampling of the four groundwater monitoring wells (EMW01, EMW02, EMW03, and EMW04) was performed January 14 through 16, 2014. On March 3, 2014, the groundwater results were submitted to NMED with a request for permission to abandon the wells in accordance with New Mexico Office of the State Engineer (OSE) regulations. NMED granted the well abandonment request via email on March 26, 2014, and the wells were abandoned on April 29 and 30, 2014.

2.2.10 ADMINISTRATION AND TNT LEACHING BEDS AREAS SUPPLEMENTAL GROUNDWATER CHARACTERIZATION REPORT – 2006

The purpose of the work described in this report (TPMC, 2006) was to gather additional information during 2002 and 2003 to address comments and discussions by members of the FWDA

BRAC Cleanup Team regarding information presented in the Final RFI Report for the TNT Leaching Beds Area (Parcel 21, SWMU 1) (PMC, 2001b). Additional monitoring wells were installed to evaluate northern area alluvial groundwater flow conditions. In addition, the groundwater analytical data presented in the Final RFI Report for the TNT Leaching Beds Area indicated that the leading edge of impacted groundwater (as indicated by detected nitrite/nitrate concentrations) had reached the edge of the permeable sediments of the Rio Puerco Valley. Since groundwater from these sediments is used for domestic water supply in the immediate vicinity of FWDA, additional efforts (monitoring wells and groundwater samples) were warranted to determine the current groundwater quality within the Rio Puerco sediments in the northern areas of FWDA.

Nine monitoring wells (TMW21 through TMW29) were installed in the alluvial aquifer of Parcel 11. A groundwater sampling event of all wells in the northern area of FWDA was conducted during October 2002 and April 2003. The results of this event were similar to those in the Final RFI Report for the TNT Leaching Beds Area and provided further information about the leading edges of impacted groundwater.

2.2.11 PARCEL 11 RFI REPORT – 2011

In November and December of 2009, the U.S. Geological Survey (USGS) conducted an RFI in Parcel 11, which contains most of the buildings and structures that made up the Administration Area. The RCRA permit lists 10 SWMUs and 9 AOCs in Parcel 11. The Army elected to include the SWMU 40 buildings and structures (which overlap the Parcel 7 and Parcel 11 boundaries) in this RFI.

Three monitoring wells were installed in Parcel 11 (USGS, 2011b). Well TMW32 was installed near Building 5 (SWMU 5). Well TMW34 was installed west of Building 11, former Locomotive Shop (SWMU 6/AOC 47). TMW33 was installed downgradient of Building 6 (Gas Station, SWMU 45).

The RFI and sampling results for each SWMU and AOC are summarized below:

Fenced Storage Yard (SWMU 3). A total of 280 soil samples were collected in SWMU 3. Based on the results of the soil investigation, PAHs, diesel range organics (DRO), and metals exceeded cleanup criteria/project screening levels in surface soils at SWMU 3. The Army attributed metals detections to naturally occurring conditions (USGS, 2011b).

Building 5, Regimental Garage (SWMU 5). Based on the results of the soil investigation, the Army concluded that no further action is needed for soil and sediment in storm sewers at SWMU 5 (USGS, 2011b). A groundwater monitoring well (TMW35) was installed and sampled. Samples were analyzed for VOCs, SVOCs, GROs, DROs, oil range organics, PCBs, herbicides, pesticides, nitrate, and total and dissolved TAL metals. Analysis of groundwater data collected from monitoring well TMW35 indicated that nitrate and metals were above cleanup criteria/project screening levels.

Building 11, Former Locomotive Shop (SWMU 6). A total of 56 soil samples were collected from locations within the locomotive service trenches of the western portion of Building 11 and at the western end of SWMU 6. Based on the soil sampling results, metals and DRO exceeded cleanup criteria/project screening levels. The Army concluded that the metals are naturally occurring. The depth of DRO contamination was not defined. Groundwater monitoring well TMW34 was installed and sampled. Groundwater samples were analyzed for VOCs, DRO, nitrate, total and dissolved metals, and perchlorate. Analysis of groundwater data collected from monitoring well TMW34 indicated that nitrate and metals were above cleanup criteria/project screening levels.

Sewage Treatment Plant (SWMU 10). A total of 18 soil samples were collected and analyzed for VOCs, SVOCs, explosives, PCBs, pesticides, herbicides, total petroleum hydrocarbons, and TAL metals. Based on the results of this soil sampling the Army concluded that no further action is needed to address soil contamination at SWMU 10 (USGS, 2011b).

Building 8, Paint Shop or Carpenter Shop and Building 7, Paint Shop and Paint Storage Warehouse (SWMU 23). A total of 29 soil samples were collected. Based on the results of the soil investigation, the Army concluded that PAHs, DRO, arsenic, and lead exceeded cleanup criteria/project screening levels in surface soils (USGS, 2011b).

Building 15, Garage and Storage Building (SWMU 24). A total of 52 soil samples were collected. Based on the results of the soil investigation, the Army concluded that DRO, PAHs, and metals exceeded cleanup criteria/project screening levels in shallow soils (USGS, 2011b). The PCB Aroclor 1262 was detected in two surface samples, and the PCB Aroclor 1268 was detected in two surface samples, but there are no cleanup criteria/project screening levels. The pesticide dieldrin was above the NMED Soil Screening Level (SSL) in one surface sample.

Building 9, Machine Shop and Signal Shop (SWMU 37). A total of 31 soil samples were collected. Based on the soil sampling results, the Army concluded that PAHs and metals exceeded cleanup criteria/project screening levels in drain sediments.

South Administration Area (SWMU 40). A total of 318 soil samples were collected during this RFI. Based on soil sampling results, the Army concluded the following.

- Semi-volatile oragnic compound (SVOC) and PCB concentrations exceed NMED SSLs in surface soils around Building 12 and Building 13.
- DRO, SVOC, and metal concentrations exceed NMED SSLs in surface soils around Building 14.
- Metal concentrations exceed NMED SSLs in surface soils around Building 29.
- SVOC concentrations exceed NMED SSLs in surface soils around Building 36, Building T-33, and Building T-50.
- SVOC, DRO, and metal concentrations exceed NMED SSL in surface soils around AOC 87 (structure 57) and the former Coal Tar Storage Tanks (structures 58-60).

Building 6, Gas Station (SWMU 45) and Structure 35, Former UST 7 (SWMU 50). A total of 57 surface and subsurface soil samples were collected from locations near the former USTs and were analyzed for VOCs, SVOCs, GRO, DRO, and metals. Groundwater monitoring well TMW33 was installed downgradient of Building 6. The well was sampled, and the samples were analyzed for VOCs, SVOCs, GROs, DROs, and TAL metals.

Based on RFI soil sampling results, VOCs and DRO exceeded cleanup criteria/project screening levels in subsurface soils. GRO was detected in six of 21 samples from the area around Building 6; however, there are no cleanup criteria/project screening levels for GRO. In the groundwater sample at well TMW33, VOCs, SVOCs, and metals exceeded cleanup criteria/project screening levels (USGS, 2011b).

Building 34, Fire Station (AOC 48). A total of five sediment samples were collected in AOC 48 storm sewers and from sediment at the outfall. Based on the sampling results, the PCB Aroclor 1254 was detected. The Army concluded that the detected PCB was from a very small quantity of sediment at the bottom of a manhole and poses minimal risk to human health and the environment. Based on this and the non-detections at the outfall, the Army recommended no further action for AOC 48 (USGS, 2011b).

Structures 38 and 39, Loading Docks (AOC 49). Nine subsurface soil samples were collected from three soil borings. Based on the sampling results, the Army recommended no further action for AOC 49 (USGS, 2011b).

Buildings 79 and 80, Storage Vaults (AOC 52). A total of 16 soil samples were collected. Based on the sampling results, there were no significant exceedances of NMED SSLs (USGS, 2011b).

Electrical Transformers (AOC 75). Two samples were collected from each transformer location. Based on the sampling results, the PCB Aroclor 1260 was detected in the sediment samples from the drains collected from Vault A, Vault B, and Vault C, at concentrations exceeding the cleanup criteria/project screening level. The Army concluded that the extent of Aroclor 1260 contamination is confined to the small quantity of sediment in the floor drains. The floor drains are not connected to the storm sewer or sanitary sewer; therefore, migration potential is minimized. The Army proposes no additional investigation at AOC 75 in Parcel 11 (USGS, 2011b).

2.2.12 PARCEL 22 RFI REPORT – 2011

FWDA operations in Parcel 22 ended with the closure of FWDA in January 1993. Tenant operations in Parcel 22 were conducted by TPL, Inc. (TPL), under various contracts from 1994 to 2007. TPL demilitarized military munitions with an emphasis on resource recovery and reuse. Demilitarization operations ranged from simple mechanical separation of munitions into their components to chemical processes to further extract reusable materials (USGS, 2011c).

The RCRA permit lists three SWMUs in Parcel 22. Additionally, the Parcel 22 RFI Report (USGS, 2011c) contains information for four AOCs located in Parcel 22. Investigation activities for these locations are described below.

Building 535 and Building 536, Inspectors Workshop and Ammunition Renovation Depot (SWMU 12). Building 535 and Building 536, along with their foundations, were demolished in 2010. A total of 42 soil and sediment samples were collected and analyzed for VOCs, SVOCs, explosives, PCBs, and metals. Soil samples did not have contamination exceeding NMED SSLs. Sediment samples from the sanitary sewer had concentrations of SVOCs and PCBs exceeding NMED SSLs. The Army recommended no further action for SWMU 12 (USGS, 2011c).

Building 528 Complex (SWMU 27, AOC 121, AOC 122, AOC 125, and AOC 126). All buildings, along with their foundations, were demolished in 2010. A total of 133 soil and sediment samples were collected. Based on the soil sampling results, benzo(a)pyrene, arsenic, and lead concentrations exceeded NMED SSLs in shallow soil (USGS, 2011c).

In November and December 2009, to investigate possible releases of perchlorate originating from TPL operations within SWMU 27, six groundwater monitoring wells (TMW30, TMW31S, TMW31D, TMW32, TMW36, and TMW37) were installed. Bedrock well TMW30 was a replacement monitoring well for TMW05 (dry since 2008). Bedrock monitoring well TMW37 was installed to delineate the east to west extent of contamination. Well TMW31S and well TMW31D were installed as dual completion wells, where one monitoring well was completed in the alluvial aquifer (TMW31S), and the second monitoring well was completed in the sandstone water-bearing unit (TMW31D). TMW31S was installed as a replacement monitoring well for FW10, which was also dry. TMW36 and TMW32, respectively, were installed to further delineate the bedrock potentiometric surface and contaminant distribution.

Groundwater samples were collected in April 2010 during the scheduled semiannual groundwater monitoring activities. Based on the groundwater sampling results from the newly installed wells, concentrations of nitrate, perchlorate, and bis(2-ethylhexyl)phthalate exceeded project screening values in the alluvium. However, due to the widespread use of bis(2-ethylhexyl)phthalate as a plasticizer, bis(2-ethylhexyl)phthalate is regarded as a common laboratory and sampling contaminant. Groundwater samples taken from the newly installed bedrock wells had nitrate (in TMW30 and TMW31D) and perchlorate (in TMW30, TMW31D, and TMW32) concentrations exceeding the project screening values (USGS, 2011c).

Disassembly Plant and TPL QA Test Area (SWMU 70). All buildings along with their foundations were demolished in 2010. Six soil samples were collected near the concrete blast shield (Building 520) and four soil samples were collected near the former fuel tank location (near Building 519) to evaluate potential releases. One soil sample was collected beneath the concrete floor of Building 519. Sixty multi-incremental (MI) samples were collected over one-quarter-acre exposure units and two discrete samples were collected, one from the culvert that drained the site and a second from the approximate location of the fuel tank. Based on the sampling results, none of the result concentrations exceeded applicable cleanup criteria/project screening levels, and the Army recommended no further action at SWMU 70 (USGS, 2011c).

Igloo Block D (AOC 30). All igloos remain and were sampled using the MI sampling approach. In addition, MI sampling was performed from the Open Storage Areas and the TPL Burn Sites. Based on the sampling results, mercury, lead, arsenic, and 2,4-dinitrotoluene concentrations exceeded cleanup criteria/project screening levels in surface soils. The Army recommended no further action at the Open Storage Area and TPL Burn Sites (USGS, 2011c).

Standard Magazine Buildings 301, 302, and 312, and Building 316, Field Lunch Room (AOC 69). All buildings remain. Thirty surface soil samples were collected along the railroad tracks located south of Building 301, Building 302, and Building 312. Twenty-four surface soil samples were collected around the exteriors of Building 301, Building 302, Building 312, and

Building 316. Based on the sampling results, DRO and PAHs exceeded NMED SSLs in soil to 3 feet deep. Arsenic concentrations in four soil samples exceeded cleanup criteria/project screening levels; however, the Army concluded that arsenic values in this range are not indicative of contamination but rather are natural levels for the area (USGS, 2011c).

Electrical Transformers (AOC 75). FWDA records show 65 transformers in 29 locations throughout FWDA. All electrical transformers were removed in 2010. Two soil samples were collected under the former location of transformers at Building 528. No PCBs were detected. Based on the results of the soil investigation, the Army recommends no further action at AOC 75 in Parcel 22 (USGS, 2011c).

Former Buildings or Structures and Disposal Areas (AOC 88). MI surface samples were collected in 12 MI soil sampling areas established over one-quarter-acre exposure units at AOC 88A and 16 MI soil sampling areas established over one-quarter-acre exposure units at AOC 88B. Also, eight discrete soil samples were collected from the MI areas in AOC 88A and AOC 88B. Based on the sampling results, sample result concentrations did not exceed cleanup criteria/project screening levels, and the Army recommended no further action at AOC 88 (USGS, 2011c).

Building 536, Inspectors Workshop and Ammunition Renovation Depot (SWMU 12). A total of 41 soil and/or sediment samples were collected for this investigation. Based on the sampling results, explosives, PAHs, and one PCB (Aroclor 1254) were detected in concentrations exceeding the NMED SSLs from sediment samples in the Building 536 septic system (USGS, 2011c).

2.2.13 MONITORING WELL INSTALLATION AND ABANDONMENT REPORT – 2011-2012

During the fall and spring of 2011/2012, USACE installed 18 monitoring wells and abandoned 10 monitoring/temporary wells. The purpose of the well installation was to delineate contaminant plumes and gather data to define background concentrations for metals in groundwater. The wells were abandoned due to lack of groundwater and were abandoned in accordance with applicable state regulations.

Well Installation. Well construction details are presented in Table 2-1. Well installation activities are summarized below:

- Two sentinel alluvial monitoring wells (MW23 and MW24) were installed in June and July 2011 at the request of NMED. These two wells are in the northwest portion of FWDA and were selected to monitor potential off-site migration of chemical constituents in groundwater. The sites were chosen based on their proximity to the Navajo Tribal Utility Authority alluvial water supply well NTUA 16T602 (USGS, 2011a).
- Four background alluvial monitoring wells (BGMW01, BGMW02, BGMW03, and BGMW04) were installed in February 2012 to determine the background concentrations of major and trace metals in the groundwater (USGS, 2011c).
- Three explosives plume alluvial monitoring wells were installed in the northern area in February 2012 to monitor concentrations of RDX suspected of originating at the former TNT Leaching Beds. Monitoring wells TMW43 and TMW44 were

installed between TMW03 and TMW23 to refine the concentration gradient in the center of the plume and allow for contaminant mass discharge estimates. These monitoring wells will also aid in defining the concentration gradient of nitrate in the alluvium, which commingles with the RDX plume. Monitoring well TMW45 was installed north of TMW23 to define the northern extent of the plume (USGS, 2011a).

- Two nitrate plume alluvial monitoring wells (TMW46 and TMW47) were installed in February 2012 to monitor nitrate concentrations in the alluvial groundwater underlying the Administration Area and Workshop Area. The nitrate plume commingles with both the RDX plume and the perchlorate plume. Monitoring wells TMW46 and TMW47 provide chemical data to delineate the northwest and east boundaries of the alluvial nitrate plume (USGS, 2011a).
- Three alluvial monitoring wells (TMW39S, TMW40S, and TMW41) and five bedrock monitoring wells (TMW38, TMW39D, TMW40D, TMW48, and TMW49) were installed in July and September 2011 to further delineate the perchlorate plume in both the alluvial and bedrock groundwater between the former TNT Leaching Beds and the former Building 528. Because the alluvial perchlorate plume commingles with the nitrate plume, these perchlorate monitoring wells will also help define the alluvial nitrate plume (USGS, 2011a). Alluvial monitoring well TMW42 was drilled, but dry conditions were encountered. A second borehole (TMW42A) near the original location was drilled but was also dry.

These new monitoring wells were added to the facility-wide groundwater monitoring program.

Well Abandonment. Ten groundwater monitoring wells were plugged and abandoned in the summer of 2011 because these wells historically lacked sufficient groundwater volumes required for groundwater sampling. These 10 wells (TMW05, FW07, FW08, FW10, FW11, FW12, FW13, FW27, FW28, and FW29) were all located in the northern area and were screened within the alluvium.

Up to 10 monitoring wells associated with the OB/OD area in Parcel 3 are either dry, buried, or too close to proposed ordnance clearing and excavation operations to remain in place. Monitoring wells CMW06, CMW16, and CMW21 are buried beneath arroyo sediments and are not usable, and FW38 and KWM13 are dry and not usable. Monitoring wells within the boundaries of the OB/OD area will be damaged during ordnance clearing and excavation operations; therefore, abandonment of these wells will occur as clearing and excavation operations progress. Parcel 3 RFI work plans have been submitted to NMED.

2.2.14 FINAL RCRA FACILITY INVESTIGATION REPORT PARCEL 10B – 2012

This report summarizes investigations at AOC 44 and SWMU 26 that were done in accordance with the approved RFI Work Plan for Parcel 10B that was approved by NMED on September 9, 2010.

At AOC 44 and SWMU 26, it was concluded that there were no COPC detections greater than the screening limit, although there were some issues with the data quality. The Army recommended no further action for SVOCs, pesticides, or antimony (USACE, 2012a). The Army also recommended that arsenic values be reassessed when background levels are developed.

2.2.15 APPROVED FINAL RCRA FACILITY INVESTIGATION PARCEL 21 – 2012

This RFI Report for Parcel 21 summarized the investigation and restoration activities at Parcel 21 conducted in accordance with the RFI Work Plan approved by NMED with modifications. The RFI addressed five SWMUs and nine AOCs. The report did not address AOC 71 or AOC 87 because NMED approved no further action for these locations. Additionally, AOC 60 was not addressed in the RFI because sample collection will be completed with scheduled demolition at a future date. The report findings are summarized below:

TNT Leaching Beds Area and Building 503 (SWMU 1). Building 503 has been demolished. Based on the sample results, explosives (TNT; RDX; and 2,4-dinitrotoluene) were detected at concentrations exceeding cleanup criteria/project screening levels in surface and subsurface soils. Detected concentrations of two metals (arsenic and iron) also exceeded cleanup criteria/project screening levels in four locations in the post-1962 TNT Leaching Beds (TPMC, 2012).

Building 515 (SWMU 2). MI surface soil sampling was performed for explosives, metals, SVOCs, and pesticides. Discrete soil samples were collected for VOC analysis. Based on the sampling results, metals concentrations exceeded NMED SSLs in surface soils of the Paint Debris Disposal Area and the west doorway of Building 515 (TPMC, 2012).

Fire Training Ground (SWMU 7). Nine surface and subsurface soil samples were collected. Based on the sampling results, DRO concentrations exceeded cleanup criteria/project screening levels in two samples from the beneath the western (fill) end of the pipe (TPMC, 2012).

Building 501, Workshop Area Boiler House (SWMU 19). Two MI soil sampling areas were established over one-eighth-acre exposure units and four MI samples were collected. Based on these sampling efforts, detected PCB concentrations in two composite samples collected on the east and west sides of the Building 501 exceeded the cleanup criteria/project screening levels. However, the Army concluded that the previous building demolition and removal project was sufficient to address environmental concerns at SWMU 19, and the Army proposed no further action (TPMC, 2012).

Building 530, Former Deactivation Furnace (SWMU 72). A total of six soil samples were collected from native soil underneath pipe joints along the pipe that drained the sump pit. Based on the MI and previous sampling results, the Army proposed no further action for iron at Building 530 (TPMC, 2012).

Building 508, Smokeless Powder Magazine (AOC 62). An MI soil sampling area was established over a one-quarter-acre exposure unit surrounding Building 508 and two MI soil samples were collected. Based on the MI and previous sample results, the Army proposed no further action for soil at AOC 62 (TPMC, 2012).

Building 509, Primary Collector Barricade (AOC 63), and Building 510 Vacuum Producer Building (AOC 64). Two MI soil sampling areas were established over one-quarter-acre exposure units surrounding Building 509 and Building 510 and under the overhead vacuum lines and total of four MI soil samples were collected. Ten discrete sample locations surrounding the buildings and five discrete sample locations under the vacuum lines were also sampled at two different depths. Based on the RFI and previous sampling results, the PCB Aroclor 1254 and the explosive 2,4-dinitrotoluene exceeded NMED SSLs in surface soils (TPMC, 2012).

Building 511 (AOC 65), Building 512 (AOC 66), and Building 513 (AOC 67). Three MI soil sampling areas were established over one-quarter-acre exposure units surrounding Building 511, Building 512, and Building 513 and a total of six MI soil samples were collected. Eighteen discrete locations were sampled surrounding the entrance door to each building, with samples collected at two different depths. Based on the sampling results, there were no exceedances of cleanup criteria/project screening levels, and the Army proposed no further action for soil at AOC 65, AOC 66, and AOC 67 (TPMC, 2012).

Building 514, Deboostering Barricade (AOC 68). One MI soil sampling area was established over a one-quarter-acre exposure unit surrounding Building 514 and Structure 545 and two MI soil samples were collected. Seven discrete sample locations surrounding the approach to and the operational area of the building were also sampled at two different depths. Based on the MI and previous sample results, only the explosive RDX was detected exceeding the cleanup criteria/project screening level in one surface sample location (TPMC, 2012).

Former Electrical Transformer near Building 501 and Building 515 (AOC 75). Two soil samples were collected from beneath the pad within the former electrical substation north of Building 501. One MI soil sampling area was established over a one-eighth-acre exposure unit around the fenced concrete pad (former electrical substation) north of Building 501 and a total of four MI samples were collected. Based on the sampling results, no PCBs were detected in soil samples at concentrations exceeding cleanup criteria/project screening levels. Therefore, the Army proposed that no further action is necessary for this portion of AOC 75 in Parcel 21 (TPMC, 2012).

Feature 15 on 1973 aerial photo in 1995 Archive Search Report 34 (AOC 86). Four MI soil sampling areas were established over 1-acre exposure units covering AOC 86 and a total of eight MI soil samples were collected. Additionally, 64 discrete samples from each sub-unit and each depth interval were collected for VOC analysis at selected sample sites collocated with the MI sampling sites. Based on the sampling results, no detected concentrations exceeded cleanup criteria/project screening levels, and the Army proposed no further action for AOC 86 (TPMC, 2012).

2.2.16 FINAL RCRA FACILITY INVESTIGATION PARCEL 6 – 2012

This RFI Report for Parcel 6 summarized the investigation and restoration activities at Parcel 6 conducted in accordance with the RFI Work Plan for Parcel 6 approved by NMED with modifications. The RFI addressed four SWMUs and 10 AOCs.

Building 600 (SWMU 4). The Army proposed no further action and removal from the RCRA permit (USACE, 2012b).

Building 537 (SWMU 8). The Army recommended no additional characterization. The Final Permittee-Initiated Interim Measures Work Plan, Parcel 6, Revision 1.0 was submitted to address NMED SSL exceedances for PAHs and PCBs, and indicated no depth was defined for soil contamination (USACE, 2012b; Amec Foster Wheeler Environment & Infrastructure, Inc. [Amec Foster Wheeler], 2015).

Building 541 and Building 542 (SWMU 11). The Army proposed no further action and removal from the RCRA permit (USACE, 2012b).

Western Landfill (SWMU 20). The Army recommended no further characterization due to lack of contamination exceeding NMED SSLs (USACE, 2012b). The Final Permittee-Initiated Interim Measures Work Plan, Parcel 6, Revision 1.0 was submitted to NMED to address debris removal (Amec Foster Wheeler, 2015).

Igloo Block B (AOC 28). Lead was detected exceeding NMED SSLs in surface soils directly adjacent to drain pipes and was determined to result from the historical application of lead-based paint to drain pipes (USACE, 2012b). The Final Permittee-Initiated Interim Measures Work Plan, Parcel 6, Revision 1.0 was submitted to NMED to address surface soil contamination (Amec Foster Wheeler, 2015).

Building 507 (AOC 61) and Building 516 (AOC 42). The Army proposed no further action and removal from the RCRA permit (USACE, 2012b).

Electrical Transformers (AOC 75). The Army proposed no further action and removal from the RCRA permit (USACE, 2012b).

Feature 2 (AOC 79). NMED concurred in a Notice of Disapproval for the RFI Work Plan for Parcel 6 that AOC 79 required no further characterization. The Army recommended removal from the RCRA permit.

Feature 9 (AOC 80), Feature 11 (AOC 81), Feature 12 (AOC 84), Feature 18 (AOC 78 and AOC 82), and Feature 22 (AOC 83). The Army proposed no further action and removal from the RCRA permit (USACE, 2012b).

2.2.17 FINAL RCRA FACILITY INVESTIGATION PARCEL 23 – 2012

At Parcel 23, soil field investigations were conducted at SWMU 21 (Central Landfill) and AOC 73 (former buildings and structures along Road C3). Results of the RFI at SWMU 21 indicated that PAHs and arsenic were detected above cleanup criteria/project screening levels in subsurface soils from boring SB08 at the 17- to 18-foot depth. The depth of contamination was defined with samples collected at the 22- to 23-foot depth. The Army concluded contamination is defined vertically at SB08 and horizontally at SB09 to the south (USGS, 2015a). The Army proposed additional borings near SB08 to delineate SVOC concentrations in the soil at SWMU 21. Results of the RFI at AOC 73 did not indicate contamination was present (USGS, 2015a). The Army concluded the arsenic concentrations detected at SWMU 21 and AOC 73 were within a naturally occurring range.

2.2.18 FINAL RELEASE ASSESSMENT REPORT PARCEL 4A REVISION 2.0 – 2012

The Army conducted surface soil investigations for Igloo Block C and electrical transformers as part of the Parcel 4A release assessment. Results indicate metals and PCB COPCs are present in surface soils at concentrations exceeding screening criteria. The Army proposed additional characterization and source-removal activities for igloo drain pipes at C-1105, C-1109, and C-1128; surface soil at C-1124; and transformer I-25. The final extent of COPCs has not been determined (USACE, 2012c).

2.2.19 FINAL PHASE 2 SOIL BACKGROUND REPORT – 2013

This report was approved by NMED in an approval letter dated July 23, 2013. The purpose of this report was to conduct an additional background study to the 2010 initial background study conducted at FWDA. Samples were collected in 2012. This background study focused on arsenic and antimony because the Army believes that many arsenic exceedances across FWDA are due to natural concentrations.

Antimony background results are mostly non-detect and uniform among the various soil units sampled. The 2012 antimony sample results did not provide substantive changes for stakeholders to consider. Arsenic results from 2012 provide additional information to consider. Arsenic concentrations vary from unit to unit and several values exceeded the 95th upper threshold limit from the 2009 data set and the NMED residential SSL. The 2012 arsenic sample results confirmed that naturally occurring arsenic concentrations varied significantly from soil unit to soil unit. The report concluded that soils containing arsenic in the higher elevations of the southern area may be transported to the lower elevations in the northern area through natural weathering and erosion (USACE, 2013).

2.2.20 FINAL RELEASE ASSESSMENT REPORT PARCEL 24 – 2014

The Final Release Assessment Report for Parcel 24 (USACE, 2014a) included AOC 18 and former World War I-era magazines. To complete the Final Release Assessment Report, previous sampling data were reviewed. The results of the release assessment indicated that metal COPCs were present at AOC 18 at concentrations exceeding cleanup criteria/project screening levels. The Army proposed a future permittee-initiated interim action to address removing soil and igloo drain pipes. The Army did not believe there were any significant releases of explosives from the World War I-era magazines. It is not suspected that there were any transformers at Parcel 24.

2.2.21 FINAL REVISION 1 RCRA FACILITY INVESTIGATION REPORT PARCEL 16 – 2014

The final report was approved with modification on January 24, 2014, the modifications were made, and the report was reissued May 9, 2014 (Toeroek Associates, Inc. and pH7 Logistics & Support [Toeroek and pH7], 2014). This RFI Report for Parcel 16 summarizes soil sampling activities at SWMU 16, AOC 41, and World War I-era magazines. These results are summarized below:

Functional Test Range (FTR) 2 and FTR 3 (SWMU 16). Surface soil samples were collected and analyzed for explosives, RCRA 8 metals, perchlorate, and SVOCs. Geophysical surveys were performed, and anomalies were trenched and sampled for the same COPCs. Based on the sampling results, no exceedances were found, and the Army recommended no further action (Toeroek and pH7, 2014).

X and Z Open Storage Areas (SWMU 16). Surface soil samples were collected and analyzed for explosives, RCRA 8 metals, perchlorate, and SVOCs. The explosive TNT was detected above the screening level in one quadrant of open storage pad Z135. The Army recommended more sampling for explosives and a clearance/removal action if necessary (Toeroek and pH7, 2014).

Area K Igloo Block (AOC 41). Surface soils were sampled at the igloo drains in the revetments for RCRA 8 metals, perchlorate, or SVOCs. Metals were detected at concentrations exceeding the SSLs in surface soils. The Army recommended pipe and soil removal and more sampling at drain outfalls but no further action for igloo drainages and revetment areas (Toeroek and pH7, 2014).

World War I Magazine Sites. During and after World War I, up to 28 magazines in Parcel 16 were built and used to store explosives. These magazine areas are dispersed in both SWMU 16 and AOC 41. Two magazine areas located in Parcel 16—but not in AOC 41 or SWMU 16 were sampled in 2007 and are therefore not included in the current investigation. During field investigation, six of the remaining 26 magazines were found to be obliterated and therefore were not sampled; the remaining 20 magazine areas were sampled during this effort. No exceedances were found for explosives at any of the World War I sample locations, and the Army recommended no further action (Toeroek and pH7, 2014).

2.2.22 APPROVED FINAL INVESTIGATION AND REMEDIATION COMPLETION REPORT PARCEL 18, SWMU 13 – 2014

The report summarized the results of the investigation and remediation conducted at SWMU 13, the Eastern Landfill (AMEC Environment & Infrastructure, Inc., 2014). The investigation included waste delineation, source removal, and confirmatory sampling. The investigation was conducted from August 6 to August 9, 2013; waste removal of approximately 13,000 cubic yards of nonhazardous waste occurred from October 1 to November 13, 2013, and December 19, 2013. Waste was disposed from the Waste Management San Juan Landfill. The Eastern Landfill was backfilled after confirmation sample results were approved. The data indicated that no additional corrective action was required for the Eastern Landfill. The report was approved in February 2015 in letter HWB-FWDA-14-009 giving permission to request change of status to corrective action complete without controls.

On March 3, 2014, a request to NMED was submitted to abandon the wells EMW01, EMW02, EMW03, and EMW04. Permission was granted March 26, 2014, and the wells were abandoned from April 29 to April 30, 2014 (USACE, 2014b).

2.2.23 APPROVAL OF WELL ABANDONMENT LETTER FWDA-14-MISC – 2014

This letter, dated April 18, 2014, approved the abandonment of monitoring wells Wingate 89, Wingate 90, Wingate 91, and FW26 because they were unproductive or dry for several years. The letter directed that the wells be abandoned in accordance with NMAC 19.27.4. It also directed that a summary of the well abandonment be included in the monitoring plan.

The New Mexico OSE approved the well plugging plan of operations on November 7, 2014. The four monitoring wells were abandoned on June 24–25, 2015, by Geomechanics Southwest, Inc., well driller license number WD-1522. Wells were plugged with Portland Cement Type I/II with 3% bentonite.

2.2.24 FINAL VERSION I TECHNICAL MEMORANDUM GROUNDWATER BACKGROUND EVALUATION – 2015

The purpose of this technical memorandum (Sundance, 2014b) was to develop background threshold values for naturally occurring chemical constituents in the groundwater (alluvial and bedrock). Approved background monitoring wells were used as the data sources. The ProUCL Technical Guide (EPA, 2010) was the methodology used for the chemical evaluation. The groundwater background data evaluation included:

- trend evaluation to determine whether concentrations were stable at the background wells;
- outlier evaluation to protect a defensible background data set; and
- develop background threshold values for dissolved metals, total metals, perchlorate, nitrate, nitrite, and PAHs.

This technical memorandum has not yet been accepted by NMED. The Army is currently collecting additional data in response to NMED comments.

2.2.25 FINAL REVISION 2.0 RCRA FACILITY INVESTIGATION REPORT PARCEL 22 – 2015

The RCRA permit lists three SWMUs in Parcel 22. This report summarized the investigation activities at SWMU 12, SWMU 70, SWMU 27, AOC 30, AOC 69, AOC 75, and AOC 88, which are summarized below:

Building 536 (Inspectors Workshop and Ammunition Renovation Depot) (SWMU 12). Building 535 and Building 536, along with their foundations, were demolished in 2010. A total of 31 soil and sediment samples were collected and analyzed for VOCs, SVOCs, explosives, PCBs, perchlorate, and metals. Based on the results of the investigation, SVOCs and PCBs were detected exceeding NMED SSLs in sediment samples from the Building 536 septic system (USGS, 2015b).

Building 528 Complex (SWMU 27, AOC 121, AOC 122, AOC 125, and AOC 126). All buildings, along with their foundations, were demolished in 2010. A total of 46 discrete and an MI sample were collected and analyzed for SVOCs, explosives, metals, and perchlorate. Based on the soil sampling results, benzo(a)pyrene, arsenic, and lead concentrations exceeded NMED SSLs in shallow soil (USGS, 2015b).

Buildings 517 to 521 and Structure 547, Disassembly Plant and TPL QA Test Area (SWMU 70). All buildings, along with their foundations, were demolished in 2010. Four soil borings and 30 MI soil sampling areas were established over one-quarter-acre exposure units. Based on the sampling results, the Army concluded that no constituents were detected above the cleanup criteria/project screening levels (USGS, 2015b).

Igloo Block D (AOC 30). Surface soil sampling was conducted at all 53 Igloo Block D igloos in Parcel 22, 13 Igloo Block D open storage sites located in Parcel 22, and at each of the two reported locations where TPL may have performed open burning of unstable propellant. MI samples were analyzed for explosives, SVOC, perchlorate, and metals. Based on the sampling results, metals concentrations exceeded NMED SSLs in surface soils (USGS, 2015b). The explosive 2,4-dinitrotoluene exceeded the cleanup criteria/project screening level in one sample (USGS, 2015b).

Standard Magazine Building 301, Building 302, and Building 312, and Building 316, Field Lunch Room (AOC 69). All buildings remain. Thirty surface soil samples were collected along the railroad tracks located south of Building 301, Building 302, and Building 312. Twenty-four surface soil samples were collected around the exteriors of Building 301, Building 302, Building 312, and Building 316. Based on the sampling results, DRO and PAHs exceeded NMED SSLs in soil to 3 feet deep. Arsenic concentrations in four soil samples exceeded cleanup criteria/project screening levels; however, the Army concluded that arsenic values in this range are not indicative of contamination but rather are natural levels for the area (USGS, 2015b).

Electrical Transformers in Parcel 22 (AOC 75). All electrical transformers were removed in 2010. Two soil samples were collected from beneath the former transformer locations at Building 528. Based on the sampling results, no soil samples collected in AOC 75 had detectable concentrations of PCBs and the Army recommended no further action (USGS, 2015b).

Former Buildings or Structures and Disposal Areas (AOC 88). Four additional MI exposure units were added to both AOC 88A and AOC 88B and 38 MI soil samples were collected. Also, eight discrete soil samples were collected from the MI areas in AOC 88A and AOC 88B. Based on the sampling results, no soil samples collected in AOC 88 had detectable concentrations that exceeded cleanup criteria/project screening levels (USGS, 2015b).

2.2.26 FINAL GROUNDWATER SUPPLEMENTAL RCRA FACILITY INVESTIGATION WORK PLAN, REVISION 4 – 2016

This RFI work plan was generated to examine the horizontal and vertical extent of six identified groundwater contaminant plumes within the northern area of FWDA. The investigation will attempt to locate and identify the source locations for the contaminant plumes and gather information to conduct a Corrective Measures Study for each plume. The investigation will include a soil gas survey, installing groundwater monitoring wells, and collecting soil samples. A revised document is currently being prepared.

2.2.27 GROUNDWATER SUPPLEMENTAL RCRA FACILITY INVESTIGATION – 2019

The RFI work included the installation of 32 additional groundwater monitoring wells in 2019 to further assess contaminant plumes and subsurface conditions in the alluvial and bedrock aquifers. The specifications for these additional 32 monitoring wells are provided in Table 2-1 and are shown on Figure 2-4. The additional wells are: BGMW11, BGMW12, BGMW13S, BGMW13D, MW26, MW27, MW28, MW29, MW30, MW31, MW32, MW33, MW34, MW35, MW36S, MW25, MW36D, TMW50, TMW51, TMW52, TMW53, TMW54, TMW55, TMW56, TMW57, TMW58, TMW59, TMW60, TMW61, TMW62, TMW63, and TMW64.

2.3 SEMIANNUAL RCRA GROUNDWATER MONITORING REPORTS AND UPDATED GROUNDWATER MONITORING PLANS – ONGOING

Since 2008, groundwater sampling has been conducted semiannually (April and October), and each event documented in semiannual PMRs. The Interim Facility-wide GWMP is updated annually and will be submitted as two separate reports per NMED request dated Oct 22, 2018 (NMED, 2018), in which NMED stated "two separate Plans (one for the OB/OD Area and the other for the Northern Area) are required in the upcoming Interim Facility-wide GWMP."

A database of the groundwater analytical results generated from the monitoring program for 1992 through 2018 is available upon request and provided on disk. Appendix B contains a summary of laboratory data from 2012 – 2018. Based on previous groundwater sampling results, the following analytes were detected in groundwater samples at concentrations that exceeded project screening values in one or more samples.

- Anions (chloride, fluoride, nitrate, nitrite, sulfate, and phosphate)
- Perchlorate
- Explosives (1,3-dinitrobenzene; 2-nitrotoluene; 3-nitrotoluene; nitrobenzene; nitroglycerin; and RDX)
- VOCs (1,2-dichloroethane; carbon disulfide; 1,4-dioxane; toluene; and vinyl chloride)
- SVOCs (1,2-diphenylhydrazine; 2,4-dinitrophenol; 2,6-dinitrotoluene; benzo(a)-pyrene; bis(2-ethylhexyl)phthalate; p-chloroaniline; n-nitrosodimethylamine; n-nitroso-di-n-propylamine; and phenol)
- DRO and GRO
- Metals (aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, potassium, selenium, silica, silver, sodium, thallium, tin, vanadium, and zinc).

Cyanide, pesticides, and dioxins/furans were detected in samples from multiple locations but detected concentrations did not exceed project screening values. Herbicides and PCBs were not detected in any groundwater samples.

An alluvial groundwater nitrate plume is present in the northern area. Exceedances of nitrate also occur in select wells in the northern area bedrock groundwater zone. Nitrite is also detected at concentrations exceeding cleanup levels, but these detections are primarily associated with the existing nitrate plume. Detected concentrations of other anions (fluoride, sulfate, chloride, and phosphate) are associated with hard water and brackish groundwater conditions observed at FWDA.

Perchlorate has detections above the project screening value exceedances in numerous alluvial and bedrock monitoring wells located near and north of the TNT Leaching Beds area (SWMU 1) and the Building 528 Complex (SWMU 27).

The explosive, RDX was detected above the project screening value in several alluvial wells located north of the TNT Leaching Beds Area (SWMU 1). The explosives 1,3-dinitrobenzene; 2-nitrotoluene; and 3-nitrotoluene had project screening value exceedances in several alluvial monitoring wells north of the TNT Leaching Beds area. Nitrobenzene had exceedances in several alluvial wells located north of the TNT Leaching Beds (SWMU 1) and one bedrock well downgradient of the TNT Leaching Beds (SWMU 1) and the Building 528 Complex (SWMU 27).

The VOC 1,2-dichloroethane has project screening value exceedances in alluvial wells located in the Administration Area and downgradient of Building 11, former Locomotive Shop (SWMU 6), and Building 6, Gas Station (SWMU 45). Toluene had two project screening value exceedances and benzene has had one exceedance. Toluene and benzene may have been associated with previous fuel releases and are now detected at concentrations less than cleanup levels. Other VOCs—carbon disulfide; 1,4-dioxane; and vinyl chloride—each had only one project screening value exceedance. The other VOC detections are not persistent and/or widespread enough to indicate a significant groundwater impact and/or represent a groundwater contaminant plume that can be mapped.

In a letter dated August 15, 2019, NMED requested the inclusion of 1,4-dioxane to the analytical program for two consecutive monitoring events, due to chlorinated solvents having been detected in groundwater samples at the facility. In the letter, NMED stated that the Permittee must analyze groundwater samples collected from all monitoring wells where chlorinated solvents have been detected within the past ten years for 1,4-dioxane using EPA Method 8270 SIM. To better assess the presense of 1,4-dioxane onsite, all wells will be sampled for 1,4-dioxane during the first sampling event; then for the second event, only wells that have a history of detection for chlorinated solvents in the last ten years will be sampled. The first of the two consecutive sampling events will start in April 2020, and the second will be in October 2020.

The SVOC 2,4-dinitrophenol had project screening value exceedances from samples collected at the Work Shop Area. SVOCs 1,2-diphenylhydrazine; 2,6-dinitrotoluene; benzo(a)pyrene; p-chloroaniline; n-nitrosodimethylamine; and n-nitroso-di-n-propylamine each had one project screening value exceedance at one or two locations. The SVOC phenol had one project screening value exceedance in three scattered monitoring wells and up to three exceedances in bedrock monitoring wells in the Workshop Area. Bis(2-ethylhexyl)phthalate had screening level exceedances at multiple locations. However, bis(2-ethylhexyl)phthalate is a common sampling and laboratory contaminant and should not be considered as a groundwater contaminant unless there is a plausible source.

Metals project screening value exceedances are numerous and widespread, however background groundwater concentrations have not been accepted for FWDA, thus it cannot be demonstrated whether the detected concentrations are a result of natural conditions or anthropogenic sources of contamination.

3.0 CONCEPTUAL SITE MODEL

This section summarizes the site conditions at FWDA, including historical land use, natural and manmade features, ecological setting, fate and transport information, and detailed surface and subsurface characterization. Site conditions are summarized from site-specific documents including RFI work plans, RFI reports, release assessment reports prepared for the individual parcels as specified in the RCRA permit, periodic groundwater monitoring reports and groundwater monitoring plans.

3.1 CLIMATE

Northwestern New Mexico is characterized by a semiarid, continental climate with most precipitation occurring from June through September as localized, heavy, and brief monsoon storms. The climate for the FWDA area varies with elevation but is generally mild during the summer with temperatures ranging between 65 degrees Fahrenheit (°F) and 95°F, and cold during the winter with average daily temperatures ranging between 30°F and 35°F. The warmest month is July, with an average maximum temperature of 89°F, while the coldest month is December, with an average minimum temperature of 11°F. Daily temperature variations can be considerable during the summer, with an average temperature difference of approximately 35°F.

Mean annual rainfall for the area ranges between 10 inches and 16 inches, while the recorded average annual precipitation for FWDA is approximately 11 inches. The wettest month is August, with an average rainfall of approximately 2 inches. Most precipitation occurs as rain or hail during violent summer thunderstorms. The remainder of annual precipitation occurs as winter snow. Accumulated snow at higher elevations produces a slow release of snowmelt in the spring, which provides higher infiltration compared to the intense monsoon thunderstorms (Anderson et al., 2003).

The area has generally sunny weather with average relative humidity varying from 15% to 50% during dry seasons and the wet summer monsoon season, respectively. During spring, the area experiences very strong winds originating from the west and southwest with an average wind speed of approximately 12 miles per hour (mph) and maximum gust speeds approaching 65 mph. These strong winds, high temperatures, and low relative humidity contribute to high evapotranspiration rates at FWDA.

3.2 SURFACE CONDITIONS

3.2.1 TOPOGRAPHY

FWDA can be divided into three areas: 1) the rugged north–south trending Nutria Monocline (commonly referred to as the Hogback) along the western and the southwestern boundaries, 2) the hill slopes of the Zuni Mountain Range in the southern portion, and 3) the alluvial plains marked by bedrock mesas in the northern portion. The elevation of FWDA ranges from approximately 8,200 feet above mean sea level (amsl) in the south to 6,660 feet amsl in the north.

3.2.2 VEGETATION

Ground cover ranges from exposed bedrock and lithic soils to montane forest. Forest is present at higher elevations where more precipitation occurs. Mixed ponderosa pine and fir forest are present at elevations above 7,500 feet. Piñon and juniper vegetation is present at elevations from 6,800 feet to 7,500 feet. Shrubs and grasses are present at elevations below 6,800 feet. Some areas with steep slopes and rocky ground lack vegetation.

3.2.3 SOIL

FWDA soil types range from a mixture of sand, silt, and clay. Alluvium most commonly found in arroyos is permeable sand and sandy loam clay mixtures that contain varying amounts of silt, gravel, and rock fragments, and low-permeability sandy clay. Soil types at FWDA are primarily alluvial materials except for the Hogback along the western border and the northern hill slopes of the Zuni Mountain Range in the southern portion. The alluvial materials do not typically have distinct soil horizons because they are relatively shallow and undeveloped. Organic soils have developed in some streambank deposits along major arroyos. The parent bedrock is either at or near the surface within more than a quarter of the installation.

High winds and water cause extensive soil erosion, especially where vegetation cover is absent. The more permeable, sandy soil typically found in arroyos accounts for the majority of local surface water infiltration. The thickness of the soil varies across FWDA. In the OB/OD area and at the eastern and southern perimeter of the northern area, the soil thickness is a thin veneer with parent bedrock at or near the surface. In most of the northern area, flat alluvial plains are dominant with thick soil overlying deeper, steeply dipping bedrock. In the Administration Area, alluvium can be up to 70 feet thick and is even thicker near the Rio Puerco.

3.3 GEOLOGY

3.3.1 REGIONAL GEOLOGY TECTONIC SETTING AND SITE-SPECIFIC STRUCTURE

FWDA is in an erosional basin within the Navajo section of the Colorado Plateau Physiographic Province and lies on the northwest apex of the Zuni Uplift. This basin is regionally bounded by the Gallup sag to the west, the Acoma sag and McCarty’s syncline to the east, and the Chaco Slope to the north. The Zuni Uplift is an elongated north–northwest trending structural uplift that is primarily a result of vertical upward displacement followed by deformation resulting from horizontal compressive stress associated with the Laramide orogeny of Cretaceous age. The uplift has exposed tilted Mesozoic sedimentary strata within the southwestern portion of the installation, a majority of which are Triassic mudstones and sandstones.

The dominant topographic structural feature located on the southwest margin of the Zuni Uplift is the Nutria Monocline or Hogback. This steep structural feature is a monoclinal belt with dips ranging from 30 degrees (°) to 45° near FWDA. Dips commonly exceed 60° in the southern extension of the monocline, south of FWDA. The northern segment of the Nutria Monocline is exposed in the western portion of FWDA, where westerly dipping Mesozoic strata are exposed to form a long, sharp-crested, north-to-south trending ridge. In areas east of the Hogback, the bedrock generally dips to the northwest.

3.3.2 STRATIGRAPHY

The geologic units exposed at FWDA were largely deposited in the Mesozoic Era and have been significantly modified by more recent erosion and redeposition. The lithified stratigraphic units are Triassic to Cretaceous in age with uplift and deformation occurring in the Cretaceous during the Laramide orogeny series of mountain-building events in western North America (McCraw et al., 2009). Quaternary alluvial and colluvial deposits unconformably overlie the Mesozoic bedrock in the lower elevation and northern portions of FWDA (Anderson et al., 2003).

In the northern portion of FWDA, the surface is covered by remnants of either the Triassic Chinle Group or Quaternary alluvial deposits. Alluvial deposits are present in the northern lowland areas between bedrock remnants. Alluvial deposits are also present along intermittent streams draining the Hogback and Zuni Mountains, which flow downgradient through the northern portion of FWDA before joining the South Fork of the Rio Puerco. Alluvium deposits range in grain size from clay to gravel, typical of braided stream deposits with texture and internal structure characterized by lateral and vertical heterogeneity (Malcolm Pirnie, Inc. 2000). Data from installed wells indicate alluvial deposits are thickest near major drainages such as the South Fork of the Rio Puerco where alluvial deposits can be up to 150 feet thick. Near Fort Wingate High School (east of FWDA), alluvial deposits are approximately 75 feet thick, and in the Administration Area deposit thickness varies from 30 feet to 70 feet.

The majority of FWDA is underlain by the Triassic-age Chinle Group composed of non-marine, red-bed siliciclastics. The Chinle Group consist of Shinarump, Bluewater Creek, Petrified Forest, and Owl Rock Formations (Anderson et al., 2003). The Petrified Forest Formation underlies much of the installation and is subdivided into three members: Blue Mesa, Sonsela, and Painted Desert. All three members of the Petrified Forest Formation crop out in various locations across the installation. The Blue Mesa, Sonsela, and Painted Desert lithologies are green-gray smectitic mudstone, light gray to yellowish-brown cross-bedded sandstone, and reddish-brown and grayish-red smectitic mudstone (McCraw et al. 2009). In the eastern portion of FWDA, the older Bluewater Creek and Shinarump Formations crop out intermittently between layers of Quaternary alluvium (McCraw et al., 2009).

The Chinle Group is underlain by the older Permian age: San Andres Limestone and Glorieta Sandstone. The San Andres Limestone consist of fossiliferous limestone that intertongue the Glorieta Sandstone (Anderson et al., 2003). These two formations comprise the San Andres-Glorieta aquifer, which is the principal source of drinking water in the area (Malcolm Pirnie, Inc. 2000; Cooper and John 1968).

3.4 SURFACE WATER

3.4.1 REGIONAL SURFACE WATER

Streams are ephemeral and fed by rain and snowmelt from the Zuni Mountains and the Nutria Monocline. All drainages in the FWDA area are intermittent with flow only occurring during and after heavy rainfall events (summer) or snowmelt (spring). These streams transport sediment to low-lying areas in the northern portion of FWDA, creating thick and extensive alluvial deposits among remnants of Triassic strata of the Petrified Forest Formation. Main drainages at FWDA generally follow the dominant topography by flowing from south to north and discharging into the South Fork of the Rio Puerco in the northern portion of the installation. Surface drainage is relatively shallow near headwaters due to the nature of brief and heavy precipitation. Downward erosion intensifies as water moves downstream, resulting in a well-developed, steep-walled system of arroyos in the Quaternary alluvium.

3.4.2 SITE-SPECIFIC SURFACE WATER

The three major drainage systems at FWDA can be identified as: 1) eastern drainage system in Parcels 5 through 12 and Parcels 21 through 23; 2) western drainage system in Parcels 14 through 20; and 3) southwestern corner drainage system in Parcel 2 and 3. These drainage systems are divided by either bedrock ridges or bedrock remnants. In the northwest portion of the installation, two artificial channels are present that were constructed during the 1940s to divert water away from Igloo Block A and Igloo Block B and the Administration Area (DOE, 1990).

The eastern drainage system consists of washes that run in northwestern and northeastern directions off the slopes of the Zuni Mountains. Alluvial fans form in basins at the front of the slope as well as between bedrock remnants. In the northeast section of the installation the drainage flows around bedrock remnants before joining the South Fork of the Rio Puerco.

The western drainage system (except for the southwest corner) consists primarily of two main drainages covering the western portion of FWDA. Tributaries of the western drainage system pass the demolition area, cross the Hogback, and deposit alluvium along the bedrock remnants (Herndon Solutions Group, 2011). The southwestern corner drainage system flows southwest and joins the Bread Springs Wash on the western side of the Hogback.

3.5 HYDROGEOLOGY

Groundwater is present in several rock units underlying FWDA. The Quaternary Quatowam alluvium and the Permian San Andres limestone and Glorieta sandstone are the predominant formations at FWDA capable of yielding more than a few gallons per minute (gpm) of groundwater. The Triassic-age members of the Chinle Group: the Painted Desert mudstone/claystone, the Shinarump conglomerate, and the Sonsela sandstone underlying the shallow alluvial aquifer produce minor amounts of groundwater.

The regional groundwater aquifer near FWDA is present in the Permian San Andres limestone and Glorieta sandstone formations (Cooper and John 1968, Summers 1972). The San Andres-Glorieta aquifer was utilized as the drinking water source for FWDA prior to the closure of the installation in 1993. The top of the San Andres-Glorieta aquifer is approximately 1,100 feet bgs near the Administration Area. The San Andres-Glorieta aquifer is about 200 feet thick and under artesian pressure. Hydraulic conductivity values range from 0.05 foot per day to 150 feet per day from one location to another (Herndon Solutions Group, 2011). Groundwater flow in the San Andres-Glorieta aquifer is northward beneath FWDA and is separated from the shallow groundwater units by shales and claystones across much of FWDA (Anderson et al., 2003).

Shallow groundwater is present in the unconsolidated alluvium and the Mesozoic-age bedrock overlying the San Andres limestone and Glorieta sandstone formations. The Quaternary alluvial aquifer, which include deposits in the Rio Puerco Valley along the northern edge of the installation is composed of gravel, sand, silt, and clay derived from Triassic- and Jurassic-age strata that border the valley. Along the northern border of the installation, hydraulic communication exists between groundwater and the Rio Puerco during periods of active stream flow. Groundwater flow in the alluvium occur primarily in discontinuous, stream-deposited sand and gravel units. Water yields from the bedrock units: Shinarump and Sonsela members, generally yield 5 gpm to 50 gpm, and water quality is considered fair to poor.

The depth to water (DTW) at FWDA is generally between 10 feet and 100 feet bgs. Groundwater is present at shallow depths in the alluvium along drainages, including the Rio Puerco. DTW range from 16 feet to 70 feet bgs in the northern area alluvial aquifer monitoring wells during December 2018 (Table 3-1). Groundwater in the northern area bedrock aquifer monitoring wells have a DTW range from 17 feet to 67 feet bgs in all but one well (BGMW08) during October 2018 (Sundance, 2019).

Very little precipitation infiltrates through unsaturated soil to recharge FWDA groundwater. The regional aquifer and shallow groundwater units are primarily recharged through precipitation and snowmelt runoff infiltration through exposed bedrock uplands and faults south of FWDA. The Quaternary alluvial aquifer is primarily recharged from surface runoff, although some deposits in the southern part of the installation are recharged by springs from underlying bedrock aquifers. Recharge of groundwater within the alluvium occurs mainly during the wet seasons, specifically with the spring snowmelt.

Hydraulic properties differ between the unconsolidated alluvium and bedrock groundwater-bearing units. The northern area alluvial and bedrock groundwater elevation contours from the October 2018 quarterly water level measurements event are shown on Figure 3-1 and Figure 3-2. Flow directions are interpreted based on groundwater contours and surface topography for infiltration pathways.

Water quality parameter readings collected at FWDA during interim-measure monitoring provide information on general groundwater conditions. Groundwater conditions depend on the formation and distance from a recharge source. Groundwater adjacent to recharge sources such as exposed bedrock uplands, or surface water drainage systems have water with lower salinity and a higher dissolved oxygen (DO) content. DO and calculated redox potential values indicate a mixture of reducing and aerobic conditions. Reducing conditions indicate dissolved oxygen is less than 1.0

milligrams per liter (mg/L) and are attributed to natural conditions present in formations with high organic matter content, such as clays and shales and persistent in bedrock units and in some alluvial units.

3.5.1 NORTHERN AREA ALLUVIAL GROUNDWATER SYSTEM

Groundwater direction in the alluvium flow from a potentiometric high in the east, north, and south toward a potentiometric low west of the Administration Area (Figure 3-1). From the Administration Area, the groundwater flow direction is generally to the west.

A small groundwater mound is present in the Administration Area near monitoring wells MW01, MW02, and MW03. This feature has been previously attributed to a leaking water storage cistern (USGS, 2011a). The cistern is no longer in service, and the groundwater mound was expected to attenuate over time. However, the groundwater mound is still observed in the water-level data for monitoring well MW02 as recent as October 2018. This mound may be attributed to leakage from inactive artesian Well 69, which was installed to replace Well 68.

Well 69 was drilled in July 1970 by Coffey Drilling Co. of Ramah, New Mexico, installed with telescoping casing that narrows with depth (Figure 3-3 provides a construction diagram of Well 69). As reported in the well installation report, a 12½-inch pilot hole was drilled to a depth of 110 feet bgs using a bentonite-base drilling mud (USGS, 1971). The pilot hole was then reamed to a 20-inch diameter and cased to 100 feet bgs with a 16-inch casing and cemented to prevent caving. A 15½-inch hole was then drilled to a depth of 1,037 feet bgs. The boring was cased with 12¾-inch casing from 100 feet bgs to 1,037 feet bgs, and cemented in place. An 11½-inch boring was drilled from 1,037 feet bgs to a total depth of 1,350 feet bgs and cased with solid 8¾-inch casing from 1,037 feet bgs to 1,100 feet bgs, and slotted 8¾-inch casing across the producing interval from 1,100 feet bgs to 1,350 feet bgs. Although this water supply well is no longer in use, the welded casing joints are possibly deteriorating causing a leak under artesian pressure into the alluvium. A video survey of Well 69 was performed in June 2019 to provide a visual observation of the interior of the well casing to assess any possible deterioration and leak. The video survey showed thick mineral deposits along the well casing, which made it difficult to assess the condition of the well casing.

There is a widespread aquitard between the alluvial and bedrock groundwater units across much of the northern area. Lithologic information from previous investigations show a mudstone (approximately 20 feet to 60 feet) between the saturated alluvial groundwater zone and the permeable bedrock groundwater units. This information indicates that communication between the alluvial and bedrock groundwater systems is limited to the upland recharge areas present in the southern portions of the Workshop Area and potentially east and south of the northern area monitoring network.

3.5.2 NORTHERN AREA BEDROCK GROUNDWATER SYSTEM

Groundwater flow in the shallow bedrock is generally to the north and west in the Workshop Area (Figure 3-2). Steep horizontal gradients from east to west (between wells TMW38 and TMW40D, and between wells TMW17 and TMW37) indicate a geologic structural feature (*i.e.*, fault or fracture zone) impedes groundwater flow. Contaminant transport of perchlorate to the north, rather than to the west, supports evidence of a structural impediment to westerly groundwater flow in bedrock beneath the Workshop Area.

Two water bearing sandstone units within the Painted Desert Member of the Petrified Forest Formation are known to exist below the Workshop Area. The upper sandstone unit is evaluated by monitoring well TMW02. The remaining bedrock monitoring wells are completed in the lower sandstone unit which is separated from the upper by a thick sequence of shale.

Since January 2013, groundwater elevations in most of the bedrock monitoring wells have been relatively stable. Over this period, most northern area bedrock wells depth to water has declined only a few feet.

Survey errors may also affect the interpretation of bedrock aquifer groundwater flow directions since bedrock monitoring wells were installed and surveyed during several different field events, which may introduce well survey data set errors. A separate contractor is currently tasked to complete the survey of all wells in the northern area groundwater regime.

3.6 NATURE AND EXTENT OF GROUNDWATER CONTAMINATION

Groundwater contamination from known sources is detected in groundwater contaminant plumes in the northern area in both alluvial and bedrock aquifers. Nitrate, perchlorate, explosives, one VOC, and metals are consistently detected in groundwater samples at concentrations above the project screening values. Six groundwater contaminant plumes have been identified: two nitrate plumes, one in the alluvial aquifer and one in the bedrock aquifer; two perchlorate plumes, one in the alluvial aquifer and one in the bedrock aquifer; an explosives plume in the alluvial groundwater unit; and a 1,2-dichloroethane (1,2-DCA) plume in the alluvial aquifer (Sundance, 2019). While metals are consistently detected in groundwater samples at concentrations above the cleanup criteria/project screening values, background groundwater concentrations have not been accepted for FWDA and it cannot be demonstrated whether the detected concentrations are a result of natural conditions or anthropogenic sources of contamination. A separate contractor has been tasked to conduct an investigation into background concentrations for metals. Therefore, the metals concentrations have not been mapped as contaminant plumes. SVOCs, DRO, and GRO are sporadically detected with occasional or historical exceedances of project screening values for SVOCs and DRO (screening levels for GRO were established in June 2019), but the number of exceedances is too limited for these contaminants to be mapped as contaminant plumes.

Figure 3-1 and Figure 3-2 present the alluvial and bedrock groundwater elevations generated from the October 2018 water level measurement event. Plume boundaries defined by isoconcentration contours at the contaminant project screening value concentration were generated from July through October 2018 monitoring events. Northern alluvial contaminant plumes for select contaminant concentrations that can be contoured are provided in Figures 3-4 through 3-11; and Figures 3-12 through 3-14 cover the northern area bedrock groundwater contaminant plumes. Figure 3-15 shows the northern area alluvial and bedrock groundwater sentinel and background monitoring wells. Analytical results corresponding to the contaminant plumes are presented in Appendix B.

The nitrate plume in the alluvial aquifer appears to originate from the TNT Leaching Beds (SWMU 1) (Figure 3-4). The bedrock nitrate plume is also present near the TNT Leaching Beds (SWMU 1) (Figure 3-12). A portion of the bedrock nitrate plume is collocated with the bedrock perchlorate plume (Figure 3-13). The bedrock collocated perchlorate and nitrate plumes either percolate from the alluvial impacts or have a common source at the Building 528 Complex (SWMU 27).

RDX is the primary explosive compound of interest. This compound is consistently detected in groundwater at concentrations above the project screening value in the Workshop Area and eastern Administration Area (Figure 3-5). The widespread detection of RDX allows this compound to serve as an indicator compound for explosives compounds across FWDA. The explosives plume in the alluvial groundwater aquifer appears to originate from the TNT Leaching Beds (SWMU 1) in the Workshop Area. The explosives plume in bedrock appear to have the same potential source areas as nitrate and metals, which originate near the TNT Leaching Beds (SWMU 1) and Building 528 Complex (SWMU 27) (Figure 3-12).

The highest perchlorate concentrations are detected in groundwater samples from the bedrock aquifer in the Workshop Area (Sundance, 2019) (Figure 3-13). The alluvial perchlorate plume is in the same vicinity as the bedrock perchlorate plume. Historical releases of perchlorate-containing materials at the Building 528 Complex (SWMU 27) are believed to be the common source of both perchlorate plumes in the alluvial and bedrock aquifers.

One VOC was detected in groundwater samples at concentrations exceeding project screening values. The compound 1,2-dichloroethane was historically used as a gasoline additive and degreasing solvent. The 1,2-dichloroethane plume in the alluvial aquifer (Figure 3-8) is limited to a group of wells near a former fueling facility (SWMU 45, Building 6 Gas Station) and SWMU 50 (Structure 35, UST 7) in the Administration Area (Sundance, 2019). The VOC 1,2-dichloroethane was not detected in the bedrock aquifer. In a letter dated August 15, 2019, NMED requested to include 1,4-dioxane to the analytical program for two consecutive monitoring events. The first of the two consecutive sampling events will be in April 2020, and the second will be in October 2020.

Some SVOCs such as 2,4-dinitrophenol are periodically detected at concentrations above the project screening values and are associated with degradation of explosives compounds. Some SVOCs such as PAHs are associated with petroleum products used in industrial operations and are also periodically detected. SVOCs were released to soil at SWMU 6 (Building 11, Former Locomotive Shop) and SWMU 45 (Building 6 Gas Station) (Figure 3-9 and Figure 3-14).

Background metals concentrations in groundwater have not been accepted for FWDA, thus, it cannot clearly demonstrate whether the detected concentrations are a result of natural conditions or anthropogenic sources of contamination. Although the metals concentrations are not contoured, a proposed alluvial monitoring network is presented on Figure 3-7 and a bedrock monitoring network is presented on Figure 3-12.

Petroleum hydrocarbons such as DRO and GRO have been sporadically detected in multiple groundwater samples. DRO was detected in three alluvial locations exceeding project screening values. GRO has two exceedances for project screening levels in alluvial wells. DRO was released to soil at SWMU 6 (Building 11, former Locomotive Shop), SWMU 7 (Fire Training Ground), SWMU 45 (Building 6 Gas Station), and SWMU 50 (Structure 35, UST 7) (Figure 3-10). GRO was released to soil at SWMU 45 (Building 6 Gas Station) and SWMU 50 (Structure 35, UST 7) (Figure 3-11).

Dioxins, furans, herbicides, white phosphorous, pesticides, and PCBs have not been detected exceeding project screening values since interim measure groundwater monitoring began in 2008. Pesticide detections were attributed to wind contamination of samples from surface pesticide application (Innovar Environmental, Inc., 2016). No points of release to groundwater were identified for dioxins, furans, herbicides, pesticides, white phosphorous, or PCBs, therefore, these compound groups are not considered primary groundwater COPCs.

3.7 FATE AND TRANSPORT OF CONTAMINATION IN GROUNDWATER

Groundwater contamination has been identified in the northern Administration Area and Workshop Area in alluvial and bedrock aquifers. The known and suspected points of release to groundwater are as follows.

- The TNT Leaching Beds (SWMU 1, Parcel 21) and the Building 528 Complex (SWMU 27, Parcel 22) in the Workshop Area had releases of nitrate, explosives, and metals due to historical munitions activities (Sections 2.2.7, 2.2.10, 2.2.12, 2.2.15, 2.2.26, and 2.3).
- The Building 528 Complex (SWMU 27, Parcel 22) in the Workshop Area had releases of perchlorate due to demilitarization and recycling of munitions (Sections 2.2.12, 2.2.26, and 2.3).
- The Building 6, Gas Station (SWMU 45, Parcel 11) and the former UST 7 at Building 45 (SWMU 50, Parcel 11) in the Administration Area had releases of GRO and VOCs, and suspected release of lead due to historical leaks from USTs (Sections 2.2.11 and 2.3).
- The Building 6, Gas Station (SWMU 45, Parcel 11) had suspected releases of DRO and SVOCs from historical fueling and mechanical operations (Sections 2.2.11 and 2.3).
- The Fire Training Ground (SWMU 7, Parcel 21) had suspected releases of DRO due to historical fire-fighting operations (Sections 2.2.15).
- The Pesticide and Field Battery Workshop (SWMU 8, Parcel 6) had suspected release of SVOCs (Sections 2.2.16).

For the purposes of periodic groundwater monitoring, points of releases are defined as known sources of groundwater impact identified from RFIs. All the above-listed points of release were to surface or shallow subsurface soils. Additional potential sources of groundwater contamination may be present at FWDA and may be added to interim monitoring as they are confirmed during RFIs.

The primary transport mechanism to groundwater is leaching from shallow soils. There are sufficient permeable pathways to allow infiltration to reach the water table across much of the northern area. Highly insoluble compounds, such as PCBs, may be bound to soil materials rather than leach to groundwater.

Migration is largely controlled by the groundwater flow direction once contamination has reached alluvial groundwater. Alluvial groundwater flow is generally to the west and is controlled by the bedrock structural features in the northern area. Alluvial groundwater in the northern Administration Area and Workshop Area is present in a depression formed by the downward dip of largely impermeable claystone bedrock. Southeast of the Workshop Area, communication between the bedrock and alluvial aquifers create a direct pathway between both units. In the northern area, alluvium overlies claystone aquitards.

Groundwater flow across much of FWDA is believed to be slow due to low hydraulic conductivity of the alluvial and bedrock units. In addition, structural barriers, such as faulting and folding of bedrock units may greatly impede the flow of shallow groundwater from one valley to another. Groundwater monitoring from 2008 to present demonstrate that groundwater contaminant plumes are relatively stable.

Natural attenuation by diffusion, dispersion, and mineralization are believed to occur at FWDA. Mineralization, volatilization, chemical degradation, and biological degradation are potential mechanisms for contaminant degradation. Aerobic degradation and volatilization may be acting on some organic COPCs, such as VOCs and SVOCs. Aerobic conditions do not predominate in many groundwater units, and this degradation pathway is believed to be limited to small areas of shallow alluvial groundwater. Reductive chemical and chemical degradation may be acting on some COPCs such as nitrate, perchlorate, and explosives, but such degradation of COPCs has yet to be significantly demonstrated.

Source characterization and removal activities are being performed under interim measures at various locations across FWDA. Interim groundwater monitoring will continue pending final characterization and selection of an appropriate remedy.

3.8 EXPOSURE PATHWAYS FOR HUMAN AND ECOLOGICAL RECEPTORS

The pathways for human exposure are assessed where groundwater contamination has been detected exceeding screening criteria. Exposure pathways are assessed based on current conditions and expected future land use.

There are no current exposure pathways for human and ecological receptors in the northern area. Groundwater does not discharge to surface water in the northern area, and the top of the San Andres-Glorieta aquifer is approximately 1,100 feet bgs and separated from the shallow groundwater units by impermeable shales and claystones. Use of local groundwater resources at FWDA has ceased. All potable water used at FWDA is obtained from sources outside FWDA.

There are potential dermal and ingestion exposure pathways for future human receptors in the northern area. Groundwater resources may be used for human consumption if the property is transferred and used for residential purposes. Groundwater discharged from possible future drinking water wells would be the pathway for human exposure in this scenario.

3.9 CULTURAL RESOURCES

Traditional cultural properties (TCPs) and other cultural resources have been documented within FWDA boundaries. Existing groundwater monitoring wells and access routes are not located within identified archaeological sites. Since groundwater sampling activities are non-intrusive and confined to a small area immediately surrounding a given well, cultural resource monitoring will not be required during proposed sampling activities at existing wells.

4.0 FIELD MONITORING AND SAMPLING METHODS

Field activities proposed under this Interim Northern Area GWMP include groundwater elevation measurements and groundwater sample collection from the northern area monitoring wells at FWDA. The different types of sampling and purge methods described in this section are identified in Table 4-1. The field gauging and sampling equipment are listed in Table 4-2.

4.1 GROUNDWATER ELEVATION SURVEY

Depth to groundwater (DTW) measurements are collected quarterly. Groundwater elevations are calculated based off the DTW measurement, less the surveyed top of casing (TOC) measurement. The groundwater elevations are used to calculate hydraulic gradients and determine groundwater flow direction. All groundwater measurements will be collected during a 48-hour period from the northern area alluvium and northern area bedrock monitoring wells depicted in Figure 2-3. Water elevation measurements will be compared to previous measurements for consistency.

Depth to groundwater will be measured with an electronic water-level meter following these steps.

1. Starting with a clean water level meter, lower the water level measurement probe down the well casing until the indicator lights or chimes. The indicator lights and chimes when the probe has encountered water. The measurement probe will be raised above the water, then again lowered 2-3 times. The reading will be considered accurate when three consecutive readings are in agreement (the same). The water level measurement will be read at the surveyed reference notch (typically north end of top of well casing).
2. The DTW measurement will be compared to the previous DTW reading. If the measurement differs from the previous measurement by more than 1.0 foot, the measurement will be performed a second time.
3. Record measurement to the nearest 0.01 foot to the top of casing reference notch and document in field form or logbook. Monitoring wells and piezometers that do not contain more than 6 inches of water saturation in the well screen interval are identified as dry.
4. Remove water-level probe from the well casing and decontaminate with non-phosphate detergent and distilled water as described in Section 4.4.

4.2 GROUNDWATER SAMPLING

Monitoring well sampling at FWDA involves a variety of purging and sampling methods. A low-flow pump is the preferred method at FWDA in accordance with the NMED guidance document on low-flow sampling, *Use of Low-Flow and Other Non-Traditional Sampling Techniques for RCRA Compliant Groundwater Monitoring* (NMED-HWB, 2001). Field sample methods, equipment, and sample handling information are presented in Table 4-2 and Table 4-3. Field procedures for sample collection and handling are provided in Section 4.3. All water generated during purging activities and excess groundwater from sampling will be collected in designated containers and managed as IDW following procedures described in Section 4.5. Monitoring wells that do not contain more than 6 inches of water saturation in the well screen interval are identified as dry. Wells identified as dry will not be sampled for groundwater.

4.2.1 PRELIMINARY SITE ACTIVITIES

4.2.1.1 Initial Inspection

Upon arrival at each monitoring well, the field team will inspect the wellhead and exposed casing and will record observations in the field form or logbook. The USACE will be notified if there appears to be evidence of tampering or other damage to the well. After initial inspection of the monitoring well, the field team will implement preventive measures to reduce risk of contamination to the ground surface and sampling equipment by placing plastic sheeting or other materials such as absorbent pads or shallow plastic tubs around each wellhead. A staging area will be designated for equipment decontamination which include a non-phosphate detergent cleaning solution, reusable dedicated decontamination buckets and brushes, and a plastic sheet, absorbent pads, or plastic tubs, as appropriate. Field personnel will wear disposable nitrile (or comparable) gloves for all activities when in contact with purge water, purge equipment, or sample bottles and their preservatives.

4.2.1.2 Water Level Measurement and Well Volume Calculation

A DTW measurement will be collected from the top of the casing reference notch and recorded to the nearest 0.01 foot by following the procedure described in Section 4.1. Well volume is the cross-sectional area of the interior of the casing multiplied by the height of the water column in the well (Depth to bottom of casing minus DTW).

One well volume can be calculated using the following equation (reference: Ohio EPA Technical Guidance Manual for Hydrogeologic Investigations and Ground Water Monitoring Programs, June 1993):

$$\mathbf{V = H \times F}$$

where:

V = one well volume,
H = the difference between the depth of well and depth to water (ft)
F = factor for volume of 1-foot section of casing (gallons)
Note that F can also be calculated from the formula:

$$\mathbf{F = \Pi\ (D/2)^2 \times 7.48 \text{ gallons per cubic foot } (gal/ft^3)}$$

where:

D = the inside diameter of the well casing (ft).

Volume of Water in 1-Foot Section of Well Casing

Diameter of Casing/Tubing (inches)	F Factor (gallons)
2	0.16
2.5	0.25
4	0.65

Groundwater elevation and well volume calculations will be recorded in the field logbook or on the Groundwater Sampling Field Data Sheet (Appendix C).

4.2.2 LOW-FLOW PUMP PURGING

Low-flow purging at FWDA is performed using dedicated pneumatic displacement pumps for wells designated as low-flow in Table 4-1. The low-flow equipment consists of a flow-control system connected to the wellhead tubing which applies pneumatic pressure to a dedicated two valve pneumatic displacement pump suspended within the well screen interval of the well. This low-flow pump system is powered by pressurized nitrogen gas cylinders. Dedicated pumps are constructed of Delrin ™ (acetal homopolymer) plastic, or stainless steel, and the tubing is Teflon™ lined polyethylene. Tubing fittings that contact the sample stream are stainless steel.

Pumps and gas control devices are operated and maintained in accordance with manufacturer specifications. Pneumatic power is applied by a compressed nitrogen gas cylinder. Nitrogen gas is selected due to its inert properties and fewer impurities (as compared to compressed air). Electrical power for controller boxes is generated by a marine battery, power inverter, portable generator or equivalent power source.

Dedicated low-flow pumps are designed to produce water flow rates with minimal drawdown in compliance with low-flow guidance (NMED-HWB, 2001). Water-quality parameters and DTW readings are recorded to assure representative sample collection. Well purging and stabilization is conducted in accordance with standard practice and site-specific methods implemented by USACE.

4.2.2.1 Traditional Low Flow and ZIST Low Flow Dedicated Pumps

Low hydraulic conductivity conditions exist in many monitoring locations which result in poor well yield. Bedrock wells TMW14A and TMW17 contain a zone isolation sampling technology (ZIST) model packer system manufactured by BESST, Inc., to maintain the general low-flow methodology. The ZIST packer system creates a seal above the well screen to minimize drawdown and produce water directly from the aquifer formation. The pump intake is locked into the packers before purging operations and is unsealed after sample collection to allow for representative measurement of groundwater elevations.

The volume of water in the dedicated tubing of the traditional and ZIST low flow pumps will be purged to clear any stagnant water before taking water quality readings. The field team will use drawdown and final pump cycle setting information from previous sampling event(s) from the well for initial controller settings. The extraction rate of the previous sampling event(s) will be matched to the extent practical and modified based on actual well performance during the purge to assure minimal drawdown and optimal flow rates.

Traditional Low Flow

The following steps will be performed for purging with traditional low-flow pumps:

1. Measure and record initial DTW.
2. Connect pump controller pressure line and discharge tubing to well head and connect nitrogen cylinder to control box with intermediary pressure regulator (pressure at 0 psi).
3. Connect inline flow cell and water quality meter to discharge hose from well head. Discharge hose from flow cell should be directed to suitable container to collect the purge water for transfer to evaporation tank.
4. Slowly increase pressure to inlet side of controller box.
5. Start pump at the lowest pressure setting as calculated from DTW and slowly increase until discharge occurs. Start with pressure/vent cycle timing previously used for that well.
6. Measure the water level again.
7. Adjust pump rate until there is little or no water-level drawdown. It is preferable to make any necessary adjustments to pumping rates within the first 15 minutes of purging. Reduce pumping rates as needed. If the static water level is above the well screen, avoid lowering the water level into the screen if possible. Note that it is allowable for water levels to stabilize below the level of initial DTW. Measure flow rate using container of known volume vs time.
8. Monitor and record water level, purge volume, purging rate, and field parameters approximately every 2 to 15 minutes during purging on the Groundwater Sampling Field Data Sheet (Appendix C). Calculate flow rate by timing and measuring discharge into a graduated cylinder or other measuring device. The time between each parameter measurement should allow the flow-through cell to completely evacuate the purge water from the previous reading:
    - Turbidity
    - Temperature
    - Specific conductivity
    - Hydrogen ion activity (pH)
    - Dissolved oxygen (DO)
    - Oxidation-reduction potential (ORP)
9. Purging is considered complete and sampling may begin when the field parameters have stabilized and/or three borehole volumes have been purged. Stabilization has occurred when three consecutive readings are within the following limits.
    - Temperature ± 10% in degrees centigrade
    - pH ± 0.5 standard units
    - Specific conductivity ± 10% in millisiemens per centimeter

- DO ± 10% or less than 1.0 mg/L
- Turbidity ± 10% or less than 1 nephelometric turbidity unit
- ORP± 10 millivolt
- Water level = 0.00 to 0.33 foot (or 4 inches) or less drawdown during the stabilized water-quality readings.

10. Once water quality readings are stabilized (Step 9), the established water-level drawdown must not be more than 4 inches/0.33 foot from stabilization until the end of sample collection.

ZIST Low Flow

There are two wells (TMW14A and TMW17) equipped with ZIST low flow. The steps that will be performed for purging with ZIST low-flow pumps are similar to the traditional low-flow pumps with the following differences:

1. Measure and record initial DTW.
2. Prior to pumping, lower the pump into the packer. Note that once the pump is properly seated into the packer, the water above the packer is no longer connected to the isolated zone and no water level measurement of the isolated zone will be possible during the purge.
3. Connect pump controller pressure line and discharge tubing to well head and connect nitrogen cylinder to control box with intermediary pressure regulator (pressure at 0 psi).
4. Connect inline flow cell and water quality meter to discharge hose from well head. Discharge hose from flow cell should be directed to suitable container to collect the purge water for transfer to evaporation tank, see section 4.5 for details on disposal of purge water.
5. Slowly increase pressure to inlet side of controller box.
6. Start pump at the lowest pressure setting as calculated from DTW and slowly increase until discharge occurs. Start with pressure/vent cycle timing previously used for that well.
7. During the initial purge, measure DTW in the open casing, if drawdown occurs, the mechanical packer system was not sealed properly and is leaking. The pump must then be reset or the ZIST will need to be removed, inspected, and repaired before continuing.
8. Monitor and record purge volume, purging rate, and field parameters approximately every 2 to 15 minutes during purging on the Groundwater Sampling Field Data Sheet (Appendix C). The time between each parameter measurement should allow the flow-through cell to completely evacuate the purge water from the previous reading.
    - Turbidity

- Temperature
- Specific conductivity
- Hydrogen ion activity (pH)
- Dissolved oxygen (DO)
- Oxidation-reduction potential (ORP)

9. Record all adjustments to pumping rate (both time and flow rate).
10. Purging is considered complete and sampling will begin when the field parameters have stabilized and/or three borehole volumes have been purged. Stabilization has occurred when three consecutive readings are within the following limits.
    - Temperature ± 10% in degrees centigrade
    - pH ± 0.5 standard units
    - Specific conductivity ± 10% in millisiemens per centimeter
    - DO ± 10% or less than 1.0 mg/L
    - Turbidity ± 10% or less than 1 nephelometric turbidity unit
    - ORP ± 10 millivolt
    - Water level = 0.00 to 0.33 foot (or 4 inches) or less drawdown during the stabilized water-quality readings.

All measurements will be obtained using a field-parameter monitoring instrument with a transparent flow-through cell that prevents air bubble entrapment in the cell. Extraction rates from the initial pump setup are located on sample collection logs from previous sampling events and will be duplicated to the extent practical.

4.2.3 GROUNDWATER SAMPLE COLLECTION BY LOW-FLOW PUMP

After stabilizing field parameters, groundwater samples will be collected in accordance with the following steps.

1. During sampling activities, maintain the pump at approximately the same flow rate during purging and stabilization of field parameters.
2. Disconnect the water-quality sensor flow-through cell and collect samples directly from the pump discharge by allowing the discharge to flow gently down the inside of the sample container to minimize turbulence. Do not allow the tubing to touch the inside of the sample container.
3. Continue to monitor DTW to assure that the water level does not drop more than 0.33 foot (4-inches) from the established pumping level during sampling (not for ZIST equipped wells).
4. Fill sample containers in sequence from most volatile sample type to least. Reduce pressure to avoid splash in VOC containers if necessary. Do not over fill preserved

containers. Sample filtering and preservation will be performed in accordance with laboratory and method requirements as listed in Table 4-3.

5. To filter groundwater samples in the field for dissolved metals analysis, use a 0.45-micron filter attached to the end of the discharge tubing, or fill an intermediate container and filter using clean disposable syringe (follow laboratory SOPs).
6. To filter groundwater samples in the field for perchlorate analysis, use a 0.20-micron filter. A 0.45-micron filter may be used to filter water before using the 0.20-micron filter for wells with high turbidity. Fill the perchlorate container only to between half and two thirds volume to allow proper headspace for sample. This can be done using a clean disposable syringe and attached filter.
7. After filling each sample container, immediately seal, label, and place container into an iced cooler in accordance with the sample management procedures discussed in Section 4.3.
8. Manage all liquid and solid IDW as described in Section 4.5.

4.2.4 ALTERNATIVE GROUNDWATER PURGING AND SAMPLING PROCEDURES

Some wells at FWDA require alternative methods of purging and sampling due to extremely low-yield/low-water levels. For these wells, purging and sampling are performed by hand bail with disposable bailers, a submersible pump, or a dedicated piston pump. The methods required for purging and sampling are identified for each well in Table 4-1 and the type of equipment used is identified in Table 4-2. The sampling method used for each well will be recorded on the individual Groundwater Sampling Field Data Sheet for each well or field logbook.

These procedures emphasize the need to remove a sufficient volume of water from each well so the sampled groundwater is representative of the surrounding formation. To achieve this, three borehole volumes will be removed from the well wherever possible. If well yield is insufficient to generate three borehole volumes, then the well will be purged dry and allowed to recharge with sufficient volume prior to collecting the groundwater sample.

Field parameters will be monitored at a time interval determined by the purge rate. A minimum of three parameter values will be recorded on the sample collection form (Appendix C). Purging is considered complete after evacuating three well volumes or when the well is emptied due to very slow water-level recovery. Groundwater samples must be collected within 48 hours of the well being purged dry. This includes wells purged dry for sample collection.

4.2.4.1 Disposable Bailers

The following steps describe purging and collecting groundwater samples with disposable bailers.

1. Measure and record initial DTW.
2. Attach clean stainless-steel wire to bailer and lower into the monitoring well; allow bailer to fill with groundwater. Try to avoid allowing bottom of bailer to come in contact with bottom of well casing unless bailing well dry.

3. Slowly and steadily raise bailer out of the monitoring well and empty purge water into a calibrated container or storage vessel designated for IDW. Record volume of water bailed on field data sheet or logbook.

4. Periodically collect and record the following groundwater parameters. Collect no fewer than 3 groundwater parameter measurements.

   Turbidity

   Temperature

   Specific conductivity

   Hydrogen ion activity (pH)

   Dissolved oxygen (DO)

   Oxidation-reduction potential (ORP)

5. Repeat process until the calculated volume of groundwater has been purged from the monitoring well (three times the well volume) or until well is dry.

6. Use a new bailer for sample collection if the well was bailed dry.

7. Collect groundwater samples with the disposable bailer by pouring the collected water from the bailer directly into the sample containers.

8. To filter groundwater samples for dissolved metals and/or perchlorates analysis, use a hand pump filter or run water through a peristaltic pump with dedicated tubing and in-line filter or use a clean disposable syringe and filter. An intermediary container may be used to collect the groundwater sample prior to filtering. Sample filtering and preservation will be performed in accordance with laboratory and method requirements as listed in Table 4-3.

4.2.4.2 Reusable Submersible Pump

A portable submersible pump can be used to purge wells that may not have sufficient water to support low flow pumping but contain more water than can be efficiently bailed. A portable submersible pump can also be used to purge a well with a dedicated pump in the event the dedicated pump has failed. This deviation must be clearly identified on the Groundwater Sampling Field Data Sheet for each well or field logbook. Table 4-1 indicates which wells have sufficient water for low flow sampling methods using submersible pumps. If the well becomes dry during purging, allow well to recharge and collect the groundwater sample with a disposable bailer. Based on current water level conditions in the field, the following procedures for purging with a submersible pump and collecting groundwater samples using low flow or disposable bailer are described below:

1. Measure and record initial DTW.

2. Attach clean, unused tubing to the pump and secure the tubing to pump.

3. Lower the pump into the well to approximately 6 inches from the bottom of the well. Avoid disturbing the bottom of the well casing as this may stir up sediments.

4. Secure the tubing and lead line, then attach tubing to flow-through cell and lead line to control box, and then secure the control box to the power source.
5. Begin purge at a flow rate of between 0.5 gpm to 2 gpm (2 liters per minute [lpm] to 8 lpm). During well purging, record water levels and monitor and record a minimum of three field-parameter readings.
    - Turbidity
    - Temperature
    - Specific conductivity
    - Hydrogen ion activity (pH)
    - Dissolved oxygen (DO)
    - Oxidation-reduction potential (ORP)
6. Measure and record purge volume. Once 3 casing volumes have been pumped, the well may be sampled. Reduce the flow rate of the pump to less than 0.2 gpm.
7. Disconnect the water-quality sensor flow-through cell and collect samples directly from the pump discharge by allowing the discharge to flow gently down the inside of the sample container to minimize turbulence.
8. If the well has been purged dry, remove pump and tubing. Allow water levels to recharge as described in Section 4.2.4 and sample with a disposable bailer following steps 6, 7, and 8 in Section 4.2.4.1.
9. Decontaminate the pump after purging is complete as described in Section 4.4.
10. Remove and dispose of tubing after purging is complete at each monitoring well. Do not reuse the pump discharge tubing. Manage all liquid and solid IDW as described in Section 4.5.

4.2.4.3 Dedicated Bennett Pump

The Bennett sample pump system consist of automatic reciprocating piston motors operated by compressed nitrogen gas to power a double acting piston fluid pump. The Bennett pump has four polyethylene tubes attached to the top of the well casing. The pressurized nitrogen gas is inserted through one tube, a second tube returns groundwater to the surface, a third tube is a gas exhaust, and the fourth tube is used as a water level indicator. Bennett pumps are installed in seven wells (MW23, MW24, TMW16, TMW18, TMW19, TMW36, and TMW37), as shown in Table 4-1. The Bennett pump intake was placed approximately 2 feet from the bottom of each monitoring well. Procedures for using a Bennett pump to purge and collect groundwater samples are as follows:

1. Measure and record initial DTW.
2. Connect the air intake tubing from the dedicated pump to the pressurized nitrogen gas cylinder. Connect the discharge tubing to the flow-through cell.
3. Turn on gas flow from the nitrogen cylinder. Use initial pumping rates previously established for borehole volume purging based on specific well yield.

4. Monitor and record all adjustments to pumping rate. Measure and record flow rate and volume of purge. Collect a minimum of three field parameters at a rate of between one per 3 minutes to one per 15 minutes depending on the purge volume. The time between each parameter measurement should allow the flow-through cell to completely evacuate the purge water from the previous reading:
   - Turbidity
   - Temperature
   - Specific conductivity
   - Hydrogen ion activity (pH)
   - Dissolved oxygen (DO)
   - Oxidation-reduction potential (ORP)
5. If 3 casing volumes have been pumped, the well may be sampled. Reduce the flow rate of the pump by slowly reducing the pump drive pressure so discharge rate is below 0.2 gpm.
6. If the well is purged dry, allow for recharge following requirements in Section 4.2.4.
7. Disconnect the water-quality sensor flow-through cell and collect samples directly from the pump discharge by allowing the discharge to flow gently down the inside of the sample container to minimize turbulence.
8. After filling each sample container, immediately seal, label, and place container into an iced cooler in accordance with the sample management procedures discussed in Section 4.3.
9. Manage all liquid and solid IDW as described in Section 4.5.

4.3 SAMPLE MANAGEMENT AND SAMPLE HANDLING

Proper sample handling, shipment packaging, and chain-of-custody documentation will generate quality field data and provide validity to sample results. Sample handling protocols, careful sample packaging, and chain-of-custody requirements will be followed completely, accurately, and consistently. All samples shipped to the laboratory will be accompanied by a properly completed chain-of-custody form (Appendix C).

The unique sample identifiers and descriptive information (i.e., sample location, date, and collection time) will be listed on the chain-of-custody form. Individuals relinquishing or receiving possession of samples will sign, date, and note the time on the chain-of-custody form in the "relinquished by" or "received by" boxes, respectively. The signed chain-of-custody forms (Appendix C) establish the transfer of sample custody from the field sampler to the laboratory.

4.3.1 SAMPLE HANDLING PROCEDURES

After pouring and filling each sample container, the container will be immediately sealed, labeled, and placed into an iced cooler for the remainder of the day's sampling activities before packaging the samples. Groundwater samples may also be transported and stored in coolers with ice at a predetermined secure refrigerator prior to delivery to the laboratory. Samples will be transported daily via Federal Express (FedEx) or other common courier for samples with holding times less than 3 days. If a groundwater sample is collected after sample packing and shipment is completed for the day, the sample(s) will be held overnight and placed on ice in sample coolers or secure refrigerator pending the samples' laboratory holding time. Sample containers, preservation, and holding times are presented in Table 4-3 by analytical method.

Container lids will be checked to verify they are sealed tight to prevent a leak during transport. The analytical samples will be individually packaged in resealable plastic bags and positioned within the cooler in a manner to prevent damage. Sample containers may also be bubble wrapped to maintain sample integrity and added protection during transport to the laboratory.

Groundwater samples will be transported in rigid plastic coolers or ice chests. Coolers or ice chests will be lined with clean plastic bags. The bagged samples will be secured within the lined plastic bag inside the cooler and ice will be placed outside the lined plastic bag within a secondary plastic bag or resealable plastic bag within the cooler or ice chest. The analytical samples and ice will be sealed in their respective plastic bags to prevent leakage and contact during transportation to laboratory.

4.3.2 CHAIN-OF-CUSTODY REQUIREMENTS

The following information will be included on the chain-of-custody forms (Appendix C).

- Site name and project name or number
- Sample identification code, sample collection date, sample collection time (in 24-hour format)
- Total number of containers for each sample, the analyses, and associated number of sample bottles for each analysis
- Signature of the sample team leader or sample collector
- Carrier service (such as FedEx or UPS), air bill number, and custody seal number, if applicable
- Signature, date, and time in the "relinquished by" section.

The signed chain-of-custody form will be placed in a plastic bag and taped to the inside of the lid in each cooler or ice chest. Each cooler or ice chest will have its own documentation, closed, and secured with strapping tape and custody seal. Clear tape will be placed over the custody seal to prevent damage to the seal. When the cooler or ice chest is opened the custody seal will be broken. The completed and signed chain-of-custody forms will become part of the project record.

4.3.3 SAMPLE SHIPPING

Samples will be transported to the EMAX Laboratories, Inc. (EMAX) located at 1835 W. 205th Street, in Torrance, California for analytical testing. If requested by USACE, a second laboratory (chosen by USACE) will be used to analyze triplicate samples.

4.3.4 ANALYTICAL METHODS

Sample analysis will be performed by EMAX, a DOD ELAP-certified laboratory. Table 4-3 provides the analytical methods, container (number, size, and types), preservation, and holding times. Selected analysis for each well is presented in Section 5. Analytical methods are selected in accordance with the most recent QSM (DOD/DOE, 2019) and consistent with RCRA regulations. The most recent EPA SW-846 solid waste methods were determined to be appropriate methods to meet DQOs as well as conform to RCRA regulations and DOD guidance.

4.4 DECONTAMINATION

Non-dedicated equipment and sampling supplies such as water-level meters and submersible pumps will be decontaminated before and after each use. Water-level meters will be decontaminated during extraction from monitoring wells using distilled water and a non-phosphate detergent cleaning solution. Submersible pumps will be decontaminated using the following procedure:

1. Remove particulate matter or debris using a brush or handheld sprayer filled with distilled water.
2. Scrub the surfaces of the equipment using distilled water and a non-phosphate detergent cleaning solution and reusable dedicated decontamination brushes.
3. Rinse the equipment thoroughly with distilled water.
4. Place the equipment on a clean surface and allow to air dry.
5. Containerize all decontamination liquids and manage as IDW, as described in Section 4.5.
6. The area where the equipment is stored prior to reuse will be free of contaminants.

If decontaminated equipment is transported between well or other locations, all equipment will be protected from potential sources of cross contamination as appropriate. Sampling equipment dedicated for use at specific wells will not require decontamination before use. Disposable sampling equipment that is used once and then disposed of will not require decontamination before use, provided it is wrapped in the manufacturer’s packaging or otherwise protected from inadvertent contamination before use.

4.5 WASTE MANAGEMENT PROCEDURES

Purge water, excess sample water from monitoring wells, decontamination liquids (non-hazardous soap and water), and solid waste (disposable sampling equipment and personal protective equipment) are typical IDW generated during the FWDA groundwater sampling events.

Purge water, decontamination water, and other non-hazardous liquid IDW will be containerized at the sample collection location in appropriate containers, such as buckets with a watertight lid or polyethylene drums with a sealing bung. Water from multiple wells may be consolidated into one or more containers depending on volume. Liquid IDW containers will be emptied into one of two low-density polyethylene-lined evaporation tanks at the end of each day. The evaporation tanks are located at the site of former Building 542 in Parcel 6.

Solid waste (such as disposable sampling equipment, personal protective equipment, and general refuse) will be allowed to dry and placed in plastic trash bags. Small quantities of waste will be disposed of in trash containers (dumpsters) located in the Administration Area. Larger quantities of waste material (that will not fit in the dumpsters) will be transported off site for disposal as municipal waste.

4.6 QUALITY ASSURANCE PROCEDURES

4.6.1 FIELD EQUIPMENT CALIBRATION AND PREVENTATIVE MAINTENANCE

Field instruments will be calibrated, operated, and maintained in accordance with the manufacturer's instructions. Daily on-site field instrument calibrations will be performed before and during each day's use by trained technicians using certified standards. Instrument calibrations will be recorded in logbooks dedicated to calibration data and will include field instrument identification, serial number, date of calibration, standards used, and calibration results.

If there is equipment malfunction, the instrument will be removed from service, tagged, and substituted with another piece of equipment. Equipment that fails calibration or becomes inoperable during use will be tagged and removed from service. Equipment that cannot be recalibrated or repaired will be replaced. Backup equipment will be available for use in the field in case of a malfunction.

Preventive maintenance procedures for field instruments will be carried out in accordance with procedures outlined by the manufacturer's equipment manuals. All records of inspection and maintenance will be dated and documented in the appropriate field logbook. Critical spare parts for field instruments will be included in the sampling kits to minimize downtime. Backup meters will be available, when needed. Spare parts will be purchased from accepted vendors. Daily inspections of field equipment will be performed to assure proper function. If inspection results deem a piece of field equipment faulty or not usable, replacement equipment will be cleaned, calibrated, and used in place of the faulty equipment.

4.6.2 SAMPLE COLLECTION QUALITY CONTROL AND QUALITY ASSURANCE

In compliance with the most recent version of the QSM (DOD/DOE, 2019) several types of field quality control (QC) samples will be submitted to the analytical laboratory to assess the validity of the data. Quality control samples include the following: field duplicates, trip blanks, equipment rinsate blanks, matrix spike (MS), and matrix spike duplicate (MSD) samples.

Field duplicate samples will be collected at a frequency of one per 10 environmental samples. The MS/MSD samples will be collected at a frequency of one per 20 environmental samples. Quality assurance (QA) split samples may be generated at the government's discretion to check the contractor's laboratory quality performance. Field equipment rinsate blanks are collected at the start of the sampling event, once per 20 environmental samples, and/or one at the end of the sampling event (minimum of 2 samples per event), on non-dedicated equipment.

Each shipment that contains VOC sample analyses will include a trip blank. The trip blank will be placed in the cooler containing VOC sample analysis and will stay with the cooler during transportation to the analytical laboratory. Additional volume will be collected at specified sample locations in order to include one MS/MSD pair to be submitted to the analytical laboratory for every 20 environmental samples.

4.6.3 DOCUMENTATION QUALITY ASSURANCE

Field documentation will consist of one or more job- or area-specific field logbooks, field forms, sample chain-of-custody forms, and sample logs/labels.

4.6.3.1 Logbooks

Site and field logbooks provide a daily handwritten record of field activities. Logbooks will be permanently bound and have a hard cover. Logbooks will be ruled or gridded, with sequentially numbered pages. All entries into field logbooks will be made with indelible ink. Field logbooks are detailed daily records that are kept in real time and are assigned to specific activities, positions, or areas within the site. Separate logbooks will be used for each sampling event and field team.

Documentation in field logbooks will include the following (as is necessary).

- Location
- Date and time
- Names of field crew
- Names of subcontractors
- Weather conditions during field activity
- Sample type and sampling method
- Location of sample
- Sample identification number
- Decontamination procedures
- Health and safety briefings
- Sampling notes (such as well condition, unexpected maintenance, work stoppage, etc.).

A separate logbook dedicated to calibration records will be maintained and will include the following information.

- Equipment or device make, model, and serial number (or another unique identifier)
- Date and time
- Calibration results

- Adverse trends in instrument calibration behavior
- Field instrument identification, date of calibration, and standards used.

Field notebook corrections will be made by crossing out mistakes with a single line, writing in the correction, initial and date the entry. The use of correction fluid is not permitted. The team lead will review each page of the logbook for errors and omissions after each field day and will date and sign each reviewed page.

4.6.3.2 Field Data Record Forms

In addition to the field notebooks, field log forms will be used. These field forms will include depth to water level measurement forms, and purging and sampling forms. These forms assure all required data and observations are recorded in a consistent manner. Information recorded on the field log forms is not intended to be a double entry, meaning that if the information is recorded on the field log form, it need only be referenced in the field logbook, not duplicated. No blank spaces will be left; all non-applicable items will be marked “not applicable.” Forms will include well sampling forms and chain-of-custody forms, as provided in Appendix C.

4.6.3.3 Final Evidence File Documentation

Evidential file documentation will be maintained under an internal project file system. The USACE Contracting Officer’s Representative (COR) will assure that all project documentation and QA records are properly stored and retrievable.

5.0 MONITORING AND SAMPLING PROGRAM

Interim groundwater monitoring at FWDA tracks contaminant plume concentrations and migration at previously identified groundwater impact areas. The current monitoring well network is based on the current understanding of site conditions. The monitoring plan will be updated and revised as new information is obtained from interim monitoring, RFIs, or other definitive groundwater investigations.

5.1 INTERIM GROUNDWATER MONITORING ANALYTICAL PROGRAM

The Army has identified COPCs for interim groundwater monitoring based on existing groundwater data and point of release assessments. Sample analytical methods were selected based upon the COPCs and the DQOs. The groundwater analytical program complies with the RCRA permit (NMED, 2015) and the QSM requirements (DOD/DOE, 2019).

Attachment 7 of the RCRA permit (NMED, 2015) provides a hierarchy to select cleanup level criteria applicable to the FWDA groundwater monitoring program. Table 5-1 presents the list of analytes, with screening values and the contracted laboratory limits for these methods and individual analytes.

Analytes without risk screening values have been assigned the screening values for surrogate analytes that are structurally similar or that provide a conservative estimate of toxicity, as identified on Table 5-1. Six analytes listed on Table 5-1 do not have an assigned risk screening level and do not have a surrogate analyte as identified in italics below.

4-bromophenyl phenyl ether, 4-chlorophenyl phenyl ether, acenaphthylene, benzo[g,h,i]perylene, phenanthrene, and dichloroprop: Surrogate analytes were not selected for these compounds. These analytes do not have a WQCC, MCL, or EPA Regional Screening Level (RSL) screening value. If these analytes are detected in groundwater samples collected while implementing this work plan, additional review for appropriate surrogate compounds will be conducted.

Forty-two analytes in Table 5-1 have screening values lower than the laboratory limit of quantitation (LOQ). EMAX is the contracted DOD ELAP-certified laboratory selected to analyze samples. USACE is currently evaluating options to achieve lower LOQs for the remaining few compounds using enhanced analytical procedures as documented in a NMED approval letter dated May 21, 2019 (NMED, 2019c). The team chemist and project manager will coordinate with the EMAX project manager or point of contact, to schedule sample analysis, receive laboratory containers and supplies, resolve sample issues, and report results.

5.2 MONITORING LOCATION AND FREQUENCY

The groundwater monitoring plan was designed for each point of release in accordance with the DQOs and decision criteria described in Section 1.4. Groundwater monitoring activities consist of water-level elevation measurements on a quarterly basis and groundwater sample collection on a semiannual basis consistent with the current groundwater monitoring program at FWDA.

Review of groundwater monitoring data from 2008 to 2018 identify relatively stable groundwater contaminant plume configurations and predictable groundwater flow directions and gradients. Monitoring locations are designated as downgradient, upgradient, and background to the points of release described in the CSM (Table 2-4, and Figures 3-4 through 3-15). Sentinel well locations are situated to monitor potential off-site contamination migration. Sample analyses for upgradient and downgradient wells were selected based on the association with COPC points of release in accordance with the DQO decision logic. Background and sentinel wells will be sampled for COPCs associated with the corresponding aquifer unit per Table 5-2. Table 5-2 contains the current sampling matrix in accordance with this GWMP.

An assessment of groundwater metals contamination cannot be completed without a statistically valid background evaluation and regulatory approval of groundwater background concentrations. Monitoring wells in the northern area alluvial aquifer can support a background evaluation; however, additional monitoring wells in the northern area bedrock aquifer are needed to prepare a statistically valid background evaluation. Once additional bedrock aquifer background monitoring wells are installed, interim monitoring will be conducted to collect additional data to support background evaluations.

5.2.1 NORTHERN AREA ALLUVIAL GROUNDWATER MONITORING DESIGN

Nitrate and Nitrite Plume

The points of release for the groundwater nitrate/nitrite plume in the northern area appear to originate from the SWMU 1 (TNT Leaching Beds) and SWMU 27 (Building 528 Complex). As shown on Figure 3-4, the plume extends across the Workshop Area and Administration Area. Wells TMW03, TMW34, TMW40S, and TMW46 have historically had the highest nitrate concentrations within the plume and are designated as downgradient relative to SWMU 1 (TNT Leaching Beds) and SWMU 27 (Building 528 Complex). Based on groundwater flow direction, wells BGMW02, TMW24, and TMW47 are situated upgradient from the alluvial aquifer nitrate plume. There may be another nitrate source, possibly offsite, since BGMW02 has repeatedly shown levels of nitrate contamination.

Explosives Plume

The suspected points of release for the groundwater explosives plume in the northern area are SWMU 1 (TNT Leaching Beds, which have been removed) and SWMU 27 (Building 528 Complex). The alluvial aquifer explosives plume extends across the Workshop Area along a favored groundwater flow channel (Figure 3-5). Wells TMW40S, TMW03, and TMW23 have shown the highest RDX concentrations within the plume. To monitor suspected releases from SWMU 27 (Building 528 Complex), wells TMW01, TMW31S, and TMW41 are designated as downgradient from SWMU 27 (Building 528 Complex wells), and hydraulically upgradient of SWMU 1. Upgradient monitoring locations for the explosives plume are designated as BGMW02 and TMW47 based on groundwater flow direction.

Perchlorate Plume

The point of release for the groundwater perchlorate plume in the northern area is SWMU 27 (Building 528 Complex). Groundwater samples from wells TMW01, TMW31S, and TMW39S have historically had the highest perchlorate concentrations within the plume and are designated as downgradient wells to monitor perchlorate plume concentrations (Figure 3-6). To monitor plume migration along the downgradient boundary of the plume, TMW03, TMW13, and TMW41 are designated as downgradient wells. No monitoring wells are designated as upgradient locations since the alluvial aquifer is dry upgradient of SWMU 27.

Metals Monitoring

The points of release for metals in the northern area are SWMU 1 (TNT Leaching Beds), SWMU 27 (Building 528 Complex), and SWMU 50 (UST 7 at Building 45). No groundwater metals plumes have been identified at FWDA pending determination of groundwater background concentrations. Monitoring wells along the outside edges of the monitoring network are selected to provide data that could be used to monitor potential contaminant migration. The boundary wells MW01, TMW01, TMW10, TMW13, TMW21, TMW23, TMW25, TMW27, TMW31S, TMW41, and TMW46 are designated as downgradient wells (Figure 3-7). Wells BGMW02, TMW24, and TWM47 are identified as upgradient monitoring wells for metals points of release based on the groundwater flow direction.

Other Organics Monitoring

The points of release for the groundwater VOC plume in the northern area are SWMU 45 (Building 6 Gas Station) and SWMU 50 (Structure 35, UST 7 at Building 45). The 1,2-dichloroethane plume is adjacent to SWMU 45. Groundwater samples from wells MW18D, MW20, MW22D, and TMW33 have consistent concentrations of 1,2-dichloroethane. Monitoring wells MW01, MW02, and MW03 are hydraulically upgradient of SWMU 45 but downgradient of SWMU 50 (Figure 3-8). Upgradient monitoring locations for the VOC plume are designated as TMW24 and TMW45 according to groundwater flow direction.

The points of release for the SVOCs in the northern area include SWMU 6 (Building 11, former Locomotive Shop) and SWMU 45 (Building 6 Gas Station). There are no groundwater SVOC plumes identified at FWDA; however, wells MW20, MW22D, TMW33, and TMW46 are designated as downgradient wells selected to monitor suspected releases of petroleum fuels at SWMU 6 and known releases of fuels at SWMU 45 (Figure 3-9).

The points of release for the DRO in the northern area are SWMU 6 (Building 11, former Locomotive Shop), SWMU 45 (Building 6 Gas Station), and SWMU 7 (Fire Training Ground). Wells MW18D, MW20, MW22D, TMW33, and TMW34 are designated as downgradient wells (Figure 3-10).

The points of release for the GRO in the northern area are SWMU 45 (Building 6 Gas Station) and SWMU 50 (Structure 35, UST 7). The GRO releases are monitored by wells MW01, MW02, MW03, MW18D, MW20, MW22D, and TMW33 designated as downgradient wells (Figure 3-11).

Background and Sentinel Wells

The monitoring locations designated as alluvial aquifer background and sentinel wells will be monitored for all northern area COPCs (Figure 3-15). In the northern area, alluvial groundwater zones BGMW01 and BGMW03 are selected as background wells. Monitoring well BGMW02 is not designated as a background location due to suspected nitrate impacts, but will continue to be monitored. In the northern area, alluvial groundwater zone wells MW23 and MW24 are designated as sentinel wells.

5.2.2 NORTHERN AREA BEDROCK GROUNDWATER MONITORING DESIGN

Nitrate and Nitrite Plume and Explosives and Metals Monitoring

The points of release for the bedrock aquifer nitrate/nitrite, explosives plumes and suspected metals releases in the northern area are SWMU 1 (TNT Leaching Beds) and SWMU 27 (Building 528 Complex) (Figure 3-12). Two nitrate plumes are present in the bedrock aquifer across the Workshop Area. To monitor known and suspected releases from SWMU 27 (Building 528 Complex) wells TMW30, TMW31D, TMW32, TMW39D, and TMW48 are downgradient of SWMU 27. To monitor known and suspected releases from SWMU 1 (TNT Leaching Beds), wells TMW02, TMW36, TMW38, and TMW40D are designated as downgradient wells. Upgradient monitoring wells have not been installed due to dry and impermeable shale bedrock present in this area.

Perchlorate Plume

The point of release for the bedrock groundwater perchlorate plume in the northern area is SWMU 27 (Building 528 Complex). The plume is located in the eastern portion of the Workshop Area (Figure 3-13). Wells TMW30, TMW31D, and TMW48 have consistent elevated groundwater perchlorate concentrations and are designated as downgradient. To monitor the plume boundary wells TMW02, TMW32, TMW36, TMW38, TMW39D, and TMW40D are designated as downgradient wells.

Other Organic COPCs Monitoring

The suspected point of release for SVOCs in bedrock aquifer of the northern area is SWMU 8 (Building 537, removed). There are no identified groundwater SVOC plumes at FWDA and no site-related SVOC concentrations exceeding cleanup levels in groundwater samples that are attributable to historical site activities. Suspected releases will be monitored by wells TMW14A and TMW16 located downgradient in the western portion of the Workshop Area (Figure 3-14). Upgradient monitoring wells have not been installed due to dry and impermeable shale bedrock present in this area.

Background and Sentinel Wells

Designated bedrock aquifer background and sentinel wells will be monitored for all northern area COPCs (Figure 3-15). Sentinel wells include TMW19 and TMW18. Background wells include BGMW07, BGMW08, BGMW09, and BGMW10. The groundwater flow direction in the bedrock aquifer does not indicate plume migration off site.

5.3 DATA QUALITY EVALUATION

The data quality evaluation (DQE) process is instituted to ensure the suitability of the data to meet DQOs. The DQE process consists of three steps: Step 1 is verification of the data obtained from the project activities to be complete; Step 2 is validation of the field and analytical procedures performed relative to the contract and work plan requirements; and Step 3 is assessment of usability of the data to be suitable to meet DQOs or are rejected.

Field data are assessed by the project team through a series of internal reviews. The field team lead is responsible for implementation of the correct field procedures during data collection. Senior technical review staff and USACE will evaluate completeness of the field data, determine whether field procedures are appropriate, and verify data quality is suitable for use in groundwater monitoring. Any rejected data will be qualified or removed from the database.

Laboratory analytical DQEs follow a specific process defined by the current version of the QSM (DOD/DOE, 2019), *General Data Validation Guidelines.* (Environmental Data Quality Workgroup, 2019) and *Guidance for Evaluating Performance-Based Chemical Data* (USACE, 2005). Laboratories performing sample analyses will hold current DOD ELAP accreditation and state of New Mexico accreditation/National Environmental Laboratory Accreditation Program accreditation for all appropriate fields of testing. Laboratories will also need to meet NMED and EPA standards, as required. Laboratories will submit accreditation certificates to the USACE COR.

5.3.1 GENERAL DATA QUALITY REQUIREMENTS

DQEs for the all project data and deliverables will consist of the following:

1. Verification that the data produced matches data scope of work (completeness check)
2. Verification of the procedures/methods used
3. Verification that documentation/deliverables are complete
4. Verification that hard copy and electronic versions of the data are identical
5. Verification that the data seem reasonable based on analytical methodologies
6. Evaluation and qualification of laboratory analytical results based on sample receipt (sample temperature and preservation) and holding-time compliance
7. Evaluation and qualification of laboratory results based on precision and accuracy

8. Verification that analytical instrument calibration is in accordance with required instrument and method criteria
9. Evaluation and qualification of analytical results based on field and laboratory QA/QC of sample results.

5.3.2 ANALYTICAL DATA QUALITY REQUIREMENTS

Analytical data generated for FWDA will be subjected to 100% Stage 2 validation with 10% subjected to Stage 3 validation. Data qualifiers will be used to indicate: 1) blank contamination; 2) sample analytical anomalies associated with a constituent; 3) analytical results that fall between the detection limit (DL) and the LOQ; 4) data qualified because of an exceedance of method-specific holding times, high cooler temperatures, or other significant QA/QC data deficiencies; and 5) data results that exceed the upper calibration curve limit for that constituent and associated analytical instrument. The data quality indicators include the PARCCS parameters. These indicators are described below. The validation process ensures a completeness of 95% in QA/QC reporting and 100% in sample result reporting.

Precision

Precision is the degree to which a set of measurements, obtained under similar conditions, conforms to itself. Precision data indicate the consistency and reproducibility of field sampling and/or analytical processes. Precision is usually expressed as a percentage difference or standard deviation, in either absolute or relative terms. Overall project precision is measured by the analysis of field sample/duplicate pairs and MS/MSD pairs. The relative percent difference of field duplicates, laboratory duplicates, and MS/MSD pairs will be calculated and evaluated with the limits included in Table 5-1.

Accuracy and Bias

Accuracy is the degree of agreement between a sample result and a reference value. Bias refers to the systematic inaccuracy associated with a measurement process. Analytical accuracy is determined by adding a known concentration of target analyte(s) or surrogate analyte(s) (those with properties that mimic analytes of interest, but unlikely to be found in environmental samples) to a standard reference material or a laboratory control sample consisting of an analyte-free matrix and performing the prescribed method on the reference material or laboratory control sample.

Bias introduced by the sample matrix is determined by adding a known concentration of target analyte(s) or surrogate analyte(s) to an aliquot of field sample, referred to as an MS sample, and performing the prescribed method on the spiked sample aliquot. The percentage recovery of laboratory control samples and MS samples will be evaluated with the percentage limits in Table 5-1.

Representativeness

Representativeness is a qualitative measure of the degree to which a sampling and analysis program reflects the conditions of a site. Representativeness describes the adequacy of the sample collection process and the analysis process, as determined by sample matrix homogeneity and the consistency with which analytical procedures are performed. Method blank results will meet acceptance criteria if no analytes are detected at concentrations greater than half of the LOQ, or 10% of sample results. Representativeness of normal analytical samples will be assessed by the technical lead based on previous detections and the CSM.

Completeness

Completeness is a measure of the amount of valid data collected compared to the expected amount of total data. Overall completeness will be inferred from a records review and documented data validation. Sampling completeness is assessed by evaluating the total number of samples proposed for collection compared to the actual number of samples collected and analyzed. Analytical completeness is evaluated by comparing the number of usable data points collected compared to the total number of data points generated for each analyte and sample.

Comparability

Comparability is the degree to which separate data sets can be represented as similar. The documentation and use of standardized operating procedures in the field and laboratory will help assure the comparability of measurements. Also, field triplicate samples may be collected if directed by USACE, sent to a different laboratory (to be determined), and results compared to the field results. Data will be considered in disagreement if detections are greater than two times each other. If one result is greater than three times the reporting limit, the data will be considered in disagreement, and if one result is greater than five times the DL, the data will be considered in disagreement.

Sensitivity

Sensitivity refers to the ability of an analytical method or instrument to detect target analytes at a specified concentration. The QSM (DOD/DOE, 2019) has defined the following terms associated with the analysis and reporting of environmental data.

DL. The smallest amount or concentration of a substance that can be demonstrated to be different from zero or a blank concentration with 99% confidence. At the DL, the false positive rate (Type I error) is 1%. A DL may be used as the lowest concentration for reliably reporting a detection of a specific analyte in a specific matrix with a specific method with 99% confidence.

Limit of Detection (LOD). The smallest concentration of a substance that must be present in a sample in order to be detected at the DL with 99% confidence. At the LOD, the false negative rate (Type II error) is 1%. An LOD may be used as the lowest concentration for reliably reporting a non-detect of a specific analyte in a specific matrix with a specific method at 99% confidence.

LOQ. The smallest concentration that produces a quantitative result with known and recorded precision and bias. For DOD/DOE projects, the LOQ will be set at or above the concentration of the lowest initial calibration standard and within calibration range.

Reporting Limit. The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

The LOQ will be used to evaluate sensitivity requirements. The applicable groundwater standard for the chemical is presented in Table 5-1.

5.4 ENVIRONMENTAL DATA MANAGEMENT

After review and approval, the analytical and field data will be loaded into the FWDA Electronic Data Management System (EDMS) database. An EDMS (or comparable) database is maintained for all interim groundwater monitoring results from 2008 to present. The sample result electronic data deliverables will be loaded into the automated data review (ADR) software for data validation. After validation, data output files from the ADR (or comparable) software will be exported to the FWDA database. The FWDA database will be used to prepare the validated data table output presented in reporting documents.

5.5 DATA EVALUATION

Groundwater monitoring results will be used to evaluate groundwater contaminant conditions at FWDA. The data evaluation will determine groundwater contaminant plume size and migration as well as general groundwater flow conditions. As described in Section 1.2 and Section 1.3, groundwater data generated during groundwater monitoring will be evaluated with respect to cleanup levels described in Attachment 7 of the RCRA permit (NMED, 2015). The project screening value decision process is presented in Figure 1-1.

5.6 REPORTING

Analytical results will be submitted in a semiannual report prepared in accordance with *General Reporting Requirements for Routine Groundwater Monitoring at RCRA Sites* (NMED, 2003). The interim measures PMR will be submitted to NMED not more than 120 calendar days after the end of the semiannual monitoring period.

The PMR will describe the activities performed and current findings of the investigation. The PMR will include the following.

- Description of field monitoring and maintenance activities performed
- Deviations from work plan
- Evaluation of monitoring results
- DQE results
- Recommendations for subsequent monitoring
- Tabulated results of field data

- Tabulated results of analytical data
- Groundwater elevation maps
- Groundwater contaminant plume maps.

A DQE report will evaluate usability of the data with respect to the project objectives. The project chemist will describe variances, describe rejected data, and present final data qualifiers in the DQE report.

6.0 SCHEDULE

The first sample collection under this Interim Northern Area GWMP took place in April 2008 and has continued each April and October to date. The schedule of planned groundwater sampling will be consistent with the ongoing interim measure schedule.

Groundwater elevation data will be collected on a quarterly basis in January, April, July, and October. Groundwater sampling is scheduled semiannually in April and October after measuring groundwater elevations.

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New Mexico Administrative Code (NMAC) 19.27.4: Title 19, Natural Resource and Wildlife; Chapter 27, Underground Water; Part 4, Well Driller Licensing, Construction, Repair, and Plugging of Wells. June 30, 2017.

NMAC 20.4.1.500: Title 20, Environmental Protection; Chapter 4, Hazardous Waste; Part 1, Hazardous Waste Management; 500, Adoption of 40 CFR Part 264. June 14, 2000.

NMAC 20.6.2.3103: Title 20, Environmental Protection; Chapter 6, Water Quality; Part 2 Ground and Surface Water Protection; 3013, Standards for Ground Water of 10,000 mg/L TDS Concentration or Less. December 1, 1995; revised November 15, 1996.

NMAC 20.6.2.7.WW: Title 20, Environmental Protection; Chapter 6, Water Quality; Part 2 Ground and Surface Water Protection; 7, Definitions; WW, Toxic pollutants. January 15, 2001.

FIGURES

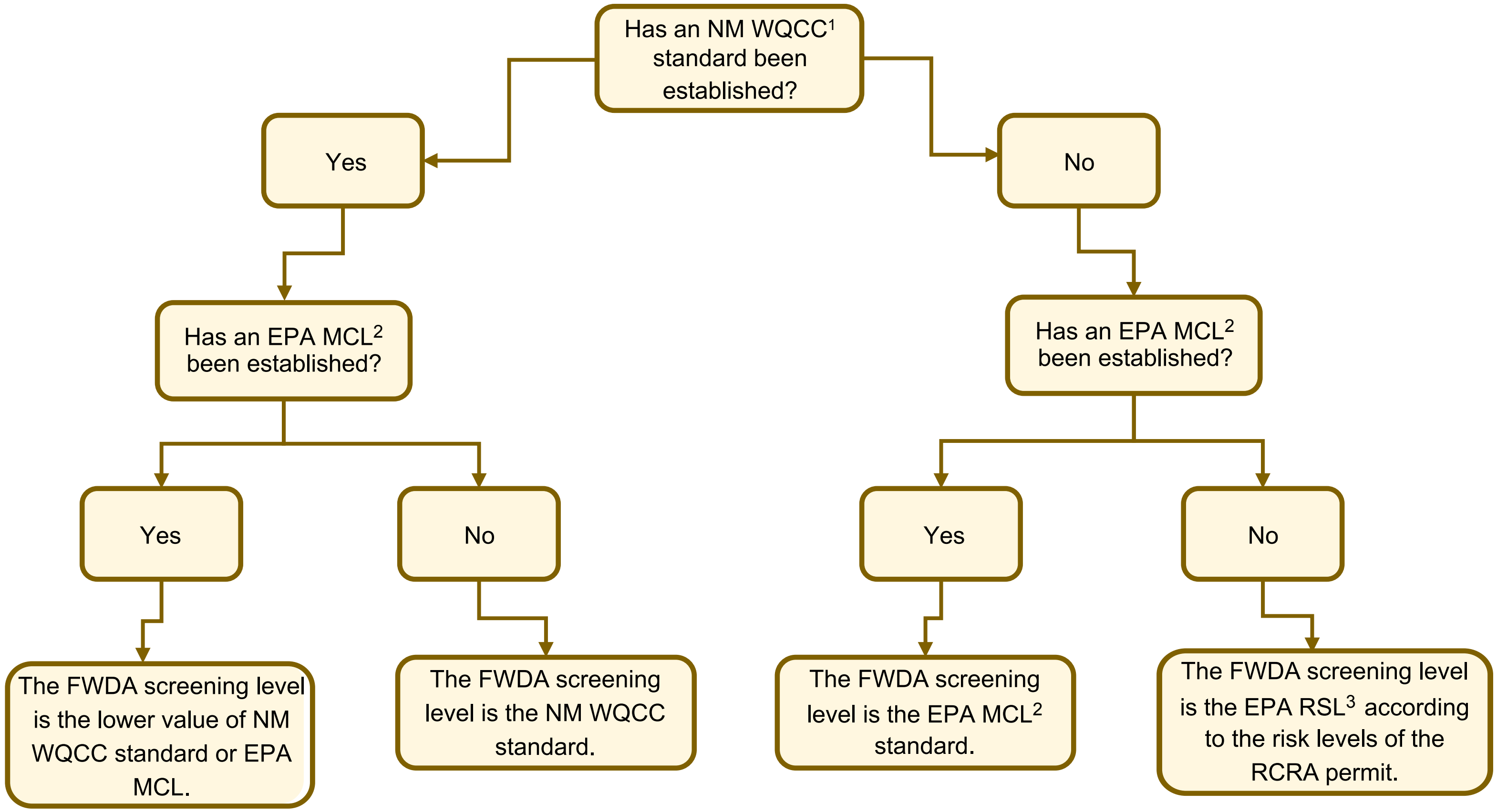


FIGURE 1-1
PROJECT SCREENING VALUE FLOW CHART

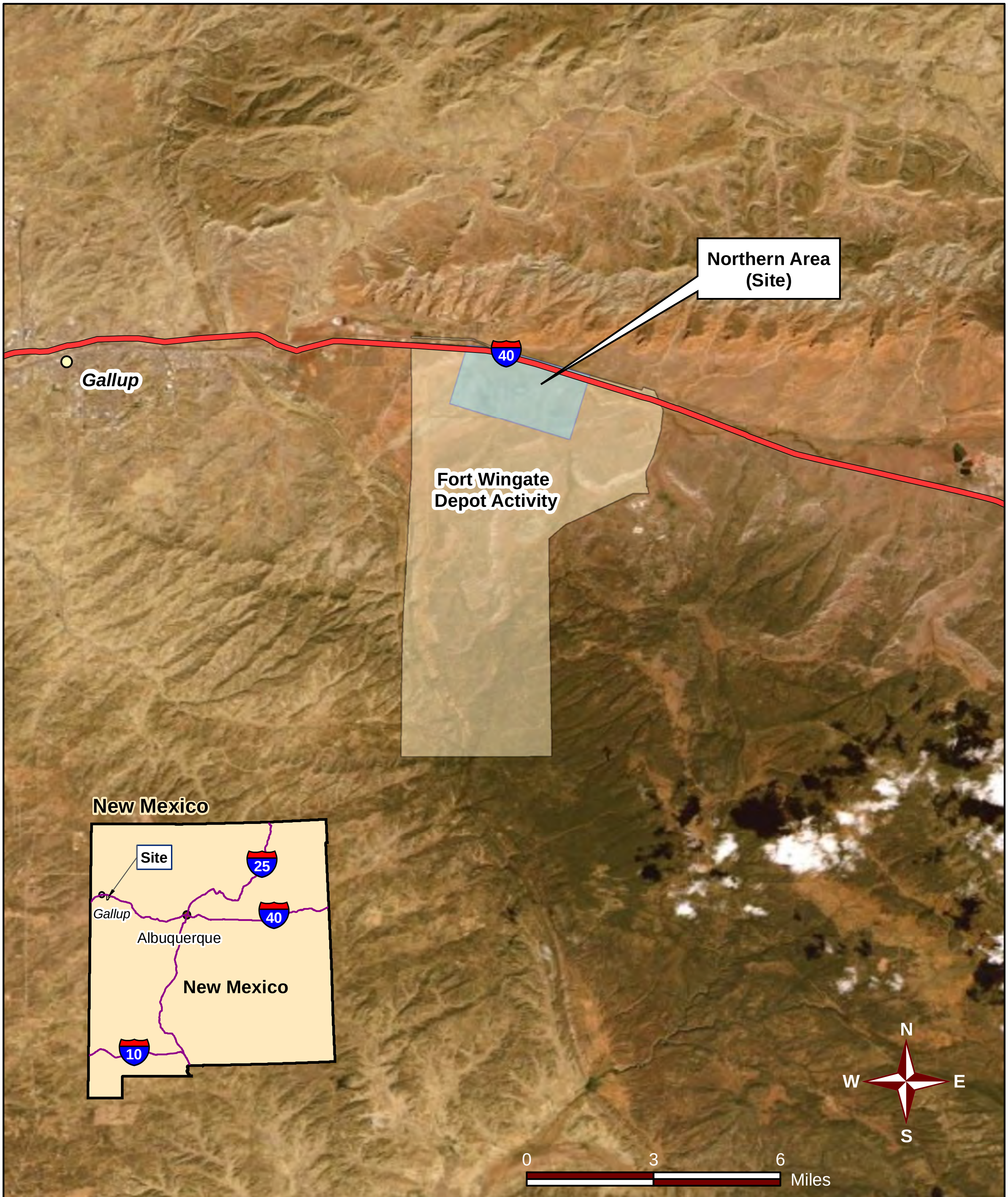
Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, McKinley County, New Mexico

NOTES:

[1] New Mexico Water Quality Control Commission (NM WQCC) standards in New Mexico Administrative Code 20.6.2.4103.

[2] U.S. Environmental Protection Agency (EPA) drinking water maximum contaminant level (MCL) under 40 Code of Federal Regulations Parts 141 and 143.

[3] Pending the development and approval of cleanup criteria, the EPA regional screening levels (based on a cancer risk of 10^{-5} and a non-cancer hazard index of 1.0) are used as temporary screening criteria in accordance with the risk criteria of the RCRA permit. The lower of the cancer and non-cancer screening levels will be used. Perchlorate screening levels are selected from the May 2019 EPA MCL.



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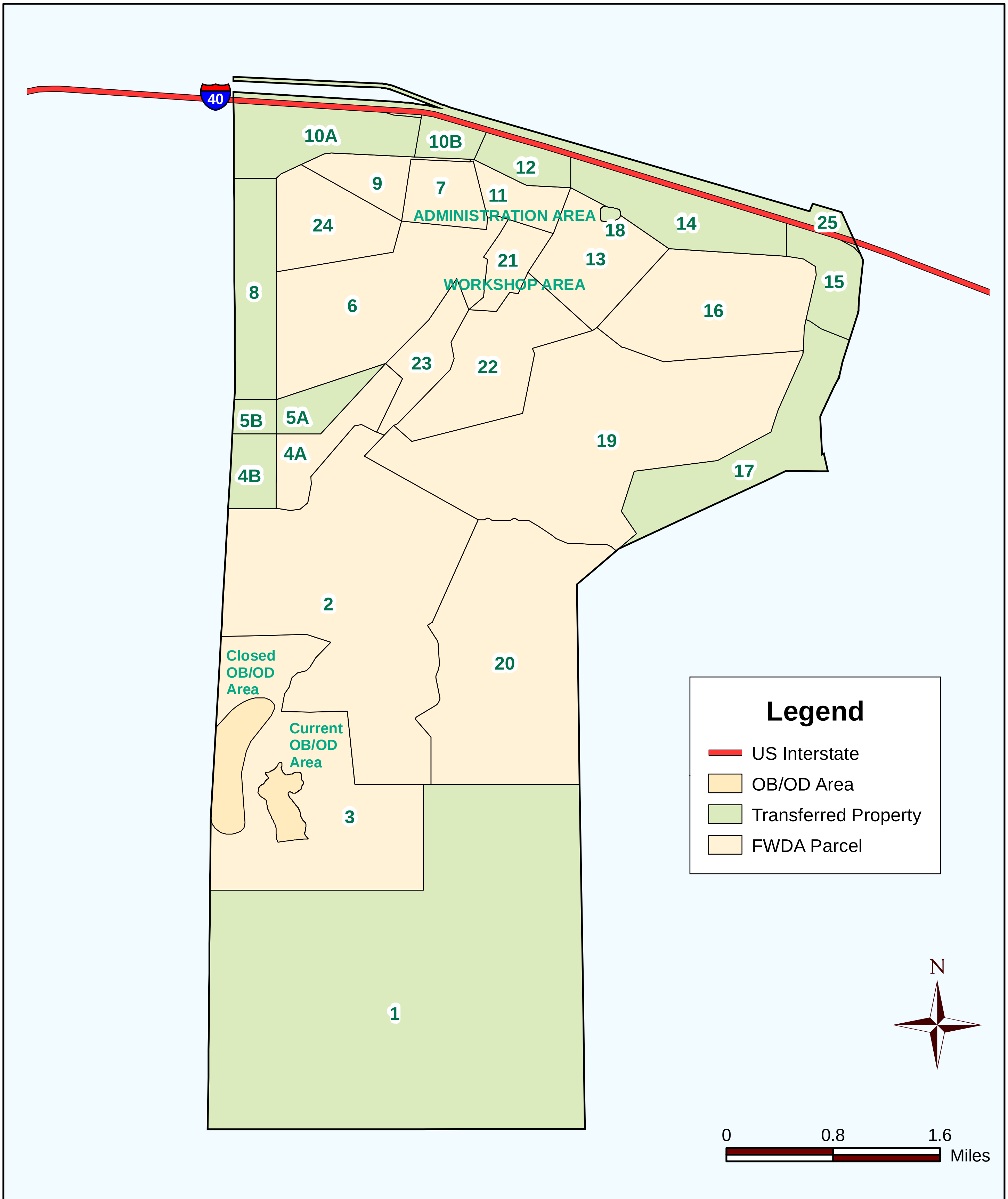
SITE LOCATION MAP

Fort Wingate Depot Activity
McKinley County, New Mexico

Project No.: Eco-18-1237 | Dated April 2020

FIGURE
1-2



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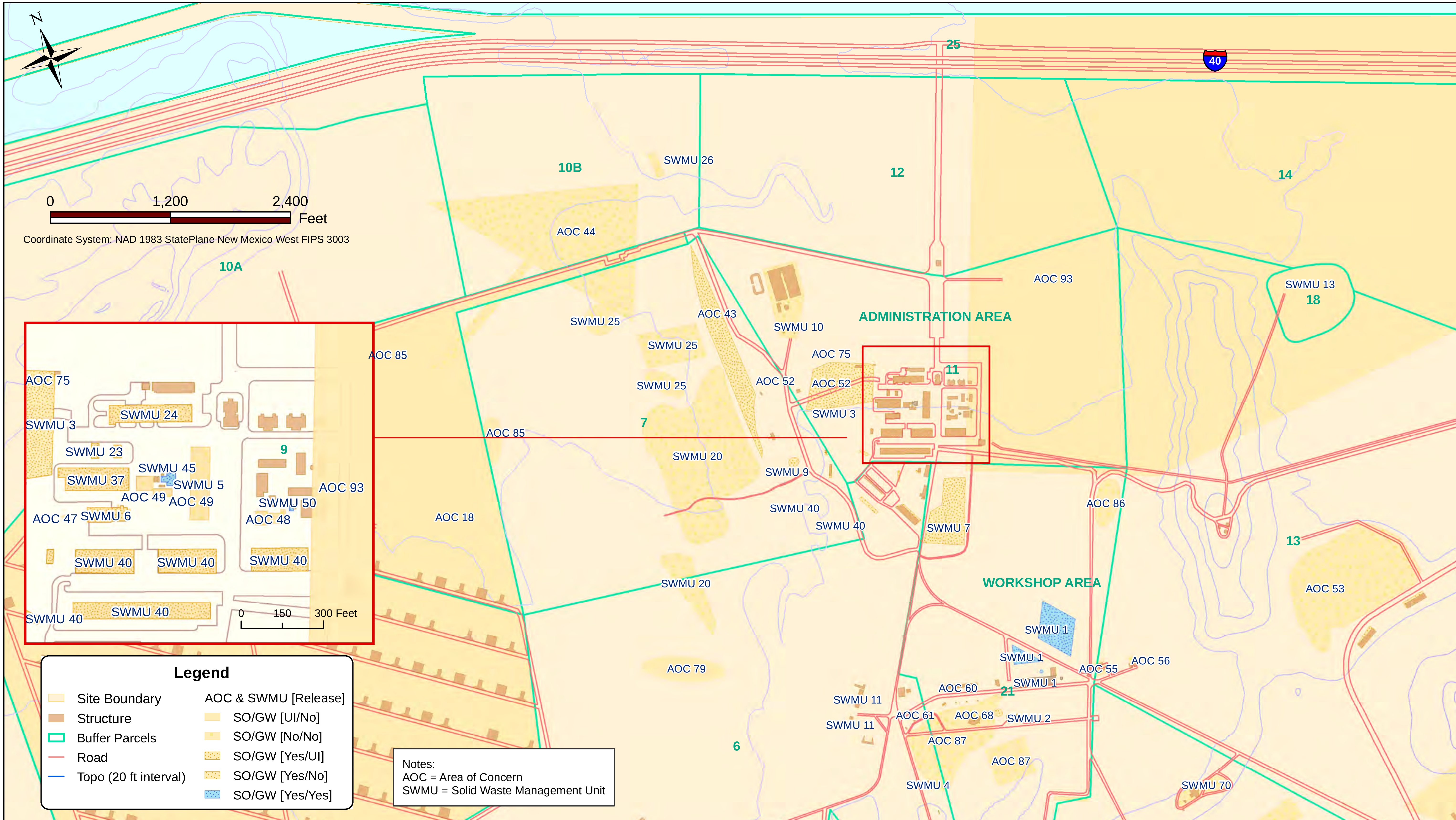
SITE PARCEL MAP

Fort Wingate Depot Activity
McKinley County, New Mexico

Project No.: Eco-18-1237 Dated April 2020

FIGURE

2-1



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NORTHERN AREA SITE FEATURES

Fort Wingate Depot Activity
McKinley County, New Mexico

Project No.: Eco-18-1237 Dated April 2020

FIGURE
2-2

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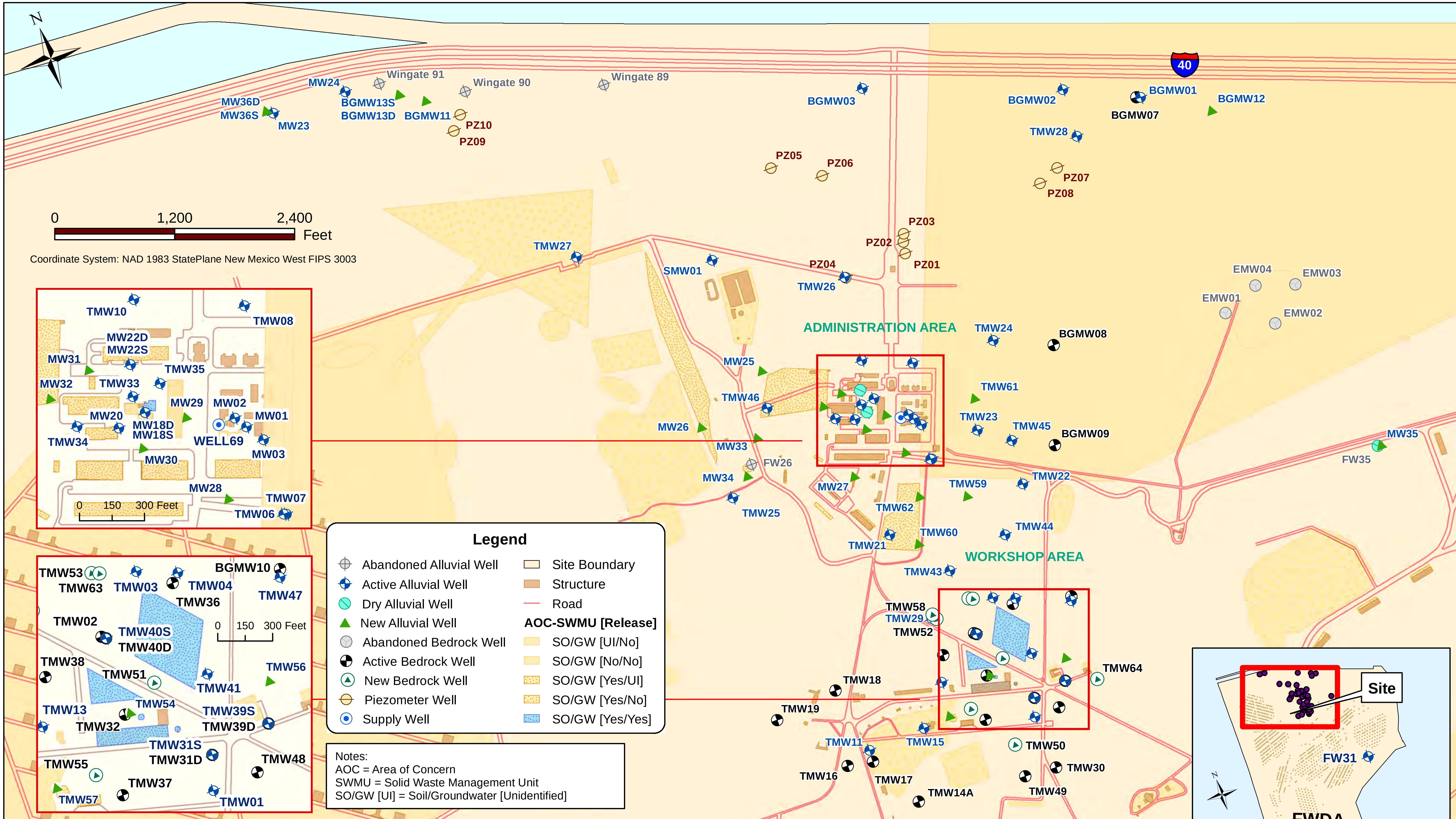
FWDA WELL LOCATIONS

Fort Wingate Depot Activity
McKinley County, New Mexico

Project No.: Eco-18-1237 Dated March 2020

FIGURE **2-3**



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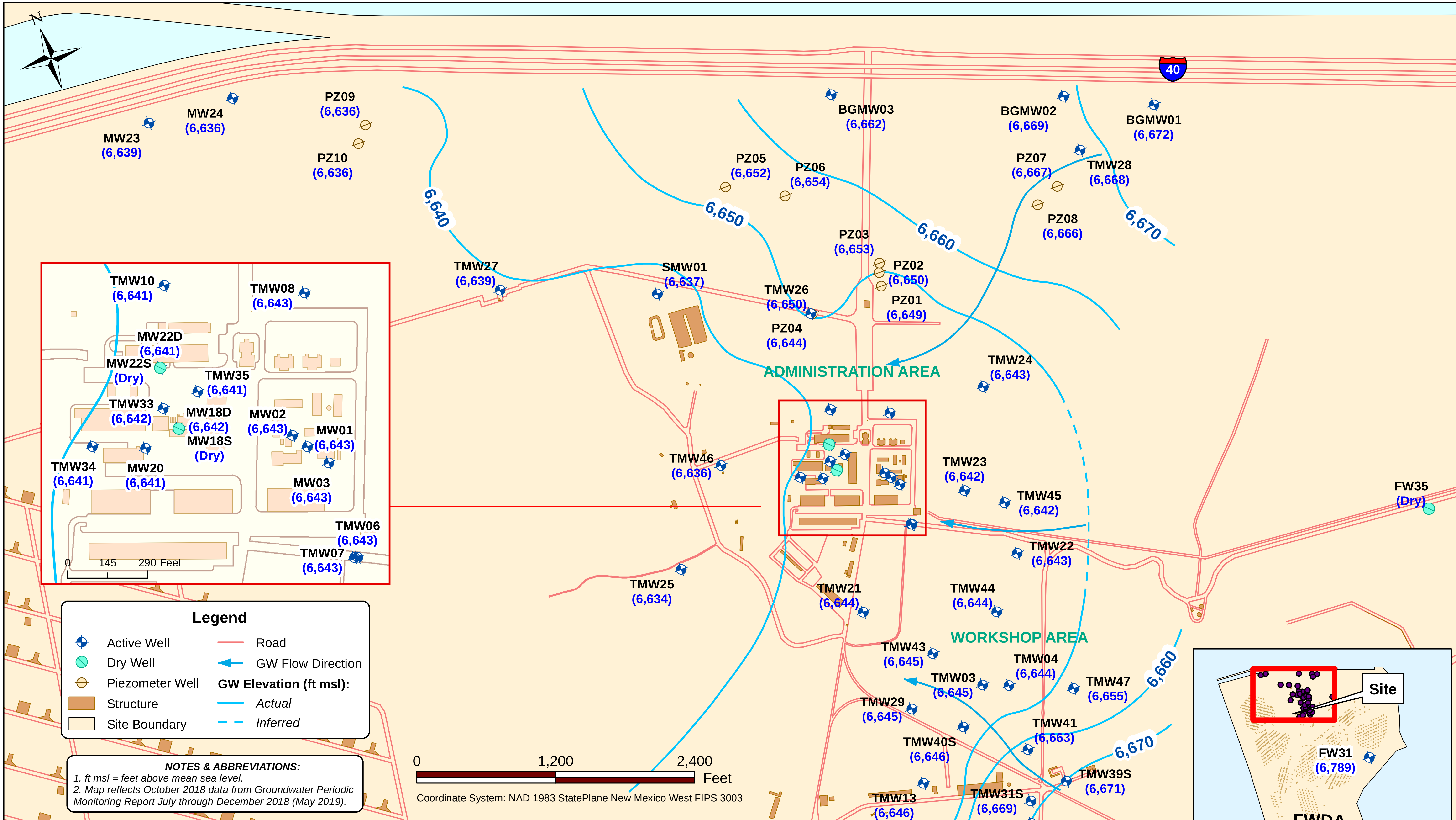
NORTHERN AREA SITE WELLS

Fort Wingate Depot Activity
McKinley County, New Mexico

Project No.: Eco-18-1237 Dated April 2020

FIGURE **2-4**



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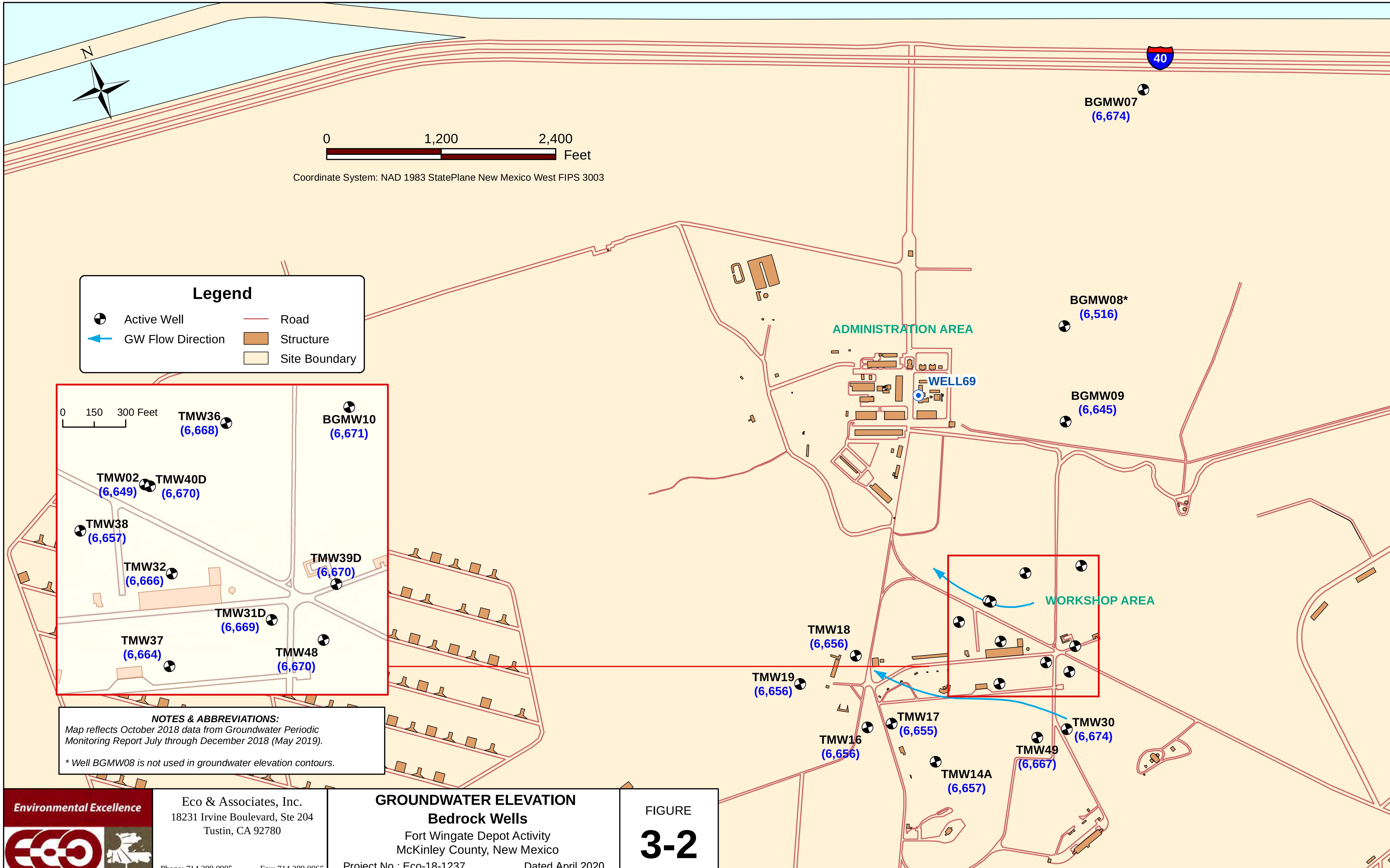
GROUNDWATER ELEVATIONS
Alluvial Wells
Fort Wingate Depot Activity
McKinley County, New Mexico
Project No.: Eco-18-1237 Dated April 2020

FIGURE
3-1



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GROUNDWATER ELEVATION
Bedrock Wells
Fort Wingate Depot Activity
McKinley County, New Mexico
Project No.: Eco-18-1237 Dated April 2020

FIGURE
3-2

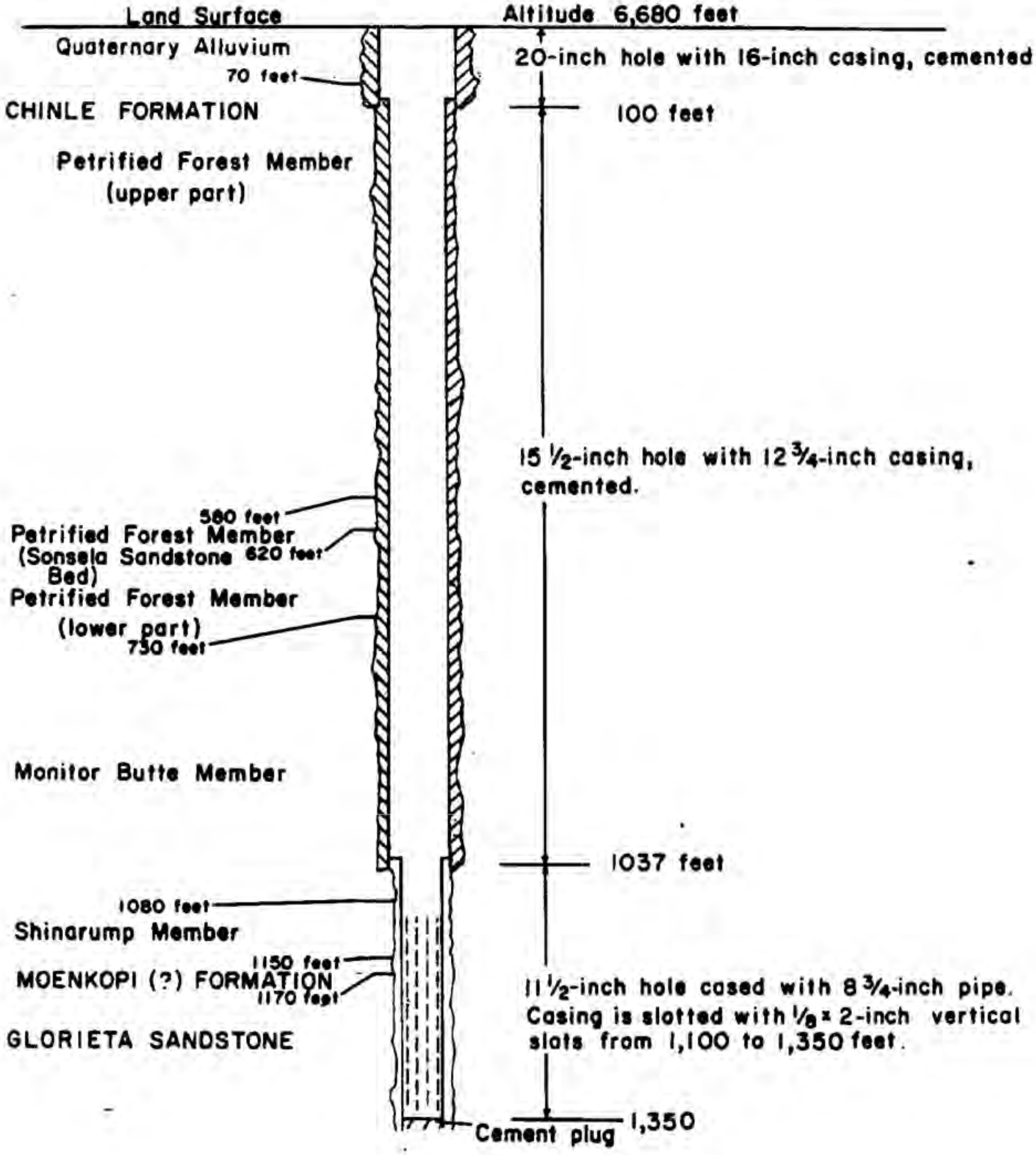


FIGURE 3-3

WELL 69 CONSTRUCTION DIAGRAM

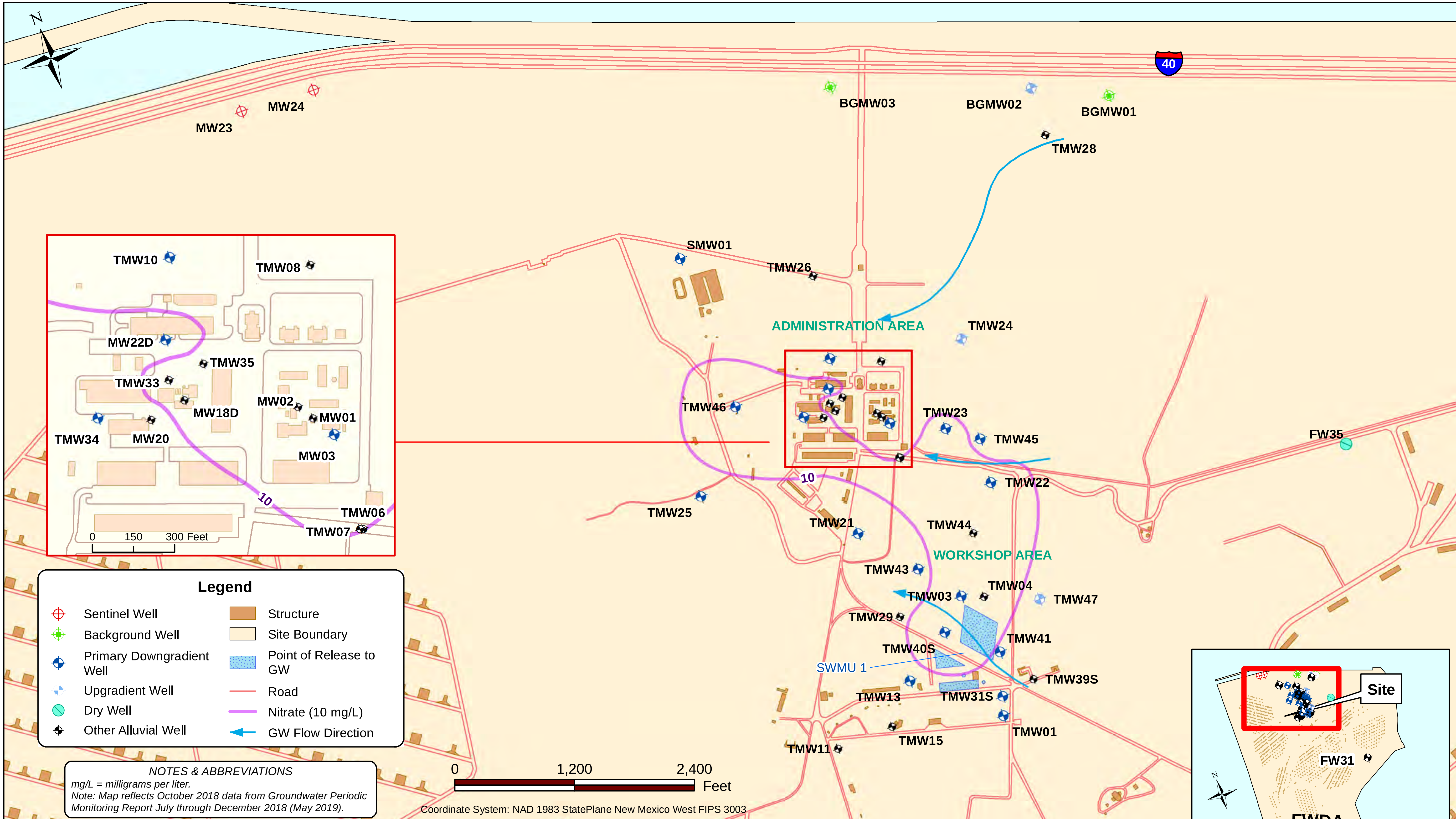
Interim Facility-wide Northern Area Groundwater Monitoring Plan

Fort Wingate Depot Activity

McKinley County, New Mexico

Note: Construction diagram is not drawn to scale.

As presented in USGS, 1971. *Document No. 71-2 Drilling and Testing of Well 69, Fort Wingate Army Depot, McKinley County, New Mexico Open File Report*, J. W. Mercer and E.G. Lappala, November.



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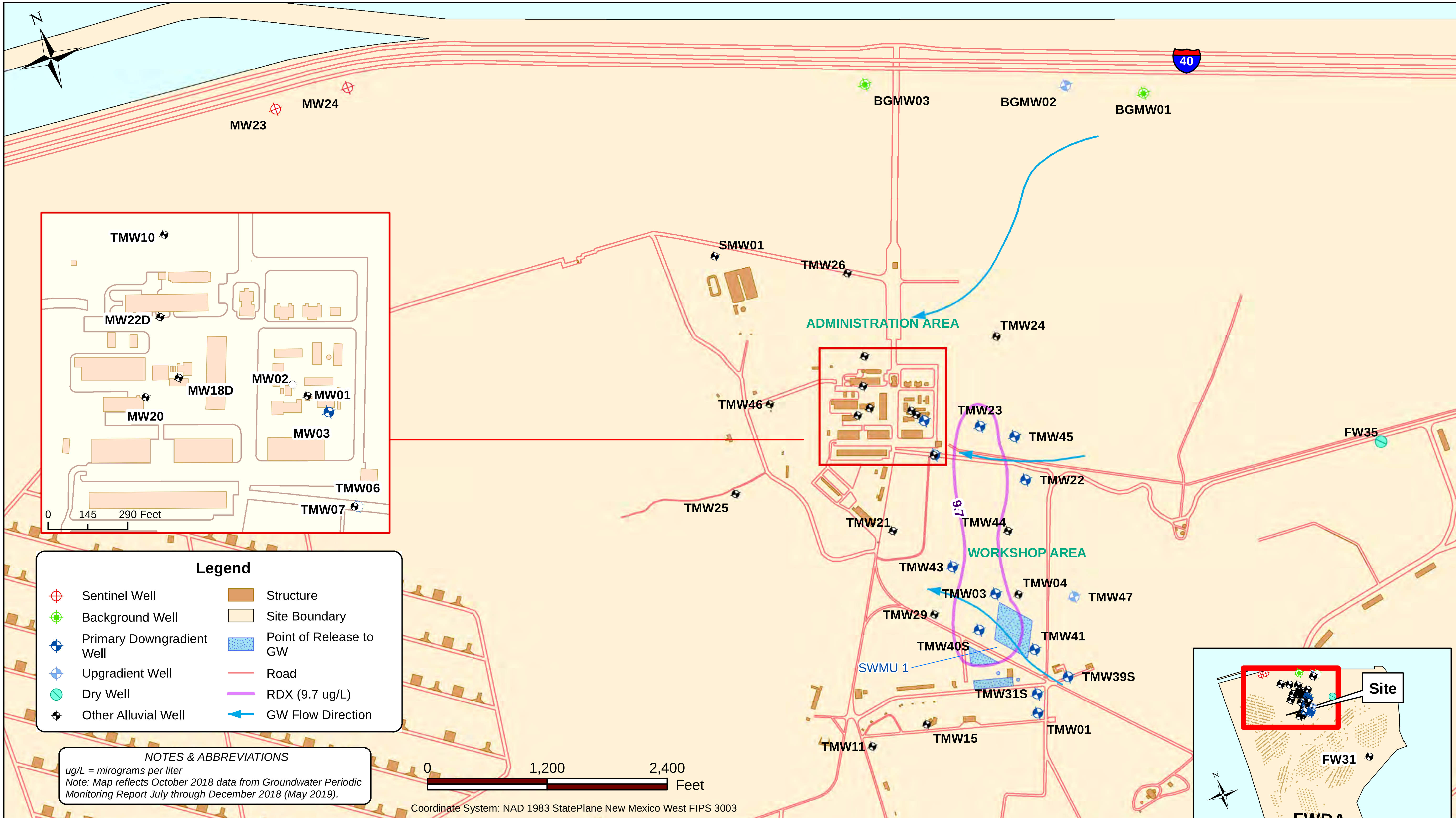
GROUNDWATER MONITORING
Alluvial Wells - Nitrate
Fort Wingate Depot Activity
McKinley County, New Mexico
Project No.: Eco-18-1237 Dated April 2020

FIGURE
3-4



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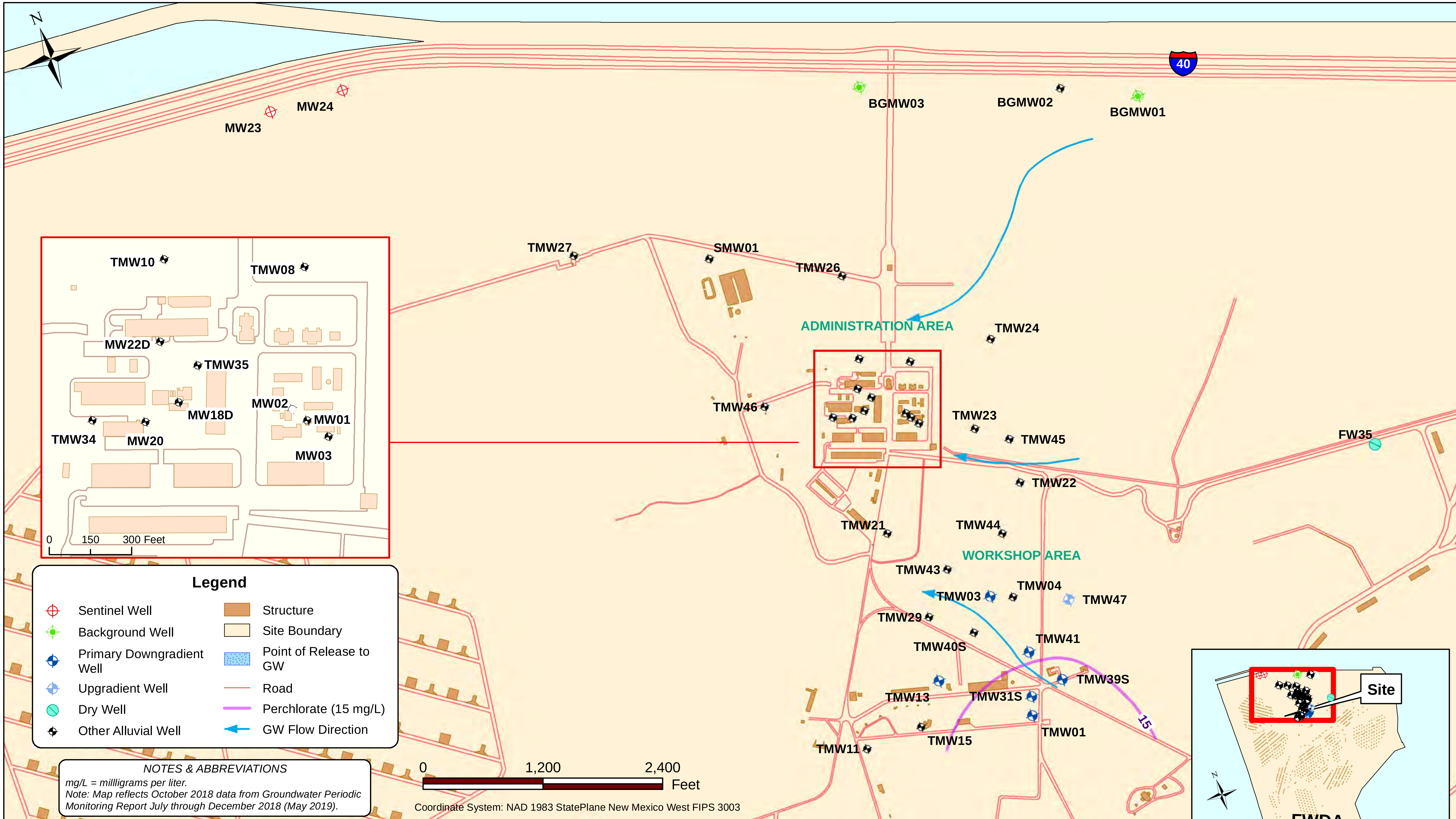
GROUNDWATER MONITORING
Alluvial Wells - Explosives
Fort Wingate Depot Activity
McKinley County, New Mexico
Project No.: Eco-18-1237 Dated April 2020

FIGURE
3-5



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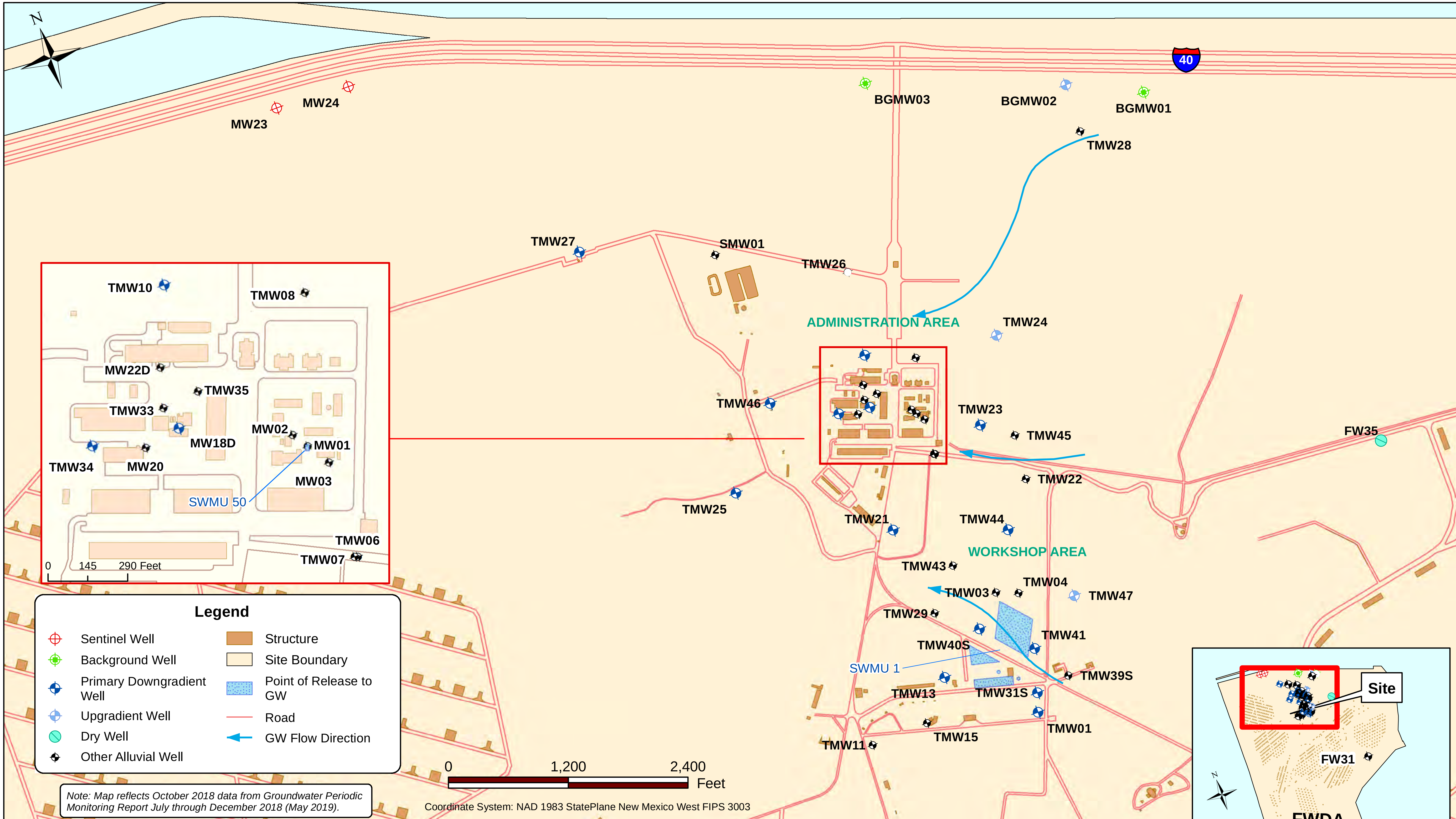
GROUNDWATER MONITORING
Alluvial Wells - Perchlorate
Fort Wingate Depot Activity
McKinley County, New Mexico

Project No.: Eco-18-1237 Dated April 2020

FIGURE
3-6



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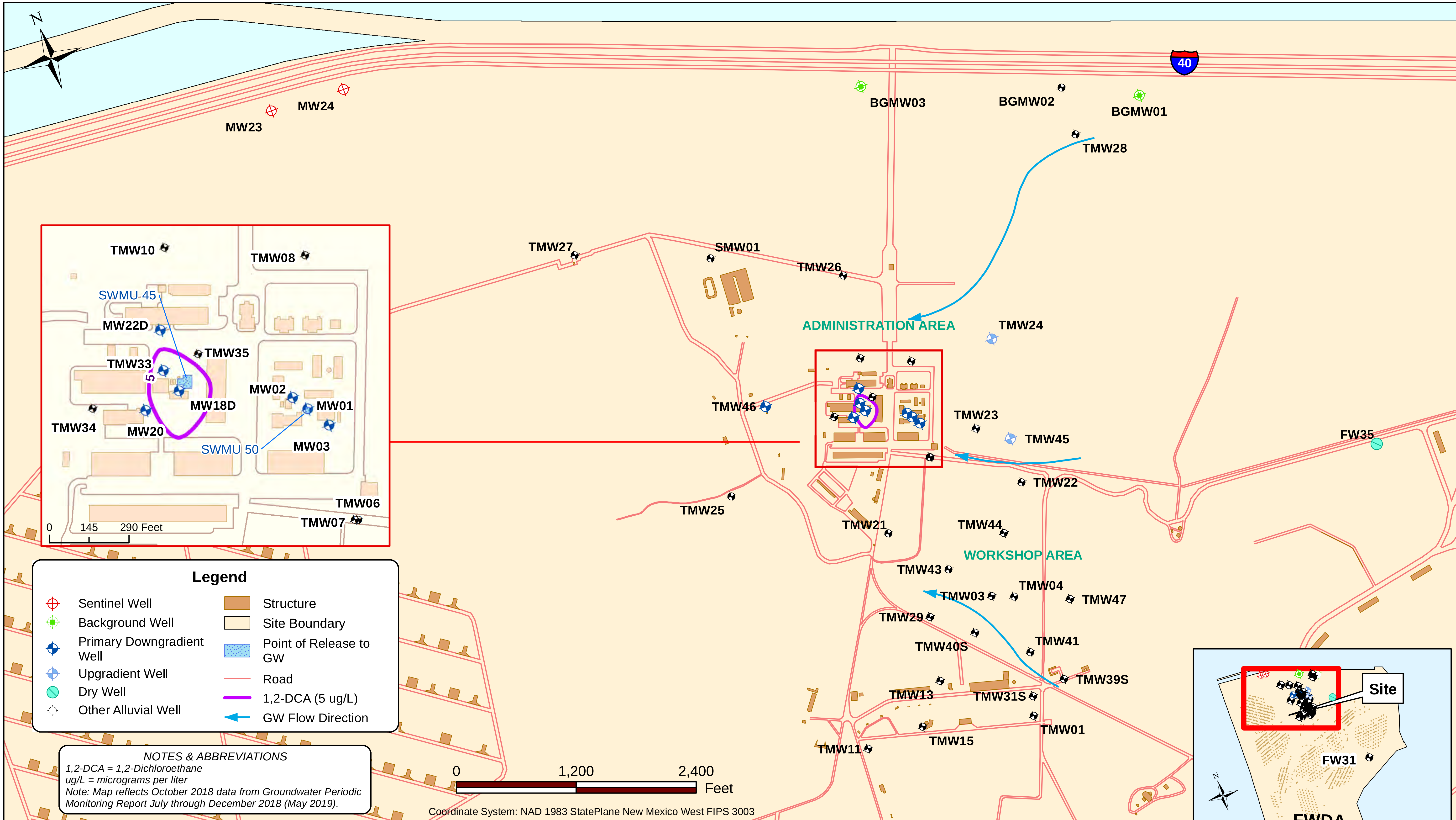
GROUNDWATER MONITORING
Alluvial Wells - Metals
Fort Wingate Depot Activity
McKinley County, New Mexico
Project No.: Eco-18-1237 Dated April 2020

FIGURE
3-7



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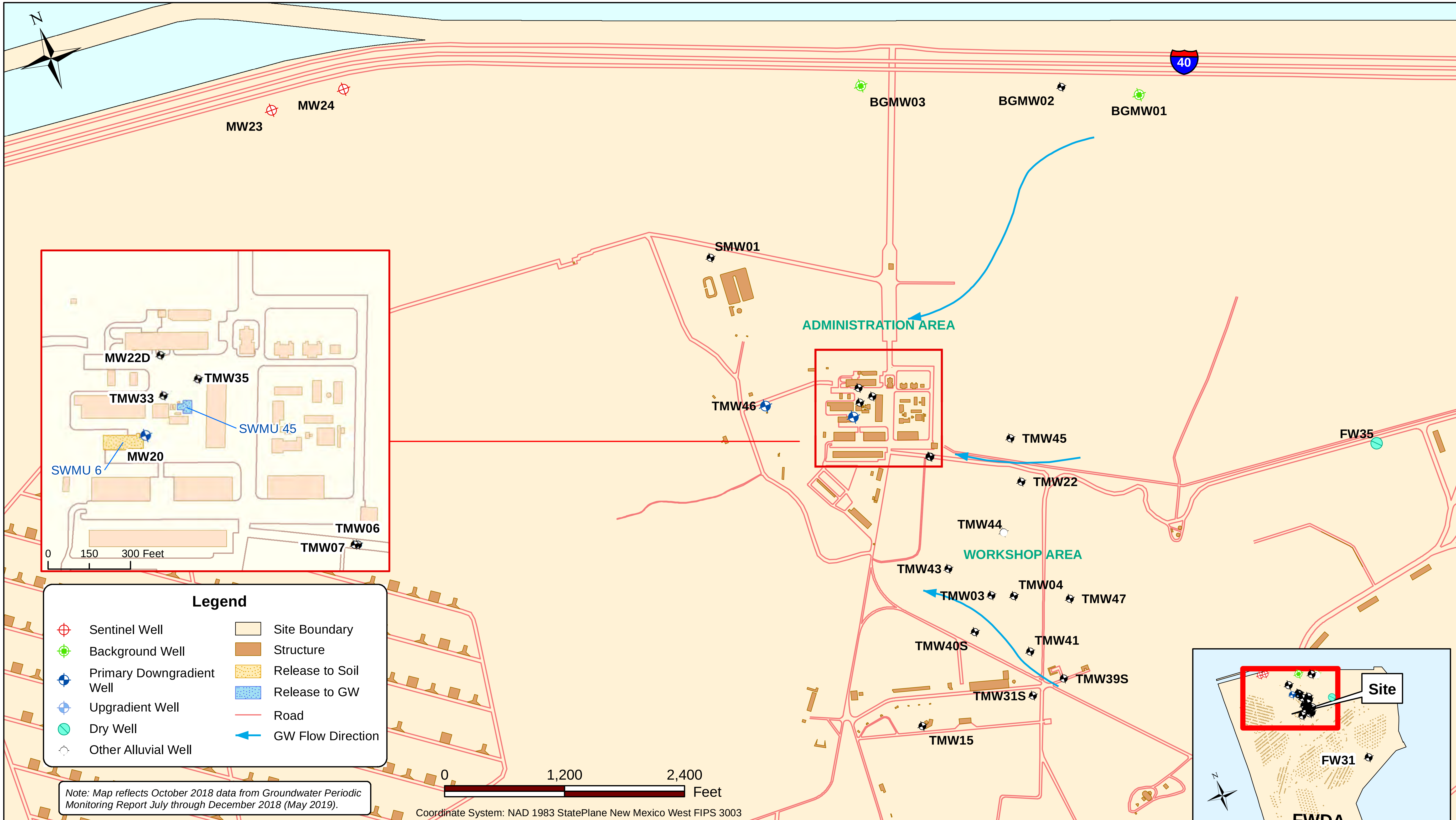
GROUNDWATER MONITORING
Alluvial Wells - VOCs
Fort Wingate Depot Activity
McKinley County, New Mexico

Project No.: Eco-18-1237 Dated April 2020

FIGURE
3-8



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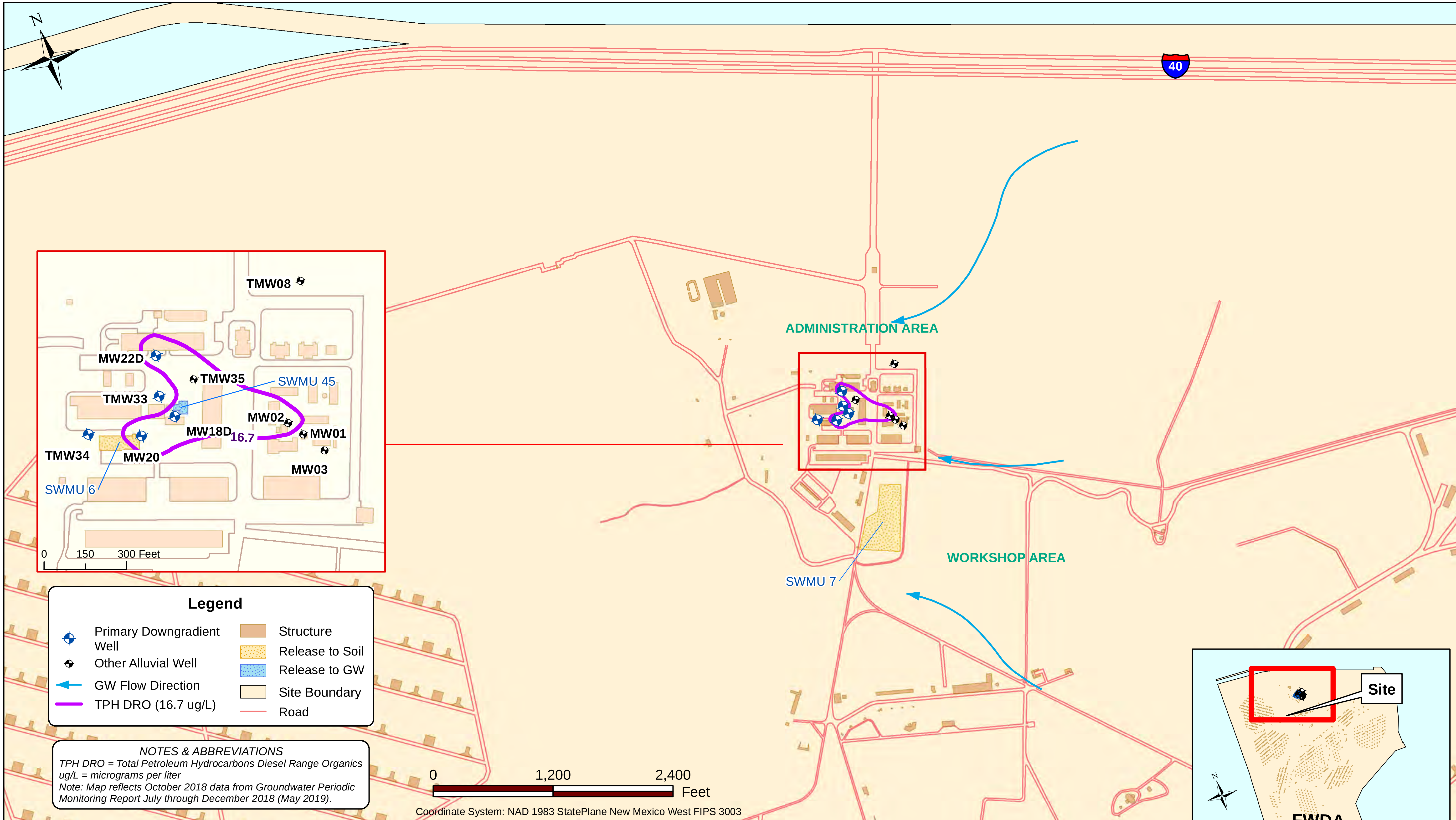
GROUNDWATER MONITORING
Alluvial Wells - SVOCs
Fort Wingate Depot Activity
McKinley County, New Mexico
Project No.: Eco-18-1237 Dated April 2020

FIGURE
3-9



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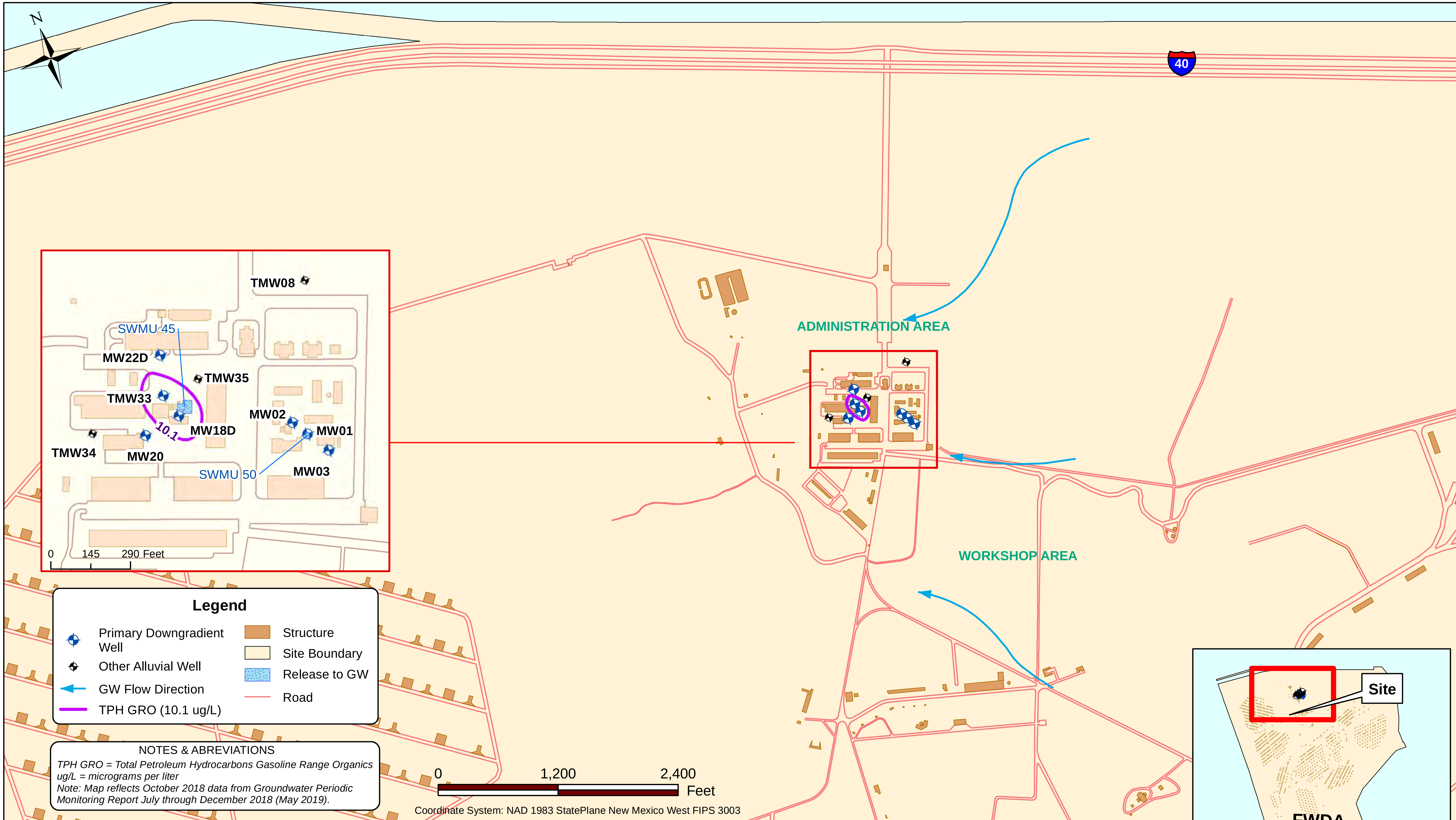
GROUNDWATER MONITORING
Alluvial Wells - DRO
Fort Wingate Depot Activity
McKinley County, New Mexico
Project No.: Eco-18-1237 Dated April 2020

FIGURE
3-10



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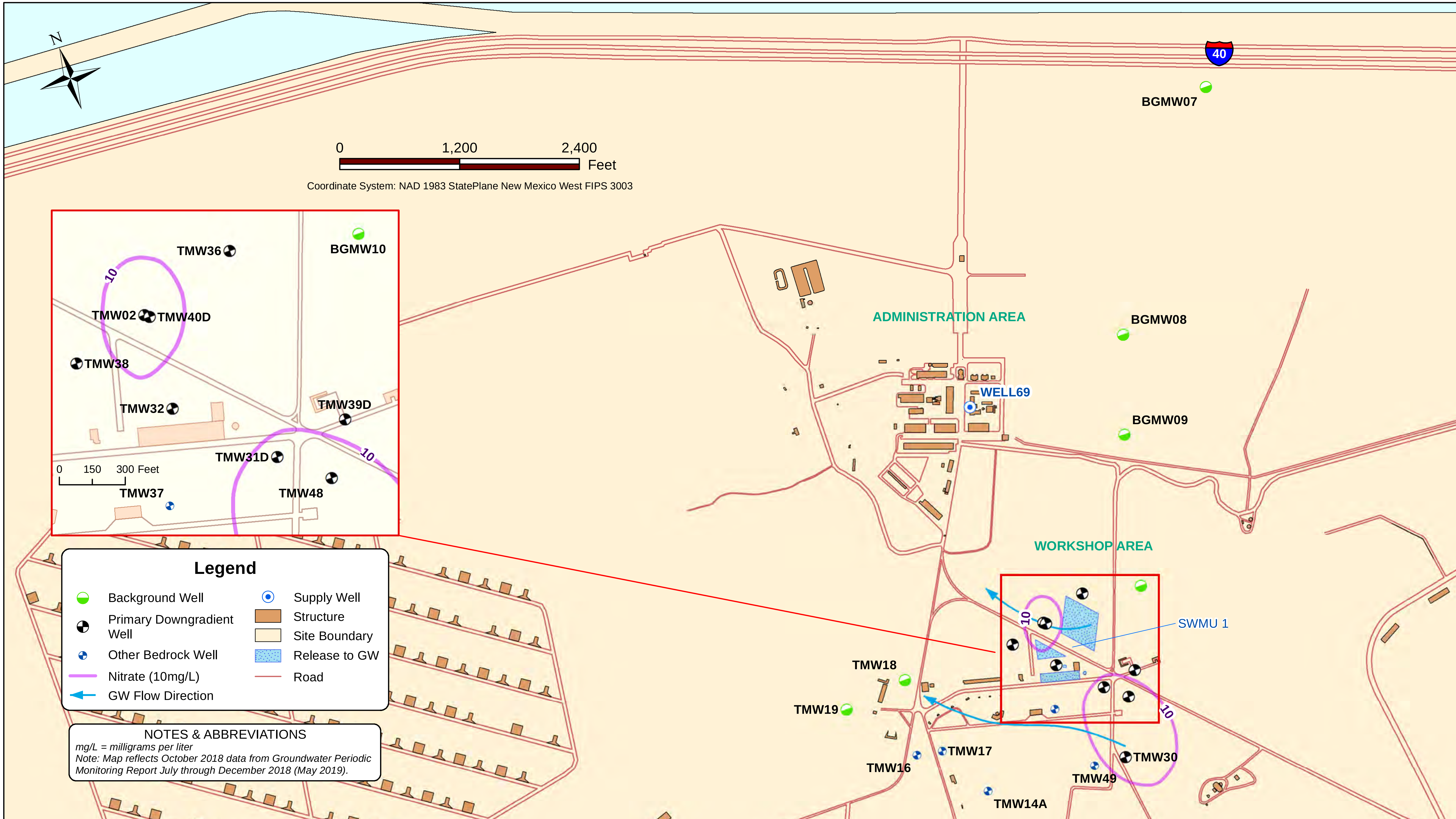
GROUNDWATER MONITORING
Alluvial Wells - GRO
Fort Wingate Depot Activity
McKinley County, New Mexico
Project No.: Eco-18-1237 Dated April 2020

FIGURE
3-11



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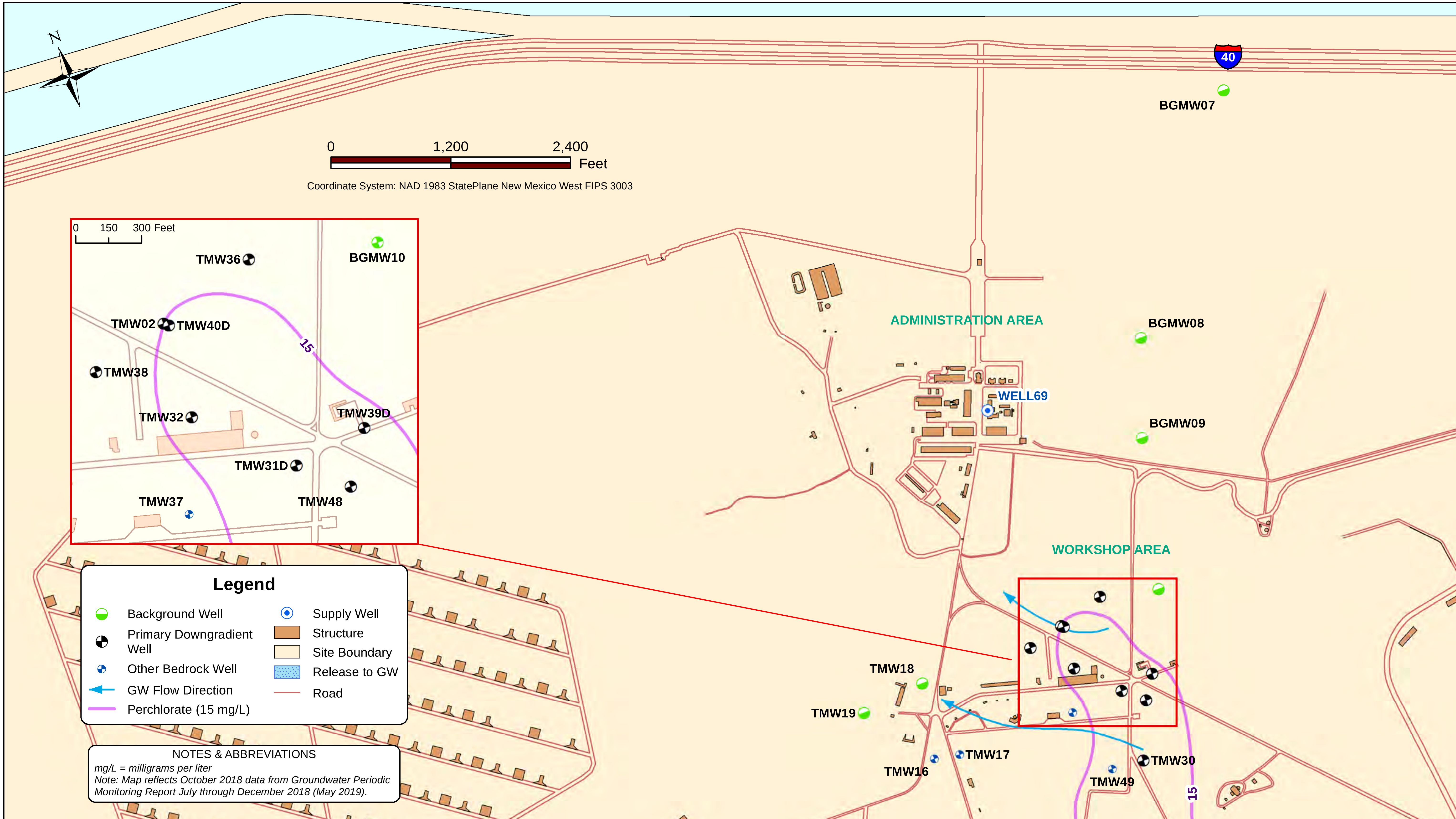
GROUNDWATER MONITORING
Bedrock Wells - Nitrate, Explosives, Metals

Fort Wingate Depot Activity
McKinley County, New Mexico

ProjectNo.: Eco-18-1237 Dated April 2020

FIGURE
3-12



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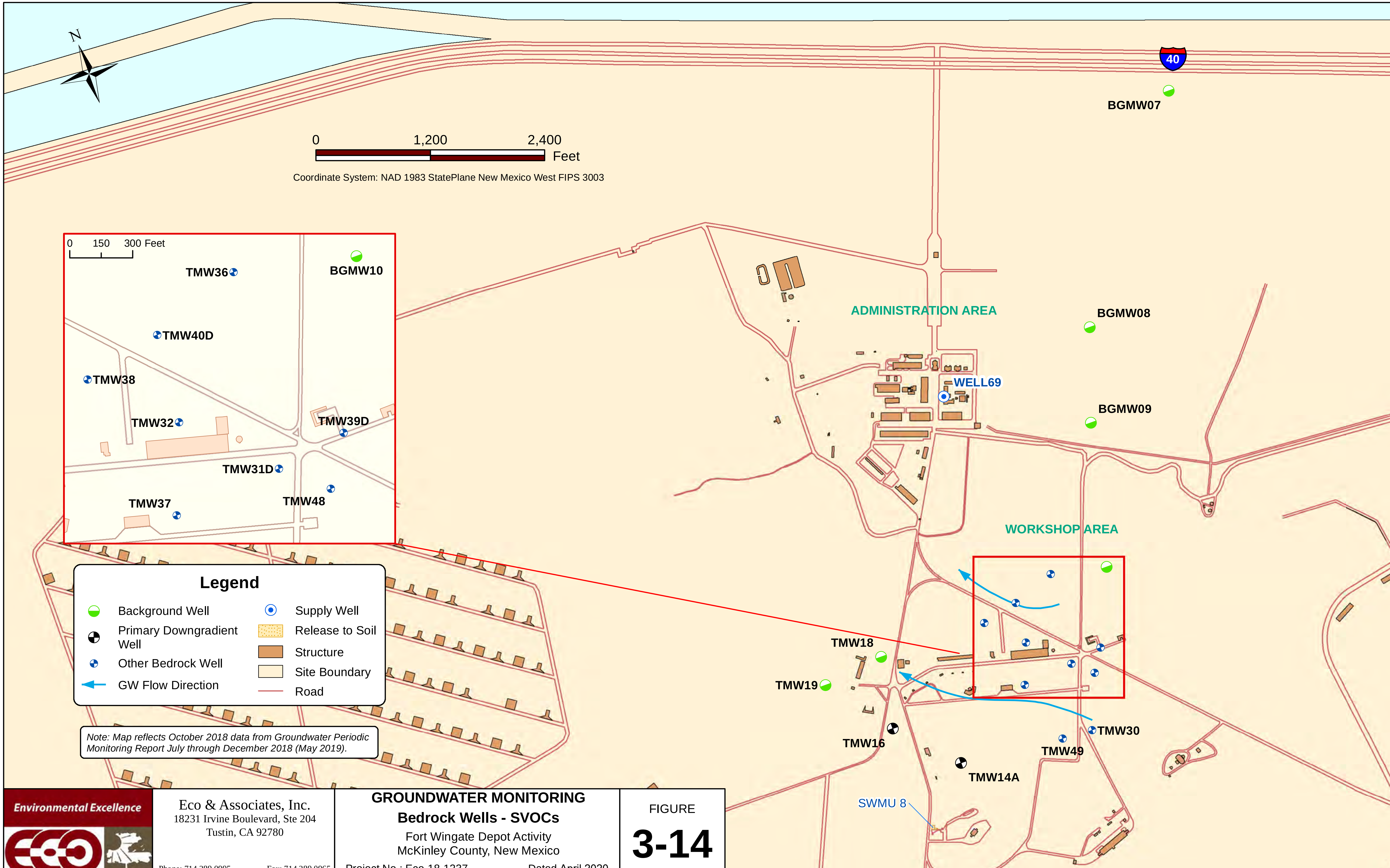
GROUNDWATER MONITORING
Bedrock Wells - Perchlorate
Fort Wingate Depot Activity
McKinley County, New Mexico
Project No.: Eco-18-1237 Dated April 2020

FIGURE
3-13



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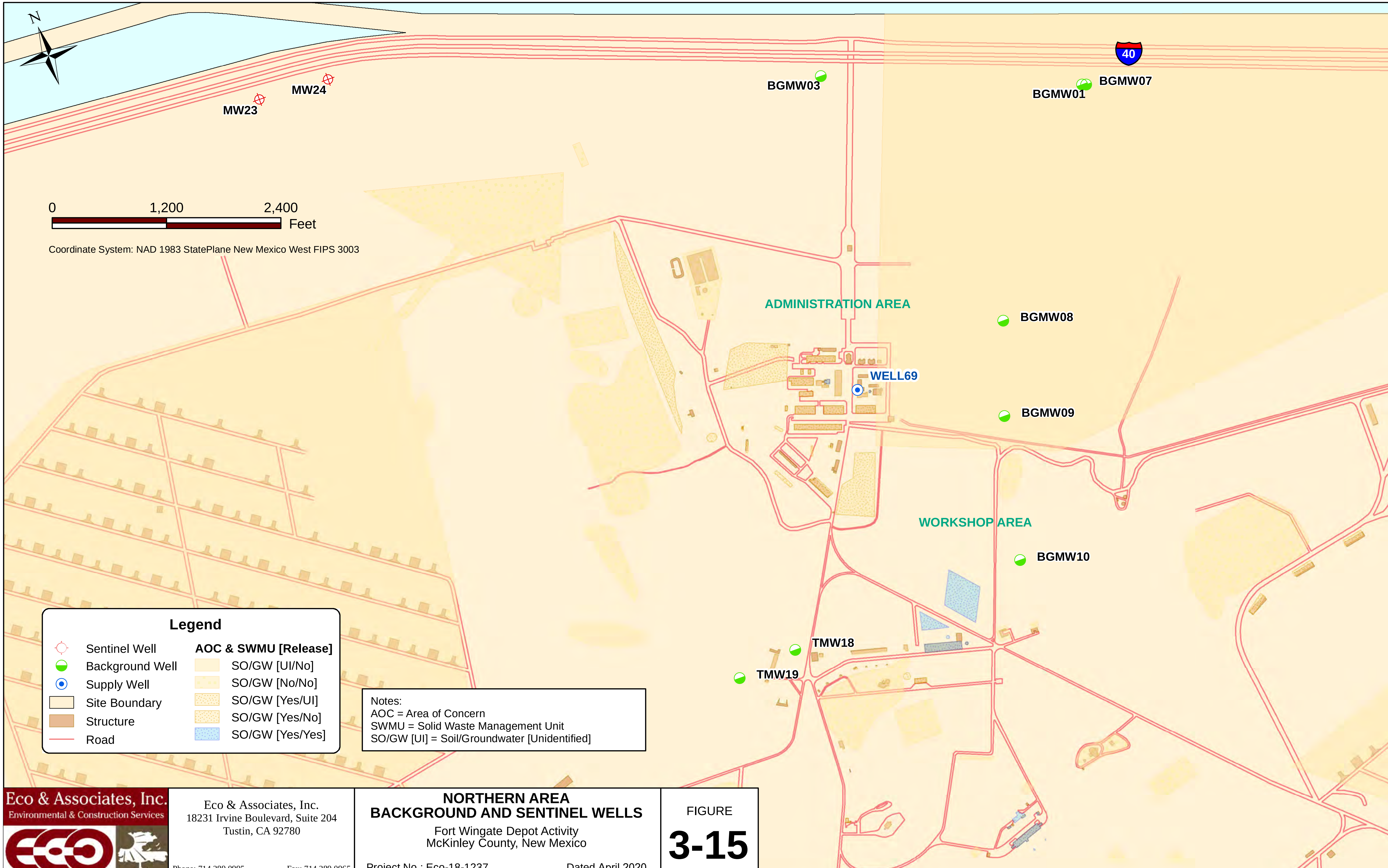
GROUNDWATER MONITORING
Bedrock Wells - SVOCs
Fort Wingate Depot Activity
McKinley County, New Mexico
Project No.: Eco-18-1237 Dated April 2020

FIGURE
3-14



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NORTHERN AREA
BACKGROUND AND SENTINEL WELLS

Fort Wingate Depot Activity
McKinley County, New Mexico

Project No.: Eco-18-1237 Dated April 2020

FIGURE
3-15

TABLES

TABLE 2-1: NORTHERN AREA GROUNDWATER WELL CONSTRUCTION DETAILS

WELL ID	FWDA PARCEL	DATE INSTALLED	DRILLING METHOD	NORTHING[a]	EASTING[a]	GROUND ELEVATION (ft amsl)[b]	POINT ELEVATION (ft amsl)[b]	WELL DEPTH (ft bgs)	BORING DIAMETER (in)	CASING DIAMETER (in)	CASING/ SCREEN TYPE	SCREEN LENGTH (ft)	SCREENED INTERVAL (ft bgs)	SCREENED INTERVAL (ft amsl)	STATUS	SCREENED FORMATION	DESCRIPTION
						Northern Area							**Northern Area**				
BGMW01	14	02/06/2012	HSA	1645977.80	2501983.54	6690.82	6693.23	33.00	8.00	2.50	PVC	20.0	12.5 – 32.5	6677.78 – 6657.78	Active	Alluvium	Sandy Silt
BGMW02	14	02/09/2012	HSA	1646314.79	2501276.51	6689.73	6692.57	34.00	8.00	2.50	PVC	20.0	13.5 – 33.5	6675.70 – 6655.70	Active	Alluvium	Silt/Sand/Clay
BGMW03	12	02/05/2012	HSA	1647015.35	2499394.46	6676.63	6679.39	29.00	8.00	2.50	PVC	20.0	8.5 – 28.5	6669.29 – 6649.29	Active	Alluvium	Clay
BGMW07	14	22/03/2018	Sonic	1645985.40	2501940.79	6689.77	6692.03	300.00	8.00	2.00	PVC	40.0	215 – 255	6691.63	Active	Bedrock	Silt/Sand/Clay
BGMW08	11	23/03/2018	Sonic	1643937.41	2500318.25	6681.72	6683.42	275.00	8.00	2.00	PVC	20.0	165 – 185	6685.02	Active	Bedrock	Silt/Sand/Clay
BGMW09	11	24/03/2018	Sonic	1642989.21	2499987.69	6689.83	6692.01	220.00	8.00	2.00	PVC	30.0	106 – 136	6692.27	Active	Bedrock	Silt/Sand/Clay
BGMW10	13	25/03/2018	Sonic	1641512.13	2499625.34	6699.50	6701.83	150.00	8.00	2.00	PVC	30.0	106 – 136	6701.49	Active	Bedrock	Silt/Sand/Clay
EMW01	18	07/14/2004	HSA	1643655.61	2502045.53	6716.06	6718.38	120.70	7.80	2.00	PVC	15.0	105.0 – 120.0	6610.16 – 6595.16	**Abandoned**	Abandoned	Siltstone/Claystone
EMW02	18	07/19/2004	HSA/AR	1643391.22	2502476.99	6699.94	6702.49	120.00	6.00	2.00	PVC	15.0	93.0 – 108.0	6606.14 – 6591.14	**Abandoned**	Abandoned	Siltstone/Claystone
EMW03	18	07/21/2004	HSA/AR	1643687.88	2502800.30	6698.63	6701.09	100.00	6.00	2.00	PVC	15.0	78.0 – 93.0	6619.69 – 6604.69	**Abandoned**	Abandoned	Siltstone
EMW04	18	07/23/2004	HSA/AR	1643815.18	2502419.30	6705.68	6708.30	120.0	6.00	2.00	PVC	15.0	100.0 – 115.0	6604.84 – 6589.84	**Abandoned**	Abandoned	Claystone
FW07	21	11/22/1980	HSA	1640839.18	2498075.06	6713.00	6714.90	30.50	8.00	4.00	PVC	20.5	10.0 – 30.5	6700.03 – 6684.03	**Abandoned**	Alluvium	Silty Sand
FW08	21	11/21/1980	HSA/AR	1640572.50	2498132.47	6713.00	6714.90	51.00	8.00	4.00	PVC	40.0	9.0 – 49.0	6707.16 – 6667.16	**Abandoned**	Alluvium	Silty Sand/Sand/Clay
FW10	21	11/20/1980	HSA	1640848.95	2498936.89	6706.76	6708.38	51.50	10.00	4.00	PVC	40.0	9.0 – 49.0	6698.02 – 6658.02	**Abandoned**	Alluvium	Silty Sand/Silty Clay
FW11	21	11/21/1980	HSA	1641334.02	2499124.16	6701.20	6703.50	28.00	8.00	4.00	PVC	20.0	8.0 – 28.0	6692.78 – 6672.78	**Abandoned**	Alluvium	Clayey Sand
FW12	21	11/22/1980	HSA	1641609.82	2499038.13	6700.00	6702.00	29.00	8.00	4.00	PVC	20.0	9.0 – 29.0	6690.79 – 6670.79	**Abandoned**	Alluvium	Clayey Sand
FW13	21	11/22/1980	HSA	1641688.39	2498830.01	6701.20	6702.30	30.50	8.00	4.00	PVC	20.0	10.5 – 30.5	6689.99 – 6669.99	**Abandoned**	Alluvium	Clay
FW26	7	11/19/1980	HSA	1643853.34	2497067.39	6672.20	6674.40	31.00	8.00	4.00	PVC	20.0	11.0 – 31.0	6664.00 – 6644.00	**Abandoned**	Alluvium	Silt/Sand/Clay
FW27	9	11/17/1980	HSA	1646461.42	2494395.93	6657.75	6656.49	32.00	8.00	4.00	PVC	20.0	10.0 – 30.0	6645.39 – 6625.39	**Abandoned**	Alluvium	Silty Sand/Silty Clay/Clay
FW28	9	11/18/1980	HSA	1646584.14	2493050.57	6656.53	6657.50	33.00	8.00	4.00	PVC	23.0	10.0 – 33.0	6645.97 – 6622.97	**Abandoned**	Alluvium	Silt/Clay
FW29	11	11/16/1980	HSA	1645804.02	2497681.98	6669.17	6670.96	32.00	8.00	4.00	PVC	20.0	10.0 – 30.0	6659.69 – 6639.69	**Abandoned**	Alluvium	Gravel/Clay
FW31	19	11/19/1980	HSA	1631192.71	2505201.84	6830.96	6832.70	50.00	8.00	4.00	PVC	40.0	10.0 – 50.0	6815.71 – 6775.71	Active	Alluvium	Clay
FW35	13	11/15/1980	HSA	1641888.76	2503025.75	6709.13	6711.31	30.00	8.00	4.00	PVC	20.0	10.0 – 30.0	6699.26 – 6679.26	**Dry**	Alluvium	Clay
MW01	11	11/22/1996	HSA	1643726.81	2498748.48	6686.98	6686.79	55.00	10.50	2.00	PVC	20.0	33.6 – 53.6	6651.99 – 6631.99	Active	Alluvium	Sand/Silty Clay
MW02	11	11/25/1996	HSA	1643783.24	2498712.23	6685.60	6685.13	48.00	10.50	2.00	PVC	10.0	37.0 – 47.0	6645.76 – 6635.76	Active	Alluvium	Clayey Sand/Clay
MW03	11	11/26/1996	HSA	1643644.51	2498801.86	6687.81	6690.26	53.00	10.50	2.00	PVC	10.0	43.0 – 53.0	6644.42 – 6634.42	Active	Alluvium	Silty Sand/Clay
MW18D	11	11/01/1994	HSA	1643947.87	2498331.42	6685.30	6687.11	59.90	8.00	2.00	PVC	10.0	47.0 – 57.0	6637.04 – 6627.04	Active	Alluvium	ND
MW18S	11	11/01/1994	HSA	1643948.10	2498331.51	6685.30	6687.26	39.04	8.00	2.00	PVC	10.0	27.0 – 37.0	6658.17 – 6648.17	**Dry**	Alluvium	ND
MW20	11	11/01/1994	HSA	1643922.23	2498193.78	6685.84	6688.35	59.40	8.00	2.00	PVC	10.0	47.0 – 57.0	6638.79 – 6628.79	Active	Alluvium	ND
MW22D	11	11/01/1994	HSA	1644178.41	2498343.14	6683.28	6685.34	58.62	8.00	2.00	PVC	10.0	47.0 – 57.0	6636.55 – 6626.55	Active	Alluvium	ND
MW22S	11	11/01/1994	HSA	1644178.49	2498343.07	6683.28	6685.33	43.54	8.00	2.00	PVC	10.0	31.0 – 41.0	6651.57 – 6641.57	**Dry**	Alluvium	ND
MW23	25	06/30/2011	HSA	1648790.51	2493766.00	6652.99	6655.09	134.0	8.00	2.50	PVC	70.0	63.5 – 133.5	6588.96 – 6518.96	Active	Alluvium	Sand/Clay
MW24	25	07/02/2011	HSA	1648745.01	2494516.22	6655.72	6657.57	66.50	8.00	2.50	PVC	50.0	16.0 – 66.0	6638.09 – 6588.09	Active	Alluvium	Sand/Clay
SMW01	11	07/29/1996	HSA	1645906.77	2497393.13	6668.68	6670.05	50.21	8.00	2.00	PVC	20.0	29.9 – 49.9	6637.86 – 6617.86	Active	Alluvium	Silty Sand/Sandy Clay
TMW01	21	07/31/1996	HSA	1640504.25	2498872.00	6710.79	6712.50	60.00	8.00	2.00	PVC	15.0	44.0 – 59.0	6666.18 – 6651.18	Active	Alluvium	Clay with Sand Layer
TMW02	21	07/31/1996	HSA	1641503.17	2498584.02	6704.51	6706.03	85.00	8.00	2.00	PVC	14.0	67.9 – 81.9	6636.06 – 6622.06	Active	Bedrock	Sandstone
TMW03	21	07/25/1996	HSA	1641773.76	2498883.05	6701.35	6703.22	70.10	8.00	2.00	PVC	20.0	49.8 – 69.8	6650.86 – 6630.86	Active	Alluvium	Silty Clay/Clayey Sand
TMW04	21	07/26/1996	HSA	1641690.08	2499095.21	6699.85	6701.65	70.50	8.00	2.00	PVC	20.0	50.0 – 70.0	6649.08 – 6629.08	Active	Alluvium	Upper Sand/Lower Clay
TMW05	22	07/23/1998	HSA/AR	1639949.83	2498884.78	6712.64	6714.67	37.40	5.50	2.00	PVC	10.0	25.0 – 35.0	6687.69 – 6677.69	**Abandoned**	Bedrock	Sandstone/Siltstone
TMW06	11	08/27/1998	HSA	1643285.93	2498783.92	6689.87	6691.34	57.00	8.80	2.00	PVC	10.0	45.0 – 55.0	6643.85 – 6633.85	Active	Alluvium	Sandy Silt
TMW07	11	07/24/1998	HSA/AR	1643289.29	2498772.27	6689.84	6691.23	76.00	5.50	2.00	PVC	10.0	65.0 – 75.0	6633.74 – 6623.74	Active	Alluvium	Sandy Silt
TMW08	11	08/29/1998	HSA	1644254.96	2498930.01	6679.56	6681.05	62.00	8.80	2.00	PVC	30.0	30.0 – 60.0	6648.43 – 6618.43	Active	Alluvium	Silty Sand/Clay
TMW10	11	08/20/1998	HSA	1644455.54	2498459.70	6678.85	6680.76	65.00	8.80	2.00	PVC	30.0	28.0 – 58.0	6648.86 – 6618.86	Active	Alluvium	Silty Sand/Clay

TABLE 2-1: NORTHERN AREA GROUNDWATER WELL CONSTRUCTION DETAILS

WELL ID	FWDA PARCEL	DATE INSTALLED	DRILLING METHOD	NORTHING[a]	EASTING[a]	GROUND ELEVATION (ft amsl)[b]	POINT ELEVATION (ft amsl)[b]	WELL DEPTH (ft bgs)	BORING DIAMETER (in)	CASING DIAMETER (in)	CASING/ SCREEN TYPE	SCREEN LENGTH (ft)	SCREENED INTERVAL (ft bgs)	SCREENED INTERVAL (ft amsl)	STATUS	SCREENED FORMATION	DESCRIPTION
						Northern Area							Northern Area				
TMW11	6	09/09/1998	HSA	1640758.59	2497201.10	6717.32	6719.13	82.00	8.75	2.00	PVC	25.0	55.0 – 80.0	6661.24 – 6636.24	Active	Alluvium	Silty Gravel/Sand
TMW13	21	08/11/1998	HSA	1641150.09	2498112.43	6706.75	6708.21	72.50	8.80	2.00	PVC	10.0	60.7 – 70.7	6644.35 – 6634.35	Active	Alluvium	Sandy Clay/Silt
TMW14A	21	01/25/2001	AR	1640105.73	2497489.60	6722.53	6724.73	110.00	6.00	2.00	PVC	15.0	94.25 – 109.25	6627.34 – 6612.34	Active	Bedrock	Sandstone
TMW15	21	12/09/2001	HAS	1640779.81	2497787.09	6711.71	6714.68	82.00	6.00	2.00	PVC	15.0	56.0-71.0	6652.88-6637.88	Active	Alluvium	Silty Gravel/Sand
TMW16	6	12/05/2001	AR	1640687.43	2496941.03	6712.72	6715.21	142.00	6.00	2.00	PVC	15.0	123.0-138.0	6587.59-6572.95	Active	Bedrock	Sandstone
TMW17	6	12/13/2001	AR	1640640.08	2497193.61	6718.53	6721.07	152.00	6.00	2.00	PVC	15.0	112.0 – 127.0	6605.49 – 6590.49	Active	Bedrock	Sandstone
TMW18	6	12/14/2001	AR	1641437.58	2497083.17	6711.48	6714.56	220.00	6.00	2.00	PVC	10.0	150.0 – 160.0	6563.66 – 6553.66	Active	Bedrock	Sandstone
TMW19	6	12/03/2001	AR	1641357.52	2496433.25	6698.93	6701.67	187.00	6.00	2.00	PVC	15.0	169.0 – 184.0	6528.57 – 6513.57	Active	Bedrock	Sandstone
TMW21	21	08/09/2002	HSA	1642714.81	2498128.03	6693.75	6695.86	72.00	8.00	2.00	PVC	10.0	48.0 – 58.0	6644.76 – 6634.76	Active	Alluvium	Sand/Silt/Clay
TMW22	21	08/08/2002	HSA	1642741.06	2499552.33	6690.90	6692.51	77.00	8.00	2.00	PVC	10.0	52.0 – 62.0	6637.13 – 6627.13	Active	Alluvium	Sand/Silt/Clay
TMW23	11	08/06/2002	HSA	1643402.25	2499309.78	6686.50	6688.61	72.00	8.00	2.00	PVC	10.0	46.0 – 56.0	6638.81 – 6628.81	Active	Alluvium	Clay/Sand
TMW24	11	08/03/2003	HSA	1644192.20	2499766.31	6679.40	6681.14	75.00	8.00	2.00	PVC	10.0	44.0 – 54.0	6633.30 – 6623.30	Active	Alluvium	Silty Sand/Silt/Sand
TMW25	7	08/01/2002	HSA	1643598.33	2496776.40	6671.61	6673.17	74.00	8.00	2.00	PVC	10.0	42.5 – 52.5	6627.72 – 6617.72	Active	Alluvium	Silty Sand/Clay
TMW26	11	07/30/2002	HSA	1645294.87	2498581.76	6675.79	6678.43	64.80	8.00	2.00	PVC	10.0	45.0 – 55.0	6629.97 – 6619.97	Active	Alluvium	Silt/Sand/Clay
TMW27	9	07/26/2002	HSA	1646399.49	2496126.68	6666.40	6668.51	102.20	8.00	2.00	PVC	10.0	60.0 – 70.0	6605.37 – 6595.37	Active	Alluvium	Sandy Clay/Silt
TMW28	14	07/24/2002	HSA	1645827.17	2501250.56	6688.08	6690.35	72.50	8.00	2.00	PVC	10.0	37.0 – 47.0	6649.79 – 6639.79	Active	Alluvium	Silty Sand/Sand/Clay
TMW29	21	08/19/2002	HSA	1641786.16	2498235.65	6701.36	6703.84	69.00	8.00	2.00	PVC	10.0	49.0 – 59.0	6652.32 – 6642.32	Active	Alluvium	Sand/Sandy Clay
TMW30	21	11/15/2009	HSA/AR	1639957.89	2498900.63	6713.42	6715.66	51.50	6.00	2.00	PVC	10.0	35.0 – 45.0	6677.31 – 6667.31	Active	Bedrock	Sandstone
TMW31D	21	11/16/2009	HSA/AR	1640688.10	2498933.07	6710.19	6711.99	111.50	6.00	2.00	PVC	30.0	77.0 – 107.0	6631.98 – 6601.98	Active	Bedrock	Sandstone
TMW31S	21	11/17/2009	HSA/AR	1640688.54	2498932.87	6710.19	6711.45	61.00	6.00	2.00	PVC	10.0	50.0 – 60.0	6658.98 – 6648.98	Active	Alluvium	Silty Sand/Sand/Clay
TMW32	21	11/18/2009	HSA	1641045.04	2498554.46	6709.03	6710.88	139.10	6.00	2.00	PVC	20.0	117.0 – 137.0	6590.89 – 6570.89	Active	Bedrock	Sandstone
TMW33	11	11/19/2009	HSA	1644034.09	2498303.21	6685.07	6687.45	60.40	6.00	2.00	PVC	20.0	37.0 – 57.0	6646.78 – 6626.78	Active	Alluvium	Silty Sand/Sand/Clay
TMW34	11	11/20/2009	HSA	1643994.55	2498012.96	6685.75	6688.36	57.25	6.00	2.00	PVC	20.0	37.0 – 57.0	6650.32 – 6630.32	Active	Alluvium	Silty Sand/Sand/Clay
TMW35	11	11/21/2009	HSA/AR	1644049.13	2498442.01	6685.52	6687.82	55.00	6.00	2.00	PVC	20.0	35.0 – 55.0	6649.26 – 6629.26	Active	Alluvium	Silty Sand/Sand/Clay
TMW36	21	11/22/2009	HSA/AR	1641645.67	2499049.25	6700.57	6702.23	157.00	6.00	2.00	PVC	20.0	132.0 – 152.0	6567.32 – 6547.32	Active	Bedrock	Sandstone
TMW37	21	11/23/2009	HSA/AR	1640648.29	2498396.27	6712.15	6714.25	111.00	6.00	2.00	PVC	20.0	88.0 – 108.0	6622.88 – 6602.88	Active	Bedrock	Sandstone
TMW38	21	09/03/2011	HSA	1641400.93	2498218.35	6705.03	6707.62	159.50	8.00	2.50	PVC	40.0	118.9 – 158.9	6585.41 – 6545.41	Active	Bedrock	Sandstone
TMW39S	13	07/05/2011	HSA	1640735.44	2499229.52	6706.69	6708.25	53.00	8.00	2.50	PVC	20.0	32.5 – 52.5	6674.03 – 6654.03	Active	Alluvium	Clay
TMW39D	13	09/07/2011	HSA	1640745.35	2499280.77	6707.08	6709.14	100.50	8.00	2.50	PVC	30.0	70.0 – 100.0	6636.53 – 6606.53	Active	Bedrock	Sandstone
TMW40S	21	09/20/2011	HSA	1641486.33	2498604.51	6704.37	6706.98	62.00	8.00	2.50	PVC	10.0	50.0 – 60.0	6653.81 – 6643.81	Active	Alluvium	Silt/Sand/Clay
TMW40D	21	09/20/2011	HSA	1641486.04	2498604.16	6704.37	6706.74	155.50	8.00	2.50	PVC	20.0	135.0 – 155.0	6568.81 – 6548.81	Active	Bedrock	Sandstone
TMW41	21	07/01/2011	HSA	1641113.91	2499058.49	6704.15	6705.74	66.00	8.00	2.50	PVC	10.0	55.5 – 65.5	6647.48 – 6637.48	Active	Alluvium	Clay with Gravel
TMW43	21	02/03/2012	HSA	1642171.39	2498570.91	6696.21	6699.32	78.5	8.00	2.50	PVC	20.0	58.0 – 78.0	6637.8 – 6617.8	Active	Alluvium	Sand with Gravel
TMW44	21	02/04/2012	HSA	1642323.34	2499212.40	6695.49	6697.99	64.0	8.00	2.50	PVC	20.0	43.5 – 63.5	6651.5 – 6631.5	Active	Alluvium	Silty Clay/Sand
TMW45	11	02/08/2012	HSA	1643187.60	2499597.65	6687.14	6689.60	59.0	8.00	2.50	PVC	20.0	38.5 – 58.5	6648.2 – 6628.2	Active	Alluvium	Sand/Clay
TMW46	11	02/05/2012	HSA	1644326.20	2497404.60	6679.41	6681.34	59.0	8.00	2.50	PVC	20.0	38.5 – 58.5	6640.19 – 6620.19	Active	Alluvium	Sandy Clay with Gravel
TMW47	13	02/01/2012	HSA	1641475.91	2499610.79	6699.87	6702.47	103.0	8.00	2.50	PVC	20.0	82.5 – 102.5	6616.82 – 6596.82	Active	Alluvium	Clay/Silt
TMW48	13	09/15/2011	HSA	1640515.51	2499132.59	6708.29	6710.37	91.5	8.00	2.50	PVC	20.0	71.0 – 91.0	6636.80 – 6616.80	Active	Bedrock	Sand
TMW49	21	09/09/2011	HSA	1639979.26	2498578.96	6716.30	6718.72	60.0	8.00	2.50	PVC	20.0	40.0 – 60.0	6672.20 – 6652.20	Active	Bedrock	Sand
PZ01[c]	12	Fall 2012	HSA	1645310.79	2499235.92	6675.61	6678.18	45.7	ND	1.00	PVC	20	25.7 – 45.7	6700.40 – 6720.40	Active	Alluvium	Undifferentiated CL/S/ML
PZ02[c]	12	Fall 2012	HSA	1645426.52	2499258.36	6673.57	6675.99	52.7	ND	1.00	PVC	20	32.7 – 53.7	6705.23 – 6725.23	Active	Alluvium	Undifferentiated CL/S/ML
PZ03[c]	12	Fall 2012	HSA	1645502.60	2499288.48	6677.91	6680.45	49.3	ND	1.00	PVC	20	29.3 – 49.3	6706.13 – 6726.13	Active	Alluvium	Undifferentiated CL/S/ML
PZ04[c]	12	Fall 2012	HSA	1645288.57	2498592.28	6675.26	6677.80	49.3	ND	1.00	PVC	20	29.3 – 49.3	6703.44 – 6723.44	Active	Alluvium	Undifferentiated CL/S/ML

TABLE 2-1: NORTHERN AREA GROUNDWATER WELL CONSTRUCTION DETAILS

WELL ID	FWDA PARCEL	DATE INSTALLED	DRILLING METHOD	NORTHING[a]	EASTING[a]	GROUND ELEVATION (ft amsl)[b]	POINT ELEVATION (ft amsl)[b]	WELL DEPTH (ft bgs)	BORING DIAMETER (in)	CASING DIAMETER (in)	CASING/ SCREEN TYPE	SCREEN LENGTH (ft)	SCREENED INTERVAL (ft bgs)	SCREENED INTERVAL (ft amsl)	STATUS	SCREENED FORMATION	DESCRIPTION
						Northern Area							**Northern Area**				
PZ05[c]	12	Fall 2012	HSA	1646574.61	2498262.94	6672.50	6675.17	48.7	ND	1.00	PVC	20	28.7 – 48.7	6700 19 – 6720.19	Active	Alluvium	Undifferentiated CL/S/ML
PZ06[c]	12	Fall 2012	HSA	1646328.10	2498719.31	6674.47	6677.19	49.2	ND	1.00	PVC	20	29.2 – 49.2	6702.52 – 6722.52	Active	Alluvium	Undifferentiated CL/S/ML
PZ07[c]	12	Fall 2012	HSA	1645600.90	2500958.04	6683.24	6685.70	32.8	ND	1.00	PVC	20	12.8 – 32 8	6695.16 – 6715.16	Active	Alluvium	Undifferentiated CL/S/ML
PZ08[c]	12	Fall 2012	HSA	1645511.40	2500744.21	6685.03	6687.93	49.0	ND	1.00	PVC	20	29 – 49	6713.16 – 6733.16	Active	Alluvium	Undifferentiated CL/S/ML
PZ09[c]	12	Fall 2012	HSA	1648137.97	2495520.26	6652.37	6654.66	35.6	ND	1.00	PVC	15	20.6 – 35.6	6671.75 – 6686.75	Active	Alluvium	Undifferentiated CL/S/ML
PZ10[c]	12	Fall 2012	HSA	1648008.64	2495406.20	6655.92	6658.31	48.5	ND	1.00	PVC	15	33.5 – 48.5	6688.32 – 6703.32	Active	Alluvium	Undifferentiated CL/S/ML
Wingate 89	10B	01/01/1963	ND	1647927.73	2496972.14	6663.20	6663.70	ND	ND	8.00	PVC	ND	ND	ND	**Abandoned**	Alluvium	ND
Wingate 90	10B	01/02/1963	ND	1648335.14	2495646.34	6655.30	6656.50	102.0	ND	8.00	PVC	ND	ND	ND	**Abandoned**	Alluvium	ND
Wingate 91	10B	01/03/1963	ND	1648705.22	2494863.70	6658.80	6659.70	ND	ND	8.00	PVC	ND	ND	ND	**Abandoned**	Alluvium	ND

NOTES:
a - Horizontal Coordinate System: NM NAD83 State Plane Central
b - Vertical Coordinate System: NAVD88
c - Indicates the well is used for water level measurements only and is not sampled.

ABBREVIATIONS & ACRONYMS:
amsl = above mean sea level
AR = air rotary (drilling method)
bgs = below ground surface
CL = lean clay
ft = feet
FWDA = Fort Wingate Depot Activity
HSA = hollow stem auger (drilling method)
ID = identification
in = inches
ML = silt
NA = not applicable
NAD83 = North American Datum of 1983
NAVD88 = North American Vertical Datum of 1988
ND = not documented
NM = New Mexico
PVC = polyvinyl chloride
S = sand

TABLE 2-2: NORTHERN AREA CONTAMINANTS OF POTENTIAL CONCERN BY SITE AND POINT OF RELEASE

Parcel	SWMU or AOC Site	Soil Investigation Results Soil COPCs	Release to Soil Exceeding SSL	GW Release [1,2]	Proposed Interim GW Monitoring Retain as GW COPC	Area and Aquifer Zone
4A	AOC 29 (Igloo Block C)	Explosives, metals, perchlorate, WP	Removed	No	No per Interim Measures Report	None
4B	None pending transfer to U.S. Department of Interior	–	–	–	–	–
5A	AOC 78 (Feature 18 on 1973 aerial photo)	Explosives, metals, PCB	RA to determine	No	No, pending RA[1]	None
5B	None, pending transfer to U.S. Department of Interior	–	–	–	–	–
6	SWMU 4 (Building 600, Ammunition Workshop)	Explosives, metals, VOC, SVOC	No, per Parcel 6 RFI	No	No, NFA proposed under RFI	None
	SWMU 8 (Building 537, removed)	PCB, PAH	PAH and PCB in soil to greater than 5 foot depth	No	SVOC pending ICM[1]	Bedrock groundwater north of SWMU
	SWMU 11 (Buildings 541 and 542)	Explosives, metals, VOC, SVOC	No, per Parcel 6 RFI	No	No, NFA proposed under RFI	None
	SWMU 20 (Feature 4, locomotive near Building 542)	Metals, SVOC, PCB, oils, grease	No, per Parcel 6 RFI	No	No, pending ICM[1]	None
	AOC 28 (Igloo Block B)	Explosives, metals	Sampling to determine	No	No, pending metals sampling in ICM[1]	None
	AOC 42 (Building 516)	None	No, per Parcel 6 RFI	No	No, NFA proposed under RFI	None
	AOC 61 (Building 507)	None	No, per Parcel 6 RFI	No	No, NFA proposed under RFI	None
	AOC 75 (Electrical Transformers, removed)	None	No, per Parcel 6 RFI	No	No, NFA proposed under RFI	None
	AOC 80 (Feature 9 on 1962 aerial photo)	None	No, per Parcel 6 RFI	No	No, NFA proposed under RFI	None
	AOC 81 (Feature 11 on 1962 aerial photo)	None	No, per Parcel 6 RFI	No	No, NFA proposed under RFI	None
	AOC 83 (Feature 22 on 1973 aerial photo)	None	No, per Parcel 6 RFI	No	No, NFA proposed under RFI	None
	AOC 84 (Feature 12 on 1962 aerial photo)	None	No, per Parcel 6 RFI	No	No, NFA proposed under RFI	None
7	SWMU 9 (POL Waste Discharge Area)	TPH, VOC, SVOC, PCB, metals	Lead in soil to 1 foot, per Parcel 7 RFI	No	No, pending ICM[1]	None
	SWMU 25 (Trash Burning Ground Property Disposal	Pesticides, VOC, SVOC, PCB, metals	No, per Parcel 7 RFI	No	None	None
	AOC 43 (Railroad Classification Yard)	Dioxins/Furans	Yes, one surface sample	No	None	None
	AOC 75 (Electrical Transformers, removed)	None	No, per Parcel 7 RFI	No	None	None
8	None, pending transfer to U.S. Department of Interior	–	–	–	–	–
9	AOC 18 (Igloo Block A)	Explosives, metals	RFI to determine	No	No, pending Parcel 9 RFI[1]	None
	AOC 85 (Feature 11 1 on 1962 aerial photo and Feature 1 on 1973 aerial photo)	Explosives, metals	RFI to determine	No	No, pending Parcel 9 RFI[1]	None
10A	SWMU 26 (Suspected POL Area)	TPH, VOC, SVOC, PCB, metals	No, per Parcel 10 RFI	No	None	None
	AOC 44 (Former Administration and Utilities Area)	Pesticides, VOC, SVOC, metals	No, per Parcel 10 RFI	No	None	None
10B	None, pending transfer to U.S. Department of Interior	–	–	–	–	–
11	SWMU 3 (Fenced Storage Yard)	DRO, PAH, metals	PAH and DRO in soil to 1 foot depth	No	No, pending Parcel 11 Phase 2 RFI[1]	None
	SWMU 5 (Building 5, Regimental Garage)	None	No, per Parcel 11 RFI	No	None	None
	SWMU 6 (Building 11, Former Locomotive Shop)	DRO, SVOC, PCB	Yes, DRO in soil. Depth not defined.	No	DRO, SVOC	Alluvial groundwater west of SWMU
	SWMU 10 (Sewage Treatment Plan, Bldgs. 22, T 37, 63, 69 through 74d, 82, 83, document incinerator)	MEC, explosives, VOC, SVOC, nitrate, pesticides	No per Phase 1 RFI, Phase 2 RFI planned	No	No, pending Parcel 11 Phase 2 RFI[1]	None
	SWMU 23 (Buildings 7 and 9, Paint and Carpenter Shops)	DRO, SVOC, metals	PAH and metals in soil to 1 foot depth	No	No, pending Parcel 11 Phase 2 RFI[1]	None
	SWMU 24 (Buildings 15 Garage and Storage Shop)	VOC, SVOC, DRO, PCB, pesticides, metals	PAH, pesticides and metals in soil to 2 foot depth	No	No, pending Parcel 11 Phase 2 RFI[1]	None
	SWMU 37 (Buildings 9 Machine and Signal Shop)	VOC, SVOC, PCB, metals	PAH and metals in drain sediments	No	No	None
	SWMU 40 (South Administration Area, Coal Tar Storage Tanks 58 60)	VOC, SVOC, PCB, DRO, GRO, pesticides, herbicides, metals	DRO, PAH, metals, and PCB in soil to 1 foot depth	No	No, pending Parcel 11 Phase 2 RFI[1]	None
	SWMU 45 (Building 6 Gas Station)	DRO, GRO, VOC, metals	DRO, GRO, VOC	Yes	DRO GRO, VOC, SVOC, metals	Alluvial groundwater west of SWMU
	SWMU 48 (Buildings 10)	Metals	No, per Parcel 11 RFI	No	No	None
	SWMU 49 (Buildings 12)	SVOC, PCB, metals	PAH and metals in soil to 1 foot depth	No	No	None
	SWMU 50 (Structure 35, UST 7)	GRO, DRO, VOC, metals	VOC to undetermined depth	Yes	VOC, metals	Alluvial groundwater west of SWMU
	SWMU 51 (Buildings 29)	SVOC, PCB, metals	Metals in soil to 1 foot depth	No	No	None
	SWMU 52 (Buildings T 33)	SVOC, PCB, metals	PAH and metals in soil to 1 foot depth	No	No	None
	SWMU 53 (Buildings 36)	SVOC, PCB, metals	PAH and metals in soil to 1 foot depth	No	No	None
	SWMU 54 (UST 5)	DRO, heating oil	No	No	No	No
	AOC 46 (AST near Bog. 11)	DRO	No, per Parcel 11 RFI	No	No	None
	AOC 47 (spill of photoflash powder west of Bldg.11)	Nitrate, perchlorate	No, per Parcel 11 RFI	No	No	None
	AOC 48 (Building 34, Fire Station)	VOC, SVOC, PCB, DRO, metals	No, per Parcel 11 RFI.	No	No	None

TABLE 2-2: NORTHERN AREA CONTAMINANTS OF POTENTIAL CONCERN BY SITE AND POINT OF RELEASE

Parcel	SWMU or AOC Site	Soil Investigation Results Soil COPCs	Release to Soil Exceeding SSL	GW Release [1,2]	Proposed Interim GW Monitoring Retain as GW COPC	Area and Aquifer Zone
11	AOC 49 (Structures 38, 39, Loading Docks)	VOC, SVOC, PCB, metals	No	No	No	No
	AOC 51 (Structure 64, UST)	GRO, DRO, VOC, metals	No, per Parcel 11 RFI. ICM planned	No	No, pending ICM[1]	None
	AOC 52 (Buildings 79, 80, Storage Vaults)	VOC, SVOC, PCB, pesticides, Herbicides, metals	No, per Parcel 11 RFI. ICM planned	No	No, pending ICM[1]	None
	AOC 55 (Structure T 49)	SVOC, PCB, metals	PAH and metals in soil to 1 foot depth	No	No	None
	AOC 56 (Structure T 50)	SVOC, PCB, metals	No	No	No	No
	AOC 57 (Building 14)	VOC, SVOC, PCB, pesticides, herbicides, metals	SVOC and metals in soil to 1 foot depth	No	No, pending ICM[1]	None
	AOC 75 (Electrical Transformers)	PCBs	No, per Parcel 11 RFI.	No	No, NFA proposed under RFI	No
	AOC 83 (Structure 63)	GRO, DRO, VOC, metals	DRO and metals in soil to 1 foot depth	No	No, pending ICM[1]	None
	AOC 87 (Structure 57)	DRO, SVOC, metals	DRO in soil to 1 foot depth	No	No	None
12	None, pending transfer to U.S. Department of Interior	–	–	–	–	–
13	AOC 53 (Lake Knudson)	Explosives, VOC, SVOC, pesticides, perchlorate, metals	No, per Parcel 13 RFI	No	No	None
	AOC 54 and AOC 57 (Buildings 306 to 311, Standard Magazines)	Explosives, perchlorate, VOC, SVOC, PCB, pesticides, metals	PAHs and metals in soil to 1 foot depth	No	No	None
	AOC 55 (Structure 506, TNT Storage Barricade)	Explosives, metals	No, per Parcel 13 RFI	No	No	None
	AOC 56 (Structure 533, explosives exceeding Barricade)	Explosives, metals	No, per Parcel 13 RFI	No	No	None
14	None, pending transfer to U.S. Department of Interior	–	–	–	–	–
15	None, transferred to U.S. Department of Interior	–	–	–	–	–
16	SWMU 16 (Functional Test Range 2/3)	Explosives, metals, asbestos, perchlorate, SVOC	Explosives and asbestos in soil to 1 foot depth	No	No, pending ICM[1]	None
	AOC 41 (Igloo Block K)	Explosives, metals	Metals in soil to 1 foot depth	No	No, pending ICM[1]	None
	AOC 57 (Buildings 306 310, Standard Magazines)	Explosives, metals	No	No	No	None
17	None, transferred to U.S. Department of Interior	–	–	–	–	–
18	SWMU 13 (Eastern Landfill, Removed)	None	Removed	No	No	None
19	SWMU 39 (Pistol Range)	Lead	RFI to determine	No	No, pending Parcel 19 RFI[1]	None
	AOC 30 (Igloo Block D)	Explosives, metals	RFI to determine	No	No, pending Parcel 19 RFI[1]	None
	AOC 31 (Igloo Block E)	Explosives, metals	RFI to determine	No	No, pending Parcel 19 RFI[1]	None
	AOC 32 (Igloo Block F)	Explosives, metals	RFI to determine	No	No, pending Parcel 19 RFI[1]	None
	AOC 34 (Igloo Block G)	Explosives, metals	RFI to determine	No	No, pending Parcel 19 RFI[1]	None
	AOC 58 (Buildings 303, 304, Standard Magazines; Building 320, Field Dunnage)	Explosives, asbestos, VOC, SVOC, PCB, metals	RFI to determine	No	No, pending Parcel 19 RFI[1]	None
	AOC 59 (Building T 422, Normal Maintenance, Bomb and Shell Paint)	Explosives, VOC, SVOC, PCB, metals	RFI to determine	No	No, pending Parcel 19 RFI[1]	None
21	SWMU 1 (TNT Leaching Beds and Building 503)	Explosives, VOC, SVOC, pesticides, herbicides, PCB, perchlorate, metals	Explosives and metals to depth of water table	Yes	Explosives, nitrate, metals	Alluvial groundwater north and west of SWMU. Suspected bedrock to southwest.
	SWMU 2 (Building 515, Painting and Acid Washout and Acid Holding Pond)	VOC, SVOC, PCB, pesticides, metals	Metals in soil to 1 foot depth	No	No, pending ICM[1]	None
	SWMU 7 (Fire Training Ground)	VOC, SVOC, metals	DRO in soil to undefined depth	No	DRO, pending ICM1	Alluvial groundwater north and west of Building 31
	SWMU 19 (Building 501, Former Boiler House and Heating Plant 7)	VOC, SVOC, DRO, PCB, pesticides, metals	No, per Parcel 21 RFI	No	No, NFA proposed under RFI	None
	SWMU 72 (Deactivation Furnace and Acid Pits)	MEC, VOC, SVOC, DRO, metals	No, per Parcel 21 RFI	No	No, NFA proposed under RFI	None
	AOC 60 (Building 522 Ammunition Receiving)	MEC, VOC, SVOC, DRO, metals	No, per Parcel 21 RFI	No	No	None
	AOC 61 (Building 507, Smokeless Powder Magazine)	Explosives, metals	No, per Parcel 21 RFI	No	No	None
	AOC 62 (Building 508, Smokeless Powder Magazine)	Explosives, SVOC, nitrate, perchlorate, metals	No, per Parcel 21 RFI	No	No, NFA proposed under RFI	None
	AOC 63 (Building 509, Primary Collector Barricade or Propellant Baghouse)	Explosives, SVOC, nitrate, PCB, metals	Explosives in soil to 1 foot depth	No	No, pending ICM[1]	None
	AOC 64 (Building 510, Vacuum Producer Building)	Explosives, SVOC, nitrate, PCB, metals	Explosives, PCB in soil to 1 foot depth	No	No, pending ICM[1]	None
	AOC 65 (Building 511, Service Magazine)	Explosives, SVOC, PCB, metals	No, per Parcel 21 RFI	No	No, NFA proposed under RFI	None
	AOC 66 (Building 512, Service Magazine)	Explosives, SVOC, PCB, metals	No, per Parcel 21 RFI	No	No, NFA proposed under RFI	None
	AOC 67 (Building 513, Service Magazine)	Explosives, SVOC, PCB, metals	No, per Parcel 21 RFI	No	No, NFA proposed under RFI	None
	AOC 68 (Structures 514 and 545, Deboostering Barricade,	Explosives, SVOC, nitrate, PCB, metals	Explosives in soil to 1 foot depth		No, pending ICM1	None

TABLE 2-2: NORTHERN AREA CONTAMINANTS OF POTENTIAL CONCERN BY SITE AND POINT OF RELEASE

Parcel	SWMU or AOC Site	Soil Investigation Results Soil COPCs	Release to Soil Exceeding SSL	GW Release [1,2]	Proposed Interim GW Monitoring Retain as GW COPC	Area and Aquifer Zone
21	AOC 75 (Electrical Transformers)	PCB	No, per Parcel 21 RFI	No	No, NFA proposed under RFI	None
	AOC 86 (Feature 15 on 1973 aerial photo)	None	No	No	No, NFA proposed under RFI	None
	AOC 87 (Feature 18 on 1962 aerial photo, and Feature 23	None	No	No	No, NFA proposed under RFI	None
22	SWMU 12 (Building 536, Inspectors Workshop, Ammunition Renovation Depot, one PCB transformer)	Explosives, VOC, SVOC, pesticides, PCB, metals	Explosives, PAH, PCB, metals in manhole sediment	No	No, pending munitions response team1	None
	SWMU 27 (Building 528 Complex)	Explosives, perchlorate, VOC, SVOC, PCB, metals	PAH in soil to 1 foot depth	Yes	Perchlorate, explosives, nitrate, metals	Alluvial and bedrock groundwater north and west of SWMU
	SWMU 70 (Buildings 517 520, Disassembly Plant and Test	Explosives, SVOC, PCB, metals	No, per Parcel 22 RFI	No	No, NFA proposed under RFI	None
	AOC 30 (Igloo Block D)	Explosives, SVOC, metals	Explosives, metals in soil to 1 foot depth	No	No, pending ICM[1]	None
	AOC 69 (Buildings 301, 302, 312, Standard Magazines; Building 316, Field Lunch Room)	Explosives, VOC, SVOC, DRO, nitrate, PCB, metals	DRO, PAH, and metals in soil to 3 foot depth	No	No, pending ICM[1]	None
	AOC 71 (Former rectangular structure near TMW 5 and north of Bldg. 528)	Explosives, VOC, SVOC, nitrate, PCB, metals	No, per Parcel 22 RFI	No	No	None
	AOC 75 (Electrical Transformers)	PCB	No, per Parcel 22 RFI	No	No, NFA proposed under RFI	None
	AOC 88 (Former buildings south of Bldg. 528)	Explosives, VOC, SVOC pesticides, PCB, metals	No, per Parcel 22 RFI	No	No, NFA proposed under RFI	None
	AOC 121 (Building 528B, temporary storage igloo)	Explosives, perchlorate, VOC, SVOC, PCB, metals	No, per Parcel 22 RFI	No	No	None
	AOC 122 (Building 529)	Explosives, perchlorate, VOC, SVOC, PCB, metals	No, per Parcel 22 RFI	No	No	None
	AOC 125 (Building 550, vacuum collector barricade)	Explosives, perchlorate, VOC, SVOC, PCB, metals	No, per Parcel 22 RFI	No	No	None
23	SWMU 21 (Central Landfill, Removed)	Explosives, pesticides, herbicide, VOC, SVOC, PCB, metals	Removed. Residual PAH, metals to 18 foot depth	No	No, pending additional ICM[1]	None
	AOC 73 (Former structures along Road C 3)	Explosives, SVOC, metals	No, per Parcel 23 RFI	No	No	None
24	AOC 18 (Igloo Block A)	Explosives, SVOC, metals	Metals in soil to 1 foot depth	No	No, pending ICM[1]	None
25	None, pending transfer to U.S. Department of Interior	–	–	–	–	–

NOTES:
1 For the purposes of interim measures planning, there is no release to groundwater considered without investigation data documenting impacts in the groundwater media.
2 A pathway for transport of contaminants to groundwater is known when the contaminants are detected in groundwater in excess of screening levels. A pathway is suspected when releases of soluble contaminants exceeding soil screening levels are not vertically delineated in subsurface soils.

Blue highlight = point of groundwater release.

ABBREVIATIONS & ACRONYMS:
AOC = area of concern
Bldg. = building
COPC = contaminant of potential concern
DRO = diesel range organics
GRO = gasoline range organics
GW = groundwater
ICM = interim corrective measures
NFA = no further action
PAH = polyaromatic hydrocarbon
PCB = polychlorinated biphenol
POL = petroleum, oil, and lubricants
RA = release assessment
RFI = Resource Conservation and Recovery Act Facility Investigation
SSL = soil screening levels
SVOC = semivolatile organic compound
SWMU = solid waste management unit
VOC = volatile organic compound
WP = white phosphorous

TABLE 2-3: NORTHERN AREA GROUNDWATER SAMPLING ANALYTE GROUPS WITH SCREENING LEVEL EXCEEDANCES

Associated Wells	Zone	Constituents of Potential Concern Analyzed	Contaminants Detected	Groups with Cleanup Level/ Screening Level Exceedances	Analyte Groups Retained for Monitoring
Parcel 6 SWMU 8					
BGMW07	Bedrock	Not available	Not available	Not available	Explosives, Metals, Anions, Perchlorate, SVOCs, VOCs
BGMW08	Bedrock	Not available	Not available	Not available	
BGMW09	Bedrock	Not available	Not available	Not available	
BGMW10	Bedrock	Not available	Not available	Not available	
TMW14A	Bedrock	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans	Explosives, Metals, Anions, SVOC, VOC	Metals, Anions, SVOC, VOC	
TMW16	Bedrock	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans	Explosives, Metals, Perchlorate, SVOC, VOC	Metals	
TMW17	Bedrock	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans	Metals, Anions, Perchlorate, VOC	Metals	
TMW18	Bedrock	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans	Explosives, Metals, Anions, Perchlorate, SVOC, VOC	Metals, SVOC, VOC	
TMW36	Bedrock	Explosives, Metals, Anions, Perchlorate, Phosphorus, SVOC, VOC, Cyanide, Dioxins/Furans, Herbicides, Pesticides, TPH	Explosives, Metals, Anions, Perchlorate, SVOC, Tph, VOC, Pesticides	Metals, SVOC, VOC	
TMW37	Bedrock	Explosives, Metals, Anions, Perchlorate, Phosphorus, SVOC, VOC, Cyanide, Dioxins/Furans, Herbicides, Pesticides, TPH	Explosives, Metals, Anions, Perchlorate, SVOC, Tph, VOC, Pesticides	Metals, Perchlorate, VOC	
TMW38	Bedrock	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, SVOC	
TWM19	Not available	Not available	Not available	Not available	
Parcel 11 SWMU 6					
BGMW01	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Anions, SVOC, VOC	Metals	Metals, Anions, SVOCs, VOCs, TPH
BGMW03	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Anions, Perchlorate, SVOC, VOC	Metals	
MW23	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, SVOC, VOC	
MW24	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, SVOC, VOC	Metals	
TMW24	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides	Metals, Anions, VOC, Pesticides	Metals	
TMW25	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides	Metals, Anions, VOC	Metals	
TMW26	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides	Explosives, Metals, Anions, Perchlorate, VOC, Pesticides	Metals, VOC	
TMW28	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides	Metals, Anions, VOC	Metals, VOC	
TMW34	Alluvium	Metals, Anions, Perchlorate, VOC, TPH	Metals, Anions, Perchlorate, Tph, VOC	Metals, Anions	
TMW46	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Anions, Perchlorate, SVOC	Metals, Anions	
Parcel 11 SWMU 45					
BGMW01	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Anions, SVOC, VOC	Metals	Explosives, Metals, Anions, SVOCs, VOCs, TPH
BGMW03	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Anions, Perchlorate, SVOC, VOC	Metals	
MW18D	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides, PCB, TPH	Explosives, Metals, Anions, Perchlorate, SVOC, Tph, VOC, Pesticides	Explosives, Metals, Anions, VOC	

TABLE 2-3: NORTHERN AREA GROUNDWATER SAMPLING ANALYTE GROUPS WITH SCREENING LEVEL EXCEEDANCES

Associated Wells	Zone	Constituents of Potential Concern Analyzed	Contaminants Detected	Groups with Cleanup Level/ Screening Level Exceedances	Analyte Groups Retained for Monitoring
MW18S	Alluvium	Not available	Not available	Not available	
MW20	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides, PCB, TPH	Metals, Anions, Perchlorate, SVOC, TPH, VOC, Pesticides	Metals, Anions, SVOC, VOC	
MW22D	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides, PCB, TPH	Metals, Anions, Perchlorate, SVOC, TPH, VOC, Pesticides	Metals, Anions, SVOC, VOC	
MW22S	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides, PCB, TPH	Explosives, Metals, Anions, Perchlorate, SVOC, Tph, VOC, Pesticides	Metals, Anions, VOC	
MW23	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, SVOC, VOC	
MW24	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, SVOC, VOC	Metals	
TMW23	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions	
TMW24	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides	Metals, Anions, VOC, Pesticides	Metals	
Parcel 11 SWMU 50					
BGMW01	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Anions, SVOC, VOC	Metals	Metals, Anions, SVOCs, VOCs, TPH
BGMW03	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Anions, Perchlorate, SVOC, VOC	Metals	
MW01	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides, TPH	Explosives, Metals, Anions, Perchlorate, SVOC, TPH, VOC, Pesticides	Metals, Anions, VOC	
MW02	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides, TPH	Explosives, Metals, Anions, Perchlorate, SVOC, TPH, VOC	Metals, VOC	
MW03	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides, TPH	Explosives, Metals, Anions, Perchlorate, TPH, VOC	Metals, Anions, VOC	
MW23	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, SVOC, VOC	
MW24	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, SVOC, VOC	Metals	
TMW08	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides, PCB, TPH	Metals, Anions, SVOC, TPH, VOC, Pesticides	Metals, Anions, VOC	
TMW24	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides	Metals, Anions, VOC, Pesticides	Metals	
TMW45	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Anions, Perchlorate, SVOC, VOC	Metals	
Parcel 21 SWMU 1					
BGMW01	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Anions, SVOC, VOC	Metals	Explosives, Metals, Anions, Perchlorate, SVOCs, VOCs, TPH
BGMW02	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Anions, Perchlorate, SVOC, VOC	Metals, Anions	
BGMW03	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Anions, Perchlorate, SVOC, VOC	Metals	
BGMW07	Bedrock	Not available	Not available	Not available	
BGMW08	Bedrock	Not available	Not available	Not available	
BGMW09	Bedrock	Not available	Not available	Not available	
BGMW10	Bedrock	Not available	Not available	Not available	
MW03	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides, TPH	Explosives, Metals, Anions, Perchlorate, Tph, VOC	Metals, Anions, VOC	

TABLE 2-3: NORTHERN AREA GROUNDWATER SAMPLING ANALYTE GROUPS WITH SCREENING LEVEL EXCEEDANCES

Associated Wells	Zone	Constituents of Potential Concern Analyzed	Contaminants Detected	Groups with Cleanup Level/ Screening Level Exceedances	Analyte Groups Retained for Monitoring
MW22D	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides, PCB, TPH	Metals, Anions, Perchlorate, SVOC, Tph, VOC, Pesticides	Metals, Anions, SVOC, VOC	
MW23	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, SVOC, VOC	
MW24	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, SVOC, VOC	Metals	
SMW01	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides	Explosives, Metals, Anions, Perchlorate, SVOC, VOC	Metals, Anions, SVOC	
TMW02	Bedrock	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans	Explosives, Metals, Anions, Perchlorate, VOC	Explosives, Metals, Anions, Perchlorate	
TMW03	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans	Explosives, Metals, Anions, Perchlorate, SVOC, VOC	Explosives, Metals, Anions, SVOC	
TMW04	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans	Explosives, Metals, Anions, Perchlorate, SVOC, VOC	Explosives, Metals, Anions	
TMW06	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans	Explosives, Metals, Anions, SVOC, VOC	Metals, Anions	
TMW07	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans	Explosives, Metals, Anions, SVOC, VOC	Metals, Anions, SVOC	
TMW08	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides, PCB, TPH	Metals, Anions, SVOC, TPH, VOC, Pesticides	Metals, Anions, VOC	
TMW10	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides, PCB, TPH	Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Anions	
TMW11	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans	Explosives, Metals, Anions, Perchlorate, VOC	Metals, Anions, VOC	
TMW13	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, PCB	Metals, Anions, Perchlorate, VOC	Metals, Anions, VOC	
TMW14A	Bedrock	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans	Explosives, Metals, Anions, SVOC, VOC	Metals, Anions, SVOC, VOC	
TMW15	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides	Explosives, Metals, Anions, Perchlorate, SVOC, VOC	Metals, VOC	
TMW16	Bedrock	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans	Explosives, Metals, Perchlorate, SVOC, VOC	Metals	
TMW17	Bedrock	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans	Metals, Anions, Perchlorate, VOC	Metals	
TMW18	Bedrock	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans	Explosives, Metals, Anions, Perchlorate, SVOC, VOC	Metals, SVOC, VOC	
TMW19	Bedrock	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans	Explosives, Metals, Perchlorate, SVOC, VOC	Metals, SVOC	
TMW21	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans	Explosives, Metals, Anions, Perchlorate, VOC	Metals, Anions	
TMW22	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides, TPH	Explosives, Metals, Anions, Perchlorate, SVOC, VOC	Metals, Anions	
TMW23	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions	
TMW24	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides	Metals, Anions, VOC, Pesticides	Metals	
TMW25	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides	Metals, Anions, VOC	Metals	
TMW26	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides	Explosives, Metals, Anions, Perchlorate, VOC, Pesticides	Metals, VOC	
TMW27	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides	Metals, Perchlorate, VOC	Metals	
TMW28	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides	Metals, Anions, VOC	Metals, VOC	

TABLE 2-3: NORTHERN AREA GROUNDWATER SAMPLING ANALYTE GROUPS WITH SCREENING LEVEL EXCEEDANCES

Associated Wells	Zone	Constituents of Potential Concern Analyzed	Contaminants Detected	Groups with Cleanup Level/ Screening Level Exceedances	Analyte Groups Retained for Monitoring
TMW29	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans	Metals, Anions, Perchlorate, VOC	Metals, Anions, VOC	
TMW31S	Alluvium	Explosives, Metals, Anions, Perchlorate, Phosphorus, SVOC, VOC, Cyanide, Dioxins/Furans, Herbicides, Pesticides, TPH	Explosives, Metals, Anions, Perchlorate, SVOC, TPH, VOC	Metals, Anions, Perchlorate, SVOC	
TMW34	Alluvium	Metals, Anions, Perchlorate, VOC, TPH	Metals, Anions, Perchlorate, TPH, VOC	Metals, Anions	
TMW36	Bedrock	Explosives, Metals, Anions, Perchlorate, Phosphorus, SVOC, VOC, Cyanide, Dioxins/Furans, Herbicides, Pesticides, TPH	Explosives, Metals, Anions, Perchlorate, SVOC, TPH, VOC, Pesticides	Metals, SVOC, VOC	
TMW37	Bedrock	Explosives, Metals, Anions, Perchlorate, Phosphorus, SVOC, VOC, Cyanide, Dioxins/Furans, Herbicides, Pesticides, TPH	Explosives, Metals, Anions, Perchlorate, SVOC, TPH, VOC, Pesticides	Metals, Perchlorate, VOC	
TMW38	Bedrock	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, SVOC	
TMW40	Not available	Not available	Not available	Not available	
TMW40S	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions, Perchlorate	
TMW41	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals	
TMW43	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions, SVOC, VOC	Metals	
TMW44	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions, Perchlorate, SVOC	Explosives, Metals, Anions	
TMW45	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Anions, Perchlorate, SVOC, VOC	Metals	
TMW46	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Anions, Perchlorate, SVOC	Metals, Anions	
TMW47	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions, Perchlorate, VOC, Pesticides	Anions	
TMW49	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Perchlorate	
Parcel 21 SWMU 7					
BGMW01	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Anions, SVOC, VOC	Metals	Metals, Anions, SVOCs, VOCs
BGMW03	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Anions, Perchlorate, SVOC, VOC	Metals	
MW23	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, SVOC, VOC	
MW24	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, SVOC, VOC	Metals	
TMW21	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans	Explosives, Metals, Anions, Perchlorate, VOC	Metals, Anions	
TMW25	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides	Metals, Anions, VOC	Metals	
TMW45	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Anions, Perchlorate, SVOC, VOC	Metals	
Parcel 22 SWMU 27					
BGMW01	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Anions, SVOC, VOC	Metals	Explosives, Metals, Anions, Perchlorate, SVOCs, VOCs
BGMW03	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Anions, Perchlorate, SVOC, VOC	Metals	
BGMW07	Bedrock	Not available	Not available	Not available	
BGMW08	Bedrock	Not available	Not available	Not available	

TABLE 2-3: NORTHERN AREA GROUNDWATER SAMPLING ANALYTE GROUPS WITH SCREENING LEVEL EXCEEDANCES

Associated Wells	Zone	Constituents of Potential Concern Analyzed	Contaminants Detected	Groups with Cleanup Level/ Screening Level Exceedances	Analyte Groups Retained for Monitoring
BGMW09	Bedrock	Not available	Not available	Not available	
BGMW10	Bedrock	Not available	Not available	Not available	
MW23	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, SVOC, VOC	
MW24	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, SVOC, VOC	Metals	
TMW01	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans	Explosives, Metals, Anions, Perchlorate, VOC	Metals, Anions, Perchlorate, VOC	
TMW02	Bedrock	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans	Explosives, Metals, Anions, Perchlorate, VOC	Explosives, Metals, Anions, Perchlorate	
TMW03	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans	Explosives, Metals, Anions, Perchlorate, SVOC, VOC	Explosives, Metals, Anions, SVOC	
TMW11	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans	Explosives, Metals, Anions, Perchlorate, VOC	Metals, Anions, VOC	
TMW13	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, PCB	Metals, Anions, Perchlorate, VOC	Metals, Anions, VOC	
TMW14A	Bedrock	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans	Explosives, Metals, Anions, SVOC, VOC	Metals, Anions, SVOC, VOC	
TMW15	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Dioxins/Furans, Pesticides	Explosives, Metals, Anions, Perchlorate, SVOC, VOC	Metals, VOC	
TMW30	Bedrock	Explosives, Metals, Anions, Perchlorate, Phosphorus, SVOC, VOC, Cyanide, Dioxins/Furans, Herbicides, Pesticides, TPH	Explosives, Metals, Anions, Perchlorate, SVOC, TPH, VOC, Pesticides	Metals, Anions, Perchlorate	
TMW31D	Bedrock	Explosives, Metals, Anions, Perchlorate, Phosphorus, SVOC, VOC, Cyanide, Dioxins/Furans, Herbicides, Pesticides, TPH	Explosives, Metals, Anions, Perchlorate, SVOC, VOC	Anions, Perchlorate	
TMW31S	Alluvium	Explosives, Metals, Anions, Perchlorate, Phosphorus, SVOC, VOC, Cyanide, Dioxins/Furans, Herbicides, Pesticides, TPH	Explosives, Metals, Anions, Perchlorate, SVOC, TPH, VOC	Metals, Anions, Perchlorate, SVOC	
TMW32	Bedrock	Explosives, Metals, Anions, Perchlorate, Phosphorus, SVOC, VOC, Cyanide, Dioxins/Furans, Herbicides, Pesticides, TPH	Explosives, Metals, Anions, Perchlorate, SVOC, TPH, VOC	Metals, Anions, Perchlorate	
TMW36	Bedrock	Explosives, Metals, Anions, Perchlorate, Phosphorus, SVOC, VOC, Cyanide, Dioxins/Furans, Herbicides, Pesticides, TPH	Explosives, Metals, Anions, Perchlorate, SVOC, TPH, VOC, Pesticides	Metals, SVOC, VOC	
TMW38	Bedrock	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, SVOC	
TMW39D	Bedrock	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions, Perchlorate, SVOC	Metals, Perchlorate	
TMW39S	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Perchlorate, SVOC, VOC	
TMW40D	Bedrock	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Anions, Perchlorate	Metals, Anions, Perchlorate	
TMW40S	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions, Perchlorate	
TMW41	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals	
TMW47	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions, Perchlorate, VOC, Pesticides	Anions	
TMW48	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Explosives, Metals, Anions, Perchlorate, SVOC	Metals, Anions, Perchlorate	
TMW49	Alluvium	Explosives, Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Anions, Perchlorate, SVOC, VOC, Pesticides	Metals, Perchlorate	

ABBREVIATIONS and ACRONYMS:
AOC = area of concern
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
TPH = total petroleum hydrocarbons
VOC = volatile organic compound

TABLE 2-4: NORTHERN AREA MONITORING NETWORK BY SITE AND POINT OF RELEASE

COPC	Point of Release/Parcel Number	Release Type	Primary Downgradient Well	Upgradient Well	Background Well	Sentinel Well
Nitrates	SWMU 1/Parcel 21	Alluvial = Large	MW03 MW22D SMW01 TMW03 TMW10 TMW21 TMW22 TMW23 TMW25 TMW34 TMW40S TMW43 TMW45 TMW46	BGMW02 TMW24 TMW47	BGMW01 BGMW03	MW23 MW24
		Bedrock = Suspected	TMW02 TMW36 TMW38 TMW40D	None, dry	BGMW07 BGMW08 BGMW09 BGMW10 TMW18 TMW19	None
	SWMU 27/Parcel 22	Bedrock = Large	TMW02 TMW30 TMW31D TMW32 TMW39D TMW48	None, dry	BGMW07 BGMW08 BGMW09 BGMW10 TMW18 TMW19	None
		Alluvial = Suspected	TMW01 TMW13 TMW31S TMW41	None, dry	BGMW01 BGMW03	MW23 MW24
Explosives	SWMU 1/Parcel 21	Alluvial = Large	MW03 TMW03 TMW06 TMW22 TMW23 TMW40S TMW43 TMW45	BGMW02 TMW47	BGMW01 BGMW03	MW23 MW24
		Bedrock = Suspected	TMW02 TMW36 TMW38 TMW40D	None, dry	TMW18 TMW19	None

TABLE 2-4: NORTHERN AREA MONITORING NETWORK BY SITE AND POINT OF RELEASE

COPC	Point of Release/Parcel Number	Release Type	Primary Downgradient Well	Upgradient Well	Background Well	Sentinel Well
Explosives	SWMU 27/Parcel 22	Bedrock = Large	TMW02	None, dry	BGMW07	None
			TMW30		BGMW08	
			TMW31D		BGMW09	
			TMW32		BGMW10	
			TMW39D		TMW18	
			TMW48		TMW19	
		Alluvial = Suspected	TMW01	None, dry	BGMW01	MW23
			TMW13		BGMW03	MW24
			TMW31S			
			TMW41			
Perchlorate	SWMU 27/Parcel 22	Bedrock = Large	TMW02	None, dry	BGMW07	None
			TMW30		BGMW08	
			TMW31D		BGMW09	
			TMW32		BGMW10	
			TMW36		TMW18	
			TMW38		TMW19	
			TMW39D			
			TMW40D			
			TMW48			
		Alluvial = Large	TMW01	None, dry	BGMW01	MW23
			TMW03		BGMW03	MW24
			TMW13			
			TMW31S			
			TMW39S			
			TMW41			
Metals	SWMU 45/Parcel 11	Suspected	MW18D	TMW24	BGMW01	MW23
			TMW33		BGMW03	MW24
			TMW34			
	SWMU 50/Parcel 11	Suspected	MW01	TMW24	BGMW01	MW23
			MW18D		BGMW03	MW24
	SWMU 1/Parcel 21	Alluvial = Large	TMW10	BGMW02	BGMW01	MW23
			TMW21	TMW24	BGMW03	MW24
			TMW23	TMW47		
			TMW25			
			TMW27			
			TMW34			
			TMW40S			
			TMW44			
			TMW46			
		Bedrock = Suspected	TMW02	None, dry	BGMW07	None
			TMW36		BGMW08	

TABLE 2-4: NORTHERN AREA MONITORING NETWORK BY SITE AND POINT OF RELEASE

COPC	Point of Release/Parcel Number	Release Type	Primary Downgradient Well	Upgradient Well	Background Well	Sentinel Well
Metals			TMW38 TMW40D		BGMW09 BGMW10 TMW18 TMW19	
	SWMU 27/Parcel 22	Bedrock = Large	TMW02 TMW30 TMW31D TMW32 TMW36 TMW39D TMW48	None, dry	BGMW07 BGMW08 BGMW09 BGMW10 TMW18 TMW19	None
		Alluvial = Suspected	TMW01 TMW13 TMW31S TMW41	None, dry	BGMW01 BGMW03	MW23 MW24
VOC	SWMU 45/Parcel 11	Small	MW18D MW20 MW22D TMW33 TMW46	TMW24 TMW45	BGMW01 BGMW03	MW23 MW24
	SWMU 50/Parcel 11	Small	MW01 MW02 MW03	TMW24 TMW45	BGMW01 BGMW03	MW23 MW24
SVOC	SWMU 8/Parcel 6	Suspected	TMW14A TMW16 TMW17	None, dry	BGMW07 BGMW08 BGMW09 BGMW10 TMW18 TMW19	None
	SWMU 6/Parcel 11	Suspected	TMW34 TMW46	TMW24	BGMW01 BGMW03	MW23 MW24
	SWMU 45/Parcel 11	Small	MW18D MW20 TMW34 TMW46	TMW24	BGMW01 BGMW03	MW23 MW24
DRO	SWMU 6/Parcel 11	Suspected	MW18D TMW25 TMW34 TMW46	TMW24	BGMW01 BGMW03	MW23 MW24
	SWMU 7/Parcel 21	Suspected	TMW21 TMW25	TMW45	BGMW01 BGMW03	MW23 MW24

TABLE 2-4: NORTHERN AREA MONITORING NETWORK BY SITE AND POINT OF RELEASE

COPC	Point of Release/Parcel Number	Release Type	Primary Downgradient Well	Upgradient Well	Background Well	Sentinel Well
DRO	SWMU 45/Parcel 11	Small	MW18D MW20 MW22D TMW33	TMW24	BGMW01 BGMW03	MW23 MW24
GRO	SWMU 45/Parcel 11	Small	MW18D MW20 MW22D TMW33	TMW24	BGMW01 BGMW03	MW23 MW24
	SWMU 50/Parcel 11	Small	MW01 MW02 MW03 TMW46	TMW24 TMW45	BGMW01 BGMW03	MW23 MW24

NOTES:
Large = contaminant plume greater than 500 feet in any direction
Small = contaminant plume less than 500 feet in longest dimension
Suspected = contaminant plume not delineated historically

ABBREVIATIONS & ACRONYMS:
COPC = contaminant of potential concern
DRO = diesel range organics
GRO = gasoline range organics
SVOC = semivolatile organic compound
SWMU = solid waste management unit
VOC = volatile organic compound

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
Northern Area Groundwater Elevations (Wells Screened in Alluvial Sediments)							
BGMW01	Alluvial	12.5-32.5	33.0	6,692.68	Jul-14	19.22	6,673.46
					Oct-14	19.27	6,673.41
					Jan-15	19.02	6,673.66
					Mar-15	18.95	6,673.73
					Jul-15	19.42	6,673.26
					Oct-15	19.64	6,673.04
					Jan-16	19.31	6,673.37
					Apr-16	19.35	6,673.33
					Jul-16	19.87	6,672.81
					Oct-16	19.99	6,672.69
					Jan-17	19.62	6,673.06
					Apr-17	19.48	6,673.20
					Jul-17	20.08	6,672.60
					Oct-17	20.22	6,672.46
					Jan-18	20.00	6,672.68
					Apr-18	19.78	6,672.90
					Jul-18	20.44	6,672.24
					Oct-18	20.55	6,672.13
BGMW02	Alluvial	13.5-33.5	34.0	6,691.99	Jul-14	21.17	6,670.82
					Oct-14	21.41	6,670.58
					Jan-15	21.13	6,670.86
					Mar-15	20.96	6,671.03
					Jul-15	21.36	6,670.63
					Oct-15	21.81	6,670.18
					Jan-16	21.47	6,670.52
					Apr-16	21.35	6,670.64
					Jul-16	21.77	6,670.22
					Oct-16	22.16	6,669.83
					Jan-17	21.77	6,670.22
					Apr-17	21.42	6,670.57
					Jul-17	21.82	6,670.17
					Oct-17	22.31	6,669.68
					Jan-18	22.03	6,669.96
					Apr-18	21.62	6,670.37
					Jul-18	22.40	6,669.59
					Oct-18	22.71	6,669.28
BGMW03	Alluvial	8.5-28.5	29.0	6,680.57	Jul-14	17.05	6,663.52
					Oct-14	17.15	6,663.42
					Jan-15	16.37	6,664.20
					Mar-15	16.09	6,664.48
					Jul-15	16.97	6,663.60
					Oct-15	17.09	6,663.48
					Jan-16	16.71	6,663.86
					Apr-16	16.49	6,664.08
					Jul-16	17.53	6,663.04
					Oct-16	17.88	6,662.69
					Jan-17	17.13	6,663.44
					Apr-17	16.73	6,663.84
					Jul-17	18.87	6,661.70
					Oct-17	17.97	6,662.60
					Jan-18	17.08	6,663.49

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
BGMW03					Apr-18	16.63	6,663.94
					Jul-18	18.00	6,662.57
					Oct-18	18.35	6,662.22
FW31	Alluvial	10.0-50.0	50.0	6,832.49	Jul-14	42.40	6,790.09
					Oct-14	42.49	6,790.00
					Jan-15	42.41	6,790.08
					Mar-15	42.39	6,790.10
					Jul-15	42.55	6,789.94
					Oct-15	42.66	6,789.83
					Jan-16	42.59	6,789.90
					Apr-16	42.65	6,789.84
					Jul-16	42.83	6,789.66
					Oct-16	42.92	6,789.57
					Jan-17	NM	NM
					Apr-17	42.83	6,789.66
					Jul-17	43.00	6,789.49
					Oct-17	43.04	6,789.45
					Jan-18	43.10	6,789.39
					Apr-18	43.01	6,789.48
					Jul-18	43.09	6,789.40
					Oct-18	43.14	6,789.35
FW35	Alluvial	10.0-30.0	30.0	6,711.11	Jul-14	28.95	6,682.16
					Oct-14	30.29	6,680.82
					Jan-15	29.85	6,681.26
					Mar-15	29.51	6,681.60
					Jul-15	30.99	6,680.12
					Oct-15	Dry	Dry
					Jan-16	Dry	Dry
					Apr-16	Dry	Dry
					Jul-16	Dry	Dry
					Oct-16	Dry	Dry
					Jan-17	Dry	Dry
					Apr-17	Dry	Dry
					Jul-17	Dry	Dry
					Oct-17	Dry	Dry
					Jan-18	Dry	Dry
					Apr-18	Dry	Dry
					Jul-18	Dry	Dry
					Oct-18	Dry	Dry
MW01	Alluvial	33.6-53.6	55.0	6,685.94	Jul-14	42.56	6,643.38
					Oct-14	42.63	6,643.31
					Jan-15	42.54	6,643.40
					Mar-15	42.69	6,643.25
					Jul-15	42.63	6,643.31
					Oct-15	42.83	6,643.11
					Jan-16	42.77	6,643.17
					Apr-16	42.95	6,642.99
					Jul-16	42.99	6,642.95
					Oct-16	43.02	6,642.92
					Jan-17	43.19	6,642.75
					Apr-17	43.15	6,642.79
					Jul-17	43.28	6,642.66
					Oct-17	43.39	6,642.55
					Jan-18	43.44	6,642.50

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
MW01					Apr-18	43.40	6,642.54
					Jul-18	43.37	6,642.57
					Oct-18	43.42	6,642.52
MW02	Alluvial	37.0-47.0	48.0	6,685.22	Jul-14	40.33	6,644.89
					Oct-14	40.51	6,644.71
					Jan-15	40.71	6,644.51
					Mar-15	40.76	6,644.46
					Jul-15	40.81	6,644.41
					Oct-15	40.95	6,644.27
					Jan-16	40.97	6,644.25
					Apr-16	41.15	6,644.07
					Jul-16	41.15	6,644.07
					Oct-16	41.27	6,643.95
					Jan-17	41.42	6,643.80
					Apr-17	41.44	6,643.78
					Jul-17	41.56	6,643.66
					Oct-17	41.69	6,643.53
					Jan-18	41.73	6,643.49
					Apr-18	41.76	6,643.46
					Jul-18	41.83	6,643.39
					Oct-18	41.79	6,643.43
MW03	Alluvial	43.0-53.0	53.0	6,689.53	Jul-14	46.36	6,643.17
					Oct-14	46.35	6,643.18
					Jan-15	46.30	6,643.23
					Mar-15	46.42	6,643.11
					Jul-15	46.43	6,643.10
					Oct-15	46.51	6,643.02
					Jan-16	46.42	6,643.11
					Apr-16	46.65	6,642.88
					Jul-16	46.63	6,642.90
					Oct-16	46.87	6,642.66
					Jan-17	46.67	6,642.86
					Apr-17	46.73	6,642.80
					Jul-17	46.92	6,642.61
					Oct-17	47.10	6,642.43
					Jan-18	46.96	6,642.57
					Apr-18	46.99	6,642.54
					Jul-18	46.98	6,642.55
					Oct-18	46.84	6,642.69
MW18D	Alluvial	47.0-57.0	59.9	6,686.32	Jul-14	43.48	6,642.84
					Oct-14	43.55	6,642.77
					Jan-15	43.41	6,642.91
					Mar-15	43.61	6,642.71
					Jul-15	43.50	6,642.82
					Oct-15	43.71	6,642.61
					Jan-16	43.65	6,642.67
					Apr-16	43.88	6,642.44
					Jul-16	43.89	6,642.43
					Oct-16	44.04	6,642.28
					Jan-17	44.02	6,642.30
					Apr-17	44.07	6,642.25
					Jul-17	44.20	6,642.12
					Oct-17	44.43	6,641.89
					Jan-18	44.32	6,642.00

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
MW18D					Apr-18	44.39	6,641.93
					Jul-18	44.44	6,641.88
					Oct-18	44.28	6,642.04
MW18S	Alluvial	27.0-37.0	39.0	6,686.61	Jul-14	Dry	Dry
					Oct-14	Dry	Dry
					Jan-15	Dry	Dry
					Mar-15	Dry	Dry
					Jul-15	Dry	Dry
					Oct-15	Dry	Dry
					Jan-16	Dry	Dry
					Apr-16	Dry	Dry
					Jul-16	Dry	Dry
					Oct-16	Dry	Dry
					Jan-17	Dry	Dry
					Apr-17	Dry	Dry
					Jul-17	Dry	Dry
					Oct-17	Dry	Dry
					Jan-18	Dry	Dry
					Apr-18	Dry	Dry
					Jul-18	Dry	Dry
					Oct-18	Dry	Dry
MW20	Alluvial	47.0-57.0	59.4	6,687.67	Jul-14	45.33	6,642.34
					Oct-14	45.45	6,642.22
					Jan-15	45.32	6,642.35
					Mar-15	45.42	6,642.25
					Jul-15	45.38	6,642.29
					Oct-15	45.56	6,642.11
					Jan-16	45.52	6,642.15
					Apr-16	45.61	6,642.06
					Jul-16	45.69	6,641.98
					Oct-16	45.82	6,641.85
					Jan-17	45.93	6,641.74
					Apr-17	45.82	6,641.85
					Jul-17	45.95	6,641.72
					Oct-17	46.16	6,641.51
					Jan-18	46.15	6,641.52
					Apr-18	46.10	6,641.57
					Jul-18	46.26	6,641.41
					Oct-18	46.25	6,641.42
MW22D	Alluvial	47.0-57.0	58.6	6,684.55	Jul-14	42.27	6,642.28
					Oct-14	42.41	6,642.14
					Jan-15	42.25	6,642.30
					Mar-15	42.31	6,642.24
					Jul-15	42.33	6,642.22
					Oct-15	42.57	6,641.98
					Jan-16	42.52	6,642.03
					Apr-16	42.67	6,641.88
					Jul-16	42.74	6,641.81
					Oct-16	42.92	6,641.63
					Jan-17	42.93	6,641.62
					Apr-17	42.92	6,641.63
					Jul-17	43.06	6,641.49
					Oct-17	43.31	6,641.24
					Jan-18	43.40	6,641.15

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
MW22D					Apr-18	43.19	6,641.36
					Jul-18	43.41	6,641.14
					Oct-18	43.55	6,641.00
MW22S	Alluvial	31.0-41.0	43.5	6,684.69	Jul-14	42.17	6,642.52
					Oct-14	42.27	6,642.42
					Jan-15	42.18	6,642.51
					Mar-15	42.37	6,642.32
					Jul-15	42.29	6,642.40
					Oct-15	42.53	6,642.16
					Jan-16	42.47	6,642.22
					Apr-16	42.61	6,642.08
					Jul-16	42.70	6,641.99
					Oct-16	Dry	Dry
					Jan-17	Dry	Dry
					Apr-17	Dry	Dry
					Jul-17	Dry	Dry
					Oct-17	Dry	Dry
					Jan-18	Dry	Dry
					Apr-18	Dry	Dry
					Jul-18	Dry	Dry
					Oct-18	Dry	Dry
MW23	Alluvial	63.5-133.5	134.0	6,654.50	Jul-14	15.20	6,639.30
					Oct-14	15.53	6,638.97
					Jan-15	15.26	6,639.24
					Mar-15	14.75	6,639.75
					Jul-15	14.68	6,639.82
					Oct-15	15.12	6,639.38
					Jan-16	14.98	6,639.52
					Apr-16	15.36	6,639.14
					Jul-16	15.04	6,639.46
					Oct-16	15.63	6,638.87
					Jan-17	15.37	6,639.13
					Apr-17	14.76	6,639.74
					Jul-17	15.00	6,639.50
					Oct-17	15.40	6,639.10
					Jan-18	15.39	6,639.11
					Apr-18	15.51	6,638.99
					Jul-18	15.94	6,638.56
					Oct-18	16.02	6,638.48
MW24	Alluvial	16.0-66.0	66.5	6,657.08	Jul-14	19.86	6,637.22
					Oct-14	20.31	6,636.77
					Jan-15	19.71	6,637.37
					Mar-15	19.30	6,637.78
					Jul-15	19.49	6,637.59
					Oct-15	21.53	6,635.55
					Jan-16	19.62	6,637.46
					Apr-16	19.94	6,637.14
					Jul-16	19.78	6,637.30
					Oct-16	20.63	6,636.45
					Jan-17	19.84	6,637.24
					Apr-17	19.29	6,637.79
					Jul-17	19.81	6,637.27
					Oct-17	20.75	6,636.33
					Jan-18	18.56	6,638.52

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
MW24					Apr-18	19.97	6,637.11
					Jul-18	20.60	6,636.48
					Oct-18	20.92	6,636.16
SMW01	Alluvial	29.9-49.9	50.2	6,669.94	Jul-14	30.85	6,639.09
					Oct-14	31.09	6,638.85
					Jan-15	30.72	6,639.22
					Mar-15	30.80	6,639.14
					Jul-15	31.19	6,638.75
					Oct-15	31.45	6,638.49
					Jan-16	31.20	6,638.74
					Apr-16	31.41	6,638.53
					Jul-16	31.83	6,638.11
					Oct-16	32.11	6,637.83
					Jan-17	31.87	6,638.07
					Apr-17	32.80	6,637.14
					Jul-17	32.30	6,637.64
					Oct-17	32.70	6,637.24
					Jan-18	32.37	6,637.57
					Apr-18	32.19	6,637.75
					Jul-18	32.78	6,637.16
					Oct-18	32.82	6,637.12
TMW01	Alluvial	44.0-59.0	60.0	6,711.84	Jul-14	38.71	6,673.13
					Oct-14	39.01	6,672.83
					Jan-15	39.01	6,672.83
					Mar-15	39.23	6,672.61
					Jul-15	39.37	6,672.47
					Oct-15	39.62	6,672.22
					Jan-16	39.63	6,672.21
					Apr-16	39.94	6,671.90
					Jul-16	40.16	6,671.68
					Oct-16	40.41	6,671.43
					Jan-17	40.34	6,671.50
					Apr-17	40.66	6,671.18
					Jul-17	40.85	6,670.99
					Oct-17	41.20	6,670.64
					Jan-18	41.30	6,670.54
					Apr-18	41.41	6,670.43
					Jul-18	41.68	6,670.16
					Oct-18	41.78	6,670.06
TMW03	Alluvial	49.8-69.8	70.1	6,702.43	Jul-14	57.15	6,645.28
					Oct-14	57.24	6,645.19
					Jan-15	57.18	6,645.25
					Mar-15	57.32	6,645.11
					Jul-15	57.32	6,645.11
					Oct-15	57.39	6,645.04
					Jan-16	57.32	6,645.11
					Apr-16	57.40	6,645.03
					Jul-16	57.45	6,644.98
					Oct-16	57.50	6,644.93
					Jan-17	57.39	6,645.04
					Apr-17	57.56	6,644.87
					Jul-17	57.61	6,644.82
					Oct-17	57.69	6,644.74
					Jan-18	57.75	6,644.68

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
TMW03					Apr-18	57.73	6,644.70
					Jul-18	57.82	6,644.61
					Oct-18	57.79	6,644.64
TMW04	Alluvial	50.0-70.0	70.5	6,700.86	Jul-14	56.45	6,644.41
					Oct-14	56.51	6,644.35
					Jan-15	56.42	6,644.44
					Mar-15	56.52	6,644.34
					Jul-15	56.50	6,644.36
					Oct-15	56.54	6,644.32
					Jan-16	56.50	6,644.36
					Apr-16	56.69	6,644.17
					Jul-16	56.66	6,644.20
					Oct-16	56.71	6,644.15
					Jan-17	57.49	6,643.37
					Apr-17	56.73	6,644.13
					Jul-17	56.80	6,644.06
					Oct-17	56.88	6,643.98
					Jan-18	56.89	6,643.97
					Apr-18	56.89	6,643.97
					Jul-18	56.98	6,643.88
					Oct-18	56.78	6,644.08
TMW06	Alluvial	45.0-55.0	57.0	6,690.63	Jul-14	47.19	6,643.44
					Oct-14	47.27	6,643.36
					Jan-15	47.10	6,643.53
					Mar-15	47.31	6,643.32
					Jul-15	47.22	6,643.41
					Oct-15	47.33	6,643.30
					Jan-16	47.14	6,643.49
					Apr-16	47.52	6,643.11
					Jul-16	47.56	6,643.07
					Oct-16	47.51	6,643.12
					Jan-17	47.17	6,643.46
					Apr-17	47.58	6,643.05
					Jul-17	47.67	6,642.96
					Oct-17	47.78	6,642.85
					Jan-18	47.71	6,642.92
					Apr-18	47.69	6,642.94
					Jul-18	47.76	6,642.87
					Oct-18	47.63	6,643.00
TMW07	Alluvial	65.0-75.0	76.0	6,690.47	Jul-14	47.41	6,643.06
					Oct-14	47.06	6,643.41
					Jan-15	47.25	6,643.22
					Mar-15	47.10	6,643.37
					Jul-15	47.32	6,643.15
					Oct-15	47.04	6,643.43
					Jan-16	46.88	6,643.59
					Apr-16	46.95	6,643.52
					Jul-16	47.15	6,643.32
					Oct-16	47.00	6,643.47
					Jan-17	47.19	6,643.28
					Apr-17	46.98	6,643.49
					Jul-17	47.86	6,642.61
					Oct-17	47.78	6,642.69
					Jan-18	47.68	6,642.79

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
TMW07					Apr-18	47.14	6,643.33
					Jul-18	47.77	6,642.70
					Oct-18	47.10	6,643.37
TMW08	Alluvial	30.0-60.0	62.0	6,680.31	Jul-14	36.93	6,643.38
					Oct-14	37.07	6,643.24
					Jan-15	36.94	6,643.37
					Mar-15	37.17	6,643.14
					Jul-15	37.08	6,643.23
					Oct-15	37.20	6,643.11
					Jan-16	37.04	6,643.27
					Apr-16	37.38	6,642.93
					Jul-16	37.36	6,642.95
					Oct-16	37.57	6,642.74
					Jan-17	37.33	6,642.98
					Apr-17	37.58	6,642.73
					Jul-17	37.70	6,642.61
					Oct-17	37.97	6,642.34
					Jan-18	37.74	6,642.57
					Apr-18	37.67	6,642.64
					Jul-18	37.89	6,642.42
					Oct-18	37.64	6,642.67
TMW10	Alluvial	28.0-58.0	65.0	6,680.04	Jul-14	37.78	6,642.26
					Oct-14	37.90	6,642.14
					Jan-15	37.75	6,642.29
					Mar-15	37.94	6,642.10
					Jul-15	37.92	6,642.12
					Oct-15	38.07	6,641.97
					Jan-16	37.91	6,642.13
					Apr-16	38.16	6,641.88
					Jul-16	38.28	6,641.76
					Oct-16	38.50	6,641.54
					Jan-17	38.37	6,641.67
					Apr-17	38.37	6,641.67
					Jul-17	38.56	6,641.48
					Oct-17	38.90	6,641.14
					Jan-18	38.77	6,641.27
					Apr-18	38.68	6,641.36
					Jul-18	38.94	6,641.10
					Oct-18	38.92	6,641.12
TMW11	Alluvial	55.0-80.0	82.0	6,718.28	Jul-14	67.58	6,650.70
					Oct-14	67.73	6,650.55
					Jan-15	67.80	6,650.48
					Mar-15	67.81	6,650.47
					Jul-15	67.93	6,650.35
					Oct-15	68.10	6,650.18
					Jan-16	68.19	6,650.09
					Apr-16	68.22	6,650.06
					Jul-16	68.40	6,649.88
					Oct-16	68.39	6,649.89
					Jan-17	68.59	6,649.69
					Apr-17	68.96	6,649.32
					Jul-17	68.74	6,649.54
					Oct-17	68.97	6,649.31
					Jan-18	69.05	6,649.23

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
TMW11					Apr-18	69.12	6,649.16
					Jul-18	69.26	6,649.02
					Oct-18	69.43	6,648.85
TMW13	Alluvial	60.7-70.7	72.5	6,707.49	Jul-14	60.37	6,647.12
					Oct-14	60.47	6,647.02
					Jan-15	60.46	6,647.03
					Mar-15	60.50	6,646.99
					Jul-15	60.56	6,646.93
					Oct-15	60.66	6,646.83
					Jan-16	60.69	6,646.80
					Apr-16	60.75	6,646.74
					Jul-16	60.82	6,646.67
					Oct-16	60.96	6,646.53
					Jan-17	60.89	6,646.60
					Apr-17	61.00	6,646.49
					Jul-17	61.02	6,646.47
					Oct-17	61.20	6,646.29
					Jan-18	61.23	6,646.26
					Apr-18	61.25	6,646.24
					Jul-18	61.34	6,646.15
					Oct-18	61.41	6,646.08
TMW15	Alluvial	56.0-71.0	82.0	6,713.89	Jul-14	64.94	6,648.95
					Oct-14	65.05	6,648.84
					Jan-15	65.08	6,648.81
					Mar-15	65.11	6,648.78
					Jul-15	65.22	6,648.67
					Oct-15	65.35	6,648.54
					Jan-16	65.38	6,648.51
					Apr-16	65.42	6,648.47
					Jul-16	65.53	6,648.36
					Oct-16	65.70	6,648.19
					Jan-17	65.70	6,648.19
					Apr-17	65.74	6,648.15
					Jul-17	65.83	6,648.06
					Oct-17	66.15	6,647.74
					Jan-18	66.07	6,647.82
					Apr-18	66.09	6,647.80
					Jul-18	66.26	6,647.63
					Oct-18	66.34	6,647.55
TMW21	Alluvial	48.0-58.0	72.0	6,695.14	Jul-14	50.85	6,644.29
					Oct-14	50.90	6,644.24
					Jan-15	50.82	6,644.32
					Mar-15	50.91	6,644.23
					Jul-15	50.90	6,644.24
					Oct-15	50.88	6,644.26
					Jan-16	50.88	6,644.26
					Apr-16	51.05	6,644.09
					Jul-16	51.04	6,644.10
					Oct-16	51.08	6,644.06
					Jan-17	51.19	6,643.95
					Apr-17	51.12	6,644.02
					Jul-17	51.18	6,643.96
					Oct-17	51.33	6,643.81
					Jan-18	51.36	6,643.78

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
TMW21					Apr-18	51.33	6,643.81
					Jul-18	51.46	6,643.68
					Oct-18	51.43	6,643.71
TMW22	Alluvial	52.0-62.0	77.0	6,691.74	Jul-14	48.72	6,643.02
					Oct-14	48.68	6,643.06
					Jan-15	48.52	6,643.22
					Mar-15	48.71	6,643.03
					Jul-15	48.67	6,643.07
					Oct-15	48.71	6,643.03
					Jan-16	48.46	6,643.28
					Apr-16	48.83	6,642.91
					Jul-16	48.74	6,643.00
					Oct-16	48.49	6,643.25
					Jan-17	48.39	6,643.35
					Apr-17	48.76	6,642.98
					Jul-17	48.90	6,642.84
					Oct-17	49.05	6,642.69
					Jan-18	48.81	6,642.93
					Apr-18	48.85	6,642.89
					Jul-18	48.93	6,642.81
					Oct-18	48.56	6,643.18
TMW23	Alluvial	46.0-56.0	72.0	6,687.66	Jul-14	45.44	6,642.22
					Oct-14	45.49	6,642.17
					Jan-15	45.32	6,642.34
					Mar-15	45.48	6,642.18
					Jul-15	45.32	6,642.34
					Oct-15	45.43	6,642.23
					Jan-16	45.20	6,642.46
					Apr-16	45.55	6,642.11
					Jul-16	45.50	6,642.16
					Oct-16	45.57	6,642.09
					Jan-17	45.10	6,642.56
					Apr-17	45.49	6,642.17
					Jul-17	45.64	6,642.02
					Oct-17	45.80	6,641.86
					Jan-18	45.61	6,642.05
					Apr-18	46.55	6,641.11
					Jul-18	45.66	6,642.00
					Oct-18	45.40	6,642.26
TMW24	Alluvial	44.0-54.0	75.0	6,680.42	Jul-14	38.27	6,642.15
					Oct-14	38.31	6,642.11
					Jan-15	38.12	6,642.30
					Mar-15	38.20	6,642.22
					Jul-15	38.03	6,642.39
					Oct-15	38.15	6,642.27
					Jan-16	37.82	6,642.60
					Apr-16	38.05	6,642.37
					Jul-16	38.06	6,642.36
					Oct-16	38.22	6,642.20
					Jan-17	37.65	6,642.77
					Apr-17	37.99	6,642.43
					Jul-17	38.12	6,642.30
					Oct-17	38.34	6,642.08
					Jan-18	38.09	6,642.33

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
TMW24					Apr-18	37.96	6,642.46
					Jul-18	38.19	6,642.23
					Oct-18	37.90	6,642.52
TMW25	Alluvial	42.5-52.5	74.0	6,672.88	Jul-14	38.92	6,633.96
					Oct-14	39.05	6,633.83
					Jan-15	38.86	6,634.02
					Mar-15	38.93	6,633.95
					Jul-15	38.82	6,634.06
					Oct-15	39.00	6,633.88
					Jan-16	38.99	6,633.89
					Apr-16	39.10	6,633.78
					Jul-16	39.05	6,633.83
					Oct-16	39.25	6,633.63
					Jan-17	39.04	6,633.84
					Apr-17	39.08	6,633.80
					Jul-17	39.21	6,633.67
					Oct-17	39.58	6,633.30
					Jan-18	39.37	6,633.51
					Apr-18	39.26	6,633.62
					Jul-18	39.46	6,633.42
					Oct-18	39.32	6,633.56
TMW26	Alluvial	45.0-55.0	64.8	6,677.71	Jul-14	26.55	6,651.16
					Oct-14	27.06	6,650.65
					Jan-15	27.13	6,650.58
					Mar-15	27.15	6,650.56
					Jul-15	27.05	6,650.66
					Oct-15	27.48	6,650.23
					Jan-16	27.58	6,650.13
					Apr-16	27.30	6,650.41
					Jul-16	27.60	6,650.11
					Oct-16	28.11	6,649.60
					Jan-17	NM	NM
					Apr-17	27.73	6,649.98
					Jul-17	27.89	6,649.82
					Oct-17	28.18	6,649.53
					Jan-18	28.07	6,649.64
					Apr-18	28.03	6,649.68
					Jul-18	27.99	6,649.72
					Oct-18	28.10	6,649.61
TMW27	Alluvial	60.0-70.0	102.2	6,668.13	Jul-14	28.04	6,640.09
					Oct-14	28.31	6,639.82
					Jan-15	28.20	6,639.93
					Mar-15	28.07	6,640.06
					Jul-15	28.06	6,640.07
					Oct-15	28.44	6,639.69
					Jan-16	28.32	6,639.81
					Apr-16	28.25	6,639.88
					Jul-16	28.63	6,639.50
					Oct-16	28.74	6,639.39
					Jan-17	28.49	6,639.64
					Apr-17	28.39	6,639.74
					Jul-17	28.53	6,639.60
					Oct-17	28.99	6,639.14
					Jan-18	28.79	6,639.34

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
TMW27					Apr-18	28.64	6,639.49
					Jul-18	28.89	6,639.24
					Oct-18	29.08	6,639.05
TMW28	Alluvial	37.0-47.0	72.5	6,689.17	Jul-14	18.96	6,670.21
					Oct-14	19.36	6,669.81
					Jan-15	19.02	6,670.15
					Mar-15	18.69	6,670.48
					Jul-15	19.35	6,669.82
					Oct-15	19.83	6,669.34
					Jan-16	19.43	6,669.74
					Apr-16	19.35	6,669.82
					Jul-16	19.77	6,669.40
					Oct-16	20.31	6,668.86
					Jan-17	19.89	6,669.28
					Apr-17	18.64	6,670.53
					Jul-17	19.62	6,669.55
					Oct-17	20.40	6,668.77
					Jan-18	20.19	6,668.98
					Apr-18	19.94	6,669.23
					Jul-18	20.65	6,668.52
					Oct-18	20.89	6,668.28
TMW29	Alluvial	49.0-59.0	69.0	6,702.88	Jul-14	57.45	6,645.43
					Oct-14	57.56	6,645.32
					Jan-15	57.51	6,645.37
					Mar-15	57.57	6,645.31
					Jul-15	57.58	6,645.30
					Oct-15	57.62	6,645.26
					Jan-16	57.66	6,645.22
					Apr-16	57.77	6,645.11
					Jul-16	57.78	6,645.10
					Oct-16	57.85	6,645.03
					Jan-17	57.76	6,645.12
					Apr-17	57.89	6,644.99
					Jul-17	57.96	6,644.92
					Oct-17	58.07	6,644.81
					Jan-18	58.09	6,644.79
					Apr-18	58.13	6,644.75
					Jul-18	58.19	6,644.69
					Oct-18	58.20	6,644.68
TMW31S	Alluvial	50.0-60.0	61.0	6,710.20	Jul-14	37.86	6,672.34
					Oct-14	38.13	6,672.07
					Jan-15	38.11	6,672.09
					Mar-15	38.35	6,671.85
					Jul-15	38.50	6,671.70
					Oct-15	38.76	6,671.44
					Jan-16	38.70	6,671.50
					Apr-16	39.11	6,671.09
					Jul-16	39.24	6,670.96
					Oct-16	39.60	6,670.60
					Jan-17	39.40	6,670.80
					Apr-17	39.82	6,670.38
					Jul-17	40.03	6,670.17
					Oct-17	40.39	6,669.81
					Jan-18	40.40	6,669.80

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
TMW31S					Apr-18	40.51	6,669.69
					Jul-18	40.76	6,669.44
					Oct-18	40.80	6,669.40
TMW33	Alluvial	37.0-57.0	60.4	6,686.60	Jul-14	43.98	6,642.62
					Oct-14	44.07	6,642.53
					Jan-15	43.95	6,642.65
					Mar-15	44.10	6,642.50
					Jul-15	44.05	6,642.55
					Oct-15	44.26	6,642.34
					Jan-16	44.21	6,642.39
					Apr-16	44.43	6,642.17
					Jul-16	44.45	6,642.15
					Oct-16	44.63	6,641.97
					Jan-17	44.57	6,642.03
					Apr-17	44.63	6,641.97
					Jul-17	44.79	6,641.81
					Oct-17	45.05	6,641.55
					Jan-18	44.93	6,641.67
					Apr-18	44.97	6,641.63
					Jul-18	45.05	6,641.55
					Oct-18	44.92	6,641.68
TMW34	Alluvial	37.0-57.0	57.3	6,687.29	Jul-14	45.92	6,641.37
					Oct-14	46.04	6,641.25
					Jan-15	45.92	6,641.37
					Mar-15	45.99	6,641.30
					Jul-15	45.95	6,641.34
					Oct-15	46.14	6,641.15
					Jan-16	46.10	6,641.19
					Apr-16	46.14	6,641.15
					Jul-16	46.23	6,641.06
					Oct-16	46.37	6,640.92
					Jan-17	46.48	6,640.81
					Apr-17	46.38	6,640.91
					Jul-17	46.44	6,640.85
					Oct-17	46.36	6,640.93
					Jan-18	46.34	6,640.95
					Apr-18	46.29	6,641.00
					Jul-18	46.46	6,640.83
					Oct-18	46.49	6,640.80
TMW35	Alluvial	35.0-55.0	55.0	6,686.52	Jul-14	44.08	6,642.44
					Oct-14	44.19	6,642.33
					Jan-15	44.13	6,642.39
					Mar-15	44.25	6,642.27
					Jul-15	44.20	6,642.32
					Oct-15	44.39	6,642.13
					Jan-16	44.36	6,642.16
					Apr-16	44.52	6,642.00
					Jul-16	44.57	6,641.95
					Oct-16	44.73	6,641.79
					Jan-17	44.80	6,641.72
					Apr-17	44.76	6,641.76
					Jul-17	44.86	6,641.66
					Oct-17	45.02	6,641.50
					Jan-18	45.03	6,641.49

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
TMW35					Apr-18	45.01	6,641.51
					Jul-18	45.02	6,641.50
					Oct-18	45.12	6,641.40
TMW39S	Alluvial	32.5-52.5	53.0	6,708.61	Jul-14	35.70	6,672.91
					Oct-14	35.88	6,672.73
					Jan-15	35.95	6,672.66
					Mar-15	36.07	6,672.54
					Jul-15	36.23	6,672.38
					Oct-15	36.37	6,672.24
					Jan-16	36.40	6,672.21
					Apr-16	36.51	6,672.10
					Jul-16	36.70	6,671.91
					Oct-16	36.91	6,671.70
					Jan-17	36.89	6,671.72
					Apr-17	37.08	6,671.53
					Jul-17	37.25	6,671.36
					Oct-17	37.47	6,671.14
					Jan-18	37.54	6,671.07
					Apr-18	37.52	6,671.09
					Jul-18	37.96	6,670.65
					Oct-18	38.03	6,670.58
TMW40S	Alluvial	50.0-60.0	60.5	6,706.40	Jul-14	60.33	6,646.07
					Oct-14	60.40	6,646.00
					Jan-15	60.38	6,646.02
					Mar-15	60.42	6,645.98
					Jul-15	60.44	6,645.96
					Oct-15	60.50	6,645.90
					Jan-16	60.49	6,645.91
					Apr-16	60.58	6,645.82
					Jul-16	60.57	6,645.83
					Oct-16	Dry	Dry
					Jan-17	Dry	Dry
					Apr-17	60.68	6,645.72
					Jul-17	60.70	6,645.70
					Oct-17	60.80	6,645.60
					Jan-18	60.80	6,645.60
					Apr-18	60.83	6,645.57
					Jul-18	60.85	6,645.55
					Oct-18	60.86	6,645.54
TMW41	Alluvial	55.5-65.5	66.0	6,705.21	Jul-14	40.99	6,664.22
					Oct-14	41.10	6,664.11
					Jan-15	41.00	6,664.21
					Mar-15	41.28	6,663.93
					Jul-15	41.35	6,663.86
					Oct-15	41.48	6,663.73
					Jan-16	41.26	6,663.95
					Apr-16	41.74	6,663.47
					Jul-16	41.76	6,663.45
					Oct-16	42.00	6,663.21
					Jan-17	41.55	6,663.66
					Apr-17	42.02	6,663.19
					Jul-17	42.28	6,662.93
					Oct-17	42.47	6,662.74
					Jan-18	42.43	6,662.78

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
TMW41					Apr-18	42.60	6,662.61
					Jul-18	42.81	6,662.40
					Oct-18	42.53	6,662.68
TMW43	Alluvial	58.0-78.0	78.5	6,698.63	Jul-14	53.51	6,645.12
					Oct-14	53.59	6,645.04
					Jan-15	53.50	6,645.13
					Mar-15	53.59	6,645.04
					Jul-15	53.58	6,645.05
					Oct-15	53.63	6,645.00
					Jan-16	53.59	6,645.04
					Apr-16	53.79	6,644.84
					Jul-16	53.79	6,644.84
					Oct-16	53.84	6,644.79
					Jan-17	53.67	6,644.96
					Apr-17	53.86	6,644.77
					Jul-17	53.92	6,644.71
					Oct-17	54.00	6,644.63
					Jan-18	54.06	6,644.57
					Apr-18	54.05	6,644.58
					Jul-18	54.14	6,644.49
					Oct-18	54.11	6,644.52
TMW44	Alluvial	43.5-63.5	64.0	6,697.31	Jul-14	52.72	6,644.59
					Oct-14	52.76	6,644.55
					Jan-15	52.62	6,644.69
					Mar-15	52.82	6,644.49
					Jul-15	52.78	6,644.53
					Oct-15	52.86	6,644.45
					Jan-16	52.66	6,644.65
					Apr-16	53.03	6,644.28
					Jul-16	52.96	6,644.35
					Oct-16	53.02	6,644.29
					Jan-17	52.68	6,644.63
					Apr-17	53.04	6,644.27
					Jul-17	53.12	6,644.19
					Oct-17	53.27	6,644.04
					Jan-18	53.17	6,644.14
					Apr-18	53.20	6,644.11
					Jul-18	53.28	6,644.03
					Oct-18	53.00	6,644.31
TMW45	Alluvial	38.5-58.5	59.0	6,689.00	Jul-14	47.43	6,641.57
					Oct-14	47.49	6,641.51
					Jan-15	47.31	6,641.69
					Mar-15	47.39	6,641.61
					Jul-15	47.23	6,641.77
					Oct-15	47.30	6,641.70
					Jan-16	47.05	6,641.95
					Apr-16	47.30	6,641.70
					Jul-16	47.35	6,641.65
					Oct-16	47.29	6,641.71
					Jan-17	46.88	6,642.12
					Apr-17	47.18	6,641.82
					Jul-17	47.21	6,641.79
					Oct-17	47.33	6,641.67
					Jan-18	47.27	6,641.73

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
TMW45					Apr-18	47.16	6,641.84
					Jul-18	47.18	6,641.82
					Oct-18	47.08	6,641.92
TMW46	Alluvial	38.5-58.5	59.0	6,680.98	Jul-14	44.17	6,636.81
					Oct-14	44.41	6,636.57
					Jan-15	44.10	6,636.88
					Mar-15	44.05	6,636.93
					Jul-15	44.10	6,636.88
					Oct-15	44.39	6,636.59
					Jan-16	44.18	6,636.80
					Apr-16	44.24	6,636.74
					Jul-16	44.59	6,636.39
					Oct-16	44.57	6,636.41
					Jan-17	44.56	6,636.42
					Apr-17	44.34	6,636.64
					Jul-17	44.48	6,636.50
					Oct-17	44.97	6,636.01
					Jan-18	44.86	6,636.12
					Apr-18	44.56	6,636.42
					Jul-18	44.99	6,635.99
					Oct-18	45.25	6,635.73
TMW47	Alluvial	82.5-102.5	103.0	6,701.88	Jul-14	46.40	6,655.48
					Oct-14	46.41	6,655.47
					Jan-15	46.33	6,655.55
					Mar-15	46.32	6,655.56
					Jul-15	46.59	6,655.29
					Oct-15	46.61	6,655.27
					Jan-16	46.57	6,655.31
					Apr-16	46.69	6,655.19
					Jul-16	46.84	6,655.04
					Oct-16	46.88	6,655.00
					Jan-17	46.79	6,655.09
					Apr-17	46.87	6,655.01
					Jul-17	47.08	6,654.80
					Oct-17	47.10	6,654.78
					Jan-18	47.20	6,654.68
					Apr-18	47.32	6,654.56
					Jul-18	47.35	6,654.53
					Oct-18	47.30	6,654.58
PZ01	Alluvial	23.1-43.1	43.1	6,677.29	Jul-14	27.12	6,650.17
					Oct-14	26.90	6,650.39
					Jan-15	26.64	6,650.65
					Mar-15	26.80	6,650.49
					Jul-15	26.80	6,650.49
					Oct-15	26.92	6,650.37
					Jan-16	26.90	6,650.39
					Apr-16	27.24	6,650.05
					Jul-16	27.29	6,650.00
					Oct-16	27.60	6,649.69
					Jan-17	27.37	6,649.92
					Apr-17	27.61	6,649.68
					Jul-17	27.80	6,649.49
					Oct-17	28.03	6,649.26
					Jan-18	28.02	6,649.27

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
PZ01					Apr-18	28.08	6,649.21
					Jul-18	28.17	6,649.12
					Oct-18	28.11	6,649.18
PZ02	Alluvial	30.3-50.3	50.7	6,674.95	Jul-14	23.22	6,651.73
					Oct-14	23.26	6,651.69
					Jan-15	23.31	6,651.64
					Mar-15	23.25	6,651.70
					Jul-15	23.28	6,651.67
					Oct-15	23.66	6,651.29
					Jan-16	23.57	6,651.38
					Apr-16	23.70	6,651.25
					Jul-16	23.70	6,651.25
					Oct-16	24.27	6,650.68
					Jan-17	23.84	6,651.11
					Apr-17	24.02	6,650.93
					Jul-17	24.21	6,650.74
					Oct-17	24.60	6,650.35
					Jan-18	24.41	6,650.54
					Apr-18	24.43	6,650.52
					Jul-18	24.69	6,650.26
					Oct-18	24.66	6,650.29
PZ03	Alluvial	26.7-46.7	46.9	6,679.44	Jul-14	26.42	6,653.02
					Oct-14	26.28	6,653.16
					Jan-15	26.20	6,653.24
					Mar-15	26.20	6,653.24
					Jul-15	26.13	6,653.31
					Oct-15	26.48	6,652.96
					Jan-16	26.61	6,652.83
					Apr-16	26.44	6,653.00
					Jul-16	26.58	6,652.86
					Oct-16	27.02	6,652.42
					Jan-17	26.65	6,652.79
					Apr-17	26.63	6,652.81
					Jul-17	26.86	6,652.58
					Oct-17	26.60	6,652.84
					Jan-18	26.75	6,652.69
					Apr-18	27.61	6,651.83
					Jul-18	26.74	6,652.70
					Oct-18	26.75	6,652.69
PZ04	Alluvial	26.8-46.8	47.0	6,676.68	Jul-14	28.40	6,648.28
					Oct-14	28.02	6,648.66
					Jan-15	28.15	6,648.53
					Mar-15	28.24	6,648.44
					Jul-15	28.26	6,648.42
					Oct-15	28.45	6,648.23
					Jan-16	28.40	6,648.28
					Apr-16	28.70	6,647.98
					Jul-16	28.70	6,647.98
					Oct-16	29.07	6,647.61
					Jan-17	NM	NM
					Apr-17	29.03	6,647.65
					Jul-17	29.25	6,647.43
					Oct-17	29.70	6,646.98
					Jan-18	29.38	6,647.30

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
PZ04					Apr-18	31.04	6,645.64
					Jul-18	32.03	6,644.65
					Oct-18	32.80	6,643.88
PZ05	Alluvial	26.0-46.0	46.3	6,674.15	Jul-14	21.05	6,653.10
					Oct-14	20.61	6,653.54
					Jan-15	20.42	6,653.73
					Mar-15	20.27	6,653.88
					Jul-15	20.76	6,653.39
					Oct-15	21.41	6,652.74
					Jan-16	20.71	6,653.44
					Apr-16	20.70	6,653.45
					Jul-16	21.53	6,652.62
					Oct-16	22.06	6,652.09
					Jan-17	21.00	6,653.15
					Apr-17	20.97	6,653.18
					Jul-17	21.69	6,652.46
					Oct-17	22.49	6,651.66
					Jan-18	21.54	6,652.61
					Apr-18	21.18	6,652.97
					Jul-18	22.23	6,651.92
					Oct-18	22.44	6,651.71
PZ06	Alluvial	26.5-46.5	46.7	6,676.04	Jul-14	20.70	6,655.34
					Oct-14	19.16	6,656.88
					Jan-15	18.76	6,657.28
					Mar-15	18.46	6,657.58
					Jul-15	20.02	6,656.02
					Oct-15	20.40	6,655.64
					Jan-16	19.16	6,656.88
					Apr-16	18.95	6,657.09
					Jul-16	20.75	6,655.29
					Oct-16	21.13	6,654.91
					Jan-17	19.43	6,656.61
					Apr-17	18.98	6,657.06
					Jul-17	21.14	6,654.90
					Oct-17	21.40	6,654.64
					Jan-18	19.83	6,656.21
					Apr-18	19.29	6,656.75
					Jul-18	21.78	6,654.26
					Oct-18	21.71	6,654.33
PZ07	Alluvial	10.6-30.6	30.5	6,684.53	Jul-14	16.16	6,668.37
					Oct-14	12.02	6,672.51
					Jan-15	15.00	6,669.53
					Mar-15	14.14	6,670.39
					Jul-15	15.45	6,669.08
					Oct-15	16.30	6,668.23
					Jan-16	15.83	6,668.70
					Apr-16	15.71	6,668.82
					Jul-16	15.57	6,668.96
					Oct-16	15.99	6,668.54
					Jan-17	10.34	6,674.19
					Apr-17	11.83	6,672.70
					Jul-17	14.46	6,670.07
					Oct-17	16.21	6,668.32
					Jan-18	16.87	6,667.66

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
PZ07					Apr-18	16.81	6,667.72
					Jul-18	17.61	6,666.92
					Oct-18	17.69	6,666.84
PZ08	Alluvial	26.3-46.3	46.6	6,686.81	Jul-14	19.86	6,666.95
					Oct-14	15.10	6,671.71
					Jan-15	18.25	6,668.56
					Mar-15	17.14	6,669.67
					Jul-15	18.88	6,667.93
					Oct-15	19.62	6,667.19
					Jan-16	19.09	6,667.72
					Apr-16	19.06	6,667.75
					Jul-16	19.03	6,667.78
					Oct-16	19.49	6,667.32
					Jan-17	19.78	6,667.03
					Apr-17	14.49	6,672.32
					Jul-17	18.01	6,668.80
					Oct-17	19.80	6,667.01
					Jan-18	20.32	6,666.49
					Apr-18	20.17	6,666.64
					Jul-18	21.26	6,665.55
					Oct-18	21.28	6,665.53
PZ09	Alluvial	18.1-33.1	33.5	6,653.61	Jul-14	16.37	6,637.24
					Oct-14	15.34	6,638.27
					Jan-15	15.39	6,638.22
					Mar-15	14.92	6,638.69
					Jul-15	15.62	6,637.99
					Oct-15	16.22	6,637.39
					Jan-16	15.39	6,638.22
					Apr-16	15.35	6,638.26
					Jul-16	16.23	6,637.38
					Oct-16	16.82	6,636.79
					Jan-17	15.87	6,637.74
					Apr-17	15.26	6,638.35
					Jul-17	16.46	6,637.15
					Oct-17	17.21	6,636.40
					Jan-18	16.44	6,637.17
					Apr-18	15.86	6,637.75
					Jul-18	17.18	6,636.43
					Oct-18	17.52	6,636.09
PZ10	Alluvial	31.0-46.0	46.3	6,657.27	Jul-14	20.23	6,637.04
					Oct-14	19.19	6,638.08
					Jan-15	19.21	6,638.06
					Mar-15	18.76	6,638.51
					Jul-15	19.49	6,637.78
					Oct-15	20.03	6,637.24
					Jan-16	19.18	6,638.09
					Apr-16	19.14	6,638.13
					Jul-16	20.10	6,637.17
					Oct-16	20.64	6,636.63
					Jan-17	19.67	6,637.60
					Apr-17	19.06	6,638.21
					Jul-17	20.34	6,636.93
					Oct-17	21.03	6,636.24
					Jan-18	20.20	6,637.07

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
PZ10					Apr-18	19.66	6,637.61
					Jul-18	21.03	6,636.24
					Oct-18	21.35	6,635.92
Northern Area Groundwater Elevations (Wells Screened in Bedrock)							
BGMW07	Bedrock	215.0-255.0	256.0	6,691.63	Apr-18	36.01	6,655.62
					Jul-18	18.02	6,673.61
					Oct-18	17.57	6,674.06
BGMW08	Bedrock	165.0-185.0	186.0	6,685.02	Apr-18	179.36	6,505.66
					Jul-18	170.16	6,514.86
					Oct-18	168.64	6,516.38
BGMW09	Bedrock	106.0-136.0	173.0	6,692.27	Apr-18	115.19	6,577.08
					Jul-18	53.84	6,638.43
					Oct-18	47.24	6,645.03
BGMW10	Bedrock	106.0-136.0	147.0	6,701.49	Apr-18	30.49	6,671.00
					Jul-18	30.69	6,670.80
					Oct-18	30.79	6,670.70
TMW02	Bedrock	67.9-81.9	85.0	6,705.35	Jul-14	55.68	6,649.67
					Oct-14	55.76	6,649.59
					Jan-15	55.69	6,649.66
					Mar-15	55.82	6,649.53
					Jul-15	55.85	6,649.50
					Oct-15	55.90	6,649.45
					Jan-16	55.82	6,649.53
					Apr-16	56.04	6,649.31
					Jul-16	56.76	6,648.59
					Oct-16	56.18	6,649.17
					Jan-17	55.94	6,649.41
					Apr-17	56.16	6,649.19
					Jul-17	57.28	6,648.07
					Oct-17	56.39	6,648.96
					Jan-18	56.36	6,648.99
					Apr-18	56.43	6,648.92
					Jul-18	56.28	6,649.07
					Oct-18	56.48	6,648.87
TMW14A	Bedrock	94.3-109.3	110.0	6,723.54	Jul-14	64.87	6,658.67
					Oct-14	64.94	6,658.60
					Jan-15	65.07	6,658.47
					Mar-15	65.00	6,658.54
					Jul-15	65.14	6,658.40
					Oct-15	65.17	6,658.37
					Jan-16	65.19	6,658.35
					Apr-16	65.20	6,658.34
					Jul-16	65.51	6,658.03
					Oct-16	65.50	6,658.04
					Jan-17	65.68	6,657.86
					Apr-17	65.99	6,657.55
					Jul-17	65.77	6,657.77
					Oct-17	65.95	6,657.59
					Jan-18	66.31	6,657.23
					Apr-18	66.47	6,657.07
					Jul-18	66.68	6,656.86
					Oct-18	66.42	6,657.12

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
TMW16	Bedrock	123.0-138.0	142.0	6,714.15	Jul-14	56.58	6,657.57
					Oct-14	56.66	6,657.49
					Jan-15	56.68	6,657.47
					Mar-15	56.74	6,657.41
					Jul-15	56.77	6,657.38
					Oct-15	57.03	6,657.12
					Jan-16	57.04	6,657.11
					Apr-16	57.21	6,656.94
					Jul-16	57.39	6,656.76
					Oct-16	57.56	6,656.59
					Jan-17	57.42	6,656.73
					Apr-17	57.55	6,656.60
					Jul-17	57.75	6,656.40
					Oct-17	58.10	6,656.05
					Jan-18	58.20	6,655.95
					Apr-18	58.25	6,655.90
					Jul-18	58.82	6,655.33
					Oct-18	58.35	6,655.80
TMW17	Bedrock	112.0-127.0	152.0	6,719.89	Jul-14	63.22	6,656.67
					Oct-14	63.33	6,656.56
					Jan-15	63.32	6,656.57
					Mar-15	63.43	6,656.46
					Jul-15	63.65	6,656.24
					Oct-15	63.70	6,656.19
					Jan-16	63.69	6,656.20
					Apr-16	63.90	6,655.99
					Jul-16	64.03	6,655.86
					Oct-16	64.14	6,655.75
					Jan-17	64.21	6,655.68
					Apr-17	64.19	6,655.70
					Jul-17	64.99	6,654.90
					Oct-17	65.00	6,654.89
					Jan-18	65.13	6,654.76
					Apr-18	65.11	6,654.78
					Jul-18	65.12	6,654.77
					Oct-18	65.10	6,654.79
TMW18	Bedrock	150.0-160.0	220.0	6,713.49	Jul-14	55.44	6,658.05
					Oct-14	55.53	6,657.96
					Jan-15	55.56	6,657.93
					Mar-15	55.55	6,657.94
					Jul-15	55.80	6,657.69
					Oct-15	55.85	6,657.64
					Jan-16	55.87	6,657.62
					Apr-16	56.02	6,657.47
					Jul-16	56.20	6,657.29
					Oct-16	56.30	6,657.19
					Jan-17	56.29	6,657.20
					Apr-17	56.34	6,657.15
					Jul-17	56.38	6,657.11
					Oct-17	56.70	6,656.79
					Jan-18	56.95	6,656.54
					Apr-18	57.15	6,656.34
					Jul-18	57.28	6,656.21
					Oct-18	57.11	6,656.38

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
TMW19	Bedrock	169.0-184.0	187.0	6,700.52	Jul-14	43.16	6,657.36
					Oct-14	43.20	6,657.32
					Jan-15	43.14	6,657.38
					Mar-15	43.20	6,657.32
					Jul-15	43.25	6,657.27
					Oct-15	43.54	6,656.98
					Jan-16	43.46	6,657.06
					Apr-16	43.73	6,656.79
					Jul-16	43.93	6,656.59
					Oct-16	44.03	6,656.49
					Jan-17	43.89	6,656.63
					Apr-17	43.90	6,656.62
					Jul-17	44.37	6,656.15
					Oct-17	44.48	6,656.04
					Jan-18	44.55	6,655.97
					Apr-18	44.87	6,655.65
					Jul-18	45.22	6,655.30
					Oct-18	44.85	6,655.67
TMW30	Bedrock	35.0-45.0	51.5	6,714.59	Jul-14	40.60	6,673.99
					Oct-14	40.55	6,674.04
					Jan-15	40.56	6,674.03
					Mar-15	39.95	6,674.64
					Jul-15	40.38	6,674.21
					Oct-15	40.38	6,674.21
					Jan-16	40.43	6,674.16
					Apr-16	40.58	6,674.01
					Jul-16	40.54	6,674.05
					Oct-16	40.58	6,674.01
					Jan-17	40.56	6,674.03
					Apr-17	40.59	6,674.00
					Jul-17	40.52	6,674.07
					Oct-17	40.60	6,673.99
					Jan-18	40.58	6,674.01
					Apr-18	40.62	6,673.97
					Jul-18	40.77	6,673.82
					Oct-18	40.71	6,673.88
TMW31D	Bedrock	77.0-107.0	111.5	6,710.44	Jul-14	38.14	6,672.30
					Oct-14	38.41	6,672.03
					Jan-15	38.45	6,671.99
					Mar-15	38.65	6,671.79
					Jul-15	38.81	6,671.63
					Oct-15	39.05	6,671.39
					Jan-16	39.06	6,671.38
					Apr-16	39.37	6,671.07
					Jul-16	39.57	6,670.87
					Oct-16	39.86	6,670.58
					Jan-17	40.34	6,670.10
					Apr-17	40.09	6,670.35
					Jul-17	40.20	6,670.24
					Oct-17	40.65	6,669.79
					Jan-18	40.68	6,669.76
					Apr-18	40.78	6,669.66
					Jul-18	41.06	6,669.38
					Oct-18	41.15	6,669.29

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
TMW32	Bedrock	117.0-137.0	139.1	6,709.31	Jul-14	40.29	6,669.02
					Oct-14	40.49	6,668.82
					Jan-15	40.53	6,668.78
					Mar-15	40.69	6,668.62
					Jul-15	40.92	6,668.39
					Oct-15	41.08	6,668.23
					Jan-16	41.13	6,668.18
					Apr-16	41.35	6,667.96
					Jul-16	41.57	6,667.74
					Oct-16	41.79	6,667.52
					Jan-17	41.76	6,667.55
					Apr-17	42.01	6,667.30
					Jul-17	42.15	6,667.16
					Oct-17	42.14	6,667.17
					Jan-18	42.50	6,666.81
					Apr-18	42.65	6,666.66
					Jul-18	42.99	6,666.32
					Oct-18	43.06	6,666.25
TMW36	Bedrock	132.0-152.0	157.0	6,699.04	Jul-14	28.18	6,670.86
					Oct-14	28.26	6,670.78
					Jan-15	28.40	6,670.64
					Mar-15	28.49	6,670.55
					Jul-15	28.70	6,670.34
					Oct-15	28.98	6,670.06
					Jan-16	29.04	6,670.00
					Apr-16	29.26	6,669.78
					Jul-16	29.59	6,669.45
					Oct-16	29.78	6,669.26
					Jan-17	29.77	6,669.27
					Apr-17	30.01	6,669.03
					Jul-17	30.23	6,668.81
					Oct-17	30.67	6,668.37
					Jan-18	30.59	6,668.45
					Apr-18	30.92	6,668.12
					Jul-18	31.08	6,667.96
					Oct-18	31.43	6,667.61
TMW37	Bedrock	88.0-108.0	111.0	6,713.09	Jul-14	46.41	6,666.68
					Oct-14	46.51	6,666.58
					Jan-15	46.61	6,666.48
					Mar-15	46.75	6,666.34
					Jul-15	46.65	6,666.44
					Oct-15	46.82	6,666.27
					Jan-16	46.80	6,666.29
					Apr-16	47.12	6,665.97
					Jul-16	47.25	6,665.84
					Oct-16	47.51	6,665.58
					Jan-17	49.45	6,663.64
					Apr-17	47.69	6,665.40
					Jul-17	47.84	6,665.25
					Oct-17	48.25	6,664.84
					Jan-18	48.36	6,664.73
					Apr-18	48.35	6,664.74
					Jul-18	48.86	6,664.23
					Oct-18	48.97	6,664.12

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
TMW38	Bedrock	118.9-158.9	159.5	6,706.79	Jul-14	47.44	6,659.35
					Oct-14	47.51	6,659.28
					Jan-15	47.46	6,659.33
					Mar-15	47.55	6,659.24
					Jul-15	47.86	6,658.93
					Oct-15	47.91	6,658.88
					Jan-16	47.90	6,658.89
					Apr-16	48.12	6,658.67
					Jul-16	48.28	6,658.51
					Oct-16	48.40	6,658.39
					Jan-17	48.24	6,658.55
					Apr-17	48.42	6,658.37
					Jul-17	48.63	6,658.16
					Oct-17	48.71	6,658.08
					Jan-18	48.76	6,658.03
					Apr-18	48.79	6,658.00
					Jul-18	48.54	6,658.25
					Oct-18	49.69	6,657.10
TMW39D	Bedrock	70.0-100.0	100.5	6,708.61	Jul-14	35.40	6,673.21
					Oct-14	35.68	6,672.93
					Jan-15	35.72	6,672.89
					Mar-15	35.92	6,672.69
					Jul-15	36.06	6,672.55
					Oct-15	36.31	6,672.30
					Jan-16	36.31	6,672.30
					Apr-16	36.62	6,671.99
					Jul-16	36.83	6,671.78
					Oct-16	37.11	6,671.50
					Jan-17	37.02	6,671.59
					Apr-17	37.37	6,671.24
					Jul-17	37.50	6,671.11
					Oct-17	37.83	6,670.78
					Jan-18	37.90	6,670.71
					Apr-18	38.03	6,670.58
					Jul-18	38.30	6,670.31
					Oct-18	38.39	6,670.22
TMW40D	Bedrock	135.0-155.0	155.5	6,706.15	Jul-14	33.09	6,673.06
					Oct-14	33.35	6,672.80
					Jan-15	33.39	6,672.76
					Mar-15	33.58	6,672.57
					Jul-15	33.76	6,672.39
					Oct-15	34.01	6,672.14
					Jan-16	34.02	6,672.13
					Apr-16	34.31	6,671.84
					Jul-16	34.50	6,671.65
					Oct-16	34.81	6,671.34
					Jan-17	34.74	6,671.41
					Apr-17	35.04	6,671.11
					Jul-17	35.19	6,670.96
					Oct-17	35.49	6,670.66
					Jan-18	35.55	6,670.60
					Apr-18	35.75	6,670.40

TABLE 3-1: NORTHERN AREA WATER LEVEL MEASUREMENTS BY GROUNDWATER ZONE

Well ID	GW Zone	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Well TOC Elevation (NAVD 88)	Water Level Measurement Date	Depth to Water (feet btoc)	Groundwater Elevation (NAVD 88)
TMW40D					Jul-18	35.95	6,670.20
					Oct-18	36.10	6,670.05
TMW48	Bedrock	71.0-91.0	91.5	6,709.84	Jul-14	36.61	6,673.23
					Oct-14	36.89	6,672.95
					Jan-15	36.97	6,672.87
					Mar-15	37.10	6,672.74
					Jul-15	37.28	6,672.56
					Oct-15	37.53	6,672.31
					Jan-16	37.57	6,672.27
					Apr-16	37.81	6,672.03
					Jul-16	37.98	6,671.86
					Oct-16	38.31	6,671.53
					Jan-17	38.28	6,671.56
					Apr-17	38.58	6,671.26
					Jul-17	38.69	6,671.15
					Oct-17	38.97	6,670.87
					Jan-18	39.11	6,670.73
					Apr-18	39.24	6,670.60
					Jul-18	39.50	6,670.34
					Oct-18	39.65	6,670.19
TMW49	Bedrock	40.0-60.0	60.5	6,714.71	Jul-14	44.69	6,670.02
					Oct-14	44.97	6,669.74
					Jan-15	45.05	6,669.66
					Mar-15	45.22	6,669.49
					Jul-15	45.34	6,669.37
					Oct-15	45.58	6,669.13
					Jan-16	45.63	6,669.08
					Apr-16	45.93	6,668.78
					Jul-16	46.14	6,668.57
					Oct-16	46.35	6,668.36
					Jan-17	46.35	6,668.36
					Apr-17	46.68	6,668.03
					Jul-17	46.78	6,667.93
					Oct-17	47.09	6,667.62
					Jan-18	47.20	6,667.51
					Apr-18	47.33	6,667.38
					Jul-18	47.60	6,667.11
					Oct-18	47.60	6,667.11

NOTES:
Elevations are recorded in U.S. feet above North America Vertical Datum of 1988 (NAVD88).

ABBREVIATIONS & ACRONYMS:
bgs = below ground surface
btoc = below top of casing
ID = identification

TABLE 4-1: NORTHERN AREA GROUNDWATER PURGE METHOD

Well ID	Casing Diameter (in)	Well Depth (ft bgs)	Screened Interval (ft bgs)	Screen Length (in)	Dedicated Pump?	Low Flow?	Purge Method
BGMW01	2.50	33.0	12.5 32.5	20.0	Yes	Yes	Traditional Low Flow
BGMW02	2.50	34.0	13.5 33.5	20.0	Yes	Yes	Traditional Low Flow
BGMW03	2.50	29.0	8.5 28.5	20.0	Yes	Yes	Submersible Pump
BGMW07	2.00	300.00	215-255	40.0	No	No	Submersible Pump
BGMW08	2.00	275.00	165-185	20.0	No	No	Submersible Pump
BGMW09	2.00	220.00	106-136	30.0	No	No	Submersible Pump
BGMW10	2.00	150.00	106-136	30.0	No	No	Submersible Pump
BGMW11	2.00	40.00	20-40	20.0	No	No	Submersible Pump
BGMW12	2.00	32.00	12-32	20.0	No	No	Submersible Pump
BGMW13S	2.00	69.00	49-69	20.0	No	No	Submersible Pump
BGMW13D	2.00	104.00	84-104	20.0	No	No	Submersible Pump
FW31	4.00	50.00	10.0 50.0	40.0	No	No	Hand Bail
FW35	4.00	30.00	10.0 30.0	20.0	Dry		Hand Bail
MW01	2.00	55.0	33.6 53.6	20.0	No	No	Hand Bail
MW02	2.00	48.0	37.0 47.0	10.0	No	No	Hand Bail
MW03	2.00	53.0	43.0 53.0	10.0	Yes	Yes	Traditional Low Flow
MW18D	2.00	59.9	47.0 57.0	10.0	Yes	Yes	Submersible Pump
MW18S	2.00	39.04	27.0-37.0	10.0	Dry		Submersible Pump
MW20	2.00	59.4	47.0 57.0	10.0	Yes	Yes	Traditional Low Flow
MW22D	2.00	58.6	47.0 57.0	10.0	Yes	Yes	Traditional Low Flow
MW22S	2.00	43.54	31.0 41.0	10.0	Dry		Traditional Low Flow
MW23	2.50	134.0	63.5 133.5	70.0	Yes	No	Bennett Pump
MW24	2.50	66.5	16.0 66.0	50.0	Yes	No	Bennett Pump
MW25	2.00	65.50	45.5-65.5	20.0	No	No	Submersible Pump
MW26	2.00	60.00	40-60	20.0	No	No	Submersible Pump
MW27	2.00	63.00	43-63	20.0	No	No	Submersible Pump
MW28	2.00	60.00	40-60	20.0	No	No	Submersible Pump
MW29	2.00	57.00	37-57	20.0	No	No	Submersible Pump
MW30	2.00	60.00	40-60	20.0	No	No	Submersible Pump
MW31	2.00	53.00	23-53	20.0	No	No	Submersible Pump
MW32	2.00	60.00	40-60	20.0	No	No	Submersible Pump
MW33	2.00	57.00	37-57	20.0	No	No	Submersible Pump
MW34	2.00	60.00	40-60	20.0	No	No	Submersible Pump
MW35	2.00	61.00	41-61	20.0	No	No	Submersible Pump
MW36S	2.00	50.00	30-50	20.0	No	No	Submersible Pump
MW36D	2.00	75.00	55-75	20.0	No	No	Submersible Pump
SMW01	2.00	50.2	29.9 49.9	20.0	Yes	Yes	Traditional Low Flow
TMW01	2.00	60.0	44.0 59.0	15.0	Yes	Yes	Traditional Low Flow
TMW02	2.00	85.0	67.9 81.9	14.0	Yes	Yes	Traditional Low Flow
TMW03	2.00	70.1	49.8 69.8	20.0	Yes	Yes	Traditional Low Flow
TMW04	2.00	70.50	50.0 70.0	20.0	Yes	Yes	Traditional Low Flow
TMW06	2.00	57.0	45.0 55.0	10.0	Yes	Yes	Traditional Low Flow
TMW07	2.00	76.00	65.0 75.0	10.0	No	No	Submersible Pump
TMW08	2.00	62	30.0 60.0	30	Yes	Yes	Traditional Low Flow
TMW10	2.00	65.0	28.0 58.0	30.0	Yes	Yes	Traditional Low Flow
TMW11	2.00	82	55.0 80.0	25	Yes	Yes	Traditional Low Flow

TABLE 4-1: NORTHERN AREA GROUNDWATER PURGE METHOD

Well ID	Casing Diameter (in)	Well Depth (ft bgs)	Screened Interval (ft bgs)	Screen Length (in)	Dedicated Pump?	Low Flow?	Purge Method
TMW13	2.00	72.5	60.7 70.7	10	Yes	Yes	Traditional Low Flow
TMW14A	2.00	110	94.25 109.25	15	Yes	Yes	ZIST Low Flow
TMW15	2.00	82	56.0 71.0	15	Yes	Yes	Traditional Low Flow
TMW16	2.00	142	123.0 138.0	15	Yes	No	Bennett Pump
TMW17	2.00	152.0	112.0 127.0	15.0	Yes	Yes	ZIST Low Flow
TMW18	2.00	220	150.0 160.0	10	Yes	No	Bennett Pump
TMW19	2.00	187	169.0 184.0	15	Yes	No	Bennett Pump
TMW21	2.00	72.0	48.0 58.0	10.0	Yes	Yes	Submersible Pump
TMW22	2.00	77.0	52.0 62.0	10.0	No	No	Submersible Pump
TMW23	2.00	72.0	46.0 56.0	10.0	No	No	Submersible Pump
TMW24	2.00	75.0	44.0 54.0	10.0	Yes	Yes	Traditional Low Flow
TMW25	2.00	74.0	42.5 52.5	10.0	Yes	Yes	Traditional Low Flow
TMW26	2.00	64.8	45.0 55.0	10	Yes	Yes	Traditional Low Flow
TMW27	2.00	102.2	60.0 70.0	10.0	Yes	Yes	Traditional Low Flow
TMW28	2.00	72.5	37.0 47.0	10	Yes	Yes	Traditional Low Flow
TMW29	2.00	69	49.0 59.0	10	No	No	Hand Bail
TMW30	2.00	51.5	35.0 45.0	10.0	No	No	Submersible Pump
TMW31D	2.00	111.5	77.0 107.0	30.0	Yes	Yes	Traditional Low Flow
TMW31S	2.00	61.0	50.0 60.0	10.0	No	No	Submersible Pump
TMW32	2.00	139.1	117.0 137.0	20.0	Yes	Yes	Traditional Low Flow
TMW33	2.00	60.4	37.0 57.0	20.0	No	No	Submersible Pump
TMW34	2.00	57.25	37.0 57.0	20.0	Yes	Yes	Traditional Low Flow
TMW35	2.00	55	35.0 55.0	20	Yes	Yes	Traditional Low Flow
TMW36	2.00	157.0	132.0 152.0	20.0	Yes	No	Bennett Pump
TMW37	2.00	111	88.0 108.0	20	Yes	No	Bennett Pump
TMW38	2.50	159.5	118.9 158.9	40.0	Yes	Yes	Traditional Low Flow
TMW39S	2.50	53.0	32.5 52.5	20.0	No	No	Submersible Pump
TMW39D	2.50	100.5	70.0 100.0	30.0	Yes	Yes	Traditional Low Flow
TMW40D	2.50	155.5	135.0 155.0	20.0	Yes	Yes	Traditional Low Flow
TMW40S	2.50	60.5	50.0 60.0	10	No	No	Hand Bail
TMW41	2.50	66.0	55.5 65.5	10.0	No	No	Submersible Pump
TMW43	2.50	78.5	58.0 78.0	20.0	Yes	Yes	Traditional Low Flow
TMW44	2.50	64	43.5 63.5	20	No	No	Submersible Pump
TMW45	2.50	59.0	38.5 58.5	20.0	Yes	Yes	Traditional Low Flow
TMW46	2.50	59.0	38.5 58.5	20.0	No	No	Submersible Pump
TMW47	2.50	103.0	82.5 102.5	20.0	Yes	Yes	Traditional Low Flow
TMW48	2.50	91.5	71.0 91.0	20.0	Yes	Yes	Traditional Low Flow
TMW49	2.50	60	40.0 60.0	20	Yes	Yes	Traditional Low Flow
TMW50	2.00	2.00	55-75	20.0	No	No	Submersible Pump
TMW51	2.00	2.00	105-125	20.0	No	No	Submersible Pump
TMW52	2.00	2.00	95-115	20.0	No	No	Submersible Pump
TMW53	2.00	2.00	107-117	10.0	No	No	Submersible Pump
TMW54	2.00	2.00	20-40	20.0	No	No	Submersible Pump
TMW55	2.00	2.00	101-121	20.0	No	No	Submersible Pump
TMW56	2.00	2.00	30-50	20.0	No	No	Submersible Pump
TMW57	2.00	2.00	60-70	10.0	No	No	Submersible Pump

TABLE 4-1: NORTHERN AREA GROUNDWATER PURGE METHOD

Well ID	Casing Diameter (in)	Well Depth (ft bgs)	Screened Interval (ft bgs)	Screen Length (in)	Dedicated Pump?	Low Flow?	Purge Method
TMW58	2.00	2.00	145-185	40.0	No	No	Submersible Pump
TMW59	2.00	2.00	42-62	20.0	No	No	Submersible Pump
TMW60	2.00	2.00	46-66	20.0	No	No	Submersible Pump
TMW61	2.00	2.00	41-61	20.0	No	No	Submersible Pump
TMW62	2.00	2.00	40-60	20.0	No	No	Submersible Pump
TMW63	2.00	2.00	140-180	40.0	No	No	Submersible Pump
TMW64	2.00	2.00	80-100	20.0	No	No	Submersible Pump

ABBREVIATIONS & ACRONYMS:
ft bgs = feet below ground surface
ID = identification
in = inches
ZIST = zone isolation sampling technology

TABLE 4-2: FIELD EQUIPMENT AND MATERIALS

Equipment and Materials	Elevation Survey	Traditional Low-Flow	ZIST Low-Flow	Hand Bail	Submersible Pump	Bennett Pump	Waterra Pump
Electronic water level meter, capable of measuring to 0.01 feet accuracy	X	X	X	X	X	X	X
Power source (generator, portable rechargeable battery, and connectors) a		X	X		X		X
Nitrogen Tanks with airline hoses and pressure regulator		X	X			X	
Reusable submersible pump setup (control boxes, flow regulator, pump assembly, pump cable, power supply)					X		
Reusable Waterra pump setup							X
Power Inverter		X	X				
Indicator field parameter monitoring instruments		X	X	X	X	X	X
Flow measurement supplies (graduated container and stopwatch)		X	X	X	X	X	X
Extra tubing		X	X		X	X	X
Bailers and bailing string				X	X		
Clamp or connector		X	X	X	X	X	X
Reusable buckets or storage containers for purge water		X	X	X	X	X	X
Reusable large portable water tanks (250 gallon or greater)					X	X	
Decontamination supplies (including non phosphate detergent, distilled water, brushes, and dedicated decontamination buckets)	X	X	X	X	X	X	X
Plastic sheeting, absorbent pads, or shallow tubs to catch spills	X	X	X	X	X	X	X
Disposable latex or nitrite gloves	X	X	X	X	X	X	X
Safety glasses	X	X	X	X	X	X	X
Trash bags	X	X	X	X	X	X	X
Sample bottles and sample labels		X	X	X	X	X	X
Shipping supplies (including coolers, resealable bags, tape, cushioning material , shipping forms)		X	X	X	X	X	X
Logbook and sampling forms	X	X	X	X	X	X	X
Well construction data, location map, field data from last sampling event.	X	X	X	X	X	X	X
Well keys	X	X	X	X	X	X	X

NOTES: *If a gasoline generator is used, it will be located downwind and at least 15 feet from the well so that the exhaust fumes do not contaminate the samples.

ZIST = zone isolation sampling technology

TABLE 4-3: SAMPLE CONTAINERS, PRESERVATION, AND HOLDING TIME BY ANALYTICAL METHOD

Analytical Group	Analytical Method	Container (Number Size, and Type)	MS/MSD Container (Number, Size, and Type)	Preservation	Holding Time
TCL VOCs	SW8260C	(3) 40 mL VOC glass vials	(9) 40 mL VOC glass vials	No headspace; Cool < 6°C, HCL to pH < 2	14 days preserved
TCL SVOCs	SW8270D	(2) 1 L amber bottle	(8) 1 L amber bottle	Cool <6°C	7 days to extraction, 40 days to analysis
1,4 Dioxane	SW8270-SIM	(2) 1 L amber bottle	(6) 1 L amber bottle	Cool <6°C	7 days to extraction, 40 days to analysis
- **TPH GRO**	SW8015D	(3) 40 mL VOC glass vials	(9) 40 mL VOC glass vials	No headspace; Cool < 6°C, HCL to pH < 2	14 days preserved
PCBs	SW8082A	(2) 1 L amber bottle	(6) 1 L amber bottle	Cool < 6°C	7 days to extraction, 40 days to analysis
TCL Pesticides	SW8081B	(2) 1 L amber bottle	(6) 1 L amber bottle	Cool < 6°C	7 days to extraction, 40 days to analysis
TPH DRO	SW8015D	(2) 1 L amber bottle	(6) 1 L amber bottle	Cool < 6°C	7 days to extraction, 40 days to analysis
Explosives	SW8330B/8332	(2) 250 mL amber bottles	(6) 250 mL amber bottles	Cool < 6°C	7 days to extraction, 40 days to analysis
Nitrate/Nitrite	SW9056A	(1) 250 mL poly	(3) 250 mL poly	Cool < 6°C	48 hours
Herbicides	SW8151A	(2) 1 L amber bottle	(6) 1 L amber bottle	Cool < 6°C	7 days to extraction, 40 days to analysis
Perchlorate (filtered)	SW6850	(1) 60 mL poly bottle, field filtered	(3) 60 mL poly bottle, field filtered	One third bottle headspace; Cool < 6°C	28 days
TAL Total Metals and Mercury (unfiltered)	SW6020A	(1) 250 mL poly bottle	(3) 250 mL poly bottle	Cool < 6°C, HNO3 to pH < 2	28 days
TAL Dissolved Metals and Mercury (filtered)	SW6020A	(1) 250 mL poly bottle, field filtered	(3) 250 mL poly bottle, field filtered	Cool < 6°C, HNO3 to pH < 2	28 days

ABBREVIATIONS AND ACRONYMS:

°C = degrees Celsius
DRO = diesel range organics
GRO = gasoline range organics
HCL = hydrochloric acid
HNO_3 = nitric acid
L = liter
mL = milliliter
poly = polyethylene
SIM = Selected Ion Monitoring
SVOC = semivolatile organic compound
TAL = target analyte list
TCL = target compound list
TPH = total petroleum hydrocarbons
VOC = volatile organic compound

Method	Analyte	CAS	Units	Nov. 2019 EPA MCL[1]	Dec. 21, 2018 20.6.2 NMAC NM WQCC[2]	Nov. 2019 EPA RSL Cancer Tap Water (target excess cancer risk level of 10^{-6})	Nov. 2019 EPA RSL Cancer Tap Water (target excess cancer risk level of 10^{-5})[3]	Nov. 2019 EPA RSL Noncancer Tap Water[3]	Final Selected SL[4]	Final Selected SL Reference	Risk Endpoint c/nc	Selected SL < LOQ	Selected SL < LOD	EMAX Lab LOQ	EMAX Lab LOD	EMAX Lab DL	LCS, MS/MSD Lower Control Limits	LCS, MS/MSD Upper Control Limits	%RPD	Notes
6020A	Aluminum	7429-90-5	µg/L	–	5,000	–	–	20,000	5,000	WQCC	–	–	–	100	50	20	84	117	20	–
6020A	Calcium[7]	7440-70-2	µg/L	–	–	–	–	–	NA	–	–	–	–	200	100	50	87	118	20	–
6020A	Iron	7439-89-6	µg/L	–	1,000	–	–	14,000	1,000	WQCC	–	–	–	200	50	25	87	118	20	–
6020A	Magnesium[7]	7439-95-4	µg/L	–	–	–	–	–	NA	–	–	–	–	100	50	20	83	118	20	–
6020A	Potassium[7]	7440-09-7	µg/L	–	–	–	–	–	NA	–	–	–	–	200	100	50	87	115	20	–
6020A	Sodium[7]	7440-23-5	µg/L	–	–	–	–	–	NA	–	–	–	–	200	100	50	85	117	20	–
6020A	Antimony	7440-36-0	µg/L	6	6	–	–	7.8	6	WQCC	–	–	–	1	0.5	0.25	85	117	20	–
6020A	Arsenic	7440-38-2	µg/L	10	10	0.052	0.52	6	10	WQCC	–	–	–	1	0.25	0.125	84	116	20	–
6020A	Barium	7440-39-3	µg/L	2,000	2,000	–	–	3,800	2,000	WQCC	–	–	–	1	0.5	0.25	86	114	20	–
6020A	Beryllium	7440-41-7	µg/L	4	4	–	–	25	4	WQCC	–	–	–	0.5	0.2	0.1	83	121	20	–
6020A	Cadmium	7440-43-9	µg/L	5	5	–	–	9.2	5	WQCC	–	–	–	1	0.2	0.1	87	115	20	–
6020A	Chromium	7440-47-3	µg/L	100	50	–	–	–	50	WQCC	–	–	–	1	0.2	0.1	85	116	20	–
6020A	Cobalt	7440-48-4	µg/L	–	50	–	–	6	50	WQCC	–	–	–	0.75	0.2	0.1	86	115	20	–
6020A	Copper	7440-50-8	µg/L	1,300	1,000	–	–	800	1,000	WQCC	–	–	–	2	1	0.5	85	118	20	–
6020A	Lead	7439-92-1	µg/L	15	15	–	–	15	15	WQCC	–	–	–	1	0.1	0.05	88	115	20	–
6020A	Manganese	7439-96-5	µg/L	–	200	–	–	430	200	WQCC	–	–	–	1	0.5	0.25	87	115	20	–
6020A	Nickel	7440-02-0	µg/L	–	200	–	–	390	200	WQCC	–	–	–	1	0.5	0.25	85	117	20	–
6020A	Selenium	7782-49-2	µg/L	50	50	–	–	100	50	WQCC	–	–	–	1	0.3	0.15	80	120	20	–
6020A	Silver	7440-22-4	µg/L	–	50	–	–	94	50	WQCC	–	–	–	1	0.2	0.1	85	116	20	–
6020A	Thallium	7440-28-0	µg/L	2	2	–	–	0.2	2	WQCC	–	–	–	0.5	0.2	0.1	82	116	20	–
6020A	Vanadium	7440-62-2	µg/L	–	–	–	–	86	86	RSL	nc	–	–	1	0.5	0.25	86	115	20	–
6020A	Zinc	7440-66-6	µg/L	–	10,000	–	–	6,000	10,000	WQCC	–	–	–	20	10	5	83	119	20	–
6850	Perchlorate	14797-73-0	µg/L	15	–	–	–	14	14	RSL	nc	–	–	0.2	0.1	0.05	84	119	15	–
7470A	Mercury	7439-97-6	µg/L	2	2	–	–	0.63	2	WQCC	–	–	–	0.5	0.2	0.1	82	119	20	–
8015D	Diesel Range Organics (DRO) [C10 C28]	68334-30-5	µg/L	–	–	–	–	–	16.7	NMED RAG [6]	–	yes	yes	500	100	50	36	132	30	–
8015D	Bromobenzene (Surrogate)[8]	108-86-1	%	–	–	–	–	–	NA	–	–	–	–	–	–	–	60	130	30	–
8015D	Hexacosane (Surrogate)[8]	630-01-3	%	–	–	–	–	–	NA	–	–	–	–	–	–	–	60	140	30	–
8015D	Gasoline Range Organics (GRO) [C6 C10]	8006-61-9	µg/L	–	–	–	–	–	10.1	NMED RAG [6]		yes	yes	100	20	10	78	122	30	–
8015D	Bromofluorobenzene (Surrogate)[8]	460-00-4	%	–	–	–	–	–	NA	–	–	–	–	–	–	–	69	133	30	–
8260C	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	–	–	0.57	5.7	480	5.7	RSL	c	–	–	1	0.2	0.1	78	124	20	–
8260C	1,1,1-Trichloroethane	71-55-6	µg/L	200	200	–	–	8,000	200	WQCC	–	–	–	1	0.2	0.1	74	131	20	–
8260C	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	–	10	0.076	0.76	366	10	WQCC	–	–	–	1	0.2	0.1	71	121	20	–
8260C	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	µg/L	–	–	–	–	10,000	10,000	RSL	nc	–	–	1	0.5	0.25	70	136	20	–
8260C	1,1,2-Trichloroethane	79-00-5	µg/L	5	5	0.28	2.8	0.41	5	WQCC	–	–	–	1	0.2	0.1	80	119	20	–
8260C	1,1-Dichloroethane	75-34-3	µg/L	–	25	2.8	28	3,800	25	WQCC	–	–	–	1	0.2	0.1	77	125	20	–
8260C	1,1-Dichloroethene	75-35-4	µg/L	7	7	–	–	280	7	WQCC	–	–	–	1	0.2	0.1	71	131	20	–
8260C	1,1-Dichloropropene (Surrogate dichloropropene, 1,3)	563-58-6	µg/L	–	–	0.47	4.7	39	4.7	RSL	c	–	–	1	0.2	0.1	79	125	20	–
8260C	1,2,3-Trichlorobenzene	87-61-6	µg/L	–	–	–	–	7	7	RSL	nc	–	–	1	0.3	0.15	69	129	20	–
8260C	1,2,3-Trichloropropane	96-18-4	µg/L	–	–	0.00075	0.0075	0.62	0.0075	RSL	c	yes	yes	2	0.5	0.25	73	122	20	–
8260C	1,2,4-Trichlorobenzene	120-82-1	µg/L	70	70	1.2	12	4	70	WQCC	–	–	–	1	0.3	0.15	69	130	20	–
8260C	1,2,4-Trimethylbenzene	95-63-6	µg/L	–	–	–	–	56	56	RSL	nc	–	–	1	0.5	0.25	76	124	20	–
8260C	1,2-Dibromo-3-chloropropane	96-12-8	µg/L	0.2	–	0.00033	0.0033	–	0.2	MCL	–	yes	yes	2	0.5	0.25	62	128	20	–
8260C	1,2-Dibromoethane	106-93-4	µg/L	0.05	–	0.0075	0.075	17	0.05	MCL	–	yes	yes	1	0.2	0.1	77	121	20	–
8260C	1,2-Dichlorobenzene	95-50-1	µg/L	600	600	–	–	300	600	WQCC	–	–	–	1	0.2	0.1	80	119	20	–
8260C	1,2-Dichloroethane	107-06-2	µg/L	5	5	0.17	1.7	–	5	WQCC	–	–	–	1	0.2	0.1	73	128	20	–
8260C	1,3,5-Trimethylbenzene	108-67-8	µg/L	–	–	–	–	60	60	RSL	nc	–	–	1	0.5	0.25	75	124	20	–
8260C	1,3-Dichlorobenzene (Surrogate dichlorobenzene, 1,4)	541-73-1	µg/L	75	–	0.48	4.8	570	75	MCL	–	–	–	1	0.2	0.1	80	119	20	–
8260C	1,3-Dichloropropane	142-28-9	µg/L	–	–	–	–	370	370	RSL	nc	–	–	1	0.2	0.1	80	119	20	–
8260C	1,4-Dichlorobenzene	106-46-7	µg/L	75	75	0.48	4.8	570	75	WQCC	–	–	–	1	0.2	0.1	79	118	20	–
8260C	2,2-Dichloropropane (Surrogate dichloropropane, 1,2)	594-20-7	µg/L	5	–	0.85	8.5	8.2	5	MCL	–	–	–	1	0.5	0.25	60	139	20	–
8260C	2-Butanone (MEK)	78-93-3	µg/L	–	–	–	–	5,600	5,600	RSL	nc	–	–	20	10	5	56	143	20	–
8260C	2-Chlorotoluene	95-49-8	µg/L	–	–	–	–	240	240	RSL	nc	–	–	1	0.5	0.25	79	122	20	–
8260C	2-Hexanone	591-78-6	µg/L	–	–	–	–	38	38	RSL	nc	–	–	20	10	5	57	139	20	–
8260C	4-Chlorotoluene	106-43-4	µg/L	–	–	–	–	250	250	RSL	nc	–	–	1	0.5	0.25	78	122	20	–
8260C	4-Methyl-2-pentanone (MIBK)	108-10-1	µg/L	–	–	–	–	6,300	6,300	RSL	nc	–	–	20	10	5	67	130	20	methyl-Isobutyl ketone
8260C	Acetone	67-64-1	µg/L	–	–	–	–	14,000	14,000	RSL	nc	–	–	20	10	5	39	160	20	–
8260C	Benzene	71-43-2	µg/L	5	5	0.46	4.6	–	5	WQCC	–	–	–	1	0.2	0.1	79	120	20	–

Method	Analyte	CAS	Units	Nov. 2019 EPA MCL[1]	Dec. 21, 2018 20.6.2 NMAC NM WQCC[2]	Nov. 2019 EPA RSL Cancer Tap Water (target excess cancer risk level of 10^{-6})	Nov. 2019 EPA RSL Cancer Tap Water (target excess cancer risk level of 10^{-5})[3]	Nov. 2019 EPA RSL Noncancer Tap Water[3]	Final Selected SL[4]	Final Selected SL Reference	Risk Endpoint c/nc	Selected SL < LOQ	Selected SL < LOD	EMAX Lab LOQ	EMAX Lab LOD	EMAX Lab DL	LCS, MS/MSD Lower Control Limits	LCS, MS/MSD Upper Control Limits	%RPD	Notes
8260C	Bromobenzene	108-86-1	µg/L	–	–	–	–	62	62	RSL	nc			1	0.2	0.1	80	120	20	–
8260C	Bromochloromethane	74-97-5	µg/L	–	–	–	–	83	83	RSL	nc	–	–	1	0.3	0.15	78	123	20	–
8260C	Bromodichloromethane	75-27-4	µg/L	80	–	0.13	1.3	–	80	MCL	–	–	–	1	0.2	0.1	79	125	20	–
8260C	Bromoform	75-25-2	µg/L	80	–	3.3	33	–	80	MCL	–	–	–	1	0.3	0.15	66	130	20	–
8260C	Bromomethane	74-83-9	µg/L	–	–	–	–	7.5	7.5	RSL	nc	–	–	1	0.5	0.25	53	141	20	–
8260C	Carbon disulfide	75-15-0	µg/L	–	–	–	–	810	810	RSL	nc	–	–	1	0.5	0.25	64	133	20	–
8260C	Carbon tetrachloride	56-23-5	µg/L	5	5	0.46	4.6	49	5	WQCC	–	–	–	1	0.2	0.1	72	136	20	–
8260C	Chlorobenzene	108-90-7	µg/L	–	–	–	–	78	78	RSL	nc	–	–	1	0.2	0.1	82	118	20	–
8260C	Chloroethane	75-00-3	µg/L	–	–	–	–	21,000	21,000	RSL	nc	–	–	2	1	0.5	60	138	20	–
8260C	Chloroform	67-66-3	µg/L	80	100	2.2	2.2	97	80	MCL	–	–	–	1	0.2	0.1	79	124	20	–
8260C	Chloromethane	74-87-3	µg/L	–	–	–	–	190	190	RSL	nc	–	–	1	0.5	0.25	50	139	20	–
8260C	cis-1,2-Dichloroethene	156-59-2	µg/L	70	70	–	–	36	70	WQCC	–	–	–	1	0.2	0.1	78	123	20	–
8260C	cis-1,3-Dichloropropene (Surrogate dichloropropene, 1,3)	10061-01-5	µg/L	–	–	0.47	4.7	39	4.7	RSL	c	–	–	1	0.2	0.1	75	124	20	–
8260C	Dibromochloromethane	124-48-1	µg/L	80	–	0.87	8.7	380	80	MCL	–	–	–	1	0.2	0.1	74	126	20	–
8260C	Dibromomethane	74-95-3	µg/L	–	–	–	–	8.3	8.3	RSL	nc	–	–	1	0.2	0.1	79	123	20	–
8260C	Dichlorodifluoromethane	75-71-8	µg/L	–	–	–	–	200	200	RSL	nc	–	–	1	0.5	0.25	32	152	20	–
8260C	Ethylbenzene	100-41-4	µg/L	700	700	1.5	15	810	700	WQCC	–	–	–	1	0.2	0.1	79	121	20	–
8260C	Hexachlorobutadiene	87-68-3	µg/L	–	–	0.14	1.4	6.5	1.4	RSL	c	yes		2	1	0.5	66	134	20	–
8260C	Isopropylbenzene	98-82-8	µg/L	–	–	–	–	450	450	RSL	nc	–	–	1	0.2	0.1	72	131	20	–
8260C	Methyl acetate	79-20-9	µg/L	–	–	–	–	20,000	20,000	RSL	nc	–	–	2	1	0.5	56	136	20	–
8260C	Methyl-tert-butyl ether	1634-04-4	µg/L	–	100	14	140	6300	100	WQCC	c	–	–	1	0.3	0.15	71	124	20	–
8260C	Methylcyclohexane (Surrogate Cyclohexane)	108-87-2	µg/L	–	–	–	–	13,000	13,000	RSL	nc	–	–	2	1	0.5	72	132	20	–
8260C	Methylene chloride	75-09-2	µg/L	5	5	11	110	110	5	MCL	–	–	–	2	1	0.5	74	124	20	–
8260C	m-Xylene & p-Xylene	179601-23-1	µg/L	–	–	–	–	190	190	RSL	nc	–	–	2	0.5	0.21	80	121	20	–
8260C	Naphthalene	91-20-3	µg/L	–	30	0.17	1.7	6.1	30	WQCC	–	–	–	2	1	0.5	61	128	20	–
8260C	n-Butylbenzene	104-51-8	µg/L	–	–	–	–	1000	1000	RSL	nc	–	–	1	0.5	0.25	75	128	20	–
8260C	N-propylbenzene	103-65-1	µg/L	–	–	–	–	660	660	RSL	nc	–	–	1	0.5	0.25	76	126	20	–
8260C	o-Xylene	95-47-6	µg/L	–	–	–	–	190	190	RSL	nc	–	–	1	0.2	0.1	78	122	20	–
8260C	p-Isopropyltoluene (Surrogate Cumene)	99-87-6	µg/L	–	–	–	–	450	450	RSL	nc	–	–	1	0.5	0.25	77	127	20	–
8260C	sec-Butylbenzene	135-98-8	µg/L	–	–	–	–	2,000	2,000	RSL	nc	–	–	1	0.5	0.25	77	126	20	–
8260C	Styrene	100-42-5	µg/L	100	100	–	–	1,200	100	WQCC	–	–	–	1	0.5	0.25	78	123	20	–
8260C	tert-Butylbenzene	98-06-6	µg/L	–	–	–	–	690	690	RSL	nc	–	–	1	0.5	0.25	78	124	20	–
8260C	Toluene	108-88-3	µg/L	1,000	1,000	–	–	1,100	1,000	WQCC	–	–	–	1	0.2	0.1	80	121	20	–
8260C	trans-1,2-Dichloroethene	156-60-5	µg/L	100	100	–	–	360	100	WQCC	–	–	–	1	0.2	0.1	75	124	20	–
8260C	trans-1,3-Dichloropropene (Surrogate dichloropropene, 1,3)	10061-02-6	µg/L	–	–	0.47	4.7	39	4.7	RSL	c	–	–	1	0.5	0.25	73	127	20	–
8260C	Trichloroethene	79-01-6	µg/L	5	5	0.49	4.9	2.8	5	WQCC	–	–	–	1	0.2	0.1	79	123	20	–
8260C	Trichlorofluoromethane	75-69-4	µg/L	–	–	–	–	5,200	5,200	RSL	nc	–	–	1	0.5	0.25	65	141	20	–
8260C	Vinyl chloride	75-01-4	µg/L	2	2	0.019	0.19	44	2	WQCC	–	–	–	1	0.3	0.11	58	137	20	–
8260C	1,2-Dichloroethane-d4 (Surrogate)[8]	17060-07-0	%	–	–	–	–	–	NA	–	–	–	–	–	–	–	81	118	20	–
8260C	Toluene-d8 (Surrogate)[8]	2037-26-5	%	–	–	–	–	–	NA	–	–	–	–	–	–	–	89	112	20	–
8260C	Dibromofluoromethane (Surrogate)[8]	1868-53-7	%	–	–	–	–	–	NA	–	–	–	–	–	–	–	80	119	20	–
8260C	4-Bromofluorobenzene (Surrogate)[8]	460-00-4	%	–	–	–	–	–	NA	–	–	–	–	–	–	–	85	114	20	–
8270D	1,2,4,5-Tetrachlorobenzene	95-94-3	µg/L	–	–	–	–	1.7	1.7	RSL	nc	yes	yes	10	5	2.5	35	121	20	–
8270D	1,2,4-Trichlorobenzene	120-82-1	µg/L	70	70	1.2	12	4	70	WQCC	–	–	–	20	10	5	29	116	20	–
8270D	1,2-Dichlorobenzene	95-50-1	µg/L	600	600	–	–	300	600	WQCC	–	–	–	10	5	2.5	32	111	20	–
8270D	1,2-Diphenylhydrazine	122-66-7	µg/L	–	–	0.078	0.78		0.78	RSL	c	yes	yes	10	5	2.5	49	122	20	–
8270D	1,3-Dichlorobenzene (Surrogate dichlorobenzene, 1,4)	541-73-1	µg/L	75	75	0.48	4.8	570	75	WQCC	–	–	–	10	5	2.5	28	110	20	–
8270D	1,4-Dichlorobenzene	106-46-7	µg/L	75	75	0.48	4.8	570	75	WQCC	–	–	–	10	5	2.5	29	112	20	–
8270D	2,2'-Oxybis[1-chloropropane]	108-60-1	µg/L	–	–	–	–	710	710	RSL	nc	–	–	10	5	2.5	37	130	20	bis-(2-Chloroisopropyl)ether
8270D	2,3,4,6-Tetrachlorophenol	58-90-2	µg/L	–	–	–	–	240	240	RSL	nc	–	–	10	5	2.5	50	128	20	–
8270D	2,4,5-Trichlorophenol	95-95-4	µg/L	–	–	–	–	1,200	1,200	RSL	nc	–	–	10	5	2.5	53	123	20	–
8270D	2,4,6-Trichlorophenol	88-06-2	µg/L	–	–	4.1	41	12	12	RSL	nc	–	–	10	5	2.5	50	125	20	–
8270D	2,4-Dichlorophenol	120-83-2	µg/L	–	–	–	–	46	46	RSL	nc	–	–	10	5	2.5	47	121	20	–
8270D	2,4-Dimethylphenol	105-67-9	µg/L	–	–	–	–	360	360	RSL	nc	–	–	10	5	2.5	31	124	20	–
8270D	2,4-Dinitrophenol	51-28-5	µg/L	–	–	–	–	39	39	RSL	nc	–	–	20	5	2.5	23	143	20	–
8270D	2,4-Dinitrotoluene	121-14-2	µg/L	–	–	2.4	2.4	38	2.4	RSL	c	yes[5]	yes[5]	10	5	2.5	57	128	20	–

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8270D	2,6-Dichlorophenol (Surrogate dichlorophenol, 2,4)	87-65-0	µg/L	–	–	–	–	46	46	RSL	nc	–	–	10	5	2.5	50	118	20	–
8270D	2,6-Dinitrotoluene	606-20-2	µg/L	–	–	0.049	0.49	5.7	0.49	RSL	c	yes[5]	yes[5]	10	5	2.5	57	124	20	–
8270D	2-Chloronaphthalene	91-58-7	µg/L	–	–	–	–	750	750	RSL	nc	–	–	10	5	2.5	40	116	20	–
8270D	2-Chlorophenol	95-57-8	µg/L	–	–	–	–	91	91	RSL	nc	–	–	10	5	2.5	38	117	20	–
8270D	2-Methylnaphthalene	91-57-6	µg/L	–	30	–	–	36	30	WQCC	–	–	–	10	5	2.5	40	121	20	–
8270D	2-Methylphenol	95-48-7	µg/L	–	–	–	–	930	930	RSL	nc	–	–	10	5	2.5	30	117	20	–
8270D	2-Nitroaniline	88-74-4	µg/L	–	–	–	–	190	190	RSL	nc	–	–	10	5	2.5	55	127	20	–
8270D	2-Nitrophenol	88-75-5	µg/L	–	–	–	–	–	NS	–	–	–	–	10	5	2.5	47	123	20	–
8270D	3- & 4-Methylphenol	106-44-5	µg/L	–	–	–	–	1,900	1,900	RSL	nc	–	–	10	5	2.5	29	110	20	4-Methylphenol
8270D	3,3-Dichlorobenzidine	91-94-1	µg/L	–	–	0.13	1.3	–	1.3	RSL	c	yes	yes	10	5	2.5	27	129	20	–
8270D	3-Nitroaniline (Surrogate 4-nitroaniline)	99-09-2	µg/L	–	–	3.8	38	78	38	RSL	c	–	–	10	5	2.5	41	128	20	–
8270D	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	–	–	–	–	1.5	1.5	RSL	nc	yes	yes	20	5	2.5	44	137	20	–
8270D	4-Bromophenyl phenyl ether	101-55-3	µg/L	–	–	–	–	–	NS	–	–	–	–	10	5	2.5	55	124	20	–
8270D	4-Chloro-3-methylphenol	59-50-7	µg/L	–	–	–	–	1,400	1,400	RSL	nc	–	–	10	5	2.5	52	119	20	–
8270D	4-Chloroaniline	106-47-8	µg/L	–	–	0.37	3.7	76	3.7	RSL	c	yes	yes	20	10	5	33	117	20	–
8270D	4-Chlorophenyl phenyl ether	7005-72-3	µg/L	–	–	–	–	–	NS	–	–	–	–	10	5	2.5	53	121	20	–
8270D	4-Nitroaniline	100-01-6	µg/L	–	–	3.8	38	78	38	RSL	c	–	–	10	5	2.5	60	130	20	–
8270D	4-Nitrophenol (Surrogate 2-chlorophenol)	100-02-7	µg/L	–	–	–	–	91	91	RSL	nc	–	–	20	5	2.5	40	140	20	–
8270D	Acenaphthene	83-32-9	µg/L	–	–	–	–	530	530	RSL	nc	–	–	10	5	2.5	47	122	20	–
8270D	Acenaphthylene	208-96-8	µg/L	–	–	–	–	–	NS	–	–	–	–	10	5	2.5	41	130	20	–
8270D	Anthracene	120-12-7	µg/L	–	–	–	–	1,800	1,800	RSL	nc	–	–	10	5	2.5	57	123	20	–
8270D	Benzaldehyde	100-52-7	µg/L	–	–	19	190	1,900	190	RSL	c	–	–	20	10	5	30	160	20	–
8270D	Benzidine	92-87-5	µg/L	–	–	0.00011	0.0011	59	0.0011	RSL	c	yes	yes	40	20	10	30	160	20	–
8270D	Benzo[a]anthracene	56-55-3	µg/L	–	–	0.03	0.3	–	0.3	RSL	c	yes	yes	10	5	2.5	58	125	20	–
8270D	Benzo[a]pyrene	50-32-8	µg/L	0.2	0.2	0.025	0.25	6	0.2	WQCC		yes	yes	10	5	2.5	54	128	20	–
8270D	Benzo[b]fluoranthene	205-99-2	µg/L	–	–	0.25	2.5	–	2.5	RSL	c	yes	yes	10	5	2.5	53	131	20	–
8270D	Benzo[g,h,i]perylene	191-24-2	µg/L	–	–	–	–	–	NS	–	–	–	–	10	5	2.5	50	134	20	–
8270D	Benzo[k]fluoranthene	207-08-9	µg/L	–	–	2.5	25	–	25	RSL	c	–	–	10	5	2.5	57	129	20	–
8270D	Benzoic acid	65-85-0	µg/L	–	–	–	–	75,000	75,000	RSL	nc	–	–	100	40	20	50	130	20	–
8270D	Benzyl alcohol	100-51-6	µg/L	–	–	–	–	2,000	2,000	RSL	nc	–	–	10	5	2.5	31	112	20	–
8270D	Bis(2-chloroethoxy)methane	111-91-1	µg/L	–	–	–	–	59	59	RSL	nc	–	–	10	5	2.5	48	120	20	–
8270D	Bis(2-chloroethyl)ether	111-44-4	µg/L	–	–	0.014	0.14	–	0.14	RSL	c	yes	yes	10	5	2.5	43	118	20	–
8270D	Bis(2-ethylhexyl)phthalate	117-81-7	µg/L	6		5.6	56	400	6	MCL	–	yes	yes	20	10	5	55	135	20	–
8270D	Butyl-benzyl phthalate	85-68-7	µg/L	–	–	16	160	1,700	160	RSL	c	–	–	10	5	2.5	53	134	20	–
8270D	Caprolactam	105-60-2	µg/L	–	–	–	–	9,900	9,900	RSL	nc	–	–	20	10	5	30	160	20	–
8270D	Carbazole (Surrogate fluorene)	86-74-8	µg/L	–	–	–	–	290	290	RSL	nc	–	–	10	5	2.5	60	122	20	–
8270D	Chrysene	218-01-9	µg/L	–	–	25	250	–	250	RSL	c	–	–	10	5	2.5	59	123	20	–
8270D	Dibenz(a,h)anthracene	53-70-3	µg/L	–	–	0.025	0.25	–	0.25	RSL	c	yes	yes	10	5	2.5	51	134	20	–
8270D	Dibenzofuran	132-64-9	µg/L	–	–	–	–	7.9	7.9	RSL	nc	yes	–	10	5	2.5	53	118	20	–
8270D	Diethyl phthalate	84-66-2	µg/L	–	–	–	–	15,000	15,000	RSL	nc	–	–	10	5	2.5	56	125	20	–
8270D	Dimethyl phthalate	131-11-3	µg/L	–	–	–	–	15,000	15,000	RSL	nc	–	–	10	5	2.5	45	127	20	–
8270D	di-n-Butyl phthalate	84-74-2	µg/L	–	–	–	–	900	900	RSL	nc	–	–	10	5	2.5	59	127	20	–
8270D	di-n-Octyl phthalate	117-84-0	µg/L	–	–	–	–	200	200	RSL	nc	–	–	10	5	2.5	51	140	20	–
8270D	Fluoranthene	206-44-0	µg/L	–	–	–	–	800	800	RSL	nc	–	–	10	5	2.5	57	128	20	–
8270D	Fluorene	86-73-7	µg/L	–	–	–	–	290	290	RSL	nc	–	–	10	5	2.5	52	124	20	–
8270D	Hexachlorobenzene	118-74-1	µg/L	1	–	0.0098	0.098	16	1	MCL	–	yes	yes	10	5	2.5	53	125	20	–
8270D	Hexachlorobutadiene	87-68-3	µg/L	–	–	0.14	1.4	6.5	1.4	RSL	c	yes[5]	yes[5]	10	5	2.5	22	124	20	–
8270D	Hexachlorocyclopentadiene	77-47-4	µg/L	50	–	–	–	0.41	50	MCL	–		–	10	5	2.5	10	130	20	–
8270D	Hexachloroethane	67-72-1	µg/L	–	–	0.33	3.3	6.2	3.3	RSL	c	yes	yes	10	5	2.5	21	115	20	–
8270D	Indeno[1,2,3-cd]pyrene	193-39-5	µg/L	–	–	0.25	2.5	–	2.5	RSL	c	yes	yes	10	5	2.5	52	134	20	–
8270D	Isophorone	78-59-1	µg/L	–	–	78	780	3,800	780	RSL	c	–	–	10	5	2.5	42	124	20	–
8270D	Naphthalene	91-20-3	µg/L	–	30	0.17	1.7	6.1	30	WQCC	–	–	–	10	5	2.5	40	121	20	–
8270D	Nitrobenzene	98-95-3	µg/L	–	–	0.14	1.4	13	1.4	RSL	c	yes[5]	yes[5]	10	5	2.5	45	121	20	–
8270D	N-Nitrosodimethylamine	62-75-9	µg/L	–	–	0.00011	0.0011	0.055	0.0011	RSL	c	yes	yes	10	5	2.5	40	130	20	–
8270D	N-Nitrosodi n-propylamine	621-64-7	µg/L	–	–	0.011	0.11	–	0.11	RSL	c	yes	yes	10	5	2.5	49	119	20	–
8270D	N-Nitrosodiphenylamine	86-30-6	µg/L	–	–	12	120	–	120	RSL	c	–	–	10	5	2.5	51	123	20	–

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8270D	Pentachlorophenol	87-86-5	µg/L	1	1	0.041	0.41	23	1	WQCC	–	yes	yes	20	5	2.5	35	138	20	–
8270D	Phenanthrene	85-01-8	µg/L	–	–	–	–	–	170	NMED RAG [6]	–	–	–	10	5	2.5	59	120	20	–
8270D	Phenol	108-95-2	µg/L	–	5	–	–	5,800	5	WQCC	–	yes	–	10	5	2.5	50	130	20	–
8270D	Pyrene	129-00-0	µg/L	–	–	–	–	120	120	RSL	nc	–	–	10	5	2.5	57	126	20	–
8270D	2,4,6-Tribromophenol (Surrogate)[8]	118-79-6	%	–	–	–	–	–	NA	–	–	–	–	–	–	–	43	140	20	–
8270D	2-Fluorobiphenyl (Surrogate)[8]	321-60-8	%	–	–	–	–	–	NA	–	–	–	–	–	–	–	44	119	20	–
8270D	2-Fluorophenol (Surrogate)[8]	367-12-4	%	–	–	–	–	–	NA	–	–	–	–	–	–	–	19	119	20	–
8270D	Nitrobenzene-d5 (Surrogate)[8]	4165-60-0	%	–	–	–	–	–	NA	–	–	–	–	–	–	–	44	120	20	–
8270D	Terphenyl-d14 (Surrogate)[8]	1718-51-0	%	–	–	–	–	–	NA	–	–	–	–	–	–	–	50	134	20	–
8270D	Phenol-d5 (Surrogate)[8]	4165-62-2	%	–	–	–	–	–	NA	–	–	–	–	–	–	–	40	130	20	–
8270-SIM	1,4-Dioxane	123-91-1	ug/L	–	–	0.46	4.6	–	4.6	RSL	c	–	–	2	1	0.5	40	140	20	–
8330B	1,3,5-Trinitrobenzene	99-35-4	µg/L	–	–	–	–	590	590	RSL	nc	–	–	1	0.2	0.1	73	125	30	1,3,5-TNB
8330B	1,3-Dinitrobenzene	99-65-0	µg/L	–	–	–	–	2	2	RSL	nc	–	–	1	0.2	0.1	78	120	30	1,3-DNB
8330B	2,4,6-Trinitrotoluene	118-96-7	µg/L	–	–	2.5	25	9.8	9.8	RSL	nc	–	–	1	0.2	0.1	71	123	30	2,4-DNT
8330B	2,4-Dinitrotoluene	121-14-2	µg/L	–	–	0.24	2.4	38	2.4	RSL	c	–	–	1	0.2	0.1	78	120	30	2,6-DNT
8330B	2,6-Dinitrotoluene	606-20-2	µg/L	–	–	0.049	0.49	5.7	0.49	RSL	c	yes	–	1	0.2	0.1	77	127	30	–
8330B	2-Amino-4,6-dinitrotoluene	35572-78-2	µg/L	–	–	–	–	39	39	RSL	nc	–	–	1	0.2	0.1	79	120	30	2-AM-4,6-DNT
8330B	3,5-Dinitroaniline (Surrogate 4-nitroaniline)	618-87-1	µg/L	–	–	3.8	38	78	38	RSL	c	–	–	0.4	0.2	0.1	71	117	30	–
8330B	4-Amino-2,6-dinitrotoluene	19406-51-0	µg/L	–	–	–	–	39	39	RSL	nc	–	–	1	0.2	0.1	76	125	30	4-AM-2,6-DNT
8330B	Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine (HMX)	2691-41-0	µg/L	–	–	–	–	1,000	1,000	RSL	nc	–	–	1	0.2	0.1	65	135	30	–
8330B	m-Nitrotoluene	99-08-01	µg/L	–	–	–	–	1.7	1.7	RSL	nc	–	–	1	0.2	0.1	73	125	30	3-Nitrotoluene
8330B	Nitrobenzene	98-95-3	µg/L	–	–	0.14	1.4	13	1.4	RSL	c	–	–	1	0.2	0.1	65	134	30	Nitrobenzene
8330B	Nitroglycerin	55-63-0	µg/L	–	–	4.5	45	2	2	RSL	nc	yes	yes	125	62.5	31.25	74	127	30	–
8330B	o-Nitrotoluene	88-72-2	µg/L	–	–	0.31	3.1	16	3.1	RSL	c	–	–	1	0.2	0.1	70	127	30	2-Nitrotoluene
8330B	Pentaerythritol tetranitrate (PETN)	78-11-5	µg/L	–	–	19	190	39	39	RSL	nc	yes	yes	125	62.5	31.25	73	127	30	–
8330B	p-Nitrotoluene	99-99-0	µg/L	–	–	4.3	43	71	43	RSL	c	–	–	1	0.2	0.1	71	127	30	4-Nitrotoluene
8330B	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX)	121-82-4	µg/L	–	–	0.97	9.7	80	9.7	RSL	c	–	–	1	0.2	0.1	68	130	30	–
8330B	Trinitrophenylmethylnitramine (Tetryl)	479-45-8	µg/L	–	–	–	–	39	39	RSL	nc	–	–	1	0.2	0.1	64	128	30	–
8330B	3,4-Dinitrotoluene (Surrogate)[8]	610-39-9	%	–	–	–	–	–	NA	–	–	–	–	–	–	–	60	140	30	–
9056A	Nitrate as N	14797-55-8	mg/L	10	10	–	–	32	10	WQCC	–	–	–	0.1	0.06	0.03	88	111	15	–
9056A	Nitrite as N	14797-65-0	mg/L	1	1	–	–	2	1	MCL	–	–	–	0.1	0.06	0.03	87	111	15	–
8081B	4,4'-DDD	72-54-8	µg/L	–	–	0.032	0.32	0.063	0.32	RSL	c	–	–	0.1	0.04	0.02	56	143	30	–
8081B	4,4'-DDE	72-55-9	µg/L	–	–	0.046	0.46	6	0.46	RSL	c	–	–	0.1	0.04	0.02	57	135	30	–
8081B	4,4'-DDT	50-29-3	µg/L	–	–	0.23	2.3	10	2.3	RSL	c	–	–	0.1	0.04	0.02	51	143	30	–
8081B	Aldrin	309-00-2	µg/L	–	–	0.00092	0.0092	0.6	0.0092	RSL	c	yes	yes	0.1	0.04	0.02	45	134	30	–
8081B	alpha-BHC	319-84-6	µg/L	–	–	0.0072	0.072	97	0.072	RSL	c	yes	–	0.1	0.04	0.02	54	138	30	–
8081B	alpha-Chlordane	5103-71-9	µg/L	2	–	0.02	0.2	0.74	2	MCL	–	–	–	0.1	0.04	0.02	60	129	30	–
8081B	beta-BHC	319-85-7	µg/L	–	–	0.025	0.25	–	0.25	RSL	c	–	–	0.1	0.04	0.02	56	136	30	–
8081B	delta-BHC	319-86-8	µg/L	–	–	0.025	0.25	–	0.25	RSL	c	–	–	0.1	0.04	0.02	52	142	30	–
8081B	Dieldrin	60-57-1	µg/L	–	–	0.0018	0.018	0.38	0.018	RSL	c	yes	yes	0.1	0.04	0.02	60	136	30	–
8081B	Endosulfan I	959-98-8	µg/L	–	–	–	–	100	100	RSL	nc	–	–	0.1	0.04	0.02	62	126	30	–
8081B	Endosulfan II	33213-65-9	µg/L	–	–	–	–	100	100	RSL	nc	–	–	0.1	0.04	0.02	52	135	30	–
8081B	Endosulfan sulfate	1031-07-8	µg/L	–	–	–	–	110	110	RSL	nc	–	–	0.1	0.04	0.02	62	133	30	–
8081B	Endrin	72-20-8	µg/L	2	–	–	–	2.3	2	MCL	–	–	–	0.1	0.04	0.02	60	138	30	–
8081B	Endrin aldehyde (Surrogate Endrin)	7421-93-4	µg/L	2	–	–	–	2.3	2	MCL	–	–	–	0.1	0.04	0.02	51	132	30	–
8081B	Endrin ketone (Surrogate Endrin)	53494-70-5	µg/L	2	–	–	–	2.3	2	MCL	–	–	–	0.1	0.04	0.02	58	134	30	–
8081B	gamma-BHC (Lindane)	58-89-9	µg/L	0.2	–	0.042	0.42	3.6	0.2	MCL	–	–	–	0.1	0.04	0.02	59	134	30	–
8081B	gamma-Chlordane	5566-34-7	µg/L	2	–	0.02	0.2	0.74	2	MCL	–	–	–	0.1	0.04	0.02	56	136	30	–
8081B	Heptachlor	76-44-8	µg/L	0.4	–	0.0014	0.014	1.3	0.4	MCL	–	–	–	0.1	0.04	0.02	54	130	30	–
8081B	Heptachlor epoxide	1024-57-3	µg/L	0.2	–	0.0014	0.014	0.12	0.2	MCL	–	–	–	0.1	0.04	0.02	61	133	30	–
8081B	Methoxychlor	72-43-5	µg/L	40	–	–	–	37	40	MCL	–	–	–	1	0.2	0.1	54	145	30	–
8081B	Toxaphene	8001-35-2	µg/L	3	–	0.071	0.71	1.8	3	MCL	–	–	–	2	0.5	0.25	33	134	30	–
8081B	Tetrachloro-m-Xylene (Surrogate)[8]	877-09-8	µg/L	–	–	–	–	–	NA	–	–	–	–	–	–	–	44	124	30	–
8081B	Decachlorobiphenyl (Surrogate)[8]	2051-24-3	µg/L	–	–	–	–	–	NA	–	–	–	–	–	–	–	30	135	30	–
8082A	PCBs, Total	1336-36-3	µg/L	0.5	0.5	–	–	–	0.5	WQCC	–	–	–	–	–	–	–	–	–	–
8082A	PCB-1016	12674-11-2	µg/L	–	–	0.22	2.2	1.4	1.4	RSL	nc	–		1	0.5	0.25	46	129	30	–
8082A	PCB-1221	11104-28-2	µg/L	–	–	0.0047	0.047	–	0.047	RSL	c	yes	yes	1	0.5	0.25	–	–	–	–

Method	Analyte	CAS	Units	Nov. 2019 EPA MCL[1]	Dec. 21, 2018 20.6.2 NMAC NM WQCC[2]	Nov. 2019 EPA RSL Cancer Tap Water (target excess cancer risk level of 10^{-6})	Nov. 2019 EPA RSL Cancer Tap Water (target excess cancer risk level of 10^{-5})[3]	Nov. 2019 EPA RSL Noncancer Tap Water[3]	Final Selected SL[4]	Final Selected SL Reference	Risk Endpoint c/nc	Selected SL < LOQ	Selected SL < LOD	EMAX Lab LOQ	EMAX Lab LOD	EMAX Lab DL	LCS, MS/MSD Lower Control Limits	LCS, MS/MSD Upper Control Limits	%RPD	Notes
8082A	PCB-1232	11141-16-5	µg/L	–	–	0.0047	0.047	–	0.047	RSL	c	yes	yes	1	0.5	0.25	–	–	–	–
8082A	PCB-1242	53469-21-9	µg/L	–	–	0.0078	0.078	–	0.078	RSL	c	yes	yes	1	0.5	0.25	–	–	–	–
8082A	PCB-1248	12672-29-6	µg/L	–	–	0.0078	0.078	–	0.078	RSL	c	yes	yes	1	0.5	0.25	–	–	–	–
8082A	PCB-1254	11097-69-1	µg/L	–	–	0.0078	0.078	0.4	0.078	RSL	c	yes	yes	1	0.5	0.25	–	–	–	–
8082A	PCB-1260	11096-82-5	µg/L	–	–	0.0078	0.078	–	0.078	RSL	c	yes	yes	1	0.5	0.25	45	134	30	–
8082A	Decachlorobiphenyl (Surrogate)[8]	2051-24-3	µg/L	–	–	–	–	–	NA	–	–	–	–	–	–	–	40	135	30	–
8151A	2,4-D	94-75-7	µg/L	70	–	–	–	170	70	MCL	–	–	–	1	0.2	0.1	45	152	30	–
8151A	2,4-DB	94-82-6	µg/L	70	–	–	–	450	70	MCL	–	–	–	1	0.2	0.1	35	153	30	–
8151A	2,4,5-T	93-76-5	µg/L	–	–	–	–	160	160	RSL	nc	–	–	1	0.2	0.1	42	147	30	–
8151A	2,4,5-TP (Silvex)	93-72-1	µg/L	50	–	–	–	110	50	MCL	–	–	–	1	0.2	0.1	51	134	30	–
8151A	Dalapon	75-99-0	µg/L	200	–	–	–	600	200	MCL	–	–	–	1	0.2	0.1	19	139	30	–
8151A	Dicamba	1918-00-9	µg/L	–	–	–	–	570	570	RSL	nc	–	–	1	0.2	0.1	50	141	30	–
8151A	Dichloroprop	120-36-5	µg/L	–	–	–	–	–	NS	–	–	–	–	1	0.2	0.1	46	159	30	–
8151A	Dinoseb	88-85-7	µg/L	7	–	–	–	15	7	MCL	–	–	–	1	0.2	0.1	20	100	30	–
8151A	MCPA	94-74-6	µg/L	–	–	–	–	7.5	7.5	RSL	nc	yes	yes	40	20	10	35	144	30	–
8151A	2,4-Dichlorophenylacetic Acid (Surrogate)[8]	94-75-7	µg/L	–	–	–	–	–	NA	–	–	–	–	–	–	–	32	138	30	–

NOTES:

[1] Fort Wingate Depot Activity (FWDA) Cleanup Standard by U.S. Environmental Protection Agency (EPA) Drinking Water Primary Maximum Contaminant Limit (MCL) per 40 Code of Federal Regulations Sections 141 and 143.

[2] FWDA Cleanup Standard by New Mexico Water Quality Control Commission (NM WQCC) standards per 20 New Mexico Administrative Code § 6.2.4103.

[3] Interim screening level for FWDA by EPA Regional Screening Level (RSL) Tap water, updated Nov. 2019.

[4] Final selected screening level was based on the lowest of the NM WQCC and the EPA R6 SSL MCL. If none, then EPA RSL Tap Water was selected.

[5] Target exceeds the screening level objective for one method but will meet the screening level objective for another. For example, nitrobenzene by SW8270D exceeds but passes objectives by SW8330B. Both methods will be used and both methods will report the target.

[6] Screening level based on New Mexico Environment Department (NMED) Risk Assessment Guidance for Site Investigations and Remediation vol 1. Feb 2019 (Revision 2, 6-19-19).

[7] Analyte is considered an essential nutrient and risk in groundwater is not evaluated.

[8] Analyte is a laboratory surrogate used in analytical procedures and risk in groundwater is not evaluated.

ABBREVIATIONS and ACRONYMS:

% = percent
c = carcinogenic risk endpoint
CAS = Chemical Abstract Service registry number
DL = detection limit
LOD = limit of detection
LOQ = limit of quantitation
LCL = lower confidence limit
µg/L = micrograms per liter
MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (Primary or Secondary)
mg/L = milligrams per Liter
MS = matrix spike
MSD = matrix spike duplicate
nc = non-carcinogenic risk endpoint
NA = not applicable (essential nutrients and laboratory surrogates)
NMED RAG = New Mexico Environment Department Risk Assessment Guidance
NS = no standard
RPD = relative percent difference
RSL = U.S. Environmental Protection Agency Regional Screening Level Tap water screening level with cancer risk adjusted to $1x10^{-5}$
SIM = Selective Ion Monitoring
SL = Screening Level
UCL = upper confidence limit
WQCC = New Mexico Water Quality Control Commission standard

TABLE 5-2: NORTHERN AREA GROUNDWATER SAMPLING MATRIX

Well ID	ANALYTES AND METHODS												
	TCL VOC	Total Explosives	Total Nitrate/ Nitrite	TAL Total Metals	TAL Dissolved Metals	Perchlorate	TCL SVOC	1,4-Dioxane	TCL Pesticides	TPH GRO	TPH DRO	PCB	Herbicides
	8260C	8330B/8332	9056A	6020A	6020A	6850	8270D	8270-SIM	8081B	8015D	8015D	8082A	8151A
Northern Area Monitoring Wells - Alluvial													
BGMW01	x	x	x	x	x	x	x	x[1]	x	–	–	–	–
BGMW02	x	x	x	x	x	x	x	x	x	–	–	–	–
BGMW03	x	x	x	x	x	x	x	x	x	–	–	–	–
BGMW11	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
BGMW12	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
BGMW13S	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
BGMW13D	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
FW31	x	x	x	x	x	–	x	x[1]	x	–	–	–	–
FW35	x	x	x	x	x	–	x	x	–	–	–	–	–
MW01	x	x	x	x	x	x	–	x	x	x	x	–	–
MW02	x	x	x	x	x	x	–	x	x	x	x	–	–
MW03	x	x	x	x	x	x	–	x	–	x	x	–	–
MW18D	x	x	x	x	x	x		x	–	x	x	–	–
MW18S	x	–	–	x	x	–	–	x[1]	–	–	–	–	–
MW20	x	x	x	x	x	x	x	x	x	x	x	–	–
MW22S	x	x	x	x	x	x	x	x	x	x	x	–	–
MW22D	x	x	x	x	x	x	x	x	x	x	x	–	–
MW23	x	x	x	x	x	x	x	x	x	–	–	–	–
MW24	x	x	x	x	x	x	x	x[1]	x	–	–	–	–
MW25	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
MW26	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
MW27	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
MW28	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
MW29	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
MW30	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
MW31	–	–	–	–	–	–	–	x[1]				–	–
MW32	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
MW33	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
MW34	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
MW35	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
MW36D	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
MW36S	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
SMW01	x	x	x	x	x	x	x	x	–	–	–	–	–
TMW01	x	x	x	x	x	x		x	–	–	–	–	–
TMW03	x	x	x	x	x	x	x	x	–	–	–	–	–
TMW04	x	x	x	x	x	x	x	x	–	–	–	–	–
TMW06	x	x	x	x	x	–	x	x	–	–	–	–	–
TMW07	x	x	x	x	x	–	x	x[1]	–	–	–	–	–
TMW08	x		x	x	x	x	–	x[1]	x	x	x	–	–
TMW10	x	x	x	x	x	x	–	x[1]	–	–	–	–	–
TMW11	x	x	x	x	x	x	–	x	–	–	–	–	–
TMW13	x		x	x	x	x	–	x	–	–	–	–	–
TMW15	x	x	x	x	x	x	x	x	–	–	–	–	–
TMW21	x	x	x	x	x	x	–	x[1]	–	–	–	–	–

TABLE 5-2: NORTHERN AREA GROUNDWATER SAMPLING MATRIX

Well ID	ANALYTES AND METHODS												
	TCL VOC	Total Explosives	Total Nitrate/ Nitrite	TAL Total Metals	TAL Dissolved Metals	Perchlorate	TCL SVOC	1,4-Dioxane	TCL Pesticides	TPH GRO	TPH DRO	PCB	Herbicides
	8260C	8330B/8332	9056A	6020A	6020A	6850	8270D	8270-SIM	8081B	8015D	8015D	8082A	8151A
TMW22	x	x	x	x	x	x	x	x	–	–	–	–	–
TMW23	x	x	x	x	x	x	–	x	x	–	–	–	–
TMW24	x	x	x	x	x	x	–	x[1]	x	–	–	–	–
TMW25	x	x	x	x	x	–	–	x[1]	–	–	–	–	–
TMW26	x	x	x	x	x	x	–	x	–	–	–	–	–
TMW27	x	–	–	x	x	x	–	x	–	–	–	–	–
TMW28	x	–	x	x	x	–	–	x[1]	–	–	–	–	–
TMW29	x	x	x	x	x	x	–	x	–	–	–	–	–
TMW31S	x	x	x	x	x	x	x	x	x	–	–	–	–
TMW33	x	–	x	x	x	–	x	x	–	x	x	–	–
TMW34	x	–	x	x	x	x	–	x	–	x	x	–	–
TMW35	x	–	x	x	x	x	x	x	x	x	x	–	–
TMW39S	x	x	x	x	x	x	x	x	x	–	–	–	–
TMW40S	x	x	x	x	x	x	x	x	x	–	–	–	–
TMW41	x	x	x	x	x	x	x	x	x	–	–	–	–
TMW43	x	x	x	x	x	x	x	x[1]	x	–	–	–	–
TMW44	x	x	x	x	x	x	x	x	x	–	–	–	–
TMW45	x	x	x	x	x	x	x	x	x	–	–	–	–
TMW46	x	x	x	x	x	x	x	x	x	–	–	–	–
TMW47	x	x	x	x	x	x	x	x	x	–	–	–	–
TMW54	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
TMW56	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
TMW57	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
TMW59	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
TMW60	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
TMW61	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
TMW62	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
Northern Area Monitoring Wells - Bedrock													
BGMW07	x	x	x	x	x	x	x	x[1]	x	–	–	x	x
BGMW08	x	x	x	x	x	x	x	x[1]	x	–	–	x	x
BGMW09	x	x	x	x	x	x	x	x[1]	x	–	–	x	x
BGMW10	x	x	x	x	x	x	x	x[1]	x	–	–	x	x
TMW02	x	x	x	x	x	x	–	x	–	–	–	–	–
TMW14A	x	x	x	x	x	–	x	x[1]	–	–	–	–	–
TMW16	x	x	–	x	x	x	x	x	–	–	–	–	–
TMW17	x	–	x	x	x	x	–	x	–	–	–	–	–
TMW18	x	x	x	x	x	x	x	x	–	–	–	–	–
TMW19	x	x	–	x	x	x	x	x	–	–	–	–	–
TMW30	x	x	x	x	x	x	x	x	x	–	–	–	–
TMW31D	x	x	x	x	x	x	x	x	x	–	–	–	–
TMW32	x	x	x	x	x	x	x	x	x	–	–	–	–
TMW36	x	x	x	x	x	x	x	x[1]	x	–	–	–	–
TMW37	x	x	x	x	x	x	x	x	x	–	–	–	–
TMW38	x	x	x	x	x	x	x	x	x	–	–	–	–
TMW39D	x	x	x	x	x	x	x	x	x	–	–	–	–

TABLE 5-2: NORTHERN AREA GROUNDWATER SAMPLING MATRIX

Well ID	ANALYTES AND METHODS												
	TCL VOC	Total Explosives	Total Nitrate/ Nitrite	TAL Total Metals	TAL Dissolved Metals	Perchlorate	TCL SVOC	1,4-Dioxane	TCL Pesticides	TPH GRO	TPH DRO	PCB	Herbicides
	8260C	8330B/8332	9056A	6020A	6020A	6850	8270D	8270-SIM	8081B	8015D	8015D	8082A	8151A
TMW40D	x	x	x	x	x	x	x	x	x	–	–	–	–
TMW48	x	x	x	x	x	x	x	x	x	–	–	–	–
TMW49	x	x	x	x	x	x	x	x	x	–	–	–	–
TMW50	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
TMW51	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
TMW52	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
TMW53	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
TMW55	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
TMW58	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
TMW63	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
TMW64	–	–	–	–	–	–	–	x[1]	–	–	–	–	–
Northern Area Piezometers													
PZ01	–	–	–	–	–	–	–	–	–	–	–	–	–
PZ02	–	–	–	–	–	–	–	–	–	–	–	–	–
PZ03	–	–	–	–	–	–	–	–	–	–	–	–	–
PZ04	–	–	–	–	–	–	–	–	–	–	–	–	–
PZ05	–	–	–	–	–	–	–	–	–	–	–	–	–
PZ06	–	–	–	–	–	–	–	–	–	–	–	–	–
PZ07	–	–	–	–	–	–	–	–	–	–	–	–	–
PZ08	–	–	–	–	–	–	–	–	–	–	–	–	–
PZ09	–	–	–	–	–	–	–	–	–	–	–	–	–
PZ10	–	–	–	–	–	–	–	–	–	–	–	–	–

ABBREVIATIONS and ACRONYMS:
– indicates analyte not applicable for that well .
DRO = diesel range organics
GRO = gasoline range organics
ID = identification
SVOC = semivolatile organic compound
TAL = total analyte list
TCL = target compound list
TPH = total petroleum hydrocarbons
VOC = volatile organic compound
X = sample is analyzed for the specified method
X[1] = will be sampled during April 2020 and only in October 2020 if there was a detection of 1,4-Dioxane or other chlorinated solvent.

APPENDIX A

Response to NMED Comments to Version 10 Groundwater Monitoring Plan

Army Draft Document Review Comment Table

To be Used for Army Review of All Documents

Project Manager: **KHAN**

Date CRT Completed: **July 10, 2017**

Document Title (Version)/Parcel Reference/Document Date: **Army Draft: Facility-Wide Groundwater Monitoring Plan, Version 10, FWDA**

Commenter Name: **PDT**

Contractor: **SUNDANCE**

Comment #	Doc. Page#/Line(s)# Reference	Comment	Recommendation (Action to be taken)	Response (Action that was completed)	Response Complete	Response (Action that was completed)	Response Complete
(CX-EM)							
1	Table 2-3, p. 2-27	Table 2-3, Groundwater Sampling Analyte Groups with Screening Level Exceedances, does not appear to include any monitor wells in Parcel 3 (OB/OD area) having screening level exceedances. Nor does the copy of Appendix B provided for review include Parcel 3 wells. The text states (p. 2-17) that several explosive compounds and nitrate exceeded screening level criteria in samples from multiple monitor wells in the OB/OD area.	Please explain, or include Parcel 3 wells in Table 2-3 and Appendix B.	The Final document will include Table 2-3 with Parcel 3 wells. Table 2-3 did not get copied into the document in its entirety. Appendix B provides sampling data results from the water monitoring program including Parcel 3. Because no sampling of the Parcel 3 wells has occurred since April 2013, Parcel 3 wells do not appear in the 2015-2016 summary tables of Appendix B.	XXXXX		
2	Sec. 1.4, p. 1-3	The DQO section could be improved by reorganizing and eliminating extraneous information. For example: Step 5, "Results of interim measures monitoring will be used to support future corrective actions" is not a decision rule. Step 6, should specify the acceptable limits for decision errors, for example describe the probability of error in comparing results to a UTL.	Revise as suggested.	The Step 5 decision rule have been simplified to read: “Groundwater analytical results will be compared to the FWDA cleanup criteria/project screening levels to monitor the extent and migration of COPCs. If contaminant plumes migrate outside of the FWDA boundaries, corrective actions will be proposed.” No change is proposed for Step 6. Analytical data will be evaluated for errors according to the QSM. To date, no upper threshold limits have been established or accepted by the NMED.	XXXXX		
3	Table 2-2, p. 2-26	Revise footnote #2 to improve clarity. It does not make sense as currently worded. "A pathway from transport of contaminants to groundwater is known when the contaminants are detected in groundwater in explosives in excess of screening levels"?	Revise as suggested.	Footnote #2 will be changed to the following: A contaminant transport pathway to groundwater is known when contaminants are detected in groundwater in excess of screening levels. A pathway is suspected when releases of soluble contaminants exceeding soil screening levels are not vertically delineated in subsurface soils.	XXXXX		
4	Sec. 3.6, p. 3-8	The lack of detections of "white phosphorous" in groundwater samples is not surprising.		Agreed. No text changes needed.	XXXXX		
5	Sec. 5.2.3, p. 5-5	Wells KMW09 and KMW13 are designated as downgradient well for SWMU 15. From groundwater flow direction arrows on figure 3-3 and average water level elevations (calculated from average DTW and MPE) for KMW09 and KMW12 in Table 5-2, it seems that KMW13 is near the upgradient edge of SWMU 15, and that KMW09 and KMW12 would be wells more representative of downgradient conditions. (Presumably because KMW13 was installed in February 2017, no DTW measurement was available in Table 5-2.)		Comment acknowledged. All of the monitoring wells discussed (KMW09, KMW12, and KMW13) lie within the SWMU 15 boundaries. All three wells will be monitored for SWMU 15 COPCs. Well KMW12 is designated as a sentinel well because it is the furthest downgradient monitoring point at the installation boundary. No changes to the text are recommended.	XXXXX		
6	Table 5-2, p. 5-16	Table 5-2 shows large differences between minimum and maximum depth to water measurements for several wells located possibly in or immediately adjacent to the surface drainages in	Recommend that samples collected during times of unusual water levels be	Comment acknowledged. Unusual site conditions, including unusually high stream flow adjacent to monitoring wells will be documented in periodic groundwater monitoring reports.	XXXXX		

		Parcel 3 the OB/OD area (e.g. wells CMW17, CMW19, possibly CMW02) These wells have relatively shallow top-of-screen depths. The particularly large differences are anomalous relative to the average seasonal fluctuation. These wells are used to monitor gradients in existing plumes. The large range in differences may result from rapid local infiltration and groundwater recharge when the ephemeral drainages are flowing. Periods of rapid recharge from intermittent surface flow may influence analyte concentrations. Correlations between water levels and contaminant concentrations may be informative. Are any of these well locations subject to inundation during high surface flow? New well CMW28B, 36A, 36B had no water level data for review, but may be in similar situations.	identified and noted in the groundwater monitoring reports. State in the CSM (Section 3) whether chemical constituents or concentrations results, or purge parameter values vary depending on groundwater elevation at the time of sampling.	A sentence will be added to Section 3.5.3 stating "Groundwater concentrations of COPCs do not appear to vary with changes in groundwater elevations." This statement will reference a previous groundwater monitoring report.			
7	Sec. 3.5.3, p. 3-6	The wording that Groundwater elevation data collected from wells in the southwest-oriented drainage "do not correlate" with… and is not connected to groundwater in the central drainage feature is confusing. Use language similar to that found on p. 3-3 describing the surface water drainage for this area.	Revise to state that "a structurally controlled groundwater divide is present in the steeply dipping geologic strata of the Nutria Monocline in the southwesternmost portion of the FWDA. This groundwater divide coincides with the surface drainage divide. West of the divide, groundwater flows southwest into the Bread Springs Wash drainage and off the installation."	The text was revised as suggested.	XXXXX		
8	General	Overall, the work plan is reasonable and well organized. There are some larger issues that should be discussed. The DQO process should be more definitive on the decisions to be made - is the plume expanding, are there exceedances in compliance points/sentinel wells, how are the plumes responding to interim actions. Regarding the low-yield wells, the use of bailers or purging dry with pumps is not a good idea when metals or compounds that have an affinity for solid particles. If acceptable to NMED, I strongly recommend you try no-purge samplers like the Hydrasleeve or Snap samplers. A consensus on the site background values for metals needs to be finalized.	Clarify decisions for DQOs. Consider passive/no-purge samplers for low-yield wells. Continue efforts to establish background metals concentrations.	Comment acknowledged. The background study will be revised when additional data from proposed background locations are available. See response to Comment #2 for DQO revisions. No-purge sampling has been considered at the site, but is not appropriate until the sample volume has been minimized by reduction of the analytical suite. Side-by side method testing will be required to convince NMED of suitability of no-purge methods at FWDA. No-purge sampling will be considered as optimization in the future.	XXXX		

9	Sec. 1.2, p. 1-2	The text indicates there is an MCL for perchlorate - I do not believe that is true under the SDWA.	Please clarify.	Agreed. The text is not accurate and has been removed. See also response to Comment # 43.	XXXX		
10	Sec. 1.4, p. 1-4	Again, the discussion should be clear on the decisions to be made. See General comment.		Agreed. See response to Comment #2.	XXXX		
11	Sec. 1.4, p. 1-5	Unless there is a clear seasonal trend in the historical sampling results, you may want to suggest going to annual or even less frequent sampling for some wells. The justification is the stability of historical data and slow rates of groundwater transport. If the plume is well behaved and is very unlikely to shift quickly, semi-annual sampling is probably overly conservative.	Evaluate potential for reduction in sampling frequencies.	Comment acknowledged. This work plan presents changes to the monitoring locations and the groundwater sample analyses. We do not believe that the NMED will approve a reduction to an annual monitoring frequency because we have been unsuccessful when proposing a change to annual monitoring frequency at other federal installations. Since the NMED has not approved the previous six updates to the Groundwater Monitoring Plan, incremental change to the plan is thought to be a more appropriate strategy.	XXXX		
12	Sec. 2.2.15, p. 2-11	For SWMU 7, there was no use of AFFF at the fire training site, I presume. If this hasn't been considered, it should be so we aren't blindsided by perfluorinated compounds.	Consider historical potential for perfluorinated compounds at SWMU 7 if not previously evaluated.	The use of AFFF at SWMU 7 is likely and may be investigated as part of a supplemental RFI or release assessment for emerging contaminants. The purpose of the periodic groundwater monitoring program is not to identify new contaminant sources but to monitor known releases. No change to the text is recommended.	XXXX		
13	Sec. 3.5.2, p. 3-5	Looking at the bedrock head levels in the figures, there isn't a clear indication of a structural discontinuity in those data.	If there is geologic data, it would be good to include a simple cross section.	Cross-sections do not clearly demonstrate interpreted structural features. The feature is indicated by perchlorate flow patterns (Figure 3-13) and differences in head values between wells TMW14A and TMW49 and between wells TMW38 and TMW40D (Figure 3-2). No cross-section was added.	XXXX		
14	Sec. 3.6, p. 3-7	Please indicate what is being considered to define the plume downgradient of the administration area. I noted that in the nitrate plume map and this is a data gap that needs to be filled.	Identify actions planned to characterize downgradient portion of nitrate plume.	A paragraph was added to Section 3.6 stating: "A *Groundwater Supplemental RCRA Facility Investigation Work Plan (Sundance, 2017)* will be submitted to NMED to address contaminant plume data gaps. The RFI Work Plan proposes additional monitoring wells to define the extent of nitrate and perchlorate groundwater contamination and to refine the extent of other groundwater plumes in the Northern Area."	XXXX		
15	Sec. 3.7, p. 3-9	The text mentions potential destructive mechanisms for site contaminants. It would be very beneficial to consider what sampling and analysis would be useful in determining these processes. Certainly the measurement of ORP, DO, and pH would be useful in assessing degradation of compounds such as nitrate and perchlorate (that go quickly in low DO conditions predominate). Could we look for the microbial diagnostics for the degrading microorganisms?	Please consider sampling to support evaluation of destructive processes at work at the sites.	Comment acknowledged. Groundwater quality parameters (including ORP, DO, and pH) are collected as part of the well purging and sampling methods. Geochemical and microbial investigations may provide important information and are suitable as part of future corrective measures studies. These investigations are not suitable for inclusion in interim-measures periodic monitoring.	XXXX		
16	Figure 3-14	An isopach map of alluvium would certainly help interpretation of the groundwater hydraulics of the northern area. This would help identify preferred flow zones. The text mentions a basin in the administration area.	Consider adding an isopach map of the alluvial aquifer (or saturated thickness map).	Comment acknowledged. The purpose of this work plan is to present the groundwater monitoring methodology and rationale. Isopach maps include a large degree of subjective data interpretation that has not been presented to NMED in other documents. In order to minimize the potential for regulatory disapproval of the GMP, a minimum of new data interpretations is being presented in this document. Addition of an isopach map is not recommended.	XXXX		
17	Sec. 4.1, p. 4-1	I recommend the field crew re-measure depth to water if the water level measured differ from the previous measurement (i.e., the previous semi-annual event) by more than 2 feet or some other appropriate value.		Agreed. A bullet was added after the first bullet in Section 4.1 that reads: "The DTW measurement will be compared to the previous DTW reading. If the measurement differs from the previous measurement by	XXXX		

				more than 1.0 feet, the measurement will be performed a second time.”			
18	Sec. 4.2.2, p. 4-3	The key isn't so much the amount of drawdown, it's a stable drawdown and stable parameters. The stable drawdown means you're not pulling relatively stagnant water from above the top of the screen. If the water levels are in the screened interval, then you don't want too much drawdown to avoid cascading, but the 4 inch limit in EPA guidance is somewhat arbitrary.	May want to reconsider the criteria described here.	Agreed. The last sentence of bullet letter “g” was revised to reads: Water Level = 0.00 to 0.33 feet or less during the stabled water quality readings	XXXX		
19	Sec. 4.2.4, p. 4-4	The procedures proposed here to deal with low-yield or small saturation wells is not ideal.	Strongly recommend you consider a no-purge sampler such as the Hydrasleeve or Snap sampler. EMCX can be an excellent resource for more information on these devices.	No purge sampling has been considered, but is not suitable at present due to low screen saturation, and large volumes required for large analytical suites (up to 2.5 gallons without QC). See response to Comment # 8.	XXXX		
20	Sec. 4.2.4.1, p. 4-5	There is no point in taking DO or ORP measurements if you use a bailer or similar device.	Recommend a downhole measurement of these parameters.	Downhole measurements are not practical for wells that are being bailed dry. No change is proposed.	XXXX		
21	Sec. 4.2.4.2, p. 4-5	Recommend you not tag the bottom with the pump if you are sampling for metals (or SVOCs or explosives) as this will raise the turbidity in the well. Tag the bottom of the well after sampling and use the depth to bottom from the previous round as the basis for a pump setting.		Agreed. Step number 2 in Section 4.2.4.2 will be revised to read “Lower pump into the well to approximately six inches from the bottom of the well.	XXXX		
22	Sec. 4.2.4.4, p. 4-6	Mention of "Bennett" pump should be to "Waterra" - please correct.		Correction was made as requested.	XXXX		
23	Sec. 5.1, p. 5-1	Usually vinyl chloride is not a problem. There are simple things that can lower your LOQ to meet the 1 ug/L standard (e.g., larger purge volume).	If VC is an issue, have the lab implement procedures to lower the LOQ to a concentration below your criteria.	The VC issue is discussed in detail in Appendix E Worksheet 15 where the following statement is provided. “Vinyl chloride is the one VOC target compound where the LOQ does not meet the screening level objectives. It should be noted that the LOD does meet the screening level objective by a significant margin (0.25 ug/L vs 1 ug/L). The laboratory LOQ is 2 ug/L. While the LOQ has historically not met the screening level objective, it is important to note that vinyl chloride has not been detected at the site since 2011, and only three non-replicable detections prior. Vinyl chloride presence is typically associated with the breakdown of trichloroethene and if it was present, it would be expected to increase in concentration over time.” We believe that running a SIM method is not needed based on the text provided. The method being used is currently the TestAmerica St Louis Low Level approach.	XXXX		
24	Sec. 5.2.1, p. 5-2	The text here mentions that TMW-46 had some of the highest nitrate concentrations, yet is located at the downgradient edge of the plume as drawn on the figure. If this well has a high concentration, then the plume very likely extends farther west and must be defined.	If this well doesn't typically have high concentrations, please revise text. Otherwise, plan to perform additional characterization downgradient of this well (see other comment on this potential data gap).	Section 3.6 states the following: “The nitrate plume in the alluvial aquifer appears to originate from the TNT Leaching Beds Area (SWMU 1) and extends downgradient to the Administration Area. Other sources of nitrate groundwater contamination in the Administration Area are currently being evaluated by the Army as part of a Supplemental RFI (work plan in revision). The downgradient extent of the alluvial nitrate plume is not defined west of the Administration Area.” Thus, we concur with conclusion. However, since this is a monitoring plan and not an investigation work plan no change is proposed.	XXXX		

25	Sec. 5.2.1, p. 5-3	For the perchlorate discussion, please verify that well TMW-40S has had the high concentration. It is not shown on the figure for the perchlorate plume. Is it possible you meant TMW-39S? Regarding the SVOCs, strongly recommend you remove TMW-25 from the sampling program. You have no SVOCs in groundwater, as it is not clear why you would sample a downgradient well almost 1000 feet downgradient for a contaminant class that is barely mobile. The same would apply to TMW-46 as it is shown as a downgradient well on Figure 3-9, but is not mentioned in the text here.	Revise text to refer to TMW-39S if appropriate. Remove TMW-25 and TMW-46 from SVOC sampling program	Agreed. Two changes have been made as requested. Well TMW-40S has been replaced with the correct TMW-39S location for perchlorate. For SVOCs, TMW-46 has replaced downgradient well TMW-25 because it is closer and still downgradient of potential source areas. This change has been made in text tables and figures.	XXXX		
26	Sec. 5.2.1, p. 5-4	Wells MW-23 and MW-24 are indicated as sentinel wells but it is not clear they are truly downgradient of the contamination as the piezometric contours area not drawn in that area and the flow that is shown would take the plumes south (cross gradient) from those wells.	Please clarify.	Wells MW-23 and MW-24 were selected by the USACE as monitoring locations appropriate to monitor potential off-site contaminant migration. The NMED has concurred. No change is proposed	XXXX		
27	Sec. 5.2.2., p. 5-4	Regarding the nitrate plume in bedrock, I have a concern that the piezometric contours could be drawn differently such that there is northerly flow north of TMW-2 and TMW-40D such that the northern nitrate plume is not constrained. Also, the text mentions TMW-40S and it should probably be TMW-40D. Again, the monitoring of SVOCs downgradient of the potential sources without any SVOC contamination in either the alluvial or bedrock aquifers is not necessary, particularly for a low-mobility class of contaminants. The text describes the wells TMW-18 and TMW-19 as background wells. Further discussion is needed to explain this selection given that they appear to be downgradient of potential contaminant sources and plumes.	Please consider another bedrock well north of those two wells as appropriate following a reconsideration of the piezometric contours. Revise “TMW-40S” to “TMW-40D”. Remove sampling points for SVOCs downgradient of sources if no current plume exists. Reconsider alternative background wells if there are concerns that TMW-18 and -19 could be impacted.	Comment acknowledged. The typographical error reading TMW40S has been corrected to read TMW40D. Text has been added to read “Pending installation of additional background bedrock wells, wells TMW18 and TMW19 which are cross-gradient of source areas are suitable for use a background locations for nitrate, explosives, perchlorate and COPCs.” Plans for SVOC sampling and analyses was based on the reported RFI detection of SVOCs in subsurface soils at depth in excess of SSLs to undefined depths. This logic was used for all COPCs and resulted in identification of potential SVOC points of release in Section 3.7. Significant reductions in SVOC sampling are included in this document relative to current sampling. According to comments from NMED, further reductions in SVOC sampling are unlikely to gain regulatory acceptance.	XXXX		
28	Sec. 5.3.2, p. 5-7	Please indicate a numeric goal for completeness.		As defined in Appendix E, Worksheet 37 of the QAPP the completeness objective for water is set to 95 percent. This objective will be added to the WP text.	XXXX		
29	Figure 3-4	The odd shape of the plume on the northeast side suggests either a separate source near MW-22D or that the nitrate plume has been degraded by anaerobic conditions due to other releases in this area.	Please discuss in the text.	The irregular shape of the nitrate plume near MW-22D is result of denitrification in the vicinity of the SWMU 45, Building 6 Gas Station. Release of fuel constituents to the alluvial aquifer in this area created anaerobic conditions and subsequent denitrification of the groundwater. The VOC plume of 1,2 DCA in this same area is believed to be related to a release of leaded gasoline to the aquifer. A suspected source of nitrate groundwater contamination from the Administrative Area sewer system is not discussed. This potential source is currently being debated between Sundance/USACE and the NMED in the Groundwater Supplemental RFI Work Plan. Further discussion of this contentious issue in this document will not facilitate regulatory approval of the GMP.	XXXX		
(ERDC)							
30	Page ES-1, 17	Delete “revision” and insert “latest revision”		The text will be modified as suggested.	OK		

31	Page ES-1, 19-20	It is unclear what site characterization and decision documents this is referring to? Are these only for GW or broader, site/parcel wide documents?	Please clarify.	Agreed. The terms "site characterization and issuance of decision documents" have been replaced with "Parcel RFIs and Corrective Measures Studies"	OK, see comment below about spacing.		
32	Page ES-1, 22	Are we really going to monitor geochemical conditions? I am not sure quite what this means. Addendum: I did not find these "geological conditions" defined or elaborated upon anywhere in the report.	These should be defined since they are a deliverable, even if they are only included as a parenthetical list.	Agreed. The terms "geochemical conditions" has been replace with "field water quality readings"	OK		
33	ES-1, 35	What other methods? An "i.e." would suffice.		Agreed. The terms "alternative methods" has been replace with "borehole purging methods"	OK		
34	ES-1, 41	Spell out OB/OD first time used. You have done it with all the others.		Correction was made as requested.	OK		
35	ES-1, 42	Add acronym "(AOC)"		Correction was made as requested.	OK		
36	ES-1, 43	Delete verbiage for OB/OD here, not first time used.		Correction was made as requested.	OK		
37	ES-2, 1	Use VOC acronym; be consistent	Revise	Correction was made as requested.	OK		
38	ES-2, 2-3	Use VOC and SVOC acronyms; be consistent	Revise	Correction was made as requested.	OK		
39	Page 1-1, 10	The latest revision was in Feb 2015.	Clarify	The sentence was clarified to read "and was most recently revised in February 2015."	OK		
40	Page 1-2, 2	I do not believe this is accurate. We are working to the 2015 version of the permit and if this gets renewed, we will be working to that version. We are not still working to the 2005 version	Revise	The RCRA Permit citations have been revised to read (NMED, 2015) where referring to the most current Permit.	OK – assume you have done this throughout		
41	Page 1-2, 10	Attachment 7 of the Permit does not provide cleanup levels, it provides a hierarchy for the selection of clean-up levels.	Revise	The sentence was revised to read "Attachment 7 of the RCRA Permit provides cleanup level criteria…"	Incomplete. The sentence is still not correct. It provides a hierarchy for selecting cleanup criteria for FWDA.	Changed the sentence to read: "Attachment 7 of the RCRA Permit provides a hierarchy for the selection of cleanup level criteria…"	OK
42	Page 1-2, 19	There is no "(1) and (2)" above.	Correct	Correction was made as requested. See response to Comment # 43	OK		
43	Page 1-2, 24-26	This text does not make sense. It is not consistent with the text above it that claims to be consistent with. Also, figure 1-3 which presents the logic of screening values assignment should incorporate perchlorate in some manner, even if it is to be in a footnote. The text does not align with the selected perchlorate value in Table 5-1, which is 13.8 ug/L. This should be explained in the text and a footnote added to the table. Add text to explain why cancer and non-cancer WQCC/MCLs are not being evaluated separately. See Comment #59 for additional comments on Table 5-1. Consider: Until 2017, NMED allowed for the lowest of cancer and non-cancer endpoints to be used for screening, but in 2017 changed that so that caner and non-cancer needed to be evaluated separately. Although the risk guidance does not specifically say this for groundwater, Table A-1 separates NMED tap water screening values into cancer and non-cancer, so it is clear this is meant to apply to ALL exposure media. When the data are screened/evaluated for risk this	Revise	Agreed. The screening level text has been replaced with the following: 1) New Mexico Water Quality Control Commission (NM WQCC) standards for the analytes listed in NMAC § 20.6.2.7.WW having the values listed in NMAC § 20.6.2.3103. 2) EPA drinking water maximum contaminant levels (MCLs) provided under Title 40 CFR Parts 141 and 143. 3) If both an NM WQCC standard and an EPA MCL have been established for a COPC, the lowest value of (1) and (2) above will be selected. 4) If no NM WQCC standard or EPA MCL has been established for a carcinogenic hazardous constituent, values will be selected from the most recent version of the EPA Regional Screening Levels (RSLs) for tapwater (currently dated June 2017), adjusted to a target excess cancer risk level of 1 x 10-5. 5) If no NM WQCC standard or EPA MCL has been established for a noncarcinogenic hazardous constituent, values will be selected from the most recent version of the EPA RSLs for tapwater (currently dated June 2017) with a target hazard index of 1.0.	OK OK No. Text did say the lower of the two would be used to screen but did not explain why. Clarify. No. The table differentiates between cancer and non-cancer for perchlorate, but not for any of the other COCs.	The following text was added: "For some analytes, screening levels are selected for a compound with RSLs listed for both carcinogenic risks and noncarcinogenic hazards. In accordance with the RCRA Permit, only the RSLs for carcinogens are adjusted to a cancer risk of $1x10^{-5}$. Subsequent to this modification, the lower of the adjusted carcinogenic and the noncarcinogenic RSLs will be selected. Table 5-1 was revised to correct the screening level for perchlorate and differentiate between cancer and non-cancer risks. A column was added (Risk	OK OK

		would need to be done, but we can qualitatively evaluate it in the manner described above. Having said this, I know the IM MP is not meant to evaluate risk, merely to screen for the need to continue monitoring, however, the addition of a column in Table 5-1 beside the final selected criteria to note “c” and “nc” endpoints (defined in footnotes of course!), we would be able to qualitatively evaluate what risk the endpoints contribute to and use risk as an additional tool to evaluate the need for on-going monitoring, rather than screening alone. We can discuss if this is not clear.		6) No current NMWQCC or EPA MCL standard is published for perchlorate. The Permit directs use of EPA tap water RSLs when no NMWQCC or EPA MCL is published, and thus the most recently published EPA tap water RSL for perchlorate is selected (currently dated June 2017), until an NMWQCC or EPA MCL is published. Table 5-1 was revised to correct the screening level for perchlorate and differentiate between cancer and non-cancer risks.		Endpoint) and differentiates between a carcinogenic or non-carcinogenic endpoint.	
44	Page 1-2, 35	See comment (3) above.		Correction was made as requested.	OK		
45	Page 1-4, 3	Grammar needs correcting; should be “….that define*s* ***the*** decision…..”	Correct	Correction was made as requested.	OK		
46	Page 1-4, 18	How does groundwater flow direction minimize decisions errors? Is it the evaluation of GW flow direction?	Clarify	Agreed. Groundwater flow direction will be removed from the sentence.	OK but fix indent on the paragraph	Corrected the indent.	OK
47	Page 1-4, 20	Is it reliability or representativeness?		Correction to “representativeness” was made as requested.	OK		
48	Page 1-4, 24	The QAPP says that sensitivity is met when the LOQ is below the screening level. The DL is lower still, but has uncertainty associated with it. Is it worth adding text about the RL?		We agree that the term detection limits in the context of this sentence is misconstrued. It was intended to mean all included detection levels, DL, LOD and LOQ. We concur that the LOQ statement of the comment. The text was revised to replace detection limits with reporting levels as defined in Worksheet 15 of the QAPP.	OK		
49	Page 1-4, 39-40	Could add/clarify that background wells are selected to be outside the influence of the release/plume.		Correction was made as requested.	Section revised		
50	Page 1-5, 3	Should “plan” be “plans”?		Correction was made as requested.	Section revised		
51	Page 1-5, 4-5	Substantiate this claim by providing a citation or correspondence that confirms NMED has approved changing from quarterly to semi-annual elevation determinations.		Comment acknowledged. No NMED concurrence has been achieved. Substantiation of this change is presented in Section 5.	Section revised		
52	Page 1-10, Fig 1-3	Should clarify that this process does not apply to perchlorate and refer to the section where the "why" of this is explained. Also, there is a typo in the title of the figures. “Depo” needs a “t” added to it in the title		The process does apply to perchlorate. EPA Region 6 has established a Tap Water RSL of 14 µg/L. The incorrect text in Section 1.2 was replaced. See response to Comment # 43. Figure 1-3 has been revised to include correct notes and spelling of Depot.	OK OK		
53	Figure 2-2	I know the streams are marked on Figure 2-2 but they are difficult to see and the three drainage systems are not evident. Is there some way to indicate to the reader where they are?	Modify Figure 2-2 to make these drainage systems more evident and label them.	Correction was made as requested.	OK		
55	Page 3-3, 31	See Comment #24		Correction was made as requested.	OK		
56	Page 3-6, 3.5.3	There is no mention of fractures in this section. I thought this was one of the OB/OD area characteristics.		Agree. The following sentences have been added to the third paragraph of Section 3.5.3: “Bedrock folding, fractures and faults control site topography, and have a dominant effect on bedrock groundwater flow patterns. Bedrock groundwater flow may occur in preferential flow paths through fracture networks.”	OK		
57	Page 3-7, 36	Should read “….was not detected in the bedrock ***aquifer***.”		Correction was made as requested.	OK		
58	Page 3-7, 41-43	This last sentence is incomplete. It begins with “because” but does not state what results.	Revise and revise to clarify.	The word “because” has been removed from the sentence.	OK		

59	Page 3-8, 22	We are not using NMED tap water numbers.	Revise.	The text on line 26 was revised to read as follows: "Perchlorate is detected at concentrations less than the EPA RSL".	OK		
60	Page 3-10, 6-8	This first sentence is not correct as stated and should be modified. The screening criteria that have been used so far in the report are ALL human health criteria. We do not know if exceedances of Eco criteria have occurred. Therefore, we should not be assessing eco risk based upon only exceedances of human health criteria. Based upon the text the follows in the section, a simple deletion of this first sentence would circumvent this.	Revise	Correction was made as requested.	OK		
61	Page 3-10, 13-15	This is a powerful statement. To date, no assessment of VI has been made nor has a lines of evidence evaluation been made.	Please clarify how this conclusion can be made.	This sentence regarding VI was removed.	OK		
62	Figure 3-11	Given the release area for VOCs shown in Figure 3-8 in the alluvial layer and the direction in GW flow, is there no need to go to wells further west? There has been no migration? Similar question for GRO. I would not expect DRO to migrate much, but VOCs and GRO could.	Revise	Comment acknowledged. A downgradient well, TMW46, was added for VOC monitoring in Table 5-3, Figure 3-8, and in the text.	OK		
63	Section 3, General	Did not cross check figure references and cross-referencing to other report sections for accuracy. Did not review tables and figures for labels, accuracy etc.	Revise	A cross check of the figure and text references will be completed prior to production of the final document.	OK		
64	Section 4, general	Line numbers do not appear in this section	Please check all lines are numbered in review drafts before sending to help keep the review process as efficient as possible.	Correction was made as requested.	OK		
65	4-2, Second paragraph from the bottom	This sentence is incomplete. I assume this purging of the stagnant water will be done immediately prior to a sampling event occurring?	Clarify	Correction was made as requested to indicate purging is performed prior to sampling.	OK		
66	Page 4-3, Step 4	How/What/When was the previously determined volume stated in the WP? From previous sampling? Previous step?	Clarify.	Correction was made as requested to reference calculations in Section 4.2.1.2.	OK		
68	Page 4-4, 4.2.4, P2, line 4	Word missing "….to be purged, then ***the*** well, will be…."	Correct grammar	Correction was made as requested	OK		
69	Page 4-4, 4.2.4, P2, line 6	Referring the reader to Section 4.2 for the well volume calculation is not very helpful when you are already in Section 4.2.4	Make a more specific cross reference	Correction was made as requested to reference calculations in Section 4.2.1.2.	OK		
70	Page 4-5, #6	No filter sizes are cited.	Add text regarding filters from previous section for clarify, or cross-reference.	The following sentence was added: Sample filtering and preservation will be performed according to laboratory and method requirements as listed in Table 4-3.	OK		
71	Page 5-1, 27	Please elaborate on this NMED RSL either here or refer to the section earlier in the report where you define the hierarchy; recall, an earlier comment asked you to clarify the selection process of a performance standard for perchlorate. See comment #14	Revise	The text on line 27 was changed to read as follows: Where no cleanup criteria have been determined, the EPA Region 6 RSLs have been listed as screening criteria.	OK but there is another comment. See below in red.		
72	Section 5, General	Did not cross check that all of the wells are listed accurately and that they are all marked on the appropriate figures	Revise	A cross check of the figure and text references have been completed, and will be performed again prior to production of the final document.	OK		
73	Page 5-3, 20	"Other Organics Monitoring" The text should indicate somewhere how VOCs specific analyses and GRO results are going to be integrated and interpreted.	Revise	The following sentence was added to clarify: The GRO and VOC releases are the same and utilize the same locations for site monitoring.	No, unclear revision.	Revised sentence to read: "The VOC releases are believed to be associated with GRO releases, therefore the same	OK

					Suggest: "VOC releases are believed to be associated with GRO releases, allowing both categories of COCs to utilize the same locations for monitoring." Revise	monitoring locations may be applied to both COPCs."	
74	Table 5-1	Table 5-1 does not distinguish between cancer and non-cancer endpoints for the lowest selected criteria. Another column here to indicate "c" and "nc" would clarify this. It is also not clear whether the R6 RSLs were adjusted from 1x10-0 to 1X10-05 when the cancer endpoint is the value selected. Another column indicating cancer and non-cancer endpoints (footnoted) as well as the adjustment in the risk threshold should be made to clarify this for the reader/reviewer. Several entries for specific COCs in Table 5-1 have been highlighted. It does not appear that Table 5-1 was updated; several values require the Contractor's attention for a variety of reasons. A footnote is needed to explain why 13.8 was selected. It is not one of the values presented in the table to pick from. This is a groundwater study, not a soil study, hence the header should not read EPA R6 ~~SSL~~ MCLs, but EPA R6 MCLs. Correct the header. All of the above changes should be in documented in the footnotes as well.	Revise	Table 5-1 was modified to add a column of cancer and noncancer (c and nc) toxicities. The same change was applied to Worksheet 15 of the UFP-QAPP in Appendix E. Cancer risks were converted from 1x10-6 to 1x10-5. Highlights were removed from the table. The screening criteria presented in Table 5-1 was reviewed and updated based on the most recent guidance. Header and footnote revisions were performed as requested. See response to Comment # 43.	No. I did not see a "c/nc" column in the table that was sent to me to review. There appear to be sporadic notations made but nothing consistent. I did not check this but assume it did not make it Worksheet 15 either. OK No – see above. OK OK – did not check OK OK	Table 5-1 was revised to correct the screening level for perchlorate and differentiate between cancer and non-cancer risks. A column was added (Risk Endpoint) and differentiates between a carcinogenic or non-carcinogenic endpoint. The same edit was made in the table presented in worksheet 15 of the QAPP. Edit made to tables 5-1 and 15-1 (QAPP) – see above.	

75	Page 1-2. Lines 24-25.	There is no Federal MCL for perchlorate yet (despite what the Jun 2017 RSL table shows). See (https://www.ecfr.gov/cgi-bin/text-idx?SID=c606f1588e85ea8bec3ea48401a7f690&mc=true&node=sp40.25.141.g&rgn=div6). The 15 ug/L value is from an Interim Health Advisory from December 2008 (EPA 822-R-08-025). Maybe it is an ARAR or TBC, but it is not an MCL.	Reconcile, and revise Table 5-1.	The text on line 24 will be changed to the following: "No current NM WQCC or EPA MCL standard is published for perchlorate. The Permit directs use of EPA Tapwater RSLs when no NM WQCC or EPA MCL is published, and thus the most recently published EPA Tapwater RSL for perchlorate is selected (currently dated June 2017), until an NM WQCC or EPA MCL is published."	ok		
76	Page 1-4, Lines 10-13.	Consider evaluating trends in contaminant concentrations and presenting the results in the PGMRs.	Indicate in text.	Trends are indicated in PGMRs and data is presented for a two-year period. The USACE as expressed a desire to reduce the level of interpretation included in PGMRs. Therefor no additional data interpretations are explicitly included in this work plan.	Not my comment. Mandy?		
77	Page 3-4, Lines 32-33	Current text: "Recharge to both the regional aquifer and to shallow groundwater units is from precipitation and snowmelt primarily in the upland areas and along faults south of FWDA." Consider replacing with something along these lines: "Very little precipitation infiltrates through unsaturated soil to recharge FWDA groundwater. Instead, the regional aquifer and shallow groundwater units are primarily recharged through precipitation and snowmelt runoff infiltration through exposed bedrock uplands and faults south of FWDA."	Revise text.	The text was revised as suggested.	Not my comment. Mandy?		
78	Page 3-5, Line 17	The magnitude of MW02 elevation difference isn't provided, nor is the timeframe for cistern service termination. How does this impact interpretation of data from this well/vicinity? Are any changes to the monitoring plan required to resolve this issue?	Clarification with revised text as needed.	The text was changed as follows: "A small groundwater mound is present in the Administration Area near monitoring wells MW01, MW02, and MW03. This feature has been previously attributed to a leaking water storage cistern (USACE, 2011a). The cistern was no longer in service in late 2013, however, groundwater elevations at monitoring well MW02 are still approximately 1.1 feet higher than elevations at MW01 and MW03. This may be the result of leakage from the installation water supply well or borehole."	ok		
79	Page 3-9, Line 18	"The primary transport mechanism to groundwater is leaching from shallow soils." Is this true? I think the primary transport to groundwater in most cases was artificial recharge through washout water flushing, photoflash spill etc. Consider modifying this text to be consistent with site conditions and comment 4 above.	Revise text.	The following sentence was added to elaborate: "At some sites, releases to soils were accompanied by liquid releases that contributed to the migration of contaminants to groundwater."	ok		
USACE Chemistry/Geology							
80	SF298	Correct the number of pages in box 18 when the final report is complete.		Correction was made as requested	OK		
81	1-4 / 24 / General Comment	The ideal is for there to be no issues with data quality for sensitivity for a given criteria and the lab utilize a method that has documented performance where the LOQ is at or below the project screening criteria. If the initial method being considered will not meet this goal, they should attempt to optimize the method for adequate sensitivity performance. The next possibility is to specify an alternate method with appropriate sensitivity of the LOQ. The next is to consider alternate criteria for comparison to an LOQ, if this is appropriate or possible.		Agreed. We concur with the thought process detailed in this comment and have applied this to the development of Table 5-1 and Table 15-1 of the Worksheet 15 in the QAPP. Where the LOQ could not meet SL objectives, Worksheet 15 has detailed discussion of each target compound.	OK		

		The last resort would be that if, for example the criteria can only be met by the method LOD, with attendant higher level of analytical uncertainty, that this be addressed in the uncertainty component of an environmental risk assessment in accordance with EPA Risk Assessment Guidance (RAGS) as to how risk conclusions are made given issues with analyte method sensitivity. Since the project lab is required to be DOD ELAP accredited, this provides some assurance that they properly report LODs and LOQs in accordance with the DOD definitions in the QSM.					
82	1-10	Change "The FWDA screening level is the of NMWQCC standard" to "The FWDA screening level is the NMWQCC standard"		Correction was made as requested	OK		
84	4-7 / Section 4.3.2 / 3rd bullet tope of page	Whether the sample is "grab" or "composite" doesn't apply for water samples.		The bullet has been removed.	OK		
85	4-7 / Section 4.3.4	First sentence, change "Sample analysis will be performed by Test America, the DOD-certified ELAP" to "Sample analysis will be performed by Test America, the DOD ELAP-certified laboratory."		Correction was made as requested	OK		
86	4-8 / Section 4.6.2	FYI…a new DOD/DOE QSM version 5.1 came out in January 2017. I wouldn't assume labs would be accredited under the new version yet but would need to be in the future.		Comment acknowledged. No change to the text is required.	OK		
87	5-1 / 27	There is no such thing as an "NMED RSL." There's an EPA RSL. Was this supposed to say "NMED Tap Water, Non-cancer screening level?"		This text has been deleted due to corrections in the screening level for perchlorate to the RSL. See response to Comment # 43.	OK		
88	5-7 / 18 to 25	Definition for detection limit (DL) should be listed first, then LOD, LOQ, RL. The definitions should match what's in the DoD QSM. *Detection Limit (DL): The smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration with 99% confidence. At the DL, the false positive rate (Type I error) is 1%. A DL may be used as the lowest concentration for reliably reporting a detection of a specific analyte in a specific matrix with a specific method with 99% confidence. *Limit of Detection (LOD): The smallest concentration of a substance that must be present in a sample in order to be detected at the DL with 99% confidence. At the LOD, the false negative rate (Type II error) is 1%. A LOD may be used as the lowest concentration for reliably reporting a non-detect of a specific analyte in a specific matrix with a specific method at 99% confidence. *Limit of Quantitation (LOQ): The smallest concentration that produces a quantitative result with known and recorded precision and bias. For DoD/DOE projects, the LOQ shall be set at or above the concentration of the lowest initial calibration standard and within the calibration range.		Comment acknowledged. The text was revised to correctly present the DL, LOD and LOQ as defined by the DoD QSM. The reporting limit will be considered the LOQ.	OK		

		*Reporting Limit: A customer-specified lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.					
89	Appendix E / UFP-QAPP / WS #11 / page 58	SEDD files are XML files not A1 and A3.		File types A1 and A3 will be deleted from the text.	OK		
90	Appendix E / UFP-QAPP / WS #15 / page 88	Change note for superscript "5" from "Target exceeds the screening level objective for one method but will meet the screening level objective for another, for example nitrobenzene by SW8270D exceeds but passes objectives by SW8330B, Both methods…." to "Target exceeds the screening level objective for one method but will meet the screening level objective for another. For example, nitrobenzene by SW8270D exceeds but passes objectives by SW8330B. Both methods…"		Correction was made as requested	OK		
91	Appendix E / UFP-QAPP / WS #26 and 27 / page 151	The acceptance criteria language for temperature should be updated to "≤ 6˚C" instead of "4˚C ± 2˚C."		Correction was made as requested	OK		
92	4-1 / Section 4.1 / 2nd bullet point	Recommend replacing "from" to "to"		Correction was made as requested	OK		
93	4-1 / Section 4.2 / Last sentence of 2nd paragraph	States that if monitoring well does not contain more than 6 inches of water in the well screen, it is considered dry. However, in the UFP-QAAP, Appendix A, SOP 4, pg 220, step 5 of purging procedure that the well is considered dry if there is water less than 2 feet from the bottom of the well. Recommend changing the GWMP or the UFP-QAAP to agree.		Correction was made as requested such that both the documents indicate a dry well when less than 6 inches of saturated screen are present.	OK		
94	4-2 / Section 4.2.2 / 2nd paragraph / 3rd sentence	States: "Nitrogen gas is selected because it contains fewer impurities that may influence sample results." Could add Nitrogen as an inert gas and thus non-reactive. Mentioned that it contains fewer impurities, but, fewer than what? Recommend: "Nitrogen gas is selected because of its inert characteristics and relative purity to other atmospheric gases."		Correction was made as requested	OK		
95	4-4 / Section 4.2.4 / last paragraph / last sentence	Recommend replace "wells" with "well volumes"		Correction was made as requested	OK		
96	4-5 / Section 4.2.4.3 / 1st paragraph / 4th sentence	Insert "each" between "of" and monitoring". Omit "the" to read, "The Bennett pump intake was placed approximately 2 feet from the bottom of each monitoring well."		Correction was made as requested	OK		
97	Appendix E / UFP-QAAP 83/Table 15-1	Some rows have mixed units and needs to be clearer. Recommend omitting the column with units (i.e. µg/L and %) and placing units in the appropriate column header. The surrogates are not necessary in the table.		Although some methods are reporting in µg and some mg, we believe the table is clearly laid out to define that. There are no mixed units within a method. Keeping the unit column to allow the % unit is important to the table design where surrogates are included to show the control limits to be used. The table design creates some QAPP efficiency having control limits all in one place, one that already is presenting the target compounds and	OK		

				methods. This design has been widely used and accepted in many USACE district QAPPs.			
98	Appendix E / UFP-QAAP Pg 83 and 87/ table 15-1	a,a,a-Trifluorotoluene on page 83 and 1,2-Dinitrobenzene on page 87 are surrogates and not labeled like other surrogates. However, surrogates are not necessary in this table.		See comment response 97 above regarding surrogates in the table.	OK		
ERDC Additional Comments							
99	iv	Correct formatting for first three names on distribution list Add Cheryl R. Montgomery (US ACE ERDC) to the distribution list – 1 electronic copy	Revise	Additional indentation was removed as requested. Ms. Montgomery was added as requested.			
100	ES-1/20	Add space between "Studies" and "to"	Revise	Correction was made as requested			
101	1-4/35	"are" should be "were"	Correct	Corrected tense disagreement within Step 7. First two paragraphs now read: "Groundwater monitoring will evaluate each groundwater contaminant plume from the point of release to the existing groundwater plume boundary and at sentinel locations along the property boundary. Each impacted groundwater zone (Northern Area alluvial, Northern Area bedrock, and OB/OD) will be assessed to determine where contaminants are present and to determine suitable locations for monitoring contaminant plumes. The groundwater flow direction will be evaluated to assure that data on potential downgradient migration of the plumes are captured. In addition, historical analytical will be reviewed to select monitoring locations representative of the highest contaminant concentrations in each plume. Wells designated to monitor a release will be analyzed for the COPCs associated with each specific point of release. Wells designated as upgradient and downgradient of a contaminant plume will be used to monitor plume boundaries and plume migration. Where no contaminant plume can be drawn, downgradient locations will be selected based on groundwater flow direction from the point of release. Sentinel wells will be designated to monitor potential off-site migration of contaminants. Background wells will be selected to be outside the influence of the release/plume. Some monitoring points will be monitored for multiple COPCs when they are designated for multiple points of release, or when a single point of release is associated with multiple COPCs. Details of well designation rationale are provided in Section 5.2."	OK		
102	1-4/40	"….point of release"? Do you mean "….associated with each point of release."? It doesn't really read right the way it is currently written.	Revise	text changed to read: "Wells designated to monitor a release will be analyzed for the COPCs associated with each specific point of release."	OK		
103	1-5/1	"are" should be "have been"	Correct	Please see answer to comment 101.	OK		
104	3-9/30	Do you mean the following "…..based upon screening soil concentrations against NMED SLLs."	Revise	Correction was made as requested. The sentence was changed to read "for soluble contaminants and no depth has been defined based upon soil concentrations screened against NMED SSLs.	OK		
105	3-9	Suggest adding "…..in a manner atypical of an arid, desert zone."	Revise	Correction was made as requested	OK		
106	5-1/26 to 28	NMED ~~EPA~~ has responded on other projects that we are required to reach all screening values with our analytical methods. We cannot leave COCs hanging "out there"	Reword/clarify	Comment acknowledged. These VOCs and SVOCs are not usually detected. Most have less than 3 detections historically, with seven of the SVOCs never having a	I understand the difficulty.		

		the way this sentence does. Are the VOCs and SVOCs that the RLs cannot achieve the sensitivity needed usually detected? If not, that puts some perspective on this, but if they ARE detected something will need to be modified. We should discuss.		detection. Detections of these are sporadic. Bis(2-ethylhexyl)phthalate is the one exception, having detections almost every event, however no trends are observed. Each instance of an analyte screening level not met by the proposed analytical method is detailed in the UFP-QAPP Worksheet 15 (Appendix E). The Worksheet 15 text verifies the appropriate use of proposed analytical methods for the primary COPCs and was previously vetted by the USACE. Please note that the text presented in Section 5.1 is specifically tailored to achieve NMED regulator approval. The level of detail presented in the UFP-QAPP has previously met with numerous comments and disapproval by the FWDA lead regulator, the NMED-Hazardous Waste Bureau.	I will leave the final decision to you. Is it possible to state that the COCs for which LODs/LOQs are not met are not associated with any COCs detected? Perhaps add if they are detected further evaluation might be warranted?		
107	5-3/19	"Other" can be removed from this title.	Revise	Comment acknowledged. The term "other" is used to differentiate explosive compounds from VOCs, SVOCs, and TPH. The NMED has previously pointed out that explosive compounds are organic compounds.	I agree with NMED, they are organics. Title can stand.		
108	5-4/39-41	You have added "Pending installation of additional background bedrock wells, wells TMW18 and TMW19 which are cross-gradient of source areas are suitable for use a background locations for nitrate, explosives, perchlorate and other COPCs." This does not make sense. If these locations were good enough to use as background, we would not be looking for other background well locations.	Revise	Correction was made. The paragraph reads: "The monitoring locations designated as bedrock aquifer background and sentinel wells will be monitored for all Northern Area COPCs. In the Northern Area bedrock groundwater zone, no current bedrock monitoring wells are selected as background wells according to the groundwater flow direction (Figure 3-15). Four bedrock background monitoring wells are currently proposed to be installed upgradient of known source areas. The groundwater flow direction in the bedrock aquifer does not indicate plumes will migrate offsite and there are no sentinel wells for the bedrock aquifer."	OK		
109	Table 15-1	I do not see cancer and non-cancer endpoints consistently noted in this table either. The easiest way is to add a column to do this.		Correction was made as originally requested. See cancer and noncancer columns for EPA RSLs. Please also see response to comments No. 43 and No. 74.			
No further comments							

Date CRT Forwarded to Mark Patterson/Steve Smith:

Call Needed With BEC/Program Mgr. Call Needed with NMED:

CRT Review Completed By:								
Required Completed Please add a ✔ in the Green Required Column for all those who must review. Please add a ✔ in the Blue Completed column when the review is complete.								
Angela Lane	X		Mark Patterson	X		Heather Theel	X	
Dave Becker	X		Steve Smith	X		Michelle Bourne /Cindy Auld	X	
Cheryl Montgomery	X		DJ Myers					
Mike Scoville	X		Saqib Khan	X				

APPENDIX B

Summary of Analytical Results of Previous Investigations

(Tables B-1 through B-7)

Access Database provided on disk.

TABLE B-1: SUMMARY OF NITRATE-NITROGEN AND NITRITE-NITROGEN ANALYTICAL DETECTIONS FOR 2017- 2018 RESULTS

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	Nitrate as Nitrogen mg/L	Nitrite as Nitrogen mg/L
ALLUVIAL WELLS				
BGMW01	**BGMW01042017**	**4/24/2017**	0.097 J	0.1 U
	BGMW01042017DUP	**4/24/2017**	0.0976	0.1 U
	BGMW01102017	**10/23/2017**	0.1 U	0.1 U
	BGMW01042018	**4/27/2018**	0.1 U	0.1 U
	BGMW01102018	**10/9/2018**	0.16 J	0.2 U
BGMW02	**BGMW02042017**	**4/21/2017**	**15 J**	0.1 U
	BGMW02042017DUP	**4/21/2017**	**13.3**	0.1 U
	BGMW02102017	**10/20/2017**	**13**	0.1 U
	BGMW02102017DUP	**10/20/2017**	**14.8**	0.1 U
	BGMW02042018	**4/26/2018**	**14**	0.2 U
	BGMW02102018	**10/11/2018**	0.5 U	0.2 U
BGMW03	**BGMW03042017**	**4/20/2017**	2.6	0.055 J
	BGMW03102017	**10/19/2017**	3.1	0.51
	BGMW03042018	**4/24/2018**	2.1 J	0.1 UJ
	BGMW03042018DUP	**4/27/2018**	2.2	0.71
	BGMW03102018	**10/10/2018**	1.1	0.1 U
FW31	**FW31042017**	**4/17/2017**	0.078 J	0.1 UJ
	FW31102017	**10/18/2017**	0.054 J	0.1 U
	FW31042018	**4/23/2018**	0.1 U	0.1 U
	FW31102018	**10/9/2018**	0.046 J	0.1 U
MW01	**MW01042017**	**4/19/2017**	7	0.1 U
	MW01102017	**10/24/2017**	6.6	0.1 U
	MW01042018	**4/23/2018**	6.2	0.1 U
	MW01102018	**10/9/2018**	5.8	0.2 U
MW02	**MW02042017**	**4/19/2017**	3.9	0.1 U
	MW02102017	**10/24/2017**	3.7	0.1 U
	MW02042018	**4/23/2018**	3.1	0.1 U
	MW02042018DUP	**4/27/2018**	3	0.1 U
	MW02102018	**10/9/2018**	3.2	0.1 U
MW03	**MW03042017**	**4/21/2017**	7.1 J	0.1 U
	MW03102017	**10/23/2017**	6.8	0.1 U
	MW03042018	**4/27/2018**	6.8	0.1 U
	MW03102018	**10/15/2018**	6.3	0.2 U
MW18D	**MW18D042017**	**4/20/2017**	0.2 U	0.2 U
	MW18D102017	**10/19/2017**	0.1 U	0.1 U
	MW18D042018	**4/25/2018**	0.12 J	0.1 U
	MW18D102018	**10/10/2018**	0.5 U	0.5 U
MW20	**MW20042017**	**4/24/2017**	6.5	0.5 U
	MW20102017	**10/23/2017**	8.4	**2.8**
	MW20042018	**4/30/2018**	8.4	0.5 U
	MW20102018	**10/15/2018**	7.7	0.5 U
MW22D	**MW22D042017**	**4/19/2017**	**27**	0.2 U

TABLE B-1: SUMMARY OF NITRATE-NITROGEN AND NITRITE-NITROGEN ANALYTICAL DETECTIONS FOR 2017- 2018 RESULTS

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	Nitrate as Nitrogen mg/L	Nitrite as Nitrogen mg/L
MW22D	MW22D042017DUP	4/19/2017	**27.1**	0.2 U
	MW22D102017	10/23/2017	**25**	0.1 U
	MW22D102017DUP	10/23/2017	**25.3**	0.1 U
	MW22D042018	4/27/2018	**25**	0.1 U
	MW22D042018DUP	5/3/2018	**25**	0.1 U
	MW22D102018	10/12/2018	**26.2**	0.2 U
MW23	MW23042017	4/18/2017	0.1 U	0.12 J
	MW23042017DUP	4/18/2017	0.1 U	0.12 J
	MW23102017	10/18/2017	0.084 J	0.1 U
	MW23102017DUP	10/18/2017	0.069 J	0.1 U
	MW23042018	4/24/2018	0.1 UJ	0.1 UJ
	MW23042018DUP	4/24/2018	0.1 UJ	0.1 UJ
	MW23102018	10/17/2018	0.0445	0.444 J
	MW23102018DUP	10/17/2018	0.1 U	0.43 J
MW24	MW24042017	4/17/2017	0.1 UJ	0.1 UJ
	MW24042017DUP	4/17/2017	0.1 UJ	0.1 UJ
	MW24102017	10/17/2017	0.1 U	0.1 U
	MW24102017DUP1	10/17/2017	0.1 U	0.1 U
	MW24042018	4/23/2018	0.1 U	0.1 U
	MW24042018DUP	4/23/2018	0.1 U	0.1 U
	MW24102018	10/17/2018	0.1 U	0.1 U
	MW24102018DUP	10/17/2018	0.1 U	0.1 U
SMW01	SMW01042017	4/21/2017	0.1 U	0.1 U
	SMW01102017	10/20/2017	0.1 U	0.1 U
	SMW01042018	4/26/2018	0.2 U	0.2 U
	SMW01102018	10/12/2018	0.2 U	0.2 U
TMW01	TMW01042017	4/25/2017	9.7	0.1 U
	TMW01102017	10/27/2017	9.9	0.1 U
	TMW01042018	5/4/2018	9.8	0.1 U
	TMW01102018	10/15/2018	8.6	0.1 U
TMW03	TMW03042017	4/24/2017	**130**	0.46 J
	TMW03102017	10/25/2017	**120**	0.49 J
	TMW03102017DUP	10/25/2017	**121**	0.529
	TMW03042018	4/30/2018	**120**	0.27 J
	TMW03102018	10/12/2018	**120**	0.2 U
TMW04	TMW04042017	4/24/2017	**47**	0.1 U
	TMW04102017	10/25/2017	**49**	0.1 U
	TMW04042018	5/2/2018	**44**	0.1 U
	TMW04102018	10/16/2018	**44**	0.2 U
TMW06	TMW06042017	4/20/2017	**13 J**	0.1 U
	TMW06042017DUP	4/20/2017	**13.2**	NA
	TMW06102017	10/17/2017	**13**	0.1 U

TABLE B-1: SUMMARY OF NITRATE-NITROGEN AND NITRITE-NITROGEN ANALYTICAL DETECTIONS FOR 2017- 2018 RESULTS

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	Nitrate as Nitrogen mg/L	Nitrite as Nitrogen mg/L
TMW06	TMW06042018	4/30/2018	**11**	0.1 U
	TMW06102018	10/12/2018	**12**	0.2 U
TMW07	TMW07042017	4/20/2017	0.2 U	0.2 U
	TMW07102017	10/19/2017	0.2 U	0.2 U
	TMW07042018	4/25/2018	0.15 J	0.1 U
	TMW07102018	10/10/2018	0.2 U	0.2 U
TMW08	TMW08042017	4/21/2017	0.5 U	0.5 U
	TMW08102017	10/20/2017	4.4	0.2 U
	TMW08042018	4/27/2018	4.3	**3.7**
	TMW08102018	10/11/2018	4.7 J	1U
TMW10	TMW10042017	4/21/2017	0.2 U	0.2 U
	TMW10102017	10/25/2017	0.2 U	0.2 U
	TMW10042018	4/24/2018	0.1 UJ	0.1 UJ
	TMW10042018DUP	4/27/2018	0.16 J	0.2 U
	TMW10102018	10/10/2018	0.5 U	0.5 U
TMW11	TMW11042017	4/26/2017	1.3	0.1 U
	TMW11102017	10/27/2017	3.4	0.1 U
	TMW11042018	5/2/2018	1.3	0.1 U
	TMW11102018	10/11/2018	0.1 U	0.1 U
TMW13	TMW13042017	4/25/2017	5.5	0.1 U
	TMW13102017	10/26/2017	5.7	0.1 U
	TMW13042018	5/1/2018	5.8	0.1 U
	TMW13102018	10/15/2018	5.2	0.1 U
TMW15	TMW15042017	4/27/2017	5.6	0.1 U
	TMW15042017DUP	4/27/2017	5.6	0.1 U
	TMW15102017	10/26/2017	4.8	0.1 U
	TMW15102017DUP	10/26/2017	4.8	0.1 U
	TMW15042018	5/3/2018	4.1	0.1 U
	TMW15042018DUP	5/3/2018	4.1	0.1 U
	TMW15102018	10/16/2018	3.7	0.1 U
	TMW15102018DUP	10/16/2018	3.7	0.1 U
TMW21	TMW21042017	4/26/2017	9.2	0.1 U
	TMW21102017	10/25/2017	9.2	0.1 U
	TMW21042018	5/1/2018	9.6	0.1 U
	TMW21102018	10/9/2018	9.6	0.17 J
TMW22	TMW22042017	4/19/2017	**12**	0.1 U
	TMW22102017	10/25/2017	**13**	0.091 J
	TMW22042018	4/25/2018	**11**	0.1 U
	TMW22102018	10/11/2018	**13**	0.1 U
TMW23	TMW23042017	4/20/2017	**29 J**	0.1 U
	TMW23102017	10/19/2017	**29**	0.1 U
	TMW23042018	4/25/2018	**27**	0.1 U
	TMW23102018	10/11/2018	**26**	0.1 U

TABLE B-1: SUMMARY OF NITRATE-NITROGEN AND NITRITE-NITROGEN ANALYTICAL DETECTIONS FOR 2017- 2018 RESULTS

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	Nitrate as Nitrogen	Nitrite as Nitrogen
			mg/L	mg/L
TMW24	TMW24042017	4/25/2017	0.1 U	0.1 U
	TMW24102017	10/24/2017	0.1 U	0.1 U
	TMW24042018	4/30/2018	0.1 U	0.1 U
	TMW24102018	10/18/2018	0.2 U	0.2 U
TMW25	TMW25042017	4/27/2017	0.46 J	0.1 U
	TMW25102017	10/25/2017	0.4 J	0.1 U
	TMW25042018	4/30/2018	0.35 J	0.1 U
	TMW25102018	10/16/2018	0.47 J	0.2 U
TMW26	TMW26042017	4/20/2017	0.044 J	0.1 U
	TMW26042017DUP	4/20/2017	0.1 U	0.1 U
	TMW26102017	10/17/2017	0.1 U	0.1 U
	TMW26102017DUP	10/17/2017	0.1 U	0.1 U
	TMW26042018	4/26/2018	0.1 U	0.1 U
	TMW26042018DUP	4/26/2018	0.1 U	0.1 U
	TMW26102018	10/10/2018	0.2 U	0.2 U
	TMW26102018DUP	10/10/2018	0.2 U	0.2 U
TMW28	TMW28042017	4/24/2017	0.1 U	0.1 U
	TMW28102017	10/20/2017	0.058 J	0.1 U
	TMW28042018	4/26/2018	0.1 U	0.1 U
	TMW28102018	10/9/2018	0.1 U	0.1 U
TMW29	TMW29042017	4/20/2017	2.7	0.1 U
	TMW29102017	10/20/2017	2.8	0.1 U
	TMW29042018	4/23/2018	2.9	0.1 U
	TMW29102018	10/9/2018	2.7	0.1 U
TMW31S	TMW31S042017	4/19/2017	7.1	0.1 U
	TMW31S102017	10/25/2017	7.8	0.1 U
	TMW31S042018	4/25/2018	7.9 J	0.1 U
	TMW31S102018	10/11/2018	7.7	0.1 U
TMW33	TMW33042017	4/20/2017	0.5 U	0.5 U
	TMW33102017	10/20/2017	0.2 U	0.2 U
	TMW33042018	4/25/2018	0.12 J	0.1 U
	TMW33102018	10/10/2018	0.5 U	0.5 U
TMW34	TMW34042017	4/24/2017	**71**	0.2 U
	TMW34042017DUP	4/24/2017	**71**	0.2 U
	TMW34102017	10/25/2017	**64**	0.2 U
	TMW34102017DUP	10/25/2017	**65**	0.2 U
	TMW34042018	4/27/2018	**77**	0.2 U
	TMW34042018DUP	4/27/2018	**67 J**	0.2 U
	TMW34102018	10/15/2018	**69**	0.2 U
	TMW34102018DUP	10/15/2018	**68**	0.2 U
TMW35	TMW35042017	4/24/2017	9.6	0.1 U
	TMW35102017	10/23/2017	8.4	0.2 U
	TMW35042018	4/27/2018	8.3	0.2 U

TABLE B-1: SUMMARY OF NITRATE-NITROGEN AND NITRITE-NITROGEN ANALYTICAL DETECTIONS FOR 2017- 2018 RESULTS

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	Nitrate as Nitrogen mg/L	Nitrite as Nitrogen mg/L
TMW35	TMW35102018	10/15/2018	8.3	0.2 U
TMW39S	TMW39S042017	4/19/2017	9.4	0.1 U
	TMW39S102017	10/18/2017	9.1	0.1 U
	TMW39S042018	4/25/2018	9.2	0.1 U
	TMW39S102018	10/11/2018	9.1	0.2 U
TMW40S	TMW40S042017	4/21/2017	**130**	0.32 J
	TMW40S102017	10/25/2017	**140**	0.44 J
	TMW40S102017DUP	10/25/2017	**136**	0.439
	TMW40S042018	4/27/2018	**140**	0.38 J
	TMW40S102018	10/9/2018	**140**	0.33 J
TMW41	TMW41042017	4/19/2017	5.7	0.1 U
	TMW41102017	10/25/2017	5.4	0.1 U
	TMW41042018	4/25/2018	5.2	0.1 U
	TMW41102018	10/11/2018	5.4	0.2 U
TMW43	TMW43042017	4/27/2017	8.4	0.1 U
	TMW43042017DUP	4/27/2017	8.7	0.1 U
	TMW43102017	10/24/2017	8.2	0.1 U
	TMW43102017DUP	10/24/2017	8	0.1 U
	TMW43042018	5/2/2018	8	0.1 U
	TMW43042018DUP	5/2/2018	7.9	0.1 U
	TMW43102018	10/16/2018	7.7	0.1 U
	TMW43102018DUP	10/16/2018	7.6	0.1 U
TMW44	TMW44042017	4/19/2017	**52**	0.1 U
	TMW44102017	10/25/2017	**51**	0.1 U
	TMW44042018	4/25/2018	**50**	0.1 U
	TMW44102018	10/11/2018	**53**	0.2 U
TMW45	TMW45042017	4/28/2017	0.93	0.1 U
	TMW45102017	10/27/2017	0.91	0.1 U
	TMW45042018	5/2/2018	1	0.1 U
	TMW45102018	10/17/2018	1.2	0.2 U
TMW46	TMW46042017	4/20/2017	**84 J**	0.2 U
	TMW46102017	10/25/2017	**80**	0.2 U
	TMW46042018	4/25/2018	**78**	0.1 U
	TMW46102018	10/10/2018	**78**	0.2 U
TMW47	TMW47042017	4/25/2017	0.1 U	0.1 U
	TMW47102017	10/26/2017	0.1 U	0.1 U
	TMW47042018	5/3/2018	0.1 U	0.1 U
	TMW47102018	10/17/2018	0.1 U	0.1 U
BEDROCK WELLS				
BGMW07	BGMW07042018	4/26/2018	0.5 U	0.5 U
	BGMW07102018	10/12/2018	1 U	1 U
BGMW08	BGMW08072018	7/18/2018	0.5 U	0.5 U
	BGMW08102018	10/9/2018	0.5 U	0.5 U

TABLE B-1: SUMMARY OF NITRATE-NITROGEN AND NITRITE-NITROGEN ANALYTICAL DETECTIONS FOR 2017- 2018 RESULTS

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	Nitrate as Nitrogen mg/L	Nitrite as Nitrogen mg/L
BGMW09	BGMW09042018	5/1/2018	0.2 U	0.2 U
	BGMW09102018	10/10/2018	0.2 U	0.2 U
	BGMW09102018DUP1	10/10/2018	0.2 U	0.2 U
BGMW10	BGMW10042018	4/27/2018	0.087 J	0.1 U
	BGMW10102018	10/11/2018	0.1 U	0.1 U
TMW02	TMW02042017	4/24/2017	**94**	0.1 U
	TMW02102017	10/24/2017	**86**	0.1 U
	TMW02042018	5/1/2018	**88**	0.1 U
	TMW02102018	10/16/2018	**86**	0.2 U
TMW14A	TMW14A042017	4/27/2017	0.1 U	0.1 U
	TMW14A102017	10/26/2017	0.1 U	0.1 U
	TMW14A102018	10/15/2018	1.88	0.1 U
TMW17	TMW17042017	4/27/2017	0.1 U	0.1 U
	TMW17102017	10/26/2017	0.1 U	0.1 U
	TMW17042018	5/3/2018	0.1 U	0.1 U
	TMW17102018	10/18/2018	0.1 U	0.1 U
TMW18	TMW18042017	4/20/2017	0.046 J	0.1 U
	TMW18102017	10/19/2017	0.1 U	0.1 U
	TMW18042018	4/25/2018	0.32 J	0.14 J
	TMW18102018	10/18/2018	0.28 J	0.1 U
TMW30	TMW30042017	4/19/2017	**16**	0.1 U
	TMW30102017	10/25/2017	**16**	0.1 U
	TMW30042018	4/26/2018	**15**	0.1 U
	TMW30102018	10/11/2018	**15**	0.1 U
TMW31D	TMW31D042017	4/27/2017	**14**	0.1 U
	TMW31D042017DUP	4/27/2017	**14**	0.1 U
	TMW31D102017	10/26/2017	**14**	0.1 U
	TMW31D102017DUP	10/26/2017	**14**	0.1 U
	TMW31D042018	5/2/2018	**14**	0.1 U
	TMW31D042018DUP	5/2/2018	**14**	0.1 U
	TMW31D102018	10/16/2018	**13**	0.1 U
	TMW31D102018DUP	10/16/2018	**14**	0.1 U
TMW32	TMW32042017	4/27/2017	2.3	0.31 J
	TMW32102017	10/20/2017	2.5	0.21 J
	TMW32042018	5/1/2018	3	0.44 J
	TMW32102018	10/12/2018	2.5	0.2 U
TMW36	TMW36042017	4/20/2017	0.1 U	0.1 U
	TMW36102017	10/19/2017	0.1 U	0.1 U
	TMW36042018	4/25/2018	0.1 U	0.1 U
	TMW36102018	10/18/2018	0.1 U	0.1 U
TMW37	TMW37042017	4/20/2017	0.1 U	0.1 U
	TMW37102017	10/20/2017	0.1 U	0.1 U
	TMW37042018	4/25/2018	0.1 U	0.1 U

TABLE B-1: SUMMARY OF NITRATE-NITROGEN AND NITRITE-NITROGEN ANALYTICAL DETECTIONS FOR 2017- 2018 RESULTS

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	Nitrate as Nitrogen mg/L	Nitrite as Nitrogen mg/L
TMW37	TMW37102018	10/18/2018	0.1 U	0.1 U
TMW38	TMW38042017	4/26/2017	0.1 U	0.1 U
	TMW38102017	10/26/2017	0.1 U	0.1 U
	TMW38042018	5/1/2018	0.1 U	0.1 U
	TMW38102018	10/19/2018	0.1 U	0.1 U
TMW39D	TMW39D042017	4/27/2017	0.1 U	0.1 U
	TMW39D102017	10/27/2017	0.45 J	0.1 U
	TMW39D042018	5/3/2018	0.11 J	0.1 U
	TMW39D102018	10/16/2018	0.2 U	0.2 U
TMW40D	TMW40D042017	4/25/2017	1.9	0.27 J
	TMW40D102017	10/23/2017	2	0.1 U
	TMW40D042018	5/1/2018	2.1	0.38 J
	TMW40D102018	10/12/2018	1.9	0.1 J
TMW48	TMW48042017	4/26/2017	**14**	0.1 U
	TMW48102017	10/27/2017	**12**	0.1 U
	TMW48042018	5/2/2018	**12**	0.1 U
	TMW48102018	10/16/2018	**12**	0.1 U
TMW49	TMW49042017	4/26/2017	6.1	0.1 U
	TMW49102017	10/27/2017	5.6	0.1 U
	TMW49042018	5/4/2018	5.9	0.1 U
	TMW49102018	10/17/2018	5.4	0.1 U
		SLs:	**10**	**1**

NOTES
U indicates concentration is less than cited Limit ofDetection.
J indicates concentration is an estimated value.
Bolded concentration indicates result exceeded cited SL.

ABBREVIATIONS & ACRONYMS
– not established or not applicable
mg/L milligrams per liter
NA not analyzed
SL Regional Screening Levels (USEPA, 2019)

TABLE B-2: SUMMARY OF TOTAL EXPLOSIVES ANALYTICAL DETECTIONS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	1,3,5-Trinitrobenzene	1,3-Dinitrobenzene	2,4,6-Trinitrotoluene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Am-DNT	2-Nitrotoluene	3,5-Dinitroaniline	3-Nitrotoluene	4-Am-DNT	4-Nitrotoluene	HMX	Nitrobenzene	Nitroglycerin	PETN	RDX	Tetryl
			µg/L											µg/L					
ALLUVIAL WELLS																			
BGMW01	**BGMW01042017**	**4/24/2017**	0.47 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	0.35 U	0.24 U	0.14 U	0.47 U	0.24 U	0.24 U	2.4 U	1.4 U	0.14 U	0.24 U
	BGMW01102017	**10/23/2017**	0.47 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.35 U	0.23 U	0.14 U	0.47 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U
	BGMW01042018	**4/27/2018**	0.51 UJ	0.26 UJ	0.26 UJ	0.25 U	0.26 UJ	0.15 UJ	0.26 UJ	0.39 UJ	0.26 UJ	0.15 UJ	0.51 UJ	0.26 UJ	0.26 UJ	2.6 UJ	1.5 UJ	0.15 UJ	0.26 UJ
	BGMW01102018	**10/9/2018**	0.43 U	0.21 U	0.21 U	4.4 U	4.4 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.43 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
BGMW02	**BGMW02042017**	**4/21/2017**	0.48 U	0.24 U	0.24 U	4.9 U	4.9 U	0.14 U	0.24 U	0.36 U	0.24 U	0.14 U	0.48 U	0.24 U	2.2 U	2.4 U	1.4 U	0.14 U	0.24 U
	BGMW02102017	**10/20/2017**	0.46 U	0.23 U	0.23 U	2.4 U	2.4 U	0.14 U	0.23 U	0.34 U	0.23 U	0.14 U	0.46 U	0.23 U	1.2 U	2.3 U	1.4 U	0.14 U	0.23 U
	BGMW02042018	**4/26/2018**	0.49 U	0.24 U	0.24 U	0.24 U	0.24 U	0.15 UJ	0.24 U	0.37 U	0.24 U	0.15 UJ	0.49 U	0.24 U	0.24 U	2.4 U	1.5 U	0.15 U	0.24 U
	BGMW02102018	**10/11/2018**	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
BGMW03	**BGMW03042017**	**4/20/2017**	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.34 U	0.23 U	0.14 U	0.46 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U
	BGMW03102017	**10/19/2017**	0.48 U	0.24 U	0.24 U	2.1 U	2.1 U	0.14 UJ	0.24 UJ	0.36 U	0.24 UJ	0.14 UJ	0.48 UJ	0.24 U	1.1 U	2.4 U	1.4 U	0.14 U	0.24 U
	BGMW03042018	**4/24/2018**	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.15 U	0.24 U	0.36 U	0.24 U	0.15 U	0.48 U	0.24 U	0.24 U	2.4 U	1.5 U	0.15 U	0.24 U
	BGMW03102018	**10/10/2018**	0.47 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	0.35 U	0.24 U	0.14 U	0.47 U	0.24 U	0.24 U	2.4 U	1.4 U	0.14 U	0.24 U
FW31	**FW31042017**	**4/17/2017**	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	FW31102017	**10/18/2017**	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.34 U	0.23 U	0.14 U	0.46 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U
	FW31042018	**4/23/2018**	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.34 U	0.23 U	0.14 U	0.45 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U
	FW31102018	**10/9/2018**	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.42 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
MW01	**MW01042017**	**4/19/2017**	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.42 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
	MW01102017	**10/24/2017**	2.9 UJ	1.4 UJ	1.4 UJ	1.4 UJ	1.4 UJ	0.87 UJ	1.4 UJ	2.2 UJ	1.4 UJ	0.87 UJ	2.9 UJ	1.4 UJ	1.4 UJ	14 UJ	8.7 UJ	0.87 UJ	1.4 UJ
	MW01042018	**4/23/2018**	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.35 U	0.23 U	0.14 U	0.46 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U
	MW01102018	**10/9/2018**	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.2 U	0.3 U	0.2 U	0.12 U	0.4 U	0.2 U	0.2 U	2 U	1.2 U	0.12 U	0.2 U
MW02	**MW02042017**	**4/19/2017**	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	0.36 U	0.24 U	NA	0.48 U	0.24 U	0.24 U	2.4 U	1.4 U	0.14 U	0.24 U
	MW02102017	**10/24/2017**	4 UJ	2 UJ	2 UJ	2 UJ	2 UJ	1.2 UJ	2 UJ	3 UJ	2 UJ	1.2 UJ	4 UJ	2 UJ	2 UJ	2 U0 J	12 UJ	1.2 UJ	2 UJ
	MW02042018	**4/23/2018**	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.34 U	0.23 U	0.14 U	0.46 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U
	MW02102018	**10/9/2018**	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	0.31 U	0.21 U	0.12 U	0.42 U	0.21 U	0.21 U	2.1 U	1.2 U	0.12 U	0.21 U
MW03	**MW03042017**	**4/21/2017**	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	0.36 U	0.24 U	0.14 U	0.48 U	0.24 U	0.24 U	2.4 U	1.4 U	0.14 U	0.24 U
	MW03102017	**10/23/2017**	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	MW03042018	**4/27/2018**	0.42 UJ	0.21 UJ	0.21 UJ	0.21 UJ	0.21 UJ	0.13 UJ	0.21 UJ	0.31 UJ	0.21 UJ	0.13 UJ	0.42 UJ	0.21 UJ	0.21 UJ	2.1 UJ	1.3 UJ	0.13 UJ	0.21 UJ
	MW03102018	**10/15/2018**	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.43 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
MW18D	**MW18D042017**	**4/20/2017**	0.47 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.35 U	0.23 U	0.14 U	0.47 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U
	MW18D102017	**10/19/2017**	0.48 U	0.24 U	0.24 U	0.24 UJ	0.24 UJ	0.14 UJ	0.24 UJ	0.36 U	0.24 UJ	0.14 UJ	0.48 UJ	0.24 U	0.24 U	2.4 U	1.4 U	0.14 U	0.24 U
	MW18D042018	**4/25/2018**	0.41 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.2 U	0.31 U	0.2 U	0.12 U	0.41 U	0.2 U	0.2 U	2 U	1.2 U	0.12 U	0.2 U
	MW18D102018	**10/10/2018**	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
MW20	**MW20042017**	**4/24/2017**	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	0.36 U	0.24 U	NA	0.48 U	0.24 U	0.24 U	2.4 U	1.4 U	0.14 U	0.24 U
	MW20102017	**10/23/2017**	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	MW20042018	**4/30/2018**	0.43 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.33 UJ	0.22 UJ	0.13 UJ	0.43 UJ	0.22 UJ	0.22 UJ	2.2 UJ	1.3 UJ	0.13 UJ	0.22 UJ

TABLE B-2: SUMMARY OF TOTAL EXPLOSIVES ANALYTICAL DETECTIONS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	1,3,5-Trinitrobenzene	1,3-Dinitrobenzene	2,4,6-Trinitrotoluene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Am-DNT	2-Nitrotoluene	3,5-Dinitroaniline	3-Nitrotoluene	4-Am-DNT	4-Nitrotoluene	HMX	Nitrobenzene	Nitroglycerin	PETN	RDX	Tetryl
			µg/L											µg/L					
MW20	MW20102018	10/15/2018	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.34 U	0.22 U	0.13 U	0.45 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
MW22D	MW22D042017	4/19/2017	0.47 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	0.35 U	0.24 U	0.14 U	0.47 U	0.24 U	0.24 U	2.4 U	1.4 U	0.14 U	0.24 U
	MW22D102017	10/23/2017	0.47 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	0.35 U	0.24 U	0.14 U	0.47 U	0.24 U	0.24 U	2.4 U	1.4 U	0.14 U	0.24 U
	MW22D042018	4/27/2018	0.44 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.33 UJ	0.22 UJ	0.13 UJ	0.44 UJ	0.22 UJ	0.22 UJ	2.2 UJ	1.3 UJ	0.13 UJ	0.22 UJ
	MW22D102018	10/12/2018	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.32 U	0.22 U	0.13 U	0.43 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
MW23	MW23042017	4/18/2017	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.34 UJ	0.23 U	0.14 U	0.45 U	6.5 J	0.23 U	2.3 U	1.4 U	0.14 UJ	0.23 U
	MW23042017DUP	4/18/2017	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	NA	0.43 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	MW23102017	10/18/2017	0.47 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	0.35 U	0.24 U	0.14 UJ	0.47 U	0.24 U	0.24 U	2.4 U	1.4 U	0.14 U	0.24 U
	MW23102017DUP	10/18/2017	0.47 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	0.36 U	0.24 U	0.14 U	0.47 U	0.24 U	0.24 U	2.4 U	1.4 U	0.14 U	0.24 U
	MW23042018	4/24/2018	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.42 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
	MW23042018DUP	4/24/2018	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 UJ	0.43 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
	MW23102018	10/17/2018	0.44 U	0.22 U	0.22 U	0.22 UJ	0.22 U	0.13 UJ	0.22 U	0.33 U	0.22 UJ	0.13 UJ	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 UJ
	MW23102018DUP	10/17/2018	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.43 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 UJ
MW24	MW24042017	4/17/2017	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.42 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
	MW24042017DUP	4/17/2017	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	NA	0.43 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
	MW24102017	10/17/2017	0.46 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.14 UJ	0.23 UJ	0.35 U	0.23 UJ	0.14 UJ	0.46 UJ	0.23 UJ	0.23 UJ	2.3 UJ	1.4 UJ	0.14 UJ	0.23 UJ
	MW24102017DUP1	10/17/2017	0.45 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.14 UJ	0.23 UJ	0.37 U	0.23 UJ	0.14 UJ	0.45 UJ	0.23 UJ	0.23 UJ	2.3 UJ	1.4 UJ	0.14 UJ	0.23 UJ
	MW24042018	4/23/2018	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.31 U	0.21 U	0.13 U	0.42 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
	MW24042018DUP	4/23/2018	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	0.31 U	0.21 U	0.13 UJ	0.42 U	0.21 U	0.21 U	2.1 U	1.2 U	0.12 U	0.21 U
	MW24102018	10/17/2018	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.32 U	0.22 U	0.13 U	0.43 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 UJ
	MW24102018DUP	10/17/2018	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.43 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 UJ
SMW01	SMW01042017	4/21/2017	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.35 U	0.23 U	0.14 U	0.46 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U
	SMW01102017	10/20/2017	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.25 U	0.37 U	0.25 U	0.15 U	0.5 U	0.25 U	0.25 U	2.5 U	1.5 U	0.15 U	0.25 U
	SMW01042018	4/26/2018	0.46 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.14 UJ	0.23 UJ	0.35 UJ	0.23 UJ	0.14 UJ	0.46 UJ	0.23 UJ	0.23 U	2.3 UJ	1.4 UJ	0.14 UJ	0.23 UJ
	SMW01102018	10/12/2018	0.47 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.14 UJ	0.23 UJ	0.35 UJ	0.23 UJ	0.14 UJ	0.47 UJ	0.23 UJ	0.23 UJ	2.3 UJ	1.4 UJ	0.14 UJ	0.23 UJ
TMW01	TMW01042017	4/25/2017	0.41 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.2 U	0.31 U	0.2 U	0.12 U	0.41 U	0.2 U	0.2 U	2 U	1.2 U	0.12 U	0.2 U
	TMW01102017	10/27/2017	0.44 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.33 UJ	0.22 UJ	0.13 UJ	0.44 UJ	0.22 UJ	0.22 UJ	2.2 UJ	1.3 UJ	0.13 UJ	0.22 UJ
	TMW01042018	5/4/2018	0.46 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.14 UJ	0.23 UJ	0.34 UJ	0.23 UJ	0.14 UJ	0.46 UJ	0.23 UJ	0.23 UJ	2.3 UJ	1.4 UJ	0.14 UJ	0.23 UJ
	TMW01102018	10/15/2018	0.41 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	0.31 U	0.21 U	0.12 U	0.41 U	0.21 U	0.21 U	2.1 U	1.2 U	0.12 U	0.21 U
TMW03	TMW03042017	4/24/2017	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	NA	0.43 U	0.21 U	0.21 U	2.1 U	1.3 U	4	0.21 U
	TMW03102017	10/25/2017	1.7 J	0.12 J	0.24 UJ	2.2 U	2.2 U	0.99 J	0.24 UJ	6.4 J	**2.6 J**	2.9 J	0.49 UJ	8.2 J	1.1 U	2.4 UJ	1.5 UJ	**470**	0.24 UJ
	TMW03042018	4/30/2018	0.57 J	0.23 U	0.23 U	0.23 UJ	0.23 U	1.9 J	0.23 U	16	0.23 U	1.2	0.47 U	43	0.23 U	2.3 U	1.4 U	**360**	0.23 U
	TMW03102018	10/12/2018	0.83 J	0.21 UJ	0.21 UJ	0.38 J	0.21 UJ	1 J	0.21 UJ	7.7 J	**2.3 J**	3.1 J	0.42 UJ	29 J	0.21 UJ	2.1 UJ	1.3 UJ	**500**	0.21 UJ
TMW04	TMW04042017	4/24/2017	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW04102017	10/25/2017	6.5 J	0.23 UJ	0.23 UJ	2.2 U	2.2 U	1.6 J	0.23 UJ	1.2 J	**2.3 J**	1.4 J	0.45 UJ	0.23 UJ	1.1 U	2.3 UJ	1.4 UJ	9.1 J	0.23 UJ
	TMW04042018	5/2/2018	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	2.4 J	0.23 U	21	0.23 U	1.4	0.45 U	12 J	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U

TABLE B-2: SUMMARY OF TOTAL EXPLOSIVES ANALYTICAL DETECTIONS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	1,3,5-Trinitrobenzene	1,3-Dinitrobenzene	2,4,6-Trinitrotoluene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Am-DNT	2-Nitrotoluene	3,5-Dinitroaniline	3-Nitrotoluene	4-Am-DNT	4-Nitrotoluene	HMX	Nitrobenzene	Nitroglycerin	PETN	RDX	Tetryl
			µg/L											µg/L					
TMW04	TMW04102018	10/16/2018	3.2 J	0.22 U	0.22 U	0.22 U	0.22 U	1.8 J	0.22 U	1.8 J	0.22 U	3.9 J	0.44 U	77	0.22 U	2.2 U	1.3 U	6 J	0.22 U
TMW06	TMW06042017	4/20/2017	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.34 U	0.23 U	0.14 U	0.46 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U
	TMW06102017	10/17/2017	0.45 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.33 U	0.22 UJ	0.13 UJ	0.45 UJ	0.22 UJ	0.22 UJ	2.2 UJ	1.3 UJ	0.13 UJ	0.22 UJ
	TMW06102017DUP	10/26/2017	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.43 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW06042018	4/30/2018	0.43 U	0.21 U	0.21 U	0.21 UJ	0.21 U	0.13 UJ	0.21 U	0.32 U	0.21 U	0.13 UJ	0.43 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
	TMW06102018	10/12/2018	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	0.31 U	0.21 U	0.12 U	0.42 U	0.21 U	0.21 U	2.1 U	1.2 U	0.12 U	0.21 U
TMW07	TMW07042017	4/20/2017	0.42 U	0.21 U	0.21 U	4.3 U	4.3 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.42 U	0.21 U	2 U	2.1 U	1.3 U	0.13 U	0.21 U
	TMW07102017	10/19/2017	0.45 U	0.22 U	0.22 U	2.2 U	2.2 U	0.13 UJ	0.22 UJ	0.33 U	0.22 UJ	0.13 UJ	0.45 UJ	0.22 U	1.1 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW07042018	4/25/2018	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.32 UJ	0.23 U	0.14 U	0.46 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U
	TMW07102018	10/10/2018	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
TMW10	TMW10042017	4/21/2017	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.35 U	0.23 U	0.14 U	0.46 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 UJ	0.23 U
	TMW10102017	10/25/2017	0.5 U2	0.26 U	0.26 U	0.26 UJ	0.26 UJ	0.16 UJ	0.26 UJ	0.39 U	0.26 UJ	0.16 UJ	0.5 U2 J	0.26 U	0.26 UJ	2.6 U	1.6 U	0.16 U	0.26 U
	TMW10042018	4/24/2018	0.49 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.15 UJ	0.24 UJ	0.37 UJ	0.24 UJ	0.15 UJ	0.49 UJ	0.24 UJ	0.24 UJ	2.4 UJ	1.5 UJ	0.15 UJ	0.24 UJ
	TMW10102018	10/10/2018	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.31 U	0.21 U	0.13 U	0.42 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
TMW11	TMW11042017	4/26/2017	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	0.36 U	0.24 U	0.14 U	0.48 U	0.24 U	0.24 U	2.4 U	1.4 U	0.14 U	0.24 U
	TMW11102017	10/27/2017	0.45 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.14 UJ	0.23 UJ	0.34 UJ	0.23 UJ	0.14 UJ	0.45 UJ	0.23 UJ	0.23 UJ	2.3 UJ	1.4 UJ	0.14 UJ	0.23 UJ
	TMW11042018	5/2/2018	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.34 U	0.22 U	0.13 U	0.45 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW11102018	10/11/2018	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.45 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
TMW13	TMW13102018	10/15/2018	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	0.31 U	0.21 U	0.12 U	0.42 U	0.21 U	0.21 U	2.1 U	1.2 U	0.12 U	0.21 U
TMW15	TMW15042017	4/27/2017	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW15042017DUP	4/27/2017	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW15102017	10/26/2017	0.47 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.35 U	0.23 U	0.14 U	0.47 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U
	TMW15102017DUP	10/26/2017	0.47 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.35 U	0.23 U	0.14 U	0.47 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U
	TMW15042018	5/3/2018	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.31 U	0.21 U	0.13 U	0.42 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
	TMW15042018DUP	5/3/2018	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.2 U	0.3 U	0.2 U	0.12 U	0.4 U	0.2 U	0.2 U	2 U	1.2 U	0.12 U	0.2 U
	TMW15102018	10/16/2018	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW15102018DUP	10/16/2018	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.43 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
TMW21	TMW21042017	4/26/2017	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.43 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
	TMW21102017	10/25/2017	0.47 U	0.24 U	0.24 U	0.24 UJ	0.24 UJ	0.14 UJ	0.24 UJ	0.35 U	0.24 UJ	0.14 UJ	0.47 UJ	0.24 U	0.24 UJ	2.4 U	1.4 U	0.14 U	0.24 U
	TMW21042018	5/1/2018	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.43 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
	TMW21102018	10/9/2018	0.41 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	0.31 U	0.21 U	0.12 U	0.41 U	0.21 U	0.21 U	2.1 U	1.2 U	0.12 U	0.21 U
TMW22	TMW22042017	4/19/2017	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	0.36 U	0.24 U	0.14 U	0.48 U	0.24 U	0.24 U	2.4 U	1.4 U	0.14 U	0.24 U
	TMW22102017	10/25/2017	4.9 J	0.23 UJ	0.23 UJ	2.1 U	2.1 U	0.18 J	0.23 UJ	0.35 UJ	0.23 UJ	0.14 UJ	0.46 UJ	0.23 UJ	1.1 U	2.3 UJ	1.4 UJ	0.14 UJ	0.23 UJ
	TMW22042018	4/25/2018	0.45 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.33 U	0.22 UJ	0.13 UJ	0.45 UJ	0.22 U	0.22 U	2.2 U	1.3 UJ	0.13 UJ	0.22 UJ
	TMW22102018	10/11/2018	0.41 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	0.31 U	0.21 U	0.12 U	0.41 U	0.21 U	0.21 U	2.1 U	1.2 U	0.12 U	0.21 U
TMW23	TMW23042017	4/20/2017	4.2 UJ	2.1 U	2.1 UJ	2.1 UJ	2.1 UJ	1.3 UJ	2.1 UJ	3.1 UJ	2.1 U	1.3 UJ	4.2 UJ	2.1 U	2.1 UJ	21 UJ	13 UJ	49 J	2.1 UJ

TABLE B-2: SUMMARY OF TOTAL EXPLOSIVES ANALYTICAL DETECTIONS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	1,3,5-Trinitrobenzene	1,3-Dinitrobenzene	2,4,6-Trinitrotoluene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Am-DNT	2-Nitrotoluene	3,5-Dinitroaniline	3-Nitrotoluene	4-Am-DNT	4-Nitrotoluene	HMX	Nitrobenzene	Nitroglycerin	PETN	RDX	Tetryl
			µg/L											µg/L					
TMW23	TMW23102017	10/19/2017	0.46 U	0.23 U	0.23 U	0.23 UJ	0.23 UJ	0.79 J	0.23 UJ	0.35 U	0.23 UJ	0.53 J	0.46 UJ	0.23 U	0.23 U	2.3 U	1.4 U	**53 J**	0.23 U
	TMW23042018	4/25/2018	0.43 UJ	0.21 UJ	0.21 UJ	0.21 UJ	0.21 UJ	1.1	0.21 UJ	0.32 U	0.21 UJ	0.13 UJ	0.43 UJ	14	0.21 U	2.1 UJ	1.3 UJ	**64**	0.21 UJ
	TMW23102018	10/11/2018	0.81 J	0.21 UJ	0.21 UJ	0.21 UJ	0.21 UJ	1 J	0.21 UJ	0.32 UJ	0.21 UJ	0.13 UJ	0.43 UJ	7.7 J	0.21 UJ	2.1 UJ	1.3 UJ	**63**	0.21 UJ
TMW24	TMW24042017	4/25/2017	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW24102017	10/24/2017	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.25 U	0.37 U	0.25 U	0.15 U	0.5 U	0.25 U	0.25 U	2.5 U	1.5 U	0.15 U	0.25 U
	TMW24042018	4/30/2018	0.44 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.33 UJ	0.22 UJ	0.13 UJ	0.44 UJ	0.22 UJ	0.22 UJ	2.2 UJ	1.3 UJ	0.13 UJ	0.22 UJ
	TMW24102018	10/18/2018	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.35 U	0.23 U	0.14 U	0.46 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 UJ
TMW25	TMW25042017	4/27/2017	22 U	11 U	11 U	11 U	11 U	6.6 U	11 U	16 U	11 U	6.6 U	22 U	11 U	**230**	110 U	66 U	6.6 U	11 U
	TMW25102017	10/25/2017	0.48 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.14 UJ	0.24 UJ	0.36 UJ	0.24 UJ	0.14 UJ	0.48 UJ	0.24 UJ	0.24 UJ	2.4 UJ	1.4 UJ	0.14 UJ	0.24 UJ
	TMW25042018	4/30/2018	0.48 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.14 UJ	0.24 UJ	0.36 UJ	0.24 UJ	0.14 UJ	0.48 UJ	0.24 UJ	0.24 UJ	2.4 UJ	1.4 UJ	0.14 UJ	0.24 UJ
	TMW25102018	10/16/2018	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.34 U	0.23 U	0.14 U	0.45 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U
TMW26	TMW26042017	4/20/2017	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.35 U	0.23 U	0.14 U	0.46 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U
	TMW26042017DUP	4/20/2017	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.35 U	0.23 U	0.14 U	0.46 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U
	TMW26102017	10/17/2017	0.46 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.14 UJ	0.23 UJ	0.33 U	0.23 UJ	0.14 UJ	0.46 UJ	0.23 UJ	0.23 UJ	2.3 UJ	1.4 UJ	0.14 UJ	0.23 UJ
	TMW26102017DUP	10/17/2017	0.46 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.14 UJ	0.23 UJ	0.35 U	0.23 UJ	0.14 UJ	0.46 UJ	0.23 UJ	0.23 UJ	2.3 UJ	1.4 UJ	0.14 UJ	0.23 UJ
	TMW26042018	4/26/2018	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 UJ	0.22 U	0.33 U	0.22 U	0.13 UJ	0.45 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW26042018DUP	4/26/2018	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 UJ	0.22 U	0.33 U	0.22 U	0.13 UJ	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW26102018	10/10/2018	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW26102018DUP	10/10/2018	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	0.31 U	0.21 U	0.12 U	0.42 U	0.21 U	0.21 U	2.1 U	1.2 U	0.12 U	0.21 U
TMW29	TMW29042017	4/20/2017	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW29102017	10/20/2017	0.53 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.27 U	0.4 U	0.27 U	0.16 U	0.53 U	0.27 U	0.27 U	2.7 U	1.6 U	0.16 U	0.27 U
	TMW29042018	4/23/2018	0.5 U2	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.26 U	0.39 U	0.26 U	0.16 U	0.5 U2	0.26 U	0.26 U	2.6 U	1.6 U	0.16 U	0.26 U
	TMW29102018	10/9/2018	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.23 J	0.13 U	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.2 J
TMW31S	TMW31S042017	4/19/2017	0.49 U	0.24 U	0.24 U	0.24 U	0.24 U	0.15 U	0.24 U	0.37 U	0.24 U	0.15 U	0.49 U	0.24 U	0.24 U	2.4 U	1.5 U	0.15 U	0.24 U
	TMW31S102017	10/25/2017	0.5 UJ	0.25 UJ	0.25 UJ	2.3 U	2.3 U	0.15 UJ	0.25 UJ	0.38 UJ	0.25 UJ	0.15 UJ	0.5 UJ	0.25 UJ	1.1 U	2.5 UJ	1.5 UJ	0.15 UJ	0.25 UJ
	TMW31S042018	4/25/2018	0.44 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.33 UJ	0.22 UJ	0.13 UJ	0.44 UJ	0.22 UJ	0.23 U	2.2 UJ	1.3 UJ	0.13 UJ	0.22 UJ
	TMW31S102018	10/11/2018	0.41 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	0.31 U	0.21 U	0.12 U	0.41 U	0.21 U	0.21 U	2.1 U	1.2 U	0.12 U	0.21 U
TMW33	TMW33042017	4/20/2017	NA	NA	NA	4.5U	4.5U	NA	NA	NA	NA	NA	NA	NA	2 U	NA	NA	NA	NA
	TMW33102017	10/20/2017	NA	NA	NA	2.2 U	2.2 U	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA	NA	NA
	TMW33042018	4/25/2018	NA	NA	NA	2.1 U	2.1 U	NA	NA	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
	TMW33102018	10/10/2018	NA	NA	NA	4.6 U	4.6 U	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	NA	NA
TMW35	TMW35042017	4/24/2017	NA	NA	NA	4.8 U	4.8 U	NA	NA	NA	NA	NA	NA	NA	2.2 U	NA	NA	NA	NA
	TMW35042018	4/27/2018	NA	NA	NA	2.2 U	2.2 U	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA	NA	NA
	TMW35102018	10/15/2018	NA	NA	NA	4.6 U	4.6 U	NA	NA	NA	NA	NA	NA	NA	2.1 U	NA	NA	NA	NA
TMW39S	TMW39S042017	4/19/2017	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.43 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
	TMW39S102017	10/18/2017	0.51 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.25 U	0.38 U	0.25 U	0.15 U	0.51 U	0.25 U	0.25 U	2.5 U	1.5 U	0.15 U	0.25 U

TABLE B-2: SUMMARY OF TOTAL EXPLOSIVES ANALYTICAL DETECTIONS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan

Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	1,3,5-Trinitrobenzene	1,3-Dinitrobenzene	2,4,6-Trinitrotoluene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Am-DNT	2-Nitrotoluene	3,5-Dinitroaniline	3-Nitrotoluene	4-Am-DNT	4-Nitrotoluene	HMX	Nitrobenzene	Nitroglycerin	PETN	RDX	Tetryl
								µg/L							µg/L				
TMW39S	TMW39S042018	4/25/2018	0.44 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.33 UJ	0.22 UJ	0.13 UJ	0.44 UJ	0.22 UJ	0.22 UJ	2.2 UJ	1.3 UJ	0.13 UJ	0.22 UJ
	TMW39S102018	10/11/2018	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.2 U	0.3 U	0.2 U	0.12 U	0.4 U	0.2 U	0.2 U	2 U	1.2 U	0.12 U	0.2 U
TMW40S	TMW40S042017	4/21/2017	47 U	23 U	23 U	4.8 U	23 U	14 U	23 U	35 U	23 U	14 U	47 U	20 J	2.2 U	230 U	140 U	**1,100**	23 U
	TMW40S102017	10/25/2017	9.3 J	**12 J**	0.23 U	0.23 UJ	0.23 UJ	1.6 J	0.23 UJ	24 J	0.23 UJ	1.3 J	0.46 UJ	37 J	**4.6 J**	2.3 U	1.4 U	**1,000**	0.23 U
	TMW40S042018	4/27/2018	2.9 J	0.24 U	0.24 U	2.2 UJ	2.2 UJ	2.1 J	0.24 U	22 J	0.24 U	1.4 J	0.45 U	62	1.1 UJ	2.4 U	1.4 U	**1,000**	0.24 U
	TMW40S102018	10/9/2018	13	0.22 UJ	0.22 UJ	4.7 U	4.7 U	1.7 J	0.22 UJ	21 J	0.22 UJ	2.8 J	0.44 UJ	78	2.1 U	2.2 UJ	1.3 UJ	**1,200**	0.22 UJ
TMW41	TMW41042017	4/19/2017	0.47 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.35 U	0.23 U	0.14 U	0.47 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U
	TMW41102017	10/25/2017	0.45 UJ	0.22 UJ	0.22 UJ	2.4 U	2.4 U	0.13 UJ	0.22 UJ	0.33 UJ	0.22 UJ	0.13 UJ	0.45 UJ	0.22 UJ	1.2 U	2.2 UJ	1.3 UJ	0.13 UJ	0.22 UJ
	TMW41042018	4/25/2018	0.42 UJ	0.21 UJ	0.21 UJ	0.21 UJ	0.21 UJ	0.13 UJ	0.21 UJ	0.31 U	0.21 UJ	0.13 UJ	0.42 UJ	0.21 UJ	0.21 U	2.1 UJ	1.3 UJ	0.13 UJ	0.21 UJ
	TMW41102018	10/11/2018	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.43 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
TMW43	TMW43042017	4/27/2017	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.34 U	0.22 U	0.13 U	0.45 U	0.21 J	0.3 J	2.2 U	1.3 U	3.8	0.22 U
	TMW43042017DUP	4/27/2017	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.34 U	0.22 U	0.13 U	0.45 U	0.22 U	0.22 U	2.2 U	1.3 U	3.8	0.22 U
	TMW43102017	10/24/2017	0.49 U	0.24 U	0.24 U	0.24 U	0.24 U	0.15 U	0.24 U	0.37 U	0.24 UJ	0.15 U	0.49 U	0.14 J	0.24 U	2.4 U	1.5 U	4	0.24 U
	TMW43102017DUP	10/24/2017	0.44 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.33 UJ	0.22 UJ	0.13 UJ	0.44 UJ	0.22 UJ	0.22 UJ	2.2 UJ	1.3 UJ	3.6 J	0.22 UJ
	TMW43042018	5/2/2018	0.47 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UJ	0.23 U	0.35 U	0.23 U	0.14 UJ	0.47 U	0.73	0.23 U	2.3 U	1.4 U	3.1	0.23 U
	TMW43042018DUP	5/2/2018	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.84	0.22 U	2.2 U	1.3 U	3.1	0.22 U
	TMW43102018	10/16/2018	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.43 U	0.21 U	0.21 U	2.1 U	1.3 U	3.6	0.21 U
	TMW43102018DUP	10/16/2018	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.32 U	0.22 U	0.13 U	0.43 U	0.28 J	0.22 U	2.2 U	1.3 U	3.5	0.22 U
TMW44	TMW44042017	4/19/2017	0.49 U	1 J	0.24 U	0.24 U	0.24 U	0.15 U	0.24 U	0.36 U	0.24 U	0.15 U	0.49 U	0.24 U	0.24 U	2.4 U	1.5 U	1.4 J	0.24 U
	TMW44102017	10/25/2017	9.2 J	0.25 U	0.25 U	2.1 U	2.1 U	0.4 J	0.25 UJ	0.37 U	0.25 UJ	0.15 UJ	0.49 UJ	0.25 U	1.1 U	2.5 U	1.5 U	0.15 U	0.25 U
	TMW44042018	4/25/2018	0.44 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.33 U	0.22 UJ	0.13 UJ	0.44 UJ	0.22 UJ	0.22 U	2.2 UJ	1.3 UJ	0.13 UJ	0.22 UJ
	TMW44102018	10/11/2018	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	2.4 J	0.43 U	40	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
TMW45	TMW45042017	4/28/2017	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.32 U	0.22 U	0.13 U	0.43 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW45102017	10/27/2017	0.46 U	0.23 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.14 UJ	0.23 UJ	0.34 UJ	0.23 UJ	0.14 UJ	0.46 UJ	0.23 U	0.23 UJ	2.3 U	1.4 UJ	0.14 U	0.23 UJ
	TMW45042018	5/2/2018	0.44 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.33 UJ	0.22 UJ	0.13 UJ	0.44 UJ	0.22 UJ	0.22 UJ	2.2 UJ	1.3 UJ	0.13 UJ	0.22 UJ
	TMW45102018	10/17/2018	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.34 U	0.23 U	0.14 U	0.45 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 UJ
TMW46	TMW46042017	4/20/2017	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	NA	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW46102017	10/25/2017	0.51 UJ	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ	0.15 UJ	0.26 UJ	0.39 UJ	0.26 UJ	0.15 UJ	0.51 UJ	0.26 UJ	0.26 UJ	2.6 UJ	1.5 UJ	0.15 UJ	0.26 UJ
	TMW46042018	4/25/2018	0.42 UJ	0.21 UJ	0.21 UJ	0.21 UJ	0.21 UJ	0.13 UJ	0.21 UJ	0.32 UJ	0.21 UJ	0.13 UJ	0.42 UJ	0.21 UJ	0.21 UJ	2.1 UJ	1.3 UJ	0.13 UJ	0.21 UJ
	TMW46102018	10/10/2018	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.43 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
TMW47	TMW47042017	4/25/2017	0.49 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.25 U	0.37 U	0.25 U	0.15 U	0.49 U	0.25 U	0.25 U	2.5 U	1.5 U	0.15 U	0.25 U
	TMW47102017	10/26/2017	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.45 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW47042018	5/3/2018	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.43 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
	TMW47102018	10/17/2018	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.73	0.22 U	2.2 U	1.3 U	0.13 U	0.22 UJ

TABLE B-2: SUMMARY OF TOTAL EXPLOSIVES ANALYTICAL DETECTIONS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	1,3,5-Trinitrobenzene	1,3-Dinitrobenzene	2,4,6-Trinitrotoluene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Am-DNT	2-Nitrotoluene	3,5-Dinitroaniline	3-Nitrotoluene	4-Am-DNT	4-Nitrotoluene	HMX	Nitrobenzene	Nitroglycerin	PETN	RDX	Tetryl
			μg/L										μg/L						
BEDROCK WELLS																			
BGMW07	**BGMW07042018**	**4/26/2018**	0.47 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 UJ	0.24 U	0.35 U	0.24 U	0.14 UJ	0.47 U	0.24 U	0.24 U	2.4 U	1.4 U	0.14 U	0.24 U
	BGMW07102018	**10/12/2018**	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
BGMW08	**BGMW08072018**	**7/18/2018**	0.47 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 UJ	0.35 U	0.23 UJ	0.14 UJ	0.47 UJ	0.23 U	0.23 U	2.3 U	1.4 UJ	0.14 U	0.23 U
	BGMW08102018	**10/9/2018**	0.43 U	0.21 U	0.21 U	6.1 U	6.1 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.43 U	0.21 U	2.8 U	2.1 U	1.3 U	0.13 U	0.21 U
BGMW09	**BGMW09042018**	**5/1/2018**	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 UJ	0.32 U	0.21 U	0.13 U	0.42 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
	BGMW09102018	**10/10/2018**	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	BGMW09102018DUP1	**10/10/2018**	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.45 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
BGMW10	**BGMW10042018**	**4/27/2018**	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UJ	0.23 U	0.35 U	0.23 U	0.14 UJ	0.46 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U
	BGMW10102018	**10/11/2018**	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.34 U	0.23 U	0.14 U	0.46 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U
TMW02	**TMW02042017**	**4/24/2017**	0.47 U	0.24 U	0.24 U	0.24 U	0.24 U	0.83	0.24 U	0.34 J	0.24 U	0.63	0.47 U	0.24 U	0.24 U	2.4 U	1.4 U	0.56	0.24 U
	TMW02102017	**10/24/2017**	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.17 J	0.22 U	0.3 J	0.22 UJ	0.15 J	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW02042018	**5/1/2018**	0.46 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.41 J	0.23 UJ	0.71	0.23 UJ	0.21 J	0.46 UJ	0.23 U	0.23 UJ	2.3 UJ	1.4 UJ	0.14 U	0.23 UJ
	TMW02102018	**10/16/2018**	0.46 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.39 J	0.23 UJ	0.34 J	0.23 UJ	0.3 J	0.46 UJ	5.9 J	0.23 UJ	2.3 UJ	1.4 UJ	0.28 J	0.23 UJ
TMW14A	**TMW14A042017**	**4/27/2017**	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW14A102017	**10/26/2017**	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.45 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW14A102018	**10/15/2018**	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.43 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
TMW16	**TMW16042017**	**4/20/2017**	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.34 U	0.23 U	NA	0.45 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U
	TMW16102017	**10/20/2017**	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.34 U	0.23 U	0.14 U	0.46 U	0.23 U	1.1 U	2.3 U	1.4 U	0.14 U	0.23 U
	TMW16042018	**4/25/2018**	0.44 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.33 UJ	0.22 UJ	0.13 UJ	0.44 UJ	0.22 UJ	0.22 UJ	2.2 UJ	1.3 UJ	0.13 UJ	0.22 U
	TMW16102018	**10/19/2018**	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	0.36 U	0.24 U	0.14 U	0.48 U	0.24 U	0.24 U	2.4 U	1.4 U	0.14 U	0.24 U
TMW18	**TMW18042017**	**4/20/2017**	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.43 U	0.22 U	0.22 U	2.2 U	1.3 U	0.058 J	0.22 U
	TMW18102017	**10/19/2017**	0.48 UJ	0.24 UJ	0.24 UJ	2.4 U	2.4 U	0.14 UJ	0.24 UJ	0.36 UJ	0.24 UJ	0.14 UJ	0.48 UJ	0.24 UJ	1.2 U	2.4 UJ	1.4 UJ	0.14 UJ	0.24 UJ
	TMW18042018	**4/25/2018**	0.42 UJ	0.21 UJ	0.21 UJ	0.21 UJ	0.21 UJ	0.12 UJ	0.22 U	0.31 U	0.21 UJ	0.12 UJ	0.42 UJ	0.21 UJ	0.22 U	2.1 UJ	1.2 UJ	0.12 UJ	0.21 UJ
	TMW18102018	**10/18/2018**	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.42 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 R
TMW19	**TMW19042017**	**4/20/2017**	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.43 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
	TMW19102017	**10/19/2017**	0.45 UJ	0.22 UJ	0.22 UJ	2.2 U	2.2 U	0.13 UJ	0.22 UJ	0.34 UJ	0.22 UJ	0.13 UJ	0.45 UJ	0.22 UJ	1.1 U	2.2 UJ	1.3 UJ	0.13 UJ	0.22 UJ
	TMW19042018	**4/25/2018**	0.41 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.12 UJ	0.2 UJ	0.3 UJ	0.2 UJ	0.12 UJ	0.41 UJ	0.2 UJ	0.2 UJ	2 UJ	1.2 UJ	0.12 UJ	0.2 UJ
	TMW19102018	**10/18/2018**	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 UJ
TMW30	**TMW30042017**	**4/19/2017**	0.47 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.35 U	0.23 U	NA	0.47 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U
	TMW30102017	**10/25/2017**	0.49 UJ	0.25 UJ	0.25 UJ	2.3 U	2.3 U	0.15 UJ	0.25 UJ	0.37 UJ	0.25 UJ	0.15 UJ	0.49 UJ	0.25 UJ	1.1 U	2.5 UJ	1.5 UJ	0.15 UJ	1.1 J
	TMW30042018	**4/26/2018**	0.49 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 UJ	0.25 U	0.37 U	0.25 U	0.15 UJ	0.49 U	0.25 U	0.25 U	2.5 U	1.5 U	0.15 U	0.25 U
	TMW30102018	**10/11/2018**	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
TMW31D	**TMW31D042017**	**4/27/2017**	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.32 U	0.22 U	0.13 U	0.43 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW31D042017DUP	**4/27/2017**	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.42 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
	TMW31D102017	**10/26/2017**	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	0.36 U	0.24 U	0.14 U	0.48 U	0.24 U	0.24 U	2.4 U	1.4 U	0.14 U	0.24 U

TABLE B-2: SUMMARY OF TOTAL EXPLOSIVES ANALYTICAL DETECTIONS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	1,3,5-Trinitrobenzene	1,3-Dinitrobenzene	2,4,6-Trinitrotoluene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Am-DNT	2-Nitrotoluene	3,5-Dinitroaniline	3-Nitrotoluene	4-Am-DNT	4-Nitrotoluene	HMX	Nitrobenzene	Nitroglycerin	PETN	RDX	Tetryl
			µg/L											µg/L					
TMW31D	TMW31D102017DUP	10/26/2017	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.45 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW31D042018	5/2/2018	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	0.36 U	0.24 U	0.14 U	0.48 U	0.24 U	0.24 U	2.4 U	1.4 U	0.14 U	0.24 U
	TMW31D042018DUP	5/2/2018	0.48 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.14 UJ	0.24 UJ	0.36 UJ	0.24 UJ	0.14 UJ	0.48 UJ	0.24 UJ	0.24 UJ	2.4 UJ	1.4 UJ	0.14 UJ	0.24 UJ
	TMW31D102018	10/16/2018	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.43 U	1.8 J	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
	TMW31D102018DUP	10/16/2018	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.43 U	1.6 J	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
TMW32	TMW32042017	4/27/2017	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.31 U	0.21 U	0.13 U	0.42 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
	TMW32102017	10/20/2017	0.43 U	0.22 U	0.22 U	2.3 U	2.3 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.43 U	0.22 U	1.2 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW32042018	5/1/2018	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.34 U	0.23 U	0.14 U	0.45 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U
	TMW32102018	10/12/2018	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.32 U	0.22 U	0.13 U	0.43 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
TMW36	TMW36042017	4/20/2017	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.32 U	0.21 U	0.13 U	0.43 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
	TMW36102017	10/19/2017	0.46 U	0.26 J	0.23 U	2.4 U	2.4 U	0.14 UJ	0.23 UJ	0.35 U	0.32 J	0.14 UJ	0.46 UJ	0.23 U	1.2 U	2.3 U	1.4 U	0.14 U	0.23 U
	TMW36042018	4/25/2018	0.44 UJ	0.22 UJ	0.22 UJ	0.21 U	0.22 UJ	0.13 U	0.21 U	0.15 J	0.22 UJ	0.13 UJ	0.44 UJ	0.21 U	0.22 UJ	2.2 UJ	1.3 UJ	0.13 U	0.22 UJ
	TMW36102018	10/18/2018	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.43 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 UJ
TMW37	TMW37042017	4/20/2017	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.32 U	0.22 U	0.13 U	0.43 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW37102017	10/20/2017	0.45 U	0.22 U	0.22 U	2.1 U	2.1 U	0.13 U	0.22 U	0.34 U	0.22 U	0.13 U	0.45 U	0.22 U	1.1 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW37042018	4/25/2018	0.42 UJ	0.21 UJ	0.21 UJ	0.21 UJ	0.21 UJ	0.12 UJ	0.21 UJ	0.31 UJ	0.21 UJ	0.12 UJ	0.42 UJ	0.21 UJ	0.21 UJ	2.1 UJ	1.2 UJ	0.12 UJ	0.21 UJ
	TMW37102018	10/18/2018	0.41 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.2 U	0.31 U	0.2 U	0.12 U	0.41 U	0.2 U	0.2 U	2 U	1.2 U	0.12 U	0.2 UJ
TMW38	TMW38042017	4/26/2017	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.34 U	0.23 U	0.14 U	0.46 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U
	TMW38102017	10/26/2017	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.32 U	0.22 U	0.13 U	0.43 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW38042018	5/1/2018	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.35 U	0.23 U	0.14 U	0.46 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 U
	TMW38102018	10/19/2018	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.34 U	0.23 U	0.14 U	0.45 U	0.23 U	0.23 U	2.3 U	1.4 U	0.14 U	0.23 UJ
TMW39D	TMW39D042017	4/27/2017	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW39D102017	10/27/2017	0.46 U	0.23 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.14 UJ	0.23 UJ	0.34 UJ	0.23 UJ	0.14 UJ	0.46 UJ	0.23 U	0.23 UJ	2.3 U	1.4 UJ	0.14 U	0.23 UJ
	TMW39D042018	5/3/2018	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	0.31 U	0.21 U	0.13 U	0.42 U	0.21 U	0.21 U	2.1 U	1.3 U	0.13 U	0.21 U
	TMW39D102018	10/16/2018	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	0.31 U	0.21 U	0.12 U	0.42 U	0.097 J	0.21 U	2.1 U	1.2 U	0.12 U	0.21 U
TMW40D	TMW40D042017	4/25/2017	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	0.36 U	0.24 U	0.14 U	0.48 U	0.24 U	0.24 U	2.4 U	1.4 U	0.14 U	0.24 U
	TMW40D102017	10/23/2017	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW40D042018	5/1/2018	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW40D102018	10/12/2018	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	0.31 U	0.21 U	0.12 U	0.42 U	0.21 U	0.21 U	2.1 U	1.2 U	0.12 U	0.21 U
TMW48	TMW48042017	4/26/2017	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	0.36 U	0.24 U	0.14 U	0.48 U	0.24 U	0.24 U	2.4 U	1.4 U	0.14 U	0.24 U
	TMW48102017	10/27/2017	0.45 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.14 UJ	0.23 UJ	0.34 UJ	0.23 UJ	0.14 UJ	0.45 UJ	0.23 UJ	0.23 UJ	2.3 UJ	1.4 UJ	0.23 J	0.23 UJ
	TMW48042018	5/2/2018	0.44 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.33 UJ	0.22 UJ	0.13 UJ	0.44 UJ	0.22 UJ	0.22 UJ	2.2 UJ	1.3 UJ	0.13 UJ	0.22 UJ
	TMW48102018	10/16/2018	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.34 U	0.22 U	0.13 U	0.45 U	0.88 J	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
TMW49	TMW49042017	4/26/2017	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.22 U	0.22 U	2.2 U	1.3 U	0.13 U	0.22 U
	TMW49102017	10/27/2017	0.48 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.14 UJ	0.24 UJ	0.36 UJ	0.24 UJ	0.14 UJ	0.48 UJ	0.24 UJ	0.24 UJ	2.4 UJ	1.4 UJ	0.14 UJ	0.24 UJ
	TMW49042018	5/4/2018	0.44 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.33 UJ	0.22 UJ	0.13 UJ	0.44 UJ	0.22 UJ	0.22 UJ	2.2 UJ	1.3 UJ	0.13 UJ	0.22 UJ

TABLE B-2: SUMMARY OF TOTAL EXPLOSIVES ANALYTICAL DETECTIONS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan

Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	1,3,5-Trinitrobenzene	1,3-Dinitrobenzene	2,4,6-Trinitrotoluene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Am-DNT	2-Nitrotoluene	3,5-Dinitroaniline	3-Nitrotoluene	4-Am-DNT	4-Nitrotoluene	HMX	Nitrobenzene	Nitroglycerin	PETN	RDX	Tetryl
			µg/L											µg/L					
TMW49	TMW49102018	10/17/2018	0.43 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.32 UJ	0.22 UJ	0.13 UJ	0.43 UJ	2 J	0.22 UJ	2.2 UJ	1.3 UJ	0.13 UJ	0.22 UJ
		SLs:	590	2	9.8	2.4	0.49	39	3.1	38	1.7	39	43	1,000	1.4	2	39	9.7	39

NOTES
– not established or not applicable
U less than cited Limit of Detection
Bolded concentration indicates result exceeded cited SL.

ABBREVIATIONS & ACRONYMS
µg/L micrograms per liter
J estimated value
NA not analyzed
SL regional screening levels (USEPA, 2019)
2-Am-DNT 2-Amino-4,6-dinitrotoluene
4-Am-DNT 4-Amino-2,6-dinitrotoluene
HMX Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN Pentaerythritol tetranitrate
RDX Hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl Methyl-2,4,6-trinitrophenylnitramine

TABLE B-3: SUMMARY OF PERCHLORATE ANALYTICAL RESULTS FOR 2017–2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	Perchlorate µg/L
ALLUVIAL WELLS			
BGMW01	**BGMW01042017**	**4/24/2017**	0.01 UJ
	BGMW01102017	**10/23/2017**	0.1 U
	BGMW01042018	**4/27/2018**	0.01 U
	BGMW01102018	**10/9/2018**	0.01 U
BGMW02	**BGMW02042017**	**4/21/2017**	0.45 J
	BGMW02102017	**10/20/2017**	0.38
	BGMW02042018	**4/26/2018**	0.59
	BGMW02102018	**10/11/2018**	0.68 J
BGMW03	**BGMW03042017**	**4/20/2017**	0.013 J
	BGMW03102017	**10/19/2017**	0.01 U
	BGMW03042018	**4/24/2018**	0.01 U
	BGMW03102018	**10/10/2018**	0.011 J
MW01	**MW01042017**	**4/19/2017**	0.01 U
	MW01102017	**10/24/2017**	0.01 U
	MW01042018	**4/23/2018**	0.1 U
	MW01102018	**10/9/2018**	0.0045 J
MW02	**MW02042017**	**4/19/2017**	0.073
	MW02102017	**10/24/2017**	0.058
	MW02042018	**4/23/2018**	0.048 J
	MW02102018	**10/9/2018**	0.046 J
MW03	**MW03042017**	**4/21/2017**	0.01 UJ
	MW03102017	**10/23/2017**	0.1 U
	MW03042018	**4/27/2018**	0.01 U
	MW03102018	**10/15/2018**	0.01 U
MW18D	**MW18D042017**	**4/20/2017**	0.05 U
	MW18D102017	**10/19/2017**	0.1 U
	MW18D042018	**4/25/2018**	0.01 U
	MW18D102018	**10/10/2018**	0.01 U
MW20	**MW20042017**	**4/24/2017**	0.23 J
	MW20102017	**10/23/2017**	0.34 J
	MW20042018	**4/30/2018**	0.39 J
	MW20102018	**10/15/2018**	0.39
MW22D	**MW22D042017**	**4/19/2017**	0.74
	MW22D102017	**10/23/2017**	0.99 J
	MW22D042018	**4/27/2018**	1.2 J
	MW22D102018	**10/12/2018**	1.50
MW23	**MW23042017**	**4/18/2017**	0.01 U
	MW23042017DUP	**4/18/2017**	0.01 U
	MW23102017	**10/18/2017**	0.01 U
	MW23102017DUP	**10/18/2017**	0.01 U
	MW23042018	**4/24/2018**	0.01 U
MW23	**MW23042018DUP**	**4/24/2018**	0.01 UJ
	MW23102018	**10/17/2018**	0.017 J
	MW23102018DUP	**10/17/2018**	0.0074 J
MW24	**MW24042017**	**4/17/2017**	0.01 U
	MW24042017DUP	**4/17/2017**	0.01 U
	MW24102017	**10/17/2017**	0.05
	MW24102017DUP1	**10/17/2017**	0.01 U
	MW24042018	**4/23/2018**	0.01 U

TABLE B-3: SUMMARY OF PERCHLORATE ANALYTICAL RESULTS FOR 2017–2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	Perchlorate µg/L
MW24	MW24042018DUP	4/23/2018	0.01 U
	MW24102018	10/17/2018	0.013 J
	MW24102018DUP	10/17/2018	0.01 U
SMW01	SMW01042017	4/21/2017	0.01 UJ
	SMW01102017	10/20/2017	0.01 U
	SMW01042018	4/26/2018	0.1 U
	SMW01102018	10/12/2018	0.023 J
TMW01	TMW01042017	4/25/2017	**310**
	TMW01102017	10/27/2017	2.90
	TMW01042018	5/4/2018	**270 J**
	TMW01102018	10/15/2018	**300**
TMW03	TMW03042017	4/24/2017	0.82
	TMW03102017	10/25/2017	0.70
	TMW03042018	4/30/2018	0.71
	TMW03102018	10/12/2018	0.67 J
TMW04	TMW04042017	4/24/2017	0.36 J
	TMW04102017	10/25/2017	0.32 J
	TMW04042018	5/2/2018	0.28
	TMW04102018	10/16/2018	0.34
TMW08	TMW08042017	4/21/2017	0.05 UJ
	TMW08102017	10/20/2017	0.23 J
	TMW08042018	4/27/2018	0.01 U
	TMW08102018	10/11/2018	0.02 UJ
TMW10	TMW10042017	4/21/2017	0.01 UJ
	TMW10102017	10/25/2017	0.1 U
	TMW10042018	4/24/2018	0.01 U
	TMW10102018	10/10/2018	0.01 U
TMW11	TMW11042017	4/26/2017	0.19
	TMW11102017	10/27/2017	0.15
	TMW11042018	5/2/2018	0.15
	TMW11102018	10/11/2018	0.039 J
TMW13	TMW13042017	4/25/2017	0.11
	TMW13102017	10/26/2017	0.10
	TMW13042018	5/1/2018	0.12
TMW13	TMW13102018	10/15/2018	0.10
TMW15	TMW15042017	4/27/2017	0.095 J
	TMW15042017DUP	4/27/2017	0.1 J
	TMW15102017	10/26/2017	0.094
	TMW15102017DUP	10/26/2017	0.095
	TMW15042018	5/3/2018	0.085
	TMW15042018DUP	5/3/2018	0.084
	TMW15102018	10/16/2018	0.084
	TMW15102018DUP	10/16/2018	0.09
TMW21	TMW21042017	4/26/2017	0.1 U
	TMW21102017	10/25/2017	0.01 U
	TMW21042018	5/1/2018	0.01 U
	TMW21102018	10/9/2018	0.0073 J
TMW22	TMW22042017	4/19/2017	0.025 J
	TMW22102017	10/25/2017	0.01 U
	TMW22042018	4/25/2018	0.01 U
	TMW22102018	10/11/2018	0.034 J

TABLE B-3: SUMMARY OF PERCHLORATE ANALYTICAL RESULTS FOR 2017–2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	Perchlorate µg/L
TMW23	TMW23042017	4/20/2017	0.12 J
	TMW23102017	10/19/2017	0.044 J
	TMW23042018	4/25/2018	0.021 J
	TMW23102018	10/11/2018	0.056 J
TMW24	TMW24042017	4/25/2017	0.01 U
	TMW24102017	10/24/2017	0.01 U
	TMW24042018	4/30/2018	0.01 U
	TMW24102018	10/18/2018	0.01 U
TMW26	TMW26042017	4/20/2017	0.01 UJ
	TMW26042017DUP	4/20/2017	0.01 UJ
	TMW26102017	10/17/2017	0.01 U
	TMW26102017DUP	10/17/2017	0.01 U
	TMW26042018	4/26/2018	0.1 U
	TMW26042018DUP	4/26/2018	0.1 U
	TMW26102018	10/10/2018	0.01 U
	TMW26102018DUP	10/10/2018	0.0056 J
TMW27	TMW27042017	4/21/2017	0.01 UJ
	TMW27102017	10/20/2017	0.01 U
	TMW27042018	4/26/2018	0.01 U
	TMW27102018	10/10/2018	0.01 U
TMW29	TMW29042017	4/20/2017	0.094 J
	TMW29102017	10/20/2017	0.057
	TMW29042018	4/23/2018	0.084
	TMW29102018	10/9/2018	0.074
TMW31S	TMW31S042017	4/19/2017	**490**
TMW31S	TMW31S102017	10/25/2017	**480**
	TMW31S042018	4/25/2018	**500**
	TMW31S102018	10/11/2018	**630 J**
TMW34	TMW34042017	4/24/2017	0.33
	TMW34042017DUP	4/24/2017	0.32
	TMW34102017	10/25/2017	0.027 J
	TMW34102017DUP	10/25/2017	0.03 J
	TMW34042018	4/27/2018	0.23
	TMW34042018DUP	4/27/2018	0.27
	TMW34102018	10/15/2018	0.37
	TMW34102018DUP	10/15/2018	0.36
TMW35	TMW35042017	4/24/2017	0.1 U
	TMW35102017	10/23/2017	0.1 U
	TMW35042018	4/27/2018	0.041 J
	TMW35102018	10/15/2018	0.054
TMW39S	TMW39S042017	4/19/2017	**700**
	TMW39S102017	10/18/2017	**710**
	TMW39S042018	4/25/2018	**380**
	TMW39S102018	10/11/2018	**730 J**
TMW40S	TMW40S042017	4/21/2017	2.8 J
	TMW40S102017	10/27/2017	2.2
	TMW40S042018	4/27/2018	2.3
	TMW40S102018	10/9/2018	1.9
TMW41	TMW41042017	4/19/2017	6.5
	TMW41102017	10/25/2017	8.1
	TMW41042018	4/25/2018	8.8
	TMW41102018	10/11/2018	11 J

TABLE B-3: SUMMARY OF PERCHLORATE ANALYTICAL RESULTS FOR 2017–2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	Perchlorate µg/L
TMW43	TMW43042017	4/27/2017	0.1 U
	TMW43042017DUP	4/27/2017	0.1 U
	TMW43102017	10/24/2017	0.01 U
	TMW43102017DUP	10/24/2017	0.01 U
	TMW43042018	5/2/2018	0.05 U
	TMW43042018DUP	5/2/2018	0.01 U
	TMW43102018	10/16/2018	0.0041 J
	TMW43102018DUP	10/16/2018	0.01 U
TMW44	TMW44042017	4/19/2017	0.014 J
	TMW44102017	10/25/2017	0.1 U
	TMW44042018	4/25/2018	0.014 J
	TMW44102018	10/11/2018	0.035 J
TMW45	TMW45042017	4/28/2017	0.1 U
	TMW45102017	10/27/2017	0.01 U
	TMW45042018	5/2/2018	0.01 U
TMW45	TMW45102018	10/17/2018	0.0083 J
TMW46	TMW46042017	4/20/2017	0.24 J
	TMW46102017	10/25/2017	0.23 J
	TMW46042018	4/25/2018	0.20
	TMW46102018	10/10/2018	0.21
TMW47	TMW47042017	4/25/2017	0.1 U
	TMW47102017	10/26/2017	0.1 U
	TMW47042018	5/3/2018	0.01 U
	TMW47102018	10/17/2018	0.01 U
BEDROCK WELLS			
BGMW07	BGMW07042018	4/26/2018	0.01 U
	BGMW07102018	10/12/2018	0.04 J
BGMW08	BGMW08072018	7/18/2018	0.0095 J
	BGMW08102018	10/9/2018	0.0076 J
BGMW09	BGMW09042018	5/1/2018	0.01 U
	BGMW09102018	10/10/2018	0.0057 J
	BGMW09102018DUP1	10/10/2018	0.01 U
BGMW10	BGMW10042018	4/27/2018	0.01 U
	BGMW10102018	10/11/2018	0.02 UJ
TMW02	TMW02042017	4/24/2017	3.3
	TMW02102017	10/24/2017	3.4
	TMW02042018	5/1/2018	3.7
	TMW02102018	10/16/2018	4.3
TMW16	TMW16042017	4/20/2017	0.01 UJ
	TMW16102017	10/20/2017	0.01 U
	TMW16042018	4/25/2018	0.01 U
	TMW16102018	10/19/2018	0.01 U
TMW17	TMW17042017	4/27/2017	0.1 U
	TMW17102017	10/26/2017	0.1 U
	TMW17042018	5/3/2018	0.01 U
	TMW17102018	10/18/2018	0.01 U
TMW18	TMW18042017	4/20/2017	0.01 UJ
	TMW18102017	10/19/2017	0.1 U
	TMW18042018	4/25/2018	0.055
	TMW18102018	10/18/2018	0.0063 J
TMW19	TMW19042017	4/20/2017	0.01 UJ

TABLE B-3: SUMMARY OF PERCHLORATE ANALYTICAL RESULTS FOR 2017–2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	Perchlorate µg/L
TMW19	TMW19102017	10/19/2017	0.01 U
	TMW19042018	4/25/2018	0.01 U
	TMW19102018	10/18/2018	0.01 U
TMW30	TMW30042017	4/19/2017	1,100
	TMW30102017	10/25/2017	830
	TMW30042018	4/26/2018	1,100
TMW30	TMW30102018	10/11/2018	1100 J
TMW31D	TMW31D042017	4/27/2017	1100 J
	TMW31D042017DUP	4/27/2017	1100 J
	TMW31D102017	10/26/2017	1,000
	TMW31D102017DUP	10/26/2017	990
	TMW31D042018	5/2/2018	1,100
	TMW31D042018DUP	5/2/2018	1,100
	TMW31D102018	10/16/2018	1,200
	TMW31D102018DUP	10/16/2018	1,300
TMW32	TMW32042017	4/27/2017	360
	TMW32102017	10/20/2017	350
	TMW32042018	5/1/2018	520
	TMW32102018	10/12/2018	380 J
TMW36	TMW36042017	4/20/2017	0.01 UJ
	TMW36102017	10/19/2017	0.01 U
	TMW36042018	4/25/2018	0.17 J
	TMW36102018	10/18/2018	0.01 U
TMW37	TMW37042017	4/20/2017	0.01 UJ
	TMW37102017	10/20/2017	0.01 U
	TMW37042018	4/25/2018	0.01 U
	TMW37102018	10/18/2018	0.01 U
TMW38	TMW38042017	4/26/2017	0.1 U
	TMW38102017	10/26/2017	0.1 U
	TMW38042018	5/1/2018	0.01 U
	TMW38102018	10/19/2018	0.01 U
TMW39D	TMW39D042017	4/27/2017	6 J
	TMW39D102017	10/27/2017	56
	TMW39D042018	5/3/2018	41
	TMW39D102018	10/16/2018	2.4
TMW40D	TMW40D042017	4/25/2017	310
	TMW40D102017	10/23/2017	230
	TMW40D042018	5/1/2018	330
	TMW40D102018	10/12/2018	260 J
TMW48	TMW48042017	4/26/2017	1,100
	TMW48102017	10/27/2017	970
	TMW48042018	5/2/2018	860
	TMW48102018	10/16/2018	1,300
TMW49	TMW49042017	4/26/2017	1,500
	TMW49102017	10/27/2017	950
	TMW49042018	5/4/2018	1400 J
	TMW49102018	10/17/2018	990
		SLs:	15

TABLE B-3: SUMMARY OF PERCHLORATE ANALYTICAL RESULTS FOR 2017–2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	Perchlorate
			µg/L

NOTES
– not established or not applicable
U less than cited Limit of Detection
Bolded concentration indicates result exceeded cited SL.

ABBREVIATIONS & ACRONYMS
µg/L micrograms per liter
J estimated value
NA not analyzed
SL regional screening level (USEPA, 2019)

TABLE B-4: SUMMARY OF VOLATILE ORGANIC COMPOUND ANALYTICAL DETECTIONS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	1,1,1-Trichloroethane	1,1-Dichloroethane	1,2,3-Trichlorobenzene	1,2-Dichloroethane	2-Butanone	Acetone	Bromomethane	Carbon Disulfide	Chloroethane	Chloroform	Chloromethane	Methylene chloride	MTBE	Naphthalene	Styrene	Toluene
			µg/L															
ALLUVIAL WELLS																		
BGMW01	**BGMW01042017**	**4/24/2017**	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	BGMW01102017	**10/23/2017**	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	BGMW01042018	**4/27/2018**	0.25 U	0.25 U	0.25 UJ	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	BGMW01102018	**10/9/2018**	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
BGMW02	**BGMW02042017**	**4/21/2017**	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	BGMW02102017	**10/20/2017**	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.2 U	0.25 U	0.25 U
	BGMW02042018	**4/26/2018**	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	BGMW02102018	**10/11/2018**	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.98 U	0.5 U	0.5 U
BGMW03	**BGMW03042017**	**4/20/2017**	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	BGMW03102017	**10/19/2017**	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	BGMW03042018	**4/24/2018**	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	BGMW03102018	**10/10/2018**	0.5 U	0.5 U	1 U	0.5 UJ	1 UJ	1 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	1 U	0.5 U	0.5 U
FW31	**FW31042017**	**4/17/2017**	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	FW31102017	**10/18/2017**	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	FW31042018	**4/23/2018**	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	FW31102018	**10/9/2018**	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
MW01	**MW01042017**	**4/19/2017**	0.25 U	0.25 U	0.25 U	1.5	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 UJ	0.25 U	0.25 U
	MW01102017	**10/24/2017**	0.25 U	0.25 U	0.25 U	1.4	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	MW01042018	**4/23/2018**	0.25 U	0.25 U	0.25 U	1.1 J	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	MW01102018	**10/9/2018**	0.5 U	0.5 U	1 U	1	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
MW02	**MW02042017**	**4/19/2017**	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 UJ	0.25 U	0.25 U
	MW02102017	**10/24/2017**	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	MW02042018	**4/23/2018**	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	MW02102018	**10/9/2018**	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
MW03	**MW03042017**	**4/21/2017**	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 UJ	0.25 U	0.25 U
	MW03102017	**10/23/2017**	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	MW03042018	**4/27/2018**	0.25 U	0.25 U	0.25 UJ	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	MW03102018	**10/15/2018**	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
MW18D	**MW18D042017**	**4/20/2017**	0.25 UJ	0.25 UJ	0.25 UJ	**95 J**	1 UJ	1 UJ	0.5 UJ	0.25 UJ	0.25 UJ	0.25 UJ	0.25 UJ	0.5 UJ	0.25 UJ	0.25 UJ	0.25 UJ	0.25 UJ
	MW18D102017	**10/19/2017**	0.25 UJ	0.25 UJ	0.25 UJ	**92**	1 UJ	1 UJ	0.5 UJ	0.25 UJ	0.25 UJ	0.25 UJ	0.25 UJ	0.5 UJ	0.25 UJ	0.25 UJ	0.25 UJ	0.25 UJ

TABLE B-4: SUMMARY OF VOLATILE ORGANIC COMPOUND ANALYTICAL DETECTIONS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	1,1,1-Trichloroethane	1,1-Dichloroethane	1,2,3-Trichlorobenzene	1,2-Dichloroethane	2-Butanone	Acetone	Bromomethane	Carbon Disulfide	Chloroethane	Chloroform	Chloromethane	Methylene chloride	MTBE	Naphthalene	Styrene	Toluene
			µg/L															
MW18D	MW18D042018	4/25/2018	0.25 U	0.25 U	0.25 U	**81 J**	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	MW18D102018	10/10/2018	0.5 U	0.5 U	1 U	**94**	1 UJ	1 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	1 U	0.5 U	0.5 U
MW20	MW20042017	4/24/2017	0.25 U	0.25 U	0.25 U	4	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	MW20102017	10/23/2017	0.25 U	0.25 U	0.25 U	3.4	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	MW20042018	4/30/2018	0.25 U	0.25 U	0.25 UJ	2.3	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	MW20102018	10/15/2018	0.5 U	0.5 U	1 U	1.7	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
MW22D	MW22D042017	4/19/2017	0.25 U	0.25 U	0.25 U	0.57 J	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.97 U	0.25 U	0.25 U
	MW22D102017	10/23/2017	0.25 U	0.25 U	0.25 U	0.44 J	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	MW22D042018	4/27/2018	0.25 U	0.25 U	0.25 UJ	0.39 J	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	MW22D102018	10/12/2018	0.5 U	0.5 U	1 U	0.41 J	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.1 U	0.5 U	0.5 U
MW23	MW23042017	4/18/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	MW23042017DUP	4/18/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	MW23102017	10/18/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	MW23102017DUP	10/18/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	MW23042018	4/24/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.96 U	0.25 U	0.25 U
	MW23042018DUP	4/24/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	MW23102018	10/17/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
	MW23102018DUP	10/17/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
MW24	MW24042017	4/17/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.99 U	0.25 U	0.25 U
	MW24042017DUP	4/17/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.97 U	0.25 U	0.25 U
	MW24102017	10/17/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 UJ	0.25 U	0.25 UJ	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	MW24102017DUP1	10/17/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 UJ	0.25 U	0.25 UJ	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	MW24042018	4/23/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 UJ	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.99 U	0.25 U	0.25 U
	MW24042018DUP	4/23/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 UJ	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	MW24102018	10/17/2018	0.5 UJ	0.5 UJ	1 UJ	0.5 UJ	1 UJ	1 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	1 UJ	0.5 UJ	0.5 UJ
	MW24102018DUP	10/17/2018	0.5 UJ	0.5 UJ	1 UJ	0.5 UJ	1 UJ	1 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	1 UJ	0.5 UJ	0.5 UJ
SMW01	SMW01042017	4/21/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	SMW01102017	10/20/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	SMW01042018	4/26/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	SMW01102018	10/12/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW01	TMW01042017	4/25/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U

TABLE B-4: SUMMARY OF VOLATILE ORGANIC COMPOUND ANALYTICAL DETECTIONS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	1,1,1-Trichloroethane	1,1-Dichloroethane	1,2,3-Trichlorobenzene	1,2-Dichloroethane	2-Butanone	Acetone	Bromomethane	Carbon Disulfide	Chloroethane	Chloroform	Chloromethane	Methylene chloride	MTBE	Naphthalene	Styrene	Toluene
			µg/L															
TMW01	TMW01102017	10/27/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	1.3	0.25 U	0.25 U	0.25 U	0.25 U
	TMW01042018	5/4/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW01102018	10/15/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW03	TMW03042017	4/24/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.99 U	0.25 U	0.25 U
	TMW03102017	10/25/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW03042018	4/30/2018	0.25 U	0.25 U	0.25 UJ	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW03102018	10/12/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW04	TMW04042017	4/24/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	TMW04102017	10/25/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW04042018	5/2/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW04102018	10/16/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW06	TMW06042017	4/20/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW06102017	10/17/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 UJ	0.25 U	0.25 UJ	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW06042018	4/30/2018	0.25 U	0.25 U	0.25 UJ	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW06102018	10/12/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.96 U	0.5 U	0.5 U
TMW07	TMW07042017	4/20/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.98 U	0.25 U	0.25 U
	TMW07102017	10/19/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW07042018	4/25/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	TMW07102018	10/10/2018	0.5 U	0.5 U	1 U	0.5 UJ	1 UJ	1 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	1 U	0.5 U	0.5 U
TMW08	TMW08042017	4/21/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 UJ	0.25 U	0.25 U
	TMW08102017	10/20/2017	0.5 U	0.5 U	0.5 U	0.5 U	2 U	2 U	0.69 J	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U
	TMW08042018	4/27/2018	0.25 U	0.25 U	0.25 UJ	0.25 U	1 U	12	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW08102018	10/11/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW10	TMW10042017	4/21/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 UJ	0.25 U	0.25 U
	TMW10102017	10/25/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1.7 J	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW10042018	4/24/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW10102018	10/10/2018	0.5 U	0.5 U	1 U	0.5 UJ	1 UJ	1 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	1 U	0.5 U	0.5 U
TMW11	TMW11042017	4/26/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 UJ	0.5 U	0.69 J	0.25 U	0.25 U	0.5 J	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW11102017	10/27/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	1.1	0.25 U	0.25 U	0.25 U	0.25 U
	TMW11042018	5/2/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW11102018	10/11/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	1 U	0.5 U	0.5 U

TABLE B-4: SUMMARY OF VOLATILE ORGANIC COMPOUND ANALYTICAL DETECTIONS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	1,1,1-Trichloroethane	1,1-Dichloroethane	1,2,3-Trichlorobenzene	1,2-Dichloroethane	2-Butanone	Acetone	Bromomethane	Carbon Disulfide	Chloroethane	Chloroform	Chloromethane	Methylene chloride	MTBE	Naphthalene	Styrene	Toluene
			µg/L															
TMW13	TMW13042017	4/25/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW13102017	10/26/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW13042018	5/1/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW13102018	10/15/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW15	TMW15042017	4/27/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW15042017DUP	4/27/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW15102017	10/26/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW15102017DUP	10/26/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW15042018	5/3/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW15042018DUP	5/3/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW15102018	10/16/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
	TMW15102018DUP	10/16/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW21	TMW21042017	4/26/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW21102017	10/25/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	0.81 J	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW21042018	5/1/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW21102018	10/9/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW22	TMW22042017	4/19/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW22102017	10/25/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	0.65 J	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW22042018	4/25/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW22102018	10/11/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.97 U	0.5 U	0.5 U
TMW23	TMW23042017	4/20/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 UJ	0.25 U	0.25 U
	TMW23102017	10/19/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW23042018	4/25/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW23102018	10/11/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW24	TMW24042017	4/25/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1.9 J	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW24102017	10/24/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW24042018	4/30/2018	0.25 U	0.25 U	0.25 UJ	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW24102018	10/18/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.33 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW25	TMW25042017	4/27/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW25102017	10/25/2017	0.25 UJ	0.25 UJ	0.25 UJ	0.25 UJ	1 UJ	1 UJ	0.5 UJ	0.25 UJ	0.25 UJ	0.25 UJ	0.25 UJ	0.5 UJ	0.25 UJ	0.25 UJ	0.25 UJ	0.25 UJ
	TMW25042018	4/30/2018	0.25 U	0.25 U	0.25 UJ	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U

TABLE B-4: SUMMARY OF VOLATILE ORGANIC COMPOUND ANALYTICAL DETECTIONS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	1,1,1-Trichloroethane	1,1-Dichloroethane	1,2,3-Trichlorobenzene	1,2-Dichloroethane	2-Butanone	Acetone	Bromomethane	Carbon Disulfide	Chloroethane	Chloroform	Chloromethane	Methylene chloride	MTBE	Naphthalene	Styrene	Toluene
			µg/L															
TMW25	TMW25102018	10/16/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW26	TMW26042017	4/20/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 UJ	0.25 U	0.25 U
	TMW26042017DUP	4/20/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 UJ	0.25 U	0.25 U
	TMW26102017	10/17/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 UJ	0.25 U	0.25 UJ	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW26102017DUP	10/17/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW26042018	4/26/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW26042018DUP	4/26/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW26102018	10/10/2018	0.5 U	0.5 U	1 U	0.5 UJ	1 UJ	1 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	1 U	0.5 U	0.5 U
	TMW26102018DUP	10/10/2018	0.5 U	0.5 U	1 U	0.5 UJ	1 UJ	1 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	1 U	0.5 U	0.5 U
TMW27	TMW27042017	4/21/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 UJ	0.25 U	0.25 U
	TMW27102017	10/20/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW27042018	4/26/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	3.9 J	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW27102018	10/10/2018	0.5 U	0.5 U	1 U	0.5 UJ	1 UJ	1 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	1 U	0.5 U	0.5 U
TMW28	TMW28042017	4/24/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW28102017	10/20/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW28042018	4/26/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW28102018	10/9/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.97 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW29	TMW29042017	4/20/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 UJ	0.25 U	0.25 U
	TMW29102017	10/20/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW29042018	4/23/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW29102018	10/9/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW31S	TMW31S042017	4/19/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW31S102017	10/25/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	0.74 J	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW31S042018	4/25/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW31S102018	10/11/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW33	TMW33042017	4/20/2017	0.25 U	0.25 U	0.25 U	**38**	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	TMW33102017	10/20/2017	0.25 U	0.25 U	0.25 U	**35**	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW33042018	4/25/2018	0.25 U	0.25 U	0.25 U	**36**	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	TMW33102018	10/10/2018	0.5 U	0.5 U	1 U	**40 J**	1 UJ	1 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	1 U	0.5 U	0.5 U
TMW34	TMW34042017	4/24/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW34042017DUP	4/24/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U

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			µg/L															
TMW34	TMW34102017	10/25/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1.3 J	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW34102017DUP	10/25/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	0.68 J	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW34042018	4/27/2018	0.25 U	0.25 U	0.25 UJ	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW34042018DUP	4/27/2018	0.25 U	0.25 U	0.25 UJ	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW34102018	10/15/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
	TMW34102018DUP	10/15/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW35	TMW35042017	4/24/2017	0.25 U	0.25 U	0.25 U	1.4	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW35102017	10/23/2017	0.25 U	0.25 U	0.25 U	1.2	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW35042018	4/27/2018	0.25 U	0.25 U	0.25 UJ	0.94 J	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW35102018	10/15/2018	0.5 U	0.5 U	1 U	0.88 J	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW39S	TMW39S042017	4/19/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW39S102017	10/18/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW39S042018	4/25/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW39S102018	10/11/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW40S	TMW40S042017	4/25/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.24 J	0.25 U	1	0.25 U	0.25 U	0.25 U	0.25 U
	TMW40S102017	10/27/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.2 J	0.25 U	2	0.25 U	1.1 U	0.25 U	0.25 U
	TMW40S042018	4/27/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	14 J	0.5 U	0.25 U	0.25 U	0.21 J	0.25 U	0.5 U	0.25 U	1.1 UJ	0.25 U	0.25 U
	TMW40S102018	10/9/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.1 U	0.5 U	0.5 U
TMW41	TMW41042017	4/19/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 UJ	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	TMW41102017	10/25/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.2 U	0.25 U	0.25 U
	TMW41042018	4/25/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	TMW41102018	10/11/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.98 U	0.5 U	0.5 U
TMW43	TMW43042017	4/27/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW43042017DUP	4/27/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW43102017	10/24/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.2 U	0.25 U	0.25 U
	TMW43102017DUP	10/24/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW43042018	5/2/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW43042018DUP	5/2/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.31 J	0.25 U	0.25 U
	TMW43102018	10/16/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
	TMW43102018DUP	10/16/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW44	TMW44042017	4/19/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.2 U	0.25 U	0.25 U

TABLE B-4: SUMMARY OF VOLATILE ORGANIC COMPOUND ANALYTICAL DETECTIONS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	1,1,1-Trichloroethane	1,1-Dichloroethane	1,2,3-Trichlorobenzene	1,2-Dichloroethane	2-Butanone	Acetone	Bromomethane	Carbon Disulfide	Chloroethane	Chloroform	Chloromethane	Methylene chloride	MTBE	Naphthalene	Styrene	Toluene
			µg/L															
TMW44	TMW44102017	10/25/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	0.55 J	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW44042018	4/25/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW44102018	10/11/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.26 J	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW45	TMW45042017	4/28/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW45102017	10/27/2017	0.25 UJ	0.25 UJ	0.25 UJ	0.25 UJ	1 UJ	1 UJ	0.5 UJ	0.25 UJ	0.25 UJ	0.25 UJ	0.25 UJ	1.4 J	0.25 UJ	1 U	0.25 UJ	0.25 UJ
	TMW45042018	5/2/2018	0.25 UJ	0.25 UJ	0.25 UJ	0.25 UJ	1 UJ	1 UJ	0.5 UJ	0.25 UJ	0.25 UJ	0.25 UJ	0.25 UJ	0.5 UJ	0.25 UJ	1.1 U	0.25 UJ	0.25 UJ
	TMW45102018	10/17/2018	0.5 UJ	0.5 UJ	1 U	0.5 UJ	1 UJ	1 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	1 U	0.5 U	0.5 U
TMW46	TMW46042017	4/20/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	TMW46102017	10/25/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1.3 J	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW46042018	4/25/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	TMW46102018	10/10/2018	0.5 U	0.5 U	1 U	0.5 UJ	1 UJ	1 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	1.1 U	0.5 U	0.5 U
TMW47	TMW47042017	4/25/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1.4 J	0.5 U	2.6	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW47102017	10/26/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	3.3	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW47042018	5/3/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	1.5 J	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.94 J	0.25 U	0.25 U
	TMW47102018	10/17/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 UJ	0.5 U	3.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
BEDROCK WELLS																		
BGMW07	BGMW07042018	4/26/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.38 J	0.25 U	0.17 J	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	BGMW07102018	10/12/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	1 U	0.5 U	0.5 U
BGMW08	BGMW08072018	7/18/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.38 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.21 J
	BGMW08102018	10/9/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.4 U	0.5 U	0.21 J
BGMW09	BGMW09042018	5/1/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 UJ	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.4 U	0.25 U	0.25 U
	BGMW09102018	10/10/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	1 U	0.5 U	0.5 U
	BGMW09102018DUP1	10/10/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	1.1 U	0.5 U	0.5 U
BGMW10	BGMW10042018	4/27/2018	0.25 U	0.25 U	0.25 UJ	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	BGMW10102018	10/11/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW02	TMW02042017	4/24/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW02102017	10/24/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW02042018	5/1/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW02102018	10/16/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW14A	TMW14A042017	4/27/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.26 J	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	TMW14A102017	10/26/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U

TABLE B-4: SUMMARY OF VOLATILE ORGANIC COMPOUND ANALYTICAL DETECTIONS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	1,1,1-Trichloroethane	1,1-Dichloroethane	1,2,3-Trichlorobenzene	1,2-Dichloroethane	2-Butanone	Acetone	Bromomethane	Carbon Disulfide	Chloroethane	Chloroform	Chloromethane	Methylene chloride	MTBE	Naphthalene	Styrene	Toluene
			µg/L															
TMW14A	TMW14A102018	10/15/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW16	TMW16042017	4/20/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.14 J
	TMW16102017	10/20/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW16042018	4/25/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.14 J
	TMW16102018	10/19/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW17	TMW17042017	4/27/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW17102017	10/26/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.28 J	0.25 U	0.25 U	0.56 J	0.5 U	0.25 U	0.25 U	0.3 J	0.25 U
	TMW17042018	5/3/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.31 J	0.25 U	0.25 U	0.39 J	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW17102018	10/18/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.26 J	0.5 U	0.5 U	0.49 J	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW18	TMW18042017	4/20/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.72 J
	TMW18102017	10/19/2017	0.25 U	0.25 U	0.25 U	0.25 U	0.47 J	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.2 U	0.25 U	1.3
	TMW18042018	4/25/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.69 J
	TMW18102018	10/18/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1.2 J	0.5 U	0.86 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.44 J
TMW19	TMW19042017	4/20/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	TMW19102017	10/19/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW19042018	4/25/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	TMW19102018	10/18/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW30	TMW30042017	4/19/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW30102017	10/25/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW30042018	4/26/2018	0.25 U	0.25 U	0.25 UJ	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW30102018	10/11/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW31D	TMW31D042017	4/27/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	TMW31D042017DUP	4/27/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW31D102017	10/26/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW31D102017DUP	10/26/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW31D042018	5/2/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW31D042018DUP	5/2/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.37 J	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	TMW31D102018	10/16/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
	TMW31D102018DUP	10/16/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW32	TMW32042017	4/27/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	TMW32102017	10/20/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.2 U	0.25 U	0.25 U

TABLE B-4: SUMMARY OF VOLATILE ORGANIC COMPOUND ANALYTICAL DETECTIONS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	1,1,1-Trichloroethane	1,1-Dichloroethane	1,2,3-Trichlorobenzene	1,2-Dichloroethane	2-Butanone	Acetone	Bromomethane	Carbon Disulfide	Chloroethane	Chloroform	Chloromethane	Methylene chloride	MTBE	Naphthalene	Styrene	Toluene
			µg/L															
TMW32	TMW32042018	5/1/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	0.94 J	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW32102018	10/12/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.1 U	0.5 U	0.5 U
TMW36	TMW36042017	4/20/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	TMW36102017	10/19/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.2 U	0.25 U	5.1
	TMW36042018	4/25/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	TMW36102018	10/18/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1.2 J	0.5 U	0.38 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW37	TMW37042017	4/20/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.21 J
	TMW37102017	10/20/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.18 J
	TMW37042018	4/25/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	3	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.69 J
	TMW37102018	10/18/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	9.3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW38	TMW38042017	4/26/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	1.1 J	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	TMW38102017	10/26/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	1.3 J	2.9	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW38042018	5/1/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	1.9 J	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW38102018	10/19/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW39D	TMW39D042017	4/27/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW39D102017	10/27/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.91 J	0.25 U	1.1 U	0.25 U	0.25 U
	TMW39D042018	5/3/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	TMW39D102018	10/16/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW40D	TMW40D042017	4/25/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1 U	0.25 U	0.25 U
	TMW40D102017	10/23/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U
	TMW40D042018	5/1/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW40D102018	10/12/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.1 U	0.5 U	0.5 U
TMW48	TMW48042017	4/26/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW48102017	10/27/2017	0.25 UJ	0.25 UJ	0.25 UJ	0.25 UJ	1 UJ	1 UJ	0.5 UJ	0.25 UJ	0.25 UJ	0.25 UJ	0.25 UJ	0.5 UJ	0.25 UJ	1.1 U	0.25 UJ	0.25 UJ
	TMW48042018	5/2/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW48102018	10/16/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TMW49	TMW49042017	4/26/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW49102017	10/27/2017	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.25 U	1.1 U	0.25 U	0.25 U
	TMW49042018	5/4/2018	0.25 U	0.25 U	0.25 U	0.25 U	1 U	1 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.59 J	1.1 U	0.25 U	0.25 U
	TMW49102018	10/17/2018	0.5 U	0.5 U	1 U	0.5 U	1 U	1 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
		SLs:	200	25	7	5	5,600	14,000	8	810	21,000	80	190	5	100	30	100	1,000

TABLE B-4: SUMMARY OF VOLATILE ORGANIC COMPOUND ANALYTICAL DETECTIONS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	1,1,1-Trichloroethane	1,1-Dichloroethane	1,2,3-Trichlorobenzene	1,2-Dichloroethane	2-Butanone	Acetone	Bromomethane	Carbon Disulfide	Chloroethane	Chloroform	Chloromethane	Methylene chloride	MTBE	Naphthalene	Styrene	Toluene
			µg/L													

NOTES
– not established or not applicable
U less than cited Limit of Detection
Bolded concentrations indicate result exceeded cited SL.
Note 1) Screening Levels are taken from Regional Screening Levels table (USEPA, 2019), New Mexico Water Quality Control Commission standard - NMAC 20.6.2.3103, and EPA maximum contaminant level - 40 CFR Parts 141, 142, and 143.

ABBREVIATIONS & ACRONYMS
µg/L micrograms per liter
J estimated value
NA not analyzed
SL regional screening levels (USEPA, 2019)
MTBE Methyl-tert-butyl ether

TABLE B-5: SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS AND TOTAL PETROLEUM HYDROCARBONS ANALYTICAL RESULTS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	TPHd	TPHg	1,2-Diphenylhydrazine	2,4-Dinitrophenol	4-Nitrophenol	Benzoic acid	Benzyl alcohol	bis(2-Ethylhexyl)phthalate	Diethylphthalate	Dimethylphthalate	Fluoranthene	Isophorone	Nitrobenzene	Phenanthrene
			µg/L													
			ALLUVIAL WELLS													
BGMW01	BGMW01042017	4/24/2017	NA	NA	0.56 U	33 U	4.5 U	33 U	0.56 U	2.2 U	1.1 U	0.56 U	0.56 U	0.56 U	0.24 U	1.1 U
	BGMW01102017	10/23/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA
	BGMW01042018	4/27/2018	NA	NA	2.2 U	18 U	4.4 U	18 U	1.1 U	4.9 U	2.2 U	2.2 U	2.2 U	2.2 U	0.26 UJ	1.1 U
	BGMW01102018	10/9/2018	NA	NA	0.51 U	30 U	4 U	30 U	0.51 U	2 U	1 U	0.51 U	0.51 U	0.51 U	0.21 U	1 U
BGMW02	BGMW02042017	4/21/2017	NA	NA	0.56 U	33 U	4.4 U	33 U	0.55 U	2.2 U	1.1 U	0.55 U	0.55 U	0.55 U	2.2 U	1.1 U
	BGMW02102017	10/20/2017	NA	NA	2.4 U	19 U	4.8 UJ	19 UJ	1.2 U	5.3 U	2.4 U	2.4 U	2.4 U	2.4 U	1.2 U	1.2 U
	BGMW02042018	4/26/2018	NA	NA	2.2 U	17 U	4.3 U	17 U	1.1 U	4.7 U	2.1 U	2.1 U	2.1 U	2.1 U	0.24 U	1.1 U
	BGMW02102018	10/11/2018	NA	NA	0.5 U	30 U	3.9 U	30 U	0.49 U	2 U	0.98 U	0.49 U	0.49 U	0.49 U	0.22 U	0.98 U
BGMW03	BGMW03042017	4/20/2017	NA	NA	0.54 U	32 U	4.3 U	32 U	0.53 U	2.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.23 U	1.1 U
	BGMW03102017	10/19/2017	NA	NA	2.2 U	17 U	4.3 UJ	17 UJ	1.1 U	4.7 U	2.1 U	2.1 U	2.1 U	2.1 U	1.1 U	1.1 U
	BGMW03042018	4/24/2018	NA	NA	2.3 U	18 U	4.5 U	18 U	1.1 U	4.9 U	2.2 U	2.2 U	2.2 U	2.2 U	0.24 U	1.1 U
	BGMW03102018	10/10/2018	NA	NA	0.52 U	31 U	4.1 U	31 U	0.51 U	2 U	1 U	0.51 U	0.51 U	0.51 U	0.24 U	1 U
FW31	FW31042017	4/17/2017	NA	NA	0.57 U	34 U	4.5 U	34 U	0.57 U	2.2 J	1.1 U	0.57 U	0.57 U	0.57 U	0.22 U	1.1 U
	FW31102017	10/18/2017	NA	NA	0.52 U	31 U	4.1 U	31 U	0.52 U	2.1 U	1 U	0.52 U	0.52 U	0.52 U	0.23 U	1 U
	FW31042018	4/23/2018	NA	NA	2.1 U	17 U	4.2 UJ	17 UJ	1 U	4.6 U	2.1 U	2.1 U	2.1 U	2.1 U	0.23 U	1 U
	FW31102018	10/9/2018	NA	NA	0.54 U	32 U	4.3 U	32 U	0.54 U	2.2 U	1.1 U	0.54 U	0.54 U	0.54 U	0.21 U	1.1 U
MW01	MW01042017	4/19/2017	53 J	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA
	MW01102017	10/24/2017	130 J	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.4 UJ	NA
	MW01042018	4/23/2018	130 U	23 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA
	MW01102018	10/9/2018	120 U	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA
MW02	MW02042017	4/19/2017	82 J	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.24 U	NA
	MW02102017	10/24/2017	70 J	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 UJ	NA
	MW02042018	4/23/2018	140 U	14 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA
	MW02102018	10/9/2018	52 J	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA
MW03	MW03042017	4/21/2017	130 U	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.24 U	NA
	MW03102017	10/23/2017	120 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 U	NA
	MW03042018	4/27/2018	48 J	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21 UJ	NA
	MW03102018	10/15/2018	120 U	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA
MW18D	MW18D042017	4/20/2017	84 J	31 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA
	MW18D102017	10/19/2017	67 J	43	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.24 U	NA
	MW18D042018	4/25/2018	120 U	41 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA
	MW18D102018	10/10/2018	120 U	47	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 U	NA
MW20	MW20042017	4/24/2017	52 J	25 UJ	0.51 U	30 U	4 U	30 U	0.5 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.24 U	1 U
	MW20102017	10/23/2017	120 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 U	NA

TABLE B-5: SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS AND TOTAL PETROLEUM HYDROCARBONS ANALYTICAL RESULTS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	TPHd	TPHg	1,2-Diphenylhydrazine	2,4-Dinitrophenol	4-Nitrophenol	Benzoic acid	Benzyl alcohol	bis(2-Ethylhexyl)phthalate	Diethylphthalate	Dimethylphthalate	Fluoranthene	Isophorone	Nitrobenzene	Phenanthrene
			μg/L													
MW20	MW20042018	4/30/2018	63 J	10 J	2.2 U	17 U	4.3 U	17 U	1.1 U	4.8 U	2.2 U	2.2 U	2.2 U	2.2 U	0.22 UJ	1.1 U
	MW20102018	10/15/2018	60 J	25 UJ	0.53 U	31 U	4.2 UJ	31 U	0.52 U	2.1 U	1 U	0.52 U	0.52 U	0.52 U	0.22 U	1 U
MW22D	MW22D042017	4/19/2017	47 J	25 U	0.49 U	29 U	3.9 U	29 U	0.49 U	1.9 U	0.97 U	0.49 U	0.49 U	0.49 U	0.24 U	0.97 U
	MW22D102017	10/23/2017	140 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.24 U	NA
	MW22D042018	4/27/2018	60 J	25 U	2.1 U	16 U	4.1 U	16 U	1 U	4.5 U	2 U	2 U	2 U	2 U	0.22 UJ	1 U
MW22D	MW22D102018	10/12/2018	50 J	25 UJ	0.58 U	34 U	4.6 U	34 U	0.57 U	2.3 U	1.1 U	0.57 U	0.57 U	0.57 U	0.22 U	1.1 U
MW23	MW23042017	4/18/2017	NA	NA	0.52 U	31 U	4.1 U	31 U	0.51 U	1.4 J	1 U	0.51 U	0.51 U	0.51 U	0.23 U	1 U
	MW23042017DUP	4/18/2017	NA	NA	0.54 U	32 U	4.3 U	32 U	0.54 U	1.1 J	1.1 U	0.54 U	0.54 U	0.54 U	0.22 U	1.1 U
	MW23102017	10/18/2017	NA	NA	0.53 U	31 U	4.2 U	31 U	0.52 U	2.8 J	1 U	0.52 U	0.52 U	0.52 U	0.24 U	1 U
	MW23102017DUP	10/18/2017	NA	NA	0.58 U	34 U	4.6 U	34 U	0.57 U	1.4 J	1.1 U	0.57 U	0.57 U	0.57 U	0.24 U	1.1 U
	MW23042018	4/24/2018	NA	NA	1.9 U	1.5 U	3.9 U	1.5 U	0.96 U	4.2 U	1.9 U	1.9 U	1.9 U	1.9 U	0.21 U	0.96 U
	MW23042018DUP	4/24/2018	NA	NA	2.2 U	17 U	4.3 U	17 U	1.1 U	4.8 U	2.2 U	2.2 U	2.2 U	2.2 U	0.21 U	1.1 U
	MW23102018	10/17/2018	NA	NA	0.53 U	31 U	4.2 U	31 U	0.52 U	2.1 U	1 U	0.52 U	0.52 U	0.52 U	0.22 U	1 U
	MW23102018DUP	10/17/2018	NA	NA	0.54 U	32 U	4.3 U	32 U	0.53 U	2.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.22 U	1.1 U
MW24	MW24042017	4/17/2017	NA	NA	0.5 U	30 U	4 U	30 U	0.5 U	2 U	0.99 U	0.5 U	0.5 U	0.5 U	0.21 U	0.99 U
	MW24042017DUP	4/17/2017	NA	NA	0.49 U	29 U	3.9 U	29 U	0.48 U	1.9 U	0.97 U	0.48 U	0.48 U	0.48 U	0.21 U	0.97 U
	MW24102017	10/17/2017	NA	NA	0.53 U	32 U	4.2 U	32 U	0.53 U	2.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.23 UJ	1.1 U
	MW24102017DUP1	10/17/2017	NA	NA	0.55 U	33 U	4.4 U	33 U	0.54 U	2.2 U	1.1 U	0.54 U	0.54 U	0.54 U	0.23 UJ	1.1 U
	MW24042018	4/23/2018	NA	NA	2 U	16 U	3.9 UJ	16 UJ	0.99 U	4.3 U	2 U	2 U	2 U	2 U	0.21 U	0.99 U
	MW24042018DUP	4/23/2018	NA	NA	2.1 U	17 U	4.2 UJ	17 UJ	1.1 U	4.6 U	2.1 U	2.1 U	2.1 U	2.1 U	0.21 U	1.1 U
	MW24102018	10/17/2018	NA	NA	0.52 U	31 U	4.1 U	31 U	0.52 U	2.1 U	1 U	0.52 U	0.52 U	0.52 U	0.22 U	1 U
	MW24102018DUP	10/17/2018	NA	NA	0.53 U	31 U	4.2 U	31 U	0.52 U	2.1 U	1 U	0.52 U	0.52 U	0.52 U	0.21 U	1 U
SMW01	SMW01042017	4/21/2017	NA	NA	0.52 U	31 U	4.2 U	31 U	0.52 U	2.1 U	1 U	0.52 U	0.52 U	0.52 U	0.23 U	1 U
	SMW01102017	10/20/2017	NA	NA	2.1 U	17 U	4.2 UJ	17 UJ	1.1 U	4.6 U	2.1 U	2.1 U	2.1 U	2.1 U	0.25 U	1.1 U
	SMW01042018	4/26/2018	NA	NA	2.1 U	17 U	4.2 UJ	17 UJ	1.1 U	4.7 U	2.1 U	2.1 U	2.1 U	2.1 U	0.23 U	1.1 U
	SMW01102018	10/12/2018	NA	NA	0.54 U	32 U	4.2 U	32 U	0.53 U	2.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.23 UJ	1.1 U
TMW01	TMW01042017	4/25/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	NA
	TMW01102017	10/27/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 UJ	NA
	TMW01042018	5/4/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 UJ	NA
	TMW01102018	10/15/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA
TMW03	TMW03042017	4/24/2017	NA	NA	0.5 U	30 U	4 U	30 U	0.5 U	2 U	0.99 U	0.5 U	0.5 U	0.5 U	0.21 U	0.99 U
	TMW03102017	10/25/2017	NA	NA	2.3 U	13 J	4.5 UJ	18 UJ	1.1 U	4.9 U	2.2 U	2.2 U	2.2 U	2.2 U	1.1 U	1.1 U
	TMW03042018	4/30/2018	NA	NA	2.2 U	16 J	4.3 U	17 U	1.1 U	4.7 U	2.1 U	2.1 U	2.1 U	2.1 U	0.23 U	1.1 U
	TMW03102018	10/12/2018	NA	NA	0.53 U	18 J	15 J	31 U	0.52 U	2.1 U	1 U	0.52 U	0.52 U	0.52 U	0.21 UJ	1 U
TMW04	TMW04042017	4/24/2017	NA	NA	0.51 U	30 U	4 U	30 U	0.5 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.22 U	1 U

TABLE B-5: SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS AND TOTAL PETROLEUM HYDROCARBONS ANALYTICAL RESULTS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	TPHd	TPHg	1,2-Diphenylhydrazine	2,4-Dinitrophenol	4-Nitrophenol	Benzoic acid	Benzyl alcohol	bis(2-Ethylhexyl)phthalate	Diethylphthalate	Dimethylphthalate	Fluoranthene	Isophorone	Nitrobenzene	Phenanthrene
			µg/L													
TMW04	TMW04102017	10/25/2017	NA	NA	2.2 U	17 U	4.3 UJ	17 UJ	1.1 U	4.7 U	2.2 U	2.2 U	2.2 U	2.2 U	1.1 U	1.1 U
	TMW04042018	5/2/2018	NA	NA	0.53 U	32 U	4.2 UJ	32 U	0.53 U	2.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.23 U	1.1 U
	TMW04102018	10/16/2018	NA	NA	0.55 U	33 U	4.3 UJ	33 U	0.54 U	2.2 U	1.1 U	0.54 U	0.54 U	0.54 U	0.22 U	1.1 U
TMW06	TMW06042017	4/20/2017	NA	NA	0.54 U	32 U	4.3 U	32 U	0.53 U	2.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.23 U	1.1 U
	TMW06102017	10/17/2017	NA	NA	0.56 U	33 U	4.4 U	33 U	0.55 U	2.2 U	1.1 U	0.55 U	0.55 U	0.55 U	0.22 UJ	1.1 U
	TMW06102017DUP	10/26/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 U	NA
	TMW06042018	4/30/2018	NA	NA	2.3 U	18 U	4.5 U	18 U	1.1 U	4.9 U	2.2 U	2.2 U	2.2 U	2.2 U	0.21 U	1.1 U
	TMW06102018	10/12/2018	NA	NA	0.48 U	29 U	3.8 UJ	29 U	0.48 U	1.9 U	0.96 U	0.48 U	0.48 U	0.48 U	0.21 U	0.96 U
TMW07	TMW07042017	4/20/2017	NA	NA	0.49 U	29 U	3.9 U	29 U	0.49 U	0.81 J	0.98 U	0.49 U	0.49 U	0.49 U	2 U	0.98 U
	TMW07102017	10/19/2017	NA	NA	2.2 U	17 U	4.3 UJ	17 UJ	1.1 U	4.8 U	2.2 U	2.2 U	2.2 U	2.2 U	1.1 U	1.1 U
TMW07	TMW07042018	4/25/2018	NA	NA	2.1 U	17 U	4.1 U	17 U	1 U	4.6 U	2.1 U	2.1 U	2.1 U	2.1 U	0.23 U	1 U
	TMW07102018	10/10/2018	NA	NA	0.52 U	31 U	4.1 U	31 U	0.51 U	2 U	1 U	0.51 U	0.51 U	0.51 U	0.22 U	1 U
TMW08	TMW08042017	4/21/2017	120 U	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TMW08102017	10/20/2017	120 U	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TMW08042018	4/27/2018	**56 J**	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TMW08102018	10/11/2018	120 U	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TMW10	TMW10042017	4/21/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA
	TMW10102017	10/25/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.26 UJ	NA
	TMW10042018	4/24/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.24 UJ	NA
	TMW10102018	10/10/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA
TMW11	TMW11042017	4/26/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.24 U	NA
	TMW11102017	10/27/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 UJ	NA
	TMW11042018	5/2/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 U	NA
	TMW11102018	10/11/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 U	NA
TMW13	TMW13102018	10/15/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA
TMW15	TMW15042017	4/27/2017	NA	NA	0.57 U	34 U	4.5 U	34 U	0.56 U	2.3 U	1.1 U	0.56 U	0.56 U	0.56 U	0.22 U	1.1 U
	TMW15042017DUP	4/27/2017	NA	NA	0.56 U	33 U	4.4 U	33 U	0.55 U	2.2 U	1.1 U	0.55 U	0.55 U	0.55 U	0.22 U	1.1 U
	TMW15102017	10/26/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA
	TMW15102017DUP	10/26/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA
	TMW15042018	5/3/2018	NA	NA	0.53 U	32 U	4.2 UJ	32 U	0.53 U	2.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.21 U	1.1 U
	TMW15042018DUP	5/3/2018	NA	NA	0.57 U	34 U	4.5 UJ	34 U	0.56 U	2.2 U	1.1 U	0.56 U	0.56 U	0.56 U	0.2 U	1.1 U
	TMW15102018	10/16/2018	NA	NA	0.52 U	31 U	4.1 UJ	31 U	0.51 U	2.1 U	1 U	0.51 U	0.51 U	0.51 U	0.22 U	1 U
	TMW15102018DUP	10/16/2018	NA	NA	0.53 U	32 U	4.2 UJ	32 U	0.53 U	2.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.21 U	1.1 U
TMW21	TMW21042017	4/26/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA
	TMW21102017	10/25/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.24 UJ	NA

TABLE B-5: SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS AND TOTAL PETROLEUM HYDROCARBONS ANALYTICAL RESULTS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	TPHd	TPHg	1,2-Diphenylhydrazine	2,4-Dinitrophenol	4-Nitrophenol	Benzoic acid	Benzyl alcohol	bis(2-Ethylhexyl)phthalate	Diethylphthalate	Dimethylphthalate	Fluoranthene	Isophorone	Nitrobenzene	Phenanthrene
			µg/L													
TMW21	TMW21042018	5/1/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA
	TMW21102018	10/9/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA
TMW22	TMW22042017	4/19/2017	NA	NA	0.55 U	12 J	4.4 U	33 U	0.32 J	2.2 U	1.1 U	0.55 U	0.55 U	0.55 U	0.24 U	1.1 U
	TMW22102017	10/25/2017	NA	NA	2.2 U	17 U	4.3 UJ	17 UJ	1.1 U	4.7 U	2.1 U	2.1 U	2.1 U	2.1 U	1.1 U	1.1 U
	TMW22042018	4/25/2018	NA	NA	2.2 U	17 U	4.3 U	17 U	1.1 U	4.8 U	2.2 U	2.2 U	2.2 U	2.2 U	0.22 U	1.1 U
	TMW22102018	10/11/2018	NA	NA	0.49 U	29 U	3.9 U	29 U	0.49 U	1.9 U	0.97 U	0.49 U	0.49 U	0.49 U	0.21 U	0.97 U
TMW23	TMW23042017	4/20/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 UJ	NA
	TMW23102017	10/19/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA
	TMW23042018	4/25/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA
	TMW23102018	10/11/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21 UJ	NA
TMW24	TMW24042017	4/25/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 U	NA
	TMW24102017	10/24/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.25 U	NA
	TMW24042018	4/30/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 UJ	NA
	TMW24102018	10/18/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA
TMW25	TMW25042017	4/27/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**230**	NA
TMW25	TMW25102017	10/25/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.24 UJ	NA
	TMW25042018	4/30/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.24 UJ	NA
	TMW25102018	10/16/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA
TMW26	TMW26042017	4/20/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA
	TMW26042017DUP	4/20/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA
	TMW26102017	10/17/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 UJ	NA
	TMW26102017DUP	10/17/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 UJ	NA
	TMW26042018	4/26/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 U	NA
	TMW26042018DUP	4/26/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 U	NA
	TMW26102018	10/10/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 U	NA
	TMW26102018DUP	10/10/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA
TMW29	TMW29042017	4/20/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 U	NA
	TMW29102017	10/20/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.27 U	NA
	TMW29042018	4/23/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.26 U	NA
	TMW29102018	10/9/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 U	NA
TMW31S	TMW31S042017	4/19/2017	NA	NA	0.57 U	34 U	4.5 U	34 U	0.56 U	2.2 U	1.1 U	0.56 U	0.56 U	0.56 U	0.24 U	1.1 U
	TMW31S102017	10/25/2017	NA	NA	2.3 U	18 U	4.5 UJ	18 UJ	1.1 U	5 U	2.3 U	2.3 U	2.3 U	2.3 U	1.1 U	1.1 U
	TMW31S042018	4/25/2018	NA	NA	2.2 U	17 U	4.3 U	17 U	1.1 U	4.7 U	2.1 U	2.1 U	2.1 U	2.1 U	0.23 U	1.1 U
	TMW31S102018	10/11/2018	NA	NA	0.51 U	31 U	4.1 U	31 U	0.51 U	2 U	1 U	0.51 U	0.51 U	0.51 U	0.21 U	1 U
TMW33	TMW33042017	4/20/2017	**46 J**	**15 J**	0.52 U	31 U	4.1 U	31 U	0.51 U	2 U	1 U	0.51 U	0.51 U	0.51 U	2 U	1 U

TABLE B-5: SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS AND TOTAL PETROLEUM HYDROCARBONS ANALYTICAL RESULTS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	TPHd	TPHg	1,2-Diphenylhydrazine	2,4-Dinitrophenol	4-Nitrophenol	Benzoic acid	Benzyl alcohol	bis(2-Ethylhexyl)phthalate	Diethylphthalate	Dimethylphthalate	Fluoranthene	Isophorone	Nitrobenzene	Phenanthrene
			µg/L													
TMW33	TMW33102017	10/20/2017	130 U	25 U	2.2 U	17 U	4.3 UJ	17 UJ	1.1 U	4.7 U	2.2 U	2.2 U	2.2 U	2.2 U	1.1 U	1.1 U
	TMW33042018	4/25/2018	120 U	**24 J**	2.1 U	17 U	4.2 U	17 U	1 U	4.6 U	2.1 U	2.1 U	2.1 U	2.1 U	1 U	1 U
	TMW33102018	10/10/2018	130 U	**30**	0.53 U	31 U	4.2 U	31 U	0.52 U	2.1 U	1 U	0.52 U	0.52 U	0.52 U	2.1 U	1 U
TMW34	TMW34042017	4/24/2017	120 U	25 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TMW34042017DUP	4/24/2017	**32 J**	25 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TMW34102017	10/25/2017	130 U	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TMW34102017DUP	10/25/2017	120 U	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TMW34042018	4/27/2018	**55 J**	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TMW34042018DUP	4/27/2018	**60 J**	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TMW34102018	10/15/2018	130 U	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TMW34102018DUP	10/15/2018	130 U	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TMW35	TMW35042017	4/24/2017	**43 J**	25 UJ	0.55 U	33 U	4.4 U	33 U	0.55 U	2.2 U	1.1 U	0.55 U	0.55 U	0.55 U	2.2 U	1.1 U
	TMW35102017	10/23/2017	140 U	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TMW35042018	4/27/2018	**64 J**	25 U	2.2 U	18 U	4.4 U	18 U	1.1 U	4.9 U	2.2 U	2.2 U	2.2 U	2.2 U	1.1 U	1.1 U
	TMW35102018	10/15/2018	**37 J**	25 UJ	0.53 U	31 U	4.2 UJ	31 U	0.52 U	2.1 U	1 U	0.52 U	0.52 U	0.52 U	2.1 U	1 U
TMW39S	TMW39S042017	4/19/2017	NA	NA	0.53 U	32 U	4.2 U	32 U	0.53 U	2.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.21 U	1.1 U
	TMW39S102017	10/18/2017	NA	NA	0.58 U	34 U	4.6 U	34 U	0.57 U	2.3 U	1.1 U	0.57 U	0.57 U	0.57 U	0.25 U	1.1 U
	TMW39S042018	4/25/2018	NA	NA	2.2 U	17 U	4.3 U	17 U	1.1 U	4.7 U	2.1 U	2.1 U	2.1 U	2.1 U	0.22 UJ	1.1 U
	TMW39S102018	10/11/2018	NA	NA	0.51 U	30 U	4 U	30 U	0.51 U	2 U	1 U	0.51 U	0.51 U	0.51 U	0.2 U	1 U
TMW40S	TMW40S042017	4/21/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	23 U	NA
TMW40S	TMW40S042017	4/24/2017	NA	NA	0.55 U	12 J	4.4 U	33 U	0.55 U	2.2 U	1.1 U	0.55 U	0.55 U	0.55 U	2.2 U	1.1 U
	TMW40S102017	10/25/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**4.6 J**	NA
	TMW40S102017	10/27/2017	NA	NA	2.2 U	17 U	4.4 UJ	17 UJ	1.1 U	4.8 U	2.2 U	2.2 U	2.2 U	2.2 U	1.1 U	1.1 U
	TMW40S042018	4/27/2018	NA	NA	2.2 UJ	21 J	4.4 UJ	17 UJ	1.1 UJ	1.5 J	2.2 UJ	2.2 UJ	2.2 UJ	2.2 UJ	1.1 UJ	1.1 UJ
	TMW40S102018	10/9/2018	NA	NA	0.54 U	19 J	4.3 U	32 U	0.53 U	2.1 U	1.1 U	0.53 U	0.53 U	0.53 U	2.1 U	1.1 U
TMW41	TMW41042017	4/19/2017	NA	NA	0.51 U	31 U	4.1 U	31 U	0.51 U	2 U	1 U	0.51 U	0.51 U	0.51 U	0.23 U	1 U
	TMW41102017	10/25/2017	NA	NA	2.4 U	19 U	4.8 UJ	19 UJ	1.2 U	5.3 U	2.4 U	2.4 U	2.4 U	2.4 U	1.2 U	1.2 U
	TMW41042018	4/25/2018	NA	NA	2.1 U	16 U	4.1 U	16 U	1 U	4.5 U	2.1 U	2.1 U	2.1 U	2.1 U	0.21 U	1 U
	TMW41102018	10/11/2018	NA	NA	0.5 U	30 U	3.9 U	30 U	0.49 U	2 U	0.98 U	0.49 U	0.49 U	0.49 U	0.21 U	0.98 U
TMW43	TMW43042017	4/27/2017	NA	NA	0.54 U	32 U	4.2 U	32 U	0.53 U	2.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.3 J	1.1 U
	TMW43042017DUP	4/27/2017	NA	NA	0.53 U	32 U	4.2 U	32 U	0.53 U	2.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.22 U	1.1 U
	TMW43102017	10/24/2017	NA	NA	2.4 U	19 U	4.7 UJ	19 UJ	1.2 U	5.1 U	2.3 U	2.3 U	2.3 U	2.3 U	0.24 U	1.2 U
	TMW43102017DUP	10/24/2017	NA	NA	2.3 U	18 U	4.5 UJ	18 UJ	1.1 U	4.9 U	2.2 U	2.2 U	2.2 U	2.2 U	0.22 UJ	0.4 J
	TMW43042018	5/2/2018	NA	NA	0.54 U	32 U	4.3 UJ	32 U	0.54 U	2.2 U	1.1 U	0.54 U	0.54 U	0.54 U	0.23 U	1.1 U
	TMW43042018DUP	5/2/2018	NA	NA	0.52 U	31 U	4.1 UJ	31 U	0.51 U	2.1 U	1 U	0.29 J	0.51 U	0.51 U	0.22 U	0.29 J

TABLE B-5: SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS AND TOTAL PETROLEUM HYDROCARBONS ANALYTICAL RESULTS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	TPHd	TPHg	1,2-Diphenylhydrazine	2,4-Dinitrophenol	4-Nitrophenol	Benzoic acid	Benzyl alcohol	bis(2-Ethylhexyl)phthalate	Diethylphthalate	Dimethylphthalate	Fluoranthene	Isophorone	Nitrobenzene	Phenanthrene
			µg/L													
	TMW43102018	10/16/2018	NA	NA	0.52 U	31 U	4.1 U	31 U	0.52 U	2.1 U	1 U	0.52 U	0.52 U	0.52 U	0.21 U	1 U
	TMW43102018DUP	10/16/2018	NA	NA	0.51 U	30 U	4 U	30 U	0.5 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.22 U	1 U
TMW44	TMW44042017	4/19/2017	NA	NA	0.6 U	12 J	4.8 U	36 U	0.6 U	2.4 U	1.2 U	0.6 U	0.6 U	0.6 U	0.24 U	1.2 U
	TMW44102017	10/25/2017	NA	NA	2.2 U	17 U	4.3 UJ	17 UJ	1.1 U	4.7 U	2.1 U	2.1 U	2.1 U	2.1 U	1.1 U	1.1 U
	TMW44042018	4/25/2018	NA	NA	2.2 U	17 U	4.3 U	17 U	1.1 U	4.7 U	2.1 U	2.1 U	2.1 U	2.1 U	0.22 U	1.1 U
	TMW44102018	10/11/2018	NA	NA	0.51 U	31 U	4.1 U	31 U	0.51 U	2 U	1 U	0.51 U	0.51 U	0.51 U	0.21 U	1 U
TMW45	TMW45042017	4/28/2017	NA	NA	0.54 U	32 U	4.2 U	32 U	0.53 U	2.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.22 U	1.1 U
	TMW45102017	10/27/2017	NA	NA	2.1 U	16 U	4.1 UJ	16 UJ	1 U	4.5 U	2 U	2 U	2 U	2 U	0.23 UJ	1 U
	TMW45042018	5/2/2018	NA	NA	0.56 U	33 U	4.4 UJ	33 U	0.55 U	2.2 U	1.1 U	0.55 U	0.55 U	0.55 U	0.22 UJ	1.1 U
	TMW45102018	10/17/2018	NA	NA	0.52 U	31 U	4.1 U	31 U	0.52 U	2.1 U	1 U	0.52 U	0.52 U	0.52 U	0.23 U	1 U
TMW46	TMW46042017	4/20/2017	NA	NA	0.51 U	31 U	4.1 U	31 U	0.51 U	2 U	1 U	0.51 U	0.51 U	0.51 U	0.22 U	1 U
	TMW46102017	10/25/2017	NA	NA	2.2 U	17 U	4.3 UJ	17 UJ	1.1 U	4.8 U	2.2 U	2.2 U	2.2 U	2.2 U	0.26 UJ	1.1 U
	TMW46042018	4/25/2018	NA	NA	2.1 U	17 U	4.1 U	17 U	1 U	4.6 U	2.1 U	2.1 U	2.1 U	2.1 U	0.21 UJ	1 U
	TMW46102018	10/10/2018	NA	NA	0.54 U	32 U	4.3 U	32 U	0.54 U	2.1 U	1.1 U	0.54 U	0.54 U	0.54 U	0.21 U	1.1 U
TMW47	TMW47042017	4/25/2017	NA	NA	0.55 U	33 U	4.4 U	33 U	0.55 U	2.2 U	1.1 U	0.55 U	0.55 U	0.55 U	0.25 U	1.1 U
	TMW47102017	10/26/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 U	NA
	TMW47042018	5/3/2018	NA	NA	0.52 U	31 U	4.1 UJ	31 U	0.51 U	2.1 U	1 U	0.51 U	0.51 U	0.51 U	0.21 U	1 U
	TMW47102018	10/17/2018	NA	NA	0.54 U	32 U	4.3 U	32 U	0.54 U	2.1 U	1.1 U	0.54 U	0.54 U	0.54 U	0.22 U	1.1 U
BEDROCK WELLS																
BGMW07	BGMW07042018	4/26/2018	NA	NA	2.2 U	17 U	4.4 UJ	17 UJ	1.1 U	4.8 U	2.2 U	2.2 U	2.2 U	2.2 U	0.24 U	1.1 U
	BGMW07102018	10/12/2018	NA	NA	0.51 U	30 U	4 U	30 U	0.51 U	2 U	1 U	0.51 U	0.51 U	0.51 U	0.22 U	1 U
BGMW08	BGMW08072018	7/18/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA
	BGMW08102018	10/9/2018	NA	NA	0.69 U	41 U	5.5 U	41 U	0.69 U	2.8 U	1.4 U	0.69 U	0.69 U	0.69 U	2.8 U	1.4 U
BGMW09	BGMW09042018	5/1/2018	NA	NA	2.8 U	22 U	5.6 UJ	22 UJ	1.4 U	6.2 U	2.8 U	2.8 U	2.8 U	2.8 U	0.21 U	1.4 U
	BGMW09102018	10/10/2018	NA	NA	0.52 U	31 U	4.1 U	31 U	0.52 U	2.1 U	1 U	0.52 U	0.52 U	0.52 U	0.22 U	1 U
	BGMW09102018DUP1	10/10/2018	NA	NA	0.53 U	32 U	4.2 U	32 U	0.53 U	2.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.22 U	1.1 U
BGMW10	BGMW10042018	4/27/2018	NA	NA	2.1 U	17 U	4.2 UJ	17 UJ	1.1 U	4.6 U	2.1 U	2.1 U	2.1 U	2.1 U	0.23 U	1.1 U
	BGMW10102018	10/11/2018	NA	NA	0.53 U	31 U	4.2 U	31 U	0.52 U	2.1 U	1 U	0.52 U	0.52 U	0.52 U	0.23 U	1 U
TMW02	TMW02042017	4/24/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.24 U	NA
	TMW02102017	10/24/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 U	NA
	TMW02042018	5/1/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 UJ	NA
	TMW02102018	10/16/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 UJ	NA
TMW14A	TMW14A042017	4/27/2017	NA	NA	0.52 U	31 U	4.1 U	31 U	0.51 U	2.1 U	1 U	0.51 U	0.51 U	0.51 U	0.22 U	1 U
	TMW14A102017	10/26/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 U	NA
	TMW14A102018	10/15/2018	NA	NA	0.51 U	30 U	4.1 UJ	30 U	0.51 U	2 U	1 U	0.51 U	0.51 U	0.51 U	0.21 U	1 U

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	TPHd	TPHg	1,2-Diphenylhydrazine	2,4-Dinitrophenol	4-Nitrophenol	Benzoic acid	Benzyl alcohol	bis(2-Ethylhexyl)phthalate	Diethylphthalate	Dimethylphthalate	Fluoranthene	Isophorone	Nitrobenzene	Phenanthrene
			µg/L													
TMW16	TMW16042017	4/20/2017	NA	NA	0.52 U	31 U	4.1 U	31 U	0.51 U	2.1 U	1 U	0.51 U	0.51 U	0.51 U	0.23 U	1 U
	TMW16102017	10/20/2017	NA	NA	2.3 U	18 U	4.5 UJ	18 UJ	1.1 U	5 U	2.3 U	2.3 U	2.3 U	2.3 U	1.1 U	1.1 U
	TMW16042018	4/25/2018	NA	NA	2.1 U	17 U	4.2 U	17 U	1 U	4.6 U	2.1 U	2.1 U	2.1 U	2.1 U	0.22 UJ	1 U
	TMW16102018	10/19/2018	NA	NA	0.55 U	32 U	4.3 U	32 U	0.54 U	2.2 U	1.1 U	0.54 U	0.54 U	0.54 U	0.24 U	1.1 U
TMW18	TMW18042017	4/20/2017	NA	NA	0.54 U	32 U	4.3 U	32 U	0.53 U	5.1 J	1.1 U	0.53 U	0.53 U	0.53 U	0.22 U	1.1 U
	TMW18102017	10/19/2017	NA	NA	2.4 U	19 U	4.8 UJ	19 UJ	1.2 U	5.5 J	2.4 U	2.4 U	2.4 U	2.4 U	1.2 U	1.2 U
	TMW18042018	4/25/2018	NA	NA	2.1 U	17 U	4.2 U	17 U	1.1 U	3.7 J	2.1 U	2.1 U	2.1 U	2.1 U	0.22 U	1.1 U
	TMW18102018	10/18/2018	NA	NA	0.51 U	30 U	4 U	30 U	0.5 U	4.7 J	1 U	0.5 U	0.5 U	0.5 U	0.21 U	1 U
TMW19	TMW19042017	4/20/2017	NA	NA	0.52 U	31 U	4.1 U	31 U	0.51 U	2 U	1 U	0.51 U	0.51 U	0.51 U	0.21 U	1 U
	TMW19102017	10/19/2017	NA	NA	2.2 U	18 U	4.4 UJ	18 UJ	1.1 U	4.9 U	2.2 U	2.2 U	2.2 U	2.2 U	1.1 U	1.1 U
	TMW19042018	4/25/2018	NA	NA	2.1 U	16 U	4.1 U	16 U	1 U	4.5 U	2.1 U	2.1 U	2.1 U	2.1 U	0.2 UJ	1 U
	TMW19102018	10/18/2018	NA	NA	0.53 U	32 U	4.2 U	32 U	0.53 U	0.63 J	1.1 U	0.53 U	0.53 U	0.53 U	0.22 U	1.1 U
TMW30	TMW30042017	4/19/2017	NA	NA	0.55 U	33 U	4.4 U	33 U	0.55 U	2.2 U	1.1 U	0.55 U	0.55 U	0.55 U	0.23 U	1.1 U
	TMW30102017	10/25/2017	NA	NA	2.3 U	18 U	4.5 UJ	18 UJ	1.1 U	5 U	2.3 U	2.3 U	2.3 U	2.3 U	1.1 U	1.1 U
	TMW30042018	4/26/2018	NA	NA	2.1 U	17 U	4.2 U	17 U	1.1 U	4.7 U	2.1 U	2.1 U	2.1 U	2.1 U	0.25 U	1.1 U
	TMW30102018	10/11/2018	NA	NA	0.5 U	30 U	4 U	30 U	0.5 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.22 U	1 U
TMW31D	TMW31D042017	4/27/2017	NA	NA	0.52 U	31 U	4.1 U	31 U	0.51 U	2.1 U	1 U	0.51 U	0.51 U	0.51 U	0.22 U	1 U
	TMW31D042017DUP	4/27/2017	NA	NA	0.55 U	33 U	4.4 U	33 U	0.55 U	2.2 U	1.1 U	0.55 U	0.55 U	0.55 U	0.21 U	1.1 U
	TMW31D102017	10/26/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.24 U	NA
	TMW31D102017DUP	10/26/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 U	NA
	TMW31D042018	5/2/2018	NA	NA	0.54 U	32 U	4.3 UJ	32 U	0.54 U	2.1 U	1.1 U	0.54 U	0.54 U	0.54 U	0.24 U	1.1 U
	TMW31D042018DUP	5/2/2018	NA	NA	0.53 U	31 U	4.2 UJ	31 U	0.52 U	2.1 U	1 U	0.52 U	0.52 U	0.52 U	0.24 UJ	1 U
	TMW31D102018	10/16/2018	NA	NA	0.52 U	31 U	4.1 U	31 U	0.52 U	2.1 U	1 U	0.52 U	0.52 U	0.52 U	0.21 U	1 U
	TMW31D102018DUP	10/16/2018	NA	NA	0.52 U	31 U	4.1 U	31 U	0.51 U	2.1 U	1 U	0.51 U	0.51 U	0.51 U	0.21 U	1 U
TMW32	TMW32042017	4/27/2017	NA	NA	0.51 U	30 U	4 U	30 U	0.5 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.21 U	1 U
	TMW32102017	10/20/2017	NA	NA	2.3 U	19 U	4.6 UJ	19 UJ	1.2 U	5.1 U	2.3 U	2.3 U	2.3 U	2.3 U	1.2 U	1.2 U
	TMW32042018	5/1/2018	NA	NA	2.1 U	17 U	4.2 U	17 U	1.1 U	4.7 U	2.1 U	2.1 U	2.1 U	2.1 U	0.23 U	1.1 U
	TMW32102018	10/12/2018	NA	NA	0.56 U	33 U	4.4 U	33 U	0.55 U	2.2 U	1.1 U	0.55 U	0.55 U	0.55 U	0.22 U	1.1 U
TMW36	TMW36042017	4/20/2017	NA	NA	0.51 U	30 U	4 U	30 U	0.5 U	0.65 J	1 U	0.5 U	0.5 U	0.5 U	0.21 U	1 U
	TMW36102017	10/19/2017	NA	NA	2.5 U	20 U	4.9 UJ	20 UJ	1.2 U	5.4 U	2.4 U	2.4 U	2.4 U	2.4 U	1.2 U	1.2 U
	TMW36042018	4/25/2018	NA	NA	2 U	16 U	4 U	16 U	1 U	4.4 U	2 U	2 U	2 U	2 U	0.22 UJ	1 U
	TMW36102018	10/18/2018	NA	NA	0.52 U	31 U	4.1 U	31 U	0.51 U	2 U	1 U	0.51 U	0.51 U	0.51 U	0.22 U	1 U
TMW37	TMW37042017	4/20/2017	NA	NA	0.51 U	30 U	4 U	30 U	0.5 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.22 U	1 U
	TMW37102017	10/20/2017	NA	NA	2.2 U	17 U	4.3 UJ	17 UJ	1.1 U	4.7 U	2.1 U	2.1 U	2.1 U	2.1 U	1.1 U	1.1 U
	TMW37042018	4/25/2018	NA	NA	2.1 U	17 U	4.2 U	17 U	1.1 U	4.6 U	2.1 U	2.1 U	2.1 U	2.1 U	0.21 UJ	1.1 U

TABLE B-5: SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS AND TOTAL PETROLEUM HYDROCARBONS ANALYTICAL RESULTS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	TPHd	TPHg	1,2-Diphenylhydrazine	2,4-Dinitrophenol	4-Nitrophenol	Benzoic acid	Benzyl alcohol	bis(2-Ethylhexyl)phthalate	Diethylphthalate	Dimethylphthalate	Fluoranthene	Isophorone	Nitrobenzene	Phenanthrene
			µg/L													
TMW37	**TMW37102018**	**10/18/2018**	NA	NA	0.51 U	30 U	4 U	30 U	0.51 U	2 U	1 U	0.51 U	0.51 U	0.51 U	0.2 U	1 U
TMW38	**TMW38042017**	**4/26/2017**	NA	NA	0.51 U	30 U	4 U	30 U	0.5 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.23 U	1 U
	TMW38102017	**10/26/2017**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 U	NA
	TMW38042018	**5/1/2018**	NA	NA	2.1 U	17 U	4.2 U	17 U	1.1 U	4.7 U	2.1 U	2.1 U	2.1 U	2.1 U	0.23 U	1.1 U
	TMW38102018	**10/19/2018**	NA	NA	0.55 U	32 U	4.3 U	32 U	0.54 U	2.2 U	1.1 U	0.54 U	0.54 U	0.54 U	0.23 U	1.1 U
TMW39D	**TMW39D042017**	**4/27/2017**	NA	NA	0.55 U	33 U	4.4 U	33 U	0.55 U	2.2 U	1.1 U	0.55 U	0.55 U	0.55 U	0.22 U	1.1 U
	TMW39D102017	**10/27/2017**	NA	NA	2.1 U	17 U	4.2 UJ	17 UJ	1.1 U	4.6 U	2.1 U	2.1 U	2.1 U	2.1 U	0.23 UJ	1.1 U
	TMW39D042018	**5/3/2018**	NA	NA	0.52 U	31 U	4.1 UJ	31 U	0.52 U	2.1 U	1 U	0.52 U	0.52 U	0.52 U	0.21 U	1 U
	TMW39D102018	**10/16/2018**	NA	NA	0.53 U	31 U	4.2 U	31 U	0.52 U	2.1 U	1 U	0.52 U	0.52 U	0.52 U	0.21 U	1 U
TMW40D	**TMW40D042017**	**4/25/2017**	NA	NA	0.52 U	31 U	4.2 U	31 U	0.52 U	2.1 U	1 U	0.52 U	0.52 U	0.52 U	0.24 U	1 U
	TMW40D102017	**10/23/2017**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 U	NA
	TMW40D042018	**5/1/2018**	NA	NA	2.1 U	17 U	4.2 U	17 U	1.1 U	4.6 U	2.1 U	2.1 U	2.1 U	2.1 U	0.22 U	1.1 U
	TMW40D102018	**10/12/2018**	NA	NA	0.54 U	32 U	4.2 U	32 U	0.53 U	2.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.21 U	1.1 U
TMW48	**TMW48042017**	**4/26/2017**	NA	NA	0.57 U	34 U	4.5 U	34 U	0.56 U	2.2 U	1.1 U	0.56 U	0.56 U	0.56 U	0.24 U	1.1 U
	TMW48102017	**10/27/2017**	NA	NA	2.3 U	18 U	4.6 UJ	18 UJ	1.1 U	5 U	2.3 U	2.3 U	2.3 U	2.3 U	0.23 UJ	1.1 U
	TMW48042018	**5/2/2018**	NA	NA	0.54 U	32 U	4.2 UJ	32 U	0.53 U	2.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.22 UJ	1.1 U
	TMW48102018	**10/16/2018**	NA	NA	0.52 U	31 U	4.1 U	31 U	0.51 U	2 U	1 U	0.51 U	0.51 U	0.51 U	0.22 U	1 U
TMW49	**TMW49042017**	**4/26/2017**	NA	NA	0.56 U	33 U	4.4 U	33 U	0.56 U	0.73 J	1.1 U	0.56 U	0.56 U	0.56 U	0.22 U	1.1 U
	TMW49102017	**10/27/2017**	NA	NA	2.2 U	17 U	4.3 UJ	17 UJ	1.1 U	4.7 U	2.2 U	2.2 U	2.2 U	2.2 U	0.24 UJ	1.1 U
	TMW49042018	**5/4/2018**	NA	NA	0.54 U	32 U	4.3 UJ	32 U	0.54 U	2.2 U	1.1 U	0.54 U	0.54 U	0.54 U	0.22 UJ	1.1 U
	TMW49102018	**10/17/2018**	NA	NA	0.54 U	32 U	4.3 U	32 U	0.54 U	2.1 U	1.1 U	0.54 U	0.54 U	0.54 U	0.22 UJ	1.1 U
SL			**17**	**10**	**1**	**39**	**91**	**75,000**	**2,000**	**6**	**15,000**	**15,000**	**800**	**780**	**1**	**–**

NOTES

– not established or not applicable
U less than cited Limit of Detection

Note 1) Screening levels for analytes are taken from Regional Screening Levels table (USEPA, 2019).
Note 2) The Screening Levels are taken from EPA maximum contaminant level - CFR Title 40, Parts 141, 142, and 143.

Bolded concentrations indicate result exceeded cited SL.

ABBREVIATIONS & ACRONYMS
µg/L micrograms per liter
J estimated value
NA not analyzed
SL regional screening levels (USEPA, 2019)

TABLE B-6: SUMMARY OF DISSOLVED METALS ANALYTICAL DETECTIONS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Mercury
			µg/L																						
			ALLUVIAL WELLS																						
BGMW01	BGMW01042017	4/24/2017	70 U	0.53 J	0.73 J	17 J	0.3 UJ	1 U	42,000	1.8 U	0.24 J	0.62 J	85 U	0.7 UJ	24,000	160 J	1.2 J	2,400 J	2 U	0.1 UJ	810,000	0.2 U	1.2 J	8 UJ	0.08 UJ
BGMW01	BGMW01102017	10/23/2017	20 J	1 U	0.79 J	15	0.3 U	1 U	40,000	1.8 U	0.21 J	1.8 U	85 U	0.7 U	26,000	170	1.6 J	420 J	2 U	0.1 U	750,000	0.2 U	2 U	8 U	0.08 U
BGMW01	BGMW01042018	4/27/2018	730	0.41 J	0.71 J	21	0.3 U	1 U	44,000	0.97 J	0.2 U	1.3 J	560	0.34 J	25,000	**230**	1.9 J	760 J	2 U	0.55 J	790,000	0.2 U	2.6 J	8 U	0.08 U
BGMW01	BGMW01102018	10/9/2018	70 U	1 U	0.66 J	16	0.3 U	1 U	46,000	1.8 U	0.24 J	0.86 J	29 J	0.7 U	28,000	**210**	1 J	1,000 J	2 U	0.033 J	890,000	0.2 U	1 J	8 U	0.08 U
BGMW02	BGMW02042017	4/21/2017	26 J	1 U	0.76 J	15	0.3 U	1 U	75,000	3.9 J	0.082 J	0.67 J	85 U	0.7 U	120,000	67	0.48 J	930 J	**65**	0.1 U	960,000	0.2 U	5.1 J	8 U	0.08 U
BGMW02	BGMW02102017	10/20/2017	70 U	1 U	0.98 J	15	0.3 U	1 U	76,000 J	1.8 U	0.2 U	1.3 J	85 U	0.7 U	100,000 J	70	1 U	4,500 J	**57**	0.1 U	840,000	0.2 U	2 U	8 UJ	0.08 U
BGMW02	BGMW02042018	4/26/2018	70 U	1 U	1 J	17	0.3 U	1 U	76,000	1.8 U	0.084 J	2.4	85 U	0.7 U	110,000	67	0.68 J	770 J	**64**	0.1 U	970,000	0.2 U	6.8	8 U	0.08 U
BGMW02	BGMW02102018	10/11/2018	70 U	0.5 J	0.8 J	14	0.3 U	1 U	73,000	1.8 U	0.2 U	0.86 J	120	0.7 U	100,000	64	0.99 J	1,400 J	**54**	0.1 U	840,000	0.2 U	5.1 J	8 U	0.08 U
BGMW03	BGMW03042017	4/20/2017	60 J	1 U	1.9 J	36	0.3 U	1 U	100,000	1.8 U	0.31 J	2.3	130	0.7 U	23,000	96 J	1.1 J	2,600 J	26 J	0.1 U	720,000	0.2 U	11	8 U	0.08 UJ
BGMW03	BGMW03102017	10/19/2017	53 J	1 U	1.6 J	30	0.3 U	1 U	83,000	0.8 J	0.2 U	2.2	85 U	0.7 U	20,000	8.2	1 U	1,900 J	26	0.05 J	670,000	0.2 U	8.4	8 U	0.08 U
BGMW03	BGMW03042018	4/24/2018	70 U	1 U	1.7 J	27	0.3 U	1 U	95,000	1.8 U	0.18 J	1.8 U	85 U	0.7 U	21,000	34	0.61 J	1,800 J	23	0.1 U	660,000	0.2 U	9.5	8 U	0.08 U
BGMW03	BGMW03102018	10/10/2018	250 J	1 U	1.1 J	34	0.3 U	1 U	110,000	1.8 U	0.21 J	2.3	170	0.18 J	24,000	8.3	0.76 J	2,300 J	11	0.1 U	630,000	0.2 U	7.3	8 U	0.08 U
FW31	FW31042017	4/17/2017	70 U	1 U	7.4	14 J	0.3 U	1 U	8,200	1.3 J	0.2 U	1.8 U	85 U	0.7 U	2,700	0.95 UJ	1 U	2,600 J	2 U	0.1 U	570,000	0.2 U	13	8 U	0.08 U
FW31	FW31102017	10/18/2017	420	1 U	5.8	21	0.3 U	1 U	5,700	1.8 U	0.12 J	0.58 J	170	0.2 J	2,300	7.9	1 U	1,600 J	2 U	0.1 U	490,000	0.2 U	8.5	8 U	0.08 U
FW31	FW31042018	4/23/2018	70 U	1 U	5.7	9.4	0.3 U	1 U	6,300	1.8 U	0.2 U	0.83 J	85 U	0.7 U	2,200	17	1 U	1,400 J	2 U	0.1 U	530,000	0.2 U	9.3	8 U	0.08 U
FW31	FW31102018	10/9/2018	70 U	1 U	5.2	9.8	0.3 U	1 U	5,900	1.8 U	0.2 U	1.8 U	85 U	0.7 U	2,300	0.69 J	0.4 J	1,700 J	2 U	0.1 U	810,000	0.2 U	9	8 U	0.08 U
MW01	MW01042017	4/19/2017	**59,000**	0.7 J	8	450	1.8	1 U	63,000	28	12	19	**40,000**	**18**	23,000	**910**	26	14,000 J	15	0.089 J	940,000	0.37 J	53	190	0.053 J
MW01	MW01102017	10/24/2017	**12,000**	1 U	1.9 J	97	0.61 J	1 U	35,000	5.9 J	2.4	5.6	**7,300**	4.3	9,800	170	4.9	2,700 J	16	0.1 U	930,000	0.2 U	13	47	0.08 U
MW01	MW01042018	4/23/2018	3,300	1 U	0.69 J	34	0.18 J	1 U	35,000	1.6 J	0.56 J	2.3	**1,600**	0.83 J	7,500	37	1.9 J	1,100 J	15	0.1 U	910,000	0.2 U	3.7 J	13 J	0.08 U
MW01	MW01102018	10/9/2018	**9,100**	1 UJ	1.5 J	81 J	0.3 U	1 U	34,000	5.6 J	1.9	3.7	**5,500**	2.6 J	9,400	110	4.6	2,900 J	12	0.1 U	1,600,000	0.076 J	11	38	0.08 U
MW02	MW02042017	4/19/2017	70 U	1 U	1 U	44	0.088 J	1 U	120,000	1.8 U	0.2 U	0.77 J	85 U	0.7 U	26,000	2.4 J	1 U	1,500 J	12	0.1 U	380,000	0.2 U	1.1 J	42	0.08 U
MW02	MW02102017	10/24/2017	54 J	1 U	1 U	35	0.3 U	1 U	120,000	1.8 U	0.076 J	1.1 J	32 J	0.7 U	27,000	2 J	0.85 J	780 J	12	0.1 U	450,000	0.2 U	2 U	22	0.08 U
MW02	MW02042018	4/23/2018	70 U	1 U	1 U	39	0.3 U	1 U	120,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	26,000	1.3 J	0.32 J	550 J	11	0.1 U	380,000	0.2 U	2 U	23	0.08 U
MW02	MW02102018	10/9/2018	430	1 U	1 U	36	0.3 U	1 U	120,000	1.4 J	0.12 J	1.1 J	280	0.7 U	28,000	8	0.67 J	890 J	12	0.1 U	570,000	0.2 U	0.82 J	23	0.08 U
MW03	MW03042017	4/21/2017	70 U	1 U	0.35 J	9.3	0.3 U	1 U	51,000	4.5 J	0.11 J	0.71 J	85 U	0.7 U	11,000	44	0.69 J	540 J	27	0.039 J	1,100,000	0.2 U	2 U	4.7 J	0.08 U
MW03	MW03102017	10/23/2017	70 U	1 U	0.34 J	10	0.3 U	1 U	55,000	1.8 U	0.11 J	1.8 U	85 U	0.7 U	11,000	44	0.85 J	560 J	28	0.1 U	1,100,000	0.2 U	0.66 J	5.5 J	0.08 U
MW03	MW03042018	4/27/2018	70 U	1 U	0.36 J	9.7	0.3 U	1 U	45,000	1.8 U	0.2 U	1.8 J	85 U	0.7 U	9,200	40	0.56 J	480 J	28	0.1 U	990,000	0.2 U	0.96 J	8 U	0.08 U
MW03	MW03102018	10/15/2018	70 U	1 U	0.38 J	10	0.3 U	1 U	53,000	1.8 U	0.14 J	0.77 J	85 U	0.7 U	10,000	51	0.65 J	680 J	27	0.1 U	940,000	0.2 U	2 U	11 J	0.08 U
MW18D	MW18D042017	4/20/2017	70 U	1.1 J	0.99 J	18	0.3 U	1 U	67,000	1.8 U	0.7 J	3.9	85 U	1 J	18,000	**620 J**	4.6	5,300 J	1.1 J	0.1 U	2,000,000	0.2 U	25	470	0.08 UJ
MW18D	MW18D102017	10/19/2017	82 J	1 U	1.5 J	52	0.3 U	1 U	61,000	4.4 J	1.3	12	85 U	4.7	18,000	**770**	5.3	960 J	2 U	0.1 U	2,000,000	0.2 U	28	580	0.08 U
MW18D	MW18D042018	4/25/2018	640	0.88 J	0.69 J	19	0.3 U	0.58 J	64,000	0.95 J	0.42 J	16	360	1.5 J	18,000	**550**	2.4 J	1,000 J	2 U	0.1 U	1,700,000	0.2 U	13	330	0.08 U
MW18D	MW18D102018	10/10/2018	85 J	1 U	0.79 J	16	0.3 U	0.33 J	65,000 J	1.8 U	0.3 J	11	56 J	0.38 J	18,000	**530**	2.1 J	1,200 J	2 U	0.1 U	1,500,000 J	0.2 U	6.2	130	0.08 U
MW20	MW20042017	4/24/2017	70 U	1 U	1 U	17 J	0.3 UJ	1 U	280,000	1.8 U	1.1	4.1 J	85 U	0.89 J	59,000	**1,400 J**	2.9 J	8,800	**59**	0.1 UJ	3,400,000	0.2 U	2 U	79 J	0.08 UJ
MW20	MW20102017	10/23/2017	70 U	1 U	0.38 J	16	0.3 U	1 U	290,000	0.78 J	1.3	1.8 U	85 U	0.7 U	63,000	**1,500**	3.5	2,400 J	**82**	0.035 J	3,200,000	0.2 U	2 U	92	0.08 U
MW20	MW20042018	4/30/2018	70 U	1 U	0.33 J	17	0.3 U	1 U	300,000	13	1.5	12	85 U	0.7 U	62,000	**1,800**	4.1	2,200 J	**88**	0.043 J	3,400,000	0.2 U	0.65 J	100	0.08 U
MW20	MW20102018	10/15/2018	70 U	1 U	0.39 J	16	0.3 U	1 U	280,000	1.8 U	1.5	3.4	85 U	0.7 U	58,000	**1,500**	3.8	2,100 J	**70**	0.1 U	1,900,000	0.2 U	2 U	81	0.027 J
MW22D	MW22D042017	4/19/2017	70 U	1 U	0.41 J	11	0.3 U	1 U	81,000	1.8 U	0.16 J	1.8 U	85 U	0.7 U	16,000	130	0.77 J	2,400 J	36	0.1 U	990,000	0.2 U	1.4 J	8.7 J	0.08 U
MW22D	MW22D102017	10/23/2017	70 U	1 U	1 U	9.9	0.3 U	1 U	89,000	1.8 U	0.15 J	1.8 U	85 U	0.7 U	18,000	130	1 J	600 J	41	0.1 U	1,100,000	0.2 U	0.88 J	4.6 J	0.08 U
MW22D	MW22D042018	4/27/2018	21 J	1 U	1 U	11	0.3 U	1 U	71,000	1.8 U	0.2 U	1.2 J	170 J	0.7 U	15,000	140	1 J	750 J	39	0.1 U	1,000,000	0.2 U	1.2 J	36	0.08 U
MW22D	MW22D102018	10/12/2018	70 U	1 U	0.38 J	13 J	0.3 U	1 U	82,000	1.8 U	0.2 J	1 J	85 U	0.7 U	16,000	150	0.96 J	560 J	41	0.035 J	1,200,000	0.2 U	0.76 J	21	0.08 U
MW23	MW23042017	4/18/2017	720 J	1 U	1.5 J	140 J	0.12 J	1 U	11,000	0.61 J	0.97 J	1.8 U	470	0.39 J	5,000	72 J	1 U	2,100 J	2 U	0.085 J	470,000	0.2 U	7.6	8 U	0.08 U
MW23	MW23042017DUP	4/18/2017	700 J	1 U	1.1 J	140 J	0.17 J	1 U	11,000	0.74 J	0.88 J	1.8 U	450	0.41 J	5,200	68 J	1 U	2,500 J	2 U	0.042 J	500,000	0.2 U	6.6	8 U	0.08 U
MW23	MW23102017	10/18/2017	290 J	1 U	1.1 J	160	0.3 U	1 U	10,000	1.8 U	0.64 J	5.2 J	210	0.18 J	5,000	58	1.2 J	1,400 J	2 U	0.1 U	460,000	0.2 U	2.7 J	2.1 J	0.08 U
MW23	MW23102017DUP	10/18/2017	270 J	0.42 J	1.1 J	160	0.24 J	1 U	10,000	1.8 U	0.74 J	2 J	190	0.29 J	5,100	58	1.3 J	1,500 J	2 U	0.035 J	470,000	0.076 J	2.7 J	8 U	0.08 U
MW23	MW23042018	4/24/2018	70 U	1 U	1.1 J	200	0.3 U	1 U	15,000	0.69 J	0.31 J	1.8 U	180	0.7 U	6,500	70	2.2 J	1,100 J	2 U	0.1 U	460,000	0.2 U	2.3 J	2.2 J	0.08 U
MW23	MW23042018DUP	4/24/2018	70 U	1 U	1.1 J	210	0.24 J	1 U	15,000	1.8 U	0.28 J	1.8 U	170	0.7 U	6,600	69	2.2 J	1,100 J	2 U	0.1 U	460,000	0.2 U	1.9 J	2.1 J	0.08 U
MW23	MW23102018	10/17/2018	790 J	0.48 J	1 J	210	0.3 U	1 U	13,000	0.55 J	0.61 J	1.8 U	550	0.32 J	6,100	67	1.7 J	1,400 J	2 U	0.036 J	480,000	0.2 U	2 U	8 U	0.08 U
MW23	MW23102018DUP	10/17/2018	860	1 U	1.2 J	210	0.3 U	1 U	14,000	0.75 J	0.68 J	1.1 J	610	0.37 J	6,200	68	1.5 J	1,500 J	2 U	0.1 U	490,000	0.2 U	2 U	8 U	0.08 U
MW24	MW24042017	4/17/2017	70 U	1 U	0.51 J	290 J	0.3 U	1 U	33,000	1.8 U	0.2 U	1.8 U	**1,800**	0.7 U	11,000	**450 J**	1 U	1,300 J	2 U	0.1 U	270,000	0.2 U	2 U	8 U	0.08 U

TABLE B-6: SUMMARY OF DISSOLVED METALS ANALYTICAL DETECTIONS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Mercury
			μg/L																						
MW24	MW24042017DUP	4/17/2017	70 U	1 U	0.49 J	280 J	0.3 U	1 U	34,000	1.8 U	0.2 U	1.8 U	**1,800**	0.7 U	11,000	**450 J**	1 U	1,300 J	2 U	0.1 U	270,000	0.2 U	2 U	8 U	0.08 U
MW24	MW24102017	10/17/2017	70 U	1 U	0.75 J	300	0.3 U	1 U	29,000	1.8 U	0.062 J	1.8 U	**1,600**	0.7 U	10,000	**420**	1 U	970 J	2 U	0.1 U	260,000	0.2 U	2 U	8 U	0.08 U
MW24	MW24102017DUP1	10/17/2017	70 U	1 U	0.65 J	290	0.3 U	1 U	29,000	1.8 U	0.054 J	1.8 U	**1,600**	0.7 U	10,000	**420**	1 U	880 J	2 U	0.1 U	250,000	0.2 U	2 U	8 U	0.08 U
MW24	MW24042018	4/23/2018	70 U	1 U	0.64 J	210	0.3 U	1 U	33,000	1.8 U	0.2 U	1.8 U	120	0.7 U	10,000	**420**	1 U	880 J	2 U	0.1 U	270,000	0.2 U	2 U	8 U	0.08 U
MW24	MW24042018DUP	4/23/2018	70 U	1 U	0.53 J	210	0.3 U	1 U	34,000	1.8 U	0.08 J	1.2 J	55 J	0.7 U	10,000	**410**	1 U	910 J	2 U	0.1 U	260,000	0.2 U	2 U	8 U	0.08 U
MW24	MW24102018	10/17/2018	46 J	1 U	0.73 J	280	0.3 U	1 U	32,000	1.8 U	0.2 U	1.8 U	**1,800**	0.7 U	11,000	**430**	1 U	960 J	2 U	0.1 U	270,000	0.2 U	2 U	8 U	0.08 U
MW24	MW24102018DUP	10/17/2018	50 J	1 U	0.56 J	280	0.3 U	1 U	32,000	1.8 U	0.2 U	1.8 U	**1,900**	0.7 U	11,000	**440**	1 U	950 J	2 U	0.1 U	270,000	0.2 U	2 U	8 U	0.08 U
SMW01	SMW01042017	4/21/2017	27 J	1 U	1.2 J	35	0.3 U	1 U	29,000	1.8 U	0.19 J	0.87 J	85 U	0.7 U	11,000	60	2.3 J	850 J	1.3 J	0.1 U	970,000	0.2 U	1.2 J	8 U	0.08 U
SMW01	SMW01102017	10/20/2017	33 J	1 U	1.5 J	35	0.3 U	1 U	29,000	1.8 U	0.2 U	2.2	29 J	0.7 U	9,900	150	0.76 J	4,500	2 U	0.1 U	880,000	0.2 U	2.6 J	4.4 J	0.08 U
SMW01	SMW01042018	4/26/2018	70 U	1 U	1.8 J	37	0.3 U	1 U	29,000	1.8 U	0.41 J	1.8 J	27 J	0.7 U	10,000	190	2.6 J	500 J	2 U	0.1 U	950,000	0.2 U	3.3 J	8 U	0.08 U
SMW01	SMW01102018	10/12/2018	70 U	1 U	1.8 J	37	0.2 J	1 U	25,000	0.68 J	0.58 J	2.2	85 U	0.7 U	8,700	**290**	2.8 J	390 J	1 J	0.055 J	1,100,000	0.086 J	3.7 J	2.9 J	0.08 U
TMW01	TMW01042017	4/25/2017	70 U	1 U	0.76 J	12	0.3 U	1 U	110,000	1.8 U	0.2 U	4.4	85 U	0.7 U	19,000	7.5	1 U	1,300 J	4.5 J	0.1 U	570,000	0.2 U	13	8 U	0.08 U
TMW01	TMW01102017	10/27/2017	70 U	1 U	0.82 J	13	0.3 U	1 U	110,000	1.8 U	0.065 J	4.4	85 U	0.7 U	20,000	7.8	1 U	650 J	4.6 J	0.1 U	640,000	0.2 U	14	2.4 J	0.08 U
TMW01	TMW01042018	5/4/2018	70 U	1 U	0.85 J	11	0.3 U	1 U	110,000	0.54 J	0.2 U	3.3	32 J	0.7 U	19,000	9.4	0.53 J	530 J	4 J	0.1 U	590,000	0.2 U	13	2.1 J	0.08 U
TMW01	TMW01102018	10/15/2018	70 U	1 U	0.87 J	9.9	0.3 U	1 U	110,000	0.52 J	0.2 U	4.1	85 U	0.7 U	19,000	8.5	1 U	440 J	3.9 J	0.1 U	550,000	0.2 U	12	8 U	0.08 U
TMW03	TMW03042017	4/24/2017	70 U	1 U	0.57 J	13 J	0.3 UJ	1 U	46,000	1.8 U	0.086 J	1.3 J	85 U	0.7 UJ	9,900	4.9 J	0.87 J	2,600 J	**57**	0.1 UJ	970,000	0.2 U	1.8 J	7.1 J	0.08 UJ
TMW03	TMW03102017	10/25/2017	70 U	1 U	0.47 J	13	0.3 U	1 U	51,000	1.8 U	0.063 J	1.2 J	85 U	0.7 U	12,000	4.4	1 U	820 J	**57**	0.1 U	920,000	0.2 U	2 U	5.8 J	0.08 U
TMW03	TMW03042018	4/30/2018	21 J	1 U	0.49 J	13	0.3 U	1 U	51,000	1.8 U	0.071 J	2.3	85 U	0.7 U	12,000	5.7	0.31 J	570 J	**60**	0.1 U	930,000	0.2 U	1.8 J	9.8 J	0.08 U
TMW03	TMW03102018	10/12/2018	70 U	1 U	0.5 J	13	0.3 U	1 U	48,000	1.8 U	0.062 J	0.69 J	85 U	0.7 U	11,000	5.3	1 U	540 J	49	0.1 U	1,000,000	0.2 U	1.5 J	6.6 J	0.08 U
TMW04	TMW04042017	4/24/2017	70 U	1 U	0.88 J	8.3 J	0.3 UJ	1 U	28,000	1.5 J	0.2 U	1.8 UJ	85 U	0.7 UJ	5,100	0.95 UJ	1 U	2,600 J	**87**	0.1 UJ	920,000	0.2 U	16	2.5 J	0.08 UJ
TMW04	TMW04102017	10/25/2017	70 U	1 U	0.96 J	7.7	0.3 U	1 U	32,000	3.9 J	0.2 U	1.8 U	85 U	0.7 U	6,000	0.95 U	1 U	1,100 J	**89**	0.1 U	840,000	0.2 U	15	2.4 J	0.08 U
TMW04	TMW04042018	5/2/2018	70 U	1 U	0.97 J	8.1	0.3 U	1 U	31,000	2.8 J	0.2 U	1.8 U	85 U	0.7 U	5,700	0.95 U	1 U	1,000 J	**85**	0.1 U	850,000	0.2 U	17	4 J	0.08 U
TMW04	TMW04102018	10/16/2018	70 U	1 U	0.96 J	7	0.3 U	1 U	27,000	1.8 U	0.072 J	1.8 U	85 U	0.7 U	5,100	0.95 U	1 U	1,500 J	**76**	0.1 U	930,000	0.2 U	14	8 U	0.08 U
TMW06	TMW06042017	4/20/2017	70 U	1 U	0.91 J	15	0.3 U	1 U	36,000	1.8 U	0.2 U	2.2	85 U	0.7 U	7,800	27 J	0.68 J	940 J	1.4 J	0.1 U	950,000	0.2 U	1.1 J	8 U	0.08 UJ
TMW06	TMW06102017	10/17/2017	70 U	1 U	0.88 J	15	0.3 U	1 U	31,000	1.8 U	0.2 U	3.1	85 U	0.7 U	7,000	33	0.55 J	480 J	1.2 J	0.1 U	870,000	0.2 U	2 J	8 U	0.08 U
TMW06	TMW06042018	4/30/2018	70 U	1 U	0.81 J	15	0.3 U	1 U	35,000	1.8 U	0.2 U	1.7 J	85 U	0.7 U	7,600	31	0.8 J	450 J	2.2 J	0.1 U	870,000	0.2 U	3.4 J	3 J	0.08 U
TMW06	TMW06102018	10/12/2018	70 U	1 U	0.98 J	17	0.3 U	1 U	34,000	1.8 U	0.2 U	1.9 J	85 U	0.7 U	7,400	29	0.68 J	450 J	1 J	0.1 U	910,000	0.2 U	2.5 J	8 U	0.08 U
TMW07	TMW07042017	4/20/2017	19 J	1 U	0.87 J	16	0.089 J	1 U	62,000	1.8 U	0.57 J	0.61 J	85 U	0.7 U	11,000	**370 J**	3.6	4,800 J	2 U	0.1 U	1,400,000	0.2 U	3.6 J	8 U	0.08 UJ
TMW07	TMW07102017	10/19/2017	70 U	1 U	0.42 J	16	0.3 U	1 U	56,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	11,000	**280**	0.67 J	4,000	2 U	0.1 U	1,400,000	0.2 U	5.8 J	4.4 J	0.08 U
TMW07	TMW07042018	4/25/2018	70 U	1 U	1 U	0.95 U	0.3 U	1 U	63,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	11,000	0.95 U	1 U	2,900 J	2 U	0.1 U	1,200,000	0.2 U	2 U	8 U	0.08 U
TMW07	TMW07102018	10/10/2018	70 U	1 U	1 U	12	0.3 U	1 U	61,000	1.8 U	0.35 J	1.4 J	85 U	0.7 U	11,000	**350**	1.1 J	2,600 J	2 U	0.1 U	1,100,000	0.2 U	6.6	8 U	0.08 U
TMW08	TMW08042017	4/21/2017	70 U	1 U	0.35 J	10	0.3 U	1 U	220,000	1.8 U	0.63 J	1.5 J	85 U	0.7 U	73,000	**390**	1.5 J	3,600	41	0.1 U	4,000,000	0.2 U	2 U	6.2 J	0.08 U
TMW08	TMW08102017	10/20/2017	70 U	1 U	0.41 J	9.9	0.3 U	1 U	240,000	1.8 U	0.2 U	2	85 U	0.7 U	72,000	**380**	1.7 J	27,000	35	0.1 U	4,100,000	0.2 U	2 U	6.6 J	0.08 U
TMW08	TMW08042018	4/27/2018	70 U	1 U	0.44 J	10	0.3 U	1 U	260,000	1.8 U	0.2 U	2	85 U	0.7 U	70,000	**440**	1.5 J	3,100	27	0.1 U	3,800,000	0.2 U	0.65 J	8 U	0.08 U
TMW08	TMW08102018	10/11/2018	35 U0	1 U	0.37 J	9.6	0.3 U	1 U	330,000	1.8 U	0.5 J	2.3	69 J	0.7 U	83,000	**420**	1.2 J	5,200	24	0.1 U	4,900,000	0.2 U	2 U	5.2 J	0.08 U
TMW10	TMW10042017	4/21/2017	70 U	1 U	0.66 J	17	0.3 U	1 U	67,000	1.8 U	0.2 U	1.1 J	85 U	0.7 U	19,000	6.4	1.9 J	820 J	2 U	0.1 U	1,800,000	0.2 U	0.78 J	9.2 J	0.08 U
TMW10	TMW10102017	10/25/2017	97 J	1 U	0.74 J	15	0.3 U	1 U	61,000	1.8 U	0.1 J	2.3	65 J	0.7 U	17,000	42	0.99 J	1,100 J	2 U	0.1 U	1,600,000	0.2 U	2 U	8 U	0.08 U
TMW10	TMW10042018	4/24/2018	250 J	1 U	0.82 J	16	0.3 U	1 U	64,000	1.8 U	0.14 J	1.8 U	180	0.7 U	17,000	40	0.74 J	710 J	2 U	0.1 U	1,500,000	0.2 U	2.8 J	2 J	0.08 U
TMW10	TMW10102018	10/10/2018	70 U	1 U	0.63 J	13	0.3 U	1 U	57,000	1.8 U	0.2 U	1 J	85 U	0.7 U	14,000	7.6	0.67 J	1,000 J	2 U	0.1 U	1,300,000	0.2 U	2 J	8 U	0.08 U
TMW11	TMW11042017	4/26/2017	70 U	1 U	0.38 J	22	0.3 U	1 U	18,000	3.2 J	0.08 J	0.92 J	85 U	0.7 U	3,100	7.7	1.4 J	770 J	14	0.1 U	560,000	0.2 U	2.6 J	3.7 J	0.08 U
TMW11	TMW11102017	10/27/2017	37 J	1 U	0.51 J	28	0.3 U	1 U	20,000	2.4 J	0.2 U	1.8 U	30 J	0.7 U	3,600	0.95 U	0.49 J	1,200 J	15	0.1 U	630,000	0.2 U	3.4 J	2.5 J	0.08 U
TMW11	TMW11042018	5/2/2018	32 J	1 U	1 U	26	0.3 U	1 U	21,000	3.8 J	0.2 U	0.57 J	85 U	0.7 U	3,300	8.1	0.7 J	940 J	17	0.1 U	560,000	0.2 U	3.4 J	3.3 J	0.08 U
TMW11	TMW11102018	10/11/2018	570	1 U	0.57 J	41	0.3 U	1 U	16,000	1.8 U	0.081 J	1.8 U	230	0.7 U	2,300	30	0.59 J	1,500 J	2 U	0.1 U	580,000	0.2 U	5.1 J	16 UJ	0.08 U
TMW13	TMW13042017	4/25/2017	70 U	1 U	1 U	18	0.3 U	1 U	27,000	1.8 U	0.2 U	0.65 J	85 U	0.7 U	4,800	0.41 J	1 U	1,600 J	11	0.1 U	560,000	0.2 U	1.9 J	8 U	0.08 U
TMW13	TMW13102017	10/26/2017	70 U	1 U	1 U	17	0.3 U	1 U	26,000	0.58 J	0.2 U	1.8 U	85 U	0.7 U	5,100	0.95 U	1 U	650 J	11	0.1 U	600,000	0.2 U	2.7 J	2.6 J	0.08 U
TMW13	TMW13042018	5/1/2018	70 U	1 U	1 U	18	0.3 U	1 U	27,000	0.59 J	0.2 U	0.98 J	22 J	0.7 U	5,000	0.95 U	1 U	750 J	12	0.1 U	520,000	0.2 U	3.1 J	2.1 J	0.08 U
TMW13	TMW13102018	10/15/2018	70 U	1 U	1 U	16	0.3 U	1 U	28,000	1 J	0.2 U	0.83 J	85 U	0.7 U	5,100	0.95 U	1 U	580 J	10	0.1 U	560,000	0.2 U	2 U	8 U	0.08 U
TMW15	TMW15042017	4/27/2017	70 U	0.84 J	1 U	22	0.3 U	1 U	18,000	0.93 J	0.2 U	1.8 U	85 U	0.7 U	3,400	0.74 J	0.7 J	490 J	15	0.1 U	530,000	0.2 U	1.9 J	5.7 J	0.08 U
TMW15	TMW15042017DUP	4/27/2017	70 U	1 U	1 U	22	0.3 U	1 U	19,000	0.89 J	0.2 U	1.8 U	85 U	0.7 U	3,500	0.46 J	1 U	400 J	15	0.1 U	530,000	0.2 U	1.7 J	6.7 J	0.08 U
TMW15	TMW15102017	10/26/2017	70 U	1 U	1 U	24	0.3 U	1 U	19,000	0.99 J	0.2 U	1.8 U	23 J	0.7 U	3,700	0.95 U	1 U	550 J	12	0.1 U	570,000	0.2 U	1.9 J	5.7 J	0.08 U

TABLE B-6: SUMMARY OF DISSOLVED METALS ANALYTICAL DETECTIONS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Mercury
			µg/L																						
TMW15	TMW15102017DUP	10/26/2017	70 U	1 U	1 U	21	0.3 U	1 U	18,000	1.2 J	0.2 U	1.8 U	**3,900 J**	0.7 U	3,600	0.95 U	1 U	650 J	12	0.1 U	610,000	0.2 U	1.6 J	4.8 J	0.08 U
	TMW15042018	5/3/2018	25 J	1 U	1 U	20	0.3 U	1 U	19,000	0.83 J	0.2 U	1.4 J	280	0.7 U	3,400	0.95 U	1 U	620 J	12	0.1 U	570,000	0.2 U	2.2 J	5.6 J	0.08 U
	TMW15042018DUP	5/3/2018	70 U	1 U	1 U	22	0.3 U	1 U	19,000	1 J	0.2 U	1.6 J	85 U	0.7 U	3,400	0.38 J	0.38 J	660 J	12	0.1 U	570,000	0.2 U	2.3 J	5.9 J	0.08 U
	TMW15102018	10/16/2018	70 U	1 U	1 U	20	0.3 U	1 U	17,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	3,300	0.95 U	1 U	1,100 J	12	0.1 U	590,000	0.2 U	2 U	8 U	0.08 U
	TMW15102018DUP	10/16/2018	70 U	1 U	1 U	20	0.3 U	1 U	17,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	3,100	0.95 U	1 U	1,100 J	11	0.1 U	570,000	0.2 U	2 U	8 U	0.08 U
TMW21	TMW21042017	4/26/2017	21 J	0.9 J	0.78 J	19	0.1 J	1 U	32,000	1.8 U	0.087 J	3	85 U	0.7 U	7,000	32	0.66 J	800 J	3.6 J	0.1 U	630,000	0.2 U	1.9 J	2.7 J	0.08 U
	TMW21102017	10/25/2017	70 U	1 U	0.63 J	20	0.3 U	1 U	34,000	1.8 U	0.058 J	1.8 J	85 U	0.7 U	7,400	19	1 U	920 J	3 J	0.1 U	600,000	0.2 U	2 U	4 J	0.08 U
	TMW21042018	5/1/2018	84 J	1 U	0.81 J	20	0.3 U	0.3 J	33,000	1.9 J	0.061 J	2.4	70 J	0.7 U	6,800	27	0.53 J	930 J	3.5 J	0.1 U	580,000	0.2 U	2 U	8 U	0.08 U
	TMW21102018	10/9/2018	1,300	1 U	0.82 J	28	0.3 U	1 U	36,000	1.2 J	0.33 J	2.4	840	0.4 J	7,700	35	0.97 J	1,300 J	3.2 J	0.1 U	630,000	0.2 U	3 J	8 U	0.08 U
TMW22	TMW22042017	4/19/2017	820	1 U	1 J	28	0.1 J	1 U	38,000	1.5 J	0.25 J	1.6 J	450	0.7 U	12,000	19	2.1 J	2,500 J	3 J	0.1 U	900,000	0.2 U	5.7 J	2.2 J	0.08 U
	TMW22102017	10/25/2017	70 U	1 U	0.83 J	20	0.3 U	1 U	34,000	1.8 U	0.08 J	1.4 J	85 U	0.7 U	11,000	26	0.34 J	900 J	1.9 J	0.1 U	770,000	0.2 U	2 U	8 U	0.08 U
	TMW22042018	4/25/2018	710	1 U	0.97 J	26	0.3 U	1 U	36,000	1.7 J	0.21 J	1.8 U	660	0.22 J	12,000	16	1.5 J	920 J	2.3 J	0.1 U	790,000	0.2 U	5.4 J	4.5 J	0.08 U
	TMW22102018	10/11/2018	70 U	1 U	0.87 J	18	0.3 U	1 U	35,000	1.8 U	0.2 U	1.9 J	85 U	0.7 U	11,000	0.95 U	1 U	890 J	2.2 J	0.1 U	810,000	0.2 U	2 U	8 U	0.08 U
TMW23	TMW23042017	4/20/2017	**11,000**	1 U	2.5 J	150	0.44 J	1 U	22,000	8 J	2.9	4.8	**7,300**	3.5	7,000	180 J	6	3,000 J	1.2 J	0.1 U	740,000	0.068 J	13	20	0.08 UJ
	TMW23102017	10/19/2017	70 U	1 U	1 J	20	0.3 U	1 U	16,000	0.8 J	0.2 U	0.8 J	85 U	0.7 U	4,700	1.5 J	1 U	840 J	2 U	0.1 U	800,000	0.2 U	1.5 J	14 J	0.08 U
	TMW23042018	4/25/2018	70 U	1 U	1.1 J	21	0.3 U	1 U	17,000	1.2 J	0.2 U	1.8 U	85 U	0.7 U	4,500	0.95 U	0.36 J	550 J	2 U	0.1 U	690,000	0.2 U	2.1 J	8 U	0.08 U
	TMW23102018	10/11/2018	510	1 U	0.87 J	22	0.3 U	1 U	17,000	1.8 U	0.11 J	1.4 J	310	0.7 U	4,500	5	1 U	760 J	2 U	0.1 U	640,000	0.2 U	2 U	8 U	0.08 U
TMW24	TMW24042017	4/25/2017	70 U	1 U	0.88 J	39	0.3 U	1 U	39,000	1.8 U	0.23 J	1.9 J	85 U	0.7 U	9,900	140	1 U	2,800 J	2 U	0.1 U	1,000,000	0.2 U	2 U	4.9 J	0.08 U
	TMW24102017	10/24/2017	70 U	1 U	0.87 J	36	0.3 U	1 U	36,000	1.8 U	0.32 J	0.93 J	43 J	0.7 U	9,100	130	0.91 J	840 J	2 U	0.1 U	1,000,000	0.2 U	2 U	8 U	0.08 U
	TMW24042018	4/30/2018	70 U	1 U	0.97 J	38	0.3 U	1 U	40,000	1.8 U	0.21 J	1.8 U	85 U	0.7 U	10,000	160	1.1 J	540 J	0.88 J	0.1 U	980,000	0.2 U	1.3 J	8 U	0.08 U
	TMW24102018	10/18/2018	70 U	1 J	1.3 J	36	0.3 U	1 U	42,000	1.8 U	0.2 U	1.6 J	85 U	0.7 U	11,000	140	2.4 J	380 J	2 U	0.1 U	990,000	0.2 U	2 U	8 U	0.08 U
TMW25	TMW25042017	4/27/2017	70 U	1 U	0.65 J	11	0.3 U	1 U	51,000	1.8 U	0.096 J	1 J	85 U	0.7 U	11,000	140	1 J	430 J	2 U	0.1 U	890,000	0.2 U	3.3 J	2.5 J	0.08 U
	TMW25102017	10/25/2017	70 U	1 U	0.58 J	12	0.3 U	1 U	51,000	1.8 U	0.17 J	1.6 J	24 J	0.7 U	11,000	**200**	0.48 J	450 J	2 U	0.1 U	900,000	0.2 U	2 U	2.5 J	0.08 U
	TMW25042018	4/30/2018	70 U	1 U	0.45 J	11	0.3 U	1 U	52,000	3.1 J	0.15 J	0.97 J	85 U	0.7 U	11,000	170	0.79 J	450 J	0.88 J	0.1 U	850,000	0.2 U	4 J	2.6 J	0.08 U
	TMW25102018	10/16/2018	310	1 U	1 J	19	0.3 U	1 U	48,000	1.8 U	0.62 J	1.8 U	970	0.7 U	10,000	**850**	2.7 J	1,600 J	2 U	0.1 U	920,000	0.2 U	5.6 J	40	0.08 U
TMW26	TMW26042017	4/20/2017	70 U	1 U	1.2 J	18	0.3 U	1 U	18,000	1.8 U	0.28 J	2.2	85 U	0.7 U	7,000	120 J	2.5 J	840 J	2 U	0.1 U	830,000	0.2 U	1.5 J	8 U	0.08 UJ
	TMW26042017DUP	4/20/2017	70 U	1 U	1.1 J	18	0.3 U	1 U	18,000	1.8 U	0.28 J	1.9 J	85 U	0.7 U	7,100	120 J	2 J	850 J	0.7 J	0.1 U	820,000	0.2 U	1.6 J	8 U	0.08 UJ
	TMW26102017	10/17/2017	500	1 U	0.98 J	24	0.3 U	1 U	17,000	1.8 U	0.33 J	2.5	220	0.7 U	6,700	110	1.9 J	680 J	2 U	0.1 U	810,000	0.2 U	2 U	8 U	0.08 U
	TMW26102017DUP	10/17/2017	510	1 U	1.3 J	24	0.3 U	1 U	17,000	1.8 U	0.36 J	2.5	220	0.7 U	6,900	110	1.8 J	810 J	2 U	0.1 U	850,000	0.2 U	2 U	2 J	0.08 U
	TMW26042018	4/26/2018	70 U	1 U	1.2 J	21	0.3 U	1 U	18,000	1.8 U	0.27 J	2.6	85 U	0.7 U	7,300	130	2.1 J	510 J	2 U	0.1 U	850,000	0.2 U	3.4 J	8 U	0.08 U
	TMW26042018DUP	4/26/2018	70 U	1 U	1 J	18	0.3 U	1 U	19,000	1.8 U	0.29 J	2.7	37 J	0.7 U	7,700	120	2.2 J	540 J	2 U	0.1 U	910,000	0.2 U	2.8 J	8 U	0.08 U
	TMW26102018	10/10/2018	75 J	1 U	1.1 J	17	0.3 U	1 U	19,000	1.8 U	0.23 J	2.1	56 J	0.7 U	7,400	110	1.7 J	680 J	2 U	0.1 U	810,000	0.2 U	2.6 J	8 U	0.08 U
	TMW26102018DUP	10/10/2018	57 J	1 U	1.2 J	19	0.3 U	1 U	18,000	1.8 U	0.3 J	2.2	92 J	0.7 U	7,200	120	2.3 J	710 J	2 U	0.29 J	800,000	0.2 U	3 J	8 U	0.08 U
TMW27	TMW27042017	4/21/2017	70 U	1 U	**21**	120	0.3 U	1 U	23,000	1.8 U	0.18 J	1.8 U	490	0.7 U	6,700	**560**	0.75 J	850 J	1.3 J	0.1 U	330,000	0.2 U	2 U	3.2 J	0.08 U
	TMW27102017	10/20/2017	70 U	1 U	**19**	130	0.3 U	1 U	24,000	1.8 U	0.16 J	1.8 U	560	0.7 U	6,400	**550**	0.75 J	1,500 J	2 U	0.1 U	310,000	0.2 U	2 U	2.2 J	0.08 U
TMW27	TMW27042018	4/26/2018	70 U	1 U	**20**	130	0.3 U	1 U	26,000	1.8 U	0.19 J	0.64 J	580	0.7 U	6,800	**590**	1.1 J	550 J	2 U	0.1 U	360,000	0.2 U	2 U	39	0.08 U
	TMW27102018	10/10/2018	70 U	1 U	**18**	120	0.3 U	1 U	26,000	1.8 U	0.17 J	1.8 U	600	0.7 U	6,600	**540**	0.58 J	810 J	2 U	0.1 U	360,000	0.2 U	2 U	8 U	0.08 U
TMW28	TMW28042017	4/24/2017	35 J	1 U	1 U	57 J	0.3 UJ	1 U	250,000	1.8 U	0.31 J	1.8 UJ	720	0.7 UJ	68,000	**940 J**	1 J	2,600 J	2 U	0.1 UJ	490,000	0.2 U	2 U	2.5 J	0.08 UJ
	TMW28102017	10/20/2017	70 U	1 U	1 U	53	0.3 U	1 U	110,000	1.8 U	0.089 J	1.8 U	350	0.7 U	33,000	**410**	1 U	2,300 J	2 U	0.1 U	320,000	0.2 U	2 U	8 U	0.08 U
	TMW28042018	4/26/2018	70 U	1 U	1 U	51	0.3 U	1 U	120,000	1.8 U	0.21 J	1.8 U	310	0.7 U	38,000	**450**	0.93 J	1,200 J	2 U	0.1 U	360,000	0.2 U	2 U	8 U	0.08 U
	TMW28102018	10/9/2018	70 U	1 U	1 U	48	0.3 U	1 U	100,000	1.8 U	0.12 J	1.8 U	320	0.7 U	32,000	**350**	0.54 J	1,300 J	2 U	0.1 U	370,000	0.2 U	2 U	8 U	0.08 U
TMW29	TMW29042017	4/20/2017	**7,900**	1 U	2.3 J	110	0.53 J	1 U	46,000	7 J	2.5	3.6	**4,900**	3.1	9,500	130 J	5.5	2,900 J	22 J	0.036 J	570,000	0.059 J	13	18 J	0.08 UJ
	TMW29102017	10/20/2017	67 J	1 U	1.1 J	20	0.3 U	1 U	38,000	0.81 J	0.2 U	0.91 J	36 J	0.7 U	7,100	1 J	0.43 J	3,100	19	0.1 U	540,000	0.2 U	4.4 J	9 J	0.08 U
	TMW29042018	4/23/2018	1,300	1 U	1.2 J	28	0.3 U	1 U	39,000	1.8 J	0.22 J	0.82 J	740	0.36 J	7,100	14	0.8 J	1,100 J	22	0.1 U	590,000	0.2 U	5.9 J	2.1 J	0.08 U
	TMW29102018	10/9/2018	230 J	1 U	2.3 J	44	0.3 U	0.5 J	38,000	3.1 J	0.085 J	0.96 J	130	8.4	7,200	2.9 J	0.55 J	1,100 J	18	0.17 J	520,000	0.2 U	4 J	8 U	0.08 U
TMW31S	TMW31S042017	4/19/2017	520	1 U	1 U	21	0.3 U	1 U	110,000	0.56 J	0.34 J	3.5	280	0.7 U	20,000	150	2 J	1,700 J	9	0.1 U	530,000	0.2 U	3 J	5.4 J	0.08 U
	TMW31S102017	10/25/2017	70 U	1 U	1 U	15	0.3 U	1 U	110,000	0.68 J	0.2 U	0.88 J	85 U	0.7 U	21,000	15	1 U	560 J	9	0.1 U	500,000	0.2 U	2 U	8 U	0.08 U
	TMW31S042018	4/25/2018	70 U	1 U	1 U	14	0.3 U	1 U	120,000	1.2 J	0.2 U	1.8 U	85 U	0.7 U	21,000	13	1 U	330 J	9.8	0.1 U	530,000	0.2 U	1.8 J	2.2 J	0.08 U
	TMW31S102018	10/11/2018	70 U	1 U	1 U	14	0.3 U	1 U	110,000	1.8 U	0.2 U	0.62 J	85 U	0.7 U	21,000	10	1 U	470 J	8.8	0.1 U	510,000	0.2 U	2 U	8 U	0.08 U
TMW33	TMW33042017	4/20/2017	86 J	1 U	0.81 J	20	0.36 J	1 U	110,000	0.66 J	0.26 J	3.4	85 U	0.7 U	31,000	130 J	2.7 J	6,300 J	0.86 J	0.042 J	2,500,000	0.07 J	2 J	8 U	0.08 UJ

TABLE B-6: SUMMARY OF DISSOLVED METALS ANALYTICAL DETECTIONS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Mercury
			µg/L																						
TMW33	TMW33102017	10/20/2017	70 U	1 U	0.8 J	17	0.3 U	1 U	110,000	2 J	0.2 U	3.6	85 U	0.7 U	29,000	180	1.4 J	15,000	2 U	0.1 U	2,200,000	0.2 U	2.7 J	3.5 J	0.08 U
	TMW33042018	4/25/2018	1,200	1 U	0.93 J	28	0.3 U	1 U	100,000	1.1 J	0.38 J	1.8 U	800	0.56 J	30,000	140	2 J	1,400 J	2 U	0.1 U	2,200,000	0.2 U	4.8 J	4.7 J	0.08 U
	TMW33102018	10/10/2018	70 U	1 U	0.66 J	16	0.3 U	1 U	100,000	1.8 U	0.11 J	3.3	68 J	0.7 U	31,000	61	1.3 J	1,500 J	2 U	0.1 U	1,700,000	0.2 U	2.5 J	8 U	0.08 U
TMW34	TMW34042017	4/24/2017	70 U	1 U	0.33 J	14 J	0.3 UJ	1 U	120,000	1.8 U	0.14 J	1.8 UJ	85 U	0.7 UJ	24,000	130 J	0.53 J	3,200	**130**	0.1 UJ	1,400,000	0.2 U	1.1 J	8 UJ	0.08 UJ
	TMW34042017DUP	4/24/2017	70 U	1 U	1 U	12 J	0.3 UJ	1 U	120,000	1.8 U	0.18 J	1.8 UJ	85 U	0.23 J	27,000	140 J	0.56 J	3,000	**130**	0.1 UJ	1,400,000	0.2 U	1 J	8 UJ	0.08 UJ
	TMW34102017	10/25/2017	240 J	1 U	0.47 J	15	0.3 U	1 U	120,000	1.8 U	0.23 J	1.7 J	180 J	0.7 U	26,000	120	1 U	1,200 J	**120**	0.1 U	1,300,000	0.2 U	2 U	4.2 J	0.08 U
	TMW34102017DUP	10/25/2017	430	1 U	0.39 J	17	0.3 U	1 U	130,000	1.8 U	0.27 J	1.5 J	320 J	0.21 J	27,000	120	1 U	1,400 J	**120**	0.1 U	1,400,000	0.2 U	2 U	2.7 J	0.08 U
	TMW34042018	4/27/2018	2,500 J	1 U	0.51 J	35 J	0.13 J	1 U	110,000	1.2 J	0.6 J	1.9 J	**1,500 J**	0.64 J	24,000	160 J	1.4 J	2,200 J	**120**	0.1 U	1,400,000	0.2 U	3.4 J	8 U	0.08 U
	TMW34042018DUP	4/27/2018	**5,000 J**	1 U	0.93 J	64 J	0.13 J	1 U	110,000	2.7 J	1.3	2.5	**3,300 J**	1.7 J	24,000	**230 J**	2.5 J	2,700 J	**120**	0.1 U	1,300,000	0.052 J	6.2	8 U	0.08 U
	TMW34102018	10/15/2018	29 J	1 U	0.38 J	11	0.3 U	1 U	130,000	1.8 U	0.14 J	1.3 J	85 U	0.7 U	28,000	120	0.87 J	1,200 J	**110**	0.1 U	1,200,000	0.2 U	2 U	2.9 J	0.08 U
	TMW34102018DUP	10/15/2018	24 J	1 U	0.43 J	11	0.3 U	1 U	130,000	1.8 U	0.14 J	2.3	85 U	0.7 U	28,000	130	0.82 J	1,100 J	**110**	0.1 U	1,200,000	0.2 U	2 U	5 J	0.08 U
TMW35	TMW35042017	4/24/2017	70 U	1 U	0.44 J	12 J	0.3 UJ	1 U	79,000	1.8 U	0.18 J	1.6 J	85 U	0.7 UJ	16,000	160 J	1.4 J	2,600 J	15	0.1 UJ	1,200,000	0.2 U	1.8 J	2.5 J	0.08 UJ
	TMW35102017	10/23/2017	70 U	1 U	0.53 J	11	0.3 U	1 U	76,000	1.8 U	0.2 J	1.8 U	85 U	0.7 U	15,000	150	0.65 J	790 J	10	0.1 U	1,200,000	0.2 U	1.5 J	8 U	0.08 U
	TMW35042018	4/27/2018	70 U	1 U	0.5 J	12	0.3 U	1 U	68,000	1.8 U	0.2 U	3.8	85 U	0.7 U	13,000	150	0.98 J	940 J	8.4	0.1 U	1,100,000	0.2 U	1.9 J	8 U	0.08 U
	TMW35102018	10/15/2018	70 U	1 U	0.62 J	11	0.3 U	1 U	73,000	1.8 U	0.16 J	1.6 J	85 U	0.7 U	14,000	0.95 U	0.99 J	600 J	7.6	0.1 U	1,000,000	0.2 U	2 U	8 U	0.08 U
TMW39S	TMW39S042017	4/19/2017	70 U	1 U	0.49 J	16	0.3 U	1 U	81,000	2 J	0.057 J	0.92 J	85 U	0.7 U	17,000	2.3 J	0.87 J	3,200 J	14	0.1 U	920,000	0.2 U	3.6 J	8 U	0.08 U
	TMW39S102017	10/18/2017	57 J	1 U	0.41 J	15	0.3 U	1 U	70,000	1.6 J	0.054 J	1.1 J	58 J	0.7 U	16,000	3.4 J	0.48 J	960 J	12	0.1 U	860,000	0.2 U	2 J	8 U	0.08 U
	TMW39S042018	4/25/2018	2,800	1 U	0.4 J	36	0.22 J	1 U	81,000	2.8 J	0.52 J	1.8 U	**1,600**	0.75 J	18,000	43	1.9 J	1,100 J	11	0.1 U	820,000	0.2 U	5.9 J	3.9 J	0.08 U
	TMW39S102018	10/11/2018	70 U	1 U	0.35 J	13	0.3 U	1 U	80,000	1.8 U	0.2 U	0.61 J	33 J	0.7 U	18,000	2.7 J	1 U	1,000 J	12	0.1 U	910,000	0.2 U	2 U	8 U	0.08 U
TMW40S	TMW40S042017	4/24/2017	73 J	1.2 J	**10**	27	0.084 J	1 U	64,000	0.58 J	0.11 J	1.1 J	85 U	0.7 U	10,000	15	1 U	2,700 J	**63**	0.1 U	920,000	0.052 J	35	2.7 J	0.08 U
	TMW40S102017	10/27/2017	1,200	1 U	9.7	38	0.3 U	1 U	59,000	1.7 J	0.39 J	1.8 J	740	1.1 J	11,000	28	1.7 J	850 J	**68**	0.1 U	1,000,000	0.2 U	36	9.9 J	0.08 U
	TMW40S042018	4/27/2018	**11,000**	1 U	9.7	120	0.83 J	1 U	68,000	5.3 J	1.8	2.9	**5,500**	7.8	13,000	150	3.9	1,600 J	**74**	0.1 U	960,000	0.2 U	46	57	0.08 U
	TMW40S102018	10/9/2018	**13,000**	1 U	9	150	0.96 J	1 U	69,000	4 J	1.5	2.9	**6,000**	10	13,000	180	4.2	1,700 J	**64**	0.1 U	910,000	0.2 U	41	68	0.08 U
TMW41	TMW41042017	4/19/2017	70 U	1 U	0.62 J	11	0.3 U	1 U	15,000	1.2 J	0.2 U	0.56 J	85 U	0.7 U	3,700	0.95 U	0.49 J	2,500 J	0.97 J	0.1 U	850,000	0.2 U	6.8	8 U	0.08 U
	TMW41102017	10/25/2017	70 U	1 U	0.49 J	11	0.3 U	1 U	16,000	0.69 J	0.2 U	0.74 J	85 U	0.7 U	3,900	0.83 J	1 U	990 J	2 U	0.1 U	830,000	0.2 U	5.6 J	8 U	0.08 U
	TMW41042018	4/25/2018	110 J	1 U	0.43 J	11	0.3 U	1 U	15,000	0.74 J	0.2 U	1.8 U	85 U	0.7 U	3,800	0.95 U	0.4 J	610 J	2 U	0.1 U	790,000	0.2 U	6.7	5 J	0.08 U
	TMW41102018	10/11/2018	70 U	1 U	1 U	9.9	0.3 U	1 U	15,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	3,700	0.95 U	1 U	900 J	2 U	0.1 U	860,000	0.2 U	5.3 J	8 U	0.08 U
TMW43	TMW43042017	4/27/2017	70 U	1 U	1 U	19	0.3 U	1 U	34,000	1.8 U	0.088 J	0.57 J	85 U	0.7 U	6,300	51	0.61 J	790 J	7.3	0.1 U	580,000	0.2 U	1.6 J	2.9 J	0.08 U
	TMW43042017DUP	4/27/2017	50 J	1 U	1 U	18	0.3 U	1 U	32,000	1.8 U	0.1 J	1.8 U	85 U	0.7 U	6,000	49	0.32 J	750 J	6	0.1 U	540,000	0.2 U	1.5 J	8 U	0.08 U
	TMW43102017	10/24/2017	70 U	1 U	1 U	17	0.3 U	1 U	32,000	1.8 U	0.078 J	0.76 J	85 U	0.7 U	5,800	47	0.69 J	740 J	6.8	0.1 U	580,000	0.2 U	2 U	8 U	0.08 U
TMW43	TMW43102017DUP	10/24/2017	70 U	1 U	1 U	18	0.3 U	1 U	33,000	1.8 U	0.19 J	1.8 U	85 U	0.7 U	5,900	45	0.61 J	960 J	7	0.07 J	590,000	0.2 U	2 U	8 U	0.08 U
	TMW43042018	5/2/2018	70 U	1 U	1 U	20	0.3 U	1 U	35,000	1.1 J	0.085 J	1.8 U	85 U	0.7 U	6,400	50	0.49 J	950 J	6.5	0.1 U	550,000	0.2 U	1.9 J	8 U	0.08 U
	TMW43042018DUP	5/2/2018	70 U	1 U	1 U	19	0.3 U	1 U	36,000	1.6 J	0.13 J	1.8 U	85 U	0.7 U	6,500	50	0.46 J	930 J	6.5	0.1 U	540,000	0.2 U	1.8 J	8 U	0.08 U
	TMW43102018	10/16/2018	70 U	1 U	1 U	18	0.3 U	1 U	31,000	1.8 U	0.12 J	1.8 U	85 U	0.7 U	5,600	51	1 U	1,200 J	5.9	0.1 U	580,000	0.2 U	2 U	8 U	0.08 U
	TMW43102018DUP	10/16/2018	70 U	1 U	1 U	17	0.3 U	1 U	32,000	1.8 U	0.078 J	1.8 U	85 U	0.7 U	5,800	50	1 U	1,400 J	5.8	0.1 U	600,000	0.2 U	2 U	8 U	0.08 U
TMW44	TMW44042017	4/19/2017	30 J	1 U	0.68 J	16	0.3 U	1 U	35,000	1.8 U	0.2 U	0.8 J	85 U	0.7 U	11,000	5.8	0.31 J	1,500 J	2 J	0.1 U	710,000	0.2 U	3.6 J	8 U	0.08 U
	TMW44102017	10/25/2017	42 J	1 U	0.74 J	16	0.3 U	1 U	35,000	1.8 U	0.2 U	0.82 J	27 J	0.7 U	12,000	5.5	1 U	710 J	2 U	0.1 U	740,000	0.2 U	2 U	8 U	0.08 U
	TMW44042018	4/25/2018	810	1 U	0.93 J	22	0.3 U	1 U	35,000	0.53 J	0.26 J	1.8 U	500	0.34 J	12,000	27	0.67 J	490 J	2 J	0.1 U	680,000	0.2 U	4.2 J	3 J	0.08 U
	TMW44102018	10/11/2018	260 J	1 U	0.75 J	16	0.3 U	1 U	36,000	1.8 U	0.078 J	1.8 U	130	0.7 U	12,000	8.3	1 U	710 J	2.1 J	0.1 U	790,000	0.2 U	2 U	8 U	0.08 U
TMW45	TMW45042017	4/28/2017	70 U	1 U	0.96 J	65	0.3 U	1 U	27,000	1.8 U	0.06 J	1.6 J	85 U	0.36 J	6,900	12	1.1 J	820 J	2 U	0.1 U	870,000	0.2 U	3.8 J	2 J	0.08 U
	TMW45102017	10/27/2017	70 U	1 U	0.77 J	70	0.3 U	1 U	26,000	1.8 U	0.2 U	1.6 J	85 U	0.7 U	7,300	20	1 J	980 J	0.96 J	0.1 U	920,000	0.2 U	3.7 J	8 U	0.08 U
	TMW45042018	5/2/2018	70 U	1 U	0.98 J	71	0.3 U	1 U	30,000	1.8 U	0.074 J	5	85 U	0.7 U	7,500	15	1.1 J	1,100 J	0.93 J	0.1 U	880,000	0.2 U	4.3 J	6 J	0.08 U
	TMW45102018	10/17/2018	70 U	1 U	0.68 J	64	0.3 U	1 U	29,000	1.8 U	0.2 U	1.5 J	85 U	0.7 U	7,400	33	0.92 J	560 J	0.85 J	0.1 U	940,000	0.2 U	2 U	8 U	0.08 U
TMW46	TMW46042017	4/20/2017	29 J	1 U	0.38 J	11	0.3 U	1 U	82,000	1.8 U	0.058 J	1.2 J	85 U	0.7 U	19,000	0.95 UJ	1 U	1,500 J	**130 J**	0.1 U	1,300,000	0.2 U	1 J	8 U	0.08 UJ
	TMW46102017	10/25/2017	320	1 U	0.49 J	13	0.3 U	1 U	80,000	1.8 U	0.16 J	1.2 J	220	0.18 J	20,000	5.4	1 U	870 J	**120**	0.1 U	1,200,000	0.2 U	2 U	2.4 J	0.08 U
	TMW46042018	4/25/2018	70 U	1 U	0.34 J	9.6	0.3 U	1 U	83,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	20,000	0.95 U	1 U	410 J	**110**	0.1 U	1,100,000	0.2 U	2.7 J	8 U	0.08 U
	TMW46102018	10/10/2018	89 J	1 U	0.45 J	12	0.3 U	1 U	85,000	1.8 U	0.12 J	0.95 J	59 J	0.7 U	20,000	3.4 J	0.47 J	750 J	**110**	0.1 U	1,100,000	0.2 U	2.2 J	8 U	0.08 U
TMW47	TMW47042017	4/25/2017	70 U	1 U	0.37 J	14	0.092 J	1 U	6,300	1.8 U	0.076 J	1.8 U	85 U	0.7 U	680	40	1 U	2,000 J	2 U	0.1 U	580,000	0.2 U	2 U	8 U	0.08 U
	TMW47102017	10/26/2017	70 U	1 U	0.39 J	13	0.3 U	1 U	5,800	1.8 U	0.057 J	1.8 U	85 U	0.7 U	670	38	1 U	1,300 J	0.71 J	0.1 U	560,000	0.2 U	2 U	2.3 J	0.08 U

TABLE B-6: SUMMARY OF DISSOLVED METALS ANALYTICAL DETECTIONS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Mercury
			µg/L																						
TMW47	TMW47042018	5/3/2018	21 J	1 U	0.34 J	14	0.3 U	1 U	6,300	1.8 U	0.2 U	1.8 U	85 U	0.7 U	680	40	1 U	1,100 J	2 U	0.1 U	580,000	0.2 U	2 U	8 U	0.08 U
	TMW47102018	10/17/2018	49 J	1 U	0.61 J	12	0.3 U	1 U	5,800	1.8 U	0.2 U	1.8 U	42 J	0.7 U	650	36	0.41 J	950 J	2 U	0.1 U	540,000	0.2 U	2 U	8 U	0.08 U
BEDROCK WELLS																									
BGMW07	BGMW07042018	4/26/2018	100 J	1.4 J	1 U	98	0.3 U	1 U	440,000	1.2 J	2.3	1.8 U	170	0.7 U	67,000	**1,500**	16	11,000	2 U	0.1 U	4,600,000	0.2 U	2 U	8 U	0.08 U
	BGMW07102018	10/12/2018	350	1 U	0.54 J	49	0.3 U	1 U	610,000	0.67 J	4	1.8 U	220	0.7 U	78,000	**1,900**	2.4 J	10,000	2 U	0.1 U	2,000,000	0.2 U	0.93 J	8 U	0.08 U
BGMW08	BGMW08072018	7/18/2018	49 J	0.86 J	0.38 J	31	0.3 U	1 U	100,000	1.8 U	0.32 J	1.8 U	85 U	0.7 U	13,000	**330**	1 U	4,400	2 U	0.1 U	2,000,000	0.2 U	2 U	8 U	0.08 U
	BGMW08102018	10/9/2018	**8,400**	1 U	0.98 J	82	0.3 U	1 U	230,000	5.3 J	2.1	1.2 J	**4,900**	0.7 U	30,000	**690**	5.2	11,000	2 U	0.1 U	2,700,000	0.2 U	6	8 U	0.08 U
BGMW09	BGMW09042018	5/1/2018	**130,000**	1 U	**10**	670	**5.5**	1 U	86,000	**140**	34	28	**110,000**	**27**	39,000	**1,400**	84	16,000	2 U	0.046 J	1,200,000	0.35 J	**98**	250	0.08 U
	BGMW09102018	10/10/2018	99 J	1 U	2.2 J	20	0.3 U	1 U	31,000	1.8 U	0.15 J	1.8 U	50 J	0.7 U	3,600	70	0.56 J	2,500 J	2 U	0.1 U	1,100,000	0.2 U	6.1	8 UJ	0.08 U
	BGMW09102018DUP1	10/10/2018	49 J	1 U	2.4 J	20	0.3 U	1 U	32,000	1.8 U	0.19 J	1.8 U	35 J	0.7 U	3,800	75	0.77 J	2,500 J	2 U	0.1 U	1,200,000	0.2 U	6.4	8 U	0.08 U
	BGMW09102018DUP2	10/16/2018	**11,000 J**	1 U	2.1 J	36 J	0.13 J	1 U	32,000	6.2 J	1.8	1.8 U	**6,300 J**	1.3 J	6,100 J	120 J	4.3	4,000	2 U	0.1 U	1,300,000	0.2 U	10	8 U	0.08 U
	BGMW09102018DUP3	10/16/2018	2,000 J	1 U	1.8 J	20 J	0.3 U	1 U	29,000	1.8 U	0.4 J	1.8 U	**1,000 J**	0.7 U	3,800 J	71 J	1 U	2,900 J	0.89 J	0.1 U	1,200,000	0.2 U	2 U	8 U	0.08 U
BGMW10	BGMW10042018	4/27/2018	86 J	1.3 J	1 U	10	0.3 U	1 U	8,200	2 J	0.067 J	0.7 J	88 J	0.7 U	970	0.95 U	1.3 J	1,000 J	2 U	0.1 U	650,000	0.2 U	2 U	8 U	0.08 U
	BGMW10102018	10/11/2018	70 U	1 U	1 U	7.2	0.3 U	1 U	7,800	1.8 U	0.2 U	1.8 U	85 U	0.7 U	890	20	1 U	900 J	2 U	0.1 U	630,000	0.2 U	2 U	8 U	0.08 U
TMW02	TMW02042017	4/24/2017	70 U	1 U	1.1 J	8.4 J	0.3 UJ	1 U	22,000	1.8 U	0.2 U	1.8 UJ	180	0.7 UJ	2,800	0.95 UJ	1 U	3,500	**82**	0.1 UJ	1,100,000	0.2 U	43	2.4 J	0.08 UJ
	TMW02102017	10/24/2017	70 U	1 U	1.1 J	7.7	0.3 U	1 U	22,000	1.8 U	0.2 U	1.8 J	85 U	0.7 U	2,600	0.48 J	1 U	1,700 J	**75**	0.1 U	1,100,000	0.2 U	38	34	0.08 U
	TMW02042018	5/1/2018	70 U	1 U	1.1 J	9	0.3 U	1 U	23,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	2,700	1 J	1 U	1,900 J	**84**	0.1 U	980,000	0.2 U	48	4.4 J	0.08 U
	TMW02102018	10/16/2018	51 J	1 U	1 J	11	0.3 U	1 U	22,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	2,700	2.9 J	1 U	2,200 J	**77**	0.1 U	1,100,000	0.2 U	41	8 U	0.08 U
TMW14A	TMW14A042017	4/27/2017	70 U	1 U	0.64 J	17	0.3 U	1 U	2,900	1.8 U	0.2 U	1.8 U	85 U	0.7 U	350 J	11	0.8 J	620 J	2 U	0.1 U	400,000	0.2 U	2 U	5 J	0.08 U
	TMW14A102017	10/26/2017	26 J	1 U	0.52 J	19	0.3 U	1 U	3,000	1.8 U	0.2 U	1.8 U	31 J	0.7 U	380 J	9.7	1 U	640 J	2 U	0.1 U	430,000	0.2 U	2 U	8 U	0.08 U
	TMW14A102018	10/15/2018	20 J	1 U	0.66 J	18	0.3 U	1 U	3,300	1.8 U	0.2 U	5.7	85 U	0.7 U	390 J	13	1.8 J	770 J	2 U	0.1 U	430,000	0.2 U	2 U	2.2 J	0.08 U
TMW16	TMW16042017	4/20/2017	53 J	1 U	0.38 J	16	0.3 U	1 U	3,900	1.8 U	0.28 J	1.8 U	85 U	0.7 U	410 J	8.7 J	13	550 J	0.97 J	0.041 J	440,000	0.2 U	17	8 U	0.08 UJ
	TMW16102017	10/20/2017	29 J	1 U	1 U	13	0.3 U	1 U	3,900	0.59 J	0.2 J	1.8 U	85 U	0.7 U	420 J	5.4	9.9	2,000 J	2 U	0.1 U	410,000	0.2 U	7.7	2.7 J	0.08 U
	TMW16042018	4/25/2018	2,400	1 U	0.33 J	33	0.3 U	1 U	4,600	4.8 J	0.9 J	1.8 U	**1,300**	0.54 J	1,100	23	21	1,000 J	2 U	0.19 J	430,000	0.2 U	14	11 J	0.08 U
	TMW16102018	10/19/2018	88 J	1 U	1 U	12	0.3 U	1 U	4,200	3.4 J	0.2 U	0.56 J	85 U	0.7 U	450 J	4.4	6.4	650 J	2 U	0.1 U	450,000	0.2 U	2 U	8 U	0.08 U
TMW17	TMW17042017	4/27/2017	93 J	1 U	1 U	14	0.3 U	1 U	3,300	1.8 U	0.2 U	1.8 U	85 U	0.7 U	500	8.5	0.65 J	870 J	2 U	0.1 U	420,000	0.2 U	2 U	8 U	0.08 U
	TMW17102017	10/26/2017	58 J	1 U	1 U	13	0.3 U	1 U	3,300	1.8 U	0.2 U	1.8 U	85 U	0.7 U	540	8.4	1 U	1,100 J	2 U	0.1 U	440,000	0.2 U	2 U	2.7 J	0.08 U
	TMW17042018	5/3/2018	85 J	1 U	1 U	15	0.3 U	0.46 J	3,700	1.8 U	0.2 U	1.8 U	32 J	0.7 U	520	10	0.3 J	1,000 J	2 U	0.1 U	460,000	0.2 U	2 U	8 U	0.08 U
	TMW17102018	10/18/2018	82 J	1 U	1 U	13	0.3 U	1 U	3,600	1.8 U	0.2 U	1.8 U	85 U	0.7 U	540	9.7	0.58 J	760 J	2 U	0.1 U	440,000	0.2 U	2 U	8 U	0.08 U
TMW18	TMW18042017	4/20/2017	140 J	1 U	1.5 J	15	0.3 U	1 U	6,900	0.76 J	0.2 U	1.8 U	85 U	0.42 J	880	5.7 J	0.4 J	3,300 J	1.2 J	0.1 U	670,000	0.2 U	17	8 U	0.08 UJ
	TMW18102017	10/19/2017	130 J	1 U	2.8 J	14	0.3 U	1 U	6,400	1.5 J	0.2 U	1.8 U	85 U	0.34 J	980	6.2	1 U	3,100	2 U	0.1 U	690,000	0.2 U	21	6.8 J	0.08 U
	TMW18042018	4/25/2018	240 J	1 U	0.73 J	14	0.3 U	1 U	8,300	1.8 U	0.2 U	1.8 U	24 J	0.31 J	630	2.9 J	0.76 J	3,500	2 U	0.1 U	640,000	0.2 U	9.9	2.2 J	0.08 U
	TMW18102018	10/18/2018	610	0.48 J	1.2 J	18	0.3 U	1 U	7,300	2.5 J	0.086 J	1.2 J	240	0.77 J	1,100	11	1 J	2,700 J	2 U	0.055 J	620,000	0.2 U	17	8 U	0.08 U
TMW19	TMW19042017	4/20/2017	69 J	1 U	1 U	7.6	0.3 U	1 U	9,400	1.8 U	0.084 J	0.83 J	85 U	0.19 J	1,000	19 J	2.4 J	1,200 J	0.93 J	0.1 U	680,000	0.2 U	5.7 J	8 U	0.08 UJ
	TMW19102017	10/19/2017	59 J	1 U	1 U	7.2	0.3 U	1 U	8,800	1.8 U	0.2 U	1.8 U	85 U	0.7 U	1,100	17	0.31 J	1,200 J	2 U	0.1 U	700,000	0.2 U	6.6	2.7 J	0.08 U
	TMW19042018	4/25/2018	320	1 U	1 U	7	0.3 U	1 U	10,000	1.8 U	0.14 J	1.8 U	890	0.23 J	1,100	18	2.2 J	1,000 J	2 U	0.1 U	660,000	0.2 U	6.3	3.8 J	0.08 U
TMW19	TMW19102018	10/18/2018	1,300	1 U	1 U	7.6	0.3 U	1 U	10,000	0.7 J	0.2 U	1.8 U	590	0.7 U	1,300	17	1.4 J	1,000 J	2 U	0.1 U	670,000	0.2 U	5.2 J	28	0.08 U
TMW30	TMW30042017	4/19/2017	70 U	1 U	0.78 J	9.3	0.3 U	1 U	58,000	1.8 U	0.066 J	0.7 J	85 U	0.7 U	12,000	0.95 U	0.69 J	1,700 J	7	0.1 U	460,000	0.2 U	13	2.2 J	0.08 U
	TMW30102017	10/25/2017	70 U	1 U	0.78 J	8.8	0.3 U	1 U	56,000	1.8 U	0.2 U	1.3 J	85 U	0.7 U	12,000	0.52 J	1 U	870 J	8	0.1 U	410,000	0.2 U	12	8 U	0.08 U
	TMW30042018	4/26/2018	53 J	1 U	0.73 J	11	0.3 U	1 U	56,000	0.55 J	0.055 J	0.89 J	85 U	0.7 U	12,000	0.95 U	0.41 J	890 J	7.9	0.1 U	460,000	0.2 U	13	8 U	0.08 U
	TMW30102018	10/11/2018	70 U	1 U	0.72 J	9.7	0.3 U	1 U	60,000	1.8 U	0.2 U	1.1 J	85 U	0.7 U	12,000	0.95 U	1 U	1,000 J	6.8	0.1 U	460,000	0.2 U	12	8 U	0.08 U
TMW31D	TMW31D042017	4/27/2017	70 U	1 U	0.42 J	9	0.3 U	1 U	62,000	1.8 U	0.2 U	0.67 J	85 U	0.7 U	11,000	2.9 J	0.44 J	1,400 J	8.1	0.1 U	530,000	0.2 U	6.8	16 J	0.08 U
	TMW31D042017DUP	4/27/2017	35 J	1 U	0.51 J	8.8	0.3 U	1 U	64,000	1.8 U	0.058 J	0.78 J	85 U	0.7 U	11,000	3.5	0.63 J	1,500 J	8.1	0.1 U	520,000	0.2 U	6.8	16 J	0.08 U
	TMW31D102017	10/26/2017	70 U	1 U	0.6 J	8.3	0.3 U	1 U	62,000	1.8 U	0.082 J	1.8 U	85 U	0.7 U	12,000	2.7 J	1 U	1,700 J	8.4	0.1 U	560,000	0.2 U	6.7	17 J	0.08 U
	TMW31D102017DUP	10/26/2017	70 U	1 U	0.34 J	8.7	0.081 J	1 U	63,000	1.8 U	0.054 J	1.8 U	69 J	0.7 U	12,000	2.9 J	1 U	1,700 J	8	0.1 U	610,000	0.2 U	6.8	18 J	0.08 U
	TMW31D042018	5/2/2018	70 U	1 U	0.47 J	9	0.3 U	1 U	71,000	1.7 J	0.055 J	0.75 J	85 U	0.7 U	12,000	3.3 J	1 U	1,600 J	8.2	0.1 U	540,000	0.2 U	7.4	16 J	0.08 U
	TMW31D042018DUP	5/2/2018	70 U	1 U	0.43 J	9	0.3 U	1 U	71,000	0.68 J	0.062 J	1.8 U	85 U	0.7 U	12,000	3.6	1 U	1,600 J	8.2	0.1 U	540,000	0.2 U	7.3	16 J	0.08 U
	TMW31D102018	10/16/2018	70 U	1 U	0.37 J	9.6	0.3 U	1 U	63,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	11,000	4	1 U	2,100 J	7.8	0.1 U	600,000	0.2 U	5.1 J	8 U	0.08 U
	TMW31D102018DUP	10/16/2018	70 U	1 U	0.46 J	8.8	0.3 U	1 U	64,000	1.8 U	0.065 J	1.8 U	85 U	0.7 U	11,000	3.9	1 U	1,700 J	8.1	0.1 U	600,000	0.2 U	5.6 J	8 U	0.08 U

TABLE B-6: SUMMARY OF DISSOLVED METALS ANALYTICAL DETECTIONS FOR 2017- 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

Well ID	Sample ID	Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Mercury
			µg/L																						
TMW32	TMW32042017	4/27/2017	70 U	1 U	1.4 J	7.3	0.3 U	1 U	9,700	1.8 U	0.2 U	1.8 U	85 U	0.7 U	1,000	26	0.31 J	1,100 J	2 U	0.1 U	670,000	0.2 U	2 J	3.4 J	0.08 U
	TMW32102017	10/20/2017	70 U	1 U	0.92 J	8	0.3 U	1 U	11,000	1.8 U	0.2 U	1.8 U	34 J	0.7 U	1,200	24	0.42 J	3,500	4 J	0.1 U	640,000	0.2 U	2.7 J	2.8 J	0.08 U
	TMW32042018	5/1/2018	70 U	1 U	0.63 J	8.4	0.3 U	1 U	11,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	1,200	25	1 U	1,300 J	4.3 J	0.1 U	670,000	0.2 U	4.1 J	2.5 J	0.08 U
	TMW32102018	10/12/2018	70 U	1 U	0.87 J	7.7	0.3 U	1 U	10,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	1,100	26	0.58 J	1,000 J	3.6 J	0.1 U	720,000	0.2 U	1.9 J	8 U	0.08 U
TMW36	TMW36042017	4/20/2017	70 U	1 U	1 U	7.7	0.3 U	1 U	8,700	0.68 J	0.14 J	1.8 U	85 U	0.25 J	930	15 J	4.5	1,200 J	0.82 J	0.037 J	670,000	0.1 J	2 U	8 U	0.08 UJ
	TMW36102017	10/19/2017	70 U	1 U	1 U	6.7	0.3 U	1 U	8,100	1.8 J	0.2 U	1.8 U	85 U	0.7 U	980	15	3.4	1,200 J	2 U	0.1 U	700,000	0.2 U	0.77 J	3.8 J	0.08 U
	TMW36042018	4/25/2018	70 U	1 U	1 U	6.2	0.3 U	1 U	8,700	0.6 J	0.13 J	1.8 U	85 U	0.2 J	940	13	4.2	810 J	2 U	0.1 U	620,000	0.2 U	1.6 J	4.1 J	0.08 U
	TMW36102018	10/18/2018	70 U	1 U	1 U	6.6	0.3 U	1 U	8,800	1.2 J	0.2 U	1.8 U	85 U	0.7 U	940	15	7.7	820 J	2 U	0.1 U	640,000	0.2 U	2 U	8 U	0.08 U
TMW37	TMW37042017	4/20/2017	19 J	1 U	1 U	9.6	0.3 U	1 U	5,700	1.8 U	0.091 J	1.8 U	85 U	0.7 U	620	7.6 J	4.2	870 J	2 U	0.1 U	520,000	0.2 U	1.3 J	8 U	0.08 UJ
	TMW37102017	10/20/2017	19 J	1 U	0.62 J	9.4	0.3 U	1 U	5,400	1.8 U	0.2 U	1.8 U	85 U	0.7 U	600	4.8	3.9	2,600 J	2 U	0.1 U	470,000	0.2 U	9	7.5 J	0.08 U
	TMW37042018	4/25/2018	130 J	1 U	0.38 J	11	0.3 U	1 U	5,600	2.3 J	0.19 J	1.8 U	85 U	0.46 J	640	5.6	10	620 J	2 U	0.1 U	500,000	0.2 U	5.8 J	17 J	0.08 U
	TMW37102018	10/18/2018	70 U	1 U	1 U	6.9	0.3 U	1 U	6,100	1.8 U	0.2 U	1.8 U	85 U	0.7 U	670	6	4.4	650 J	2 U	0.1 U	540,000	0.2 U	2 U	8 U	0.08 U
TMW38	TMW38042017	4/26/2017	70 U	1 U	0.59 J	13	0.3 U	1 U	16,000	1.8 U	0.094 J	1.8 U	49 J	0.7 U	1,800	74	0.54 J	1,300 J	2 U	0.1 U	840,000	0.2 U	2 U	8 U	0.08 U
	TMW38102017	10/26/2017	70 U	1 U	0.66 J	11	0.3 U	1 U	14,000	1.8 U	0.096 J	1.8 U	76 J	0.7 U	1,700	67	1 U	1,300 J	2 U	0.1 U	820,000	0.2 U	2 U	8 U	0.08 U
	TMW38042018	5/1/2018	70 U	1 U	0.6 J	13	0.3 U	1 U	18,000	9.3 J	0.11 J	1.8 U	34 J	0.7 U	2,000	74	0.41 J	1,600 J	2 U	0.1 U	850,000	0.2 U	2 U	2 J	0.08 U
	TMW38102018	10/19/2018	65 J	0.56 J	1 U	14	0.3 U	1 U	7,300	1.8 U	0.2 U	1.8 U	85 U	0.7 U	840	29	0.37 J	750 J	2 U	0.1 U	590,000	0.2 U	11	8 U	0.08 U
TMW39D	TMW39D042017	4/27/2017	21 J	1 U	1 U	7.6	0.3 U	1 U	20,000	1.8 U	0.2 U	0.7 J	85 U	0.7 U	2,100	52	0.51 J	1,400 J	2 U	0.1 U	690,000	0.2 U	2 U	3.1 J	0.08 U
	TMW39D102017	10/27/2017	28 J	1 U	1 U	7.5	0.3 U	1 U	19,000	1.8 U	0.055 J	1.8 U	22 J	0.7 U	2,100	50	1 U	1,500 J	2 U	0.1 U	720,000	0.2 U	2 U	8 U	0.08 U
	TMW39D042018	5/3/2018	70 U	1 U	1 U	8.3	0.3 U	1 U	19,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	2,000	54	1 U	1,400 J	2 U	0.1 U	760,000	0.2 U	0.51 J	8 U	0.08 U
	TMW39D102018	10/16/2018	100 J	1 U	1 U	7.5	0.3 U	1 U	16,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	1,700	54	1 U	1,700 J	2 U	0.1 U	800,000	0.2 U	2 U	8 U	0.08 U
TMW40D	TMW40D042017	4/25/2017	70 U	1 U	0.36 J	9.4	0.3 U	1 U	14,000	1.8 U	0.064 J	0.61 J	85 U	0.7 U	1,900	48	1 U	2,400 J	2.7 J	0.1 U	730,000	0.2 U	2 J	3.6 J	0.08 U
	TMW40D102017	10/23/2017	70 U	1 U	0.39 J	9.4	0.3 U	1 U	15,000	1.8 U	0.066 J	1.8 U	41 J	0.7 U	2,000	50	1 U	1,500 J	3.4 J	0.1 U	680,000	0.2 U	2.8 J	2.5 J	0.08 U
	TMW40D042018	5/1/2018	70 U	1 U	0.42 J	9.1	0.3 U	1 U	15,000	1.8 U	0.2 U	1.2 J	85 U	0.7 U	1,900	54	1 U	1,400 J	3.5 J	0.1 U	680,000	0.2 U	3.2 J	4.8 J	0.08 U
	TMW40D102018	10/12/2018	70 U	1 U	0.46 J	11	0.3 U	1 U	15,000	1.8 U	0.054 J	1.8 U	85 U	0.7 U	1,900	51	1 U	1,100 J	2.8 J	0.1 U	780,000	0.2 U	2.4 J	2.6 J	0.08 U
TMW48	TMW48042017	4/26/2017	70 U	1 U	0.59 J	8.9	0.3 U	1 U	77,000	1.8 U	0.2 U	0.67 J	85 U	0.7 U	16,000	45	0.72 J	1,200 J	6.7	0.1 U	560,000	0.2 U	4.9 J	8.4 J	0.08 U
	TMW48102017	10/27/2017	70 U	1 U	0.5 J	10	0.3 U	1 U	65,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	13,000	52	0.31 J	1,700 J	5.5	0.1 U	610,000	0.2 U	3.3 J	9.8 J	0.08 U
TMW48	TMW48042018	5/2/2018	70 U	1 U	0.7 J	11	0.3 U	1 U	82,000	0.86 J	0.2 U	0.91 J	85 U	0.7 U	15,000	51	1 U	1,600 J	7.3	0.1 U	560,000	0.2 U	5.1 J	11 J	0.08 U
	TMW48102018	10/16/2018	70 U	1 U	0.64 J	10	0.3 U	1 U	67,000	1.8 U	0.081 J	1.8 U	85 U	0.7 U	12,000	78	1 U	2,000 J	6.3	0.1 U	630,000	0.2 U	2 U	8 U	0.08 U
TMW49	TMW49042017	4/26/2017	70 U	1 U	0.5 J	10	0.3 U	1 U	74,000	0.99 J	0.064 J	1.6 J	85 U	0.7 U	13,000	3.5	1.2 J	1,300 J	18	0.059 J	570,000	0.2 U	13	13 J	0.08 U
	TMW49102017	10/27/2017	26 J	1 U	0.49 J	11	0.3 U	1 U	60,000	0.84 J	0.057 J	1.1 J	85 U	0.7 U	11,000	8.8	1.1 J	2,000 J	23	0.043 J	700,000	0.2 U	12	NA	0.08 U
	TMW49042018	5/4/2018	70 U	1 U	0.58 J	11	0.3 U	1 U	82,000	1.2 J	0.2 U	2.3	89 J	0.7 U	14,000	11	0.52 J	1,600 J	20	0.1 U	620,000	0.2 U	14	8.7 J	0.08 U
	TMW49102018	10/17/2018	70 U	1 U	0.53 J	9.2	0.3 U	1 U	66,000	1.1 J	0.087 J	0.76 J	85 U	0.7 U	12,000	21	1 J	1,700 J	22	0.1 U	720,000	0.2 U	10	8 U	0.08 U
		SLs:	5,000	6	10	2,000	4	5	–	50	50	1,000	1,000	15	–	200	200	–	50	50	–	2	86	10,000	2

NOTES
– not established or not applicable
U less than cited Limit of Detection

Bolded concentrations indicate result exceeded cited SL.

Note 1) Screening levels for metals are taken from Regional Screening Levels table (USEPA, 2019).
Note 2) The Screening Levels are taken from New Mexico Administrative Code Title 20, Chapter 6, Part 2, Section 3103 (NM WQCC) .

ABBREVIATIONS & ACRONYMS
µg/L micrograms per liter
J estimated value
NA not analyzed
SL regional screening levels (USEPA, 2019)

TABLE B-7: TOTAL METALS ANALYTICAL RESULTS FOR 2017 - 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

	Sample ID	Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Mercury
			µg/L																						
			ALLUVIAL WELLS																						
BGMW01	BGMW01042017	4/24/2017	41 J	0.44 J	0.61 J	16 J	0.3 UJ	1 UJ	43,000	1.8 U	0.27 J	1.8 U	55 J	0.7 UJ	26,000	160 J	1.1 J	650 J	2 U	0.11 J	810,000	0.2 U	1.6 J	8 U	0.08 U
	BGMW01102017	10/23/2017	19 J	1 U	0.62 J	14	0.11 J	1 U	35,000	1.8 U	0.24 J	1.8 U	31 J	0.7 U	23,000	160	1.3 J	500 J	2 U	0.1 U	720,000	0.2 U	2 U	8 U	0.08 U
	BGMW01042018	4/27/2018	4,200	0.53 J	1 J	45	0.3 U	1 U	46,000	2.6 J	1.8	4.1	**2,500**	2.2 J	25,000	**530**	3.5	2,000 J	2 U	4.5 J	860,000	0.056 J	7.8	8 U	0.08 U
	BGMW01102018	10/9/2018	180 J	1 U	0.84 J	18	0.3 U	1 U	48,000	0.63 J	0.36 J	0.68 J	140	0.7 U	29,000	**240**	1.6 J	2,100 J	2 U	0.1 U	830,000	0.2 U	1.5 J	8 U	0.08 U
BGMW02	BGMW02042017	4/21/2017	190 J	1 U	0.8 J	16	0.3 U	1 U	73,000	0.5 J	0.14 J	0.85 J	120	0.7 U	120,000	73 J	0.62 J	940 U	**62**	0.1 U	940,000	0.2 U	7.0	8 U	0.08 U
	BGMW02102017	10/20/2017	310.00	1 U	0.86 J	16	0.3 U	1 U	76,000	1.8 U	0.2 U	0.74 J	85 U	0.7 U	100,000	75 J	1 U	3,500	**61**	0.1 U	920,000 J	0.2 U	7.0	2.7 J	0.08 U
	BGMW02042018	4/26/2018	98 J	1 U	0.87 J	16	0.3 U	1 U	75,000 J	1.8 U	0.11 J	0.88 J	68 J	0.7 U	110,000	86	11 J	730 J	**61**	0.1 U	990,000	0.2 U	6.4	8 UJ	0.08 U
	BGMW02102018	10/11/2018	70 U	1 U	0.87 J	14	0.3 U	1 U	73,000	1.8 U	0.079 J	1 J	50 J	0.7 U	100,000	73	0.35 J	1,500 J	**50**	0.1 U	970,000 J	0.2 U	6.5	2.1 J	0.08 U
BGMW03	BGMW03042017	4/20/2017	3200 J	0.4 J	1.8 J	61	0.21 J	1 U	110,000 J	2 J	0.95 J	3.0	**2,200 J**	1.5 J	26,000	96	1.5 J	3,000	21 J	0.034 J	670,000	0.063 J	11	6.9 J	0.08 UJ
	BGMW03102017	10/19/2017	3,000	1 U	2 J	44	0.11 J	1 U	60,000	2.2 J	0.7 J	4.3	**1,500**	0.99 J	14,000	60	1.8 J	2,100 J	28	0.1 U	750,000	0.2 U	13	10 J	0.08 U
	BGMW03042018	4/24/2018	530	1 U	1.9 J	35	0.3 U	1 U	84,000	0.61 J	0.3 J	1.8 U	360	0.31 J	18,000	59	0.93 J	1,800 J	22	0.1 U	710,000	0.2 U	12	2.5 J	0.08 U
	BGMW03102018	10/10/2018	1,100	1 U	1.5 J	41	0.3 U	1 U	110,000	2.6 J	0.56 J	2.7	850	0.69 J	23,000	33	1.7 J	3,000	13	0.1 U	700,000	0.2 U	10	8 U	0.048 U
FW31	FW31042017	4/17/2017	**7,000 J**	1 U	7.5	150 J	0.21 J	1 U	11,000	5.3 J	1.8	4.4	**2,800 J**	2 J	4,400	**210**	3.7	4,200 J	2 U	0.1 U	590,000	0.082 J	16	21	0.08 U
	FW31102017	10/18/2017	1,600	0.63 J	5.6	52	0.15 J	1 U	7,200	1.1 J	0.61 J	1.3 J	600	0.83 J	2,600	68	1 J	2,100 J	2 U	0.1 U	530,000	0.2 U	9.2	7.1 J	0.08 U
	FW31042018	4/23/2018	900	1 U	5.0	30	0.3 U	1 U	6,400	1.8 U	0.24 J	0.76 J	480	0.27 J	2,400	43	0.56 J	1,600 J	2 U	0.1 U	500,000	0.2 U	10	2.5 J	0.08 U
	FW31102018	10/9/2018	**15,000**	1 UJ	5.8	220	0.3 U	1 U	14,000	8.8 J	3.9	4.6	**5,800**	3.5	5,700	**320**	8.1	5,200	2 U	0.1 U	540,000	0.2 U	17	21	0.08 U
MW01	MW01042017	4/19/2017	**140,000**	1 U	**23**	1,400	**7.5**	0.76 J	170,000	**72**	37	61	**99,000**	**56**	49,000	**3,400 J**	71	22,000 J	15	0.28 J	960,000	0.77 J	**130**	710	0.17 J
	MW01102017	10/24/2017	**26,000**	0.61 J	4.8 J	280	1.2	1 U	49,000	15	7.5	11	**16,000**	11	14,000	**680**	14	4,700	14	0.075 J	950,000	0.19 J	30	120	0.08 U
	MW01042018	4/23/2018	**8,900**	1 U	1.7 J	90	0.59 J	1 U	40,000	5 J	2.2	3.5	**5,300**	3.3	9,600	180	4.4	2,100 J	17	0.1 U	940,000	0.063 J	10	36	0.08 U
	MW01102018	10/9/2018	**9,700**	1 U	1.8 J	110	0.3 U	1 U	38,000	6.9 J	2.7	4.5	**6,000**	3.9	9,800	**300**	5.9	3,500	13	0.1 U	940,000	0.2 U	11	47	0.08 U
MW02	MW02042017	4/19/2017	**5,300**	1 U	1.6 J	120	0.46 J	1 U	130,000	5 J	2.1	3.3	**3,400**	3.4	29,000	**310 J**	4.0	1,600 J	11	0.1 U	420,000	0.071 J	11	110	0.08 U
	MW02102017	10/24/2017	**19,000**	1 U	3.6 J	210	0.99 J	1 U	140,000	11	5.4	6.8	**10,000**	8.5	32,000	**660**	10	3,800	12	0.047 J	460,000	0.14 J	25	190	0.08 U
	MW02042018	4/23/2018	**14,000**	1 U	2.2 J	180	0.77 J	1 U	130,000	8 J	4.1	4.9	**8,900**	6.4	29,000	**460**	7.7	3,200	11	0.1 U	400,000	0.12 J	17	130	0.08 U
	MW02102018	10/9/2018	**22,000**	1 U	4.3 J	300	1.0	1 U	150,000	14	6.7	8.2	**14,000**	10	34,000	**790**	13	5,000	12	0.1 U	500,000	0.2 U	28	180	0.038 J
MW03	MW03042017	4/21/2017	70 U	1 U	0.41 J	8.4	0.3 U	1 U	49,000	1.8 U	0.14 J	0.81 J	51 J	0.7 U	11,000	47 J	0.78 J	940 U	26	0.1 U	1,000,000	0.2 U	0.91 J	5 J	0.08 U
	MW03102017	10/23/2017	70 U	1 U	0.39 J	10	0.3 U	1 U	50,000	1.8 U	0.095 J	1.8 U	91 J	0.7 U	10,000	42	1 U	660 J	27	0.1 U	1,200,000	0.2 U	2 U	5.8 J	0.08 U
	MW03042018	4/27/2018	49 J	1 U	1 U	11	0.3 U	1 U	47,000	1.8 U	0.11 J	0.69 J	240	0.7 U	9,400	43	0.51 J	840 J	29	0.1 U	1,100,000	0.2 U	1.3 J	8 U	0.08 U
	MW03102018	10/15/2018	67 J	1 U	1 U	9.4	0.3 U	1 U	51,000	0.51 J	0.067 J	1.8 U	210	0.7 U	10,000	45	0.61 J	450 J	27	0.1 U	970,000	0.2 U	0.68 J	6.7 J	0.08 U
MW18D	MW18D042017	4/20/2017	**7,400 J**	0.8 J	1.6 J	78	0.58 J	0.31 J	68,000 J	11	2.1	14	**4,600 J**	5.1	21,000	**670**	10	2,800 J	0.99 J	0.15 J	2,100,000	0.13 J	33	490	0.08 UJ
	MW18D102017	10/19/2017	80 J	1 U	0.99 J	31	0.3 U	1 U	63,000	1.8 U	0.52 J	3.7	53 J	0.58 J	17,000	**640**	2.6 J	1,300 J	2 J	0.1 U	2,000,000	0.2 U	22	400	0.027 J
	MW18D042018	4/25/2018	2,600	0.93 J	1.1 J	45	0.3 U	0.8 J	60,000	3 J	1.0	35	**1,100**	4.6	15,000	**650**	3.7	1,400 J	2 U	0.1 U	2,000,000	0.093 J	16	450	0.08 U
	MW18D102018	10/10/2018	900	1 U	0.81 J	23	0.3 U	0.44 J	64,000	1.8 J	0.56 J	13	560	1.7 J	17,000	**590**	2.6 J	3,600	0.73 J	0.047 J	1,900,000	0.2 U	6.9	170	0.048 U
MW20	MW20042017	4/24/2017	70 U	1 U	0.34 J	17 J	0.3 UJ	1 UJ	300,000	1.8 U	1.2	1.7 J	31 J	0.7 UJ	63,000	**1,400 J**	2.9 J	3,600	**62**	0.1 U	3,400,000	0.2 U	0.62 J	83	0.08 U
	MW20102017	10/23/2017	70 U	1 U	1 U	17	0.3 U	1 U	270,000	0.7 J	1.2	1.9 J	37 J	0.7 U	58,000	**1,400**	3.5	2,900 J	**70**	0.1 U	3,100,000	0.2 U	2 U	86	0.08 U
	MW20042018	4/30/2018	70 U	0.68 J	1 U	16	0.3 U	1 U	300,000	1.8 U	1.5	2.4	96 J	0.7 U	61,000	**1,700**	3.5	3,900	**78**	0.045 J	3,300,000	0.2 U	0.74 J	91	0.08 U
	MW20102018	10/15/2018	70 U	1 U	0.33 J	16	0.3 U	1 U	300,000	1.8 U	1.3	1.8 U	23 J	0.78 J	60,000	**1,200**	2.7 J	1,600 J	**50**	0.033 J	3,200,000	0.2 U	2 U	65	0.08 U
MW22D	MW22D042017	4/19/2017	70 U	1 U	0.39 J	12	0.3 U	1 U	85,000	1.8 U	0.19 J	1.8 U	85 U	0.7 U	17,000	130 J	0.5 J	1,900 J	38	0.1 U	1,000,000	0.2 U	1.1 J	19 J	0.08 U
	MW22D102017	10/23/2017	20 J	1 U	0.36 J	12	0.3 U	1 U	73,000 J	1.8 U	0.16 J	0.69 J	44 J	0.7 U	15,000	130	0.52 J	1,000 J	36	0.1 U	910,000	0.2 U	2 U	5 J	0.08 U
	MW22D042018	4/27/2018	70 U	1 U	0.33 J	10	0.3 U	1 U	74,000	1.8 U	0.17 J	0.81 J	85 UJ	0.7 U	14,000	140 J	0.78 J	710 J	37	0.1 U	1,000,000	0.2 U	1.2 J	31	0.08 U
	MW22D102018	10/12/2018	70 U	1 U	0.39 J	11	0.3 U	1 U	84,000 J	1.8 U	0.2 U	0.71 J	85 U	0.7 U	17,000	130	0.54 J	1,500 J	36	0.1 U	990,000	0.2 U	0.97 J	24	0.08 U
MW23	MW23042017	4/18/2017	970 J	1 U	1.2 J	150 J	0.1 J	1 U	10,000	0.88 J	0.88 J	3.3	600 J	0.56 J	4,700	71	1.6 J	2,000 J	2 U	0.1 U	470,000	0.2 U	10	3.7 J	0.08 U
	MW23042017DUP	4/18/2017	1,300 J	1 U	1.3 J	140 J	0.16 J	1 U	11,000	1 J	1.0	3.8	760 J	0.68 J	4,900	72	1.8 J	2,600 J	2 U	0.074 J	500,000	0.052 J	13	4.6 J	0.08 U
	MW23102017	10/18/2017	1,700 J	1 U	1.2 J	170	0.089 J	1 U	10,000	1.8 U	0.89 J	2.9	930 J	0.65 J	4,900	67	2.6 J	1,700 J	2 U	0.1 U	500,000	0.2 U	10	6.7 J	0.08 U
	MW23102017DUP	10/18/2017	1,300	0.45 J	1 J	150	0.31 J	1 U	10,000	0.85 J	1.0	3.2	680 J	0.69 J	4,600	62	2.7 J	1,800 J	2 U	0.054 J	500,000	0.086 J	12	3.3 J	0.08 U
	MW23042018	4/24/2018	83 J	1 U	1.3 J	210	0.3 U	1 U	14,000	1.8 U	0.4 J	1.8 U	270	0.25 J	5,900	76	2.9 J	1,300 J	2 U	0.1 U	470,000	0.2 U	2 U	7.2 J	0.08 U
	MW23042018DUP	4/24/2018	64 J	1 U	1.1 J	220	0.3 U	1 U	13,000	1.8 U	0.37 J	1.8 U	250	0.7 U	5,600	76	2 J	1,100 J	2 U	0.1 U	490,000	0.2 U	2 U	8 UJ	0.08 U
	MW23102018	10/17/2018	1,900 J	1 U	1.3 J	240	0.3 U	1 U	14,000	1.6 J	0.8 J	1.1 J	**1,400 J**	0.86 J	6,400	74	1.9 J	1,700 J	2 U	0.043 J	470,000	0.2 U	2 U	8 U	0.08 U
	MW23102018DUP	10/17/2018	1,900	1 U	1.1 J	220	0.3 U	1 U	14,000	1.2 J	0.83 J	0.77 J	**2,300 J**	0.77 J	6,300	71	1.7 J	1,700 J	2 U	0.034 J	470,000	0.2 U	2 U	8 U	0.08 U
MW24	MW24042017	4/17/2017	150 J	1 U	0.8 J	290 J	0.3 U	1 U	33,000	1.8 U	0.092 J	1.8 U	**1,900 J**	0.7 U	11,000	**450**	1 U	1,300 J	2 U	0.1 U	260,000	0.2 U	2 U	8 U	0.08 U
	MW24042017DUP	4/17/2017	70 U	1 U	0.49 J	310 J	0.3 U	1 U	32,000	1.8 U	0.06 J	1.8 U	**1,800 J**	0.7 U	10,000	**470**	1 U	1,200 J	2 U	0.1 U	260,000	0.2 U	2 U	8 U	0.08 U
	MW24102017	10/17/2017	230 J	1 U	0.9 J	320	0.3 U	1 U	30,000	0.55 J	0.2 U	1.8 U	**1,900**	0.7 U	11,000	**450**	0.44 J	1,100 J	2 U	0.1 U	260,000	0.2 U	2 U	8 U	0.08 U
	MW24102017DUP1	10/17/2017	290 J	1 U	0.76 J	310	0.3 U	1 U	31,000	1.8 U	0.2 U	1.8 U	**1,900**	0.7 U	11,000	**430**	1 J	970 J	2 U	0.1 U	260,000	0.2 U	2 U	8 U	0.08 U
	MW24042018	4/23/2018	190 J	1 U	0.71 J	290	0.3 U	1 U	33,000	1.8 U	0.095 J	1.8 U	**2,000**	0.7 U	11,000	**420**	1 U	900 J	2 U	0.1 U	260,000	0.2 U	2 U	8 U	0.08 U
	MW24042018DUP	4/23/2018	210 J	1 U	0.79 J	290	0.3 U	1 U	34,000	1.8 U	0.074 J	1.8 U	**2,000**	0.21 J	11,000	**430**	1 U	930 J	2 U	0.1 U	270,000	0.2 U	2 U	8 U	0.08 U
	MW24102018	10/17/2018	210 J	1 U	0.8 J	290	0.3 U	1 U	32,000	1.8 U	0.12 J	1.8 U	**2,000**	0.7 U	11,000	**430**	1 U	940 J	2 U	0.1 U	270,000	0.2 U	2 U	8 U	0.04 J
	MW24102018DUP	10/17/2018	220 J	1 U	0.66 J	300	0.3 U	1 U	32,000	1.8 U	0.097 J	1.8 U	**2,000**	0.7 U	11,000	**440**	0.32 J	920 J	2 U	0.1 U	270,000	0.2 U	2 U	8 U	0.08 U
SMW01	SMW01042017	4/21/2017	36 J	1 U	1.3 J	41	0.3 U	1 U	27,000	1.8 U	0.97 J	1.6 J	64 J	0.7 U	11,000	**600 J**	2.4 J	940 U	2 U	0.1 U	910,000	0.2 U	3 J	5.9 J	0.08 U
	SMW01102017	10/20/2017	100 J	1 U	1.4 J	57	0.3 U	1 U	28,000	0.79 J	1.7	2.0	85 U	0.7 U	9,600	**1,200**	4.0	3,700	2 U	0.1 U	840,000	0.2 U	3.4 J	16 J	0.038 J

TABLE B-7: TOTAL METALS ANALYTICAL RESULTS FOR 2017 - 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

	Sample ID	Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Mercury
			µg/L																						
SMW01	SMW01042018	4/26/2018	35 J	0.55 J	1.7 J	44	0.3 U	1 U	25,000	1.8 U	1.1	1.7 J	75 J	0.19 J	9,400	**730**	2.9 J	330 J	2 U	0.034 J	960,000	0.2 U	3.5 J	8 U	0.037 J
	SMW01102018	10/12/2018	19 J	1 U	1.5 J	35	0.3 U	1 U	26,000	1.8 U	0.2 U	1.8 J	54 J	0.7 U	9,400	**390**	2.3 J	1,100 J	2 U	0.038 J	1,100,000	0.2 U	3.8 J	3.7 J	0.08 U
TMW01	TMW01042017	4/25/2017	70 U	1 U	0.65 J	12	0.3 U	1 U	100,000	1.8 U	0.2 U	4.0	85 U	0.7 U	19,000	8.4	1 U	2,800 J	5.0	0.1 U	520,000	0.2 U	13	8 U	0.08 U
	TMW01102017	10/27/2017	70 U	1 U	0.76 J	13	0.3 U	1 U	100,000	0.57 J	0.2 U	10	85 U	0.24 J	20,000	8.4	1 U	940 U	4.6 J	0.1 U	570,000	0.2 U	13	5.3 J	0.08 U
	TMW01042018	5/4/2018	70 U	1 U	0.9 J	11	0.3 U	1 U	110,000	1.8 U	0.2 U	3.9	85 U	0.7 U	19,000	10	1 U	390 J	4.3 J	0.1 U	580,000	0.2 U	13	8 U	0.08 U
	TMW01102018	10/15/2018	64 J	1 U	0.69 J	11	0.3 U	1 U	110,000	0.62 J	0.09 J	1.8 U	40 J	0.7 U	19,000	9.0	1 U	460 J	4.4 J	0.1 U	570,000	0.2 U	13	3.1 J	0.08 U
TMW03	TMW03042017	4/24/2017	46 J	1 U	0.54 J	12 J	0.13 J	1 UJ	50,000	1.8 U	0.066 J	1.8 U	44 J	0.7 UJ	11,000	4.9 J	1 U	1,700 J	**53**	0.1 U	950,000	0.2 U	1.8 J	7.2 J	0.08 U
	TMW03102017	10/25/2017	22 J	1 U	0.51 J	13	0.3 U	1 U	47,000	1.8 U	0.2 U	0.67 J	44 J	0.7 U	11,000	4.4	1 U	450 J	**58**	0.1 U	1,000,000	0.2 U	1.2 J	8.1 J	0.08 U
	TMW03042018	4/30/2018	70 U	1 U	0.4 J	14	0.3 U	1 U	53,000	1.8 U	0.064 J	0.75 J	85 U	0.7 U	11,000	5.4	1 U	940 U	**58**	0.1 U	910,000	0.2 U	2 J	8 U	0.08 U
	TMW03102018	10/12/2018	70 U	1 U	0.54 J	12	0.3 U	1 U	52,000	1.8 U	0.098 J	1.8 U	62 J	0.7 U	12,000	7.5	0.33 J	1,200 J	47	0.1 U	1,000,000	0.2 U	1.6 J	8.3 J	0.08 U
TMW04	TMW04042017	4/24/2017	70 U	1 U	1.1 J	8 J	0.3 UJ	1 UJ	29,000	2 J	0.2 U	1.8 U	89 J	0.7 UJ	5,300	0.39 J	1 U	1,700 J	**85**	0.1 U	870,000	0.2 U	17	2.9 J	0.08 U
	TMW04102017	10/25/2017	70 U	1 U	0.97 J	8.1	0.3 U	1 U	32,000	4.2 J	0.2 U	3.0	36 J	0.7 U	5,900	0.32 J	1 U	710 J	**85**	0.043 J	950,000	0.2 U	14	2.3 J	0.08 U
	TMW04042018	5/2/2018	70 U	1 U	0.9 J	7.9	0.3 U	1 U	32,000	3.1 J	0.2 U	1.8 U	85 U	0.7 U	5,800	0.95 U	1 U	830 J	**85**	0.1 U	850,000	0.2 U	18	3.1 J	0.08 U
	TMW04102018	10/16/2018	70 U	1 U	0.93 J	8	0.3 U	1 U	31,000	2.6 J	0.2 U	1.8 U	27 J	0.7 U	5,400	0.95 U	1 U	860 J	**79**	0.1 U	860,000	0.2 U	14	8 U	0.08 U
TMW06	TMW06042017	4/20/2017	70 U	1 U	0.85 J	15	0.3 U	1 U	30,000 J	1.8 U	0.2 U	1.9 J	85 UJ	0.7 U	7,800	32	0.66 J	730 J	1.2 J	0.1 U	2,200,000	0.2 U	2.9 J	2.2 J	0.08 UJ
	TMW06102017	10/17/2017	70 U	1 U	0.93 J	14	0.3 U	1 U	33,000	1.8 U	0.2 U	4.7	85 U	0.7 U	7,400	34	0.56 J	440 J	1.1 J	0.1 U	940,000	0.2 U	2 U	8 U	0.08 U
	TMW06042018	4/30/2018	18 J	1 U	0.97 J	16	0.3 U	1 U	35,000	1.8 U	0.057 J	1.7 J	85 U	0.7 U	7,500	35	0.54 J	940 U	1 J	0.1 U	860,000	0.2 U	3.1 J	8 U	0.08 U
	TMW06102018	10/12/2018	70 U	1 U	0.88 J	14	0.3 U	1 U	35,000	1.8 U	0.056 J	1.5 J	85 U	0.7 U	7,800	37	0.57 J	910 J	0.87 J	0.033 J	1,000,000	0.2 U	2.5 J	8 U	0.08 U
TMW07	TMW07042017	4/20/2017	490 J	0.63 J	0.94 J	18	0.3 U	1 U	56,000 J	0.77 J	0.69 J	1.2 J	390 J	0.33 J	11,000	**350**	3.4	3,200	2 U	0.048 J	1,300,000	0.2 U	6.6	6.7 J	0.08 UJ
	TMW07102017	10/19/2017	580.00	1 U	0.72 J	29	0.3 U	1 U	57,000	0.81 J	0.48 J	1.2 J	460	0.46 J	10,000	**320**	1.6 J	4,300	1.6 J	0.1 U	1,300,000	0.2 U	7.2	8.1 J	0.08 U
	TMW07042018	4/25/2018	650.00	1.8 J	0.92 J	27	0.15 J	1 U	59,000	3.8 J	0.77 J	1.8 U	800	0.8 J	9,600	**410**	3.8	3,300	2 U	0.1 U	1,300,000	0.2 U	13	13 J	0.08 U
	TMW07102018	10/10/2018	560	1 U	0.6 J	18	0.3 U	1 U	63,000	3.2 J	0.87 J	1.2 J	370	0.56 J	11,000	**390**	2.2 J	4,300	2 U	0.037 J	1,300,000	0.13 J	9.1	8 U	0.048 U
TMW08	TMW08042017	4/21/2017	70 U	1 U	0.34 J	10	0.3 U	1 U	210,000	1.8 U	0.62 J	2.5	350	0.7 U	72,000	**400 J**	1.6 J	4,000	47	0.1 U	4,100,000	0.2 U	1.1 J	6 J	0.08 U
	TMW08102017	10/20/2017	70 U	1 U	0.4 J	9.2	0.3 U	1 U	250,000	1.8 U	0.2 U	1.8 J	510	0.7 U	77,000	**370**	1 U	24,000	43	0.1 U	4,000,000	0.2 U	2 U	6.7 J	0.08 U
	TMW08042018	4/27/2018	70 U	1 U	1 U	9.3	0.3 U	1 U	290,000	1.8 U	0.58 J	2.0	710	0.7 U	74,000	**430**	1.6 J	4,100	27	0.1 U	4,900,000	0.2 U	1.4 J	8 U	0.08 U
	TMW08102018	10/11/2018	70 U	1 U	1 U	11	0.092 J	1 U	310,000	1.8 U	0.59 J	1.9 J	240	0.7 U	80,000	**430**	1.2 J	7,200	24	0.1 U	4,300,000	0.2 U	2 U	5.4 J	0.08 U
TMW10	TMW10042017	4/21/2017	**6,600**	0.44 J	1.3 J	66	0.33 J	1 U	69,000	3.4 J	1.6	3.8	**4,200**	2.9 J	20,000	**280 J**	3.3	2,600 J	2 U	0.17 J	1,800,000	0.066 J	8.8	13 J	0.08 U
	TMW10102017	10/25/2017	2,300	1 U	1 J	44	0.3 U	1 U	64,000	1.5 J	0.91 J	4.5	**1,500**	1.3 J	17,000	**770**	2.5 J	1,500 J	0.73 J	0.1 U	1,900,000	0.2 U	5.1 J	5.9 J	0.08 U
	TMW10042018	4/24/2018	**5,300**	1 U	1.6 J	77	0.33 J	1 U	58,000	3.6 J	1.9	16	**2,900**	2.8 J	15,000	**1,300**	5.9	1,900 J	2 U	0.078 J	1,600,000	0.066 J	9.0	12 J	0.08 U
	TMW10102018	10/10/2018	70 U	1 U	0.59 J	13	0.3 U	1 U	56,000	0.7 J	0.2 U	1.4 J	36 J	0.7 U	13,000	10	0.89 J	2,800 J	2 U	0.042 J	1,600,000	0.2 U	2.8 J	8 U	0.048 U
TMW11	TMW11042017	4/26/2017	1,100	1 U	0.43 J	28	0.3 U	1 U	19,000	3.8 J	0.3 J	0.64 J	510	0.35 J	3,500	15	0.98 J	4,000	15	0.044 J	610,000	0.2 U	3.7 J	4.4 J	0.08 U
	TMW11102017	10/27/2017	560	1 U	0.52 J	28	0.3 U	1 U	19,000	2.7 J	0.075 J	1.8 U	330	0.7 U	3,500	6.1	0.74 J	940 U	14	0.1 U	610,000	0.2 U	4.1 J	2.6 J	0.08 U
	TMW11042018	5/2/2018	790	1 U	0.33 J	27	0.3 U	1 U	20,000	4.6 J	0.15 J	1.8 U	400	0.24 J	3,400	15	0.95 J	830 J	17	0.1 U	560,000	0.2 U	4.9 J	4.1 J	0.08 U
	TMW11102018	10/11/2018	**140,000**	1 U	7.3	590	**4.8**	0.35 J	60,000	**66**	29	20	**84,000**	**35**	38,000	**1,200**	58	17,000	12	0.97 J	600,000	0.57 J	**96**	300	0.39
TMW13	TMW13042017	4/25/2017	26 J	1 U	1 U	18	0.3 U	1 U	27,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	5,300	0.72 J	1 U	3,300	11	0.1 U	580,000	0.2 U	2.5 J	8 U	0.08 U
	TMW13102017	10/26/2017	70 U	1 U	1 U	17	0.3 U	1 U	24,000	0.59 J	0.2 U	1.8 U	85 U	0.7 U	5,000	0.95 U	1 U	940 U	11	0.1 U	560,000	0.2 U	2.5 J	8 U	0.08 U
	TMW13042018	5/1/2018	70 U	1 U	1 U	18	0.3 U	1 U	27,000	0.51 J	0.2 U	1.8 U	85 U	0.7 U	4,900	0.95 U	1 U	940 U	11	0.1 U	520,000	0.2 U	2.6 J	8 U	0.08 U
	TMW13102018	10/15/2018	70 U	1 U	1 U	17	0.3 U	1 U	27,000	0.92 J	0.2 U	1.8 U	85 U	0.7 U	5,100	0.95 U	1 U	500 J	11	0.1 U	570,000	0.2 U	2.5 J	8 U	0.062 J
TMW15	TMW15042017	4/27/2017	70 U	1 U	1 U	23	0.3 U	1 U	20,000	0.96 J	0.2 U	1.8 U	85 U	0.7 U	3,600	0.37 J	0.6 J	510 J	12	0.1 U	550,000	0.2 U	2.2 J	5.8 J	0.08 U
TMW15	TMW15042017DUP	4/27/2017	70 U	1 U	1 U	21	0.3 U	1 U	20,000	0.79 J	0.2 U	1.8 U	85 U	0.7 U	3,700	0.95 U	1 U	480 J	12	0.1 U	570,000	0.2 U	1.8 J	5.4 J	0.08 U
	TMW15102017	10/26/2017	70 U	1 U	0.4 J	21	0.3 U	1 U	18,000	0.84 J	0.2 U	1.8 U	85 U	0.7 U	3,600	0.95 U	1 U	940 U	12	0.1 U	550,000	0.2 U	1.7 J	7.3 J	0.08 U
	TMW15102017DUP	10/26/2017	70 U	1 U	1 U	22	0.3 U	1 U	18,000	1.1 J	0.2 U	1.8 U	85 U	0.7 U	3,600	0.95 U	1 U	940 U	12	0.1 U	560,000	0.2 U	1.8 J	5 J	0.08 U
	TMW15042018	5/3/2018	70 U	1 U	0.33 J	21	0.3 U	1 U	19,000	0.99 J	0.2 U	1.8 U	85 U	0.7 U	3,400	0.95 U	1 U	560 J	12	0.1 U	560,000	0.2 U	1.5 J	3.4 J	0.08 U
	TMW15042018DUP	5/3/2018	70 U	1 U	1 U	21	0.3 U	1 U	18,000	1.1 J	0.2 U	1.8 U	71 J	0.7 U	3,300	0.33 J	1 U	530 J	12	0.1 U	550,000	0.2 U	1.6 J	3.7 J	0.08 U
	TMW15102018	10/16/2018	70 U	1 U	1 U	20	0.3 U	1 U	19,000	0.92 J	0.2 U	1.8 U	85 U	0.7 U	3,500	0.95 U	1 U	580 J	11	0.1 U	520,000	0.2 U	2 U	8 U	0.08 U
	TMW15102018DUP	10/16/2018	70 U	1 U	1 U	20	0.3 U	1 U	19,000	0.89 J	0.2 U	1.8 U	85 U	0.7 U	3,400	0.95 U	1 U	580 J	11	0.1 U	550,000	0.2 U	2 U	8 U	0.08 U
TMW21	TMW21042017	4/26/2017	**20,000**	1.1 J	5.4	270	1.3	1 U	49,000	14	7.5	26	**15,000**	10	13,000	**530**	14	6,700	3 J	0.17 J	660,000	0.2 J	28	44	0.08 U
	TMW21102017	10/25/2017	**15,000**	0.6 J	3.8 J	200	0.9 J	1 U	45,000	8.7 J	5.1	20	**11,000**	6.2	11,000	**410**	10	3,700	3.2 J	0.1 U	610,000	0.2 U	20	29	0.08 U
	TMW21042018	5/1/2018	**16,000**	1 U	4 J	240	0.87 J	1 U	53,000	10	5.7	21	**11,000**	6.8	12,000	**510**	11	4,100	3.6 J	0.1 J	610,000	0.13 J	24	34	0.08 U
	TMW21102018	10/9/2018	**10,000**	1 U	2.5 J	160	0.3 U	1 U	46,000	6.2 J	3.1	12	**7,200**	4.2	9,700	**310**	5.9	3,400	3.2 J	0.1 U	710,000	0.2 U	15	25	0.08 U
TMW22	TMW22042017	4/19/2017	**37,000**	1 U	4.3 J	540	1.5	1 U	62,000	30	8.9	13	**20,000**	9.2	21,000	**510 J**	22	6,700 J	3.6 J	0.35 J	870,000	0.18 J	41	65	0.032 J
	TMW22102017	10/25/2017	240 J	1 U	0.94 J	22	0.3 U	1 U	33,000	1.8 U	0.2 U	1 J	130	0.7 U	11,000	41	0.41 J	730 J	1.8 J	0.1 U	830,000	0.2 U	4.4 J	8 U	0.08 U
	TMW22042018	4/25/2018	1,100	0.71 J	0.65 J	31	0.2 J	1 U	35,000	2.8 J	0.28 J	1.8 U	560	0.29 J	10,000	25.0	2.7 J	1,200 J	2.5 J	0.1 U	820,000	0.2 U	5.7 J	5.7 J	0.08 U
	TMW22102018	10/11/2018	2,100	1 U	1.1 J	39	0.083 J	1 U	36,000	2.7 J	0.52 J	1.7 J	**1,200**	0.47 J	12,000	34	1.4 J	1,800 J	2.1 J	0.1 U	900,000	0.2 U	7.1	8 U	0.08 U
TMW23	TMW23042017	4/20/2017	**6,600 J**	0.44 J	1.9 J	140	0.36 J	1 U	21,000 J	5.6 J	1.8	3.2	**4,400 J**	2.3 J	6,600	140	4.3	2,100 J	2 U	0.1 U	770,000	0.061 J	11	15 J	0.08 UJ
	TMW23102017	10/19/2017	**7,700**	1 U	2.1 J	130	0.5 J	1 U	22,000	6.5 J	2.3	3.6	**4,500**	2.8 J	6,200	160	5.1	2,500 J	0.97 J	0.1 U	790,000	0.2 U	11	16 J	0.08 U
	TMW23042018	4/25/2018	**12,000**	1 U	3.2 J	250	0.58 J	1 U	29,000	12	4.1	5.8	**6,700**	5.2	7,000	**290**	8.3	2,700 J	0.71 J	0.1 U	770,000	0.088 J	19	27	0.08 U
	TMW23102018	10/11/2018	3,600	1 U	1.1 J	59	0.22 J	1 U	19,000	3.8 J	0.86 J	1.7 J	**2,300**	1 J	5,300	47	2 J	1,900 J	2 U	0.1 U	750,000	0.2 U	6.3	8 U	0.08 U
TMW24	TMW24042017	4/25/2017	70 U	1 U	0.97 J	39	0.3 U	1 U	39,000	1.8 U	0.22 J	1.8 U	190	0.7 U	10,000	150	1.1 J	5,400	2 U	0.1 U	1,100,000	0.2 U	1.4 J	8 U	0.08 U

TABLE B-7: TOTAL METALS ANALYTICAL RESULTS FOR 2017 - 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

	Sample ID	Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Mercury
			µg/L																						
TMW24	TMW24102017	10/24/2017	70 U	1 U	0.7 J	38	0.3 U	1 U	37,000	1.8 U	0.23 J	1.8 U	65 J	0.7 U	8,900	130	0.89 J	600 J	2 U	0.1 U	1,000,000	0.2 U	1.2 J	2.8 J	0.08 U
	TMW24042018	4/30/2018	55 J	1 U	0.81 J	38	0.3 U	1 U	41,000	1.8 U	0.24 J	1.8 U	87 J	0.7 U	9,900	160	1.1 J	940 U	2 U	0.042 J	970,000	0.2 U	1.3 J	8 U	0.08 U
	TMW24102018	10/18/2018	140 J	1.2 J	1.7 J	39	0.3 U	1 U	42,000	0.62 J	0.33 J	1.6 J	85 U	0.7 U	10,000	150	2.3 J	1,000 J	2 U	0.059 J	1,100,000	0.2 U	2 U	11 J	0.08 U
TMW25	TMW25042017	4/27/2017	44 J	1 U	0.54 J	11	0.3 U	1 U	54,000	1.8 U	0.23 J	0.83 J	46 J	0.7 U	11,000	**200**	0.49 J	470 J	2 U	0.1 U	910,000	0.2 U	3.7 J	3.9 J	0.08 U
	TMW25102017	10/25/2017	78 J	1 U	0.68 J	19	0.3 U	1 U	51,000	1.8 U	1.3	1 J	320	0.21 J	11,000	**1,200**	1.7 J	330 J	2 U	0.1 U	940,000	0.2 U	3.9 J	16 J	0.08 U
	TMW25042018	4/30/2018	42 J	1 U	0.53 J	14	0.3 U	1 U	54,000	1.8 U	0.7 J	0.87 J	110	0.7 U	11,000	**550**	1.1 J	940 U	2 U	0.038 J	830,000	0.2 U	4.5 J	8 U	0.08 U
	TMW25102018	10/16/2018	3,700	1.1 J	**11**	240	0.45 J	0.92 J	59,000	4.9 J	12	11	**20,000**	3.3	12,000	**18,000**	39	1,400 J	0.8 J	0.2 J	860,000	0.2 U	84	740	0.07 J
TMW26	TMW26042017	4/20/2017	380 J	1 U	0.97 J	22	0.3 U	1 U	17,000 J	1.8 U	0.33 J	2.4	200 J	0.7 U	7,400	120	1.9 J	770 J	2 U	0.1 U	2,100,000	0.2 U	4.4 J	2.2 J	0.08 UJ
	TMW26042017DUP	4/20/2017	470 J	1 U	1.2 J	25	0.3 U	1 U	17,000 J	1.8 U	0.36 J	2.9	270 J	0.7 U	7,700	120	2.1 J	880 J	2 U	0.1 U	2,100,000	0.2 U	4.7 J	2.6 J	0.08 UJ
	TMW26102017	10/17/2017	570	1 U	1.4 J	27	0.3 U	1 U	18,000	1.8 U	0.2 U	2.6	280	0.7 U	7,100	120	2.1 J	780 J	2 U	0.1 U	890,000	0.2 U	2 U	8 U	0.08 U
	TMW26102017DUP	10/17/2017	610	1 U	1.3 J	26	0.3 U	1 U	18,000	1.8 U	0.2 U	2.6	300	0.7 U	7,100	110	1.9 J	800 J	2 U	0.1 U	880,000	0.2 U	2 U	8 U	0.08 U
	TMW26042018	4/26/2018	250 J	1 U	1.2 J	22	0.3 U	1 U	17,000	9.6 J	0.38 J	2.6	160	0.7 U	7,200	120	2.1 J	400 J	2 U	0.1 U	840,000	0.2 U	3.9 J	8 U	0.08 U
	TMW26042018DUP	4/26/2018	270 J	1 U	1.1 J	20	0.3 U	0.32 J	17,000	1.8 U	0.31 J	2.4	150	0.7 U	7,300	120	1.9 J	470 J	2 U	0.1 U	860,000	0.2 U	3.6 J	8 U	0.08 U
	TMW26102018	10/10/2018	210 J	1 U	1.1 J	20	0.3 U	1 U	18,000	1.8 U	0.34 J	2.2	110	0.7 U	7,100	110	2.2 J	1,500 J	2 U	1.7 J	830,000	0.2 U	3.3 J	8 U	0.038 J
	TMW26102018DUP	10/10/2018	250 J	1 U	0.97 J	19	0.3 U	1 U	18,000	1.8 U	0.32 J	2.0	130	0.7 U	7,000	110	1.5 J	1,400 J	2 U	0.091 J	830,000	0.2 U	3.4 J	2.5 J	0.048 U
TMW27	TMW27042017	4/21/2017	70 U	1 U	**19**	120	0.3 U	1 U	22,000	1.8 U	0.16 J	1.8 U	560	0.7 U	6,600	**580 J**	0.71 J	940 U	2 U	0.1 U	330,000	0.2 U	0.51 J	14 J	0.08 U
	TMW27102017	10/20/2017	70 U	1 U	**19**	130	0.3 U	1 U	24,000	1.8 U	0.2 U	1.8 U	640	0.7 U	6,000	**560**	1 U	850 J	2 U	0.1 U	310,000	0.2 U	2 U	11 J	0.08 U
	TMW27042018	4/26/2018	31 J	1 U	**20**	120	0.095 J	1 U	24,000	1.8 U	0.18 J	1.8 U	630	0.7 U	6,600	**540**	0.59 J	490 J	2 U	0.1 U	360,000	0.2 U	2 U	110	0.08 U
	TMW27102018	10/10/2018	70 U	1 U	**19**	130	0.3 U	1 U	26,000	1.8 U	0.18 J	1.8 U	630	0.7 U	6,500	**560**	0.31 J	820 J	2 U	0.1 U	350,000	0.2 U	2 U	5.9 J	0.048 U
TMW28	TMW28042017	4/24/2017	70 U	1 U	1 U	50 J	0.3 UJ	1 UJ	230,000	1.8 U	0.27 J	1.8 U	740	0.7 UJ	68,000	**850 J**	0.52 J	2,200 J	2 U	0.1 U	460,000	0.2 U	0.81 J	2.2 J	0.08 U
	TMW28102017	10/20/2017	70 U	1 U	1 U	50	0.3 U	1 U	100,000	1.8 U	0.2 U	1.8 U	420	0.7 U	31,000	**390**	1 U	1,700 J	2 U	0.1 U	320,000	0.2 U	2 U	11 J	0.08 U
	TMW28042018	4/26/2018	51 J	1 U	1 U	46	0.3 U	1 U	100,000	1.8 U	0.15 J	1.8 U	340	0.7 U	34,000	**400**	0.44 J	1,000 J	2 U	0.1 U	340,000	0.2 U	0.72 J	59	0.08 U
	TMW28102018	10/9/2018	70 U	1 U	1 U	47	0.3 U	1 U	98,000	1.8 U	0.2 U	1.8 U	310	0.7 U	31,000	**350**	1 U	1,400 J	2 U	0.1 U	330,000	0.2 U	2 U	8 U	0.08 U
TMW29	TMW29042017	4/20/2017	**8,900 J**	1 U	2.2 J	120	0.4 J	1 U	42,000 J	7 J	2.7	3.7	**5,600 J**	3.0	10,000	150	6.4	3,000	20 J	0.1 U	570,000	0.068 J	14	16 J	0.08 UJ
	TMW29102017	10/20/2017	**25,000**	1 U	5.8	420	0.3 U	1 U	77,000	23	10	13	**17,000**	13	15,000	**660**	23	6,300	22	0.1 U	490,000	0.2 U	36	61	0.08 U
	TMW29042018	4/23/2018	**17,000**	1 U	3.3 J	210	0.6 J	1 U	56,000	12	5.1	6.0	**10,000**	6.5	12,000	**290**	11	3,800	23	0.1 U	590,000	0.12 J	24	28	0.08 U
	TMW29102018	10/9/2018	**13,000**	1 U	2.9 J	170	0.79 J	1 U	48,000	9.4 J	4.0	5.0	**7,600**	5.1	10,000	**210**	8.3	3,600	18	0.1 U	620,000	0.2 U	18	24	0.08 U
TMW31S	TMW31S042017	4/19/2017	**10,000**	1 U	0.82 J	91	0.48 J	1 U	120,000	7.3 J	2.2	3.8	**4,800**	2.8 J	23,000	**200 J**	5.1	2,000 J	8.1	0.1 U	570,000	0.2 U	11	19 J	0.08 U
	TMW31S102017	10/25/2017	150 J	1 U	1 U	16	0.3 U	1 U	110,000	0.74 J	0.063 J	1.8 U	80 J	0.7 U	20,000	22	1 U	390 J	9.1	0.1 U	530,000	0.2 U	1.1 J	8 U	0.08 U
	TMW31S042018	4/25/2018	260 J	1 U	0.34 J	17	0.097 J	1 U	110,000	1.3 J	0.086 J	1.8 U	85 U	0.7 U	18,000	32	0.36 J	600 J	10	0.1 U	560,000	0.2 U	2 U	2.3 J	0.08 U
	TMW31S102018	10/11/2018	500	1 U	0.33 J	20	0.3 U	1 U	110,000	2 J	0.19 J	0.67 J	310	0.7 U	21,000	27	0.33 J	910 J	8.1	0.1 U	560,000	0.2 U	2.3 J	8 U	0.08 U
TMW33	TMW33042017	4/20/2017	3,200 J	1 U	1.1 J	54	0.2 J	1 U	98,000 J	11	1.4	4.7	**2,200 J**	1.5 J	32,000	**400**	8.0	2,600 J	2 U	0.058 J	2,400,000	0.06 J	8.4	6.5 J	0.08 UJ
	TMW33102017	10/20/2017	2,200	1 U	0.98 J	50	0.3 U	1 U	110,000	4.6 J	1.2	4.0	**2,000**	1.2 J	31,000	**650**	3.0	13,000	2 U	0.1 U	2,300,000	0.2 U	6.2	7.7 J	0.08 U
	TMW33042018	4/25/2018	**6,100**	0.4 J	1.3 J	74	0.21 J	1 U	99,000	5.6 J	2.6	5.8	**3,300**	2.3 J	26,000	**1,100**	5.4	2,700 J	2 U	0.1 U	2,500,000	0.2 U	11	13 J	0.08 U
	TMW33102018	10/10/2018	2,400	1 U	1 J	38	0.081 J	1 U	100,000	2.2 J	1.0	3.4	**1,800**	1.1 J	29,000	**500**	2.5 J	4,400	2 U	0.1 U	2,400,000	0.2 U	6.1	8 U	0.048 U
TMW34	TMW34042017	4/24/2017	54 J	1 U	0.33 J	12 J	0.3 UJ	1 UJ	120,000	1.8 U	0.23 J	1.8 U	75 J	0.29 J	26,000	160 J	0.89 J	1,700 J	**120**	0.1 U	1,400,000	0.2 U	1.4 J	8 U	0.08 U
	TMW34042017DUP	4/24/2017	46 J	1 U	0.33 J	12 J	0.3 UJ	1 UJ	130,000	1.8 U	0.14 J	1.8 U	37 J	0.7 UJ	26,000	150 J	0.55 J	2,000 J	**120**	0.1 U	1,400,000	0.2 U	1.2 J	8 U	0.08 U
	TMW34102017	10/25/2017	**48,000**	1 U	**12**	930	3.8	0.52 J	210,000	30	26	29	**39,000**	**32 J**	40,000	**7,300**	37	9,300	**120**	0.42 J	1,400,000	0.46 J	67	110 J	0.05 J
	TMW34102017DUP	10/25/2017	**47,000**	1 U	**15**	1,200	**4.4**	0.61 J	230,000	39	33	37	**38,000**	**46 J**	40,000	**8,300**	46	8,000	**120**	0.53 J	1,400,000	0.57 J	84	150 J	0.087 J
	TMW34042018	4/27/2018	**41,000**	1 U	10	650	3.7	0.42 J	200,000	27	19	22	**31,000**	**19**	33,000	**4,200**	29	8,000	**120**	0.35 J	1,400,000	0.3 J	60	87	0.072 J
	TMW34042018DUP	4/27/2018	**41,000**	1 U	9.2	670	2.8	0.39 J	200,000	25	18	21	**28,000**	**21**	33,000	**4,600**	28	7,900	**120**	0.32 J	1,200,000	0.28 J	52	80	0.093 J
	TMW34102018	10/15/2018	990	1 U	0.48 J	17	0.3 U	1 U	130,000	1.8 U	0.33 J	1.8 U	610	0.18 J	27,000	150	0.77 J	1,000 J	**120**	0.048 J	1,400,000	0.2 U	1.4 J	4 J	0.08 U
	TMW34102018DUP	10/15/2018	800	1 U	0.5 J	15	0.3 U	1 U	130,000	1.8 U	0.3 J	1.8 U	510	0.7 U	27,000	150	0.95 J	990 J	**120**	0.033 J	1,400,000	0.2 U	1.2 J	3.8 J	0.08 U
TMW35	TMW35042017	4/24/2017	70 U	1 U	0.57 J	12 J	0.3 UJ	1 UJ	81,000	1.8 U	0.22 J	1.3 J	85 U	0.38 J	15,000	170 J	0.94 J	1,600 J	13	0.1 U	1,200,000	0.2 U	2 J	8 U	0.08 U
	TMW35102017	10/23/2017	70 U	1 U	0.63 J	13	0.22 J	1 U	74,000	1.8 U	0.25 J	1.6 J	85 U	0.7 U	15,000	160	1 J	980 J	10	0.1 U	1,200,000	0.2 U	2 U	8 U	0.08 U
	TMW35042018	4/27/2018	70 U	1 U	0.43 J	12	0.3 U	1 U	73,000	1.8 U	0.17 J	1.5 J	85 U	0.7 U	13,000	160	0.84 J	320 J	8.9	0.1 U	1,000,000	0.2 U	1.9 J	8 U	0.08 U
	TMW35102018	10/15/2018	70 U	1 U	0.57 J	10	0.3 U	1 U	72,000	1.8 U	0.18 J	1.8 U	85 U	0.7 U	14,000	110	0.71 J	470 J	8.0	0.1 U	1,100,000	0.2 U	1.2 J	8 U	0.08 U
TMW39S	TMW39S042017	4/19/2017	1,800	1 U	0.46 J	34	0.3 U	1 U	82,000	3.8 J	0.59 J	1.6 J	**1,000**	0.67 J	18,000	37 J	1.4 J	2,100 J	13	0.1 U	1,000,000	0.2 U	6.2	5.2 J	0.08 U
	TMW39S102017	10/18/2017	1,300	0.78 J	0.73 J	32	0.15 J	1 U	76,000	2.6 J	0.48 J	1.5 J	670	0.86 J	17,000	61	1.3 J	1,200 J	12	0.1 U	930,000	0.2 U	4 J	4.8 J	0.08 U
	TMW39S042018	4/25/2018	**37,000**	1 U	4 J	620	1.7	0.27 J	100,000	29	12	13	**20,000**	**15**	24,000	**1,100**	26	4,800	13	0.12 J	860,000	0.19 J	50	63	0.08 U
	TMW39S102018	10/11/2018	2,500	1 U	0.53 J	37	0.13 J	1 U	80,000	3.7 J	0.57 J	1.2 J	**1,400**	0.62 J	18,000	41	1 J	1,900 J	11	0.1 U	920,000	0.2 U	5.6 J	8 U	0.08 U
TMW40S	TMW40S042017	4/24/2017	3,100	1 U	10	53	0.3 J	1 U	64,000	1.8 J	0.61 J	1.4 J	**1,600**	2.1 J	11,000	55	1.3 J	5,300	**61**	0.1 U	1,000,000	0.2 U	37	19 J	0.08 U
	TMW40S102017	10/27/2017	**39,000**	1 U	**17**	810	**5.0**	1 U	80,000	21	10	16	**21,000**	**40**	20,000	**980**	22	4,200	**67**	0.16 J	970,000	0.24 J	70	300	0.027 J
	TMW40S042018	4/27/2018	**29,000**	1 U	**13**	330	2.7	1 U	74,000	11	4.7	6.9	**14,000**	**25**	18,000	**450**	11	2,500 J	**72**	0.063 J	890,000	0.095 J	58	170	0.08 U
	TMW40S102018	10/9/2018	**95,000**	1 U	**20**	1,100	**12**	0.45 J	120,000	33	15	22	**46,000**	**96**	35,000	**1,600**	37	6,700	**60**	0.17 J	1,000,000	0.29 J	**90**	590	0.11 J
TMW41	TMW41042017	4/19/2017	850	1 U	0.44 J	15	0.12 J	1 U	17,000	2.1 J	0.22 J	0.86 J	420	0.21 J	4,200	7.8 J	0.44 J	1,800 J	0.94 J	0.1 U	910,000	0.2 U	7.9	4.4 J	0.08 U
	TMW41102017	10/25/2017	370	1 U	0.42 J	12	0.3 U	1 U	14,000	0.87 J	0.12 J	0.67 J	220	0.19 J	3,600	10	1 U	660 J	0.91 J	0.1 U	780,000	0.2 U	5.4 J	8 U	0.08 U
	TMW41042018	4/25/2018	1,200	0.49 J	0.42 J	18	0.1 J	1 U	15,000	2.1 J	0.24 J	1.8 U	540	0.4 J	3,500	14	0.79 J	1,200 J	0.84 J	0.1 U	870,000	0.2 U	7.9	7.9 J	0.08 U
	TMW41102018	10/11/2018	550	1 U	0.52 J	13	0.3 U	1 U	16,000	1.3 J	0.15 J	1.8 U	300	0.7 U	3,800	6.8	1 U	1,400 J	0.78 J	0.1 U	900,000	0.2 U	7.2	8 U	0.08 U

TABLE B-7: TOTAL METALS ANALYTICAL RESULTS FOR 2017 - 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

	Sample ID	Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Mercury
			μg/L																						
TMW43	TMW43042017	4/27/2017	70 U	1 U	1 U	19	0.3 U	1 U	35,000	1.8 U	0.072 J	1.8 U	85 U	0.7 U	6,200	47	0.33 J	730 J	5.9	0.1 U	570,000	0.2 U	1.8 J	8 U	0.08 U
	TMW43042017DUP	4/27/2017	70 U	1 U	1 U	20	0.11 J	1 U	35,000	1.8 U	0.1 J	1.8 U	85 U	0.7 U	6,200	49	0.46 J	850 J	6.6	0.1 U	570,000	0.2 U	1.7 J	2.1 J	0.08 U
	TMW43102017	10/24/2017	70 U	1 U	1 U	19	0.3 U	1 U	33,000	1.8 U	0.098 J	1.8 U	27 J	0.7 U	5,700	47	0.51 J	990 J	5.7	0.1 U	570,000	0.2 U	1.7 J	4.7 J	0.08 U
	TMW43102017DUP	10/24/2017	70 U	1 U	1 U	18	0.3 U	1 U	32,000	1.8 U	0.077 J	1.8 U	85 U	0.7 U	5,700	45	0.52 J	1,000 J	5.5	0.1 U	570,000	0.2 U	1.4 J	8 U	0.08 U
	TMW43042018	5/2/2018	20 J	1 U	1 U	20	0.3 U	1 U	35,000	1.8 U	0.081 J	1.8 U	85 U	0.7 U	6,300	52	0.53 J	890 J	6.1	0.1 U	530,000	0.2 U	1.9 J	2.4 J	0.08 U
	TMW43042018DUP	5/2/2018	70 U	1 U	1 U	19	0.097 J	1 U	36,000	0.94 J	0.096 J	1.8 U	26 J	0.7 U	6,600	53	0.39 J	810 J	6.7	0.1 U	570,000	0.2 U	2 J	8 U	0.08 U
	TMW43102018	10/16/2018	70 U	1 U	1 U	18	0.3 U	1 U	35,000	1.8 U	0.2 U	4.0	85 U	0.7 U	6,200	46	0.56 J	870 J	5.7	0.1 U	580,000	0.2 U	2 U	8 U	0.08 U
	TMW43102018DUP	10/16/2018	70 U	0.66 J	1 U	18	0.094 J	1 U	34,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	6,000	48	0.41 J	900 J	6.1	0.1 U	550,000	0.2 U	2 U	8 U	0.08 U
TMW44	TMW44042017	4/19/2017	4,400	1 U	1.4 J	56	0.24 J	1 U	39,000	3 J	1.5	2.8	**3,100**	2.2 J	13,000	**300 J**	2.5 J	2,100 J	2.2 J	0.046 J	790,000	0.061 J	8.6	11 J	0.08 U
	TMW44102017	10/25/2017	**10,000**	1 U	2.6 J	150	0.63 J	1 U	40,000	5.8 J	3.9	4.9	**7,500**	6.4	13,000	**480**	5.9	2,500 J	2.5 J	0.1 U	700,000	0.15 J	16	29	0.08 U
	TMW44042018	4/25/2018	**5,400**	1 U	1.6 J	72	0.2 J	1 U	36,000	3.6 J	1.7	1.8 U	**3,200**	2.4 J	11,000	**220**	3.5	1,600 J	3 J	0.1 U	770,000	0.061 J	10	12 J	0.08 U
	TMW44102018	10/11/2018	**8,600**	1 U	2.1 J	100	0.5 J	1 U	43,000	5.7 J	2.8	3.4	**5,900**	3.6	14,000	**400**	5.1	2,700 J	2 J	0.1 U	790,000	0.092 J	14	16 J	0.08 U
TMW45	TMW45042017	4/28/2017	170 J	1 U	0.96 J	70	0.3 U	1 U	29,000	1.8 U	0.29 J	1.6 J	110	0.18 J	7,500	150	1.3 J	670 J	0.77 J	0.033 J	930,000	0.072 J	4.4 J	8 U	0.052 J
	TMW45102017	10/27/2017	57 J	1 U	1.1 J	70	0.3 U	1 U	26,000	1.8 U	0.083 J	1.6 J	85 U	0.7 U	7,300	110	0.89 J	940 U	0.85 J	0.1 U	910,000	0.2 U	3.9 J	8 U	0.08 U
	TMW45042018	5/2/2018	84 J	1 U	0.99 J	73	0.3 U	1 U	29,000	1.8 U	0.17 J	1.8 U	53 J	0.7 U	7,600	130	1 J	650 J	0.78 J	0.1 U	900,000	0.2 U	4.5 J	12 J	0.08 U
	TMW45102018	10/17/2018	23 J	1 U	0.98 J	66	0.3 U	1 U	28,000	1.8 U	0.16 J	1.4 J	85 U	0.7 U	7,100	120	1.1 J	570 J	2 U	0.1 U	890,000	0.2 U	2 U	8 U	0.08 U
TMW46	TMW46042017	4/20/2017	910 J	1 U	0.49 J	27	0.3 U	1 U	71,000 J	1.6 J	0.37 J	1.6 J	570 J	0.56 J	19,000	19	0.91 J	1,000 J	**110 J**	0.1 U	1,200,000	0.2 U	3.9 J	5.3 J	0.08 UJ
	TMW46102017	10/25/2017	**15,000**	1 U	3.3 J	370	0.91 J	1 U	100,000	11	6.2	8.1	**9,900**	10	22,000	**440**	8.5	3,100	**120**	0.1 U	1,100,000	0.17 J	23	33	0.032 J
	TMW46042018	4/25/2018	**7,600**	1 U	1.3 J	170	0.51 J	1 U	87,000	5 J	2.7	1.8 U	**4,000**	3.2	18,000	180	3.5	2,100 J	**120**	0.1 U	1,300,000	0.062 J	12	12 J	0.08 U
TMW46	TMW46102018	10/10/2018	3,600	1 U	1.1 J	82	0.1 J	1 U	87,000	3.3 J	1.3	2.2	**2,300**	1.7 J	20,000	75	1.9 J	2,500 J	**110**	0.1 U	1,200,000	0.2 U	6.8	8 U	0.048 U
TMW47	TMW47042017	4/25/2017	20 J	1 U	0.44 J	14	0.3 U	1 U	6,100	1.8 U	0.2 U	1.8 U	85 U	0.7 U	680	38	1 U	3,300	2 U	0.1 U	540,000	0.2 U	2 U	8 U	0.08 U
	TMW47102017	10/26/2017	70 U	1 U	0.55 J	12	0.3 U	1 U	5,800	1.8 U	0.2 U	1.8 U	85 U	0.7 U	670	40	1 U	940 U	2 U	0.1 U	560,000	0.2 U	2 U	2.1 J	0.08 U
	TMW47042018	5/3/2018	70 U	1 U	0.53 J	13	0.3 U	1 U	6,200	1.8 U	0.064 J	2.4	25 J	0.7 U	660	38	1 U	1,000 J	2 U	0.1 U	560,000	0.2 U	2 U	8 U	0.08 U
	TMW47102018	10/17/2018	20 J	1 U	0.79 J	12	0.3 U	1 U	5,700	1.8 U	0.08 J	1.8 U	85 U	0.7 U	630	35	0.35 J	900 J	2 U	0.1 U	530,000	0.2 U	2 U	8 U	0.08 U
BEDROCK WELLS																									
BGMW07	BGMW07042018	4/26/2018	1,000	1.7 J	0.43 J	98	0.3 U	1 U	430,000	3.7 J	2.2	0.77 J	780	0.22 J	66,000	**1,400**	15	11,000	2 U	0.1 U	4,600,000	0.2 U	1.6 J	8 U	0.08 U
	BGMW07102018	10/12/2018	**19,000**	1 U	2.2 J	220	0.95 J	1 U	660,000	27	10	8.7	**11,000**	6.8	87,000	**2,100**	19	21,000	2 U	0.1 U	5,900,000	0.18 J	45	32	0.08 U
BGMW08	BGMW08072018	7/18/2018	**260,000**	1 U	9.3	**2,300**	**7.8**	0.48 J	300,000	**120**	43	31	**110,000**	**36**	72,000 J	**3,800**	93	27,000 J	2 U	0.1 U	2,600,000	0.44 J	**130**	140	0.08 U
	BGMW08102018	10/9/2018	**78,000**	1 U	6.3	1,300	2.9	0.3 J	350,000	**71**	24	12	**40,000**	**23**	50,000	**3,000**	55	22,000	2 U	0.1 U	3,200,000	0.2 U	**86**	91	0.08 U
BGMW09	BGMW09042018	5/1/2018	**230,000**	1 U	**20**	1,600	**10**	0.54 J	170,000	**270**	**67**	55	**170,000**	**54**	69,000	**3,400**	170	24,000	2 U	0.1 J	1,100,000	0.7 J	**180**	530	0.08 U
	BGMW09102018	10/10/2018	**100,000**	1 U	9.5 J	570 J	**4.5 J**	1 U	71,000 J	**88 J**	29 J	21 J	**73,000**	**23 J**	33,000	**1,000 J**	74	14,000	2 U	0.046 J	1,200,000	0.35 J	**92 J**	180	0.08 U
	BGMW09102018DUP1	10/10/2018	**120,000**	1 U	**13 J**	990 J	**7.3 J**	0.37 J	150,000 J	**120 J**	44 J	30 J	**80,000**	**36 J**	38,000	**2,100 J**	100	15,000	2 U	0.055 J	1,200,000	0.48 J	**130 J**	250	0.08 U
	BGMW09102018DUP2	10/16/2018	**69,000 J**	1 U	5.2	440 J	3.1 J	1 U	64,000 J	**58 J**	21 J	13 J	**36,000 J**	**15 J**	23,000 J	**770 J**	48 J	9,300 J	2 U	0.1 U	1,100,000	0.25 J	64 J	120 J	0.026 J
	BGMW09102018DUP3	10/16/2018	**25,000 J**	1 U	3 J	120 J	1.2 J	1 U	41,000 J	24 J	7.2 J	5.7 J	**13,000 J**	5.1 J	10,000 J	**270 J**	17 J	4,900 J	2 U	0.1 U	1,200,000	0.091 J	27 J	50 J	0.048 U
BGMW10	BGMW10042018	4/27/2018	560	3.8 J	1 U	16	0.3 U	1 U	7,800	6.5 J	0.26 J	1.2 J	430	0.21 J	1,100	26	2.8 J	840 J	2 U	0.1 U	640,000	0.2 U	0.56 J	8 U	0.08 U
	BGMW10102018	10/11/2018	70 U	1 U	1 U	7.8	0.3 U	1 U	7,700	1 J	0.2 U	1.8 U	25 J	0.7 U	870	23	0.42 J	940 U	2 U	0.1 U	640,000	0.2 U	2 U	8 U	0.048 U
TMW02	TMW02042017	4/24/2017	19 J	1 U	1.1 J	7.7 J	0.3 UJ	1 UJ	22,000	1.8 U	0.2 U	1.8 U	22 J	0.7 UJ	2,700	0.92 J	1 U	2,400 J	**79**	0.1 U	1,100,000	0.2 U	42	8 U	0.08 U
	TMW02102017	10/24/2017	70 U	1 U	0.88 J	8.9	0.3 U	1 U	23,000	1.8 U	0.2 U	1.8 U	85 U	0.88 J	2,600	0.41 J	1 U	1,800 J	**75**	0.1 U	1,100,000	0.2 U	40	8 U	0.08 U
	TMW02042018	5/1/2018	70 U	1 U	1 J	8.6	0.3 U	1 U	24,000	1.8 U	0.2 U	1.8 U	58 J	0.7 U	2,800	0.41 J	1 U	1,900 J	**83**	0.1 U	1,000,000	0.2 U	46	8 U	0.08 U
	TMW02102018	10/16/2018	93 J	1 U	1.1 J	10	0.3 U	1 U	24,000	0.54 J	0.2 U	1.8 U	72 J	0.7 U	2,800	3.3 J	1 U	1,700 J	**74**	0.1 U	1,100,000	0.2 U	39	8 U	0.08 U
TMW14A	TMW14A042017	4/27/2017	43 J	1 U	0.73 J	19	0.3 U	1 U	3,400	1.8 U	0.2 U	1.3 J	34 J	0.7 U	400 J	11	0.6 J	710 J	2 U	0.1 U	450,000	0.2 U	2 U	8 U	0.08 U
	TMW14A102017	10/26/2017	860	1 U	0.52 J	50	0.3 U	1 U	3,800	0.96 J	0.29 J	3.1	400	0.46 J	740	33	0.85 J	940 U	2 U	0.072 J	420,000	0.2 U	0.87 J	5.7 J	0.08 U
	TMW14A102018	10/15/2018	38 J	1 U	0.62 J	18	0.3 U	1 U	3,300	1.8 U	0.2 U	40	35 J	0.7 U	400 J	14	2 J	640 J	2 U	0.13 J	450,000	0.2 U	2 U	3.6 J	0.08 U
TMW16	TMW16042017	4/20/2017	**7,000 J**	1 U	1.6 J	100	0.38 J	1 U	5,600 J	8.1 J	2.1	5.9	**3,800 J**	2 J	2,500	76	23	2,100 J	2 U	1.3 J	430,000	0.05 J	54	28	0.08 UJ
	TMW16102017	10/20/2017	1,000	1 U	1 U	29	0.3 U	1 U	4,300	6.9 J	0.2 U	3.8	**1,400**	0.7 U	850	17	21	2,100 J	2 U	0.1 U	420,000	0.2 U	8.9	15 J	0.08 U
	TMW16042018	4/25/2018	**5,900**	1.3 J	0.5 J	87	0.29 J	1 U	5,300	20	2.7	6.0	**2,800**	1.8 J	1,900	63	54	1,700 J	2 U	0.66 J	460,000	0.051 J	18	31	0.08 U
	TMW16102018	10/19/2018	2,000	1 U	1 U	25	0.3 U	1 U	4,400	19	0.46 J	2.7	900	0.51 J	860	14	14	1,000 J	2 U	1.9 J	450,000	0.2 U	2 U	9.3 J	0.08 U
TMW17	TMW17042017	4/27/2017	180 J	1 U	0.42 J	16	0.3 U	1 U	3,600	1.8 U	0.2 U	0.75 J	51 J	0.72 J	530	14	1 U	890 J	2 U	0.1 U	440,000	0.2 U	2 U	18 J	0.08 U
	TMW17102017	10/26/2017	190 J	1 U	1 U	15	0.3 U	1 U	3,400	1.8 U	0.2 U	1.3 J	85 U	0.72 J	520	13	0.48 J	940 U	2 U	0.13 J	430,000	0.2 U	2 U	92	0.08 U
	TMW17042018	5/3/2018	130 J	1 U	1 U	15	0.3 U	1 U	3,700	1.8 U	0.2 U	0.6 J	74 J	0.58 J	500	12	1 U	850 J	2 U	0.1 U	440,000	0.2 U	2 U	4.2 J	0.08 U
	TMW17102018	10/18/2018	150 J	1 U	1 U	15	0.3 U	1 U	4,100	1.8 U	0.2 U	0.77 J	48 J	0.47 J	580	12	1 U	850 J	2 U	0.1 U	460,000	0.2 U	2 U	4.6 J	0.08 U
TMW18	TMW18042017	4/20/2017	780 J	1 U	1.8 J	22	0.3 U	1 U	6,600 J	1.8 J	0.18 J	2.1	370 J	0.95 J	1,200	13	0.86 J	3,200	2 U	0.14 J	640,000	0.2 U	26	4.9 J	0.08 UJ
	TMW18102017	10/19/2017	370	1 U	2.3 J	15	0.3 U	1 U	6,900	1.6 J	0.2 U	1.6 J	150	0.61 J	1,000	9.1	0.58 J	3,200	1.6 J	0.1 U	690,000	0.2 U	17	7.6 J	0.08 U
	TMW18042018	4/25/2018	490	0.64 J	1.5 J	21	0.3 U	1 U	6,800	1.7 J	0.08 J	1.8 U	85 U	0.77 J	940	10	0.8 J	2,900 J	2 U	0.41 J	690,000	0.2 U	20	6.5 J	0.08 U
	TMW18102018	10/18/2018	200 J	0.75 J	1.3 J	13	0.3 U	1 U	7,400	2.3 J	0.2 U	1.8 U	60 J	0.38 J	1,000	7.0	0.7 J	2,800 J	2 U	0.1 U	660,000	0.2 U	18	2.9 J	0.08 U
TMW19	TMW19042017	4/20/2017	750 J	1 U	1 U	8.2	0.087 J	1 U	9,000 J	0.78 J	0.21 J	1.1 J	350 J	0.35 J	1,300	20	2.5 J	1,200 J	2 U	0.037 J	670,000	0.2 U	7.3	7.8 J	0.08 UJ
	TMW19102017	10/19/2017	760	1 U	1 U	8.9	0.3 U	1 U	9,600	1.1 J	0.2 U	3	380	0.33 J	1,200	22	3.2	1,300 J	0.77 J	0.1 U	720,000	0.2 U	6.4	18 J	0.08 U
	TMW19042018	4/25/2018	750	1 U	1 U	10	0.3 U	1 U	10,000	0.65 J	0.2 J	1.8 U	320	0.32 J	1,100	24	3.0	1,300 J	2 U	0.1 U	700,000	0.2 U	6.0	8.6 J	0.08 U
	TMW19102018	10/18/2018	1,300	1 U	1 U	8.3	0.1 J	1 U	10,000	1.2 J	0.22 J	1.4 J	540	0.36 J	1,300	21	2.4 J	1,000 J	2 U	0.043 J	660,000	0.2 U	2 U	6.9 J	0.08 U

TABLE B-7: TOTAL METALS ANALYTICAL RESULTS FOR 2017 - 2018

Interim Northern Area Groundwater Monitoring Plan
Fort Wingate Depot Activity, New Mexico

	Sample ID	Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Mercury
			µg/L																						
TMW30	TMW30042017	4/19/2017	590	1 U	0.88 J	16	0.3 U	1 U	52,000	1.9 J	0.51 J	2.1	590	0.51 J	11,000	13 J	1 J	1,100 J	6.8	0.13 J	480,000	0.2 U	12	11 J	0.08 U
	TMW30102017	10/25/2017	1,200	1 U	0.82 J	20	0.3 U	1 U	51,000	0.77 J	0.41 J	1.3 J	920	0.71 J	11,000	21	0.37 J	930 J	7.5	0.1 U	420,000	0.2 U	15	8.5 J	0.08 U
	TMW30042018	4/26/2018	1,300	1 U	1 J	30	0.3 U	1 U	52,000	1.5 J	0.39 J	1.8 U	**1,200**	0.77 J	12,000	29	0.92 J	980 J	7.3	0.1 U	450,000	0.2 U	16	8 U	0.08 U
	TMW30102018	10/11/2018	690	1 U	0.81 J	16	0.3 U	1 U	58,000	1.3 J	0.24 J	1.1 J	520	0.36 J	12,000	12	0.61 J	1,400 J	6.4	0.1 U	480,000	0.2 U	14	8 U	0.08 U
TMW31D	TMW31D042017	4/27/2017	70 U	1 U	0.65 J	11	0.3 U	1 U	68,000	1.8 U	0.13 J	1.7 J	85 U	0.81 J	11,000	5.7	0.55 J	1,500 J	8.1	0.1 U	560,000	0.2 U	7.0	23	0.08 U
	TMW31D042017DUP	4/27/2017	46 J	1 U	0.4 J	11	0.3 U	1 U	66,000	1.8 U	0.2 U	0.71 J	30 J	0.7 U	11,000	4.0	0.36 J	1,400 J	8.7	0.1 U	540,000	0.2 U	7.3	16 J	0.08 U
	TMW31D102017	10/26/2017	70 U	1 U	0.47 J	9.1	0.3 U	1 U	61,000	1.8 U	0.06 J	0.56 J	85 U	0.7 U	11,000	5.5	0.56 J	940 U	7.7	0.1 U	570,000	0.2 U	6.5	18 J	0.08 U
	TMW31D102017DUP	10/26/2017	70 U	1 U	0.67 J	8.7	0.3 U	1 U	61,000	1.8 U	0.2 U	0.63 J	85 U	0.7 U	12,000	4.3	1 U	1,700 J	8.1	0.1 U	560,000	0.2 U	6.4	19 J	0.08 U
	TMW31D042018	5/2/2018	70 U	1 U	0.55 J	10	0.3 U	1 U	70,000	1.8 U	0.061 J	1.8 U	45 J	0.7 U	12,000	3.5	0.3 J	1,500 J	8.2	0.1 U	540,000	0.2 U	7.8	15 J	0.08 U
TMW31D	TMW31D042018DUP	5/2/2018	70 U	1 U	0.34 J	9.4	0.3 U	1 U	71,000	0.76 J	0.059 J	1.8 U	85 U	0.7 U	12,000	3.6	1 U	1,600 J	8.0	0.1 U	560,000	0.2 U	7.7	16 J	0.08 U
	TMW31D102018	10/16/2018	70 U	1 U	0.36 J	8.6	0.3 U	1 U	70,000	1.8 U	0.2 U	0.62 J	85 U	0.7 U	12,000	3.7	1 U	1,600 J	7.7	0.1 U	550,000	0.2 U	4.9 J	8 U	0.08 U
	TMW31D102018DUP	10/16/2018	70 U	1 U	0.33 J	8.3	0.3 U	1 U	67,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	11,000	3.5	0.32 J	1,600 J	7.1	0.1 U	530,000	0.2 U	4.6 J	8 U	0.08 U
TMW32	TMW32042017	4/27/2017	70 U	1 U	1.3 J	6.4	0.3 U	1 U	11,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	1,100	26	0.48 J	1,000 J	3.4 J	0.1 U	740,000	0.2 U	1.9 J	3.2 J	0.08 U
	TMW32102017	10/20/2017	19 J	1 U	0.87 J	8.7	0.3 U	1 U	11,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	1,200	27	1 U	2,900 J	2 U	0.1 U	670,000	0.2 U	2 U	2.5 J	0.08 U
	TMW32042018	5/1/2018	70 U	1 U	0.73 J	7.8	0.3 U	1 U	11,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	1,200	26	1 U	940 U	4.4 J	0.1 U	680,000	0.2 U	3.5 J	8 U	0.08 U
	TMW32102018	10/12/2018	70 U	0.46 J	1.5 J	6.0	0.3 U	1 U	11,000	1.8 U	0.082 J	1.8 U	85 U	0.7 U	1,200	25	0.39 J	1,400 J	3.4 J	0.1 U	760,000	0.2 U	1.8 J	2.4 J	0.08 U
TMW36	TMW36042017	4/20/2017	160 J	1 U	1 U	7.7	0.3 U	1 U	7,900 J	3.6 J	0.23 J	0.9 J	85 UJ	0.49 J	1,000	15	6.6	1,200 J	2 U	0.91 J	670,000	0.2 U	2 J	16 J	0.08 UJ
	TMW36102017	10/19/2017	350	1 U	1 U	8.8	0.3 U	1 U	8,300	2 J	0.2 U	1 J	160	0.47 J	950	17	4.1	1,100 J	2 U	0.1 U	680,000	0.2 U	2 U	20	0.08 U
	TMW36042018	4/25/2018	350	1 U	1 U	8.1	0.3 U	1 U	8,100	3.6 J	0.22 J	1.8 U	85 U	0.55 J	880	15	6.5	1,100 J	2 U	0.41 J	700,000	0.2 U	2 U	18 J	0.08 U
	TMW36102018	10/18/2018	260 J	1 U	1 U	6.9	0.3 U	1 U	9,200	5 J	0.2 J	1.8 U	140	0.31 J	1,000	17	10	930 J	2 U	0.1 U	670,000	0.2 U	2 U	7 J	0.08 U
TMW37	TMW37042017	4/20/2017	540 J	1 U	0.35 J	12	0.1 J	1 U	5,500 J	1.8 J	0.32 J	1.3 J	380 J	1.3 J	800	13	10	1,100 J	2 U	0.1 U	540,000	0.2 U	3 J	53	0.08 UJ
	TMW37102017	10/20/2017	470	1 U	0.59 J	15	0.3 U	1 U	5,600	2.4 J	0.2 U	1.7 J	450	1.6 J	730	11	7.2	2,400 J	2 U	0.1 U	510,000	0.2 U	9.4	60	0.08 U
	TMW37042018	4/25/2018	710	1 U	0.36 J	13	0.3 U	1 U	5,300	5.7 J	0.39 J	1.8 U	490	1.6 J	630	12	11	1,000 J	2 U	0.1 U	560,000	0.2 U	4.7 J	56	0.08 U
	TMW37102018	10/18/2018	2,400	1 U	0.4 J	19	0.3 U	1 U	8,100	20	1.2	2.4	**1,300**	3.0	1,100	37	55	1,300 J	2 U	0.099 J	590,000	0.2 U	2 U	130	0.08 U
TMW38	TMW38042017	4/26/2017	290 J	1 U	0.6 J	16	0.3 U	1 U	17,000	1.8 U	0.2 J	0.6 J	350	0.22 J	2,100	79	0.59 J	6,300	2 U	0.1 U	880,000	0.2 U	2 U	29	0.08 U
	TMW38102017	10/26/2017	37 J	1 U	0.59 J	13	0.3 U	1 U	14,000	1.8 U	0.097 J	1.8 U	85 U	0.7 U	1,800	69	1 U	940 U	2 U	0.1 U	820,000 J	0.2 U	2 U	4.5 J	0.08 U
	TMW38042018	5/1/2018	45 J	1 U	0.56 J	13	0.3 U	1 U	19,000	1.8 U	0.1 J	1.8 U	170	0.7 U	2,000	76	1 U	1,700 J	2 U	0.1 U	860,000	0.2 U	2 U	8 U	0.08 U
	TMW38102018	10/19/2018	560	0.78 J	1 U	17	0.3 U	1 U	6,900	0.69 J	0.16 J	0.99 J	400	0.3 J	870	47	0.51 J	830 J	2 U	0.1 U	550,000	0.2 U	10	28	0.08 U
TMW39D	TMW39D042017	4/27/2017	35 J	1 U	1 U	8.7	0.3 U	1 U	20,000	1.8 U	0.2 U	1.8 U	27 J	0.7 U	2,100	57	0.72 J	1,300 J	2 U	0.1 U	740,000	0.2 U	2 U	2 J	0.08 U
	TMW39D102017	10/27/2017	31 J	1 U	1 U	7.4	0.3 U	1 U	18,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	2,100	50	1 U	940 U	2 U	0.1 U	720,000	0.2 U	2 U	8 U	0.08 U
	TMW39D042018	5/3/2018	110 J	1 U	1 U	7.3	0.3 U	1 U	19,000	1.8 U	0.057 J	1.8 U	57 J	0.7 U	1,900	52	1 U	1,200 J	2 U	0.1 U	750,000	0.2 U	2 U	8 U	0.08 U
	TMW39D102018	10/16/2018	1,700	1 U	1 U	12	0.3 U	1 U	18,000	1.4 J	0.47 J	3.7	740	0.48 J	2,200	60	1.2 J	1,500 J	2 U	0.1 U	760,000	0.2 U	2 U	8 U	0.08 U
TMW40D	TMW40D042017	4/25/2017	19 J	1 U	0.43 J	10	0.3 U	1 U	14,000	1.8 U	0.082 J	1.8 U	85 U	0.7 U	2,000	50	1 U	4,200	3.2 J	0.1 U	700,000	0.2 U	3.2 J	2.4 J	0.08 U
	TMW40D102017	10/23/2017	22 J	1 U	0.36 J	10	0.3 U	1 U	13,000	1.8 U	0.06 J	1.8 U	85 U	0.7 U	1,800	48	1 U	1,500 J	2 U	0.1 U	680,000	0.2 U	2.3 J	5.8 J	0.08 U
	TMW40D042018	5/1/2018	70 U	1 U	0.35 J	10	0.3 U	1 U	15,000	1.1 J	0.088 J	0.65 J	85 U	4.8	1,900	53	1 U	1,400 J	3.1 J	0.1 U	690,000	0.2 U	2.9 J	8 U	0.08 U
	TMW40D102018	10/12/2018	70 U	1 U	0.44 J	8.1	0.3 U	1 U	15,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	2,100	50	1 U	1,500 J	2.8 J	0.1 U	780,000	0.2 U	2.2 J	3 J	0.08 U
TMW48	TMW48042017	4/26/2017	70 U	1 U	0.58 J	11	0.3 U	1 U	84,000	1.8 U	0.2 U	0.78 J	85 U	0.7 U	16,000	54	0.69 J	5,100	6.3	0.1 U	580,000	0.2 U	4 J	12 J	0.08 U
	TMW48102017	10/27/2017	70 U	1 U	0.74 J	12	0.3 U	1 U	68,000	1.8 U	0.2 U	0.75 J	85 U	0.7 U	14,000	60	1 U	1,900 J	6.5	0.1 U	590,000	0.2 U	3.8 J	11 J	0.08 U
	TMW48042018	5/2/2018	70 U	1 U	0.62 J	12	0.3 U	1 U	79,000	1.8 J	0.064 J	1.8 U	85 U	0.7 U	14,000	59	1 U	1,400 J	6.8	0.1 U	570,000	0.2 U	4.8 J	11 J	0.08 U
	TMW48102018	10/16/2018	70 U	1 U	0.45 J	11	0.3 U	1 U	74,000	1.8 U	0.2 U	1.8 U	85 U	0.7 U	13,000	73	1 U	1,600 J	5.3	0.1 U	580,000	0.2 U	2 U	8 U	0.08 U
TMW49	TMW49042017	4/26/2017	35 J	1 U	0.57 J	11	0.3 U	1 U	80,000	0.9 J	0.058 J	1.6 J	85 U	0.7 U	14,000	4.2	0.44 J	5,000	19	0.1 U	600,000	0.2 U	12	7.5 J	0.08 U
	TMW49102017	10/27/2017	92 J	1 U	0.44 J	15	0.3 U	1 U	62,000	1.2 J	0.2 U	1.1 J	85 U	0.2 J	12,000	8.4	1.1 J	2,000 J	23	0.033 J	650,000	0.2 U	10	7.3 J	0.08 U
	TMW49042018	5/4/2018	34 J	1 U	0.53 J	11	0.3 U	1 U	81,000	1.3 J	0.064 J	0.92 J	23 J	0.7 U	14,000	11	0.48 J	1,400 J	18	0.1 U	600,000	0.2 U	13	10 J	0.08 U
	TMW49102018	10/17/2018	30 J	1 U	0.38 J	10	0.3 U	1 U	79,000	1.1 J	0.14 J	0.72 J	85 U	0.7 U	13,000	19	0.68 J	1,400 J	17	0.1 U	620,000	0.2 U	10	8 U	0.08 U
		SLs:	**5,000**	**6**	**10**	**2,000**	**4**	**5**	**–**	**50**	**50**	**1,000**	**1,000**	**15**	**–**	**200**	**200**	**–**	**50**	**50**	**–**	**2**	**86**	**10,000**	**2**

NOTES:

Note 1) Screening levels for metals are taken from Regional Screening Levels table (USEPA, 2019).
Note 2) The Screening Level are taken from New Mexico Administrative Code Title 20, Chapter 6, Part 2, Section 3103 (NM WQCC).
Bolded concentration indicates result exceeded cited SL.

ABBREVIATIONS & ACRONYMS:

µg/L	micrograms per liter	J	estimated value
U	less than cited Limit of Detection	SL	Screening Level
–	not established or not applicable	WQCC	Water Quality Control Commission
NA	not analyzed		

APPENDIX C

Field Forms

Groundwater Field Sampling Data Sheet

Fort Wingate Depot Activity

Well ID: ____________________

Client: USACE (W912PP19F0001) Date: ____________________

Project # Eco-18-1237 Sampling Personnel:

Location: Wingate Army Depot Casing Diameter: Initial Depth-to-Water (ft):

Purging Method:

Monitoring Method: Well Depth (ft): Screen (TOC)

Purging Date: Water Column (ft): Midscreen (ft):

Sampling Date: Recommended Pump Settings:

Purge Time Start/End: Field Pump Settings:

Sample Time Start/End:

Color of water:		Odor:			
Original Sample		**Duplicate Sample**		**MS/ MSD**	
ID#	Time	ID#	Time	Yes	No

Time (hhmm)	Temp (C)	pH (units)	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	Depth to water (ft)	Total Purged (L)	Purge Rate (L/m)	Comments

Sample Date	Number of Containers	Sample Containers (Volume, Type, No.)	Preservatives (Ice, Acids, Bases)	Analtyical Method	Laboratory

Discharge water Evaporation Pit

Comments:

Well Cap and casing condition
Good / Fair / Bad

Eco & Associates, Inc.
18231 Irvine Blvd., Suite 204
Tustin, CA 92780

CHAIN OF CUSTODY

Lab Info			
Lab	EMAX Laboratories		
Address	1835 W. 205th St, Torrance, CA 90501		
POC	Richard Beauvil		
Email	info@emaxlabs.com	Ph	310-618-8889

Project Info		Company Contact Info	
Company	Eco & Associates, Inc.	PM / POC	Paul Peterson
Project Name	USACE Wingate	Email	ppeterson@ecoinc.info
Project No	Eco-18-1237	Phone	(714) 289-0995
Site Name	Northern Area	Email (Rpt)	chem@ecoinc.info (Reports only)
Site Address	Fort Wingate Depot Activity	Sampler(s)	
	McKinley County, NM		

Analysis Requested

Comments

TAT*:

☐ Rush ___ hrs

☐ Std ___ days

Preservative Code[1]

#	Sample ID	Date	Time	NOC*	SOC*	Matrix
1						
2						

Relinquished By	Date	Time	Signature	Received By	Date	Time	Signature

NOTES:

1) HN=HNO3, HC=HCl
2) NOC - Number of Containers
3) SOC - Size of Containers
4) TAT - Turn Around Time

* NOC - Number of Containers, SOC - Size of Container, TAT - Turn Around Time