

# Final

Groundwater Periodic Monitoring Report

January through June 2017

Fort Wingate Depot Activity

McKinley County, New Mexico

September 2017

Contract No. W912PP-17-C-0003

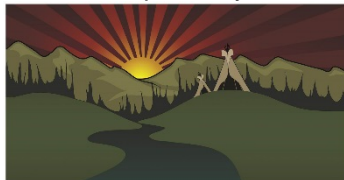
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<b>14. ABSTRACT</b> This Groundwater Periodic Monitoring Report documents the activities conducted from January through June 2017 at Fort Wingate Depot Activity (FWDA) under the Interim Facility-Wide Groundwater Monitoring Plan, Version 9. The report describes the monitoring activities and presents the analytical data.					
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- 23
- 24 NMED HWB = New Mexico Environment Department, Hazardous Waste Bureau
- 25 USEPA 6 = U.S. Environmental Protection Agency Region 6
- 26 FWDA BEC = Fort Wingate Depot Activity Base Realignment and Closure Environmental Coordinator
- 27 OH = Ohio
- 28 NM = New Mexico
- 29 BRACD = U.S. Army Base Realignment and Closure Division
- 30 POC = Point of Contact, Steve Smith
- 31 USACE SWF = U.S. Army Corps of Engineers Fort Worth District
- 32 USACE = U.S. Army Corps of Engineers
- 33 NN = Navajo Nation
- 34 POZ = Pueblo of Zuni
- 35 BIA Zuni = Bureau of Indian Affairs – Zuni Agency
- 36 BIA - NRO = Bureau of Indian Affairs – Navajo Regional Office
- 37 BIA SW = Bureau of Indian Affairs, Southwest Region
- 38 DOI - BIA = Department of the Interior – Bureau of Indian Affairs

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# List of Acronyms and Abbreviations

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1	°C	degrees Celsius
2	ADR	Automated Data Review
3	AOC	area of concern
4	bgs	below ground surface
5	BRAC	Base Realignment and Closure
6	BTOC	below top of casing
7	CAS	Chemical Abstracts Service
8	CERCLA	<i>Comprehensive Environmental Response, Compensation, and Liability Act of 1980</i>
9	CFR	<i>Code of Federal Regulations</i>
10	CH2M	CH2M HILL, Inc.
11	DO	dissolved oxygen
12	DoD	U.S. Department of Defense
13	DRO	diesel range organics
14	DTW	depth to water
15	EDD	electronic data deliverable
16	EDMS	Electronic Data Management System
17	Eh	redox potential
18	EPA	U.S. Environmental Protection Agency
19	ERP	Environmental Restoration Program
20	ft/ft	foot per foot
21	FWDA	Fort Wingate Depot Activity
22	GPMR	Groundwater Periodic Monitoring Report
23	GRO	gasoline range organics
24	GMP	Groundwater Monitoring Plan
25	HMX	octahydro-1.3.5.7-tetranitro-1.3.5.7-tetrazocine
26	ID	identification
27	Innovar	Environmental, Inc.
28	J	analyte was positively identified; reported value is estimated
29	MCL	maximum contaminant level
30	µg/L	microgram(s) per liter
31	µS/cm	microsiemen(s) per centimeter
32	mg/L	milligram(s) per liter
33	MS	matrix spike
34	MSD	matrix spike duplicate
35	mS/cm	millisiemen(s) per centimeter
36	mV	millivolt(s)
37	N	nitrogen
38	N/A	not applicable
39	NA	not analyzed
40	NAVD88	North American Vertical Datum of 1988
41	ND	not detected
42	NE	not established
43	NMAC	New Mexico Administrative Code
44	NMED	New Mexico Environment Department
45	NM WQCC	New Mexico Water Quality Control Commission
46	No.	number
47	NS	not sampled



## List of Acronyms and Abbreviations

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1	NTU	nephelometric turbidity unit
2	OB/OD	Open Burn/Open Detonation
3	ORP	oxidation reduction potential
4	pH	scale used to measure the concentration of hydrogen atoms (acidity) of a sample
5	QA	quality assurance
6	QC	quality control
7	QSM	Quality Systems Manual
8	R	result is not usable for any purpose
9	RCRA	<i>Resource Conservation and Recovery Act</i>
10	RDX	hexahydro-1,3,5-trinitro-1,3,5-triazine
11	RFI	<i>Resource Conservation and Recovery Act</i> Facility Investigation
12	RSL	Regional Screening Level
13	Sundance	Sundance Consulting, Inc.
14	SVOC	semivolatile organic compound
15	SWMU	solid waste management unit
16	TAL	target analyte list
17	TCL	target compound list
18	TDS	total dissolved solids
19	TNT	2,4,6-trinitrotoluene
20	TOC	top of casing
21	TPH	total petroleum hydrocarbon(s)
22	TPMC	TerranearPMC
23	U	non-detected result below the limit of detection
24	UJ	analyte was not detected
25	U.S.	United States
26	USACE	U.S. Army Corps of Engineers
27	USGS	U.S. Geological Survey
28	VOC	volatile organic compound

# Executive Summary

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This Groundwater Periodic Monitoring Report (GPMR) documents groundwater monitoring activities conducted at Fort Wingate Depot Activity (FWDA) from January through June 2017 in accordance with the *Interim Facility-Wide Groundwater Monitoring Plan, Version 9* (Innovar Environmental, Inc. [Innovar], 2016). Groundwater monitoring was performed by Sundance Consulting, Inc. and CH2M HILL, Inc. at FWDA under contract to the United States (U.S.) Army Corps of Engineers, Albuquerque District, as part of the Environmental Restoration Program. This GPMR was prepared on behalf of the U.S. Department of the Army Base Realignment and Closure (BRAC) Division for submission to the New Mexico Environment Department (NMED) – Hazardous Waste Bureau, as required by Section V.A of the *Resource Conservation and Recovery Act* (RCRA) Permit, U.S. Environmental Protection Agency (EPA) Identification (ID) Number (No.) NM6213820974 for FWDA (NMED, 2005). The FWDA RCRA Permit was most recently modified in February 2015 (NMED, 2015). This GPMR summarizes the monitoring activities and results.

Field activities conducted during the reporting period included two groundwater elevation surveys and one groundwater sampling event. Groundwater elevation surveys were performed on January 5 and 6, 2017, and on April 17 and 18, 2017. Depth to water was measured at 73 monitoring wells and piezometers; four wells (FW35, MW18S, MW22S, and MW40S) were verified as dry during the January monitoring event, and three wells (FW35, MW18S, and MW22S) were verified as dry during the April monitoring event. The groundwater sampling event for the reporting period was performed from April 17 to 28, 2017. Groundwater samples were collected from 60 monitoring wells listed in the Groundwater Monitoring Plan (Innovar, 2016). Monitoring wells FW35 and MW22S were dry and could not be sampled during this reporting period. Well MW18S has been dry since 2013 and is not listed for sampling in Groundwater Monitoring Plans (TerranearPMC, 2008; Innovar, 2016). The groundwater samples were analyzed for the constituents listed in the most recently NMED approved Groundwater Monitoring Plan (TerranearPMC, 2008). During this reporting period, access to the Open Burn/Open Detonation Area was not allowed due to explosive hazards associated with the excavation and removal of unexploded ordnance, munitions, and explosives of concern.

Groundwater flow directions at FWDA are controlled by regional geologic structure orientation and by local topography and stratigraphy. The flow of groundwater within the Northern Area alluvium is from potentiometric highs in the east, north, and south toward a potentiometric low west of the Administration Area. Hydraulic gradients in alluvium ranged from 0.002 foot per foot (ft/ft) to 0.04 ft/ft. Groundwater flow in the bedrock appears to flow radially to a potentiometric low south of monitoring well TMW32 in the eastern portion of the Workshop Area. Bedrock groundwater flow is to the west in the western portion of the Workshop Area, with an interpreted geologic structural feature impeding flow between the two areas. Groundwater elevation in the bedrock groundwater unit is slightly higher than in the alluvial groundwater unit and exists under hydraulically confined conditions in most of the Northern Area. Groundwater hydraulic gradients in the bedrock unit range from approximately 0.005 ft/ft to 0.01 ft/ft in the Workshop Area.

Nitrate, perchlorate, explosives, one volatile organic compound (VOC), one semivolatile organic compound (SVOC), and metals were detected in groundwater samples at concentrations above the regulatory screening levels. Six groundwater contaminant plumes were identified: two nitrate plumes, one in the alluvial groundwater unit and one in the bedrock groundwater unit; two perchlorate plumes, one in the alluvial groundwater unit and one in the bedrock groundwater unit; an explosives plume in the alluvial groundwater unit; and a 1,2-dichloroethane plume in the alluvial groundwater unit. Detections of SVOCs in groundwater samples are sporadic and are not attributed to a specific contaminant plume.

The highest concentrations of nitrate contamination occur in shallow alluvial groundwater units of the Northern Area. The nitrate plume in the alluvial groundwater unit appears to originate from the trinitrotoluene (TNT) Leaching Beds (Solid Waste Management Unit [SWMU] 1) and extends downgradient to the Administration Area. The extent of the alluvial nitrate plume is not defined to the west of the Administration Area. The bedrock nitrate

## Executive Summary

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1 plume is present in the vicinity of the TNT Leaching Beds (SWMU 1) and downgradient of the Building 528  
2 Complex (SWMU 27). A portion of the bedrock nitrate plume is collocated with the bedrock perchlorate plume.  
3 The collocated perchlorate and nitrate plumes appear to have a common source at the Building 528 Complex  
4 (SWMU 27).

5 The highest perchlorate concentrations were detected in groundwater samples from the bedrock groundwater  
6 unit in the Workshop Area. The northern boundary of the bedrock perchlorate plume has not been defined. The  
7 alluvial perchlorate plume is in the same vicinity as the bedrock plume. The source of perchlorate appears to be in  
8 the Building 528 Complex (SWMU 27).

9 The compound hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) is the primary explosive compound of interest. This  
10 compound is consistently detected at concentrations above screening levels in the Workshop and eastern  
11 Administration Areas. The explosives plume in the alluvial groundwater unit appears to originate from the TNT  
12 Leaching Beds (SWMU 1) in the Workshop Area. Groundwater concentrations of explosive compounds (primarily  
13 RDX) attenuate to levels below the screening level within 2,500 feet downgradient of the TNT Leaching Beds  
14 (SWMU 1).

15 One VOC was detected in groundwater samples at concentrations above regulatory cleanup standards. The  
16 compound 1,2-dichloroethane was historically used as a gasoline additive and degreasing solvent. The  
17 1,2-dichloroethane plume in the alluvial groundwater unit is limited to a group of alluvial monitoring wells near a  
18 former fueling facility (SWMU 45, Building 6) in the Administration Area. Groundwater samples collected from  
19 two alluvial monitoring wells had concentrations above the EPA's maximum contaminant level of 5.0 micrograms  
20 per liter. No other VOCs were detected above cleanup standards. No SVOCs were detected in excess of screening  
21 levels during this reporting period.

22 Dissolved aluminum, arsenic, iron, lead, manganese, and selenium were detected above regulatory screening  
23 levels in one or more groundwater samples during this reporting period from January through June 2017. Because  
24 background groundwater concentrations of dissolved or total metals have not been accepted for FWDA by NMED,  
25 it cannot clearly be demonstrated whether the detected concentrations are a result of natural background  
26 conditions or anthropogenic sources of contamination.

27 Additional delineation and investigation for groundwater plumes at FWDA are planned. A Supplemental RCRA  
28 Facility Investigation (RFI) Work Plan will be re-submitted to the NMED in August 2017. This Supplemental RFI  
29 Work Plan proposes locations for additional groundwater monitoring wells necessary to further delineate the  
30 alluvial and bedrock groundwater contaminant plumes at FWDA.

# 1.0 Introduction

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2 This Groundwater Periodic Monitoring Report (GPMR) documents groundwater monitoring activities conducted at  
3 Fort Wingate Depot Activity (FWDA) from January through June 2017 in accordance with the *Interim Facility-Wide*  
4 *Groundwater Monitoring Plan, Version 9* (Innovar Environmental, Inc. [Innovar], 2016). Groundwater monitoring  
5 was performed by Sundance Consulting Inc. (Sundance) and CH2M HILL Inc. (CH2M) at FWDA under contract to  
6 the United States (U.S.) Army Corps of Engineers (USACE), Fort Worth District, as part of the Environmental  
7 Restoration Program (ERP). This GPMR was prepared on behalf of the U.S. Department of the Army Base  
8 Realignment and Closure (BRAC) Division for submission to the New Mexico Environment Department (NMED) –  
9 Hazardous Waste Bureau, as required by Section V.A of the *Resource Conservation and Recovery Act (RCRA)*  
10 Permit, U.S. Environmental Protection Agency (EPA) Identification (ID) Number (No.) NM6213820974 for FWDA  
11 (NMED, 2005). Permit modifications are discussed in Section 1.3 of this GPMR.

12 The U.S. Department of the Army BRAC Division is managing FWDA for closure and transfer of property. As part of  
13 the planned property transfer to the U.S. Department of the Interior, the installation has been divided into reuse  
14 parcels as specified by the RCRA Permit. Pending RCRA closure and property transfer of the reuse parcels, the ERP  
15 must comply with the RCRA Permit.

## 1.1 Site Description and Activities

17 FWDA is located in McKinley County in western New Mexico, approximately 7 miles east of Gallup and 130 miles  
18 west of Albuquerque (Figure 1-1). The current facility occupies an area of approximately 24 square miles  
19 (15,277 acres).

20 FWDA was founded as a U.S. Cavalry post in the 1860s. In 1918, the facility became a munitions storage depot for  
21 the U.S. Department of the Army. The facility was operated by the U.S. Department of the Army for numerous  
22 missions from 1918 until 1993, when FWDA was selected for closure under the BRAC Act of 1988. In 2002, the  
23 U.S. Department of the Army reassigned many functions at FWDA to the BRAC Division, including property  
24 management and ERP activities. In addition to property management and ERP activities, the Missile Defense  
25 Agency currently leases and uses portions of the FWDA for missile testing.

26 Historical activities at FWDA that may have contributed to soil and groundwater contamination include munitions  
27 storage, maintenance, and disposal; the use and storage of petroleum fuels; and equipment maintenance  
28 (TerranearPMC [TPMC], 2008). The following areas had historical activities with known or potential impacts to site  
29 soils and/or groundwater:

- 30 ○ The Administration Area in the northern portion of FWDA is the location of all active administrative and  
31 maintenance buildings. Munitions storage and shipping, fuel storage and dispensary, and mechanical  
32 maintenance activities were performed in this area.
- 33 ○ The Workshop Area is located directly south of the Administration Area and encompasses former  
34 industrial facilities for munitions maintenance and renovation activities, including the former  
35 trinitrotoluene (TNT) washout facility and the TNT Leaching Beds (Solid Waste Management Unit  
36 [SWMU] 1) Area. The buildings and other structures were demolished in 2010.
- 37 ○ The Igloo Areas cover almost half of the current FWDA and were used to store various munitions. These  
38 areas consist of rows of earth-covered igloos (also known as earth-covered magazines) located in the  
39 central portion of the installation. The 10 Igloo Areas contain 732 earth-covered igloos and 241 earthen  
40 revetments (Innovar, 2016).
- 41 ○ The Open Burn/Open Detonation (OB/OD) Area includes munitions disposal locations in the southwestern  
42 and western portions of the installation. The closed OB/OD Area was used from 1948 to 1955 and  
43 includes the Old Burning Ground, the Demolition Landfill Area, and the Old Demolition Area (Program

1 Management Company, 1999). The current OB/OD Area was used from 1955 to 1993 and contains the  
2 hazardous waste management unit identified in the RCRA Permit.

## 3 1.2 Hydrogeologic Setting

4 This section summarizes the hydrogeologic setting at FWDA to provide context for the contaminant nature and  
5 discussions presented in Section 5 of this GPMR.

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

12 The majority of FWDA is underlain by the Triassic-age Chinle Group, which is predominantly non-marine, red-bed  
13 siliciclastics. The Chinle Group consists of the Shinarump, Bluewater Creek, Petrified Forest, and Owl Rock  
14 Formations (Anderson et al., 2003). The Petrified Forest Formation directly underlies the majority of the  
15 installation and is subdivided into three members: the Blue Mesa, Sonsela, and Painted Desert. All three members  
16 of the Petrified Forest Formation outcrop in various locations across the installation. The Blue Mesa, Sonsela, and  
17 Painted Desert lithologies are green-gray smectitic mudstone, light-gray to yellowish-brown cross-bedded  
18 sandstone, and reddish-brown and grayish-red smectitic mudstone, respectively (Innovar, 2016). In the eastern  
19 portion of FWDA, the older Bluewater Creek and Shinarump Formations outcrop intermittently between layers of  
20 Quaternary alluvium (Innovar, 2016).

21 Permian-age bedrock underlies the Mesozoic-age rock beneath FWDA. These strata do not outcrop in FWDA and  
22 are not known to be contaminated by historical activities at the installation. However, the deeper, older  
23 San Andres Limestone and Glorieta Sandstone Formations historically provided the potable water supply to the  
24 installation.

25 In the northern portion of the installation, the surface is covered by either remnants of the Chinle Group or  
26 Quaternary alluvial and colluvial deposits. The majority of the alluvial deposits are present in the Northern Area of  
27 the installation in lowland areas between bedrock remnants. Alluvial deposits are also present along intermittent  
28 streams draining the Nutria Monocline (also known as the Hogback) and the Zuni Mountains. Intermittent  
29 streams flow downgradient through the northern portion of the installation before joining the south fork of the  
30 Rio Puerco. Based on soil boring logs from the installation, alluvial deposits are heterogeneous and are thickest  
31 near major drainages. The alluvium has been found to be up to 150 feet thick near the south fork of the  
32 Rio Puerco. In the Administration Area, alluvium thickness generally ranges between 30 and 70 feet.

33 The regional groundwater aquifer in the vicinity of FWDA is present in the Permian San Andres Limestone and  
34 Glorieta Sandstone Formations (Cooper and John, 1968; Summers, 1972). Shallow groundwater is also present in  
35 the unconsolidated alluvium and Mesozoic-age bedrock overlying these units but is typically of poor quality.

36 Groundwater flow in the San Andres-Glorieta aquifer is to the north beneath FWDA and is separated from the  
37 shallow groundwater units by shales and claystones across much of FWDA (Anderson et al., 2003). The top of the  
38 San Andres-Glorieta aquifer is approximately 1,100 feet below ground surface (bgs) near the Administration Area.  
39 Recharge to both the regional aquifer and to shallow groundwater units is from precipitation and snowmelt  
40 primarily in the upland areas and along faults south of FWDA.

41 Shallow groundwater flow in the southern portions of the installation (OB/OD Area) is to the north. Groundwater  
42 recharge occurs in the higher elevations and discharges to the arroyos. Significant thicknesses of alluvium are not  
43 present in the OB/OD Area, and shallow groundwater typically occurs in the bedrock units in these areas;  
44 however, water-bearing zones are occasionally identified in the alluvium present in arroyo bottoms.

1 The groundwater flow direction in the alluvium present in the northern portion of FWDA is predominantly to the  
2 southwest and west. Along the northern border of the installation, hydraulic communication exists between the  
3 groundwater and the Rio Puerco during periods of active stream flow. Groundwater flow in the alluvium occurs  
4 primarily in discontinuous, stream-deposited sand and gravel units. Groundwater flow in the bedrock units in the  
5 northern portion of FWDA is to the west and north. The direction of groundwater flow in the bedrock units is  
6 largely controlled by geologic structural features.

7 The depth to water (DTW) under FWDA is generally between 10 and 100 feet bgs. Groundwater is present at  
8 shallow depths in the alluvium along drainages, including the Rio Puerco, with DTW ranging from 12 to 69 feet bgs  
9 in Northern Area alluvial aquifer monitoring wells. Groundwater in the Northern Area bedrock aquifer monitoring  
10 wells is also shallow, with DTW ranging from 30 to 66 feet bgs.

## 11 1.3 Regulatory Background

12 Environmental restoration activities at FWDA began in 1989 under the *Comprehensive Environmental Response,*  
13 *Compensation, and Liability Act* of 1980 (CERCLA) guidelines, as part of the Installation Restoration Program. The  
14 one exception was the current OB/OD Area, thermal treatment unit, which was classified as a RCRA Interim  
15 Status.

16 Since that time, NMED has become the lead regulatory agency. In 2002, the NMED determined that the  
17 remediation pathway would be solely through a RCRA permit for post-closure care of the current OB/OD Area  
18 with a RCRA corrective action module attached to address requirements for other SWMUs and areas of concern  
19 (AOCs). The RCRA Permit was finalized in December 2005 and became effective December 31, 2005. Since the  
20 original permit issuance, the FWDA RCRA Permit has been revised through NMED-modifications issued in 2011,  
21 2014, and 2015 (NMED, 2011, 2014, and 2015). The 2005 RCRA Permit identified one hazardous waste  
22 management unit within the current OB/OD Unit (Parcel 3) and a total of 93 SWMUs and AOCs. The 2011 permit  
23 modification authorized the construction and operation of a Corrective Action Management Unit as a second  
24 hazardous waste management unit. The most recently modified version of the RCRA Permit from February 2015  
25 includes the original Permit and previous modifications (NMED, 2015). The NMED is currently in the process of  
26 preparing a renewal of the FWDA RCRA Permit.

27 Since the 1980s, numerous groundwater investigations have been completed at FWDA. Groundwater  
28 investigation efforts have primarily focused on five areas: the TNT Leaching Beds Area (SWMU 1 located within  
29 Parcel 21), the Administration Area (multiple SWMUs and AOCs located in Parcels 6, 7, and 11), the Eastern  
30 Landfill Area (SWMU 13 located within Parcel 18), Buildings 542 and 600 Area (SWMUs 11 and 4 located within  
31 Parcel 6), and the OB/OD Area (located within Parcel 3). Numerous groundwater monitoring wells have been  
32 installed to characterize the nature and extent of contamination that resulted from activities associated with the  
33 OB/OD Area and various SWMUs and AOCs. Figure 1-2 shows the current monitoring well network, pertinent site  
34 features, and the reuse parcels at FWDA.

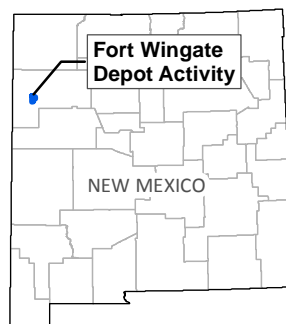
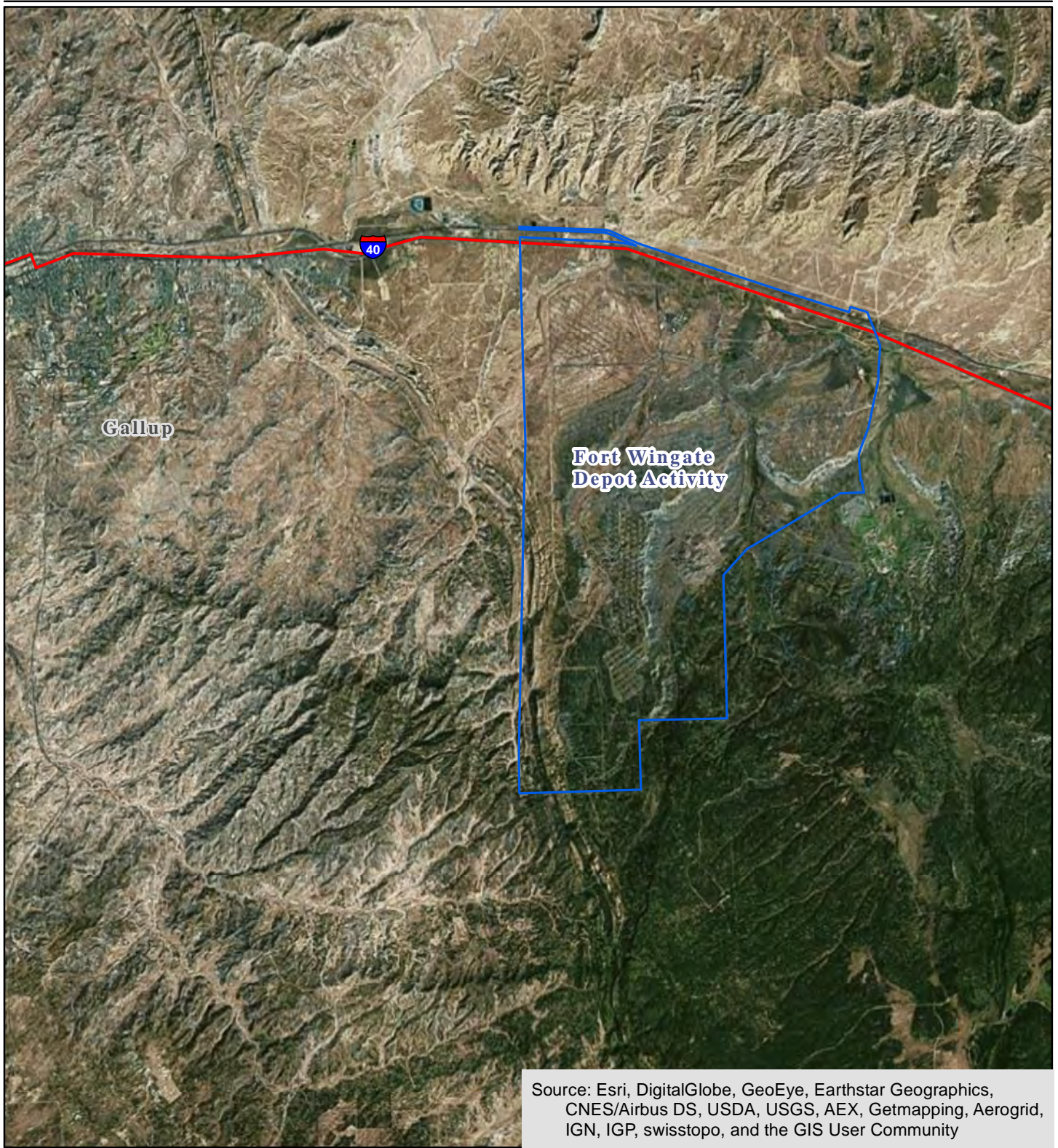
35 The Interim Facility-Wide Groundwater Monitoring Plan (GMP) is required by Permit Section V.A and describes  
36 the groundwater monitoring activities to be conducted as part of the ERP at FWDA. The current groundwater  
37 monitoring well network has been designed to evaluate the horizontal and vertical extent of chemical  
38 constituents in groundwater and the transport of chemicals that originate from multiple sources. The current  
39 GMP combines the original 2008 Plan, approved by NMED, and subsequent annual revisions. Revisions to the  
40 GMP are based on an analysis of historical groundwater monitoring data and a data quality objective assessment.  
41 Sampling under the NMED-approved GMP has been ongoing since 2008. The results of the monitoring activities  
42 are documented in semiannual groundwater monitoring reports and submitted to NMED, tribes, and other  
43 stakeholders.

## 1 1.4 Document Organization

2 The GPMR is organized to comply with the guidance presented in *General Reporting Requirements for Routine*  
3 *Groundwater Monitoring at RCRA Sites* (NMED, 2003). The remainder of this GPMR is organized into the following  
4 sections:

- 5 ○ Section 2 provides a discussion of the activities or scope of services performed during the January through  
6 June 2017 reporting period.
- 7 ○ Section 3 presents the applicable regulatory criteria against which sample analytical results are compared  
8 for FWDA.
- 9 ○ Section 4 presents the results of the quarterly groundwater elevation surveys.
- 10 ○ Section 5 presents the groundwater sample analytical data for the January through June 2017 reporting  
11 period.
- 12 ○ Section 6 presents a summary discussion of the groundwater monitoring results.
- 13 ○ Section 7 presents a list of the works cited in this GPMR.



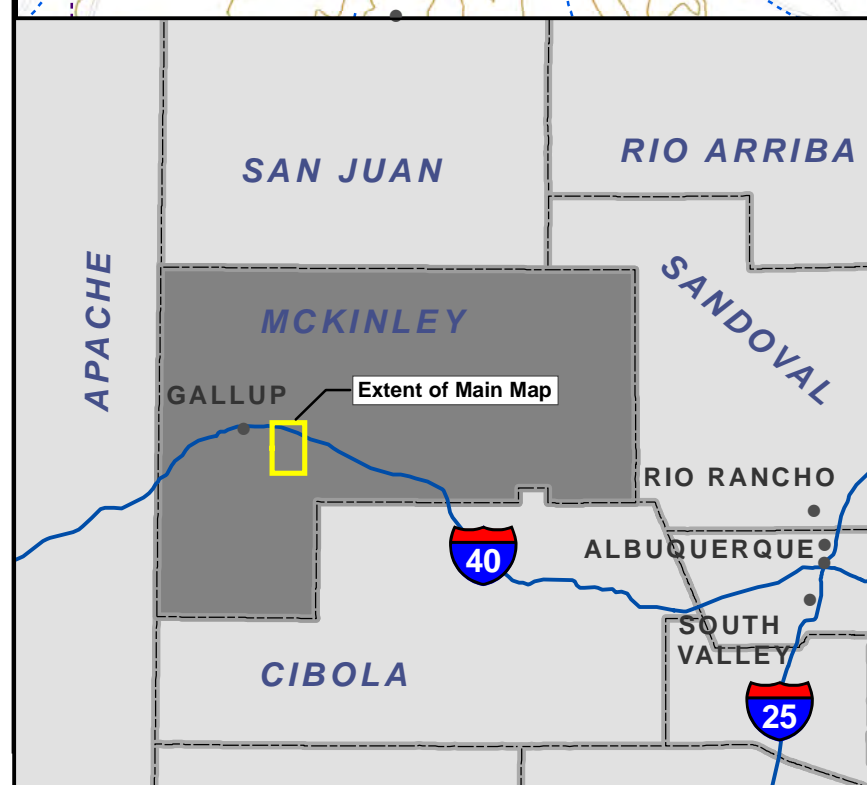
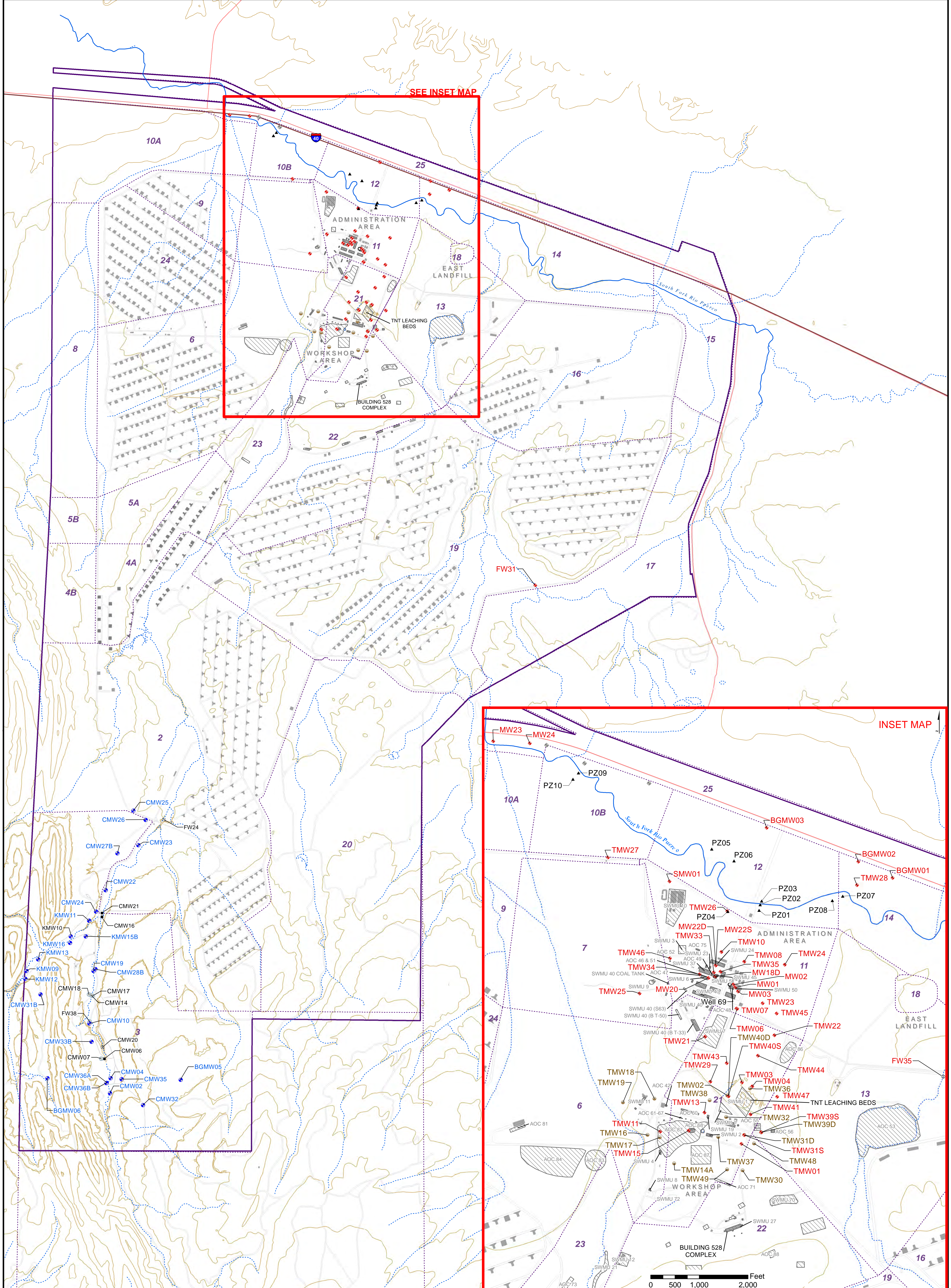


**FIGURE 1-1  
LOCATION MAP**

Groundwater Periodic Monitoring  
Report for January to June 2017  
*Fort Wingate Depot Activity,  
McKinley County, New Mexico*







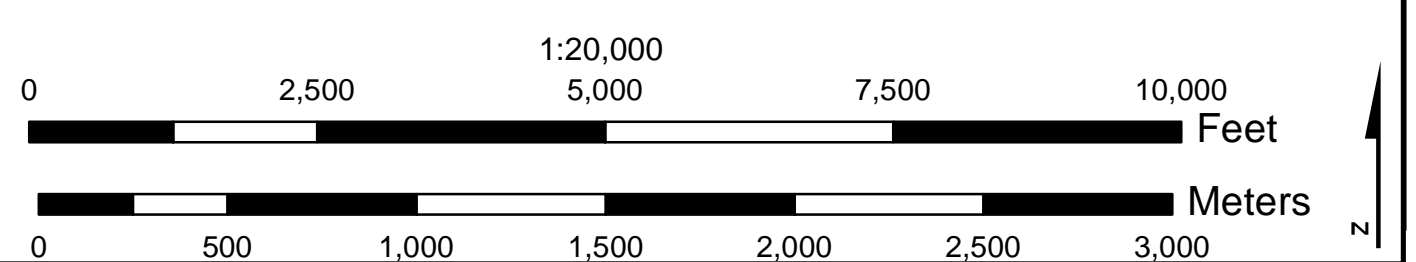
**Legend**

▲ Piezometers	— Stream
● OB/OD Monitoring Well	▨ Property Transfer Parcel (10A)
◆ Alluvial Monitoring Well	▨ AOC and SWMU
◆ Abandoned Well	■ Building
● Bedrock Monitoring Well	▭ Fort Wingate Installation Boundary
○ Dry or Damaged Well	— Topographic Contour (100 foot Interval)
● Removed	— Fort Wingate Road
■ Buried Well	
○ Water Supply Well 69	
○ Arroyo	

**Data Sources:**  
 Roads, Railroad: Tele Atlas GDT-Dynamap, 2008;  
 Populated Places: ESRI 2005;  
 Fort Wingate Environmental Restoration Detail: USACE.

**Notes:**  
 AOC = Area of Concern  
 OB/OD = Open Burn/Open Detonation  
 SWMU = Solid Waste Management Unit

**FIGURE 1-2**  
**SITE FEATURES**  
 Groundwater Periodic Monitoring  
 Report for January to June 2017  
 Fort Wingate Depot Activity,  
 McKinley County, New Mexico





# 1 2.0 Scope of Services

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2 This section presents an overview of the field activities, laboratory analyses, and data management activities  
3 conducted during the period from January through June 2017. Field activities conducted during the reporting  
4 period included two groundwater elevation surveys and one groundwater sampling event. All monitoring  
5 activities were conducted in accordance with the *Interim Facility-Wide Groundwater Monitoring Plan, Version 9,*  
6 *Fort Wingate Depot Activity, McKinley County, New Mexico* (Innovar, 2016). The groundwater monitoring  
7 locations are shown on Figure 1-2.

8 Groundwater monitoring work plans, field activities, and reports are being performed under the USACE contract  
9 W912PP17-C-0003. A Version 10 update to the GMP is being submitted under separate cover. Field monitoring  
10 activities including quarterly groundwater elevation surveys and semiannual groundwater sampling have been  
11 performed through the current reporting period. Reporting of field activities and analytical results are included in  
12 semiannual monitoring reports scoped under the current contract.

## 13 2.1 Groundwater Elevation Measurements

14 Groundwater elevation surveys were performed at FWDA on January 5 and 6, 2017, and on April 17 and 18, 2017.  
15 During the January 2017 elevation survey, DTW was measured at 70 monitoring wells and piezometers. Three  
16 monitoring wells (FW31, TMW26, and PZ04) were not measured due to icy and unsafe conditions. Four  
17 monitoring wells (FW35, MW18S, MW22S, and MW40S) were verified as dry during the January monitoring event  
18 (see Section 4.1 of this GPMR). During the April 2017 elevation survey, DTW was measured at 73 monitoring wells  
19 and piezometers; 3 monitoring wells (FW35, MW18S, and MW22S) were verified as dry during the April  
20 monitoring event. Of the 73 monitoring locations visited, 47 locations were alluvial monitoring wells, 16 locations  
21 were bedrock monitoring wells, and 10 locations were piezometers—all located in the Northern Area  
22 (Administration and Workshop Areas). No access to the OB/OD Area has been permitted for periodic monitoring  
23 since April 2013 due to explosive hazards associated with the excavation and removal of unexploded ordnance,  
24 munitions, and explosives of concern.

25 A groundwater RCRA Facility Investigation (RFI) is currently underway in the OB/OD Area. Groundwater elevation  
26 measurements collected in the OB/OD Area in 2017 will be presented in the Parcel 3 Groundwater RFI Report  
27 (currently in preparation).

28 As a health and safety consideration, water level measurements were collected by two-person teams. One team  
29 member documented the field measurements and the other operated the water level meter. The DTW was  
30 measured from the top of the casing reference point down to the surface of the groundwater at each monitoring  
31 well and piezometer using a Solinst Model 101 water level meter. The DTW measurements were recorded in the  
32 field data sheets or field notebooks to the nearest 0.01 foot. Copies of the field notes are provided in Appendix A.

33 The portions of the water level meter that came into contact with groundwater were decontaminated after each  
34 use by washing with Liquinox soap solution and rinsing with deionized water. Decontamination fluids were  
35 contained in 5-gallon buckets for later disposal at the FWDA evaporation tank. The portions of the water level  
36 meter that were lowered into monitoring wells were wiped down with paper towels as they were retrieved from  
37 the well casings.

38 The DTW data were tabulated and compared to historical data to identify potential field measurement errors.  
39 After this evaluation, the groundwater elevation at each monitoring location was calculated by subtracting the  
40 DTW from the surveyed elevation of the top of casing reference point. The groundwater elevation data were  
41 subsequently used to generate groundwater elevation contour maps and calculate hydraulic gradients for the  
42 alluvial and bedrock water-bearing units at FWDA. The groundwater elevations and groundwater flow directions  
43 are presented in Section 4 of this GPMR.

## 2.2 Groundwater Sampling

The groundwater sampling event for the reporting period was performed from April 17 to April 28, 2017. Groundwater samples were collected from 60 of the 78 monitoring wells listed in the GMP (Innovar, 2016). The 16 monitoring wells in the OB/OD Area were not sampled due to the explosive hazards associated with the active excavation and removal of unexploded ordnance and explosives of concern in the area. Two alluvial monitoring wells (FW35 and MW22S) currently scheduled for sampling in the Northern Area were dry. The groundwater samples were analyzed for the constituents listed in Table 2-1. The sample analytical results are presented in Section 5 of this GPMR. Variances from the GMP are also discussed in Section 5.

Monitoring well purging and sampling were performed using a variety of sampling techniques: dedicated low-flow pneumatic pumps from BESST Products, dedicated pneumatic Bennett Sample Pumps, a non-dedicated Grundfos Redi-Flo2 submersible pump, and disposable bailers (Table 2-1). During well purging operations, the water quality parameters of pH, temperature, specific conductance, dissolved oxygen (DO), turbidity (nephelometric turbidity unit [NTU]), and oxidation reduction potential (ORP) were measured using Horiba Instruments, Inc. Model U-52 water quality meters and recorded on groundwater sampling field data sheets. All water quality meters were calibrated daily according to manufacturer specifications. The groundwater sampling field data sheets for each monitoring well are provided in Appendix B.

Monitoring wells equipped with dedicated low-flow pneumatic pumps were purged in accordance with the GMP and NMED's position paper *Use of Low-Flow and Other Non-Traditional Sampling Techniques for RCRA Compliant Groundwater Monitoring* (NMED, 2001). Well purging was performed until water quality parameters stabilized within the following ranges: temperature ( $\pm 10$  percent), pH ( $\pm 0.5$  standard units), specific conductance ( $\pm 10$  percent), DO ( $\pm 10$  percent), turbidity ( $\pm 10$  percent), and ORP ( $\pm 10$  percent). In general, drawdown was minimized during final parameter stabilization and during sampling to ensure that formation water was being measured and sampled. Drawdown was minimized by slow purging of the monitoring wells; however, poor groundwater production from the screened intervals resulted in greater than desired drawdown in some monitoring wells. During the initial period of low-flow pumping prior to stabilization, drawdown in several wells was greater than 0.5 foot, but only greater than 1.0 foot in one monitoring well (TMW38) during this monitoring event.

Monitoring wells not equipped with low-flow pumps were purged by pumping or bailing three well volumes of the water standing in the monitoring well (including the saturated annular space). Water quality parameters were measured during the well purging operations until they stabilized within the ranges presented above. If a monitoring well was emptied prior to the purging of three well volumes due to a slow recharge rate, then the monitoring well was sampled after it recharged with sufficient groundwater volume. This typically required the sampling team to return to the monitoring well location on the next day to collect the groundwater sample. Seven monitoring wells in the monitoring program are equipped with dedicated Bennett Sample Pumps (Table 2-1). The monitoring wells equipped with Bennett Sample Pumps were purged dry and sampled using the installed pumps. The 19 monitoring wells not equipped with dedicated pumps were purged dry either by bailing or with a non-dedicated, Grundfos Redi-Flo2 submersible electric pump (Table 2-1). All samples from monitoring wells without dedicated pumps were collected using disposable bailers.

The Grundfos Redi-Flo2 submersible pump was decontaminated between sample locations by pumping Liquinox soap solution through the pump and pumping through two rinse cycles with deionized water. The Grundfos pump discharge tubing was discarded at the end of each day that it was used for well purging. Disposable bailers used for well purging and sampling were also discarded and not reused at other sample locations. Two quality control (QC) equipment rinsate samples were collected from the decontaminated submersible pump, and the analytical results were evaluated as part of the data validation process. Thirteen monitoring wells were purged using the Grundfos Redi-Flo2 submersible pump. The two equipment rinsate samples comply with the 10 percent sample frequency requirement of the GMP (Innovar, 2016). The equipment rinsate sample results indicate equipment decontamination was sufficient to prevent cross-contamination.

1 After well purging, groundwater samples were collected in laboratory-supplied bottles for the analyses listed in  
2 Table 2-1. The QC samples collected during the monitoring event are also listed in Table 2-1 and meet the  
3 requirements specified in the GMP. Samples were placed on ice in coolers for shipment to TestAmerica  
4 Laboratories. Sample coolers were shipped under chain of custody by FedEx overnight delivery. Copies of the  
5 chain of custody forms for the groundwater sampling event are provided in Appendix B.

6 Water was generated during well purging activities as part of the sampling process. Decontamination fluids were  
7 generated during the decontamination of non-dedicated sampling equipment and reusable monitoring  
8 equipment. Purge water and decontamination fluids were contained in closable 5-gallon and 15-gallon containers  
9 during sampling activities and emptied into the FWDA evaporation tank daily. Solid waste such as disposable  
10 sampling equipment, personal protective equipment, and general refuse were placed in rented refuse containers.

## 11 **2.3 Data Management and Validation**

12 Analytical data quality assurance (QA) and QC methods were performed in accordance with the *Department of*  
13 *Defense Quality Systems Manual for Environmental Laboratories (QSM)* (U.S. Department of Defense [DoD],  
14 2013). Field QC samples including field duplicate, matrix spike (MS)/matrix spike duplicate (MSD), equipment  
15 rinsate, and trip blanks were submitted for laboratory analysis. Laboratory QA/QC samples including method  
16 blank and MS/MSD samples were also analyzed.

17 An electronic database was created to support the data management and tracking activities for the groundwater  
18 sampling event. The database was used to prepare sample labels in advance of the sampling event and to prepare  
19 electronic chain of custody forms daily at FWDA during the sampling event. Sample identifiers were assigned  
20 based on the convention described in the GMP. Groundwater sample identifiers consisted of the monitoring well  
21 ID and sample date. The QC samples used the same ID number as the parent sample and followed by MS (matrix  
22 spike) or MSD (matrix spike duplicate), as dictated by the Work Plan. Changes were made to the sample identifiers  
23 for field duplicates so that these QC samples would be blind to the laboratory. The duplicates relating to normal  
24 samples are presented in Table 2-1. Copies of the chain of custody forms were emailed to the project chemist  
25 daily to facilitate sample tracking and laboratory interaction.

26 Sample analyses were performed by TestAmerica Laboratories in accordance with the QSM (DoD, 2013).  
27 Electronic data deliverables (EDD) of the analytical results for each sample delivery group were provided by  
28 TestAmerica Laboratories for validation. The sample result EDDs were loaded into the Automated Data Review  
29 (ADR) software for data validation. Results were subjected to 100 percent Stage 2a validation using the ADR  
30 software. An additional 10 percent of the sample results was subjected to Stage 3 data validation by the project  
31 chemist. The validated data output files from the ADR software were exported to the FWDA Electronic Data  
32 Management System (EDMS) database. The EDMS database was used to prepare the validated data table output  
33 presented in this GPMR. The overall data validation assessment found that data were of sufficient quality for  
34 evaluation of data quality objectives. Information on the data validation process and the results is provided in  
35 Appendix C. Attachments to data validation reports are provided in electronic format.

TABLE 2-1

## Spring 2017 Groundwater Sample Matrix (Page 1 of 3)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well ID	Purge Method	Pump Type	Sample ID	Explosives Method 8330B	TCL VOCs Method 8260C	TCL SVOCs Method 8270D	TCL Pesticides Method 8081A	TAL Total Metals Methods 6010C/6020A/7470A	TAL Dissolved Metals Methods 6010C/6020A/7470A	Nitrate/Nitrite Method 9056A	Perchlorate Method 6860	TPH DRO Method 8015C	TPH GRO Method 8015C
<b>OB/OD Area Monitoring Wells - No Sampling due to No Safe Access</b>													
<b>Northern Area Monitoring Wells - Alluvial</b>													
BGMW01	low-flow	BESST	BGMW01042017	X	X	X	X	X	X	X	X		
BGMW02	low-flow	BESST	BGMW02042017	X	X	X	X	X	X	X	X		
Matrix Spike <sup>a</sup>	low-flow	BESST	BGMW02042017MS	X	X	X	X	X	X	X	X		
			BGMW02042017MSD	X	X	X	X	X	X	X	X	X	
BGMW03	well volume	Grundfos	BGMW03042017	X	X	X	X	X	X	X	X		
FW31	well volume	bail	FW31042017	X	X	X	X	X	X	X			
FW35	well volume	Grundfos	FW35042017	Well Dry - Not Sampled									
MW01	well volume	bail	MW01042017	X	X		X	X	X	X	X	X	X
MW02	well volume	bail	MW02042017	X	X		X	X	X	X	X	X	X
MW03	low-flow	BESST	MW03042017	X	X			X	X	X	X	X	X
MW18D	well volume	Grundfos	MW18D042017	X	X			X	X	X	X	X	X
MW20	low-flow	BESST	MW20042017	X	X	X	X	X	X	X	X	X	X
Matrix Spike <sup>a</sup>	low-flow	BESST	MW20042017MS	X	X	X	X	X	X	X	X	X	X
			MW20042017MSD	X	X	X	X	X	X	X	X	X	X
MW22D	low-flow	BESST	MW22D042017	X	X	X	X	X	X	X	X	X	X
Matrix Spike <sup>a</sup>	low-flow	BESST	MW22D042017MS	X	X	X	X	X	X	X	X	X	X
			MW22D042017MSD	X	X	X	X	X	X	X	X	X	X
MW22S	well volume	bail	MW22S042017	Well Dry - Not Sampled									
MW23	well volume	Bennett	MW23042017	X	X	X	X	X	X	X	X		
Duplicate <sup>b</sup>	well volume	Bennett	DMW23042017	X	X	X	X	X	X	X	X		
Matrix Spike <sup>a</sup>	well volume	Bennett	MW23042017MS	X	X	X	X	X	X	X	X		
			MW23042017MSD	X	X	X	X	X	X	X	X	X	
MW24	well volume	Bennett	MW24042017	X	X	X	X	X	X	X	X		
Duplicate <sup>b</sup>	well volume	Bennett	DMW24042017	X	X	X	X	X	X	X	X		
SMW01	low-flow	BESST	SMW01042017	X	X	X		X	X	X	X		
TMW01	low-flow	BESST	TMW01042017	X	X			X	X	X	X		
TMW03	low-flow	BESST	TMW03042017	X	X	X		X	X	X	X		
TMW04	low-flow	BESST	TMW04042017	X	X	X		X	X	X	X		
TMW06	low-flow	BESST	TMW06042017	X	X	X		X	X	X			
TMW07	well volume	Grundfos	TMW07042017	X	X	X		X	X	X			
TMW08	low-flow	BESST	TMW08042017		X		X	X	X	X	X	X	X

TABLE 2-1

## Spring 2017 Groundwater Sample Matrix (Page 2 of 3)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well ID	Purge Method	Pump Type	Sample ID	Explosives Method 8330B	TCL VOCs Method 8260C	TCL SVOCs Method 8270D	TCL Pesticides Method 8081A	TAL Total Metals Methods 6010C/6020A/7470A	TAL Dissolved Metals Methods 6010C/6020A/7470A	Nitrate/Nitrite Method 9056A	Perchlorate Method 6860	TPH DRO Method 8015C	TPH GRO Method 8015C
<b>Northern Area Monitoring Wells - Alluvial</b>													
TMW10	well volume	bail	TMW10042017	X	X			X	X	X	X		
TMW11	low-flow	BESST	TMW11042017	X	X			X	X	X	X		
TMW13	low-flow	BESST	TMW13042017		X			X	X	X	X		
TMW15	low-flow	BESST	TMW15042017	X	X	X		X	X	X	X		
<i>Duplicate<sup>b</sup></i>	low-flow	BESST	DTW15042017	X	X	X		X	X	X	X		
TMW21	well volume	bail	TMW21042017	X	X			X	X	X	X		
TMW22	well volume	Grundfos	TMW22042017	X	X	X		X	X	X	X		
TMW23	well volume	Grundfos	TMW23042017	X	X		X	X	X	X	X		
TMW24	low-flow	BESST	TMW24042017	X	X		X	X	X	X	X		
TMW25	low-flow	BESST	TMW25042017	X	X			X	X	X			
TMW26	low-flow	BESST	TMW26042017	X	X			X	X	X	X		
<i>Duplicate<sup>b</sup></i>	low-flow	BESST	DTW26042017	X	X			X	X	X	X		
TMW27	low-flow	BESST	TMW27042017		X			X	X		X		
TMW28	low-flow	BESST	TMW28042017		X			X	X	X			
TMW29	well volume	bail	TMW29042017	X	X			X	X	X	X		
TMW31S	well volume	Grundfos	TMW31S042017	X	X	X	X	X	X	X	X		
TMW33	well volume	Grundfos	TMW33042017		X	X		X	X	X		X	X
TMW34	low-flow	BESST	TMW34042017		X			X	X	X	X	X	X
<i>Duplicate<sup>b</sup></i>	low-flow	BESST	DTW34042017		X			X	X	X	X	X	X
TMW35	low-flow	Grundfos	TMW35042017		X	X	X	X	X	X	X	X	X
TMW39S	well volume	BESST	TMW39S042017	X	X	X	X	X	X	X	X		
TMW40S	well volume	bail	TMW40S042017	X	X	X	X	X	X	X	X		
TMW41	well volume	Grundfos	TMW41042017	X	X	X	X	X	X	X	X		
TMW43	low-flow	BESST	TMW43042017	X	X	X	X	X	X	X	X		
<i>Duplicate<sup>b</sup></i>	low-flow	BESST	DTW43042017	X	X	X	X	X	X	X	X		
<i>Matrix Spike<sup>a</sup></i>	low-flow	BESST	TMW43042017MS	X	X	X	X	X	X	X	X		
			TMW43042017MSD	X	X	X	X	X	X	X	X	X	
TMW44	low-flow	Grundfos	TMW44042017	X	X	X	X	X	X	X	X		
TMW45	low-flow	BESST	TMW45042017	X	X	X	X	X	X	X	X		
TMW46	well volume	Grundfos	TMW46042017	X	X	X	X	X	X	X	X		
TMW47	low-flow	BESST	TMW47042017	X	X	X	X	X	X	X	X		

TABLE 2-1

**Spring 2017 Groundwater Sample Matrix (Page 3 of 3)**

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well ID	Purge Method	Pump Type	Sample ID	Explosives Method 8330B	TCL VOCs Method 8260C	TCL SVOCs Method 8270D	TCL Pesticides Method 8081A	TAL Total Metals Methods 6010C/6020A/7470A	TAL Dissolved Metals Methods 6010C/6020A/7470A	Nitrate/Nitrite Method 9056A	Perchlorate Method 6860	TPH DRO Method 8015C	TPH GRO Method 8015C
<b>Northern Area Monitoring Wells - Bedrock</b>													
TMW02	low-flow	BESST	TMW02042017	X	X			X	X	X	X		
TMW14A	low-flow	BESST	TMW14A042017	X	X	X		X	X	X			
TMW16	well volume	Bennett	TMW16042017	X	X	X		X	X		X		
TMW17	low-flow	BESST	TMW17042017		X			X	X	X	X		
TMW18	well volume	Bennett	TMW18042017	X	X	X		X	X	X	X		
TMW19	well volume	Bennett	TMW19042017	X	X	X		X	X		X		
TMW30	well volume	Grundfos	TMW30042017	X	X	X	X	X	X	X	X		
TMW31D	low-flow	BESST	TMW31D042017	X	X	X	X	X	X	X	X		
<i>Duplicate<sup>b</sup></i>	low-flow	BESST	DMW31D042017	X	X	X	X	X	X	X	X		
TMW32	low-flow	BESST	TMW32042017	X	X	X	X	X	X	X	X		
TMW36	well volume	Bennett	TMW36042017	X	X	X	X	X	X	X	X		
TMW37	well volume	Bennett	TMW37042017	X	X	X	X	X	X	X	X		
TMW38	low-flow	BESST	TMW38042017	X	X	X	X	X	X	X	X		
TMW39D	low-flow	BESST	TMW39D042017	X	X	X	X	X	X	X	X		
TMW40D	low-flow	BESST	TMW40D042017	X	X	X	X	X	X	X	X		
TMW48	low-flow	BESST	TMW48042017	X	X	X	X	X	X	X	X		
TMW49	low-flow	BESST	TMW49042017	X	X	X	X	X	X	X	X		

## Notes:

<sup>a</sup> Matrix spike (MS) and matrix spike duplicate (MSD) samples are quality control samples and associated with the normal sample above.<sup>b</sup> Duplicate samples are quality control samples that are collected to verify the consistency of the laboratory analysis.

Trip blank samples were collected daily and equipment blanks were collected twice a week (not shown above).

DRO = diesel range organics

GRO = gasoline range organics

ID = identification

SVOC = semivolatiles organic compound

TAL = target analyte list

TCL = target compound list

TPH = total petroleum hydrocarbons

VOC = volatile organic compound

X = samples collected according to approved work plan (TerranearPMC, 2008)

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# 1 3.0 Regulatory Criteria

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2 On December 1, 2005, the NMED issued a RCRA Permit (EPA ID No. NM6213820974) to the U.S. Department of  
3 the Army (Permittee), the owner and operator of FWDA. The Permit established the general and specific  
4 standards and requirements for these activities pursuant to the New Mexico Hazardous Waste Act, as amended;  
5 New Mexico State Rules Act 1978, §§ 74-4-1 et seq.; and the New Mexico Hazardous Waste Management  
6 Regulations, 20 New Mexico Administrative Code (NMAC) Part 4.1. Since the original permit issuance, the FWDA  
7 RCRA permit has been revised through NMED-issued modifications on June 27, 2011, April 4, 2014, and February  
8 25, 2015. A renewal of the FWDA RCRA permit is currently in progress. Until the renewal process is completed, all  
9 environmental activities at the installation will be conducted in accordance with the requirements of the RCRA  
10 Permit and all modifications (NMED, 2015).

11 As required by Section V.A of the Permit, the U.S. Department of the Army developed and implemented a  
12 groundwater monitoring program. A GMP was developed according to provisions of the Permit, Section VIII.B.1  
13 (20 NMAC § 4.1.500, incorporating 40 *Code of Federal Regulations* [CFR] 264.101) (TPMC, 2008). The NMED  
14 approved the initial GMP in March 2008. The GMP has been revised annually, with the revisions submitted to the  
15 NMED from 2009 through 2017. All groundwater monitoring, sampling, and reporting activities are conducted in  
16 compliance with the Permit, applicable Permit attachments, and the GMP.

17 Attachment 7 of the Permit provides cleanup levels applicable to the FWDA groundwater monitoring program.  
18 Groundwater analytical results are evaluated and compared to these cleanup levels. The Permit references three  
19 sources of criteria from which a value is selected for the evaluation using the following hierarchy:

- 20 1. New Mexico Water Quality Control Commission (NM WQCC) standards for the analytes listed in NMAC  
21 § 20.6.2.7.WW having the values listed in NMAC § 20.6.2.3103.A and B.
- 22 2. EPA drinking water maximum contaminant levels (MCLs) provided under Title 40 CFR Parts 141 and 143.
- 23 3. If both an NM WQCC standard and an EPA MCL have been established for a COPC, the lowest value of  
24 (1) and (2) above will be selected.
- 25 4. If no NM WQCC standard or EPA MCL has been established for a carcinogenic hazardous constituent,  
26 values will be selected from the most recent version of the EPA Regional Screening Levels (RSLs) for  
27 tapwater (currently dated June 2017), adjusted to a target excess cancer risk level of  $1 \times 10^{-5}$ .
- 28 5. If no NM WQCC standard or EPA MCL has been established for a noncarcinogenic hazardous constituent,  
29 values will be selected from the most recent version of the EPA RSLs for tapwater (currently dated June  
30 2017) with a target hazard index of 1.0.
- 31 6. There is currently no NM WQCC standard or MCL for perchlorate. If the NM WQCC adopts a groundwater  
32 standard, or the EPA adopts an MCL for perchlorate, such standard shall be followed. If none of these  
33 apply, according to the RCRA Permit, screening is required only when concentrations exceed  
34 6 micrograms per liter ( $\mu\text{g/L}$ ). Screening should use the EPA tapwater RSL for a child with a Hazard Index  
35 of one (1.0), which is  $14 \mu\text{g/L}$ .

36 The GMP requires the Permittee to submit semiannual periodic monitoring reports subsequent to receipt of  
37 validated groundwater chemical analytical results, and the Permit Section V.A.2 requires the format to be  
38 consistent with the NMED's *General Reporting Requirements for Routine Groundwater Monitoring at RCRA Sites*  
39 (NMED, 2003; Innovar, 2016).

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# 1 4.0 Groundwater Elevations

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2 Groundwater elevation surveys in monitoring wells and piezometers at FWDA are currently performed quarterly.  
3 Two groundwater elevation surveys were performed during this reporting period, the first on January 5 and 6,  
4 2017, and the second on April 17 and 18, 2017. As discussed in Section 2 of this GPMR, no groundwater elevation  
5 measurements were collected in the OB/OD Area during these events. Groundwater elevation data is used to  
6 calculate hydraulic gradients and determine groundwater flow directions in the Northern Area alluvium and  
7 Northern Area bedrock groundwater units. Tables 4-1 and 4-2 present the DTW measurements in feet, the  
8 surveyed elevation of the top of casing, and calculated groundwater elevations in feet above the North American  
9 Vertical Datum of 1988 (NAVD88) for the January and April 2017 monitoring events. Figures 4-1 through 4-4 show  
10 the groundwater elevation maps for the two monitoring events.

## 11 4.1 Northern Area Groundwater Elevations

12 Shallow groundwater in the Northern Area is present in both unconsolidated alluvium and bedrock groundwater  
13 units. The water quality and hydraulic properties differ between these two groundwater units. Therefore, the  
14 groundwater elevation data and chemistry are presented and discussed separately. Table 4-1 presents the  
15 groundwater elevation data for monitoring wells screened in the alluvium groundwater unit. Table 4-2 presents  
16 the groundwater elevation data for monitoring wells screened in the bedrock groundwater unit. The Northern  
17 Area groundwater elevation contour maps are shown on Figures 4-1 through 4-4. The groundwater elevation  
18 contours presented on Figure 4-1 and Figure 4-2 were drafted using the mathematical interpolation algorithms in  
19 Surfer, Version 11, software. The Kriging geostatistical interpolation method was used to generate a 100-foot by  
20 100-foot interpolated grid based on the groundwater elevations. An experienced hydrogeologist reviewed site-  
21 specific information on bedrock structure from the conceptual site model and groundwater elevations data and  
22 digitally adjusted the contours based on known hydrogeologic conditions and professional judgment. Boundary  
23 conditions were used to crop the interpolation grids based on geologic constraints and data limitations. The  
24 bedrock groundwater contours shown on Figures 4-3 and 4-4 were hand drawn.

### 25 4.1.1 Northern Area Alluvial Groundwater System

26 The groundwater flow direction in the alluvium is from potentiometric highs in the east, north, and south toward  
27 a potentiometric low west of the Administration Area (Figures 4-1 and 4-2). From the Administration Area, the  
28 groundwater flow direction is generally to the west. These groundwater flow directions are consistent with recent  
29 historical data. A small groundwater mound is present in the Administration Area near monitoring wells MW01,  
30 MW02, and MW03. This feature has been previously attributed to a leaking water storage cistern (U.S. Geologic  
31 Survey [USGS], 2011). The cistern is no longer in service, and the groundwater mound was expected to attenuate  
32 over time. However, the groundwater mound is still observed in the water level data for monitoring well MW02  
33 and may be the result of leakage from artesian Water Supply Well 69 (no longer active). Groundwater flow  
34 directions and elevations were similar between the January and April 2017 monitoring events and were also  
35 consistent with recent historical data. The recent historical data are also included in Table 4-1.

36 Hydraulic gradients ranged from 0.002 ft/ft to 0.04 ft/ft in the alluvial groundwater unit. The steepest gradients  
37 were found in the southeast portions of the monitoring area, and the flattest gradients were found in the central  
38 portion of the monitoring area. Hydraulic gradients did not vary significantly in direction or magnitude between  
39 the January and April 2017 monitoring events and were similar to those calculated in previous monitoring events  
40 from 2015 and 2016.

1 **4.1.2 Northern Area Bedrock Groundwater System**

2 Groundwater flow in the shallow bedrock is generally to the north and west in the Workshop Area (Figures 4-3  
3 and 4-4). Steep horizontal gradients from east to west (in particular, between monitoring wells TMW38 and  
4 TMW40D and between monitoring wells TMW17 and TMW37) indicate that a geologic structural feature impedes  
5 groundwater flow. Vertical offset of the sandstone layers in the bedrock aquifer by a fault or fracture zones may  
6 be present in this area and impede groundwater flow. Contaminant transport of perchlorate to the north (rather  
7 than to the west) also provides evidence supporting the conceptual site model of a structural impediment to  
8 westerly groundwater flow in bedrock beneath the Workshop Area.

9 Groundwater flow in the bedrock appears to flow radially to a potentiometric low south of TMW32 in the eastern  
10 portion of the Workshop Area and to the west in the western portion of the Workshop Area. Groundwater  
11 elevations were similar between the January and April 2017 monitoring events. Groundwater level elevation data  
12 from monitoring well TMW02 were not used to generate the groundwater elevation contour maps or to calculate  
13 hydraulic gradients because the monitoring well is completed in a different water-bearing zone than the other  
14 bedrock monitoring wells. Two water-bearing sandstone layers or units of the Painted Desert Member of the  
15 Petrified Forest Formation are known to exist in the Workshop Area. The upper sandstone unit is monitored by  
16 monitoring well TMW02. The remaining bedrock monitoring wells are completed in the lower sandstone unit.  
17 Groundwater elevation in the bedrock groundwater unit is slightly higher than in the alluvial groundwater unit  
18 and is under hydraulically confined conditions in most of the Northern Area. The confining unit for the bedrock  
19 groundwater unit is missing in the vicinity of monitoring wells TMW30 and TMW48.

20 Groundwater hydraulic gradients are moderate in the Workshop Area at approximately 0.005 ft/ft to 0.01 ft/ft to  
21 the north and west. The groundwater elevations were similar to those calculated in previous monitoring events  
22 from 2015 and 2016. The current conceptual site model includes a structural feature that impedes flow to the  
23 west in the Workshop Area (Figure 4-3). Additional characterization of bedrock groundwater flow conditions is  
24 proposed in the Supplemental RFI (Sundance, 2017).

25 **4.2 OB/OD Area Groundwater Elevations**

26 No groundwater elevation data were collected in this area during the January through April 2017 reporting  
27 period. Groundwater elevation data from spring 2017 in the OB/OD Area will be shown in the Parcel 3 RFI report,  
28 presented under separate cover. No historical data are presented in this GPMR. Groundwater elevation surveys of  
29 the OB/OD Area wells may resume when access to the area is not restricted due to munition safety concerns. A  
30 Parcel 3 Groundwater RFI Report containing groundwater elevation data will be prepared and submitted in 2017.

TABLE 4-1

## Northern Area Groundwater Elevations (Wells Screened in Alluvial Sediments) (Page 1 of 2)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	TOC Elevation (feet)	Total Depth (feet bgs)	Screen Interval (feet bgs)	21/22-July-15	26-Oct-15	14/15-Jan-16	4-Apr-16	13-Jul-16	24/25-Oct-16	5/6-Jan-17		17-Apr-17		
				Elevation (feet)	Elevation (feet)	Elevation (feet)	Elevation (feet)	Elevation (feet)	Elevation (feet)	DTW (feet BTOC)	Elevation (feet)	DTW (feet BTOC)	Elevation (feet)	Purged Dry
BGMW01	6692.68	33.0	12.5-32.5	6673.26	6673.04	6673.37	6673.33	6672.81	6672.69	19.62	6673.06	19.48	6673.20	No
BGMW02	6691.99	34.0	13.5-33.5	6670.63	6670.18	6670.52	6670.64	6670.22	6669.83	21.77	6670.22	21.42	6670.57	No
BGMW03	6680.57	29.0	8.5-28.5	6663.60	6663.48	6663.86	6664.08	6663.04	6662.69	17.13	6663.44	16.73	6663.84	Yes
FW31	6832.49	50.0	10.0-50.0	6789.94	6789.83	6789.90	6789.84	6789.66	6789.57	NM	NM	42.83	6789.66	Yes
FW35	6711.11	30.0	10.0-30.0	6680.12	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	N/A
MW01	6685.94	55.0	33.6-53.6	6643.31	6643.11	6643.17	6642.99	6642.95	6642.92	43.19	6642.75	43.15	6642.79	Yes
MW02	6685.22	48.0	37.0-47.0	6644.41	6644.27	6644.25	6644.07	6644.07	6643.95	41.42	6643.80	41.44	6643.78	Yes
MW03	6689.53	53.0	43.0-53.0	6643.10	6643.02	6643.11	6642.88	6642.90	6642.66	46.67	6642.86	46.73	6642.80	No
MW18D	6686.32	59.9	47.0-57.0	6642.82	6642.61	6642.67	6642.44	6642.43	6642.28	44.02	6642.30	44.07	6642.25	Yes
MW18S	6686.61	39.0	27.0-37.0	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	N/A
MW20	6687.67	59.4	47.0-57.0	6642.29	6642.11	6642.15	6642.06	6641.98	6641.85	45.93	6641.74	45.82	6641.85	No
MW22D	6684.55	58.6	47.0-57.0	6642.22	6641.98	6642.03	6641.88	6641.81	6641.63	42.93	6641.62	42.92	6641.63	No
MW22S	6684.69	43.5	31.0-41.0	6642.40	6642.16	6642.22	6642.08	6641.99	Dry	Dry	Dry	Dry	Dry	N/A
MW23	6654.50	134.0	63.5-133.5	6639.82	6639.38	6639.52	6639.14	6639.46	6638.87	15.37	6639.13	14.76	6639.74	Yes
MW24	6657.08	66.5	16.0-66.0	6637.59	6635.55	6637.46	6637.14	6637.30	6636.45	19.84	6637.24	19.29	6637.79	Yes
SMW01	6669.94	50.2	29.9-49.9	6638.75	6638.49	6638.74	6638.53	6638.11	6637.83	31.87	6638.07	32.80	6637.14	No
TMW01	6711.84	60.0	44.0-59.0	6672.47	6672.22	6672.21	6671.90	6671.68	6671.43	40.34	6671.50	40.66	6671.18	No
TMW03	6702.43	70.1	49.8-69.8	6645.11	6645.04	6645.11	6645.03	6644.98	6644.93	57.39	6645.04	57.56	6644.87	No
TMW04	6700.86	70.5	50.0-70.0	6644.36	6644.32	6644.36	6644.17	6644.20	6644.15	57.49	6643.37	56.73	6644.13	No
TMW06	6690.63	57.0	45.0-55.0	6643.41	6643.30	6643.49	6643.11	6643.07	6643.12	47.17	6643.46	47.58	6643.05	No
TMW07	6690.47	76.0	65.0-75.0	6643.15	6643.43	6643.59	6643.52	6643.32	6643.47	47.19	6643.28	46.98	6643.49	Yes
TMW08	6680.31	62.0	30.0-60.0	6643.23	6643.11	6643.27	6642.93	6642.95	6642.74	37.33	6642.98	37.58	6642.73	No
TMW10	6680.04	65.0	28.0-58.0	6642.12	6641.97	6642.13	6641.88	6641.76	6641.54	38.37	6641.67	38.37	6641.67	Yes
TMW11	6718.28	82.0	55.0-80.0	6650.35	6650.18	6650.09	6650.06	6649.88	6649.89	68.59	6649.69	68.96	6649.32	No
TMW13	6707.49	72.5	60.7-70.7	6646.93	6646.83	6646.80	6646.74	6646.67	6646.53	60.89	6646.60	61.00	6646.49	No
TMW15	6713.89	82.0	56.0-71.0	6648.67	6648.54	6648.51	6648.47	6648.36	6648.19	65.70	6648.19	65.74	6648.15	No
TMW21	6695.14	72.0	48.0-58.0	6644.24	6644.26	6644.26	6644.09	6644.10	6644.06	51.19	6643.95	51.12	6644.02	Yes
TMW22	6691.74	77.0	52.0-62.0	6643.07	6643.03	6643.28	6642.91	6643.00	6643.25	48.39	6643.35	48.76	6642.98	Yes
TMW23	6687.66	72.0	46.0-56.0	6642.34	6642.23	6642.46	6642.11	6642.16	6642.09	45.10	6642.56	45.49	6642.17	Yes
TMW24	6680.42	75.0	44.0-54.0	6642.39	6642.27	6642.60	6642.37	6642.36	6642.20	37.65	6642.77	37.99	6642.43	No

TABLE 4-1

## Northern Area Groundwater Elevations (Wells Screened in Alluvial Sediments) (Page 2 of 2)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	TOC Elevation (feet)	Total Depth (feet bgs)	Screen Interval (feet bgs)	21/22-July-15	26-Oct-15	14/15-Jan-16	4-Apr-16	13-Jul-16	24/25-Oct-16	5/6-Jan-17		17-Apr-17		
				Elevation (feet)	Elevation (feet)	Elevation (feet)	Elevation (feet)	Elevation (feet)	Elevation (feet)	DTW (feet BTOC)	Elevation (feet)	DTW (feet BTOC)	Elevation (feet)	Purged Dry
TMW25	6672.88	74.0	42.5-52.5	6634.06	6633.88	6633.89	6633.78	6633.83	6633.63	39.04	6633.84	39.08	6633.80	No
TMW26	6677.71	64.8	45.0-55.0	6650.66	6650.23	6650.13	6650.41	6650.11	6649.60	NM	NM	27.73	6649.98	No
TMW27	6668.13	102.2	60.0-70.0	6640.07	6639.69	6639.81	6639.88	6639.50	6639.39	28.49	6639.64	28.39	6639.74	No
TMW28	6689.17	72.5	37.0-47.0	6669.82	6669.34	6669.74	6669.82	6669.40	6668.86	19.89	6669.28	18.64	6670.53	No
TMW29	6702.88	69.0	49.0-59.0	6645.30	6645.26	6645.22	6645.11	6645.10	6645.03	57.76	6645.12	57.89	6644.99	Yes
TMW31S	6710.20	61.0	50.0-60.0	6671.70	6671.44	6671.50	6671.09	6670.96	6670.60	39.40	6670.80	39.82	6670.38	Yes
TMW33	6686.60	60.4	37.0-57.0	6642.55	6642.34	6642.39	6642.17	6642.15	6641.97	44.57	6642.03	44.63	6641.97	Yes
TMW34	6687.29	57.3	37.0-57.0	6641.34	6641.15	6641.19	6641.15	6641.06	6640.92	46.48	6640.81	46.38	6640.91	No
TMW35	6686.52	55.0	35.0-55.0	6642.32	6642.13	6642.16	6642.00	6641.95	6641.79	44.80	6641.72	44.76	6641.76	No
TMW39S	6708.61	53.0	32.5-52.5	6672.38	6672.24	6672.21	6672.10	6671.91	6671.70	36.89	6671.72	37.08	6671.53	Yes
TMW40S	6706.40	60.5	50.0-60.0	6645.96	6645.90	6645.91	6645.82	6645.83	Dry	Dry	Dry	60.68	6645.72	Yes
TMW41	6705.21	66.0	55.5-65.5	6663.86	6663.73	6663.95	6663.47	6663.45	6663.21	41.55	6663.66	42.02	6663.19	Yes
TMW43	6698.63	78.5	58.0-78.0	6645.05	6645.00	6645.04	6644.84	6644.84	6644.79	53.67	6644.96	53.86	6644.77	No
TMW44	6697.31	64.0	43.5-63.5	6644.53	6644.45	6644.65	6644.28	6644.35	6644.29	52.68	6644.63	53.04	6644.27	No
TMW45	6689.00	59.0	38.5-58.5	6641.77	6641.70	6641.95	6641.70	6641.65	6641.71	46.88	6642.12	47.18	6641.82	No
TMW46	6680.98	59.0	38.5-58.5	6636.88	6636.59	6636.80	6636.74	6636.39	6636.41	44.56	6636.42	44.34	6636.64	Yes
TMW47	6701.88	103.0	82.5-102.5	6655.29	6655.27	6655.31	6655.19	6655.04	6655.00	46.79	6655.09	46.87	6655.01	No
PZ01	6677.29	43.1	23.1-43.1	6650.49	6650.37	6650.39	6650.05	6650.00	6649.69	27.37	6649.92	27.61	6649.68	N/A
PZ02	6674.95	50.7	30.3-50.3	6651.67	6651.29	6651.38	6651.25	6651.25	6650.68	23.84	6651.11	24.02	6650.93	N/A
PZ03	6679.44	46.9	26.7-46.7	6653.31	6652.96	6652.83	6653.00	6652.86	6652.42	26.65	6652.79	26.63	6652.81	N/A
PZ04	6676.68	47.0	26.8-46.8	6648.42	6648.23	6648.28	6647.98	6647.98	6647.61	NM	NM	29.03	6647.65	N/A
PZ05	6674.15	46.3	26.0-46.0	6653.39	6652.74	6653.44	6653.45	6652.62	6652.09	21.00	6653.15	20.97	6653.18	N/A
PZ06	6676.04	46.7	26.5-46.5	6656.02	6655.64	6656.88	6657.09	6655.29	6654.91	19.43	6656.61	18.98	6657.06	N/A
PZ07	6684.53	30.5	10.6-30.6	6669.08	6668.23	6668.70	6668.82	6668.96	6668.54	10.34	6674.19	11.83	6672.70	N/A
PZ08	6686.81	46.6	26.3-46.3	6667.93	6667.19	6667.72	6667.75	6667.78	6667.32	19.78	6667.03	14.49	6672.32	N/A
PZ09	6653.61	33.5	18.1-33.1	6637.99	6637.39	6638.22	6638.26	6637.38	6636.79	15.87	6637.74	15.26	6638.35	N/A
PZ10	6657.27	46.3	31.0-46.0	6637.78	6637.24	6638.09	6638.13	6637.17	6636.63	19.67	6637.60	19.06	6638.21	N/A

## Notes:

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

bgs = below ground surface

BTOC = below top of casing

DTW = depth to water

N/A = Not applicable, Well purged or sampled

NM = Not measured due to icy conditions

TOC = top of casing

TABLE 4-2

**Northern Area Groundwater Elevations (Wells Screened in Bedrock)**

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	TOC Elevation (feet)	Total Depth (feet bgs)	Screen Interval (feet bgs)	21/22-July-15	26-Oct-15	14/15-Jan-16	4-Apr-16	13-Jul-16	24/25-Oct-16	5/6-Jan-17		18-Apr-17		
				Elevation (feet)	Elevation (feet)	Elevation (feet)	Elevation (feet)	Elevation (feet)	Elevation (feet)	DTW (feet BTOC)	Elevation (feet)	DTW (feet BTOC)	Elevation (feet)	Purged Dry
TMW02	6705.35	85.0	67.9-81.9	6649.50	6649.45	6649.53	6649.31	6648.59	6649.17	55.94	6649.41	56.16	6649.19	No
TMW14A	6723.54	110.0	94.3-109.3	6658.40	6658.37	6658.35	6658.34	6658.03	6658.04	65.68	6657.86	65.99	6657.55	No
TMW16	6714.15	142.0	123.0-138.0	6657.38	6657.12	6657.11	6656.94	6656.76	6656.59	57.42	6656.73	57.55	6656.60	Yes
TMW17	6719.89	152.0	112.0-127.0	6656.24	6656.19	6656.20	6655.99	6655.86	6655.75	64.21	6655.68	64.19	6655.70	No
TMW18	6713.49	220.0	150.0-160.0	6657.69	6657.64	6657.62	6657.47	6657.29	6657.19	56.29	6657.20	56.34	6657.15	Yes
TMW19	6700.52	187.0	169.0-184.0	6657.27	6656.98	6657.06	6656.79	6656.59	6656.49	43.89	6656.63	43.90	6656.62	Yes
TMW30	6714.59	51.5	35.0-45.0	6674.21	6674.21	6674.16	6674.01	6674.05	6674.01	40.56	6674.03	40.59	6674.00	Yes
TMW31D	6710.44	111.5	77.0-107.0	6671.63	6671.39	6671.38	6671.07	6670.87	6670.58	40.34	6670.10	40.09	6670.35	No
TMW32	6709.31	139.1	117.0-137.0	6668.39	6668.23	6668.18	6667.96	6667.74	6667.52	41.76	6667.55	42.01	6667.30	No
TMW36	6699.04	157.0	132.0-152.0	6670.34	6670.06	6670.00	6669.78	6669.45	6669.26	29.77	6669.27	30.01	6669.03	Yes
TMW37	6713.09	111.0	88.0-108.0	6666.44	6666.27	6666.29	6665.97	6665.84	6665.58	49.45	6663.64	47.69	6665.40	Yes
TMW38	6706.79	159.5	118.9-158.9	6658.93	6658.88	6658.89	6658.67	6658.51	6658.39	48.24	6658.55	48.42	6658.37	No
TMW39D	6708.61	100.5	70.0-100.0	6672.55	6672.30	6672.30	6671.99	6671.78	6671.50	37.02	6671.59	37.37	6671.24	No
TMW40D	6706.15	155.5	135.0-155.0	6672.39	6672.14	6672.13	6671.84	6671.65	6671.34	34.74	6671.41	35.04	6671.11	No
TMW48	6709.84	91.5	71.0-91.0	6672.56	6672.31	6672.27	6672.03	6671.86	6671.53	38.28	6671.56	38.58	6671.26	No
TMW49	6714.71	60.5	40.0-60.0	6669.37	6669.13	6669.08	6668.78	6668.57	6668.36	46.35	6668.36	46.68	6668.03	No

## Notes:

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

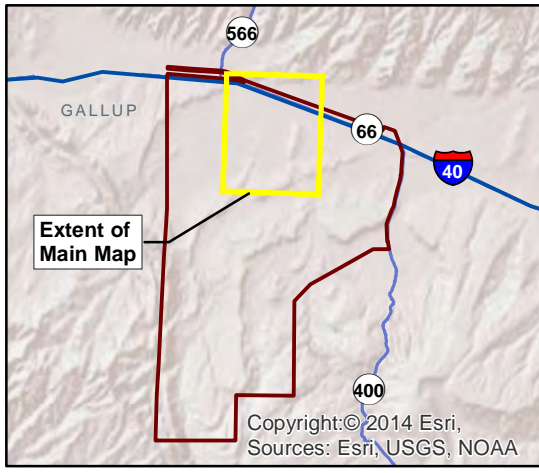
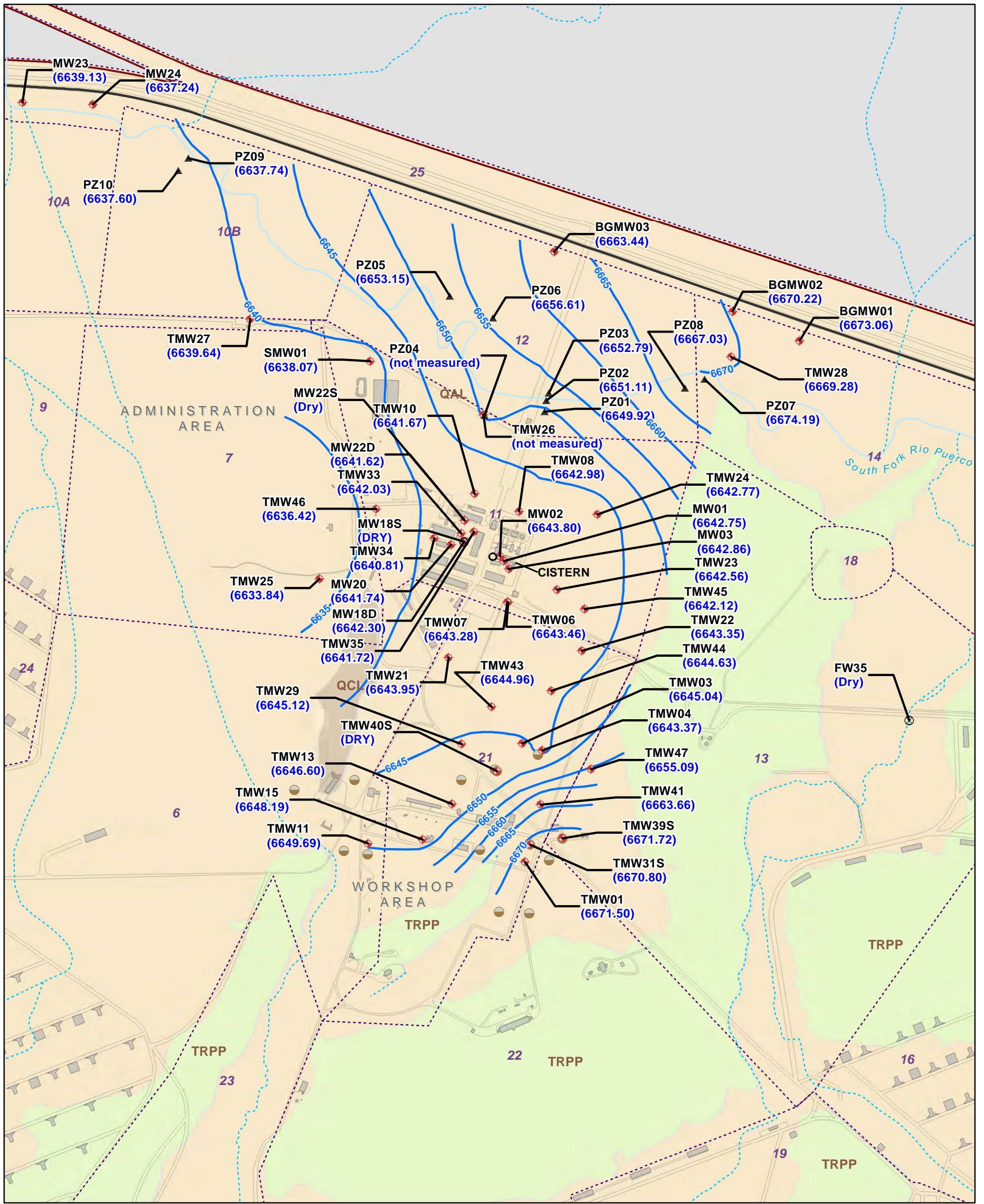
bgs = below ground surface

BTOC = below top of casing

DTW = depth to water

TOC = top of casing



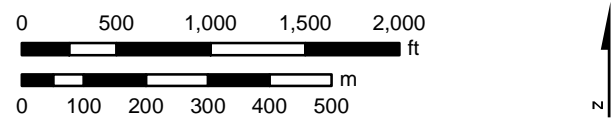


- Legend**
- ◆ Alluvial Monitoring Well
  - Bedrock Monitoring Well
  - ▲ Piezometer
  - ⊗ Dry Well
  - Water Supply Well 69
  - TMW11** Well Label = Well ID (6651.15) (Groundwater Elevation in feet)
  - 6635-** Alluvial Groundwater Contours, January 2017
  - Building
  - 10A Property Transfer Parcel
  - Fort Wingate Installation Boundary
- Surface Geology**
- QAL - Quaternary Alluvial Deposits
  - QCL - Quaternary Colluvial and Gravel Deposits
  - TRPP - Petrified Forest Formation, Painted Desert Member

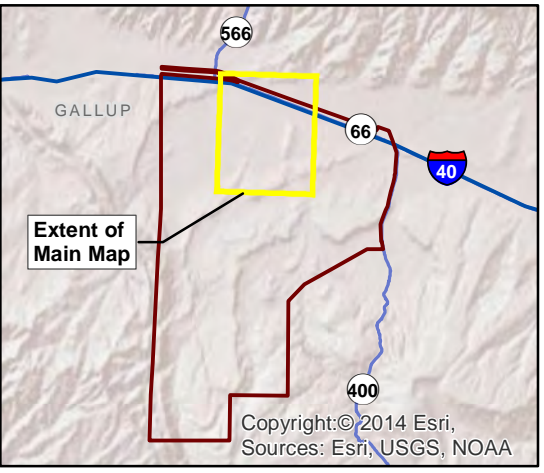
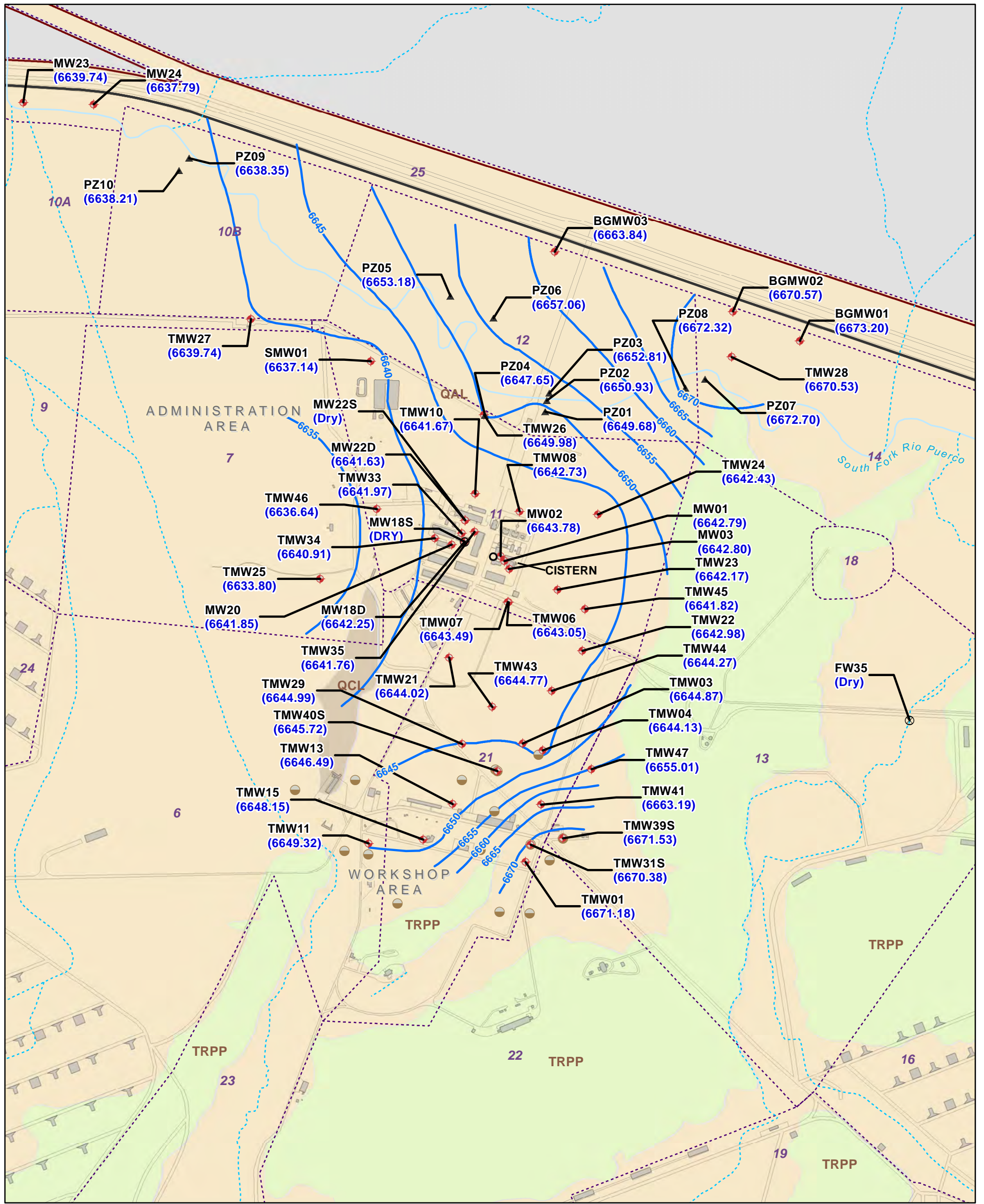
**FIGURE 4-1**  
**January 2017 Northern Area Alluvial Groundwater Elevation Map**  
 Groundwater Periodic Monitoring Report for January to July 2017  
 Fort Wingate Depot Activity,  
 McKinley County, New Mexico

State Plane Coordinate System, New Mexico West,  
 North American Datum 1983, US Feet.  
 North American Vertical Datum 1988, US Feet.

Data Sources:  
 Roads, Railroad: Tele Atlas GDT-Dynamap, 2008;  
 Populated Places: ESRI 2005;  
 Fort Wingate Environmental Restoration Detail: USACE.

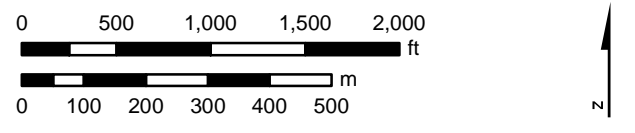




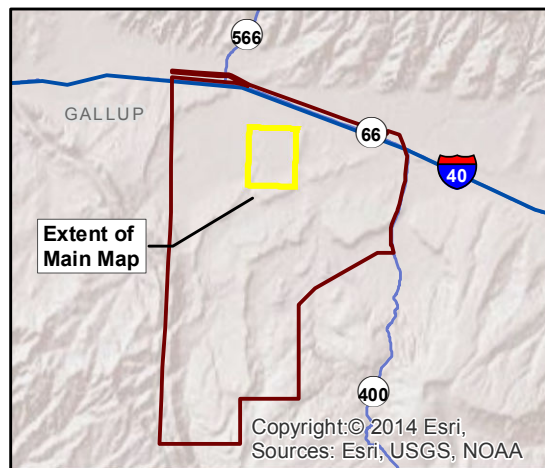
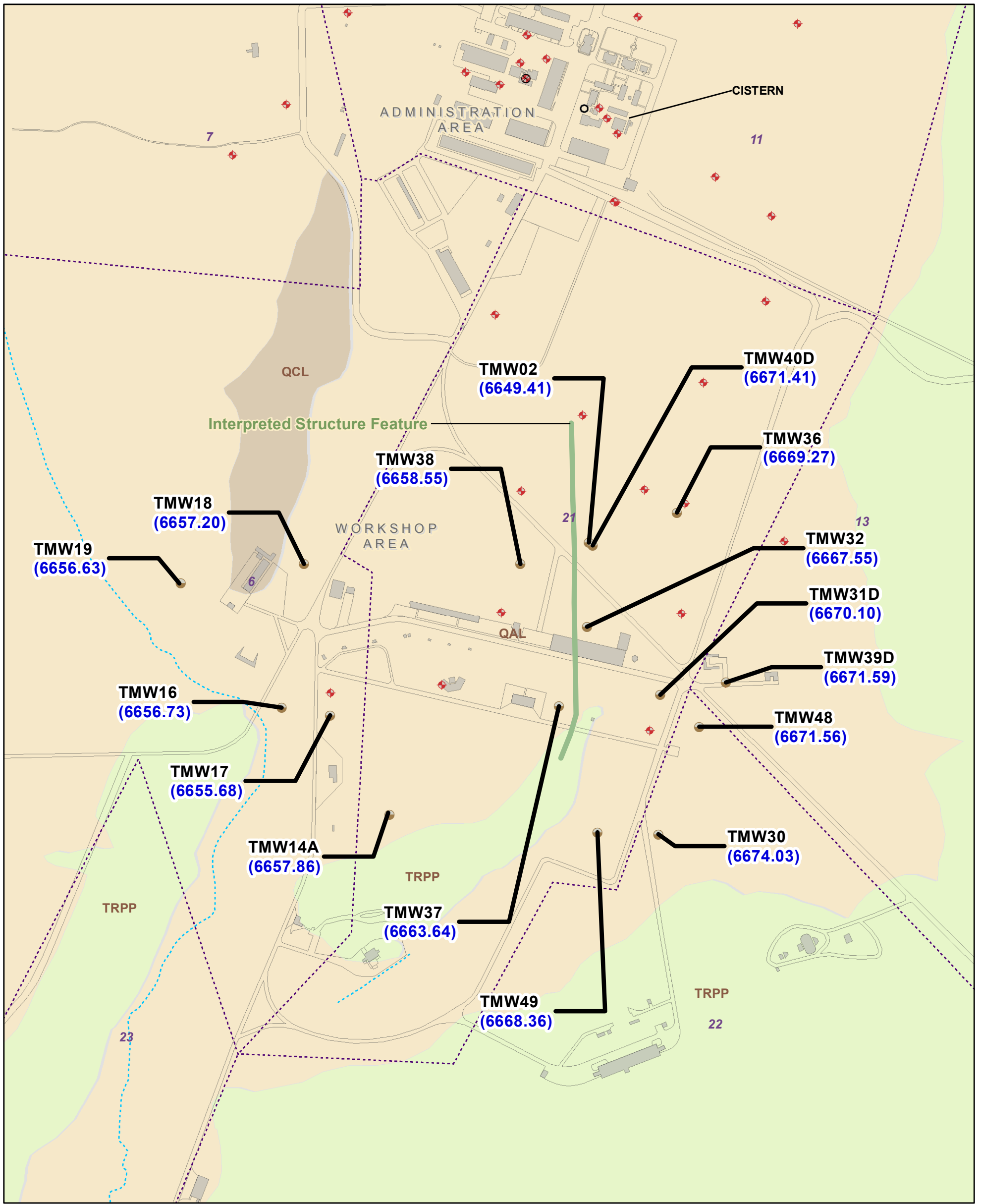


- Legend**
- ◆ Alluvial Monitoring Well
  - Bedrock Monitoring Well
  - ▲ Piezometer
  - ⊗ Dry Well
  - Water Supply Well 69
  - TMW11** Well Label = Well ID  
**(6651.15)** (Groundwater Elevation in feet)
  - 6635-** Alluvial Groundwater Contours, April 2017
  - Building
  - 10A Property Transfer Parcel
  - Fort Wingate Installation Boundary
- Surface Geology**
- QAL QAL - Quaternary Alluvial Deposits
  - QCL QCL - Quaternary Colluvial and Gravel Deposits
  - TRPP TRPP - Petrified Forest Formation, Painted Desert Member

**FIGURE 4-2**  
**April 2017 Northern Area Alluvial Groundwater Elevation Map**  
 Groundwater Periodic Monitoring Report for January to July 2017  
 Fort Wingate Depot Activity, McKinley County, New Mexico







**Legend**

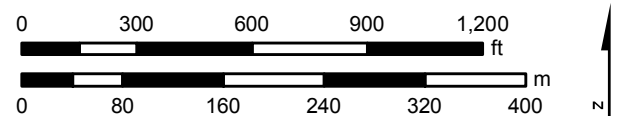
- ◆ Alluvial Monitoring Well
- Bedrock Monitoring Well
- ⊗ Dry Well
- Water Supply Well 69
- TMW11 (6650.94)** Well Label = Well ID (Groundwater Elevation in feet)
- Building
- 10A Property Transfer Parcel
- Fort Wingate Installation Boundary
- Surface Geology**
- QAL - Quaternary Alluvial Deposits
- QCL - Quaternary Colluvial and Gravel Deposits
- TRPP - Petrified Forest Formation, Painted Desert Member
- Arroyo
- Road

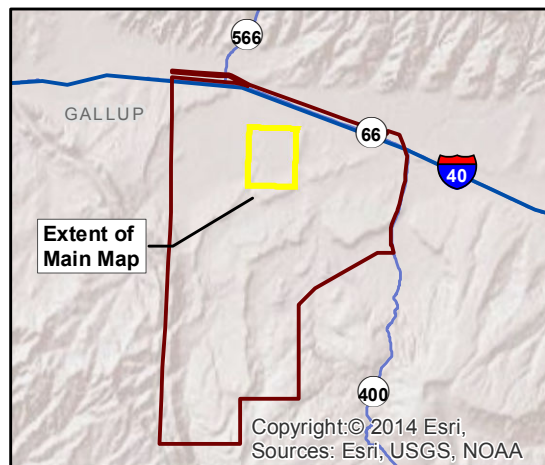
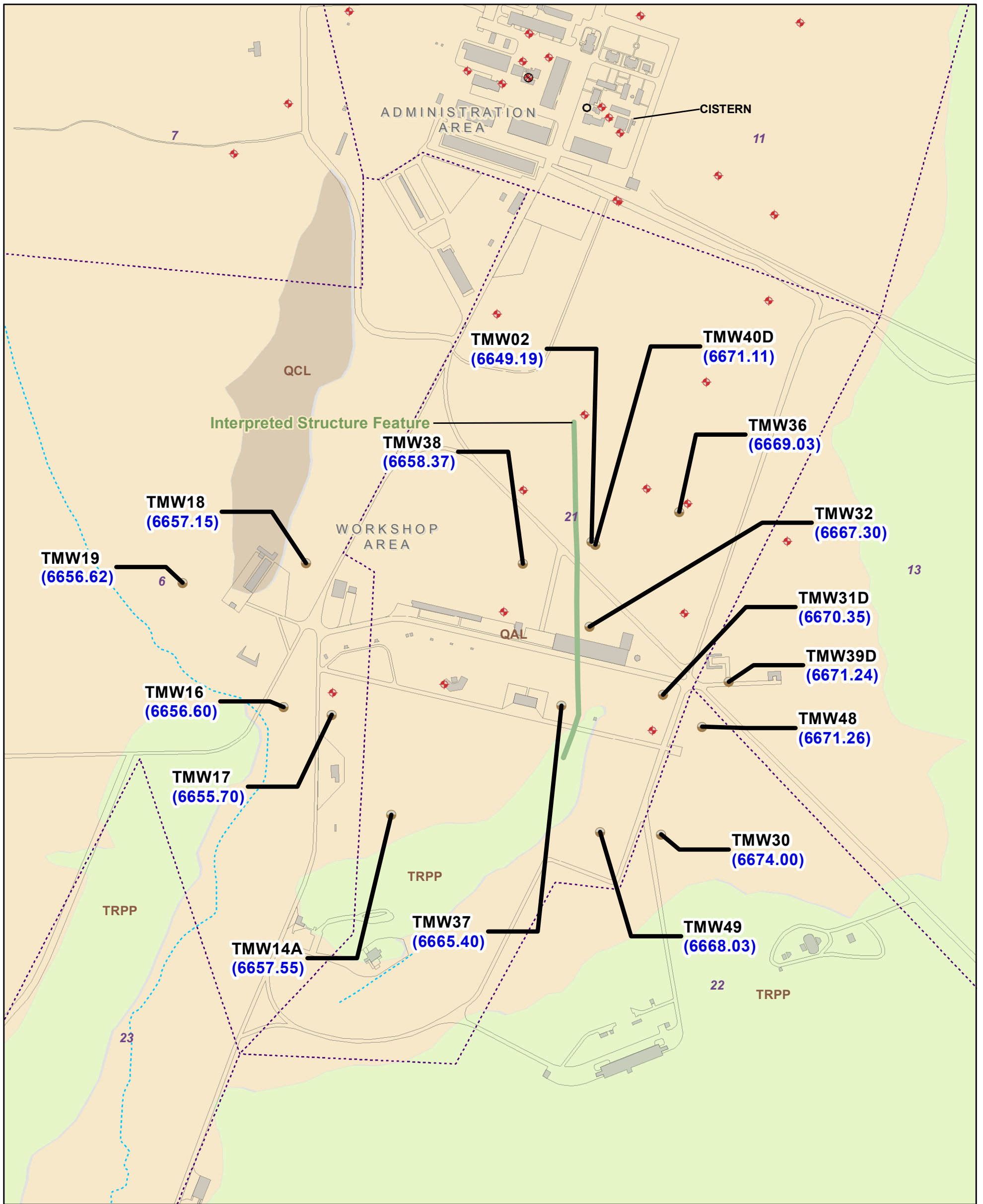
State Plane Coordinate System, New Mexico West,  
North American Datum 1983, US Feet.  
North American Vertical Datum 1988, US Feet.

Data Sources:  
Roads, Railroad: Tele Atlas GDT-Dynamap, 2008;  
Populated Places: ESRI 2005;  
Fort Wingate Environmental Restoration Detail: USACE.

**FIGURE 4-3**  
**January 2017 Northern Area Bedrock**  
**Groundwater Elevation Map**  
Groundwater Periodic Monitoring  
Report for January to July 2017  
*Fort Wingate Depot Activity,*  
*McKinley County, New Mexico*

Notes:  
1) Elevation data from well TMW02 is not consistent with other bedrock wells because the well is screened in a different subunit.  
2) Groundwater elevation contours were removed pending monitoring well re-survey in accordance with a regulatory comment.



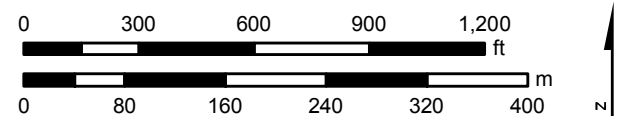


**Legend**

- ◆ Alluvial Monitoring Well
- Bedrock Monitoring Well
- ⊗ Dry Well
- Water Supply Well 69
- TMW11** Well Label = Well ID (6650.94) (Groundwater Elevation in feet)
- Building
- Property Transfer Parcel
- Fort Wingate Installation Boundary
- Surface Geology**
- QAL - Quaternary Alluvial Deposits
- QCL - Quaternary Colluvial and Gravel Deposits
- TRPP - Petrified Forest Formation, Painted Desert Member
- Arroyo
- Road

**FIGURE 4-4**  
**April 2017 Northern Area Bedrock**  
**Groundwater Elevation Map**  
 Groundwater Periodic Monitoring Report  
 for January to July 2017  
*Fort Wingate Depot Activity,*  
*McKinley County, New Mexico*

Notes:  
 1) Elevation data from well TMW02 is not consistent with other bedrock wells because the well is screened in a different subunit.  
 2) Groundwater elevation contours were removed pending monitoring well re-survey in accordance with a regulatory comment.



State Plane Coordinate System, New Mexico West,  
 North American Datum 1983, US Feet.  
 North American Vertical Datum 1988, US Feet.

Data Sources:  
 Roads, Railroad: Tele Atlas GDT-Dynamap, 2008;  
 Populated Places: ESRI 2005;  
 Fort Wingate Environmental Restoration Detail: USACE.

# 1 5.0 Analytical Results

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2 The groundwater quality parameters and laboratory analytical results for the spring 2017 groundwater sampling  
3 event are presented in Tables 5-1 through 5-8. Figures 5-1 through 5-6 are maps for the various groundwater  
4 contaminants identified at FWDA. The laboratory data were reviewed and determined to be valid and suitable for  
5 the project objectives. The Data Quality Evaluation Report is provided in Appendix C. The historical groundwater  
6 monitoring data are provided in Appendix D.

## 7 5.1 Northern Area Analytical Results

### 8 5.1.1 Water Quality Parameters

9 Water quality parameters provide useful data for assessing general water quality and evaluating contaminant fate  
10 and transport. The stable parameter readings and drawdown measurements collected during monitoring well  
11 purging activities are presented in Table 5-1. Some groundwater parameter measurements in the data set are  
12 skewed (biased high) due to monitoring well design and limiting aquifer conditions as well as different sample  
13 collection methods. Therefore, the median value is presented for each parameter for discussion purposes.

14 The specific conductance of groundwater is considered a proxy for total dissolved solids (TDS) concentration. For  
15 most groundwater, multiplying the specific conductance value in microsiemens per centimeter ( $\mu\text{S}/\text{cm}$ ) by a factor  
16 of 0.55 to 0.75 yields an approximate TDS concentration in milligrams per liter (mg/L) (Hem, 1989). Groundwater-  
17 specific conductance values ranged from 0.861 to 16.9 millisiemens per centimeter (mS/cm). Median values for  
18 groundwater from the Northern Area monitoring wells were 3.47 and 2.84 mS/cm in the alluvial and bedrock  
19 units, respectively. When values in  $\mu\text{S}/\text{cm}$  are converted to TDS concentrations using a conversion factor of 0.65,  
20 the median values for groundwater in the alluvial and bedrock units are 2,300 and 1,900 mg/L, respectively.

21 Groundwater pH measurements ranged from 6.26 to 9.3, with two data points above 9.0 in groundwater from the  
22 bedrock monitoring wells. Median pH values were 7.6 and 7.9 in the Northern Area alluvial and bedrock  
23 groundwater units, respectively.

24 The DO concentrations are an indicator of aerobic or anaerobic conditions in the groundwater. DO values ranged  
25 from 0.0 to 10.66 mg/L, with median values of 0.9 and 0.6 mg/L for the alluvial and bedrock groundwater units,  
26 respectively. Low DO values indicate that anaerobic conditions ( $<1$  mg/L) are likely present in some areas of  
27 FWDA. The DO measurements for samples collected using bailer techniques are somewhat elevated due to the  
28 introduction of a bailer into the water column.

29 The oxidation state for groundwater was measured as the ORP and subsequently calculated as the redox potential  
30 (Eh). These values are a measure of electrical potential in the aquifer that can be used to determine the stability  
31 of contaminants in groundwater. The Eh values were calculated from the instrument-specific ORP readings using a  
32 formula that accounts for the instrument calibration standard and location-specific water temperature (Horiba  
33 Instruments, Inc., 2014; Matsushita et al., 1974). The Eh values ranged from -23 to 505 millivolts (mV) across the  
34 monitoring area. Median values of Eh were 242 mV in water from alluvial aquifer monitoring wells and 54 mV in  
35 water from bedrock monitoring wells, respectively. The formula used for the calculation and the Eh values are  
36 presented in Table 5-1.

### 37 5.1.2 Nitrate and Nitrite

38 Nitrate and nitrite were analyzed by EPA Method 9056 and reported as nitrogen mass concentrations, nitrate-  
39 nitrogen, and nitrite-nitrogen. A summary of the nitrate and nitrite analytical results is presented in Table 5-2.

40 Nitrate was detected from a majority of analyzed samples. Concentrations of nitrate ranged up to 130 mg/L and  
41 exceeded the EPA MCL of 10 mg/L in samples from 11 alluvial monitoring wells in the Northern Area. Nitrite was  
42 detected infrequently and was not detected at concentrations exceeding the MCL in the alluvial monitoring wells  
43 during this monitoring event. The highest nitrate concentrations in the alluvial groundwater were found in the

## 5.0 Analytical Results

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1 Workshop Area immediately downgradient of the TNT Leaching Beds (SWMU 1) (monitoring wells TMW03 and  
2 TMW40S). Groundwater nitrate concentrations were also detected above the MCLs in multiple samples collected  
3 from monitoring wells in the Administration Area. The extent of nitrate contamination downgradient (to the west)  
4 of the Administration Area has not been defined. In addition, elevated nitrate concentrations were detected in  
5 samples from background alluvial monitoring well BGMW02 located on the FWDA boundary and upgradient of  
6 any SWMUs or AOCs.

7 Nitrate was detected in samples from bedrock monitoring wells in the Northern Area with less frequency and at  
8 lower concentrations than in alluvial monitoring wells. Nitrate was detected in eight of 14 bedrock monitoring  
9 wells that were sampled for nitrate (Table 5-2). Groundwater nitrate concentrations ranged up to 94 mg/L and  
10 exceeded the EPA MCL in samples from four monitoring wells (TMW02, TMW30, TMW31D, and TMW48). The  
11 highest groundwater nitrate concentrations in the bedrock groundwater unit were found in the Workshop Area  
12 (samples from monitoring well TMW02) immediately downgradient of the TNT Leaching Beds (SWMU 1). Samples  
13 from monitoring wells downgradient of the Building 528 Complex (SWMU 27) had nitrate exceedances at  
14 concentrations up to 16 mg/L (Table 5-2). Nitrite was detected infrequently and was not detected at  
15 concentrations exceeding the MCL in the bedrock monitoring wells during this monitoring event. Figure 5-2 shows  
16 the groundwater nitrate and nitrite concentration data for the bedrock monitoring wells in the Northern Area.

### 17 5.1.3 Explosive Compounds

18 Groundwater samples were analyzed for explosives using EPA Method SW-8330B. A summary of the explosive  
19 analytical results is presented in Table 5-3. To date, no groundwater regulatory cleanup standards have been  
20 established for explosive compounds at FWDA. The EPA Region 6 RSLs are presented in Table 5-3 as reference  
21 screening criteria.

22 The following explosive compounds were detected in groundwater samples from alluvial and bedrock monitoring  
23 wells collected during the spring 2017 groundwater sampling event (the maximum concentrations are shown in  
24 parentheses):

- 25 ○ 1,3-Dinitrobenzene (1 J µg/L at alluvial monitoring well TMW44)
- 26 ○ 2-Amino-4,6-dinitrotoluene (0.83 µg/L at bedrock monitoring well TMW02)
- 27 ○ 3,5-Dinitroaniline (0.34 J µg/L at bedrock monitoring well TMW02)
- 28 ○ 4-Amino-2,6-dinitrotoluene (0.63 µg/L at bedrock monitoring well TMW02)
- 29 ○ Nitrobenzene (230 µg/L at alluvial monitoring well TMW25)
- 30 ○ Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) (1100 µg/L at alluvial monitoring well TMW40S); detected in  
31 samples from five alluvial monitoring wells and two bedrock monitoring wells
- 32 ○ Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX) (20 J µg/L at alluvial monitoring well TMW40S)

33 Explosive compounds nitrobenzene and RDX were detected above the RSLs in groundwater samples from the  
34 spring 2017 monitoring event. RDX is a recognized groundwater explosive compound of interest. The compound  
35 RDX is routinely detected at concentrations greater than the RSL of 7.0 µg/L in monitoring wells downgradient of  
36 the TNT Leaching Beds (SWMU 1). RDX exceeded the RSL at alluvial monitoring wells TMW40S (1100 µg/L) and  
37 TMW23 (49 J µg/L) in April 2017 samples. The RDX concentration in alluvial monitoring well TMW03, which is  
38 located immediately downgradient of the TNT Leaching Beds (SWMU 1) decreased from 490 µg/L in October 2016  
39 to 4 µg/L during this monitoring event. The compound nitrobenzene was detected at a concentration greater than  
40 the RSL of 1.4 µg/L in alluvial monitoring well TMW25 (290 µg/L) but is not directly downgradient of known  
41 sources or consistent with previous monitoring data. Explosives compounds were not detected in the previous  
42 three monitoring events at TMW25. Future monitoring results from TMW25 will be assessed to determine  
43 whether this one detection is anomalous or represents previously unidentified contaminant mass. The RDX plume  
44 is well-defined in the alluvial groundwater unit and is shown with other explosives detections on Figures 5-3  
45 and 5-4 for the alluvial and bedrock groundwater units, respectively.

## 5.0 Analytical Results

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1 Other explosives analytes are occasionally detected in the FWDA groundwater. Detections occur most frequently  
2 and at higher concentrations in the alluvial groundwater unit downgradient of the TNT Leaching Beds (SWMU 1).  
3 During this monitoring event, no other explosives compounds except nitrobenzene and RDX were detected above  
4 the RSLs.

### 5 5.1.4 Perchlorate

6 Groundwater samples were analyzed for perchlorate by EPA Method 6860. A summary of analytical results is  
7 presented in Table 5-4. Groundwater perchlorate-concentration data for the Northern Area are shown on  
8 Figures 5-3 and 5-4. The EPA has established a tapwater screening level of 14 µg/L for perchlorate. The highest  
9 perchlorate concentrations were found in groundwater samples collected from the bedrock monitoring wells in  
10 the Workshop Area. The extent of perchlorate groundwater contamination has not been completely delineated to  
11 date.

12 Perchlorate was detected in numerous groundwater samples from both alluvial and bedrock monitoring wells in  
13 the Northern Area. Perchlorate concentrations exceeded the screening level at alluvial monitoring wells TMW01,  
14 TMW31S, and TMW39S during this reporting period. Perchlorate concentrations exceeded the RSL in samples  
15 from six bedrock monitoring wells (TMW30, TMW31D, TMW32, TMW40D, TMW48, and TMW49). The maximum  
16 perchlorate concentration was detected in bedrock monitoring well TMW49 (1,500 µg/L).

17 The perchlorate concentrations in bedrock groundwater units were greater than those in alluvial groundwater,  
18 suggesting that the source area of perchlorate contamination is located upgradient in a recharge area for the  
19 bedrock groundwater unit. Based on site history and analytical results from previous investigations, the source  
20 area for perchlorate contamination is believed to be Building 528 Complex (SWMU 27) (USGS, 2011). The  
21 perchlorate contamination identified in the alluvial groundwater unit is collocated with the bedrock groundwater  
22 plume and is believed to result from a common source.

### 23 5.1.5 Volatile Organic Compounds

24 Groundwater contamination from volatile organic compounds (VOCs) at concentrations above screening levels is  
25 limited to a small number of shallow alluvial monitoring wells in the Administration Area. The detected VOCs are  
26 primarily associated with chlorinated solvents, petroleum fuels, and their degradation products. Groundwater  
27 samples were analyzed for VOCs using EPA Method SW-8260C. A summary of the VOC analytical results is  
28 presented in Table 5-5. Eight VOCs were detected in one or more groundwater samples collected during the  
29 spring 2017 groundwater sampling event. Figures 5-5 and 5-6 show the VOC data for groundwater samples  
30 collected in the Northern Area alluvial monitoring wells and bedrock monitoring wells, respectively.

31 The following VOCs were detected in samples collected during the spring 2017 groundwater monitoring event in  
32 the Northern Area (the maximum detected concentrations are shown in parentheses):

- 33 ○ 1,2-Dichloroethane (95 J µg/L at alluvial monitoring well MW18D); detected in samples from six alluvial  
34 and no bedrock monitoring wells
- 35 ○ Acetone (1.9 J µg/L at alluvial monitoring well TMW24) – possible laboratory contaminant
- 36 ○ Carbon disulfide (2.6 µg/L at bedrock monitoring well TMW47)
- 37 ○ Chloroform (0.24 J µg/L at alluvial monitoring well TMW40S)
- 38 ○ Chloromethane (0.50 J µg/L at alluvial monitoring well TMW11)
- 39 ○ Methylene chloride (1.0 µg/L at alluvial monitoring well TMW40S) – possible laboratory contaminant
- 40 ○ Naphthalene (0.36 J µg/L at alluvial monitoring well MW23)
- 41 ○ Toluene (0.72 J µg/L at bedrock monitoring well TMW18)

42 The only VOC detected in groundwater samples at concentrations above regulatory screening levels was the  
43 gasoline additive 1,2-dichloroethane. Groundwater samples collected from two alluvial monitoring wells in the

## 5.0 Analytical Results

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vicinity of a former fueling facility had concentrations above the EPA MCL of 5.0 µg/L. Samples collected from monitoring wells MW18D and TMW33 had 1,2-dichloroethane concentrations of 95 J and 38 µg/L, respectively. No other VOCs were detected in groundwater samples above regulatory screening levels.

### 5.1.6 Other Organic Compounds

Detections of organic compounds other than VOCs in groundwater samples from FWDA are generally sporadic and at concentrations below screening levels. A summary of the detected organic compounds other than VOCs is presented in Table 5-6. Petroleum hydrocarbons were detected in the diesel and gasoline ranges, as analyzed using EPA Method SW-8015C, and semivolatile organic compounds (SVOCs) were analyzed using EPA Method SW-8270D. Pesticide compounds were analyzed using EPA Method SW-8081A.

Concentrations of petroleum hydrocarbons and SVOCs detected in more than one sample are as follows (the maximum detected concentrations are shown in parentheses):

- Diesel range organics (DRO) (84 J µg/L at alluvial monitoring well MW18D)
- Gasoline range organics (31 J µg/L at alluvial monitoring well MW18D)
- 2,4-Dinitrophenol (12 J µg/L at alluvial monitoring wells TMW22, TMW40S, and TMW44)
- benzyl alcohol (0.32 J µg/L at alluvial monitoring well TMW22)
- Bis(2-ethylhexyl)phthalate (5.1 J µg/L at bedrock monitoring well TMW18)

Petroleum hydrocarbons were detected in several samples collected from monitoring wells in the Administration Area of the Northern Area. Overall, petroleum hydrocarbons were detected in groundwater samples from eight alluvial monitoring wells, with no detections in bedrock monitoring wells. No regulatory screening levels were identified for petroleum hydrocarbons.

Detections of SVOCs are associated with historical releases of explosives compounds and with sampling and laboratory contaminants. The SVOC 2,4-dinitrophenol was detected at concentrations less than the RSL of 39 µg/L at alluvial monitoring wells TMW22, TMW40S, and TMW44, downgradient of the TNT Leaching Beds (SWMU 1). The compound 2,4-dinitrophenol attributed to degradation of explosives compounds within the RDX plume. The SVOC bis(2-ethylhexyl)phthalate was detected at monitoring wells at concentrations below the EPA MCL of 6.0 µg/L. The common plastic additive bis(2-ethylhexyl)phthalate may be present in a variety of laboratory and sampling equipment (including sample tubing, pump, bailer, and laboratory equipment) and was detected in samples from six monitoring wells. Previous samples from TMW18 have reported bis(2-ethylhexyl)phthalate concentrations in excess of the RSL (Table 5-6). In 2014, TMW18 had the dedicated Bennett sample pump refurbished and reinstalled with new plastic components. The monitoring event following pump refurbishment samples from TMW18 had concentrations of bis(2-ethylhexyl)phthalate exceeding the regulatory limit. Since then, bis(2-ethylhexyl)phthalate concentrations have significantly declined and are currently below the regulatory limit. No SVOCs were detected at concentrations above screening levels during this reporting period.

No pesticide compounds were detected from samples collected during this reporting period. Previous pesticide detections were sporadic and are discussed in the January to June 2016 GPMR (Sundance and CH2M, 2016).

### 5.1.7 Metals

Groundwater samples were collected and analyzed as total and dissolved metal concentrations at FWDA. Groundwater samples were analyzed for metals by EPA Methods SW-6010C, SW-6020A, and SW-7470A. Total metals analysis has been shown in studies to be affected by sediment and the method of monitoring well purging. Total metals analytical results are not representative of groundwater concentrations at many sites. A summary of detections for total metals is presented in Table 5-8, but the results are not discussed in this GPMR. A summary of detections for dissolved metals is presented in Table 5-7.

Dissolved aluminum, arsenic, iron, manganese, and selenium were detected in multiple groundwater samples above regulatory screening levels. Lead was detected in one groundwater sample above regulatory screening



## 5.0 Analytical Results

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1 levels. Because background metal groundwater concentrations have not yet been accepted by the regulators for  
2 FWDA, it cannot clearly be demonstrated whether the detected concentrations are a result of natural conditions  
3 or anthropogenic sources of contamination. Therefore, no contaminant plume maps were created for the total or  
4 dissolved metals data. Installation of additional background monitoring wells is planned and will be included in a  
5 revised Northern Area background evaluation. The revised work plan for the Supplemental RFI will be submitted  
6 to NMED in August 2017 (Sundance, 2017).

### 7 **5.2 OB/OD Area Analytical Results**

8 No groundwater monitoring was performed in the OB/OD Area during this period. No historical analytical results  
9 are available for monitoring events after April 2013. A Parcel 3 Groundwater RFI Report containing information on  
10 groundwater quality is currently being prepared and will be submitted in 2017.

### 11 **5.3 Field Variances from the Work Plan**

12 Three field variances from the Work Plan occurred during this reporting period. Alluvial monitoring wells FW35  
13 and MW22S were dry and could not be sampled during this monitoring event. Monitoring well FW35 has been dry  
14 for the past four sampling events. MW22S has had limited screen saturation in recent monitoring events. Water  
15 levels will be monitored at these locations to determine whether sampling can resume or whether the monitoring  
16 well should be plugged and abandoned.

17 All analytical and data quality methods and procedures were performed in accordance with the QSM (DoD, 2013).  
18 VOC samples were previously analyzed by EPA Method SW-8260B. This analysis is now performed by the required  
19 SW-8260C Method.

### 20 **5.4 New Findings**

21 No new findings were identified from monitoring data collected during this monitoring event. Monitoring data are  
22 generally consistent with historical data except for two occurrences. April 2017 concentrations of the explosive  
23 RDX and the SVOC 2,4-dinitrophenol decreased from 490 µg/L and 40 J µg/L (respectively) in October 2016 to  
24 4 µg/L and non-detect (respectively) in April 2017 in samples from alluvial monitoring well TMW03. April 2017  
25 concentrations of the explosive nitrobenzene were anomalous when compared to historic monitoring results at  
26 alluvial monitoring well TMW25.



TABLE 5-1

**Spring 2017 Stable Groundwater Parameters (Page 1 of 2)***Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity*

Location	Groundwater Zone	Screen Interval (feet bgs)	Date	Conductivity (mS/cm)	DO (mg/L)	ORP (mV)	Eh (mV)	pH (pH Units)	Temperature (°C)	Turbidity (NTU)	Drawdown (feet)
BGMW01	North Alluvial	12.5 - 32.5	4/24/2017	3.41	0.33	-20	194	7.61	13.4	1	0.23
BGMW02	North Alluvial	13.5 - 33.5	4/21/2017	2.48	4.11	144	360	7.48	11.38	15.6	0.04
BGMW03	North Alluvial	8.5 - 28.5	4/19/2017	3.44	4.63	8	222	8.01	13.53	>1000	N/A
FW31	North Alluvial	10.0 - 50.0	4/17/2017	1.99	8.4	98	311	8.59	15.35	434	N/A
FW35	North Alluvial	10.0 - 30.0	Well was dry and was not purged and sampled								
MW01	North Alluvial	33.6 - 53.6	4/18/2017	3.73	10.66	184	398	7.88	13.97	>1000	N/A
MW02	North Alluvial	37.0 - 47.0	4/18/2017	1.93	8.87	290	505	6.26	11.62	0.0	N/A
MW03	North Alluvial	43.0 - 53.0	4/21/2017	4.68	0.96	124	339	7.47	12.75	0.5	0.49
MW18D	North Alluvial	47.0 - 57.0	4/18/2017	7.79	0.87	-50	161	7.68	18.47	180	N/A
MW20	North Alluvial	47.0 - 57.0	4/24/2017	15.9	1.33	138	350	6.92	15.75	0.0	0.05
MW22D	North Alluvial	47.0 - 57.0	4/19/2017	4.74	0.75	189	401	6.81	16.01	0.0	0.14
MW22S	North Alluvial	31.0 - 41.0	Well was dry and was not purged and sampled								
MW23	North Alluvial	63.5 - 133.5	4/18/2017	1.61	7.88	26	241	7.56	11.98	0.0	N/A
MW24	North Alluvial	16.0 - 66.0	4/17/2017	0.861	0.0	-166	49	6.58	11.51	58.3	N/A
SMW01	North Alluvial	29.9 - 49.9	4/21/2017	3.96	0.0	-64	149	7.77	15.44	0.0	0.41
TMW01	North Alluvial	44.0 - 59.0	4/25/2017	2.92	0.27	93	309	7.53	11.22	0.0	0.09
TMW03	North Alluvial	49.8 - 69.8	4/24/2017	4.28	0.52	108	323	7.55	12.5	0.0	0.08
TMW04	North Alluvial	50.0 - 70.0	4/24/2017	3.95	0.56	80	294	7.81	13.65	0.7	0.31
TMW06	North Alluvial	45.0 - 55.0	4/20/2017	3.45	0.76	64	276	7.67	16.89	1.6	0.54
TMW07	North Alluvial	65.0 - 75.0	4/19/2017	5.15	4.53	-71	143	7.55	13.88	897	N/A
TMW08	North Alluvial	30.0 - 60.0	4/21/2017	16.9	0.48	66	280	7.44	13.15	1.0	0.07
TMW10	North Alluvial	28.0 - 58.0	4/21/2017	7.56	2.53	28	243	7.19	12.39	0.0	N/A
TMW11	North Alluvial	55.0 - 80.0	4/26/2017	2.16	3.4	-94	122	7.58	10.59	15.8	0.3
TMW13	North Alluvial	60.7 - 70.7	4/25/2017	2.31	0.71	40	256	7.6	10.38	0.7	0.1
TMW15	North Alluvial	56.0 - 71.0	4/27/2017	1.88	2.19	-98	116	7.85	13.32	0.0	0.09
TMW21	North Alluvial	48.0 - 58.0	4/25/2017	2.69	3.08	165	381	7.92	11.07	>1000	N/A
TMW22	North Alluvial	52.0 - 62.0	4/18/2017	3.49	1.01	-16	196	7.93	15.86	87	N/A
TMW23	North Alluvial	46.0 - 56.0	4/19/2017	3.12	9.41	98	312	7.94	13.15	>1000	N/A
TMW24	North Alluvial	44.0 - 54.0	4/25/2017	4.21	0.0	-1	217	7.6	7.91	0.0	0.48
TMW25	North Alluvial	42.5 - 52.5	4/27/2017	3.67	0.36	-48	164	7.86	15.87	0.7	0.8
TMW26	North Alluvial	45.0 - 55.0	4/20/2017	3.23	2.49	-22	191	7.86	14.78	8.9	0.01
TMW27	North Alluvial	60.0 - 70.0	4/21/2017	1.03	0.0	-144	69	7.41	15.03	0.0	0.49
TMW28	North Alluvial	37.0 - 47.0	4/24/2017	2.89	0.28	-135	79	7.29	13.17	0.7	0.64
TMW29	North Alluvial	49.0 - 59.0	4/19/2017	2.50	5.12	149	360	8.06	18.02	>1000	N/A
TMW31S	North Alluvial	50.0 - 60.0	4/18/2017	2.78	0.99	86	300	6.64	13.1	27.1	N/A
TMW33	North Alluvial	37.0 - 57.0	4/18/2017	9.99	0.3	20	232	7.52	16.18	263	N/A
TMW34	North Alluvial	37.0 - 57.0	4/24/2017	6.08	0.67	181	394	7.25	15.6	1.2	0.06
TMW35	North Alluvial	35.0 - 55.0	4/24/2017	4.87	0.47	-24	186	7.26	18.8	0.0	0.04
TMW39S	North Alluvial	32.5 - 52.5	4/18/2017	4.29	3.97	49	263	7.53	13.52	50.6	N/A
TMW40S	North Alluvial	50.0 - 60.0	4/18/2017	4.38	2.59	168	382	7.75	13.87	747	N/A
TMW41	North Alluvial	55.5 - 65.5	4/18/2017	3.98	3.46	-11	203	8.05	13.32	72.3	N/A

TABLE 5-1

**Spring 2017 Stable Groundwater Parameters (Page 2 of 2)**

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Location	Groundwater Zone	Screen Interval (feet bgs)	Date	Conductivity (mS/cm)	DO (mg/L)	ORP (mV)	Eh (mV)	pH (pH Units)	Temperature (°C)	Turbidity (NTU)	Drawdown (feet)
TMW43	North Alluvial	58.0 - 78.0	4/27/2017	2.47	0.52	122	337	7.39	11.93	0.0	0.00
TMW44	North Alluvial	43.5 - 63.5	4/18/2017	3.2	1.34	6	220	8.4	13.91	118	N/A
TMW45	North Alluvial	38.5 - 58.5	4/28/2017	3.65	0.31	-4	213	7.74	9.06	6.6	0.05
TMW46	North Alluvial	38.5 - 58.5	4/18/2017	5.31	0.26	18	232	7.83	14.13	80.6	N/A
TMW47	North Alluvial	82.5 - 102.5	4/25/2017	2.32	0.39	-131	87	8.64	8.03	0.4	0.77
TMW02	North Bedrock	67.9 - 81.9	4/24/2017	4.6	0.17	58	270	7.89	16.05	0.0	0.32
TMW14A	North Bedrock	94.25 - 109.25	4/27/2017	1.67	0.43	-182	34	9.13	11.24	9.8	0.00
TMW16	North Bedrock	123.0 - 138.0	4/19/2017	1.65	0.0	-170	45	7.3	12.28	0.0	N/A
TMW17	North Bedrock	112.0 - 127.0	4/27/2017	1.75	1.35	-205	11	9.3	11.21	0.9	0.82
TMW18	North Bedrock	150.0 - 160.0	4/19/2017	2.38	0.0	-238	-23	8.16	12.62	0.0	N/A
TMW19	North Bedrock	169.0 - 184.0	4/19/2017	3.13	0.0	-151	64	7.18	12.2	0.0	N/A
TMW30	North Bedrock	35.0 - 45.0	4/18/2017	2.1	7.57	29	244	7.96	12.77	20.5	N/A
TMW31D	North Bedrock	77.0 - 107.0	4/27/2017	2.74	1.44	66	280	7.56	13.22	0.0	0.21
TMW32	North Bedrock	117.0 - 137.0	4/27/2017	3.45	0.2	-179	35	8.76	13.97	0.0	0.04
TMW36	North Bedrock	132.0 - 152.0	4/19/2017	2.74	0.0	-191	24	7.36	12.65	0.0	N/A
TMW37	North Bedrock	88.0 - 108.0	4/19/2017	3.03	0.0	-171	44	7.51	12.79	0.0	N/A
TMW38	North Bedrock	118.9 - 158.9	4/26/2017	3.95	1.33	-114	101	8.56	11.67	0.0	1.28
TMW39D	North Bedrock	70.0 - 100.0	4/27/2017	3.58	0.8	-175	39	8.52	13.64	0.9	0.25
TMW40D	North Bedrock	135.0 - 155.0	4/25/2017	3.12	0.9	-104	112	8.5	11.18	0.4	0.00
TMW48	North Bedrock	71.0 - 91.0	4/26/2017	2.55	0.75	112	327	7.39	12.4	0.1	0.00
TMW49	North Bedrock	40.0 - 60.0	4/26/2017	2.94	3.51	74	289	7.73	12.61	0.1	0.6

## Notes:

<sup>a</sup> Anomalous field parameter readings occurred at some sample locations during purging but are not expected to affect sampling results.

Drawdown is measured as the change in water level from initial measurement to final field reading on the day of well purging.

Eh is calculated from the ORP field reading and the water temperature using manufacturer specifications. The formula for conversion of ORP to Eh is as follows:

$$Eh = ORP_{\text{measured}} + Eh_{\text{reference}} = ORP_{\text{measured}} + 206 - 0.7 * (\text{Temperature} - 25)$$

bgs = below ground surface

°C = degrees Celsius

DO = dissolved oxygen

Eh = redox potential

mg/L = milligram(s) per liter

mS/cm = millisiemen(s) per centimeter

mV = millivolt(s)

N/A = not applicable; drawdown measurements are not applicable for casing volume purging method, and Eh values are not calculated from anomalous ORP.

NTU = nephelometric turbidity unit

ORP = oxygen reduction potential

pH = hydrogen (ion) concentration

Sources: Horiba Instruments, 2014 and Matsushita et al., 1974

TABLE 5-2

## Summary of Nitrate-nitrogen and Nitrite-nitrogen Analytical Detections (Page 1 of 6)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Nitrate-N (mg/L) CAS 14797-55-8	Nitrite-N (mg/L) CAS 14797-65-0
					EPA Method 9056	EPA Method 9056
Regulatory Limits					10 <sup>a</sup>	1 <sup>b</sup>
BGMW01	BGMW01042017	Normal	North Alluvial	4/24/2017	0.097 J	0.10 U
	BGMW01102016	Normal		11/2/2016	0.10 U	0.10 U
	BGMW01042016	Normal		4/15/2016	0.10 U	0.10 U
	BGMW01102015	Normal		11/5/2015	0.20 U	0.20 U
BGMW02	BGMW02042017	Normal	North Alluvial	4/21/2017	15 J	0.10 U
	BGMW02102016	Normal		11/2/2016	13	0.20 U
	BGMW02042016	Normal		4/14/2016	13	0.20 U
	BGMW02102015	Normal		11/5/2015	13	0.20 U
BGMW03	BGMW03042017	Normal	North Alluvial	4/20/2017	2.6	0.055 J
	BGMW03102016	Normal		10/28/2016	3.1	0.42 J
	BGMW03042016	Normal		4/8/2016	0.97 J	0.10 U
	BGMW03102015	Normal		10/30/2015	3.4	0.25 J
FW31	FW31042017	Normal	North Alluvial	4/17/2017	0.078 J	0.10 UJ
	FW31102016	Normal		10/26/2016	0.10 U	0.10 U
	FW31042016	Normal		4/7/2016	0.065 J	0.10 U
	FW3112015	Normal		11/2/2015	0.077 J	0.10 U
FW35	Well FW35 has been dry since 2015				Not sampled	Not Sampled
MW01	MW01042017	Normal	North Alluvial	4/19/2017	7.0	0.10 U
	MW01102016	Normal		10/27/2016	7.9	0.10 U
	MW01042016	Normal		4/6/2016	7.8	0.20 U
	MW01102015	Normal		10/28/2015	7.9	0.20 U
MW02	MW02042017	Normal	North Alluvial	4/19/2017	3.9	0.10 U
	MW02102016	Normal		10/28/2016	4.6	0.10 U
	MW02042016	Normal		4/6/2016	5.1	0.10 U
	MW02102015	Normal		10/28/2015	5.5	0.10 U
MW03	MW03042017	Normal	North Alluvial	4/21/2017	7.1 J	0.10 U
	MW03102016	Normal		11/3/2016	6.2	0.20 U
	MW03042016	Normal		4/12/2016	7.0	0.20 U
	MW03102015	Normal		10/30/2015	7.0	0.20 U
MW18D	MW18D042017	Normal	North Alluvial	4/20/2017	0.20 U	0.20 U
	MW18D102016	Normal		10/28/2016	0.20 U	0.20 U
	MW18D042016	Normal		4/12/2016	0.50 U	0.50 U
	MW18D102015	Normal		11/2/2015	0.50 U	0.50 U
MW20	MW20042017	Normal	North Alluvial	4/24/2017	6.5	0.50 U
	MW20102016	Normal		11/4/2016	3.9	0.50 U
	MW20042016	Normal		4/11/2016	6.7	2.4 J
	MW20102015	Normal		11/2/2015	7.7	2.1 J
	DMW20102015	Duplicate		11/2/2015	6.6	1.7 J
MW22D	MW22D042017	Normal	North Alluvial	4/19/2017	27	0.20 U
	MW22D102016	Normal		10/28/2016	27	0.20 U
	MW22D042016	Normal		4/11/2016	27	0.20 U
	MW22D102015	Normal		11/2/2015	25	0.20 U
MW22S	MW22S042017	Normal	North Alluvial	04/2017	Well dry this event	
	MW22S102016	Normal		10/2016	Well dry this event	
	MW22S042016	Normal		4/7/2016	17	0.10 U
	MW22S102015	Normal		10/28/2015	16	0.20 U

TABLE 5-2

## Summary of Nitrate-nitrogen and Nitrite-nitrogen Analytical Detections (Page 2 of 6)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Nitrate-N (mg/L) CAS 14797-55-8	Nitrite-N (mg/L) CAS 14797-65-0
					EPA Method 9056	EPA Method 9056
<b>Regulatory Limits</b>					<b>10<sup>a</sup></b>	<b>1<sup>b</sup></b>
MW23	MW23042017	Normal	North Alluvial	4/18/2017	0.10 U	0.12 J
	DMW23042017	Duplicate		4/18/2017	0.10 U	0.12 J
	MW23102016	Normal		10/27/2016	0.10 U	0.092 J
	MW23042016	Normal		4/7/2016	0.10 U	0.12 J
	DMW23042016	Duplicate		4/7/2016	0.10 U	0.13 J
	MW23102015	Normal		11/6/2015	0.10 U	0.10 UJ
	DMW23102015	Duplicate		11/6/2015	0.10 U	0.053 J
MW24	MW24042017	Normal	North Alluvial	4/17/2017	0.10 UJ	0.10 UJ
	DMW24042017	Duplicate		4/17/2017	0.10 UJ	0.10 UJ
	MW24102016	Normal		10/26/2016	0.10 U	0.10 U
	DMW24102016	Duplicate		10/26/2016	0.10 U	0.10 U
	MW24042016	Normal		4/6/2016	0.10 U	0.10 U
	DMW24042016	Duplicate		4/6/2016	0.10 U	0.10 U
	MW24102015	Normal		11/5/2015	0.10 U	0.10 U
SMW01	SMW01042017	Normal	North Alluvial	4/21/2017	0.10 U	0.10 U
	SMW01102016	Normal		11/2/2016	0.058 J	0.10 U
	SMW01042016	Normal		4/8/2016	0.20 UJ	0.20 U
	SMW011102015	Normal		11/3/2015	0.20 U	0.20 U
TMW01	TMW01042017	Normal	North Alluvial	4/25/2017	9.7	0.10 U
	TMW01102016	Normal		10/31/2016	9.6	0.10 U
	TMW01042016	Normal		4/8/2016	9.3 J	0.10 U
	TMW01102015	Normal		11/4/2015	9.3	0.10 U
TMW03	TMW03042017	Normal	North Alluvial	4/24/2017	<b>130</b>	0.46 J
	TMW03102016	Normal		10/31/2016	<b>130</b>	0.37 J
	TMW03042016	Normal		4/8/2016	<b>130 J</b>	0.43 J
	TMW03102015	Normal		11/4/2015	<b>130</b>	0.24 J
TMW04	TMW04042017	Normal	North Alluvial	4/24/2017	<b>47</b>	0.10 U
	TMW04102016	Normal		11/3/2016	<b>40</b>	0.10 U
	TMW04042016	Normal		4/13/2016	<b>52 J</b>	0.20 UJ
	TMW04102015	Normal		11/4/2015	<b>43</b>	0.20 U
TMW06	TMW06042017	Normal	North Alluvial	4/20/2017	<b>13 J</b>	0.10 U
	TMW06102016	Normal		10/31/2016	<b>13</b>	0.10 U
	TMW06042016	Normal		4/12/2016	<b>13</b>	0.10 U
	TMW06102015	Normal		11/4/2015	<b>13</b>	0.20 U
TMW07	TMW07042017	Normal	North Alluvial	4/20/2017	0.20 U	0.20 U
	TMW07102016	Normal		10/27/2016	0.20 U	0.20 U
	TMW07042016	Normal		4/8/2016	0.34 J	0.20 U
	TMW07102015	Normal		10/30/2015	0.097 J	0.20 U
TMW08	TMW08042017	Normal	North Alluvial	4/21/2017	0.50 U	0.50 U
	TMW08102016	Normal		11/1/2016	3.5	0.94 J
	DTW08102016	Duplicate		11/1/2016	3.6	0.80 J
	TMW08042016	Normal		4/12/2016	3.9	0.35 J
	TMW08102015	Normal		11/5/2015	4.4	0.63 J
TMW10	TMW10042017	Normal	North Alluvial	4/21/2017	0.20 U	0.20 U
	TMW10102016	Normal		11/2/2016	0.20 U	0.20 U
	TMW10042016	Normal		4/12/2016	0.10 J	0.20 U
	TMW10102015	Normal		11/4/2015	0.50 U	0.50 U

TABLE 5-2

## Summary of Nitrate-nitrogen and Nitrite-nitrogen Analytical Detections (Page 3 of 6)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Nitrate-N (mg/L) CAS 14797-55-8	Nitrite-N (mg/L) CAS 14797-65-0
					EPA Method 9056	EPA Method 9056
<b>Regulatory Limits</b>					<b>10<sup>a</sup></b>	<b>1<sup>b</sup></b>
TMW11	TMW11042017	Normal	North Alluvial	4/26/2017	1.3	0.10 U
	TMW11102016	Normal		11/3/2016	0.5	0.10 U
	DTW11102016	Duplicate		11/3/2016	0.5	0.10 U
	TMW11042016	Normal		4/11/2016	1.3	0.10 U
	TMW11102015	Normal		11/5/2015	0.5	0.10 U
TMW13	TMW13042017	Normal	North Alluvial	4/25/2017	5.5	0.10 U
	TMW13102016	Normal		11/1/2016	5.2	0.10 U
	TMW13042016	Normal		4/12/2016	4.6	0.10 U
	TMW13102015	Normal		11/4/2015	3.8	0.10 U
TMW15	TMW15042017	Normal	North Alluvial	4/27/2017	5.6	0.10 U
	DTW15042017	Duplicate		4/27/2017	5.6	0.10 U
	TMW15102016	Normal		11/2/2016	5.8	0.10 U
	TMW15042016	Normal		4/13/2016	6.9 J	0.10 UJ
	DTW15042016	Duplicate		4/13/2016	6.9 J	0.10 UJ
	TMW15102015	Normal		11/6/2015	7.3	0.10 U
	DTW15102015	Duplicate		11/6/2015	7.3	0.10 U
TMW21	TMW21042017	Normal	North Alluvial	4/26/2017	9.2	0.10 U
	TMW21102016	Normal		10/27/2016	9.6	0.10 U
	TMW21042016	Normal		4/11/2016	9.7	0.10 U
	TMW21102015	Normal		10/29/2015	8.7	0.10 U
TMW22	TMW22042017	Normal	North Alluvial	4/19/2017	<b>12</b>	0.10 U
	TMW22102016	Normal		10/27/2016	<b>16</b>	0.10 U
	TMW22042016	Normal		4/8/2016	<b>11 J</b>	0.10 U
	TMW22102015	Normal		10/30/2015	<b>11</b>	0.20 U
TMW23	TMW23042017	Normal	North Alluvial	4/20/2017	<b>29 J</b>	0.10 U
	TMW23102016	Normal		10/28/2016	<b>27</b>	0.089 J
	TMW23042016	Normal		4/8/2016	<b>29 J</b>	0.12 J
	TMW23102015	Normal		10/30/2015	<b>29 J</b>	0.063 J
TMW24	TMW24042017	Normal	North Alluvial	4/25/2017	0.10 U	0.10 U
	TMW24102016	Normal		11/3/2016	0.20 U	0.20 U
	TMW24042016	Normal		4/15/2016	0.10 U	0.10 U
	TMW24102015	Normal		11/6/2015	0.20 U	0.20 U
TMW25	TMW25042017	Normal	North Alluvial	4/27/2017	0.46 J	0.10 U
	TMW25102016	Normal		11/1/2016	0.45 J	0.10 U
	TMW25042016	Normal		4/13/2016	0.46 J	0.20 U
	TMW25102015	Normal		11/4/2015	0.49 J	0.20 U
TMW26	TMW26042017	Normal	North Alluvial	4/20/2017	0.044 J	0.10 U
	DTW26042017	Duplicate		4/20/2017	0.10 U	0.10 U
	TMW26102016	Normal		11/1/2016	0.10 U	0.10 U
	TMW26042016	Normal		4/8/2016	0.10 UJ	0.10 U
	DTW26042016	Duplicate		4/8/2016	0.10 UJ	0.10 U
	TMW26102015	Normal		10/30/2015	0.20 U	0.20 U
	DTW26102015	Duplicate		10/30/2015	0.20 U	0.20 U
TMW28	TMW28042017	Normal	North Alluvial	4/24/2017	0.10 U	0.10 U
	TMW28102016	Normal		11/3/2016	0.12 J	0.10 U
	TMW28102015	Normal		12/1/2015	0.048 U	0.10 U
Added to schedule in 2015 per New Mexico Environment Department request						

TABLE 5-2

## Summary of Nitrate-nitrogen and Nitrite-nitrogen Analytical Detections (Page 4 of 6)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Nitrate-N (mg/L) CAS 14797-55-8	Nitrite-N (mg/L) CAS 14797-65-0
					EPA Method 9056	EPA Method 9056
<b>Regulatory Limits</b>					<b>10<sup>a</sup></b>	<b>1<sup>b</sup></b>
TMW29	TMW29042017	Normal	North Alluvial	4/20/2017	2.7	0.10 U
	TMW29102016	Normal		10/28/2016	2.8	0.10 U
	TMW29042016	Normal		4/7/2016	2.6	0.069 J
	TMW29102015	Normal		10/28/2015	2.6	0.10 U
TMW31S	TMW31S042017	Normal	North Alluvial	4/19/2017	7.1	0.10 U
	TMW31S102016	Normal		10/27/2016	8.2	0.10 U
	TMW31S042016	Normal		4/6/2016	7.9	0.10 U
	TMW31S102015	Normal		10/29/2015	7.6	0.10 U
TMW33	TMW33042017	Normal	North Alluvial	4/20/2017	0.50 U	0.50 U
	TMW33102016	Normal		10/28/2016	2.1 J	0.50 U
	TMW33042016	Normal		4/7/2016	0.50 U	0.50 U
	TMW33102015	Normal		10/30/2015	0.50 U	0.50 U
TMW34	TMW34042017	Normal	North Alluvial	4/24/2017	71	0.20 U
	DTW34042017	Duplicate		4/24/2017	71	0.20 U
	TMW34102016	Normal		11/1/2016	71	0.20 U
	TMW34042016	Normal		4/12/2016	68	0.20 U
	DTW34042016	Duplicate		4/12/2016	68	0.20 U
	TMW34102015	Normal		11/3/2015	64	0.20 U
	DTW34102015	Duplicate		11/3/2015	63	0.20 U
TMW35	TMW35042017	Normal	North Alluvial	4/24/2017	9.6	0.10 U
	TMW35102016	Normal		10/31/2016	10	0.20 U
	DTW35102016	Duplicate		10/31/2016	10	0.20 U
	TMW35042016	Normal		4/11/2016	11	0.20 U
	TMW35102015	Normal		11/2/2015	11	0.20 U
TMW39S	TMW39S042017	Normal	North Alluvial	4/19/2017	9.4	0.10 U
	TMW39S102016	Normal		10/27/2016	9.7	0.10 U
	TMW39S042016	Normal		4/6/2016	9.5	0.10 U
	TMW39S102015	Normal		10/29/2015	8.8	0.20 U
TMW40S	TMW40S042017	Normal	North Alluvial	4/21/2017	130	0.32 J
	TMW40S102016	Normal		10/2016	Well dry this event	
	TMW40S042016	Normal		4/7/2016	120	0.77 J
	TMW40S102015	Normal		10/28/2015	110	1.1
TMW41	TMW41042017	Normal	North Alluvial	4/19/2017	5.7	0.10 U
	TMW41102016	Normal		10/27/2016	6.4	0.10 U
	TMW41042016	Normal		4/7/2016	5.6	0.10 U
	TMW41102015	Normal		10/29/2015	5.5	0.20 U
TMW43	TMW43042017	Normal	North Alluvial	4/27/2017	8.4	0.10 U
	DTW43042017	Duplicate		4/27/2017	8.7	0.10 U
	TMW43102016	Normal		11/3/2016	7.5	0.10 U
	DTW43102016	Duplicate		11/3/2016	7.4	0.10 U
	TMW43042016	Normal		4/13/2016	8.5 J	0.10 U
	DTW43042016	Duplicate		4/13/2016	8.8 J	0.10 UJ
	TMW43102015	Normal		11/3/2015	7.9	0.10 U
	DTW43102015	Duplicate		11/3/2015	8.6	0.10 U
TMW44	TMW44042017	Normal	North Alluvial	4/19/2017	52	0.10 U
	TMW44102016	Normal		10/27/2016	54	0.10 U
	TMW44042016	Normal		4/8/2016	52 J	0.10 U
	TMW44102015	Normal		10/29/2015	51	0.20 U

TABLE 5-2

## Summary of Nitrate-nitrogen and Nitrite-nitrogen Analytical Detections (Page 5 of 6)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Nitrate-N (mg/L) CAS 14797-55-8	Nitrite-N (mg/L) CAS 14797-65-0
					EPA Method 9056	EPA Method 9056
<b>Regulatory Limits</b>					<b>10<sup>a</sup></b>	<b>1<sup>b</sup></b>
TMW45	TMW45042017	Normal	North Alluvial	4/28/2017	0.93	0.10 U
	TMW45102016	Normal		11/4/2016	0.5	0.10 U
	DTW45102016	Duplicate		11/4/2016	0.5	0.10 U
	TMW45042016	Normal		4/14/2016	0.74	0.10 U
	TMW45102015	Normal		11/3/2015	0.66 J	0.20 U
TMW46	TMW46042017	Normal	North Alluvial	4/20/2017	<b>84 J</b>	0.20 U
	TMW46102016	Normal		10/28/2016	<b>84</b>	0.20 U
	TMW46042016	Normal		4/7/2016	<b>82</b>	0.20 U
	TMW46102015	Normal		10/29/2015	<b>81</b>	0.20 U
TMW47	TMW47042017	Normal	North Alluvial	4/25/2017	0.10 U	0.10 U
	TMW47102016	Normal		11/4/2016	0.10 U	0.10 U
	TMW47042016	Normal		4/14/2016	0.10 U	0.10 U
	TMW47102015	Normal		11/5/2015	0.10 U	0.10 U
TMW02	TMW02042017	Normal	North Bedrock	4/24/2017	<b>94</b>	0.10 U
	TMW02102016	Normal		11/1/2016	<b>90</b>	0.20 U
	TMW02042016	Normal		4/13/2016	<b>92 J</b>	0.20 UJ
	TMW02102015	Normal		11/3/2015	<b>88</b>	0.20 U
TMW14A	TMW14A042017	Normal	North Bedrock	4/27/2017	0.10 U	0.10 U
	TMW14A102016	Normal		11/3/2016	0.10 J	0.10 U
	TMW14A042016	Normal		4/14/2016	0.10 U	0.10 U
	TMW14A102015	Normal		11/3/2015	0.10 U	0.10 U
TMW17	TMW17042017	Normal	North Bedrock	4/27/2017	0.10 U	0.10 U
	TMW17102016	Normal		11/4/2016	0.10 U	0.10 U
	TMW17042016	Normal		4/15/2016	0.10 U	0.10 U
	TMW17102015	Normal		11/3/2015	0.10 U	0.10 U
TMW18	TMW18042017	Normal	North Bedrock	4/20/2017	0.046 J	0.10 U
	TMW18102016	Normal		10/28/2016	0.10 U	0.10 U
	TMW18042016	Normal		4/7/2016	0.10 U	0.10 U
	TMW18102015	Normal		10/29/2015	0.10 U	0.10 U
TMW30	TMW30042017	Normal	North Bedrock	4/19/2017	<b>16</b>	0.10 U
	TMW30102016	Normal		10/26/2016	<b>15</b>	0.10 U
	TMW30042016	Normal		4/7/2016	<b>15</b>	0.070 J
	TMW30102015	Normal		10/29/2015	<b>16</b>	0.10 U
TMW31D	TMW31D042017	Normal	North Bedrock	4/27/2017	<b>14</b>	0.10 U
	DTW31D042017	Duplicate		4/27/2017	<b>14</b>	0.10 U
	TMW31D102016	Normal		10/31/2016	<b>15</b>	0.10 U
	DTW31D102016	Duplicate		10/31/2016	<b>15</b>	0.10 U
	TMW31D042016	Normal		4/13/2016	<b>15 J</b>	0.10 U
	DTW31D042016	Duplicate		4/13/2016	<b>14 J</b>	0.10 UJ
	TMW31D102015	Normal		11/5/2015	<b>14</b>	0.10 U
DTW31D102015	Duplicate	11/5/2015	<b>14</b>	0.10 U		
TMW32	TMW32042017	Normal	North Bedrock	4/27/2017	2.3	0.31 J
	TMW32102016	Normal		11/2/2016	2	0.40 J
	TMW32042016	Normal		4/13/2016	1.4 J	0.39 J
	TMW32102015	Normal		11/5/2015	1.6	0.51 J
TMW36	TMW36042017	Normal	North Bedrock	4/20/2017	0.10 U	0.10 U
	TMW36102016	Normal		10/27/2016	0.10 U	0.10 U
	TMW36042016	Normal		4/7/2016	0.10 U	0.10 U
	TMW36102015	Normal		10/28/2015	0.10 U	0.10 U

TABLE 5-2

## Summary of Nitrate-nitrogen and Nitrite-nitrogen Analytical Detections (Page 6 of 6)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Nitrate-N (mg/L) CAS 14797-55-8	Nitrite-N (mg/L) CAS 14797-65-0
					EPA Method 9056	EPA Method 9056
<b>Regulatory Limits</b>					<b>10<sup>a</sup></b>	<b>1<sup>b</sup></b>
TMW37	TMW37042017	Normal	North Bedrock	4/20/2017	0.10 U	0.10 U
	TMW37102016	Normal		10/27/2016	0.10 U	0.10 U
	TMW37042016	Normal		4/7/2016	0.10 U	0.10 U
	TMW37102015	Normal		10/28/2015	0.10 U	0.10 U
TMW38	TMW38042017	Normal	North Bedrock	4/26/2017	0.10 U	0.10 U
	TMW38102016	Normal		11/4/2016	0.10 U	0.10 U
	TMW38042016	Normal		4/14/2016	0.10 U	0.10 U
	TMW38102015	Normal		11/6/2015	0.16 J	0.20 U
TMW39D	TMW39D042017	Normal	North Bedrock	4/27/2017	0.10 U	0.10 U
	TMW39D102016	Normal		10/31/2016	1.4	0.10 U
	TMW39D042016	Normal		4/12/2016	0.29 J	0.10 U
	TMW39D102015	Normal		11/4/2015	0.52 J	0.20 U
TMW40D	TMW40D042017	Normal	North Bedrock	4/25/2017	1.9	0.27 J
	TMW40D102016	Normal		10/31/2016	2.1	0.20 J
	TMW40D042016	Normal		4/12/2016	2.2	0.15 J
	TMW40D102015	Normal		11/3/2015	2	0.21 J
TMW48	TMW48042017	Normal	North Bedrock	4/26/2017	<b>14</b>	0.10 U
	TMW48102016	Normal		11/1/2016	<b>13</b>	0.065 J
	TMW48042016	Normal		4/12/2016	<b>14</b>	0.053 J
	TMW48102015	Normal		11/4/2015	<b>14</b>	0.10 U
TMW49	TMW49042017	Normal	North Bedrock	4/26/2017	6.1	0.10 U
	TMW49102016	Normal		11/2/2016	5.5	0.10 U
	TMW49042016	Normal		4/14/2016	4.3	0.10 U
	TMW49102015	Normal		11/5/2015	5.4	0.10 U

## Notes:

<sup>a</sup> New Mexico Water Quality Control Commission Standard - New Mexico Administrative Code Title 20, Chapter 6, Part 2, Section 3103.

<sup>b</sup> EPA maximum contaminant level regulatory limit is 1.0 mg/L.

**Bold indicates analyte was positively detected above regulatory limits.**

EPA = U.S. Environmental Protection Agency

J = analyte was positively identified; reported value is estimated.

mg/L = milligram(s) per liter

N = nitrogen

U = non-detected result below the limit of detection

UJ = analyte was not detected; however, the result is estimated because of discrepancies in meeting certain analyte-specific quality control criteria.



TABLE 5-3

Summary of Total Explosives Analytical Detections (Page 1 of 8)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Ground-water Zone	Sample Date	EPA Method SW8330B (µg/L)																	
					1,3,5-Trinitrobenzene CAS 99-35-4	1,3-Dinitrobenzene CAS 99-65-0	2,4,6-Trinitrotoluene CAS 118-96-7	2,4-Dinitrotoluene CAS 121-14-2	2,6-Dinitrotoluene CAS 606-20-2	2-Amino-4,6-Dinitrotoluene CAS 35572-78-2	2-Nitrotoluene CAS 88-72-2	3,5-Dinitroaniline CAS 618-87-1	3-Nitrotoluene CAS 99-08-1	4-Amino-2,6-Dinitrotoluene CAS 19406-51-0	4-Nitrotoluene CAS 99-99-0	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) CAS 121-82-4	Methyl-2,4,6-trinitrophenylintramine CAS 479-45-8	Nitrobenzene CAS 98-95-3	Nitroglycerine CAS 55-63-0	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	Petn CAS 78-11-5	
					Regulatory Limit (EPA Region 6 Regional Screening Levels) <sup>3</sup>																	
					590	2.0	9.8	2.4	0.49	39	3.1	NE	1.7	39	43	7	39	1.4	2	1000	39	
BGMW01	BGMW01042017	Normal	North Alluvial	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	0.14 U	0.24 U	0.24 U	2.4 U	0.24 U	0.24 U	1.4 U
	BGMW01102016	Normal		11/2/2016	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	0.15 U	0.25 U	0.25 U	2.5 U	0.25 U	0.25 U	1.5 U
	BGMW01042016	Normal		4/15/2016	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.44 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA	NA
	BGMW01102015	Normal		11/5/2015	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.44 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA	NA
BGMW02	BGMW02042017	Normal	North Alluvial	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	0.14 U	0.24 U	0.24 U	2.4 U	0.24 U	0.24 U	1.4 U
	BGMW02102016	Normal		11/2/2016	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	0.14 U	0.23 U	0.23 U	2.3 U	0.23 U	0.23 U	1.4 U
	BGMW02042016	Normal		4/14/2016	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.45 U	0.14 U	0.23 U	0.23 U	NA	0.23 U	NA	NA
	BGMW02102015	Normal		11/5/2015	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA	NA
BGMW03	BGMW03042017	Normal	North Alluvial	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	0.14 U	0.23 U	0.23 U	2.3 U	0.23 U	0.23 U	1.4 U
	BGMW03102016	Normal		10/28/2016	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	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	0.22 U	1.3 U
	BGMW03042016	Normal		4/8/2016	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA	NA
	BGMW03102015	Normal		10/30/2015	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.44 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA	NA
FW31	FW31042017	Normal	North Alluvial	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	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	0.22 U	1.3 U
	FW31102016	Normal		10/26/2016	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	0.15 U	0.24 U	0.24 U	2.4 U	0.24 U	0.24 U	1.5 U
	FW31042016	Normal		4/7/2016	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA	NA
	FW3112015	Normal		11/2/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA	NA
FW35	Well FW35 has been dry since 2015			Not sampled																		
MW01	MW01042017	Normal	North Alluvial	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	0.13 U	0.21 U	0.21 U	2.1 U	0.21 U	0.21 U	1.3 U
	MW01102016	Normal		10/27/2016	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	0.14 U	0.23 U	0.23 U	2.3 U	0.23 U	0.23 U	1.4 U
	MW01042016	Normal		4/6/2016	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.45 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA	NA
	MW01102015	Normal		10/28/2015	0.41 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.20 U	NA	0.20 U	0.12 U	0.41 U	0.12 U	0.20 U	0.20 U	NA	0.20 U	NA	NA
MW02	MW02042017	Normal	North Alluvial	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	0.14 U	0.24 U	0.24 U	2.4 U	0.24 U	0.24 U	1.4 U
	MW02102016	Normal		10/27/2016	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	0.14 U	0.23 U	0.23 U	2.3 U	0.23 U	0.23 U	1.4 U
	MW02042016	Normal		4/6/2016	0.50 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.25 U	NA	0.25 U	0.15 U	0.50 U	0.15 U	0.25 U	0.25 U	NA	0.25 U	NA	NA
	MW02102015	Normal		10/28/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA	NA
MW03	MW03042017	Normal	North Alluvial	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	0.14 U	0.24 U	0.24 U	2.4 U	0.24 U	0.24 U	1.4 U
	MW03102016	Normal		11/3/2016	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	0.13 U	0.21 U	0.21 U	2.1 U	0.21 U	0.21 U	1.3 U
	MW03042016	Normal		4/12/2016	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA	NA
	MW03102015	Normal		10/30/2015	0.49 U	0.24 U	0.24 U	0.24 U	0.24 U	0.15 U	0.24 U	NA	0.24 U	0.15 U	0.49 U	0.15 U	0.24 U	0.24 U	NA	0.24 U	NA	NA
MW18D	MW18D042017	Normal	North Alluvial	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	0.14 U	0.23 U	0.23 U	2.3 U	0.23 U	0.23 U	1.4 U
	MW18D102016	Normal		10/28/2016	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	0.14 U	0.24 U	0.24 U	2.4 U	0.24 U	0.24 U	1.4 U
	MW18D042016	Normal		4/12/2016	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.45 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA	NA
	MW18D102015	Normal		11/2/2015	0.41 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	NA	0.21 U	0.12 U	0.41 U	0.12 U	0.21 U	0.21 U	NA	0.21 U	NA	NA

TABLE 5-3

Summary of Total Explosives Analytical Detections (Page 2 of 8)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Ground-water Zone	Sample Date	EPA Method SW8330B (µg/L)																	
					1,3,5-Trinitrobenzene CAS 99-35-4	1,3-Dinitrobenzene CAS 99-65-0	2,4,6-Trinitrotoluene CAS 118-96-7	2,4-Dinitrotoluene CAS 121-14-2	2,6-Dinitrotoluene CAS 606-20-2	2-Amino-4,6-Dinitrotoluene CAS 35572-78-2	2-Nitrotoluene CAS 88-72-2	3,5-Dinitroaniline CAS 618-87-1	3-Nitrotoluene CAS 99-08-1	4-Amino-2,6-Dinitrotoluene CAS 19406-51-0	4-Nitrotoluene CAS 99-99-0	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) CAS 121-82-4	Methyl-2,4,6-trinitrophenylnitramine CAS 479-45-8	Nitrobenzene CAS 98-95-3	Nitroglycerine CAS 55-63-0	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX) Petn CAS 78-11-5		
					Regulatory Limit (EPA Region 6 Regional Screening Levels) <sup>a</sup>																	
					590	2.0	9.8	2.4	0.49	39	3.1	NE	1.7	39	43	7	39	1.4	2	1000	39	
MW20	MW20042017	Normal	North Alluvial	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	0.14 U	0.48 U	0.14 U	0.24 U	0.24 U	2.4 U	2.4 U	0.24 U	1.4 U
	MW20102016	Normal		11/4/2016	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	0.14 U	0.23 U	0.23 U	2.3 U	2.3 U	0.23 U	1.4 U
	MW20042016	Normal		4/11/2016	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	2.1 U	2.1 U	NA
	MW20102015	Normal		11/2/2015	0.47 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.47 U	0.14 U	0.23 U	0.23 U	NA	2.3 U	2.3 U	NA
	DMW20102015	Duplicate		11/2/2015	0.47 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.47 U	0.14 U	0.23 U	0.23 U	NA	2.3 U	2.3 U	NA
MW22D	MW22D042017	Normal	North Alluvial	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	0.14 U	0.24 U	0.24 U	2.4 U	2.4 U	0.24 U	1.4 U
	MW22D102016	Normal		10/28/2016	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	0.14 U	0.23 U	0.23 U	2.3 U	2.3 U	0.23 U	1.4 U
	MW22D042016	Normal		4/11/2016	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.46 U	0.14 U	0.23 U	0.23 U	NA	2.3 U	2.3 U	NA
	MW22D102015	Normal		11/2/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	2.1 U	2.1 U	NA
MW22S	MW22S042017	Normal	North Alluvial	04/2017	Well dry this event																	
	MW22S102016	Normal		10/2016	Well dry this event																	
	MW22S042016	Normal		4/11/2016	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	2.2 U	2.2 U	NA
	MW22S102015	Normal		10/30/2015	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.44 U	0.13 U	0.22 U	0.22 U	NA	2.2 U	2.2 U	NA
MW23	MW23042017	Normal	North Alluvial	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 U	0.23 U	0.14 U	0.45 U	0.14 U	0.23 U	0.23 U	2.3 U	6.5 J	1.4 U	1.4 U
	DMW23042017	Duplicate		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	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U	1.3 U
	MW23102016	Normal		10/27/2016	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	0.13 U	0.22 U	0.22 U	2.2 U	2.2 U	1.3 U	1.3 U
	MW23042016	Normal		4/7/2016	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	2.1 U	2.1 U	NA
	DMW23042016	Duplicate		4/7/2016	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.39 J	NA	2.1 U	2.1 U	NA
	MW23102015	Normal		11/6/2015	0.43 R	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	2.1 U	2.1 U	NA
	DMW23102015	Duplicate		11/6/2015	0.43 R	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	2.2 U	2.2 U	NA
MW24	MW24042017	Normal	North Alluvial	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	0.13 U	0.21 U	0.21 U	2.1 U	2.1 U	1.3 U	1.3 U
	DMW24042017	Duplicate		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	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	2.1 U	2.1 U	1.3 U	1.3 U
	MW24102016	Normal		10/26/2016	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	0.13 U	0.22 U	0.22 U	2.2 U	2.2 U	1.3 U	1.3 U
	DMW24102016	Duplicate		10/26/2016	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	0.13 U	0.22 U	0.22 U	2.2 U	2.2 U	1.3 U	1.3 U
	MW24042016	Normal		4/6/2016	0.41 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.20 U	NA	0.20 U	0.12 U	0.41 U	0.12 U	0.20 U	0.20 U	NA	2.0 U	2.0 U	NA
	DMW24042016	Duplicate		4/6/2016	0.41 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.20 U	NA	0.20 U	0.12 U	0.41 U	0.12 U	0.20 U	0.20 U	NA	2.0 U	2.0 U	NA
	MW24102015	Normal		11/5/2015	0.41 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	NA	0.21 U	0.12 U	0.41 U	0.12 U	0.21 U	0.21 U	NA	2.1 U	2.1 U	NA
SMW01	SMW01042017	Normal	North Alluvial	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	0.14 U	0.23 U	0.23 U	2.3 U	2.3 U	1.4 U	1.4 U
	SMW01102016	Normal		11/2/2016	4.4 U	2.2 U	2.2 U	2.2 U	2.2 U	1.3 U	2.2 U	3.3 U	2.2 U	1.3 U	4.4 U	1.3 U	2.2 U	2.2 U	2.2 U	2.2 U	1.3 U	1.3 U
	SMW01042016	Normal		4/8/2016	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	NA	0.24 U	0.14 U	0.48 U	0.14 U	0.24 U	0.24 U	NA	2.4 U	2.4 U	NA
	SMW011102015	Normal		11/3/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	NA	0.21 U	0.12 U	0.42 U	0.12 U	0.21 U	0.21 U	NA	2.1 U	2.1 U	NA

TABLE 5-3

## Summary of Total Explosives Analytical Detections (Page 3 of 8)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Ground-water Zone	Sample Date	EPA Method SW8330B (µg/L)																
					1,3,5-Trinitrobenzene CAS 99-35-4	1,3-Dinitrobenzene CAS 99-65-0	2,4,6-Trinitrotoluene CAS 118-96-7	2,4-Dinitrotoluene CAS 121-14-2	2,6-Dinitrotoluene CAS 606-20-2	2-Amino-4,6-Dinitrotoluene CAS 35572-78-2	2-Nitrotoluene CAS 88-72-2	3,5-Dinitroaniline CAS 618-87-1	3-Nitrotoluene CAS 99-08-1	4-Amino-2,6-Dinitrotoluene CAS 19406-51-0	4-Nitrotoluene CAS 99-99-0	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) CAS 121-82-4	Methyl-2,4,6-trinitrophenylnitramine CAS 479-45-8	Nitrobenzene CAS 98-95-3	Nitroglycerine CAS 55-63-0	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX) Petrn CAS 78-11-5	
					Regulatory Limit (EPA Region 6 Regional Screening Levels) <sup>a</sup>																
590	2.0	9.8	2.4	0.49	39	3.1	NE	1.7	39	43	7	39	1.4	2	1000	39					
TMW01	TMW01042017	Normal	North Alluvial	4/25/2017	0.41 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.20 U	0.31 U	0.20 U	0.12 U	0.41 U	0.12 U	0.20 U	0.20 U	2.0 U	0.20 U	1.2 U
	TMW01102016	Normal		10/31/2016	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 UJ	0.22 U	0.32 U	0.22 U	0.13 UJ	0.43 U	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW01042016	Normal		4/8/2016	0.41 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	NA	0.21 U	0.12 U	0.41 U	0.12 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW01102015	Normal		11/4/2015	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.45 U	0.14 U	0.23 U	0.23 U	NA	0.23 U	NA
TMW03	TMW03042017	Normal	North Alluvial	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	0.13 U	0.43 U	4	0.21 U	0.21 U	2.1 U	0.21 U	1.3 U
	TMW03102016	Normal		10/31/2016	22 U	11 U	11 U	11 U	11 U	6.7 UJ	11 U	17 U	11 U	6.7 UJ	22 U	490	11 U	11 U	110 U	11 U	67 U
	TMW03042016	Normal		4/8/2016	0.43 U	0.21 UJ	0.21 UJ	0.24 J	0.21 UJ	0.86 J	0.21 UJ	NA	0.21 UJ	0.95 J	0.43 UJ	480	0.21 UJ	0.21 U	NA	11 J	NA
	TMW03102015	Normal		11/4/2015	0.42 U	0.21 U	0.21 U	0.29 J	0.21 U	1.9	0.21 U	NA	0.21 U	1.5 J	0.42 U	490	0.21 U	0.21 U	NA	0.21 U	NA
TMW04	TMW04042017	Normal	North Alluvial	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	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW04102016	Normal		11/3/2016	22 U	11 U	11 U	11 UJ	11 UJ	6.6 UJ	11 UJ	17 U	11 UJ	6.6 UJ	22 UJ	6.6 U	11 U	11 U	110 U	19 J	66 U
	TMW04042016	Normal		4/13/2016	9.1 U	0.23 U	0.23 U	0.23 U	0.23 U	2.6	0.23 U	NA	0.23 U	1.5 J	0.45 U	2.7 U	0.23 U	0.23 U	NA	0.23 U	NA
	TMW04102015	Normal		11/4/2015	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	2.7 J	0.23 U	NA	0.23 U	1.5 J	1.9 J	2.8 U	0.23 U	0.23 U	NA	0.23 U	NA
TMW06	TMW06042017	Normal	North Alluvial	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	0.14 U	0.23 U	0.23 U	2.3 U	0.23 U	1.4 U
	TMW06102016	Normal		10/31/2016	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 UJ	0.22 U	0.34 U	0.22 U	0.13 UJ	0.45 U	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW06042016	Normal		4/12/2016	0.43 UJ	0.21 UJ	0.21 UJ	0.21 UJ	0.21 UJ	0.13 UJ	0.21 UJ	NA	0.21 UJ	0.13 UJ	0.43 UJ	0.13 UJ	0.21 UJ	0.21 UJ	NA	0.21 UJ	NA
	TMW06102015	Normal		11/4/2015	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.44 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
TMW07	TMW07042017	Normal	North Alluvial	4/20/2017	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	0.13 U	0.21 U	0.21 U	2.1 U	0.21 U	1.3 U
	TMW07102016	Normal		10/27/2016	0.40 U	0.20 U	0.20 U	0.20 UJ	0.20 UJ	0.12 UJ	0.20 UJ	0.30 U	0.20 UJ	0.12 UJ	0.40 UJ	0.080 UJ	0.20 U	0.20 U	2.0 U	0.22 J	1.2 U
	TMW07042016	Normal		4/8/2016	0.43 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	NA	0.22 UJ	0.13 UJ	0.43 UJ	0.13 UJ	0.22 UJ	0.22 UJ	NA	0.22 UJ	NA
	TMW07102015	Normal		10/30/2015	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
TMW10	TMW10042017	Normal	North Alluvial	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	0.28 UJ	0.23 U	0.23 U	2.3 U	0.23 U	1.4 U
	TMW10102016	Normal		11/2/2016	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	0.14 U	0.24 U	0.24 U	2.4 U	0.24 U	1.4 U
	TMW10042016	Normal		4/12/2016	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.44 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW10102015	Normal		11/4/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
TMW11	TMW11042017	Normal	North Alluvial	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	0.14 U	0.24 U	0.24 U	2.4 U	0.24 U	1.4 U
	TMW11102016	Normal		11/3/2016	0.45 U	0.22 U	0.22 U	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.34 U	0.22 UJ	0.13 UJ	0.45 UJ	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	DTW11102016	Duplicate		11/3/2016	0.45 UJ	0.22 U	0.22 U	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.34 U	0.22 UJ	0.13 UJ	0.45 UJ	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW11042016	Normal		4/11/2016	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.46 U	0.14 U	0.23 U	0.23 U	NA	0.23 U	NA
	TMW11102015	Normal		11/5/2015	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.44 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA

TABLE 5-3

## Summary of Total Explosives Analytical Detections (Page 4 of 8)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Ground-water Zone	Sample Date	EPA Method SW8330B (µg/L)																
					1,3,5-Trinitrobenzene CAS 99-35-4	1,3-Dinitrobenzene CAS 99-65-0	2,4,6-Trinitrotoluene CAS 118-96-7	2,4-Dinitrotoluene CAS 121-14-2	2,6-Dinitrotoluene CAS 606-20-2	2-Amino-4,6-Dinitrotoluene CAS 35572-78-2	2-Nitrotoluene CAS 88-72-2	3,5-Dinitroaniline CAS 618-87-1	3-Nitrotoluene CAS 99-08-1	4-Amino-2,6-Dinitrotoluene CAS 19406-51-0	4-Nitrotoluene CAS 99-99-0	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) CAS 121-82-4	Methyl-2,4,6-trinitrophenylnitramine CAS 479-45-8	Nitrobenzene CAS 98-95-3	Nitroglycerine CAS 55-63-0	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX) Petn CAS 78-11-5	
					Regulatory Limit (EPA Region 6 Regional Screening Levels) <sup>a</sup>																
590	2.0	9.8	2.4	0.49	39	3.1	NE	1.7	39	43	7	39	1.4	2	1000	39					
TMW15	TMW15042017	Normal	North Alluvial	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	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	DTW15042017	Duplicate		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	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW15102016	Normal		11/2/2016	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	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW15042016	Normal		4/13/2016	0.40 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.20 U	NA	0.20 U	0.12 U	0.40 U	0.12 U	0.20 U	0.20 U	NA	0.20 U	NA
	DTW15042016	Duplicate		4/13/2016	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW15102015	Normal		11/6/2015	0.45 R	0.23 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.14 UJ	0.23 UJ	NA	0.23 UJ	0.14 UJ	0.45 UJ	0.14 UJ	0.23 UJ	0.23 UJ	NA	0.23 UJ	NA
DTW15102015	Duplicate	11/6/2015	0.44 R	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	NA	0.22 UJ	0.13 UJ	0.44 UJ	0.13 UJ	0.22 UJ	0.22 UJ	NA	0.22 UJ	NA		
TMW21	TMW21042017	Normal	North Alluvial	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	0.13 U	0.21 U	0.21 U	2.1 U	0.21 U	1.3 U
	TMW21102016	Normal		10/27/2016	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 UJ	0.21 UJ	0.31 U	0.21 UJ	0.13 UJ	0.42 UJ	0.13 U	0.21 U	0.21 U	2.1 U	0.21 U	1.3 U
	TMW21042016	Normal		4/11/2016	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.45 U	0.14 U	0.23 U	0.13 J	NA	0.23 U	NA
	TMW21102015	Normal		10/29/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
TMW22	TMW22042017	Normal	North Alluvial	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	0.14 U	0.24 U	0.24 U	2.4 U	0.24 U	1.4 U
	TMW22102016	Normal		10/27/2016	0.43 U	0.22 U	0.22 U	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.32 U	0.22 UJ	0.13 UJ	0.43 UJ	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW22042016	Normal		4/8/2016	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.46 U	0.14 U	0.23 U	0.23 U	NA	0.23 U	NA
	TMW22102015	Normal		10/29/2015	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	0.22 U
TMW23	TMW23042017	Normal	North Alluvial	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	49 J	2.1 UJ	2.1 UJ	2.1 UJ	2.1 U	13 UJ
	TMW23102016	Normal		10/28/2016	3.0 J	3.4 J	0.22 U	0.22 U	0.22 U	0.23 J	0.22 UJ	0.32 U	0.22 UJ	0.13 U	0.43 UJ	67	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW23042016	Normal		4/8/2016	0.45 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.19 J	0.22 UJ	NA	0.22 UJ	0.13 UJ	0.45 UJ	84 J	0.22 UJ	1.8 J	NA	0.22 UJ	NA
	TMW23102015	Normal		10/30/2015	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.83 J	0.22 U	NA	0.22 U	0.41 J	1.3 J	56	0.22 U	0.22 U	NA	0.22 UJ	NA
TMW24	TMW24042017	Normal	North Alluvial	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	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW24102016	Normal		11/3/2016	0.43 U	0.22 U	0.22 U	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.32 U	0.22 UJ	0.13 UJ	0.43 UJ	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW24042016	Normal		4/15/2016	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.45 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW24102015	Normal		11/6/2015	0.45 R	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	NA	0.22 UJ	0.13 UJ	0.45 UJ	0.13 UJ	0.22 UJ	0.22 UJ	NA	0.22 UJ	NA
TMW25	TMW25042017	Normal	North Alluvial	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	6.6 U	11 U	230	110 U	11 U	66 U
	TMW25102016	Normal		11/1/2016	0.50 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 UJ	0.25 U	0.38 U	0.25 U	0.15 UJ	0.50 U	0.15 U	0.25 U	0.25 U	2.5 U	0.25 U	1.5 U
	TMW25042016	Normal		4/13/2016	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.15 U	0.24 U	NA	0.24 U	0.15 U	0.48 U	0.15 U	0.24 U	0.24 U	NA	0.24 U	NA
	TMW25102015	Normal		11/4/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
TMW26	TMW26042017	Normal	North Alluvial	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	0.14 U	0.23 U	0.23 U	2.3 U	0.23 U	1.4 U
	DTW26042017	Duplicate		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	0.14 U	0.23 U	0.23 U	2.3 U	0.23 U	1.4 U
	TMW26102016	Normal		11/1/2016	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	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW26042016	Normal		4/8/2016	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	NA	0.24 U	0.14 U	0.48 U	0.14 U	0.24 U	0.24 U	NA	0.24 U	NA
	DTW26042016	Duplicate		4/8/2016	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	NA	0.24 U	0.14 U	0.48 U	0.14 U	0.24 U	0.24 U	NA	0.24 U	NA
	TMW26102015	Normal		10/30/2015	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.45 U	0.13 U	0.22 U	0.22 U	NA	0.22 UJ	NA
DTW26102015	Duplicate	10/30/2015	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.45 U	0.14 U	0.23 U	0.23 U	NA	0.23 UJ	NA		

TABLE 5-3

## Summary of Total Explosives Analytical Detections (Page 5 of 8)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Ground-water Zone	Sample Date	EPA Method SW8330B (µg/L)																
					1,3,5-Trinitrobenzene CAS 99-35-4	1,3-Dinitrobenzene CAS 99-65-0	2,4,6-Trinitrotoluene CAS 118-96-7	2,4-Dinitrotoluene CAS 121-14-2	2,6-Dinitrotoluene CAS 606-20-2	2-Amino-4,6-Dinitrotoluene CAS 35572-78-2	2-Nitrotoluene CAS 88-72-2	3,5-Dinitroaniline CAS 618-87-1	3-Nitrotoluene CAS 99-08-1	4-Amino-2,6-Dinitrotoluene CAS 19406-51-0	4-Nitrotoluene CAS 99-99-0	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) CAS 121-82-4	Methyl-2,4,6-trinitrophenylnitramine CAS 479-45-8	Nitrobenzene CAS 98-95-3	Nitroglycerine CAS 55-63-0	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX) Petr CAS 78-11-5	
					Regulatory Limit (EPA Region 6 Regional Screening Levels) <sup>3</sup>																
590	2.0	9.8	2.4	0.49	39	3.1	NE	1.7	39	43	7	39	1.4	2	1000	39					
TMW29	TMW29042017	Normal	North Alluvial	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	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW29102016	Normal		10/28/2016	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UJ	0.23 UJ	0.34 U	0.23 UJ	0.14 U	0.45 UJ	0.14 U	0.23 U	0.23 U	2.3 U	0.23 U	1.4 U
	TMW29042016	Normal		4/7/2016	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.46 U	0.14 U	0.23 U	0.23 U	NA	0.23 U	NA
	TMW29102015	Normal		10/28/2015	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
TMW31S	TMW31S042017	Normal	North Alluvial	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	0.15 U	0.24 U	0.24 U	2.4 U	0.24 U	1.5 U
	TMW31S102016	Normal		10/27/2016	0.44 U	0.22 U	0.22 U	0.22 UJ	0.22 U	0.13 UJ	0.22 UJ	0.33 U	0.22 UJ	0.13 UJ	0.44 UJ	0.16 UJ	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW31S042016	Normal		4/6/2016	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW31S102015	Normal		10/29/2015	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.16 J	NA	0.21 U	NA
TMW39S	TMW39S042017	Normal	North Alluvial	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	0.13 U	0.21 U	0.21 U	2.1 U	0.21 U	1.3 U
	TMW39S102016	Normal		10/27/2016	0.43 U	0.22 U	0.22 U	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.33 U	0.22 UJ	0.13 UJ	0.43 UJ	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW39S042016	Normal		4/6/2016	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW39S102015	Normal		10/29/2015	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
TMW40S	TMW40S042017	Normal	North Alluvial	4/21/2017	47 U	23 U	23 U	23 U	23 U	14 U	23 U	35 U	23 U	14 U	47 U	1100	23 U	23 U	230 U	20 J	140 U
	TMW40S102016	Normal		10/2016	Well dry this event																
	TMW40S042016	Normal		4/7/2016	46 U	0.23 U	0.40 J	0.23 U	0.23 U	0.78 J	0.23 U	NA	0.23 U	0.14 U	0.46 U	980	0.23 U	0.23 U	NA	21 J	NA
	TMW40S102015	Normal		10/29/2015	2.2 J	0.21 R	0.081 J	0.21 R	0.21 R	0.13 R	0.21 R	NA	0.21 R	0.13 R	0.43 R	1000	0.21 U	0.21 R	NA	14 J	NA
TMW41	TMW41042017	Normal	North Alluvial	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	0.14 U	0.23 U	0.23 U	2.3 U	0.23 U	1.4 U
	TMW41102016	Normal		10/27/2016	0.40 U	0.20 U	0.20 U	0.20 UJ	0.20 UJ	0.12 UJ	0.20 UJ	0.30 U	0.20 UJ	0.12 UJ	0.40 UJ	0.12 U	0.20 U	0.20 U	2.0 U	0.20 U	1.2 U
	TMW41042016	Normal		4/7/2016	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW41102015	Normal		10/29/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
TMW43	TMW43042017	Normal	North Alluvial	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	3.8	0.22 U	0.30 J	2.2 U	0.21 J	1.3 U
	DTW43042017	Duplicate		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	3.8	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW43102016	Normal		11/3/2016	0.46 U	0.23 U	0.23 U	0.23 UJ	0.23 UJ	0.14 UJ	0.23 UJ	0.35 U	0.23 UJ	0.14 UJ	0.46 UJ	3.6	0.23 U	0.23 U	2.3 U	0.22 J	1.4 U
	DTW43102016	Duplicate		11/3/2016	0.49 U	0.24 U	0.24 U	0.24 UJ	0.24 UJ	0.15 UJ	0.24 UJ	0.37 U	0.24 UJ	0.15 UJ	0.49 UJ	3.9	0.24 U	0.24 U	2.4 U	0.35 J	1.5 U
	TMW43042016	Normal		4/13/2016	0.46 U	0.23 U	0.23 U	0.23 UJ	0.23 U	0.14 UJ	0.23 UJ	NA	0.23 UJ	0.14 UJ	0.46 UJ	4	0.23 U	0.36 U	NA	0.14 J	NA
	DTW43042016	Duplicate		4/13/2016	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.44 U	4.2	0.22 U	0.22 U	NA	0.22 U	NA
	TMW43102015	Normal		11/3/2015	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 UJ	0.13 U	0.44 U	4.1	0.22 U	0.22 U	NA	0.22 U	NA
	DTW43102015	Duplicate		11/3/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 UJ	0.13 U	0.42 U	3.9	0.21 U	0.21 U	NA	0.21 U	NA
TMW44	TMW44042017	Normal	North Alluvial	4/19/2017	0.49 U	1.0 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	1.4 J	0.24 U	0.24 U	2.4 U	0.24 U	1.5 U
	TMW44102016	Normal		10/27/2016	0.45 U	0.23 U	0.23 U	0.24 J	0.23 UJ	0.14 UJ	0.23 UJ	0.34 U	3.9 J	0.14 UJ	0.45 UJ	0.42 J	0.23 U	0.23 U	2.3 U	0.23 U	1.4 U
	TMW44042016	Normal		4/8/2016	0.49 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.15 UJ	0.24 UJ	NA	0.24 UJ	0.15 UJ	0.49 UJ	0.15 UJ	0.35 J	0.24 UJ	NA	4.6 J	NA
	TMW44102015	Normal		10/29/2015	0.47 U	0.23 U	0.23 U	0.23 U	0.23 U	0.98 J	0.23 U	NA	0.23 U	0.49 J	0.47 U	0.14 U	0.23 U	0.23 U	NA	2.5 J	NA

TABLE 5-3

Summary of Total Explosives Analytical Detections (Page 6 of 8)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Ground-water Zone	Sample Date	EPA Method SW8330B (µg/L)																	
					1,3,5-Trinitrobenzene CAS 99-35-4	1,3-Dinitrobenzene CAS 99-65-0	2,4,6-Trinitrotoluene CAS 118-96-7	2,4-Dinitrotoluene CAS 121-14-2	2,6-Dinitrotoluene CAS 606-20-2	2-Amino-4,6-Dinitrotoluene CAS 35572-78-2	2-Nitrotoluene CAS 88-72-2	3,5-Dinitroaniline CAS 618-87-1	3-Nitrotoluene CAS 99-08-1	4-Amino-2,6-Dinitrotoluene CAS 19406-51-0	4-Nitrotoluene CAS 99-99-0	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) CAS 121-82-4	Methyl-2,4,6-trinitrophenylnitramine CAS 479-45-8	Nitrobenzene CAS 98-95-3	Nitroglycerine CAS 55-63-0	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX) Petrn CAS 78-11-5		
					Regulatory Limit (EPA Region 6 Regional Screening Levels) <sup>a</sup>																	
					590	2.0	9.8	2.4	0.49	39	3.1	NE	1.7	39	43	7	39	1.4	2	1000	39	
TMW45	TMW45042017	Normal	North Alluvial	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	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	0.22 U	1.3 U
	TMW45102016	Normal		11/4/2016	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	0.13 UJ	0.22 UJ	0.22 UJ	2.2 UJ	0.22 UJ	0.22 UJ	1.3 UJ
	DTW45102016	Duplicate		11/4/2016	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	0.13 UJ	0.22 UJ	0.22 UJ	2.2 UJ	0.22 UJ	0.22 UJ	1.3 UJ
	TMW45042016	Normal		4/14/2016	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.46 U	0.14 U	0.23 U	0.23 U	NA	0.23 U	NA	NA
TMW45102015	Normal	11/3/2015	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 UJ	0.13 U	0.45 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA	NA		
TMW46	TMW46042017	Normal	North Alluvial	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	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	0.22 U	1.3 U
	TMW46102016	Normal		10/28/2016	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UJ	0.23 UJ	0.34 U	0.23 UJ	0.14 U	0.45 UJ	0.14 U	0.23 U	0.23 U	2.3 U	0.23 U	0.23 U	1.4 U
	TMW46042016	Normal		4/7/2016	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.44 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA	NA
	TMW46102015	Normal		10/29/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA	NA
TMW47	TMW47042017	Normal	North Alluvial	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	0.15 U	0.25 U	0.25 U	2.5 U	0.25 U	0.25 U	1.5 U
	TMW47102016	Normal		11/4/2016	0.47 U	0.24 UJ	0.24 U	0.24 UJ	0.24 UJ	0.14 UJ	0.24 UJ	0.36 U	0.24 UJ	0.32 J	0.47 UJ	0.14 U	0.24 U	0.24 U	2.4 U	0.68	0.68	1.4 U
	TMW47042016	Normal		4/14/2016	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.45 U	0.14 U	0.23 U	0.23 U	NA	0.23 U	NA	NA
	TMW47102015	Normal		11/5/2015	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	0.37 J	NA	NA
TMW02	TMW02042017	Normal	North Bedrock	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	0.56	0.24 U	0.24 U	2.4 U	0.24 U	0.24 U	1.4 U
	TMW02102016	Normal		11/1/2016	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UJ	0.23 UJ	0.34 U	0.23 U	0.25 J	0.45 U	0.14 U	0.23 U	0.23 U	2.3 U	0.23 U	0.23 U	1.4 U
	TMW02042016	Normal		4/13/2016	0.42 U	0.40 J	0.21 U	0.21 U	0.21 U	0.36 J	0.21 U	NA	0.21 U	0.13 J	0.42 U	1.3	0.21 U	0.12 UJ	NA	1.4 J	NA	NA
	TMW02102015	Normal		11/3/2015	0.46 U	0.20 J	0.23 U	0.23 U	0.23 U	0.37 J	0.23 U	NA	0.23 UJ	0.21 J	0.46 U	1.3	0.23 U	0.23 U	NA	0.23 U	NA	NA
TMW14A	TMW14A042017	Normal	North Bedrock	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	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	0.22 U	1.3 U
	TMW14A102016	Normal		11/3/2016	0.45 U	0.22 U	0.22 U	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.34 U	0.22 UJ	0.13 UJ	0.45 UJ	0.072 U	0.22 U	0.22 U	2.2 U	0.22 U	0.22 U	1.3 U
	TMW14A042016	Normal		4/14/2016	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.46 U	0.14 U	0.23 U	0.23 U	NA	0.23 U	NA	NA
	TMW14A102015	Normal		11/3/2015	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 UJ	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA	NA
TMW16	TMW16042017	Normal	North Bedrock	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	0.14 U	0.45 U	0.14 U	0.23 U	0.23 U	2.3 U	0.23 U	0.23 U	1.4 U
	TMW16102016	Normal		10/28/2016	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 UJ	0.22 UJ	0.33 U	0.22 UJ	0.13 U	0.44 UJ	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	0.22 U	1.3 U
	TMW16042016	Normal		4/7/2016	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA	NA
	TMW16102015	Normal		10/28/2015	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA	NA
TMW18	TMW18042017	Normal	North Bedrock	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	0.058 J	0.22 U	0.22 U	2.2 U	0.22 U	0.22 U	1.3 U
	TMW18102016	Normal		10/28/2016	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 UJ	0.22 UJ	0.33 UJ	0.22 UJ	0.13 UJ	0.44 UJ	0.097 UJ	0.22 U	0.22 U	2.2 U	0.22 U	0.22 U	1.3 UJ
	TMW18042016	Normal		4/7/2016	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA	NA
	TMW18102015	Normal		10/29/2015	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.44 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA	NA
TMW19	TMW19042017	Normal	North Bedrock	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	0.13 U	0.21 U	0.21 U	2.1 U	0.21 U	0.21 U	1.3 U
	TMW19102016	Normal		10/28/2016	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 UJ	0.24 UJ	0.36 U	0.24 UJ	0.14 U	0.48 UJ	0.12 UJ	0.24 U	0.24 U	2.4 U	0.24 U	0.24 U	1.4 U
	DTW19102016	Duplicate		10/28/2016	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 UJ	0.24 UJ	0.36 U	0.24 UJ	0.14 U	0.48 UJ	0.11 UJ	0.24 U	0.24 U	2.4 U	0.24 U	0.24 U	1.4 U
	TMW19042016	Normal		4/7/2016	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA	NA
TMW19102015	Normal	10/28/2015	0.40 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.20 U	NA	0.20 U	0.12 U	0.40 U	0.12 U	0.20 U	0.20 U	NA	0.20 U	NA	NA		

TABLE 5-3

Summary of Total Explosives Analytical Detections (Page 7 of 8)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Ground-water Zone	Sample Date	EPA Method SW8330B (µg/L)																
					1,3,5-Trinitrobenzene CAS 99-35-4	1,3-Dinitrobenzene CAS 99-65-0	2,4,6-Trinitrotoluene CAS 118-96-7	2,4-Dinitrotoluene CAS 121-14-2	2,6-Dinitrotoluene CAS 606-20-2	2-Amino-4,6-Dinitrotoluene CAS 35572-78-2	2-Nitrotoluene CAS 88-72-2	3,5-Dinitroaniline CAS 618-87-1	3-Nitrotoluene CAS 99-08-1	4-Amino-2,6-Dinitrotoluene CAS 19406-51-0	4-Nitrotoluene CAS 99-99-0	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) CAS 121-82-4	Methyl-2,4,6-trinitrophenylnitramine CAS 479-45-8	Nitrobenzene CAS 98-95-3	Nitroglycerine CAS 55-63-0	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX) Petrn CAS 78-11-5	
					Regulatory Limit (EPA Region 6 Regional Screening Levels) <sup>a</sup>																
					590	2.0	9.8	2.4	0.49	39	3.1	NE	1.7	39	43	7	39	1.4	2	1000	39
TMW30	TMW30042017	Normal	North Bedrock	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	0.14 U	0.23 U	0.23 U	2.3 U	0.23 U	1.4 U
	TMW30102016	Normal		10/26/2016	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	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW30042016	Normal		4/7/2016	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.11 J	0.22 U	0.22 U	NA	0.22 U	NA
	TMW30102015	Normal		10/29/2015	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
TMW31D	TMW31D042017	Normal	North Bedrock	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	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	DTW31D042017	Duplicate		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	0.13 U	0.21 U	0.21 U	2.1 U	0.21 U	1.3 U
	TMW31D102016	Normal		10/31/2016	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	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	DTW31D102016	Duplicate		10/31/2016	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	0.13 U	0.21 U	0.21 U	2.1 U	0.21 U	1.3 U
	TMW31D042016	Normal		4/13/2016	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	DTW31D042016	Duplicate		4/13/2016	0.41 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	NA	0.21 U	0.12 U	0.41 U	0.12 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW31D102015	Normal		11/5/2015	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	DTW31D102015	Duplicate		11/5/2015	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.45 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
TMW32	TMW32042017	Normal	North Bedrock	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	0.13 U	0.21 U	0.21 U	2.1 U	0.21 U	1.3 U
	TMW32102016	Normal		11/2/2016	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	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW32042016	Normal		4/13/2016	0.51 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.25 U	NA	0.25 U	0.15 U	0.51 U	0.15 U	0.25 U	0.25 U	NA	0.25 U	NA
	TMW32102015	Normal		11/5/2015	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
TMW36	TMW36042017	Normal	North Bedrock	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	0.13 U	0.21 U	0.21 U	2.1 U	0.21 U	1.3 U
	TMW36102016	Normal		10/27/2016	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	0.18 U	0.21 U	0.21 U	2.1 U	0.21 U	1.3 U
	TMW36042016	Normal		4/7/2016	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.44 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW36102015	Normal		10/28/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
TMW37	TMW37042017	Normal	North Bedrock	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	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW37102016	Normal		10/27/2016	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	0.086 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW37042016	Normal		4/7/2016	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW37102015	Normal		10/28/2015	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	NA	0.24 U	0.14 U	0.48 U	0.14 U	0.24 U	0.24 U	NA	0.24 U	NA
TMW38	TMW38042017	Normal	North Bedrock	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	0.14 U	0.23 U	0.23 U	2.3 U	0.23 U	1.4 U
	TMW38102016	Normal		11/4/2016	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	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW38042016	Normal		4/14/2016	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.45 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW38102015	Normal		11/6/2015	0.42 R	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
TMW39D	TMW39D042017	Normal	North Bedrock	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	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW39D102016	Normal		10/31/2016	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	0.12 U	0.21 U	0.21 U	2.1 U	0.21 U	1.2 U
	TMW39D042016	Normal		4/12/2016	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW39D102015	Normal		11/4/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA

TABLE 5-3

Summary of Total Explosives Analytical Detections (Page 8 of 8)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Ground-water Zone	Sample Date	EPA Method SW8330B (µg/L)																	
					1,3,5-Trinitrobenzene CAS 99-35-4	1,3-Dinitrobenzene CAS 99-65-0	2,4,6-Trinitrotoluene CAS 118-96-7	2,4-Dinitrotoluene CAS 121-14-2	2,6-Dinitrotoluene CAS 606-20-2	2-Amino-4,6-Dinitrotoluene CAS 35572-78-2	2-Nitrotoluene CAS 88-72-2	3,5-Dinitroaniline CAS 618-87-1	3-Nitrotoluene CAS 99-08-1	4-Amino-2,6-Dinitrotoluene CAS 19406-51-0	4-Nitrotoluene CAS 99-99-0	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) CAS 121-82-4	Methyl-2,4,6-trinitrophenylnitramine CAS 479-45-8	Nitrobenzene CAS 98-95-3	Nitroglycerine CAS 55-63-0	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX) Petrn CAS 78-11-5		
					Regulatory Limit (EPA Region 6 Regional Screening Levels) <sup>a</sup>																	
					590	2.0	9.8	2.4	0.49	39	3.1	NE	1.7	39	43	7	39	1.4	2	1000	39	
TMW40D	TMW40D042017	Normal	North Bedrock	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	0.14 U	0.24 U	0.24 U	2.4 U	0.24 U	1.4 U	
	TMW40D102016	Normal		10/31/2016	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	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U	
	TMW40D042016	Normal		4/12/2016	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA	
	TMW40D102015	Normal		11/3/2015	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 UJ	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA	
TMW48	TMW48042017	Normal	North Bedrock	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	0.14 U	0.24 U	0.24 U	2.4 U	0.24 U	1.4 U	
	TMW48102016	Normal		11/1/2016	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 UJ	0.21 U	0.32 U	0.21 U	0.13 UJ	0.43 U	0.13 U	0.21 U	0.21 U	2.1 U	0.21 U	1.3 U	
	TMW48042016	Normal		4/12/2016	0.49 U	0.24 U	0.24 U	0.24 U	0.24 U	0.15 U	0.24 U	NA	0.24 U	0.15 U	0.49 U	0.15 U	0.24 U	0.24 U	0.31 J	NA	0.24 U	NA
	TMW48102015	Normal		11/4/2015	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA	
TMW49	TMW49042017	Normal	North Bedrock	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	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U	
	TMW49102016	Normal		11/2/2016	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	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U	
	TMW49042016	Normal		4/14/2016	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	NA	0.24 U	0.14 U	0.48 U	0.14 U	0.24 U	0.24 U	NA	0.24 U	NA	
	TMW49102015	Normal		11/5/2015	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA	

Notes:

<sup>a</sup> EPA Region Regional Screening Levels (EPA, 2017).

**Bold indicates analyte was positively detected above regulatory limits.**

If no detections occurred for explosives compounds during the previous four events, no non-detect or historical data are presented.

CAS = Chemical Abstracts Service (registry number)

EPA = U.S. Environmental Protection Agency

J = analyte was positively identified; reported value is estimated.

µg/L = microgram(s) per liter

NA = not analyzed

NE = not established

R = rejected during validation; result is unusable for any purpose.

U = non-detected result reported at the limit of detection.

UJ = analyte was not detected; however, the result is estimated because of discrepancies in meeting certain analyte-specific quality control criteria.



TABLE 5-4

## Summary of Perchlorate Analytical Detections (Page 1 of 5)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Perchlorate (µg/L)
					CAS 14797-73-0 EPA Method 6860
<b>Regulatory Limits</b>					<b>14<sup>a</sup></b>
BGMW01	BGMW01042017	Normal	North Alluvial	4/24/2017	0.010 UJ
	BGMW01102016	Normal		11/2/2016	0.010 U
	BGMW01042016	Normal		4/15/2016	0.010 UJ
	BGMW01102015	Normal		11/5/2015	0.010 U
BGMW02	BGMW02042017	Normal	North Alluvial	4/21/2017	0.45 J
	BGMW02102016	Normal		11/2/2016	0.48 J
	BGMW02042016	Normal		4/14/2016	0.39 J
	BGMW02102015	Normal		11/5/2015	0.45
BGMW03	BGMW03042017	Normal	North Alluvial	4/20/2017	0.013 J
	BGMW03102016	Normal		10/28/2016	0.015 J
	BGMW03042016	Normal		4/8/2016	0.019 J
	BGMW03102015	Normal		10/30/2015	0.055
MW01	MW01042017	Normal	North Alluvial	4/19/2017	0.010 U
	MW01102016	Normal		10/27/2016	0.010 U
	MW01042016	Normal		4/6/2016	0.010 U
	MW01102015	Normal		10/28/2015	0.010 U
MW02	MW02042017	Normal	North Alluvial	4/19/2017	0.073
	MW02102016	Normal		10/27/2016	0.10
	MW02042016	Normal		4/6/2016	0.10
	MW02102015	Normal		10/28/2015	0.11
MW03	MW03042017	Normal	North Alluvial	4/21/2017	0.010 UJ
	MW03102016	Normal		11/3/2016	0.010 U
	MW03042016	Normal		4/12/2016	0.010 U
	MW03102015	Normal		10/30/2015	0.010 U
MW18D	MW18D042017	Normal	North Alluvial	4/20/2017	0.050 U
	MW18D102016	Normal		10/28/2016	0.010 U
	MW18D042016	Normal		4/12/2016	0.010 U
	MW18D102015	Normal		11/2/2015	0.010 UJ
MW20	MW20042017	Normal	North Alluvial	4/24/2017	0.23 J
	MW20102016	Normal		11/4/2016	0.23 J
	MW20042016	Normal		4/11/2016	0.23
	MW20102015	Normal		11/2/2015	0.27 J
	DMW20102015	Duplicate		11/2/2015	0.26 J
MW22D	MW22D042017	Normal	North Alluvial	4/19/2017	0.74
	MW22D102016	Normal		10/28/2016	0.82
	MW22D042016	Normal		4/11/2016	0.53
	MW22D102015	Normal		11/2/2015	0.45 J
MW22S	MW22S042017	Normal	North Alluvial	Well dry this event	
	MW22S102016	Normal		Well dry this event	
	MW22S042016	Normal		4/11/2016	0.058
	MW22S102015	Normal		10/29/2015	0.053
MW23	MW23042017	Normal	North Alluvial	4/18/2017	0.010 U
	DMW23042017	Duplicate		4/18/2017	0.010 U
	MW23102016	Normal		10/27/2016	0.010 U
	MW23042016	Normal		4/7/2016	0.010 U
	DMW23042016	Duplicate		4/7/2016	0.010 U
	MW23102015	Normal		11/6/2015	0.010 U
	DMW23102015	Duplicate		11/6/2015	0.010 U
MW24	MW24042017	Normal	North Alluvial	4/17/2017	0.010 U
	DMW24042017	Duplicate		4/17/2017	0.010 U
	MW24102016	Normal		10/26/2016	0.010 U
	DMW24102016	Duplicate		10/26/2016	0.010 U
	MW24042016	Normal		4/6/2016	0.010 U
	DMW24042016	Duplicate		4/6/2016	0.010 U
	MW24102015	Normal		11/5/2015	0.010 U

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## Summary of Perchlorate Analytical Detections (Page 2 of 5)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Perchlorate (µg/L)
					CAS 14797-73-0 EPA Method 6860
<b>Regulatory Limits</b>					<b>14<sup>a</sup></b>
SMW01	SMW01042017	Normal	North Alluvial	4/21/2017	0.010 UJ
	SMW01102016	Normal		11/2/2016	0.010 U
	SMW01042016	Normal		4/8/2016	0.010 U
	SMW011102015	Normal		11/3/2015	0.010 U
TMW01	TMW01042017	Normal	North Alluvial	4/25/2017	310
	TMW01102016	Normal		10/31/2016	290
	TMW01042016	Normal		4/8/2016	130 J
	TMW01102015	Normal		11/4/2015	240
TMW03	TMW03042017	Normal	North Alluvial	4/24/2017	0.82
	TMW03102016	Normal		10/31/2016	0.78
	TMW03042016	Normal		4/8/2016	0.62 J
	TMW03102015	Normal		11/4/2015	0.65
TMW04	TMW04042017	Normal	North Alluvial	4/24/2017	0.36 J
	TMW04102016	Normal		11/3/2016	0.31
	TMW04042016	Normal		4/13/2016	0.35
	TMW04102015	Normal		11/4/2015	0.28
TMW08	TMW08042017	Normal	North Alluvial	4/21/2017	0.050 UJ
	TMW08102016	Normal		11/1/2016	0.010 U
	DTW08102016	Duplicate		11/1/2016	0.010 U
	TMW08042016	Normal		4/12/2016	0.010 U
	TMW08102015	Normal		11/5/2015	0.010 U
TMW10	TMW10042017	Normal	North Alluvial	4/21/2017	0.010 UJ
	TMW10102016	Normal		11/2/2016	0.010 U
	TMW10042016	Normal		4/12/2016	0.010 U
	TMW10102015	Normal		11/4/2015	0.010 U
TMW11	TMW11042017	Normal	North Alluvial	4/26/2017	0.19
	TMW11102016	Normal		11/3/2016	0.13
	DTW11102016	Duplicate		11/3/2016	0.13
	TMW11042016	Normal		4/11/2016	0.13
	TMW11102015	Normal		11/4/2015	0.13
TMW13	TMW13042017	Normal	North Alluvial	4/25/2017	0.11
	TMW13102016	Normal		11/1/2016	0.10
	TMW13042016	Normal		4/12/2016	0.10
	TMW13102015	Normal		11/4/2015	0.080
TMW15	TMW15042017	Normal	North Alluvial	4/27/2017	0.095 J
	DTW15042017	Duplicate		4/27/2017	0.10 J
	TMW15102016	Normal		11/2/2016	0.13 J
	TMW15042016	Normal		4/13/2016	0.12
	DTW15042016	Duplicate		4/13/2016	0.13
	TMW15102015	Normal		11/6/2015	0.11
TMW21	TMW21042017	Normal	North Alluvial	4/26/2017	0.10 U
	TMW21102016	Normal		10/27/2016	0.010 U
	TMW21042016	Normal		4/11/2016	0.010 U
	TMW21102015	Normal		10/29/2015	0.010 U
	TMW22042017	Normal		North Alluvial	4/19/2017
TMW22102016	Normal	10/27/2016	0.14		
TMW22042016	Normal	4/8/2016	0.010 J		
TMW22102015	Normal	10/29/2015	0.018 J		
TMW23	TMW23042017	Normal	North Alluvial	4/20/2017	0.12 J
	TMW23102016	Normal		10/28/2016	0.043 J
	TMW23042016	Normal		4/8/2016	0.015 J
	TMW23102015	Normal		10/30/2015	0.036 J

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## Summary of Perchlorate Analytical Detections (Page 3 of 5)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Perchlorate ( $\mu\text{g/L}$ )
					CAS 14797-73-0 EPA Method 6860
<b>Regulatory Limits</b>					<b>14<sup>a</sup></b>
TMW24	TMW24042017	Normal	North Alluvial	4/25/2017	0.010 U
	TMW24102016	Normal		11/3/2016	0.010 U
	TMW24042016	Normal		4/15/2016	0.010 UJ
	TMW24102015	Normal		11/6/2015	0.010 U
TMW26	TMW26042017	Normal	North Alluvial	4/20/2017	0.010 UJ
	DTW26042017	Duplicate		4/20/2017	0.010 UJ
	TMW26102016	Normal		11/1/2016	0.010 U
	TMW26042016	Normal		4/8/2016	0.010 U
	DTW26042016	Duplicate		4/8/2016	0.010 U
	TMW26102015	Normal		10/30/2015	0.010 U
	DTW26102015	Duplicate		10/30/2015	0.010 U
TMW27	TMW27042017	Normal	North Alluvial	4/21/2017	0.010 UJ
	TMW27102016	Normal		11/3/2016	0.010 U
	TMW27042016	Normal		4/8/2016	0.010 U
	TMW27102015	Normal		10/30/2015	0.010 U
TMW29	TMW29042017	Normal	North Alluvial	4/20/2017	0.094 J
	TMW29102016	Normal		10/28/2016	0.082
	TMW29042016	Normal		4/7/2016	0.078
	TMW29102015	Normal		10/28/2015	0.061
TMW31S	TMW31S042017	Normal	North Alluvial	4/19/2017	<b>490</b>
	TMW31S102016	Normal		10/27/2016	<b>470</b>
	TMW31S042016	Normal		4/6/2016	<b>490</b>
	TMW31S102015	Normal		10/29/2015	<b>670</b>
TMW34	TMW34042017	Normal	North Alluvial	4/24/2017	0.33
	DTW34042017	Duplicate		4/24/2017	0.32
	TMW34102016	Normal		11/1/2016	0.38
	TMW34042016	Normal		4/12/2016	0.33
	DTW34042016	Duplicate		4/12/2016	0.31
	TMW34102015	Normal		11/3/2015	0.27
	DTW34102015	Duplicate		11/3/2015	0.27
TMW35	TMW35042017	Normal	North Alluvial	4/24/2017	0.10 U
	TMW35102016	Normal		10/31/2016	0.064
	DTW35102016	Duplicate		10/31/2016	0.067
	TMW35042016	Normal		4/11/2016	0.034 J
	TMW35102015	Normal		11/2/2015	0.054 J
TMW39S	TMW39S042017	Normal	North Alluvial	4/19/2017	<b>700</b>
	TMW39S102016	Normal		10/27/2016	<b>660</b>
	TMW39S042016	Normal		4/6/2016	<b>640</b>
	TMW39S102015	Normal		10/29/2015	<b>600</b>
TMW40S	TMW40S042017	Normal	North Alluvial	4/21/2017	2.8 J
	TMW40S102016	Normal		Well dry this event	
	TMW40S042016	Normal		4/11/2016	2.2
	TMW40S102015	Normal		10/30/2015	2.3
TMW41	TMW41042017	Normal	North Alluvial	4/19/2017	6.5
	TMW41102016	Normal		10/27/2016	4.4
	TMW41042016	Normal		4/7/2016	6.1
	TMW41102015	Normal		10/29/2015	4.2
TMW43	TMW43042017	Normal	North Alluvial	4/27/2017	0.10 U
	DTW43042017	Duplicate		4/27/2017	0.10 U
	TMW43102016	Normal		11/3/2016	0.010 U
	DTW43102016	Duplicate		11/3/2016	0.010 U
	TMW43042016	Normal		4/13/2016	0.010 U
	DTW43042016	Duplicate		4/13/2016	0.010 U
	TMW43102015	Normal		11/3/2015	0.010 U
	DTW43102015	Duplicate		11/3/2015	0.010 U

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## Summary of Perchlorate Analytical Detections (Page 4 of 5)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Perchlorate (µg/L)
					CAS 14797-73-0 EPA Method 6860
<b>Regulatory Limits</b>					<b>14<sup>a</sup></b>
TMW44	TMW44042017	Normal	North Alluvial	4/19/2017	0.014 J
	TMW44102016	Normal		10/27/2016	0.020 J
	TMW44042016	Normal		4/8/2016	0.038 J
	TMW44102015	Normal		10/29/2015	0.012 J
TMW45	TMW45042017	Normal	North Alluvial	4/28/2017	0.10 U
	TMW45102016	Normal		11/4/2016	0.010 U
	DTW45102016	Duplicate		11/4/2016	0.010 U
	TMW45042016	Normal		4/14/2016	0.010 U
TMW46	TMW45102015	Normal	North Alluvial	11/3/2015	0.010 U
	TMW46042017	Normal		4/20/2017	0.24 J
	TMW46102016	Normal		10/28/2016	0.30
	TMW46042016	Normal		4/7/2016	0.28
TMW47	TMW46102015	Normal	North Alluvial	10/29/2015	0.26
	TMW47042017	Normal		4/25/2017	0.10 U
	TMW47102016	Normal		11/4/2016	0.010 U
	TMW47042016	Normal		4/14/2016	0.010 U
TMW02	TMW47102015	Normal	North Alluvial	11/5/2015	0.0086 J
	TMW02042017	Normal		4/24/2017	3.3
	TMW02102016	Normal		11/1/2016	3.3
	TMW02042016	Normal		4/13/2016	3.0
TMW16	TMW02102015	Normal	North Bedrock	11/3/2015	2.8
	TMW16042017	Normal		4/20/2017	0.010 UJ
	TMW16102016	Normal		10/28/2016	0.010 U
	TMW16042016	Normal		4/7/2016	0.010 U
TMW17	TMW16102015	Normal	North Bedrock	10/28/2015	0.0078 J
	TMW17042017	Normal		4/27/2017	0.10 U
	TMW17102016	Normal		11/4/2016	0.010 U
	TMW17042016	Normal		4/15/2016	0.010 UJ
TMW18	TMW17102015	Normal	North Bedrock	11/3/2015	0.010 U
	TMW18042017	Normal		4/20/2017	0.010 UJ
	TMW18102016	Normal		10/28/2016	0.010 U
	TMW18042016	Normal		4/7/2016	0.010 U
TMW19	TMW18102015	Normal	North Bedrock	10/29/2015	0.010 U
	TMW19042017	Normal		4/20/2017	0.010 UJ
	TMW19102016	Normal		10/28/2016	0.0082 J
	DTW19102016	Duplicate		10/28/2016	0.010 U
TMW30	TMW19042016	Normal	North Bedrock	4/7/2016	0.010 U
	TMW19102015	Normal		10/28/2015	0.010 U
	TMW30042017	Normal		4/19/2017	<b>1100</b>
	TMW30102016	Normal		10/26/2016	<b>1100</b>
TMW31D	TMW30042016	Normal	North Bedrock	4/7/2016	<b>1100</b>
	TMW30102015	Normal		10/29/2015	<b>930</b>
	TMW31D042017	Normal		4/27/2017	<b>1100 J</b>
	DTW31D042017	Duplicate		4/27/2017	<b>1100 J</b>
	TMW31D102016	Normal	10/31/2016	<b>1300</b>	
	DTW31D102016	Duplicate	10/31/2016	<b>1600</b>	
	TMW31D042016	Normal	4/13/2016	<b>980</b>	
DTW31D042016	Duplicate	4/13/2016	<b>970</b>		
TMW32	TMW31D102015	Normal	North Bedrock	11/5/2015	<b>1200</b>
	DTW31D102015	Duplicate		11/5/2015	<b>1500</b>
	TMW32042017	Normal		4/27/2017	<b>360</b>
	TMW32102016	Normal		11/2/2016	<b>490 J</b>
TMW32	TMW32042016	Normal	North Bedrock	4/13/2016	<b>330</b>
	TMW32102015	Normal		11/5/2015	<b>200</b>

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Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Perchlorate (µg/L)
					CAS 14797-73-0 EPA Method 6860
<b>Regulatory Limits</b>					<b>14<sup>a</sup></b>
TMW36	TMW36042017	Normal	North Bedrock	4/20/2017	0.010 UJ
	TMW36102016	Normal		10/27/2016	0.010 U
	TMW36042016	Normal		4/7/2016	0.010 U
	TMW36102015	Normal		10/28/2015	0.010 U
TMW37	TMW37042017	Normal	North Bedrock	4/20/2017	0.010 UJ
	TMW37102016	Normal		10/27/2016	0.010 U
	TMW37042016	Normal		4/7/2016	0.010 U
	TMW37102015	Normal		10/28/2015	0.010 U
TMW38	TMW38042017	Normal	North Bedrock	4/26/2017	0.10 U
	TMW38102016	Normal		11/4/2016	0.010 U
	TMW38042016	Normal		4/14/2016	0.010 U
	TMW38102015	Normal		11/6/2015	0.013 J
TMW39D	TMW39D042017	Normal	North Bedrock	4/27/2017	6.0 J
	TMW39D102016	Normal		10/31/2016	<b>460</b>
	TMW39D042016	Normal		4/12/2016	6.1
	TMW39D102015	Normal		11/4/2015	<b>49</b>
TMW40D	TMW40D042017	Normal	North Bedrock	4/25/2017	<b>310</b>
	TMW40D102016	Normal		10/31/2016	<b>290</b>
	TMW40D042016	Normal		4/12/2016	<b>250</b>
	TMW40D102015	Normal		11/3/2015	<b>260</b>
TMW48	TMW48042017	Normal	North Bedrock	4/26/2017	<b>1100</b>
	TMW48102016	Normal		11/1/2016	<b>1000</b>
	TMW48042016	Normal		4/12/2016	<b>880</b>
	TMW48102015	Normal		11/4/2015	<b>1000</b>
TMW49	TMW49042017	Normal	North Bedrock	4/26/2017	<b>1500</b>
	TMW49102016	Normal		11/2/2016	<b>1000 J</b>
	TMW49042016	Normal		4/14/2016	<b>730 J</b>
	TMW49102015	Normal		11/5/2015	<b>1100</b>

Notes:

<sup>a</sup> EPA Region Regional Screening Levels (EPA, 2017).**Bold indicates analyte was positively detected above regulatory limits.**

CAS = Chemical Abstracts Service (registry number)

EPA = U.S. Environmental Protection Agency

µg/L = microgram(s) per liter

NA = not analyzed

J = analyte was positively identified; reported value is estimated.

U = non-detected result reported at the limit of detection.

UJ = analyte was not detected; however, the result is estimated because of discrepancies.

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## Summary of Volatile Organic Compound Analytical Detections (Page 1 of 7)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Ground-water Zone	Sample Date	EPA Method SW8260C (µg/L)													
					1,1,1-Trichloroethane CAS 71-55-6	1,1-Dichloroethane CAS 75-34-3	1,2,3-Trichlorobenzene CAS 87-61-6	1,2-Dichloroethane CAS 107-06-2	2-butanone CAS 78-93-3	Acetone CAS 67-64-1	Carbon disulfide CAS 75-15-0	Chloroform CAS 67-66-3	Chloromethane CAS 74-87-3	Methyl tert-butyl ether CAS 1634-04-4	Methylene chloride CAS 75-09-2	Naphthalene CAS 91-20-3	Toluene CAS 108-88-3	
					Regulatory Limit													
					60 <sup>a</sup>	25 <sup>a</sup>	7 <sup>c</sup>	5 <sup>b</sup>	5600 <sup>c</sup>	14000 <sup>c</sup>	810 <sup>c</sup>	80 <sup>b</sup>	190 <sup>c</sup>	140 <sup>c</sup>	5 <sup>b</sup>	30 <sup>a</sup>	750 <sup>a</sup>	
BGMW01	BGMW01042017	Normal	North Alluvial	4/24/2017	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	1.0 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 U	0.25 U	
	BGMW01102016	Normal		11/2/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	2.6 J	10 J	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	2.0 UJ	1.0 U	
	BGMW01042016	Normal		4/15/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	2.4 J	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
	BGMW01102015	Normal		11/5/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
BGMW02	BGMW02042017	Normal	North Alluvial	4/21/2017	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	1.0 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 UJ	0.25 U	
	BGMW02102016	Normal		11/2/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	3.0 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	2.0 UJ	1.0 U	
	BGMW02042016	Normal		4/14/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
	BGMW02102015	Normal		11/5/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
MW01	MW01042017	Normal	North Alluvial	4/19/2017	0.25 U	0.25 U	0.25 U	1.5	1.0 U	1.0 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 UJ	0.25 U	
	MW01102016	Normal		10/27/2016	1.0 U	1.0 U	2.0 UJ	1.6 J	3.3 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	2.0 UJ	1.0 U	
	MW01042016	Normal		4/6/2016	0.40 U	0.80 U	0.80 U	1.9	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.29 J	0.80 U	0.80 U	0.40 U	
	MW01102015	Normal		10/28/2015	0.40 U	0.80 U	0.80 U	1.6	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U	
MW02	MW02042017	Normal	North Alluvial	4/19/2017	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	3.8 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 UJ	0.25 U	
	MW02102016	Normal		10/27/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	2.4 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	2.0 UJ	1.0 U	
	MW02042016	Normal		4/6/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U	
	MW02102015	Normal		10/28/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U	
MW03	MW03042017	Normal	North Alluvial	4/21/2017	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	1.3 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 UJ	0.25 U	
	MW03102016	Normal		11/3/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	5.0 U	10 U	1.0 U	1.0 U	2.0 U	2.0 U	2.3 J	2.0 UJ	1.0 U	
	MW03042016	Normal		4/12/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U	
	MW03102015	Normal		10/30/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U	
MW18D	MW18D042017	Normal	North Alluvial	4/20/2017	0.25 UJ	0.25 UJ	0.25 UJ	95 J	1.0 UJ	11 UJ	0.25 UJ	0.25 UJ	0.25 UJ	0.25 UJ	0.50 UJ	0.25 UJ	0.25 UJ	
	MW18D102016	Normal		10/28/2016	1.0 UJ	1.0 UJ	2.0 UJ	100 J	5.0 UJ	10 UJ	1.0 UJ	1.0 UJ	2.0 UJ	2.0 UJ	5.0 UJ	2.0 UJ	1.0 UJ	
	MW18D042016	Normal		4/12/2016	0.40 UJ	0.80 UJ	0.80 UJ	97 J	4.0 UJ	6.4 UJ	1.6 UJ	0.40 UJ	0.80 UJ	0.80 UJ	0.80 UJ	0.80 UJ	0.40 UJ	
	MW18D102015	Normal		11/2/2015	0.40 UJ	0.80 UJ	0.80 UJ	95 J	4.0 UJ	5.4 UJ	1.6 UJ	0.40 UJ	0.80 UJ	0.80 UJ	0.80 UJ	0.80 UJ	0.40 UJ	



TABLE 5-5

## Summary of Volatile Organic Compound Analytical Detections (Page 3 of 7)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Ground-water Zone	Sample Date	EPA Method SW8260C (µg/L)													
					1,1,1-Trichloroethane CAS 71-55-6	1,1-Dichloroethane CAS 75-34-3	1,2,3-Trichlorobenzene CAS 87-61-6	1,2-Dichloroethane CAS 107-06-2	2-butanone CAS 78-93-3	Acetone CAS 67-64-1	Carbon disulfide CAS 75-15-0	Chloroform CAS 67-66-3	Chloromethane CAS 74-87-3	Methyl tert-butyl ether CAS 1634-04-4	Methylene chloride CAS 75-09-2	Naphthalene CAS 91-20-3	Toluene CAS 108-88-3	
					Regulatory Limit													
					60 <sup>a</sup>	25 <sup>a</sup>	7 <sup>c</sup>	5 <sup>b</sup>	5600 <sup>c</sup>	14000 <sup>c</sup>	810 <sup>c</sup>	80 <sup>b</sup>	190 <sup>c</sup>	140 <sup>c</sup>	5 <sup>b</sup>	30 <sup>a</sup>	750 <sup>a</sup>	
TMW04	TMW04042017	Normal	North Alluvial	4/24/2017	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	1.0 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 U	0.25 U	
	TMW04102016	Normal		11/3/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	2.5 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	2.0 UJ	1.0 U	
	TMW04042016	Normal		4/13/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	5.1 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW04102015	Normal		11/4/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
TMW10	TMW10042017	Normal	North Alluvial	4/21/2017	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	1.0 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 UJ	0.25 U	
	TMW10102016	Normal		11/2/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	3.3 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	2.0 UJ	1.0 U	
	TMW10042016	Normal		4/12/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW10102015	Normal		11/4/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
TMW11	TMW11042017	Normal	North Alluvial	4/26/2017	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	1.3 UJ	0.69 J	0.25 U	0.50 J	0.25 U	0.50 U	0.25 U	0.25 U	
	TMW11102016	Normal		11/3/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	2.2 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	2.0 UJ	1.0 U	
	DTW11102016	Duplicate		11/3/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	5.0 U	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	2.0 UJ	1.0 U	
	TMW11042016	Normal		4/11/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW11102015	Normal		11/4/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
TMW15	TMW15042017	Normal	North Alluvial	4/27/2017	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	1.0 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 U	0.25 U	
	DTW15042017	Duplicate		4/27/2017	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	1.2 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 U	0.25 U	
	TMW15102016	Normal		11/2/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	3.3 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	2.0 UJ	1.0 U	
	TMW15042016	Normal		4/13/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	7.1 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
	DTW15042016	Duplicate		4/13/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	7.7 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW15102015	Normal		11/6/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
	DTW15102015	Duplicate		11/6/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
TMW21	TMW21042017	Normal	North Alluvial	4/26/2017	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	1.0 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 U	0.25 U	
	TMW21102016	Normal		10/27/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	2.4 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	2.0 UJ	1.0 U	
	TMW21042016	Normal		4/11/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW21102015	Normal		10/29/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U



TABLE 5-5

## Summary of Volatile Organic Compound Analytical Detections (Page 4 of 7)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Ground-water Zone	Sample Date	EPA Method SW8260C (µg/L)												
					1,1,1-Trichloroethane CAS 71-55-6	1,1-Dichloroethane CAS 75-34-3	1,2,3-Trichlorobenzene CAS 87-61-6	1,2-Dichloroethane CAS 107-06-2	2-butanone CAS 78-93-3	Acetone CAS 67-64-1	Carbon disulfide CAS 75-15-0	Chloroform CAS 67-66-3	Chloromethane CAS 74-87-3	Methyl tert-butyl ether CAS 1634-04-4	Methylene chloride CAS 75-09-2	Naphthalene CAS 91-20-3	Toluene CAS 108-88-3
					Regulatory Limit												
					60 <sup>a</sup>	25 <sup>a</sup>	7 <sup>c</sup>	5 <sup>b</sup>	5600 <sup>c</sup>	14000 <sup>c</sup>	810 <sup>c</sup>	80 <sup>b</sup>	190 <sup>c</sup>	140 <sup>c</sup>	5 <sup>b</sup>	30 <sup>a</sup>	750 <sup>a</sup>
TMW22	TMW22042017	Normal	North Alluvial	4/19/2017	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	9.9 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 U	0.25 U
	TMW22102016	Normal		10/27/2016	1.0 U	1.0 U	2.0 U	1.0 U	2.9 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	2.0 U	1.0 U
	TMW22042016	Normal		4/8/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.32 U	0.80 U	0.40 U
	TMW22102015	Normal		10/29/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
TMW24	TMW24042017	Normal	North Alluvial	4/25/2017	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	1.9 J	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 U	0.25 U
	TMW24102016	Normal		11/3/2016	1.0 U	1.0 U	2.0 U	1.0 U	5.0 U	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	2.0 U	1.0 U
	TMW24042016	Normal		4/15/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW24102015	Normal		11/6/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.2 J	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
TMW27	TMW27042017	Normal	North Alluvial	4/21/2017	0.25 U	0.25 U	0.54 U	0.25 U	1.0 U	1.0 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 U	0.25 U
	TMW27102016	Normal		11/3/2016	1.0 U	1.0 U	2.0 U	1.0 U	2.3 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	2.0 U	1.0 U
	TMW27042016	Normal		4/8/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW27102015	Normal		10/30/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
TMW28	TMW28042017	Normal	North Alluvial	4/24/2017	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	1.0 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 U	0.25 U
	TMW28102016	Normal		11/3/2016	1.0 U	1.0 U	2.0 U	1.0 U	3.0 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	2.0 U	1.0 U
	TMW28042016	Normal		4/11/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW28102015	Normal		11/3/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
TMW33	TMW33042017	Normal	North Alluvial	4/20/2017	0.25 U	0.25 U	0.25 U	38	1.0 U	2.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 U	0.25 U
	TMW33102016	Normal		10/28/2016	1.0 U	1.0 U	2.0 U	41 J	5.0 U	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	2.0 U	1.0 U
	TMW33042016	Normal		4/7/2016	0.40 U	0.80 U	0.80 U	38	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.36 U	0.80 U	0.40 U
	TMW33102015	Normal		10/30/2015	0.40 U	0.80 U	0.80 U	39	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.61 U	0.80 U	0.40 U
TMW34	TMW34042017	Normal	North Alluvial	4/24/2017	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	2.3 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 U	0.25 U
	DTW34042017	Duplicate		4/24/2017	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	1.0 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 U	0.25 U
	TMW34102016	Normal		11/1/2016	1.0 U	1.0 U	2.0 U	1.0 U	5.0 U	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	2.0 U	1.0 U
	TMW34042016	Normal		4/12/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
	DTW34042016	Duplicate		4/12/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	4.5 J	1.6 U	0.40 U	0.80 U	0.80 U	0.44 U	0.80 U	0.40 U
	TMW34102015	Normal		11/3/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
	DTW34102015	Duplicate		11/3/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U





TABLE 5-5

## Summary of Volatile Organic Compound Analytical Detections (Page 7 of 7)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Ground-water Zone	Sample Date	EPA Method SW8260C (µg/L)												
					1,1,1-Trichloroethane CAS 71-55-6	1,1-Dichloroethane CAS 75-34-3	1,2,3-Trichlorobenzene CAS 87-61-6	1,2-Dichloroethane CAS 107-06-2	2-butanone CAS 78-93-3	Acetone CAS 67-64-1	Carbon disulfide CAS 75-15-0	Chloroform CAS 67-66-3	Chloromethane CAS 74-87-3	Methyl tert-butyl ether CAS 1634-04-4	Methylene chloride CAS 75-09-2	Naphthalene CAS 91-20-3	Toluene CAS 108-88-3
					Regulatory Limit												
					60 <sup>a</sup>	25 <sup>a</sup>	7 <sup>c</sup>	5 <sup>b</sup>	5600 <sup>c</sup>	14000 <sup>c</sup>	810 <sup>c</sup>	80 <sup>b</sup>	190 <sup>c</sup>	140 <sup>c</sup>	5 <sup>b</sup>	30 <sup>a</sup>	750 <sup>a</sup>
TMW37	TMW37042017	Normal	North Bedrock	4/20/2017	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	1.0 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 U	0.21 J
	TMW37102016	Normal		10/27/2016	1.0 U	1.0 U	2.0 U	1.0 U	5.0 U	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	2.0 U	3.0 J
	TMW37042016	Normal		4/7/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.44 U	0.80 U	0.38 U
	TMW37102015	Normal		10/28/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
TMW38	TMW38042017	Normal	North Bedrock	4/26/2017	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	1.0 U	1.1 J	0.25 U	0.25 U	0.25 U	0.50 U	0.25 U	0.25 U
	TMW38102016	Normal		11/4/2016	1.0 U	1.0 U	2.0 U	1.0 U	5.0 U	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	2.0 U	1.0 U
	TMW38042016	Normal		4/14/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.3 J	0.40 U	0.80 U	0.80 U	0.80 U	0.28 U	0.40 U
	TMW38102015	Normal		11/6/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	2.6	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
TMW49	TMW49042017	Normal	North Bedrock	4/26/2017	0.25 U	0.25 U	0.63 U	0.25 U	1.0 U	2.3 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 U	0.25 U
	TMW49102016	Normal		11/2/2016	1.0 U	1.0 U	2.0 U	1.0 U	3.6 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	2.0 U	1.0 U
	TMW49042016	Normal		4/14/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW49102015	Normal		11/5/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.80 U	0.40 U

Notes:

<sup>a</sup> New Mexico Water Quality Control Commission Standard - New Mexico Administrative Code Title 20, Chapter 6, Part 2, Section 3103.<sup>b</sup> EPA Maximum Contaminant Level - Code of Federal Regulations Title 40, Parts 141, 142, and 143.<sup>c</sup> EPA Regional Screening Levels (EPA, 2017).**Bold indicates analyte was positively detected above regulatory limits.**

If no detection occurred for volatile organic compounds during the last four events, no non-detect or historical data are presented.

µg/L = microgram(s) per liter

CAS = Chemical Abstracts Service (registry number)

EPA = U.S. Environmental Protection Agency

J = analyte was positively identified; reported value is estimated

U = non-detected result reported at the limit of detection

UJ = analyte was not detected; however, the result is estimated because of discrepancies in meeting certain analyte-specific quality control criteria.

TABLE 5-6

## Summary of Semivolatile Organic Compounds and Total Petroleum Hydrocarbons Analytical Results (Page 1 of 7)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method SW8015C (µg/L)		EPA Method SW8270D (µg/L)										
					Diesel Range Organics CAS DRO	Gasoline Range Organics CAS GRO	1,2-Diphenylhydrazine CAS 122-66-7	2,4-Dinitrophenol CAS 51-28-5	4-Nitrophenol CAS 100-02-7	Benzoic acid CAS 65-85-0	Benzyl alcohol CAS 100-51-6	Bis(2-ethylhexyl) phthalate CAS 117-81-7	Diethyl phthalate CAS 84-66-2	Dimethyl phthalate CAS 131-11-3	Fluoranthene CAS 206-44-0	Isophorone CAS 78-59-1	Phenanthrene CAS 85-01-8
					Regulatory Limit												
		NE	NE	0.78 <sup>c</sup>	39 <sup>c</sup>	NE	7500 <sup>c</sup>	2000 <sup>c</sup>	6 <sup>b</sup>	15000 <sup>c</sup>	NE	800 <sup>c</sup>	780 <sup>c</sup>	NE			
BGMW02	BGMW02042017	Normal	North Alluvial	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	1.1 U
	BGMW02102016	Normal		11/2/2016	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	1.1 U
	BGMW02042016	Normal		4/14/2016	NA	NA	0.57 U	34 U	4.5 U	16 J	0.56 U	2.2 U	1.1 U	0.56 U	0.56 U	0.56 U	1.1 U
	BGMW02102015	Normal		11/5/2015	NA	NA	0.49 U	29 U	3.9 U	29 U	0.49 U	2.0 U	0.98 U	0.49 U	0.49 U	0.49 U	0.98 U
BGMW03	BGMW03042017	Normal	North Alluvial	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	1.1 U
	BGMW03102016	Normal		10/28/2016	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	1.1 U
	BGMW03042016	Normal		4/8/2016	NA	NA	0.50 U	30 U	4.0 U	30 U	0.50 U	2.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U
	BGMW03102015	Normal		10/30/2015	NA	NA	0.52 U	31 U	4.1 U	12 J	0.37 J	2.1 U	1.0 U	0.51 U	0.51 U	0.51 U	1.0 U
FW31	FW31042017	Normal	North Alluvial	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	1.1 U
	FW31102016	Normal		10/26/2016	NA	NA	0.54 U	32 U	4.3 U	32 U	0.53 U	1.1 J	1.1 U	0.53 U	0.53 U	0.53 U	1.1 U
	FW31042016	Normal		4/7/2016	NA	NA	0.52 U	31 U	4.1 U	31 U	0.51 U	2.1 U	1.0 U	0.51 U	0.51 U	0.51 U	1.0 U
	FW3112015	Normal		11/2/2015	NA	NA	0.52 U	31 U	4.1 U	31 U	0.51 U	2.0 U	1.0 U	0.51 U	0.51 U	0.51 U	1.0 U
MW01	MW01042017	Normal	North Alluvial	4/19/2017	53 J	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MW01102016	Normal		10/27/2016	54 J	25 U	0.55 U	33 U	4.4 U	33 U	0.55 U	1.1 J	1.1 U	0.55 U	0.55 U	0.55 U	1.1 U
	MW01042016	Normal		4/6/2016	160 U	100 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MW01102015	Normal		10/28/2015	120 U	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW02	MW02042017	Normal	North Alluvial	4/19/2017	82 J	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MW02102016	Normal		10/28/2016	52 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MW02102016	Normal		10/27/2016	NA	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MW02042016	Normal		4/7/2016	87 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MW02042016	Normal		4/6/2016	NA	100 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MW02102015	Normal		10/28/2015	480 U	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW03	MW03042017	Normal	North Alluvial	4/21/2017	39 U	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MW03102016	Normal		11/3/2016	34 J	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MW03042016	Normal		4/12/2016	44 U	100 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MW03102015	Normal		10/30/2015	140 U	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW18D	MW18D042017	Normal	North Alluvial	4/20/2017	84 J	31 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MW18D102016	Normal		10/28/2016	61 U	24 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MW18D042016	Normal		4/12/2016	64 U	69 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MW18D102015	Normal		11/2/2015	510	39 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 5-6

## Summary of Semivolatile Organic Compounds and Total Petroleum Hydrocarbons Analytical Results (Page 2 of 7)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method SW8015C (µg/L)		EPA Method SW8270D (µg/L)											
					Diesel Range Organics CAS DRO	Gasoline Range Organics CAS GRO	1,2-Diphenylhydrazine CAS 122-66-7	2,4-Dinitrophenol CAS 51-28-5	4-Nitrophenol CAS 100-02-7	Benzoic acid CAS 65-85-0	Benzyl alcohol CAS 100-51-6	Bis(2-ethylhexyl) phthalate CAS 117-81-7	Diethyl phthalate CAS 84-66-2	Dimethyl phthalate CAS 131-11-3	Fluoranthene CAS 206-44-0	Isophorone CAS 78-59-1	Phenanthrene CAS 85-01-8	
					Regulatory Limit													
		NE	NE	0.78 <sup>c</sup>	39 <sup>c</sup>	NE	7500 <sup>c</sup>	2000 <sup>c</sup>	6 <sup>b</sup>	15000 <sup>c</sup>	NE	800 <sup>c</sup>	780 <sup>c</sup>	NE				
MW20	MW20042017	Normal	North Alluvial	4/24/2017	52 J	25 UJ	0.51 U	30 U	4.0 U	30 U	0.50 U	2.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	
	MW20102016	Normal		11/4/2016	53 J	25 U	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	1.1 U	
	MW20042016	Normal		4/11/2016	48 J	100 U	0.54 U	32 U	4.3 U	32 U	0.54 U	0.71 J	1.1 U	0.54 U	0.54 U	0.54 U	1.1 U	
	MW20102015	Normal		11/2/2015	130 U	25 U	0.52 UJ	31 U	4.1 U	31 U	0.51 UJ	2.0 UJ	1.0 U	0.51 UJ	0.51 UJ	0.51 UJ	1.0 U	
	DMW20102015	Duplicate		11/2/2015	130 U	25 U	0.26 J	34 U	4.5 U	34 U	0.43 UJ	1.6 J	1.1 U	0.26 J	0.22 J	0.28 J	1.1 U	
MW22D	MW22D042017	Normal	North Alluvial	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	0.97 U	
	MW22D102016	Normal		10/28/2016	51 U	25 U	0.51 U	30 U	4.0 U	30 U	0.50 U	2.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	
	MW22D042016	Normal		4/11/2016	41 J	100 U	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	1.1 U	
	MW22D102015	Normal		11/2/2015	72 J	25 U	0.52 U	31 U	4.2 U	31 U	0.52 U	2.1 U	1.0 U	0.52 U	0.52 U	0.52 U	1.0 U	
MW22S	MW22S042017	Normal	North Alluvial	4/1/2017	Well dry this event													
	MW22S102016	Normal		10/2016	Well dry this event													
	MW22S042016	Normal		4/15/2016	110 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MW22S042016	Normal		4/14/2016	NA	NA	0.54 U	32 U	4.3 U	32 U	0.53 U	1.7 J	1.1 U	0.53 U	0.53 U	0.53 U	1.1 U	
	MW22S042016	Normal		4/8/2016	NA	NA	0.63 U	37 U	5.0 U	37 U	0.62 U	2.5 U	1.2 U	0.62 U	0.62 U	0.62 U	1.2 U	
	MW22S042016	Normal		4/7/2016	NA	100 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MW22S102015	Normal		11/3/2015	160 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MW22S102015	Normal		11/2/2015	NA	NA	0.54 U	32 U	4.3 U	32 U	0.54 U	1.6 J	1.1 U	0.54 U	0.54 U	0.54 U	1.1 U	
MW23	MW23042017	Normal	North Alluvial	4/18/2017	NA	NA	0.52 U	31 U	4.1 U	31 U	0.51 U	1.4 J	1.0 U	0.51 U	0.51 U	0.51 U	1.0 U	
	DMW23042017	Duplicate		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	1.1 U	
	MW23102016	Normal		10/27/2016	NA	NA	0.51 U	30 U	4.0 U	30 U	0.50 U	1.3 J	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	
	MW23042016	Normal		4/7/2016	NA	NA	0.50 U	30 U	3.9 U	30 U	0.49 U	0.70 J	0.98 U	0.49 U	0.49 U	0.49 U	0.98 U	
	DMW23042016	Duplicate		4/7/2016	NA	NA	0.51 U	31 U	4.1 U	31 U	0.51 U	2.0 U	1.0 U	0.51 U	0.51 U	0.51 U	1.0 U	
	MW23102015	Normal		11/6/2015	NA	NA	0.51 U	30 U	4.0 U	30 U	0.48 J	0.63 J	1.0 U	0.51 U	0.51 U	0.51 U	1.0 U	
	DMW23102015	Duplicate		11/6/2015	NA	NA	0.52 U	31 U	4.1 U	31 U	0.52 U	2.1 U	1.0 U	0.51 U	0.51 U	0.51 U	1.0 U	
MW24	MW24042017	Normal	North Alluvial	4/17/2017	NA	NA	0.50 U	30 U	4.0 U	30 U	0.50 U	2.0 U	0.99 U	0.50 U	0.50 U	0.50 U	0.99 U	
	DMW24042017	Duplicate		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	0.97 U	
	MW24102016	Normal		10/26/2016	NA	NA	0.51 U	30 U	4.0 U	30 U	0.50 U	2.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	
	DMW24102016	Duplicate		10/26/2016	NA	NA	0.49 U	29 U	3.9 U	29 U	0.49 U	1.0 J	0.98 U	0.49 U	0.49 U	0.49 U	0.98 U	

TABLE 5-6

## Summary of Semivolatile Organic Compounds and Total Petroleum Hydrocarbons Analytical Results (Page 3 of 7)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method SW8015C (µg/L)		EPA Method SW8270D (µg/L)											
					Diesel Range Organics CAS DRO	Gasoline Range Organics CAS GRO	1,2-Diphenylhydrazine CAS 122-66-7	2,4-Dinitrophenol CAS 51-28-5	4-Nitrophenol CAS 100-02-7	Benzoic acid CAS 65-85-0	Benzyl alcohol CAS 100-51-6	Bis(2-ethylhexyl) phthalate CAS 117-81-7	Diethyl phthalate CAS 84-66-2	Dimethyl phthalate CAS 131-11-3	Fluoranthene CAS 206-44-0	Isophorone CAS 78-59-1	Phenanthrene CAS 85-01-8	
					Regulatory Limit													
					NE	NE	0.78 <sup>c</sup>	39 <sup>c</sup>	NE	7500 <sup>c</sup>	2000 <sup>c</sup>	6 <sup>b</sup>	15000 <sup>c</sup>	NE	800 <sup>c</sup>	780 <sup>c</sup>	NE	
MW24	MW24042016	Normal	North Alluvial	4/6/2016	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	0.97 U	
	DMW24042016	Duplicate		4/6/2016	NA	NA	0.49 U	29 U	3.8 U	29 U	0.48 U	1.9 U	0.96 U	0.48 U	0.48 U	0.48 U	0.96 U	
	MW24102015	Normal		11/5/2015	NA	NA	0.50 U	30 U	3.9 U	30 U	0.49 U	2.0 U	0.99 U	0.49 U	0.49 U	0.49 U	0.99 U	
SMW01	SMW01042017	Normal	North Alluvial	4/21/2017	NA	NA	0.52 U	31 U	4.2 U	31 U	0.52 U	2.1 U	1.0 U	0.52 U	0.52 U	0.52 U	1.0 U	
	SMW01102016	Normal		11/2/2016	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	1.1 U	
	SMW01042016	Normal		4/8/2016	NA	NA	0.55 U	33 U	4.4 U	19 J	0.54 U	2.2 U	1.1 U	0.54 U	0.54 U	0.54 U	1.1 U	
	SMW011102015	Normal		11/3/2015	NA	NA	0.52 U	31 U	4.2 U	31 U	0.52 U	2.1 U	1.0 U	0.52 U	0.52 U	0.52 U	1.0 U	
TMW03	TMW03042017	Normal	North Alluvial	4/24/2017	NA	NA	0.50 U	30 U	4.0 U	30 U	0.50 U	2.0 U	0.99 U	0.50 U	0.50 U	0.50 U	0.99 U	
	TMW03102016	Normal		10/31/2016	NA	NA	0.55 U	40 J	24 J	12 U	0.54 U	2.2 U	1.1 U	0.54 U	0.54 U	0.36 J	1.1 U	
	TMW03042016	Normal		4/8/2016	NA	NA	0.52 U	48 J	4.1 U	31 U	0.52 U	2.1 U	1.0 U	0.52 U	0.52 U	0.52 U	1.0 U	
	TMW03102015	Normal		11/4/2015	NA	NA	0.56 U	28 J	4.5 U	33 U	0.56 U	2.2 U	1.1 U	0.56 U	0.56 U	0.56 U	1.1 U	
TMW07	TMW07042017	Normal	North Alluvial	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	0.98 U	
	TMW07102016	Normal		10/27/2016	NA	NA	0.52 U	31 U	4.1 U	31 U	0.52 U	2.3	1.0 U	0.52 U	0.52 U	0.52 U	1.0 U	
	TMW07042016	Normal		4/8/2016	NA	NA	0.53 U	31 U	4.2 U	31 U	0.52 U	1.1 J	1.0 U	0.52 U	0.52 U	0.52 U	1.0 U	
	TMW07102015	Normal		10/30/2015	NA	NA	0.48 U	28 U	3.8 U	11 J	0.47 U	4.3 J	0.95 U	0.47 U	0.47 U	0.47 U	0.95 U	
TMW08	TMW08042017	Normal	North Alluvial	4/21/2017	40 U	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	TMW08102016	Normal		11/1/2016	39 J	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	DTW08102016	Duplicate		11/1/2016	37 J	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	TMW08042016	Normal		4/12/2016	50 U	100 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TMW08102015	Normal	11/5/2015	110 U	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
TMW22	TMW22042017	Normal	North Alluvial	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	1.1 U	
	TMW22102016	Normal		10/27/2016	NA	NA	0.55 U	33 U	4.4 U	33 U	0.54 U	1.9 J	1.1 U	0.54 U	0.54 U	0.54 U	1.1 U	
	TMW22042016	Normal		4/8/2016	NA	NA	0.52 U	11 J	4.1 U	31 U	0.52 U	0.78 J	1.0 U	0.52 U	0.52 U	0.52 U	1.0 U	
	TMW22102015	Normal		10/29/2015	NA	NA	0.53 U	25 J	4.2 U	12 J	0.52 U	2.1 U	1.0 U	0.52 U	0.52 U	0.52 U	1.0 U	
TMW31S	TMW31S042017	Normal	North Alluvial	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	1.1 U	
	TMW31S102016	Normal		10/27/2016	NA	NA	0.50 U	30 U	4.0 U	30 U	0.50 U	1.1 J	0.99 U	0.50 U	0.50 U	0.50 U	0.99 U	
	TMW31S042016	Normal		4/6/2016	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	1.1 U	
	TMW31S102015	Normal		10/29/2015	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	0.97 U	

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## Summary of Semivolatile Organic Compounds and Total Petroleum Hydrocarbons Analytical Results (Page 4 of 7)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method SW8015C (µg/L)		EPA Method SW8270D (µg/L)											
					Diesel Range Organics CAS DRO	Gasoline Range Organics CAS GRO	1,2-Diphenylhydrazine CAS 122-66-7	2,4-Dinitrophenol CAS 51-28-5	4-Nitrophenol CAS 100-02-7	Benzoic acid CAS 65-85-0	Benzyl alcohol CAS 100-51-6	Bis(2-ethylhexyl) phthalate CAS 117-81-7	Diethyl phthalate CAS 84-66-2	Dimethyl phthalate CAS 131-11-3	Fluoranthene CAS 206-44-0	Isophorone CAS 78-59-1	Phenanthrene CAS 85-01-8	
					Regulatory Limit													
					NE	NE	0.78 <sup>c</sup>	39 <sup>c</sup>	NE	7500 <sup>c</sup>	2000 <sup>c</sup>	6 <sup>b</sup>	15000 <sup>c</sup>	NE	800 <sup>c</sup>	780 <sup>c</sup>	NE	
TMW33	TMW33042017	Normal	North Alluvial	4/20/2017	46 J	15 J	0.52 U	31 U	4.1 U	31 U	0.51 U	2.0 U	1.0 U	0.51 U	0.51 U	0.51 U	1.0 U	
	TMW33102016	Normal		10/28/2016	62 U	25 UJ	0.51 U	30 U	4.0 U	30 U	0.50 U	2.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	
	TMW33042016	Normal		4/7/2016	85 U	100 U	0.50 U	30 U	4.0 U	30 U	0.50 U	2.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	
	TMW33102015	Normal		10/30/2015	100 J	14 J	0.49 UJ	29 UJ	3.9 UJ	10 J	0.49 UJ	2.0 UJ	0.98 UJ	0.49 UJ	0.49 UJ	0.49 UJ	0.98 UJ	
TMW34	TMW34042017	Normal	North Alluvial	4/24/2017	120 U	25 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	DTW34042017	Duplicate		4/24/2017	32	25 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	TMW34102016	Normal		11/1/2016	120 U	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	TMW34042016	Normal		4/12/2016	130 U	100 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	DTW34042016	Duplicate		4/12/2016	130 U	100 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	TMW34102015	Normal		11/3/2015	130 U	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	DTW34102015	Duplicate		11/3/2015	140 U	25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TMW35	TMW35042017	Normal	North Alluvial	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	1.1 U	
	TMW35102016	Normal		10/31/2016	51 J	25 U	0.55 U	32 U	4.3 U	20 U	0.54 U	2.2 U	1.1 U	0.54 U	0.54 U	0.54 U	1.1 U	
	DTW35102016	Duplicate		10/31/2016	49 J	25 U	0.55 U	33 U	4.4 U	21 U	0.55 U	2.2 U	1.1 U	0.55 U	0.55 U	0.55 U	1.1 U	
	TMW35042016	Normal		4/11/2016	39 J	100 U	0.55 U	33 U	4.4 U	33 U	0.54 U	2.2 U	0.44 J	0.54 U	0.54 U	0.54 U	1.1 U	
	TMW35102015	Normal		11/2/2015	76 J	25 U	0.51 U	30 U	4.0 U	30 U	0.51 U	2.0 U	1.0 U	0.51 U	0.51 U	0.51 U	1.0 U	
TMW39S	TMW39S042017	Normal	North Alluvial	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	1.1 U	
	TMW39S102016	Normal		10/27/2016	NA	NA	0.51 U	30 U	4.0 U	30 U	0.50 U	1.1 J	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	
	TMW39S042016	Normal		4/6/2016	NA	NA	0.51 U	30 U	4.1 U	10 J	0.51 U	2.0 U	1.0 U	0.51 U	0.51 U	0.51 U	1.0 U	
	TMW39S102015	Normal		10/29/2015	NA	NA	0.51 U	30 U	4.0 U	30 U	0.50 U	2.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	
TMW40S	TMW40S042017	Normal	North Alluvial	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	1.1 U	
	TMW40S102016	Normal		10/2016	Well dry this event													
	TMW40S042016	Normal		4/11/2016	NA	NA	0.51 U	16 J	4.0 U	30 U	0.50 U	2.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	
	TMW40S102015	Normal		10/29/2015	NA	NA	0.53 U	19 J	4.2 U	31 U	0.52 U	2.1 U	1.0 U	0.52 U	0.52 U	0.52 U	1.0 U	
TMW41	TMW41042017	Normal	North Alluvial	4/19/2017	NA	NA	0.51 U	31 U	4.1 U	31 U	0.51 U	2.0 U	1.0 U	0.51 U	0.51 U	0.51 U	1.0 U	
	TMW41102016	Normal		10/27/2016	NA	NA	0.53 U	32 U	4.2 U	32 U	0.53 U	1.0 J	1.1 U	0.53 U	0.53 U	0.53 U	1.1 U	
	TMW41042016	Normal		4/7/2016	NA	NA	0.57 U	34 U	4.5 U	34 U	0.56 U	1.1 J	1.1 U	0.56 U	0.56 U	0.56 U	1.1 U	
	TMW41102015	Normal		10/29/2015	NA	NA	0.52 U	31 U	4.1 U	12 J	0.51 U	2.0 U	1.0 U	0.51 U	0.51 U	0.51 U	1.0 U	



TABLE 5-6

## Summary of Semivolatile Organic Compounds and Total Petroleum Hydrocarbons Analytical Results (Page 5 of 7)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method SW8015C (µg/L)		EPA Method SW8270D (µg/L)										
					Diesel Range Organics CAS DRO	Gasoline Range Organics CAS GRO	1,2-Diphenylhydrazine CAS 122-66-7	2,4-Dinitrophenol CAS 51-28-5	4-Nitrophenol CAS 100-02-7	Benzoic acid CAS 65-85-0	Benzyl alcohol CAS 100-51-6	Bis(2-ethylhexyl) phthalate CAS 117-81-7	Diethyl phthalate CAS 84-66-2	Dimethyl phthalate CAS 131-11-3	Fluoranthene CAS 206-44-0	Isophorone CAS 78-59-1	Phenanthrene CAS 85-01-8
					NE	NE	0.78 <sup>c</sup>	39 <sup>c</sup>	NE	7500 <sup>c</sup>	2000 <sup>c</sup>	6 <sup>b</sup>	15000 <sup>c</sup>	NE	800 <sup>c</sup>	780 <sup>c</sup>	NE
TMW43	TMW43042017	Normal	North Alluvial	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	1.1 U
	DTW43042017	Duplicate		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	1.1 U
	TMW43102016	Normal		11/3/2016	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	1.1 U
	DTW43102016	Duplicate		11/3/2016	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	1.1 U
	TMW43042016	Normal		4/13/2016	NA	NA	0.48 U	29 U	3.8 U	29 U	0.48 U	1.9 U	0.95 U	0.48 U	0.48 U	0.48 U	0.95 U
	DTW43042016	Duplicate		4/13/2016	NA	NA	0.51 U	30 U	4.0 U	30 U	0.50 U	2.0 U	1.0 U	0.50 U	0.50 U	0.21	0.26 J
	TMW43102015	Normal		11/3/2015	NA	NA	0.50 U	30 U	3.9 U	30 U	0.30 J	2.0 U	0.98 U	0.49 UJ	0.49 UJ	0.49 UJ	0.98 UJ
	DTW43102015	Duplicate		11/3/2015	NA	NA	0.51 U	30 U	4.0 U	30 U	0.50 UJ	2.0 U	1.0 U	0.23 J	0.21 J	0.21 J	0.26 J
TMW44	TMW44042017	Normal	North Alluvial	4/19/2017	NA	NA	0.60 U	12 J	4.8 U	36 U	0.60 U	2.4 U	1.2 U	0.60 U	0.60 U	0.60 U	1.2 U
	TMW44102016	Normal		10/27/2016	NA	NA	0.52 U	31 U	4.2 U	31 U	0.52 U	2.2 J	1.0 U	0.52 U	0.52 U	0.52 U	1.0 U
	TMW44042016	Normal		4/8/2016	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	1.1 U
	TMW44102015	Normal		10/29/2015	NA	NA	0.48 U	29 U	3.8 U	11 J	0.48 U	1.9 U	0.95 U	0.48 U	0.48 U	0.48 U	0.95 U
TMW45	TMW45042017	Normal	North Alluvial	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	1.1 U
	TMW45102016	Normal		11/4/2016	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	1.1 U
	DTW45102016	Duplicate		11/4/2016	NA	NA	0.54 U	32 U	4.3 U	32 U	0.54 U	2.3 J	1.1 U	0.54 U	0.54 U	0.54 U	1.1 U
	TMW45042016	Normal		4/14/2016	NA	NA	0.58 U	35 U	4.6 U	12 J	0.58 U	2.3 U	1.2 U	0.58 U	0.58 U	0.58 U	1.2 U
	TMW45102015	Normal		11/3/2015	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	1.1 U
TMW46	TMW46042017	Normal	North Alluvial	4/20/2017	NA	NA	0.51 U	31 U	4.1 U	31 U	0.51 U	2.0 U	1.0 U	0.51 U	0.51 U	0.51 U	1.0 U
	TMW46102016	Normal		10/28/2016	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	1.1 U
	TMW46042016	Normal		4/7/2016	NA	NA	0.60 U	35 U	4.7 U	35 U	0.59 U	0.84 J	1.2 U	0.59 U	0.59 U	0.59 U	1.2 U
	TMW46102015	Normal		10/29/2015	NA	NA	0.52 U	31 U	4.1 U	31 U	0.51 U	2.0 U	1.0 U	0.51 U	0.51 U	0.51 U	1.0 U
TMW14A <sup>d</sup>	TMW14A042017	Normal	North Bedrock	4/27/2017	NA	NA	0.52 U	31 U	4.1 U	31 U	0.51 U	2.1 U	1.0 U	0.51 U	0.51 U	0.51 U	1.0 U
	TMW14A102016	Normal		11/3/2016	NA	NA	0.53 U	31 U	4.2 U	31 U	0.52 U	2.1 U	1.0 U	0.52 U	0.52 U	0.52 U	1.0 U
	TMW14A042016	Normal		4/14/2016	NA	NA	0.40 J	31 U	4.2 U	31 U	0.36 J	2.1 U	0.46 J	0.45 J	0.46 J	0.38 J	0.57 J
	TMW14A102015	Normal		11/3/2015	NA	NA	0.51 U	31 U	4.1 U	31 U	0.51 U	2.0 U	1.0 U	0.51 U	0.51 U	0.51 U	1.0 U
TMW16	TMW16042017	Normal	North Bedrock	4/20/2017	NA	NA	0.52 U	31 U	4.1 U	31 U	0.51 U	2.1 U	1.0 U	0.51 U	0.51 U	0.51 U	1.0 U
	TMW16102016	Normal		10/28/2016	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	1.1 U
	TMW16042016	Normal		4/7/2016	NA	NA	0.48 U	29 U	3.8 U	29 U	0.48 U	1.9 U	0.95 U	0.48 U	0.48 U	0.48 U	0.95 U
	TMW16102015	Normal		10/28/2015	NA	NA	0.50 U	30 U	3.9 U	30 U	0.49 U	2.0 U	0.87 J	0.49 U	0.49 U	0.49 U	0.99 U

TABLE 5-6

## Summary of Semivolatile Organic Compounds and Total Petroleum Hydrocarbons Analytical Results (Page 6 of 7)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method SW8015C (µg/L)		EPA Method SW8270D (µg/L)											
					Diesel Range Organics CAS DRO	Gasoline Range Organics CAS GRO	1,2-Diphenylhydrazine CAS 122-66-7	2,4-Dinitrophenol CAS 51-28-5	4-Nitrophenol CAS 100-02-7	Benzoic acid CAS 65-85-0	Benzyl alcohol CAS 100-51-6	Bis(2-ethylhexyl) phthalate CAS 117-81-7	Diethyl phthalate CAS 84-66-2	Dimethyl phthalate CAS 131-11-3	Fluoranthene CAS 206-44-0	Isophorone CAS 78-59-1	Phenanthrene CAS 85-01-8	
					Regulatory Limit													
					NE	NE	0.78 <sup>c</sup>	39 <sup>c</sup>	NE	7500 <sup>c</sup>	2000 <sup>c</sup>	6 <sup>b</sup>	15000 <sup>c</sup>	NE	800 <sup>c</sup>	780 <sup>c</sup>	NE	
TMW18	TMW18042017	Normal	North Bedrock	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	1.1 U	
	TMW18102016	Normal		10/28/2016	NA	NA	0.53 U	31 U	4.2 U	31 U	0.52 U	2.1 J	1.0 U	0.52 U	0.52 U	0.52 U	1.0 U	
	TMW18042016	Normal		4/7/2016	NA	NA	0.51 U	30 U	4.0 U	30 U	0.51 U	2.7 J	1.0 U	0.51 U	0.51 U	0.51 U	1.0 U	
	TMW18102015	Normal		10/29/2015	NA	NA	0.51 U	30 U	4.0 U	30 U	0.50 U	6.2 J	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	
TMW19	TMW19042017	Normal	North Bedrock	4/20/2017	NA	NA	0.52 U	31 U	4.1 U	31 U	0.51 U	2.0 U	1.0 U	0.51 U	0.51 U	0.51 U	1.0 U	
	TMW19102016	Normal		10/28/2016	NA	NA	0.53 U	31 U	4.2 U	31 U	0.52 U	2.1 U	1.0 U	0.52 U	0.52 U	0.52 U	1.0 U	
	DTW19102016	Duplicate		10/28/2016	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	1.1 U	
	TMW19042016	Normal		4/7/2016	NA	NA	0.49 U	29 U	3.9 U	29 U	0.49 U	9.2 J	0.98 U	0.49 U	0.49 U	0.49 U	0.98 U	
	TMW19102015	Normal		10/28/2015	NA	NA	0.51 U	30 U	4.0 U	30 U	0.50 U	2.0 U	0.98 J	0.50 U	0.50 U	0.50 U	1.0 U	
TMW30	TMW30042017	Normal	North Bedrock	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	1.1 U	
	TMW30102016	Normal		10/27/2016	NA	NA	0.51 U	30 U	4.0 U	30 U	0.50 U	1.9 J	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	
	TMW30042016	Normal		4/7/2016	NA	NA	0.58 U	34 U	4.6 U	34 U	0.57 U	1.1 J	1.1 U	0.57 U	0.57 U	0.57 U	1.1 U	
	TMW30102015	Normal		10/29/2015	NA	NA	0.52 U	31 U	4.1 U	31 U	0.51 U	2.1 U	1.0 U	0.51 U	0.51 U	0.51 U	1.0 U	
TMW31D	TMW31D042017	Normal	North Bedrock	4/27/2017	NA	NA	0.52 U	31 U	4.1 U	31 U	0.51 U	2.1 U	1.0 U	0.51 U	0.51 U	0.51 U	1.0 U	
	DTW31D042017	Duplicate		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	1.1 U	
	TMW31D102016	Normal		10/31/2016	NA	NA	0.50 U	29 U	3.9 U	29 U	0.49 U	0.82 J	0.98 U	0.49 U	0.49 U	0.49 U	0.98 U	
	DTW31D102016	Duplicate		10/31/2016	NA	NA	0.51 U	30 U	4.0 U	30 U	0.50 U	2.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	
	TMW31D042016	Normal		4/13/2016	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	1.1 U	
	DTW31D042016	Duplicate		4/13/2016	NA	NA	0.58 U	35 U	4.6 U	35 U	0.58 U	2.3 U	1.2 U	0.58 U	0.58 U	0.58 U	1.2 U	
	TMW31D102015	Normal		11/5/2015	NA	NA	0.52 U	31 U	4.1 U	31 U	0.52 U	2.1 U	1.0 U	0.52 U	0.52 U	0.52 U	1.0 U	
	DTW31D102015	Duplicate		11/5/2015	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	1.1 U	
TMW36	TMW36042017	Normal	North Bedrock	4/20/2017	NA	NA	0.51 U	30 U	4.0 U	30 U	0.50 U	0.65 J	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	
	TMW36102016	Normal		10/27/2016	NA	NA	0.51 U	30 U	4.0 U	30 U	0.50 U	4.4 J	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	
	TMW36042016	Normal		4/7/2016	NA	NA	0.50 U	30 U	4.0 U	30 U	0.49 U	2.0 U	0.99 U	0.49 U	0.49 U	0.49 U	0.99 U	
	TMW36102015	Normal		10/28/2015	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	1.1 U	
TMW37	TMW37042017	Normal	North Bedrock	4/20/2017	NA	NA	0.51 U	30 U	4.0 U	30 U	0.50 U	2.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	
	TMW37102016	Normal		10/27/2016	NA	NA	0.52 U	31 U	4.1 U	31 U	0.52 U	1.1 J	1.0 U	0.52 U	0.52 U	0.52 U	1.0 U	
	TMW37042016	Normal		4/7/2016	NA	NA	0.51 U	30 U	4.0 U	30 U	0.50 U	2.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	
	TMW37102015	Normal		10/28/2015	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	1.1 U	

TABLE 5-6

## Summary of Semivolatile Organic Compounds and Total Petroleum Hydrocarbons Analytical Results (Page 7 of 7)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method SW8015C (µg/L)		EPA Method SW8270D (µg/L)										
					Diesel Range Organics CAS DRO	Gasoline Range Organics CAS GRO	1,2-Diphenylhydrazine CAS 122-66-7	2,4-Dinitrophenol CAS 51-28-5	4-Nitrophenol CAS 100-02-7	Benzoic acid CAS 65-85-0	Benzyl alcohol CAS 100-51-6	Bis(2-ethylhexyl) phthalate CAS 117-81-7	Diethyl phthalate CAS 84-66-2	Dimethyl phthalate CAS 131-11-3	Fluoranthene CAS 206-44-0	Isophorone CAS 78-59-1	Phenanthrene CAS 85-01-8
					Regulatory Limit												
NE	NE	0.78 <sup>c</sup>	39 <sup>c</sup>	NE	75000 <sup>c</sup>	2000 <sup>c</sup>	6 <sup>b</sup>	15000 <sup>c</sup>	NE	800 <sup>c</sup>	780 <sup>c</sup>	NE					
TMW38	TMW38042017	Normal	North Bedrock	4/26/2017	NA	NA	0.51 U	30 U	4.0 U	30 U	0.50 U	2.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U
	TMW38102016	Normal		11/4/2016	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	1.1 U
	TMW38042016	Normal		4/14/2016	NA	NA	0.52 U	31 U	4.1 U	31 U	0.51 U	3.0 J	1.0 U	0.51 U	0.51 U	0.51 U	1.0 U
	TMW38102015	Normal		11/6/2015	NA	NA	0.52 U	31 U	4.1 U	11 J	0.52 U	2.1 U	1.0 U	0.52 U	0.52 U	0.52 U	1.0 U
TMW49	TMW49042017	Normal	North Bedrock	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	1.1 U
	TMW49102016	Normal		11/2/2016	NA	NA	0.51 U	31 U	4.1 U	31 U	0.51 U	2.0 U	1.0 U	0.51 U	0.51 U	0.51 U	1.0 U
	TMW49042016	Normal		4/14/2016	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	1.1 U
	TMW49102015	Normal		11/5/2015	NA	NA	0.55 U	33 U	4.3 U	33 U	0.54 U	2.2 U	1.1 U	0.54 U	0.54 U	0.54 U	1.1 U

Notes:

<sup>a</sup> New Mexico Water Quality Control Commission Standard - New Mexico Administrative Code Title 20, Chapter 6, Part 2, Section 3103.<sup>b</sup> EPA Maximum Contaminant Level - Code of Federal Regulations Title 40, Parts 141, 142, and 143.<sup>c</sup> EPA Regional Screening Levels (EPA, 2017).<sup>d</sup> Detections in April 2016 at TMW14A are not presented for anomalous results. The April 2016 sample reported detections at the reporting limit for chlorophenols and polyaromatic hydrocarbons inconsistent with historical data and were not detected in subsequent samples at any locations.**Bold indicates analyte was positively detected above regulatory limits.**

If no detection occurred for total petroleum hydrocarbons or semivolatile organic compounds in the past four events, no non-detect or historical data are presented. Anomalous detections in April 2016 at TMW35 and TMW14A. These samples reported detections at the reporting limit for a majority of chlorophenols and polyaromatic hydrocarbons which were not detected in any other samples and were not detected in subsequent samples.

CAS = Chemical Abstracts Service (registry number)

DRO = diesel range organic compounds

EPA = U.S. Environmental Protection Agency

GRO = gasoline range organic compounds

µg/L = microgram(s) per liter

NA = not analyzed

NE = not established

J = analyte was positively identified; reported value is estimated.

U = non-detected result reported at the limit of detection.

UJ = analyte was not detected; however, the result is estimated because of discrepancies.

TABLE 5-7

## Summary of Dissolved Metals Analytical Detections (Page 1 of 6)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Methods 6010C/6020A (µg/L)																				EPA Method 7470A (µg/L)		
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6
					Regulatory Limit																						
					5000 <sup>a</sup>	6 <sup>b</sup>	10 <sup>b</sup>	1000 <sup>a</sup>	4 <sup>b</sup>	5 <sup>b</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	1000 <sup>a</sup>	300 <sup>b</sup>	50 <sup>a</sup>	NE	50 <sup>b</sup>	200 <sup>a</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	NE	2 <sup>b</sup>	86 <sup>c</sup>	5000 <sup>b</sup>	2 <sup>b</sup>
BGMW01	BGMW01042017	Normal	North Alluvial	4/24/2017	70 U	0.53 J	0.73 J	17 J	0.30 UJ	1.0 U	42000	1.8 U	0.24 J	0.62 J	85 U	0.70 UJ	24000	160 J	1.2 J	2400 J	2.0 U	0.10 UJ	810000	0.20 U	1.2 J	8.0 UJ	0.080 UJ
	BGMW01102016	Normal		11/2/2016	70 U	1.0 U	0.68 J	15	0.30 U	1.0 U	39000	1.8 U	0.26 J	1.1 J	85 U	0.70 U	23000	180	1.2 J	400 J	2.0 U	0.10 U	830000	0.20 U	1.3 J	3.4 J	0.080 U
	BGMW01042016	Normal		4/15/2016	70 U	1.0 U	0.80 J	16	0.30 U	1.0 U	42000	1.8 U	0.29 J	1.3 J	85 U	0.70 U	23000	170	1.6 J	1500 U	2.0 U	0.10 U	520000	0.20 U	1.7 J	3.4 U	0.080 U
	BGMW01102015	Normal		11/5/2015	150 U	1.0 U	0.74 J	14	0.30 U	1.0 U	38000	1.8 U	0.30 J	1.8 U	25 J	0.70 U	23000	160	1.7 J	670 J	2.0 U	0.055 J	750000	0.20 U	1.4 J	8.0 U	0.080 U
BGMW02	BGMW02042017	Normal	North Alluvial	4/21/2017	26 J	1.0 U	0.76 J	15	0.30 U	1.0 U	75000	3.9 J	0.082 J	0.67 J	85 U	0.70 U	120000	67	0.48 J	930 J	65	0.10 U	960000	0.20 U	5.1 J	8.0 U	0.080 U
	BGMW02102016	Normal		11/2/2016	68 J	1.0 U	0.70 J	16	0.30 U	1.0 U	77000	1.8 U	0.11 J	0.91 J	42 J	0.70 U	110000	63	1.1 J	540 J	65	0.10 U	1000000	0.20 U	6.6	5.8 J	0.080 U
	BGMW02042016	Normal		4/14/2016	70 U	1.0 U	0.87 J	16	0.30 U	1.0 U	83000	1.8 U	0.066 J	0.90 J	85 U	0.70 U	110000	75	0.57 J	1600 U	67	0.10 U	980000	0.20 U	6.6	8.0 U	0.080 U
	BGMW02102015	Normal		11/5/2015	150 U	1.0 U	0.92 J	17	0.30 U	1.0 U	89000	1.8 U	0.20 U	1.4 J	50 U	0.70 U	120000	71	1.2 J	930 J	66	0.10 U	980000	0.20 U	6.6	2.0 J	0.080 U
BGMW03	BGMW03042017	Normal	North Alluvial	4/20/2017	60 J	1.0 U	1.9 J	36	0.30 U	1.0 U	100000	1.8 U	0.31 J	2.3	130	0.70 U	23000	96 J	1.1 J	2600 J	26 J	0.10 U	720000	0.20 U	11	2.7 U	0.080 UJ
	BGMW03102016	Normal		10/28/2016	70 U	1.0 U	1.5 J	27	0.30 U	1.0 U	82000	1.8 U	0.21 J	1.4 J	85 U	0.70 U	18000	31	1.8 U	2100 J	30	0.10 U	760000	0.20 U	9.1	2.3 U	0.080 U
	BGMW03042016	Normal		4/8/2016	230 J	1.0 U	1.1 J	36	0.30 U	1.0 U	97000	0.73 J	0.34 J	1.3 J	150	0.19 J	19000	58	0.86 J	3300	23	0.10 UJ	710000	0.20 U	6.9	2.3 J	0.080 U
	BGMW03102015	Normal		10/30/2015	70 U	1.0 U	2.3 J	23	0.30 U	1.0 U	55000	0.61 J	0.18 J	3.3	85 U	0.70 U	13000	11 J	1.4 J	1900 J	38	0.10 U	760000	0.20 U	12	8.0 U	0.027 J
FW31	FW31042017	Normal	North Alluvial	4/17/2017	70 U	1.0 U	7.4	14 J	0.30 U	1.0 U	8200	1.3 J	0.20 U	0.85 U	85 U	0.70 U	2700	0.95 UJ	1.0 U	2600 J	2.0 U	0.10 U	570000	0.20 U	13	2.0 U	0.080 U
	FW31102016	Normal		10/26/2016	70 U	1.0 U	6.4	11	0.30 U	1.0 U	6000	0.51 J	0.20 U	2.0 J	85 U	0.43 J	2400	1.1 J	1.0 U	1500 J	2.0 U	0.10 U	520000 J	0.20 U	9.7	4.1 U	0.080 U
	FW31042016	Normal		4/7/2016	70 U	0.74 U	6.8	13 J	0.16 J	1.0 U	6600	0.72 J	0.20 U	1.4 J	85 U	0.70 U	2300	1.2 U	0.46 J	1500 J	2.0 U	0.10 U	540000	0.17 U	11	2.6 U	0.080 U
	FW3112015	Normal		11/2/2015	51 J	1.0 U	6.5	15	0.30 U	1.0 U	7100	0.59 J	0.20 U	0.73 J	37 J	0.37 J	2400	4	0.55 U	1600 J	2.0 U	0.10 U	480000	0.20 U	11	3.1 J	0.080 U
MW01	MW01042017	Normal	North Alluvial	4/19/2017	59000	0.70 J	8	450	1.8	1.0 U	63000	28	12	19	40000	18	23000	910	26	14000 J	15	0.089 J	940000	0.37 J	53	190	0.053 J
	MW01102016	Normal		10/27/2016	21 J	1.0 U	0.43 J	17	0.30 U	1.0 U	35000	1.8 U	0.20 U	1.3 J	85 U	0.70 U	8000	2.9 J	0.68 J	320 J	18	0.10 UJ	1100000 J	0.20 U	1.8 J	7.1 J	0.080 U
	MW01042016	Normal		4/6/2016	1800	1.0 U	0.61 J	29	0.083 J	1.0 U	38000	1.1 J	0.44 J	2	990	0.55 J	8500	29 J	1.5 J	1300 J	18	0.10 U	1100000	0.20 U	3.0 J	12 J	0.080 U
	MW01102015	Normal		10/28/2015	5400	1.0 U	1.2 J	59	0.36 J	1.0 U	37000	3.4 J	1.4	3.3	3200	2.0 J	9900	110	3.7	1900 J	17	0.10 U	940000	0.20 U	7.9	24	0.080 U
MW02	MW02042017	Normal	North Alluvial	4/19/2017	70 U	1.0 U	1.0 U	44	0.088 J	1.0 U	120000	1.8 U	0.20 U	0.77 J	85 U	0.70 U	26000	2.4 J	1.0 U	1500 J	12	0.10 U	380000	0.20 U	1.1 J	42	0.080 U
	MW02102016	Normal		10/27/2016	29 J	1.0 U	1.0 U	36	0.30 U	1.0 U	130000	1.8 U	0.071 J	2.7	85 U	0.24 J	30000	1.9 J	0.54 J	600 J	16	0.10 U	470000 J	0.20 U	1.2 J	27	0.080 U
	MW02042016	Normal		4/6/2016	130 J	1.0 U	1.0 U	32	0.30 U	1.0 U	130000	1.8 U	0.087 J	0.81 J	75 J	0.70 U	31000	4.9 J	1.0 U	910 J	15	0.10 U	450000	0.20 U	0.95 J	20	0.080 U
	MW02102015	Normal		10/28/2015	70 U	1.0 U	1.0 U	35	0.30 U	1.0 U	130000	1.8 U	0.20 U	2	85 U	0.70 U	32000	4.4	0.56 J	930 J	15	0.10 U	410000	0.20 U	0.76 J	23	0.080 U
MW03	MW03042017	Normal	North Alluvial	4/21/2017	70 U	1.0 U	0.35 J	9.3	0.30 U	1.0 U	51000	4.5 J	0.11 J	0.71 J	85 U	0.70 U	11000	44	0.69 J	540 J	27	0.039 J	1100000	0.20 U	2.0 U	4.7 J	0.080 U
	MW03102016	Normal		11/3/2016	70 U	0.91 J	0.33 J	9.3	0.30 U	1.0 U	57000	1.8 U	0.13 J	1.5 J	85 U	0.70 U	10000	45	1.5 J	940 J	26	0.061 J	1100000	0.074 J	1.3 J	5.2 J	0.080 U
	MW03042016	Normal		4/12/2016	70 U	1.0 U	1.0 U	8.7	0.30 U	1.0 U	58000	1.8 U	0.092 J	0.92 J	85 U	0.70 U	11000	46	0.85 J	450 J	23	0.10 U	1100000	0.20 U	1.5 J	2.7 J	0.080 U
	MW03102015	Normal		10/30/2015	70 U	1.0 U	0.38 J	7.8	0.30 U	1.0 U	56000	1.8 U	0.086 J	1.2 J	85 U	0.70 U	11000	47 J	0.43 J	500 J	22	0.10 U	1100000	0.20 U	1.1 J	4.5 J	0.080 U
MW18D	MW18D042017	Normal	North Alluvial	4/20/2017	70 U	1.1 J	0.99 J	18	0.30 U	1.0 U	67000	1.8 U	0.70 J	3.9	85 U	1.0 J	18000	620 J	4.6	5300 J	1.1 J	0.10 U	2000000	0.20 U	25	470	0.080 UJ
	MW18D102016	Normal		10/28/2016	25 J	0.78 J	1.2 J	18	0.30 U	1.0 U	61000	1.8 U	0.72 J	3.4	85 U	0.34 J	16000	610	3.0 U	670 J	2.1 U	0.10 U	2200000	0.20 U	23	280	0.080 U
	MW18D042016	Normal		4/12/2016	100 J	0.67 J	1.4 J	18	0.30 U	1.0 U	66000	1.8 U	1.1	4.3	65 J	1.2 J	17000	670	2.7 J	870 J	2.0 U	0.10 U	1900000	0.20 U	22	51	0.080 U
	MW18D102015	Normal		11/2/2015	70 U	0.92 J	1.7 J	17	0.30 U	1.0 U	72000	1.8 U	0.78 J	1.8 J	23 J	0.70 U	19000	580	3.2 U	1700 J	0.82 J	0.039 U	2000000	0.20 U	36	110 J	0.080 U
MW20	MW20042017	Normal	North Alluvial	4/24/2017	70 U	1.0 U	1.0 U	17 J	0.30 UJ	1.0 U	280000	1.8 U	1.1	4.1 J	85 U	0.89 J	59000	1400 J	2.9 J	8800	59	0.10 UJ	3400000	0.20 U	2.0 U	79 J	0.080 UJ
	MW20102016	Normal		11/4/2016	70 UJ	1.0 U	1.0 U	16	0.30 U	1.0 U	310000	1.8 U	1.4	6	53 J	0.70 U	60000	1700	3.5	4100 J	61	0.10 U	3700000	0.20 U	0.65 J	120	0.035 U
	MW20042016	Normal		4/11/2016	70 U	1.0 U	1.0 U	15	0.30 U	1.0 U	330000	1.8 U	1.4	2.3	85 U	0.70 U	70000	1800	3.3	1800 J	65	0.10 U	3700000	0.20 U	0.68 U	100	0.080 U
	MW20102015	Normal		11/2/2015	70 U	1.0 U	1.0 U	15	0.30 U	1.0 U	330000	1.8 U	1.4	2	22 J	0.70 U	76000	1700	3.3 U	3800	75	0.10 U	4100000	0.20 U	2.0 U	80 J	0.080 U
DMW20102015	Duplicate		11/2/2015	70 U	1.0 U	0.43 J	16	0.15 J	1.0 U	310000	1.8 U	1.4	2.2	85 UJ	0.70 U	71000	1700	3.2 U	3700	74	0.10 U	3800000	0.058 U	0.60 J	84 J	0.080 U	
MW22D	MW22D042017	Normal	North Alluvial	4/19/2017	70 U	1.0 U	0.41 J	11	0.30 U	1.0 U	81000	1.8 U	0.16 J	1.8 U	85 U	0.70 U	16000	130	0.77 J	2400 J	36	0.10 U	990000	0.20 U	1.4 J	8.7 J	0.080 U
	MW22D102016	Normal		10/28/2016	70 U	1.0 U	0.34 J	12	0.30 U	1.0 U	82000	1.8 U	0.21 J	1.3 J	85 U	0.70 U	16000	140	1.4 U	410 J	42	0.10 U	1200000	0.20 U	1.5 J	14 U	0.080 U
	MW22D042016	Normal		4/11/2016	70 U	1.0 U	0.33 J	11	0.30 U	1.0 U	83000	1.8 U	0.17 J														

TABLE 5-7

## Summary of Dissolved Metals Analytical Detections (Page 2 of 6)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Methods 6010C/6020A (µg/L)																										EPA Method 7470A (µg/L)
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6				
					Regulatory Limit																										
					5000 <sup>a</sup>	6 <sup>b</sup>	10 <sup>b</sup>	1000 <sup>a</sup>	4 <sup>b</sup>	5 <sup>b</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	1000 <sup>a</sup>	300 <sup>b</sup>	50 <sup>a</sup>	NE	50 <sup>b</sup>	200 <sup>a</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	NE	2 <sup>b</sup>	86 <sup>c</sup>	5000 <sup>b</sup>	2 <sup>b</sup>				
MW23	MW23042017	Normal	North Alluvial	4/18/2017	720 J	1.0 U	1.5 J	140 J	0.12 J	1.0 U	11000	0.61 J	0.97 J	2.8 U	<b>470</b>	0.39 J	5000	<b>72 J</b>	1.8 U	2100 J	2.0 U	0.085 J	470000	0.20 U	7.6	3.9 U	0.080 U				
	DMW23042017	Duplicate		4/18/2017	700 J	1.0 U	1.1 J	140 J	0.17 J	1.0 U	11000	0.74 J	0.88 J	2.5 U	<b>450</b>	0.41 J	5200	<b>68 J</b>	1.7 U	2500 J	2.0 U	0.042 J	500000	0.20 U	6.6	3.2 U	0.080 U				
	MW23102016	Normal		10/27/2016	70 U	1.0 U	1.1 J	180	0.30 U	1.0 U	11000	1.8 U	0.59 J	0.85 J	22 J	0.70 U	5100	<b>68</b>	1.4 J	1200 J	1.5 J	0.10 U	480000 J	0.20 U	3.8 J	3.5 J	0.080 U				
	MW23042016	Normal		4/7/2016	210 J	1.0 U	0.95 J	200 J	0.30 U	1.0 U	12000	1.8 U	0.60 J	1.8 U	220	0.70 U	5600	<b>65</b>	1.5 J	1300 J	2.0 U	0.10 U	530000	0.20 U	3.4 J	2.0 U	0.080 U				
	DMW23042016	Duplicate		4/7/2016	460	1.0 U	1.2 J	210 J	0.30 U	1.0 U	12000	1.8 U	0.75 J	0.71 J	<b>300</b>	0.22 J	5400	<b>69</b>	1.6 J	1300 J	0.75 J	0.10 U	470000	0.20 U	4.2 J	2.1 U	0.080 U				
	MW23102015	Normal		11/6/2015	79 J	1.0 U	1.2 J	140 J	0.30 U	1.0 U	10000	1.8 U	1.2	1.7 J	57 J	0.24 J	4200	<b>83</b>	2.2 J	1400	2.0 U	0.10 U	490000	0.20 U	13	8.0 U	0.080 U				
DMW23102015	Duplicate	11/6/2015	150 UJ	1.0 U	1.2 J	140 J	0.10 J	1.0 U	10000	1.8 U	1.1	2.1	29 J	0.70 U	4400	<b>79</b>	2.9 J	1600	2.0 U	0.10 U	490000	0.20 U	8.5	2.0 J	0.080 U						
MW24	MW24042017	Normal	North Alluvial	4/17/2017	70 U	1.0 U	0.51 J	290 J	0.30 U	1.0 U	33000	1.8 U	0.20 U	1.8 U	<b>1800</b>	0.70 U	11000	<b>450 J</b>	1.0 U	1300 J	2.0 U	0.10 U	270000	0.20 U	2.0 U	8.0 U	0.080 U				
	DMW24042017	Duplicate		4/17/2017	70 U	1.0 U	0.49 J	280 J	0.30 U	1.0 U	34000	1.8 U	0.20 U	1.8 U	<b>1800</b>	0.70 U	11000	<b>450 J</b>	1.0 U	1300 J	2.0 U	0.10 U	270000	0.20 U	2.0 U	8.0 U	0.080 U				
	MW24102016	Normal		10/26/2016	70 U	1.0 U	0.73 J	290	0.30 U	1.0 U	28000	1.8 U	0.059 J	1.8 U	<b>1700 J</b>	0.70 U	11000	<b>430 J</b>	1.0 U	880 J	2.0 U	0.10 U	280000 J	0.20 U	0.70 U	8.0 U	0.080 U				
	DMW24102016	Duplicate		10/26/2016	70 U	1.0 U	0.85 J	280	0.25 J	1.0 U	29000	1.8 U	0.13 J	1.8 U	<b>1700 J</b>	0.70 U	11000	<b>420 J</b>	1.0 U	840 J	2.0 U	0.10 U	290000 J	0.096 U	0.66 U	8.0 U	0.080 U				
	MW24042016	Normal		4/6/2016	70 U	1.0 U	0.72 J	270	0.30 U	1.0 U	35000	1.8 U	0.067 J	1.8 U	<b>1800</b>	0.70 U	11000	<b>440 J</b>	1.0 U	1100 J	2.0 U	0.10 U	270000	0.20 U	0.65 J	8.0 U	0.080 U				
	DMW24042016	Duplicate		4/6/2016	21 J	1.0 U	0.72 J	280	0.30 U	1.0 U	32000	1.8 U	0.070 J	1.8 U	<b>1600</b>	0.70 U	11000	<b>420 J</b>	0.60 J	1100 J	2.0 U	0.10 U	270000	0.20 U	0.62 J	8.0 U	0.080 U				
MW24102015	Normal	11/5/2015	150 U	1.0 U	0.78 J	300	0.30 U	1.0 U	33000	1.8 U	0.20 U	1.8 U	<b>1800</b>	0.70 U	11000	<b>450</b>	1.0 U	1200	2.0 U	0.10 U	260000	0.20 U	2.0 U	8.0 U	0.080 U						
SMW01	SMW01042017	Normal	North Alluvial	4/21/2017	27 J	1.0 U	1.2 J	35	0.30 U	1.0 U	29000	1.8 U	0.19 J	0.87 J	85 U	0.70 U	11000	<b>60</b>	2.3 J	850 J	1.3 J	0.10 U	970000	0.20 U	1.2 J	8.0 U	0.080 U				
	SMW01102016	Normal		11/2/2016	70 U	1.0 U	1.1 J	34	0.30 U	1.0 U	30000	1.8 U	0.17 J	1.3 J	85 U	0.70 U	10000	47	2.4 J	940 U	1.2 U	0.10 U	960000	0.20 U	2.8 J	12 J	0.080 U				
	SMW01042016	Normal		4/8/2016	70 U	1.0 U	1.0 J	32	0.30 U	1.0 U	34000	1.8 U	0.17 J	1.8 U	91 J	0.70 U	11000	<b>92</b>	1.8 J	830 J	2.0 U	0.10 UJ	950000	0.20 U	2.1 J	8.0 U	0.080 U				
	SMW01102015	Normal		11/3/2015	150 U	0.44 J	1.1 J	36	0.30 U	1.0 U	35000	1.8 U	0.10 J	1.3 J	50 U	0.70 U	11000	<b>67</b>	1.6 J	860 J	2.0 U	0.10 U	890000	0.20 U	2.3 J	3.7 J	0.080 U				
TMW01	TMW01042017	Normal	North Alluvial	4/25/2017	70 U	1.0 U	0.76 J	12	0.30 U	1.0 U	110000	1.8 U	0.20 U	4.4	95 U	0.70 U	19000	7.5	1.0 U	1300 J	4.5 J	0.10 U	570000	0.20 U	13	8.0 U	0.080 U				
	TMW01102016	Normal		10/31/2016	70 U	1.0 U	0.69 J	11	0.30 U	1.0 U	100000	1.8 U	0.060 J	4	85 U	0.70 U	19000	8.9	0.48 J	270 J	6	0.10 U	580000	0.20 U	13	8.0 U	0.080 U				
	TMW01042016	Normal		4/8/2016	70 U	1.0 U	0.71 J	11	0.30 U	1.0 U	110000	1.8 U	0.20 U	5.8	85 U	0.70 U	19000	8.7	0.44 J	620 J	5.6	0.10 UJ	590000	0.20 U	12	8.0 U	0.080 U				
	TMW01102015	Normal		11/4/2015	150 U	0.62 J	0.76 J	11	0.27 J	1.0 U	120000	0.64 J	0.12 J	6.8	50 U	0.70 U	20000	9.9	1.1 J	630 J	5.4	0.040 J	560000	0.10 J	13	2.5 J	0.080 U				
TMW03	TMW03042017	Normal	North Alluvial	4/24/2017	70 U	1.0 U	0.57 J	13 J	0.30 UJ	1.0 U	46000	1.8 U	0.086 J	1.3 J	85 U	0.70 UJ	9900	4.9 J	0.87 J	2600 J	<b>57</b>	0.10 UJ	970000	0.20 U	1.8 J	7.1 J	0.080 UJ				
	TMW03102016	Normal		10/31/2016	19 J	1.0 U	0.49 J	13	0.30 U	1.0 U	47000	1.8 U	0.071 J	1.8 U	85 U	0.70 U	10000	4.9	1.3 J	370 J	<b>55</b>	0.10 U	990000	0.20 U	2.0 J	8.5 J	0.080 U				
	TMW03042016	Normal		4/8/2016	70 U	0.55 J	0.54 J	12	0.33 J	1.0 U	50000	1.8 U	0.10 J	0.73 J	85 U	0.70 U	11000	4.9	0.38 J	1100 J	<b>56</b>	0.10 UJ	960000	0.074 J	2.0 J	9.0 J	0.080 U				
	TMW03102015	Normal		11/4/2015	150 U	1.0 U	0.45 J	12	0.30 U	1.0 U	51000	1.8 U	0.064 J	0.96 J	50 U	0.70 U	11000	5.1	1.1 J	990 J	<b>51</b>	0.10 U	930000	0.20 U	2.3 J	8.7 J	0.080 U				
TMW04	TMW04042017	Normal	North Alluvial	4/24/2017	70 U	1.0 U	0.88 J	8.3 J	0.30 UJ	1.0 U	28000	1.5 J	0.20 U	1.8 UJ	85 U	0.70 UJ	5100	0.45 UJ	1.0 U	2600 J	<b>87</b>	0.10 UJ	920000	0.20 U	16	2.5 J	0.080 UJ				
	TMW04102016	Normal		11/3/2016	70 U	1.0 U	1.0 J	7.5	0.30 U	1.0 U	32000	2.6 J	0.20 U	0.83 J	85 U	0.70 U	5600	0.31 J	1.0 U	1700 J	<b>88</b>	0.10 U	890000	0.20 U	16	3.8 J	0.032 U				
	TMW04042016	Normal		4/13/2016	70 U	1.0 U	1.1 J	7.3	0.082 J	1.0 U	33000	2.2 J	0.20 U	1.8 U	85 U	0.70 U	6400	0.47 J	0.40 J	970 J	<b>89</b>	0.10 U	960000	0.20 U	16	5.1 J	0.080 U				
	TMW04102015	Normal		11/4/2015	150 U	1.0 U	0.86 J	7.6	0.30 U	1.0 U	31000	2.4 J	0.20 U	0.90 J	50 U	0.70 U	5500	0.36 J	0.71 J	1200	<b>82</b>	0.10 U	880000	0.20 U	16	4.1 J	0.080 U				
TMW06	TMW06042017	Normal	North Alluvial	4/20/2017	70 U	1.0 U	0.91 J	15	0.30 U	1.0 U	36000	1.8 U	0.20 U	2.2	85 U	0.70 U	7800	27 J	0.68 J	940 J	1.4 J	0.10 U	950000	0.20 U	1.1 J	3.1 U	0.080 UJ				
	TMW06102016	Normal		10/31/2016	24 J	1.0 U	0.84 J	14	0.30 U	1.0 U	32000	1.8 U	0.055 J	1.7 J	85 U	0.70 U	7000	30	0.98 J	280 J	2.0 U	0.10 U	970000	0.20 U	3.1 J	2.3 J	0.080 U				
	TMW06042016	Normal		4/12/2016	70 U	1.0 U	0.86 J	15	0.30 U	1.0 U	34000	1.8 U	0.20 U	2.6	85 U	0.70 U	7500	23	0.53 J	410 J	1.3 J	0.10 U	900000	0.20 U	2.8 J	8.0 U	0.080 U				
	TMW06102015	Normal		11/4/2015	150 U	1.0 U	0.80 J	13	0.30 U	1.0 U	35000	0.66 J	0.054 J	2.8	50 U	0.70 U	7600	31	0.81 J	710 J	1.4 J	0.10 U	910000	0.20 U	3.1 J	3.9 J	0.080 U				
TMW07	TMW07042017	Normal	North Alluvial	4/20/2017	19 J	1.0 U	0.87 J	16	0.089 J	1.0 U	62000	1.8 U	0.57 J	0.61 J	23 U	0.70 U	11000	<b>370 J</b>	3.6	4800 J	2.0 U	0.10 U	1400000	0.20 U	3.6 J	2.5 U	0.080 UJ				
	TMW07102016	Normal		10/27/2016	70 U	1.0 U	1.6 J	20	0.30 U	1.0 U	52000	1.8 U	0.63 J	0.89 J	33 J	0.70 U	9300	<b>380</b>	3.4	4700 J	1.2 J	0.10 U	1300000 J	0.20 U	2.1 J	13 J	0.080 U				
	TMW07042016	Normal		4/8/2016	70 U	1.0 U	1.6 J	20	0.30 U	1.0 U	44000	1.8 U	0.30 J	1.8 U	85 U	0.70 U	8000	<b>270</b>	1.3 J	12000	2.0 U	0.10 UJ	1300000	0.20 U	1.0 J	8.0 U	0.080 U				
	TMW07102015	Normal		10/30/2015	70 U	1.0 U	2.1 J	24	0.30 U	1.0 U	38000	1.8 U	0.37 J	0.64 J	85 U	0.70 U	7800	<b>200 J</b>	2.4 J	12000	2.0 U	0.10 U	1200000	0.20 U	1.5 J	3.2 J	0.080 U				
TMW08	TMW08042017	Normal	North Alluvial	4/21/2017	70 U	1.0 U	0.35 J	10	0.30 U	1.0 U	220000	1.8 U	0.63 J	1.5 J	85 U	0.70 U	73000	<b>390&lt;/</b>													

TABLE 5-7

## Summary of Dissolved Metals Analytical Detections (Page 3 of 6)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Methods 6010C/6020A (µg/L)																							EPA Method 7470A (µg/L)
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6	
					Regulatory Limit																							
5000 <sup>a</sup>	6 <sup>b</sup>	10 <sup>b</sup>	1000 <sup>a</sup>	4 <sup>b</sup>	5 <sup>b</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	1000 <sup>a</sup>	300 <sup>b</sup>	50 <sup>a</sup>	NE	50 <sup>b</sup>	200 <sup>a</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	NE	2 <sup>b</sup>	86 <sup>c</sup>	5000 <sup>b</sup>	2 <sup>b</sup>			
TMW11	TMW11042017	Normal	North Alluvial	4/26/2017	70 U	1.0 U	0.38 J	22	0.30 U	1.0 U	18000	3.2 J	0.080 J	0.92 J	85 U	0.70 U	3100	7.7	1.4 J	770 J	14	0.10 U	560000	0.20 U	2.6 J	3.7 J	0.080 U	
	TMW11102016	Normal		11/3/2016	70 U	1.0 U	0.36 J	25	0.30 U	1.0 U	21000	1.0 J	0.20 U	0.96 J	85 U	0.70 U	3300	1.1 J	1.2 J	890 J	14	0.10 U	610000	0.20 U	4.0 J	3.5 J	0.080 U	
	DTW11102016	Duplicate		11/3/2016	70 U	1.0 U	1.0 U	26	0.30 U	1.0 U	21000	1.2 J	0.20 U	1.8 J	25 J	0.70 U	3400	0.84 J	0.63 J	1100 J	14	0.10 U	620000	0.20 U	4.3 J	5.2 J	0.030 U	
	TMW11042016	Normal		4/11/2016	1200	1.0 U	0.45 J	26	0.30 U	1.0 U	18000	2.1 J	0.24 J	1.8 U	580	0.26 J	3400	12	0.98 J	720 J	15	0.10 U	560000	0.20 U	3.4 U	4.6 J	0.080 U	
	TMW11102015	Normal		11/5/2015	150 U	1.0 U	0.48 J	30	0.30 U	1.0 U	23000	1.6 J	0.20 U	0.85 J	50 U	0.70 U	3900	4.8	1.6 J	670 J	14	0.10 U	660000	0.20 U	3.7 J	2.9 J	0.080 U	
TMW13	TMW13042017	Normal	North Alluvial	4/25/2017	70 U	1.0 U	1.0 U	18	0.30 U	1.0 U	27000	1.8 U	0.20 U	0.65 J	85 U	0.70 U	4800	0.41 J	1.0 U	1600 J	11	0.10 U	560000	0.20 U	1.9 J	8.0 U	0.080 U	
	TMW13102016	Normal		11/1/2016	70 U	1.0 U	1.0 U	18	0.30 U	1.0 U	27000	0.64 J	0.20 U	0.60 J	85 U	0.70 U	4800	1.9 J	0.76 J	1600 J	12	0.10 U	570000	0.20 U	2.5 J	8.0 U	0.080 U	
	TMW13042016	Normal		4/12/2016	70 U	1.0 U	1.0 U	18	0.30 U	1.0 U	27000	0.59 J	0.20 U	1.8 U	85 U	0.70 U	4900	0.95 U	1.0 U	490 J	11	0.10 U	560000	0.20 U	2.4 J	8.0 U	0.080 U	
	TMW13102015	Normal		11/4/2015	150 U	1.2 J	1.0 U	17	0.30 U	1.0 U	27000	0.69 J	0.20 U	1.8 U	50 U	0.70 U	4900	0.95 U	0.40 J	810 J	11	0.10 U	550000	0.20 U	3.3 J	2.2 J	0.080 U	
TMW15	TMW15042017	Normal	North Alluvial	4/27/2017	70 U	0.84 J	1.0 U	22	0.30 U	1.0 U	18000	0.93 J	0.20 U	1.8 U	30 U	0.70 U	3400	0.74 J	0.70 J	490 J	15	0.10 U	530000	0.20 U	1.9 J	5.7 J	0.080 U	
	DTW15042017	Duplicate		4/27/2017	70 U	1.0 U	1.0 U	22	0.30 U	1.0 U	19000	0.89 J	0.20 U	1.8 U	85 U	0.70 U	3500	0.46 J	1.0 U	400 J	15	0.10 U	530000	0.20 U	1.7 J	6.7 J	0.080 U	
	TMW15102016	Normal		11/2/2016	70 U	1.0 U	1.0 U	22	0.30 U	1.0 U	18000	0.75 J	0.20 U	1.8 U	85 U	0.70 U	3400	0.31 U	0.72 J	400 J	13	0.10 U	570000	0.20 U	1.9 J	6.5 J	0.080 U	
	TMW15042016	Normal		4/13/2016	70 U	1.0 U	1.0 U	22	0.30 U	1.0 U	20000	1.6 J	0.20 U	0.56 J	85 U	0.70 U	3900	0.95 U	0.41 J	630 J	13	0.10 U	600000	0.20 U	1.8 J	6.2 J	0.080 U	
	DTW15042016	Duplicate		4/13/2016	70 U	1.0 U	1.0 U	22	0.30 U	1.0 U	20000	1.1 J	0.20 U	1.8 U	85 U	0.70 U	3900	0.95 U	1.0 U	580 J	13	0.10 U	590000	0.20 U	1.9 J	7.1 J	0.080 U	
	TMW15102015	Normal		11/6/2015	150 U	1.0 U	1.0 U	24 J	0.30 U	1.0 U	21000	0.99 J	0.25 J	1.8 U	50 U	0.70 U	3900	0.95 U	1.0 U	720 J	13	0.10 U	580000	0.20 U	1.9 J	6.6 J	0.080 U	
DTW15102015	Duplicate	11/6/2015	150 U	1.0 U	0.35 J	24 J	0.30 U	1.0 U	21000	0.89 J	0.20 U	0.80 J	50 U	0.70 U	3900	0.95 U	0.46 J	720 J	13	0.10 U	570000	0.20 U	1.5 J	7.7 J	0.080 U			
TMW21	TMW21042017	Normal	North Alluvial	4/26/2017	21 J	0.90 J	0.78 J	19	0.10 J	1.0 U	32000	1.8 U	0.087 J	3	85 U	0.25 U	7000	32	0.66 J	800 J	3.6 J	0.10 U	630000	0.12 U	1.9 J	2.7 J	0.080 U	
	TMW21102016	Normal		10/27/2016	20 J	1.0 U	0.68 J	16	0.30 U	1.0 U	31000	1.8 U	0.088 J	1.7 J	85 U	0.70 U	6600	57	0.55 J	660 J	3.9 J	0.10 U	660000	0.20 U	2.1 J	4.0 J	0.080 U	
	TMW21042016	Normal		4/11/2016	3900	0.93 J	1.6 J	38	0.26 J	1.0 U	36000	3.8 J	1.1	7.7	2300	1.3 J	7700	56	2.5 J	1500 J	4.4 J	0.051 J	630000	0.085 J	7.1 U	7.4 J	0.080 U	
	TMW21102015	Normal		10/29/2015	1300	1.0 U	8.9	480	2.9	0.36 J	33000	24	13	52	890	17	7500	900	26	1200 J	2.7 J	0.36 J	660000	0.31 J	50	87	0.080 U	
TMW22	TMW22042017	Normal	North Alluvial	4/19/2017	820	1.0 U	1.0 J	28	0.10 J	1.0 U	38000	1.5 J	0.25 J	1.6 J	450	0.70 U	12000	19	2.1 J	2500 J	3.0 J	0.10 U	900000	0.20 U	5.7 J	2.2 J	0.080 U	
	TMW22102016	Normal		10/27/2016	210 J	1.0 U	0.83 J	23	0.30 U	1.0 U	34000	2.3 J	0.13 J	4.4	150	0.54 J	10000	6.6	2.2 J	680 J	4.1 J	0.10 U	870000	0.20 U	5.3 J	11 J	0.080 U	
	TMW22042016	Normal		4/8/2016	4900	1.0 U	1.3 J	61	0.21 J	1.0 U	36000	3.4 J	0.95 J	2.1	2300	0.94 J	12000	51	3.6	2100 J	2.3 J	0.10 U	850000	0.20 U	9.2	8.3 J	0.080 U	
	TMW22102015	Normal		10/29/2015	70 U	1.0 U	0.97 J	20	0.30 U	1.0 U	35000	0.53 J	0.11 J	1.3 J	85 U	0.70 U	11000	21	1.4 J	1000 J	2.8 J	0.10 U	910000	0.20 U	5.1 J	8.0 U	0.080 U	
TMW23	TMW23042017	Normal	North Alluvial	4/20/2017	11000	1.0 U	2.5 J	150	0.44 J	1.0 U	22000	8.0 J	2.9	4.8	7300	3.5	7000	180 J	6	3000 J	1.2 J	0.10 U	740000	0.068 J	13	20	0.080 U	
	TMW23102016	Normal		10/28/2016	70 U	1.0 U	1.1 J	19	0.30 U	1.0 U	17000	1.5 J	0.065 J	1.1 J	85 U	0.70 U	4300	3.7	1.4 U	490 J	1.3 U	0.10 U	810000	0.20 U	2.9 J	5.1 U	0.080 U	
	TMW23042016	Normal		4/8/2016	1000	1.0 U	0.93 J	20	0.30 U	1.0 U	36000	0.75 J	0.20 J	0.80 J	590	0.44 J	11000	21	0.83 J	1200 J	2.7 J	0.10 U	780000	0.20 U	4.4 J	2.5 J	0.080 U	
	TMW23102015	Normal		10/30/2015	370	1.0 U	1.7 J	71	0.20 J	1.0 U	19000	4.2 J	1.2	2.7	240	1.4 J	5200	81 J	2.8 J	920 J	2.0 U	0.10 U	820000	0.20 U	8.6	8.2 J	0.080 U	
TMW24	TMW24042017	Normal	North Alluvial	4/25/2017	70 U	1.0 U	0.88 J	39	0.30 U	1.0 U	39000	1.8 U	0.23 J	1.9 J	66 U	0.70 U	9900	140	1.1 U	2800 J	2.0 U	0.10 U	1000000	0.20 U	2.0 U	4.9 J	0.080 U	
	TMW24102016	Normal		11/3/2016	70 U	1.0 U	1.2 J	39	0.30 U	1.0 U	39000	1.8 U	0.21 J	1.1 J	56 J	0.70 U	9200	150	1.6 J	1700 J	2.0 U	0.10 U	1000000	0.20 U	1.7 J	3.1 J	0.080 U	
	TMW24042016	Normal		4/15/2016	70 U	1.0 U	1.3 J	38	0.087 J	1.0 U	36000	1.8 U	0.27 J	1.8 U	59 U	0.70 U	8900	150	1.3 J	1800 U	2.0 U	0.10 U	760000	0.20 U	1.9 J	8.0 U	0.080 U	
	TMW24102015	Normal		11/6/2015	150 U	1.0 U	1.1 J	39 J	0.30 U	1.0 U	37000	1.8 U	0.22 J	0.71 J	49 J	0.70 U	9500	140	2.1 J	730 J	2.0 U	0.10 U	1000000	0.20 U	1.9 J	4.8 J	0.080 U	
TMW25	TMW25042017	Normal	North Alluvial	4/27/2017	70 U	1.0 U	0.65 J	11	0.30 U	1.0 U	51000	1.8 U	0.096 J	1.0 J	85 U	0.70 U	11000	140	1.0 J	430 J	2.0 U	0.10 U	890000	0.20 U	3.3 J	2.5 J	0.080 U	
	TMW25102016	Normal		11/1/2016	23 J	1.0 U	0.64 J	12	0.30 U	1.0 U	52000	5.0 J	0.23 J	1.5 J	41 J	0.70 U	10000	220	1.6 J	1500 J	0.94 J	0.080 J	890000	0.20 U	3.9 J	8.0 U	0.080 U	
	TMW25042016	Normal		4/13/2016	20 J	1.0 U	0.59 J	11	0.30 U	1.0 U	52000	1.8 U	0.092 J	1.0 J	30 J	0.70 U	11000	98 J	1.4 J	580 J	2.0 U	0.077 J	930000	0.20 U	3.6 J	4.3 J	0.080 U	
	TMW25102015	Normal		11/4/2015	150 U	1.0 U	0.52 J	10	0.30 U	1.0 U	55000	1.8 U	0.10 J	1.2 J	50 U	0.70 U	11000	83	1.1 J	910 J	2.0 U	0.10 U	880000	0.20 U	3.8 J	4.1 J	0.080 U	
TMW26	TMW26042017	Normal	North Alluvial	4/20/2017	70 U	1.0 U	1.2 J	18	0.30 U	1.0 U	18000	1.8 U	0.28 J	2.2	85 U	0.70 U	7000	120 J	2.5 J	840 J	2.0 U	0.10 U	830000	0.20 U	1.5 J	2.2 U	0.080 U	
	DTW26042017	Duplicate		4/20/2017	70 U	1.0 U	1.1 J	18	0.30 U	1.0 U	18000	1.8 U	0.28 J	1.9 J	85 U	0.70 U	7100	120 J	2.0 J	850 J	0.70 J	0.10 U	820000	0.20 U	1.6 J	3.7 U	0.080 U	
	TMW26102016	Normal		11/1/2016	19 J	0.83 J	1.3 J	18	0.30 U	1.0 U	18000	1.8 U	0.30 J	2.3	25 J	0.70 U	6500	110	3	770 J	2.0 U	0.036 J	840000	0.20 U	3.4 J	8.0 U	0.080 U	
	TMW26042016	Normal		4/8/2016	29 J	1.0 U	1.1 J	17	0.30 U	1.0 U	19000	1.8 U	0.22 J	1.8 J	85 U	0.41 J	6700	110	2.0 J	920 J	2.0 U	0.10 U	850000	0.20 U	3.2 J	8.0 U	0.080 U	
	DTW26042016	Duplicate		4/8/2016	25 J	1.0 U	1.0 J	16	0.30 U	1.0 U	20000	1.8 U	0.22 J	1.2 J	85 U	0.70 U	7100	100	1.7 J	1100 J	2.0 U	0.10 U	890000	0.20 U	3.2 J	8.0 U	0.080 U	
	TMW26102015	Normal		10/30/2015	70 U	1.0 U	1.2 J	19	0.30 U	1.0 U	18000	1.8 U	0.27 J	2.2	85 U	0.70 U	7300	120 J	1.8 J	390 J	2.0 U	0.10 U	870000	0.20 U	3.5 J	8.0 U	0.032 J	
DTW26102015	Duplicate	10/30/2015	70 U	1.0 U	1.3 J	18	0.083 J	1.0 U	18000	1.8 U	0.32 J	2.2	24 J	0.70 U	7400	120 J	4.1 J	690 J	2.0 U	0.037 U</								

TABLE 5-7

Summary of Dissolved Metals Analytical Detections (Page 4 of 6)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Methods 6010C/6020A (µg/L)																						EPA Method 7470A (µg/L)	
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6		Mercury CAS 7439-97-6
					Regulatory Limit																							
5000 <sup>a</sup>	6 <sup>b</sup>	10 <sup>b</sup>	1000 <sup>a</sup>	4 <sup>b</sup>	5 <sup>b</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	1000 <sup>a</sup>	300 <sup>b</sup>	50 <sup>a</sup>	NE	50 <sup>b</sup>	200 <sup>a</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	NE	2 <sup>b</sup>	86 <sup>c</sup>	5000 <sup>b</sup>	2 <sup>b</sup>			
TMW28	TMW28042017	Normal	North Alluvial	4/24/2017	35 J	1.0 U	1.0 U	57 J	0.30 UJ	1.0 U	250000	1.8 U	0.31 J	1.8 UJ	720	0.70 UJ	68000	940 J	1.0 J	2600 J	2.0 U	0.10 UJ	490000	0.20 U	2.0 U	2.5 J	0.080 UJ	
	TMW28102016	Normal		11/3/2016	70 U	1.0 U	1.0 U	57	0.30 U	1.0 U	110000	1.8 U	0.15 J	1.8 U	350	0.70 U	34000	430	1.4 J	1800 J	2.0 U	0.10 U	340000	0.20 U	0.85 J	2.2 J	0.027 U	
	TMW28042016	Normal		4/11/2016	70 U	1.0 U	1.0 U	53	0.30 U	1.0 U	110000	1.8 U	0.12 J	1.8 U	130	0.70 U	34000	410	0.77 J	1300 J	2.0 U	0.10 U	340000	0.20 U	0.98 U	4.2 J	0.080 U	
	TMW28102015	Normal		11/3/2015	150 U	1.0 U	1.0 U	53	0.30 U	1.0 U	100000	1.8 U	0.090 J	1.8 U	370	0.70 U	31000	380	0.46 J	1200	2.0 U	0.10 U	330000	0.20 U	1.4 J	8.0 U	0.080 U	
TMW29	TMW29042017	Normal	North Alluvial	4/20/2017	7900	1.0 U	2.3 J	110	0.53 J	1.0 U	46000	7.0 J	2.5	3.6	4900	3.1	9500	130 J	5.5	2900 J	22 J	0.036 J	570000	0.059 J	13	18 J	0.080 UJ	
	TMW29102016	Normal		10/28/2016	18 J	1.0 U	0.94 J	17	0.30 U	1.0 U	36000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	6900	2.6 J	0.78 U	810 J	19	0.10 U	600000	0.20 U	4.8 J	3.1 U	0.080 U	
	TMW29042016	Normal		4/7/2016	4400	0.47 U	1.7 J	62 J	0.27 J	1.0 U	41000	3.8 J	1.3	2.2	3000	1.6 J	8000	53	3.2	1900 J	23	0.10 U	610000	0.20 U	9.9	9.3 U	0.080 U	
	TMW29102015	Normal		10/28/2015	4400	1.0 U	1.7 J	54	0.39 J	1.0 U	42000	3.7 J	1.4	2.6	2500	1.8 J	9000	92	3.8	2200 J	19	0.10 U	600000	0.20 U	9.6	8.8 J	0.080 U	
TMW315	TMW315042017	Normal	North Alluvial	4/19/2017	520	1.0 U	1.0 U	21	0.30 U	1.0 U	110000	0.56 J	0.34 J	3.5	280	0.70 U	20000	150	2.0 J	1700 J	9	0.10 U	530000	0.20 U	3.0 J	5.4 J	0.080 U	
	TMW315102016	Normal		10/27/2016	770	0.99 J	0.34 J	21	0.30 U	1.0 U	110000	1.5 J	0.22 J	2.9	370	1.0 J	21000	36	1.7 J	810 J	10	0.10 U	610000 J	0.20 U	3.1 J	9.4 J	0.080 U	
	TMW315042016	Normal		4/6/2016	160 J	0.95 U	1.0 U	16	0.30 U	1.0 U	120000	1.4 J	0.085 J	0.74 J	72 J	0.70 U	20000	20 J	0.52 J	760 J	10	0.10 U	540000	0.20 U	2.2 J	3.1 J	0.080 U	
	TMW315102015	Normal		10/29/2015	70 U	1.0 U	1.0 U	15	0.30 U	1.0 U	120000	1.5 J	0.20 U	1.6 J	27 J	0.70 U	22000	31	0.36 J	800 J	8.8	0.10 U	590000	0.20 U	2.1 J	8.0 U	0.080 U	
TMW33	TMW33042017	Normal	North Alluvial	4/20/2017	86 J	1.0 U	0.81 J	20	0.36 J	1.0 U	110000	0.66 J	0.26 J	3.4	62 U	0.70 U	31000	130 J	2.7 J	6300 J	0.86 J	0.042 J	2500000	0.070 J	2.0 J	3.1 U	0.080 UJ	
	TMW33102016	Normal		10/28/2016	50 J	1.0 U	0.70 J	18	0.30 U	1.0 U	97000	0.61 J	0.18 J	3	34 U	0.70 U	27000	160	2.8 U	700 J	1.6 U	0.10 U	2600000	0.20 U	4.0 J	4.0 U	0.080 U	
	TMW33042016	Normal		4/7/2016	340	1.0 U	0.74 J	21 J	0.12 J	1.0 U	110000	0.77 J	0.29 J	3.4	230	0.18 J	27000	200	2.2 J	1600 J	2.0 U	0.10 U	2200000	0.20 U	4.3 J	4.6 U	0.080 U	
	TMW33102015	Normal		10/30/2015	81 J	1.0 U	0.99 J	31	0.30 U	1.0 U	100000	1.5 J	0.67 J	3.3	77 J	1.2 J	31000	510 J	2.6 J	2000 J	2.0 U	0.085 U	2500000	0.20 U	5.0 J	7.6 J	0.052 J	
TMW34	TMW34042017	Normal	North Alluvial	4/24/2017	70 U	1.0 U	0.33 J	14 J	0.30 UJ	1.0 U	120000	1.8 U	0.14 J	1.8 UJ	85 U	0.70 UJ	24000	130 J	0.53 J	3200	130	0.10 UJ	1400000	0.20 U	1.1 J	8.0 UJ	0.080 UJ	
	DTW34042017	Duplicate		4/24/2017	70 U	1.0 U	1.0 U	12 J	0.30 UJ	1.0 U	120000	1.8 U	0.18 J	1.8 UJ	25 U	0.23 J	27000	140 J	0.56 J	3000	130	0.10 UJ	1400000	0.20 U	1.0 J	8.0 UJ	0.080 UJ	
	TMW34102016	Normal		11/1/2016	70 UJ	1.0 U	0.40 J	11	0.30 U	1.0 U	120000	5.9 J	0.14 J	1.2 J	85 U	0.70 U	24000	140	1.2 J	1800 J	120	0.10 U	1300000 J	0.20 U	1.3 J	8.0 U	0.080 U	
	TMW34042016	Normal		4/12/2016	70 U	1.0 U	1.0 U	13	0.30 U	1.0 U	130000	1.8 U	0.094 J	0.99 J	85 U	0.70 U	27000	140	0.50 J	890 J	120	0.10 U	1400000	0.20 U	1.3 J	8.0 U	0.080 U	
	DTW34042016	Duplicate		4/12/2016	70 U	1.0 U	1.0 U	14	0.30 U	1.0 U	120000	1.8 U	0.10 J	0.86 J	85 U	0.70 U	26000	130	0.50 J	870 J	120	0.10 U	1300000	0.20 U	1.0 J	8.0 U	0.080 U	
	TMW34102015	Normal		11/3/2015	150 U	1.0 U	1.0 UJ	11	0.30 U	1.0 U	130000	1.8 U	0.11 J	0.74 J	50 U	0.70 U	27000	140	0.59 J	1600	110	0.10 U	1400000	0.20 U	1.5 J	8.0 U	0.080 U	
TMW35	DTW34102015	Duplicate		11/3/2015	150 U	1.0 U	0.33 J	11	0.30 U	1.0 U	130000	1.8 U	0.11 J	1.8 UJ	50 U	0.70 U	27000	150	0.48 J	1600	110	0.10 U	1400000	0.20 U	1.3 J	8.0 U	0.080 U	
	TMW35042017	Normal	North Alluvial	4/24/2017	70 U	1.0 U	0.44 J	12 J	0.30 UJ	1.0 U	79000	1.8 U	0.18 J	1.6 J	85 U	0.70 UJ	16000	160 J	1.4 J	2600 J	15	0.10 UJ	1200000	0.20 U	1.8 J	2.5 J	0.080 UJ	
	TMW35102016	Normal		10/31/2016	29 J	1.0 U	0.50 J	12	0.30 U	1.0 U	76000	1.8 U	0.19 J	1.2 J	22 J	0.70 U	14000	150	1.0 J	370 J	16	0.10 UJ	1200000	0.20 U	2.1 J	2.0 J	0.080 U	
	DTW35102016	Duplicate		10/31/2016	70 U	1.0 U	0.51 J	12	0.30 U	1.0 U	77000	1.8 U	0.18 J	1.7 J	85 U	0.70 U	15000	150	1.0 J	400 J	16	0.10 U	1300000	0.20 U	2.0 J	9.6 J	0.080 U	
	TMW35042016	Normal		4/11/2016	70 U	0.47 J	0.50 J	12	0.25 J	1.0 U	80000	1.8 U	0.15 J	2.3	85 U	0.70 U	15000	140	0.86 J	570 J	19	0.10 U	1100000	0.20 U	2.0 U	3.2 J	0.080 U	
TMW35102015	Normal	11/2/2015		70 U	1.0 U	0.35 J	11	0.30 U	1.0 U	80000	1.8 U	0.17 J	1.5 J	36 J	0.70 U	15000	130	1.2 U	920 J	19	0.10 U	1200000	0.20 U	1.9 J	8.0 UJ	0.080 U		
TMW39S	TMW39S042017	Normal	North Alluvial	4/19/2017	70 U	1.0 U	0.49 J	16	0.30 U	1.0 U	81000	2.0 J	0.057 J	0.92 J	85 U	0.70 U	17000	2.3 J	0.87 J	3200 J	14	0.10 U	920000	0.20 U	3.6 J	8.0 U	0.080 U	
	TMW39S102016	Normal		10/27/2016	350	0.40 J	0.50 J	18	0.30 U	1.0 U	71000	1.8 J	0.13 J	3.5	170	1.3 J	15000	7.1	1.4 J	810 J	11	0.10 U	900000 J	0.20 U	4.0 J	8.2 J	0.080 U	
	TMW39S042016	Normal		4/6/2016	14000	1.0 U	1.1 J	120	0.33 J	1.0 U	87000	8.8 J	2.7	4.3	7200	3.2	20000	210 J	6.5	3400	12	0.072 J	1000000	0.061 J	14	15 J	0.080 U	
	TMW39S102015	Normal		10/29/2015	70 U	1.0 U	0.36 J	13	0.30 U	1.0 U	75000	1.8 J	0.20 U	1.2 J	85 U	0.70 U	17000	2.1 J	0.34 J	1200 J	11	0.10 U	940000	0.20 U	3.4 J	8.0 U	0.080 U	
TMW40S	TMW40S042017	Normal	North Alluvial	4/24/2017	73 J	1.2 J	10	27	0.084 J	1.0 U	64000	0.58 J	0.11 J	1.1 J	87 U	0.70 U	10000	15	1.1 U	2700 J	63	0.10 U	920000	0.052 J	35	2.7 J	0.080 U	
	TMW40S102016	Normal		10/2016	Well dry this event																							
	TMW40S042016	Normal		4/11/2016	2900	0.42 J	11	55	0.28 J	1.0 U	64000	1.6 J	0.52 J	1.0 J	1300	2.8 J	11000	57	1.6 J	850 J	68	0.10 U	990000	0.20 U	41	19 J	0.080 U	
	TMW40S102015	Normal		10/28/2015	25000	1.0 U	15	330	3.4	1.0 U	83000	10	4.4	8.5	12000	25	18000	500	11	3000	54	0.048 J	1000000	0.089 J	50	170	0.027 J	
TMW41	TMW41042017	Normal	North Alluvial	4/19/2017	70 U	1.0 U	0.62 J	11	0.30 U	1.0 U	15000	1.2 J	0.20 U	0.56 J	85 U	0.70 U	3700	0.43 U	0.49 J	2500 J	0.97 J	0.10 U	850000	0.20 U	6.8	8.0 U	0.080 U	
	TMW41102016	Normal		10/27/2016	70 U	1.0 U	0.43 J	10	0.30 U	1.0 U	16000	2.1 J	0.20 U	1.4 J	85 U	0.68 J	3900	0.64 J	0.88 J	790 J	1.9 J	0.10 U	930000 J	0.20 U	6.4	4.2 J	0.080 U	
	TMW41042016	Normal		4/7/2016	350	1.0 U	0.50 J	14 J	0.11 J	1.0 U	15000	1.7 J	0.093 J	0.68 J	210	0.70 U	3500	4.2	0.70 J	840 J	1.1 J	0.10 U	780000	0.20 U	6.5	3.2 U	0.080 U	
	TMW41102015	Normal		10/29/2015	70 U	1.0 U	0.73 J	11	0.30 U	1.0 U	16000	1.4 J	0.20 U	0.74 J	85 U	0.70 U	3900	0.34 J	1.0 U	1100 J	1.3 J	0.054 J	930000</					

TABLE 5-7

## Summary of Dissolved Metals Analytical Detections (Page 5 of 6)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Methods 6010C/6020A (µg/L)																												EPA Method 7470A (µg/L)
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Vanadium CAS 7440-62-2	Zinc CAS 7440-56-6	Mercury CAS 7439-97-6						
					Regulatory Limit																												
					5000 <sup>a</sup>	6 <sup>b</sup>	10 <sup>b</sup>	1000 <sup>a</sup>	4 <sup>b</sup>	5 <sup>b</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	1000 <sup>a</sup>	300 <sup>b</sup>	50 <sup>a</sup>	NE	50 <sup>b</sup>	200 <sup>a</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	NE	2 <sup>b</sup>	86 <sup>c</sup>	5000 <sup>b</sup>	2 <sup>b</sup>						
TMW44	TMW44042017	Normal	North Alluvial	4/19/2017	30 J	1.0 U	0.68 J	16	0.30 U	1.0 U	35000	1.8 U	0.20 U	0.80 J	85 U	0.70 U	11000	5.8	0.31 J	1500 J	2.0 J	0.10 U	710000	0.20 U	3.6 J	8.0 U	0.080 U						
	TMW44102016	Normal		10/27/2016	92 J	1.0 U	0.81 J	17	0.30 U	1.0 U	34000	1.8 U	0.064 J	2.9	64 J	0.35 J	11000	3.8	1.4 J	510 J	2.9 J	0.10 U	790000 J	0.20 U	4.2 J	5.9 J	0.080 U						
	TMW44042016	Normal		4/8/2016	130 J	1.0 U	1.1 J	21	0.098 J	1.0 U	18000	0.73 J	0.096 J	1.1 J	72 J	0.70 U	4500	5.2	0.89 J	1100 J	2.0 U	0.10 U	810000	0.20 U	2.8 J	8.0 U	0.080 U						
	TMW44102015	Normal		10/29/2015	70 U	1.0 U	1.1 J	13	0.30 U	1.0 U	36000	1.8 U	0.20 U	1.3 J	85 U	0.70 U	12000	7.7	1.0 U	800 J	2.0 J	0.10 U	820000	0.20 U	3.8 J	8.0 U	0.080 U						
TMW45	TMW45042017	Normal	North Alluvial	4/28/2017	70 U	1.0 U	0.96 J	65	0.30 U	1.0 U	27000	1.8 U	0.060 J	1.6 J	27 U	0.36 J	6900	12	1.1 J	820 J	0.85 U	0.10 U	870000	0.20 U	3.8 J	2.0 J	0.080 U						
	TMW45102016	Normal		11/4/2016	70 U	1.0 U	0.85 J	68	0.30 U	1.0 U	29000	0.88 J	0.057 J	1.8 J	23 J	0.70 U	7100	17	1.7 J	1400 J	0.92 J	0.10 U	960000	0.20 U	4.2 J	8.0 U	0.048 U						
	DTW45102016	Duplicate		11/4/2016	70 U	1.0 U	0.98 J	70	0.30 U	1.0 U	30000	1.8 U	0.20 U	1.7 J	85 U	0.70 U	7200	18	1.2 J	1600 J	1.0 J	0.10 U	970000	0.20 U	4.2 J	8.0 U	0.080 U						
	TMW45042016	Normal		4/14/2016	70 U	1.0 U	0.93 J	69	0.30 U	1.0 U	29000	1.8 U	0.065 J	2	85 U	0.70 U	7000	26	0.97 J	1800 U	0.76 J	0.10 U	740000	0.20 U	4.1 J	4.9 U	0.080 U						
TMW45102015	Normal	11/3/2015	150 U	1.0 U	1.1 J	68	0.30 U	1.0 U	31000	1.8 U	0.086 J	2.9	50 U	0.70 U	7800	52	1.4 J	1300	2.0 U	0.10 U	960000	0.20 U	4.2 J	8.0 U	0.080 U								
TMW46	TMW46042017	Normal	North Alluvial	4/20/2017	29 J	1.0 U	0.38 J	11	0.30 U	1.0 U	82000	1.8 U	0.058 J	1.2 J	23 U	0.70 U	19000	1.3 U	1.0 U	1500 J	130 J	0.10 U	1300000	0.20 U	1.0 J	3.3 U	0.080 U						
	TMW46102016	Normal		10/28/2016	70 U	1.0 U	1.0 U	9.4	0.30 U	1.0 U	74000	1.8 U	0.065 J	1.8 U	32 U	0.70 U	17000	0.85 J	0.79 U	320 J	120	0.10 U	1300000	0.20 U	2.7 J	8.0 U	0.080 U						
	TMW46042016	Normal		4/7/2016	300	1.0 U	1.0 U	15 J	0.30 U	1.0 U	74000	0.71 J	0.14 J	1.1 J	210	0.18 J	16000	4.5	0.63 J	700 J	110	0.10 U	1100000	0.20 U	2.8 J	2.7 U	0.080 U						
	TMW46102015	Normal		10/29/2015	70 U	1.0 U	0.36 J	10	0.30 U	1.0 U	72000	1.8 U	0.20 U	1.2 J	85 U	0.70 U	18000	0.71 J	0.37 J	830 J	110	0.10 U	1300000	0.20 U	2.4 J	8.0 U	0.080 U						
TMW47	TMW47042017	Normal	North Alluvial	4/25/2017	70 U	1.0 U	0.37 J	14	0.092 J	1.0 U	6300	1.8 U	0.076 J	1.8 U	85 U	0.70 U	680	40	0.95 U	2000 J	2.0 U	0.10 U	580000	0.20 U	2.0 U	8.0 U	0.080 U						
	TMW47102016	Normal		11/4/2016	70 U	1.0 U	0.65 J	13	0.16 J	1.0 U	6600	0.68 J	0.17 J	0.67 J	23 J	0.70 U	660	40	0.68 J	1800 J	1.6 J	0.037 J	570000	0.13 J	0.84 J	2.1 J	0.080 U						
	TMW47042016	Normal		4/14/2016	20 J	1.0 U	0.39 J	14	0.30 U	1.0 U	6100	1.8 U	0.080 J	1.8 U	26 U	0.70 U	630	45	0.63 J	2000 U	2.0 U	0.10 U	410000	0.20 U	2.0 U	8.0 U	0.080 U						
	TMW47102015	Normal		11/5/2015	150 U	1.0 U	0.52 J	14	0.30 U	1.0 U	6300	1.8 U	0.087 J	1.8 U	50 U	0.70 U	690	40	0.60 J	1100	2.0 U	0.10 U	550000	0.20 U	0.89 J	8.0 U	0.080 U						
TMW02	TMW02042017	Normal	North Bedrock	4/24/2017	70 U	1.0 U	1.1 J	8.4 J	0.30 U	1.0 U	22000	1.8 U	0.20 U	1.8 U	180	0.70 U	2800	0.82 U	1.0 U	3500	82	0.10 U	1100000	0.20 U	43	2.4 J	0.080 U						
	TMW02102016	Normal		11/1/2016	70 U	1.0 U	1.1 J	8.6	0.30 U	1.0 U	23000	0.66 J	0.054 J	0.63 J	85 U	0.70 U	2600	0.89 J	0.61 J	2700 J	81	0.10 U	1100000 J	0.20 U	42	8.0 U	0.080 U						
	TMW02042016	Normal		4/13/2016	70 U	1.0 U	1.2 J	8.3	0.30 U	1.0 U	23000	0.52 J	0.20 U	1.8 U	85 U	0.70 U	2900	0.95 U	1.0 U	1800 J	79	0.10 U	1100000	0.20 U	44	2.2 J	0.080 U						
	TMW02102015	Normal		11/3/2015	150 U	1.0 U	0.39 J	11	0.30 U	1.0 U	24000	1.8 U	0.16 J	0.63 J	50 U	0.70 U	2800	150	0.51 J	1700	120	0.10 U	1100000	0.20 U	1.4 J	8.0 U	0.080 U						
TMW14A	TMW14A042017	Normal	North Bedrock	4/27/2017	70 U	1.0 U	0.64 J	17	0.30 U	1.0 U	2900	1.8 U	0.20 U	1.8 U	40 U	0.70 U	350 J	11	0.80 J	620 J	2.0 U	0.10 U	400000	0.20 U	2.0 U	5.0 J	0.080 U						
	TMW14A102016	Normal		11/3/2016	70 U	1.0 U	0.54 J	17	0.30 U	1.0 U	3300	1.8 U	0.064 J	0.65 J	85 U	0.70 U	370 J	10	1.1 J	1200 J	2.0 U	0.10 U	430000	0.20 U	2.0 U	6.3 J	0.028 U						
	TMW14A042016	Normal		4/14/2016	18 J	1.0 U	0.55 J	18	0.30 U	1.0 U	3200	1.8 U	0.20 U	1.8 U	85 U	0.70 U	360 J	12	0.45 J	1500 U	2.0 U	0.10 U	360000	0.20 U	2.0 U	8.0 U	0.080 U						
	TMW14A102015	Normal		11/3/2015	150 U	1.0 U	0.34 J	18	0.30 U	1.0 U	3400	1.8 U	0.20 U	1.8 U	50 U	0.70 U	380 J	13	0.63 J	990 J	2.0 U	0.10 U	430000	0.20 U	2.0 U	8.0 U	0.080 U						
TMW16	TMW16042017	Normal	North Bedrock	4/20/2017	53 J	1.0 U	0.38 J	16	0.30 U	1.0 U	3900	1.8 U	0.28 J	1.8 U	38 U	0.70 U	410 J	8.7 J	13	550 J	0.97 J	0.041 J	440000	0.20 U	17	7.7 U	0.080 U						
	TMW16102016	Normal		10/28/2016	70 U	0.77 J	1.0 U	14	0.30 U	1.0 U	3700	1.8 U	0.14 J	1.8 U	23 U	0.70 U	380 J	2.6 J	5.2	610 J	0.80 U	0.10 U	460000	0.058 J	12	8.0 U	0.080 U						
	TMW16042016	Normal		4/7/2016	280 J	1.0 U	1.0 U	16 J	0.30 U	1.0 U	3800	13	0.92 J	0.96 J	280	0.70 U	430 J	16	45	690 J	1.2 J	0.10 U	420000	0.20 U	8.7	5.7 U	0.080 U						
	TMW16102015	Normal		10/28/2015	67 J	1.0 U	0.46 J	16	0.30 U	1.0 U	4000	0.65 J	0.11 J	0.86 J	41 J	0.70 U	440 J	8.5	4	590 J	2.0 U	0.055 J	470000	0.20 U	17	7.1 J	0.080 U						
TMW17	TMW17042017	Normal	North Bedrock	4/27/2017	93 J	1.0 U	1.0 U	14	0.30 U	1.0 U	3300	1.8 U	0.20 U	1.8 U	47 U	0.70 U	500	8.5	0.65 J	870 J	2.0 U	0.10 U	420000	0.20 U	2.0 U	8.0 U	0.080 U						
	TMW17102016	Normal		11/4/2016	55 J	1.0 U	1.0 U	14	0.30 U	0.58 J	3600	1.8 U	0.20 U	1.8 U	85 U	0.70 U	450 J	9.8	0.54 J	1200 J	2.0 U	0.10 U	430000	0.20 U	2.0 U	8.0 U	0.067 U						
	TMW17042016	Normal		4/15/2016	74 J	1.0 U	1.0 U	15	0.30 U	1.0 U	3600	1.8 U	0.20 U	1.8 U	85 U	0.70 U	490 J	9	0.85 J	1400 U	2.0 U	0.10 U	320000	0.20 U	2.0 U	2.6 U	0.080 U						
	TMW17102015	Normal		11/3/2015	69 J	1.0 U	1.0 U	13	0.30 U	1.0 U	3700	1.8 U	0.20 U	1.8 U	22 J	0.70 U	470 J	9.3	1.0 U	1100	2.0 U	0.10 U	420000	0.20 U	2.0 U	8.0 U	0.080 U						
TMW18	TMW18042017	Normal	North Bedrock	4/20/2017	140 J	1.0 U	1.5 J	15	0.30 U	1.0 U	6900	0.76 J	0.20 U	1.8 U	50 U	0.42 J	880	5.7 J	0.40 J	3300 J	1.2 J	0.10 U	670000	0.20 U	17	2.2 U	0.080 U						
	TMW18102016	Normal		10/28/2016	72 J	1.0 U	0.64 J	13	0.30 U	1.0 U	6100	1.8 U	0.20 U	1.8 U	85 U	0.70 U	950	5	1.0 U	3100	0.93 U	0.10 U	690000	0.20 U	8.3	8.0 U	0.080 U						
	TMW18042016	Normal		4/7/2016	90 J	1.0 U	1.0 U	17 J	0.30 U	1.0 U	6900	1.8 U	0.20 U	1.8 U	35 J	0.21 J	1200	6.9	1.0 U	3200	0.93 J	0.10 U	700000	0.20 U	3.9 J	3.4 U	0.080 U						
	TMW18102015	Normal		10/29/2015	70 U	1.0 U	0.61 J	14	0.30 U	1.0 U	16000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	3900	3.8	1.0 U	970 J	2.0 U	0.10 U	930000	0.20 U	7.1	8.0 U	0.080 U						
TMW19	TMW19042017	Normal	North Bedrock	4/20/2017	69 J	1.0 U	1.0 U	7.6	0.30 U	1.0 U	9400	1.8 U	0.084 J	0.83 J	48 U	0.19 J	1000	19 J	2.4 J	1200 J	0.93 J	0.10 U	680000	0.20 U	5.7 J	6.4 U	0.080 U						
	TMW19102016	Normal		10/28/2016	210 J	1.0 U	1.0 U	7.2	0.30 U	1.0 U	9200	1.8 U	0.10 J	1.8 U	95 U	0.70 U	1000	13	2.3 U	910 J	0.92 U	0.10 U	690000	0.20 U	8.8	8.3 U	0.080 U						
	DTW19102016	Duplicate		10/28/2016	400	1.0 U	1.0 U	7.9	0.30 U	1.0 U	9000	1.8 U	0.13 J	1.8 U	170	0.24 J	1000	14	2.5 U	930 J	0.80 U	0.10 U	700000	0.20 U	8.9	9.4 U	0.080 U						
	TMW19042016	Normal		4/7/2016	1000	1.0 U	1.0 U	10 J	0.30 U	1.0 U	11000	1.5 J	0.38 J	1.4 J	690	0.47 J	1300	33	8.5	1200 J	1.2 J	0.055 J	670000	0.20 U	3.9 J	43	0.080 U						
TMW19102015	Normal	10/28/2015	2400	1.0 U	0.91 J	19	0.28 J	1.0 U	11000	4.6 J	1.1	17	1100	1.3 J	1700	56	28	1500 J	2.0 U	0.14 J	710000	0.20 U	5.1 J	62	0.080 U								
TMW30	TMW30042017	Normal	North Bedrock	4/19/2017	70 U	1.0 U	0.78 J	9.3	0.30 U	1.0 U	58000	1.8 U	0.066 J	0.70 J	85 U	0.70 U	12000	1.3 U	0.69 J	1700 J	7	0.10 U	460000	0.20 U	13	2.2 J	0.080 U						
	TMW30102016	Normal		10/26/2016	70 U	1.0 U	0.67 J	9.6	0.30 U	1.0 U	48000	1.8 U	0.17 J	2.5 J	34 J																		



TABLE 5-7

Summary of Dissolved Metals Analytical Detections (Page 6 of 6)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Methods 6010C/6020A (µg/L)																									EPA Method 7470A (µg/L)
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6			
					Regulatory Limit																									
					5000 <sup>a</sup>	6 <sup>b</sup>	10 <sup>b</sup>	1000 <sup>a</sup>	4 <sup>b</sup>	5 <sup>b</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	1000 <sup>a</sup>	300 <sup>b</sup>	50 <sup>a</sup>	NE	50 <sup>b</sup>	200 <sup>a</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	NE	2 <sup>b</sup>	86 <sup>c</sup>	5000 <sup>b</sup>	2 <sup>b</sup>			
TMW31D	TMW31D042017	Normal	North Bedrock	4/27/2017	70 U	1.0 U	0.42 J	9	0.30 U	1.0 U	62000	1.8 U	0.20 U	0.67 J	85 U	0.70 U	11000	2.9 J	0.44 J	1400 J	8.1	0.10 U	530000	0.20 U	6.8	16 J	0.080 U			
	DTW31D042017	Duplicate		4/27/2017	35 J	1.0 U	0.51 J	8.8	0.30 U	1.0 U	64000	1.8 U	0.058 J	0.78 J	44 U	0.70 U	11000	3.5	0.63 J	1500 J	8.1	0.10 U	520000	0.20 U	6.8	16 J	0.080 U			
	TMW31D102016	Normal		10/31/2016	70 U	1.0 U	0.37 J	8.7	0.30 U	1.0 U	65000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	11000	2.1 J	0.40 J	1400 J	8.6	0.10 U	600000	0.20 U	6.6	16 J	0.080 U			
	DTW31D102016	Duplicate		10/31/2016	70 U	1.0 U	0.46 J	8.7	0.30 U	1.0 U	65000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	11000	2.1 J	0.31 J	1400 J	8.3	0.10 U	560000	0.20 U	6.8	15 J	0.080 U			
	TMW31D042016	Normal		4/13/2016	70 U	1.0 U	0.48 J	8.4	0.30 U	1.0 U	64000	1.8 U	0.20 U	0.61 J	27 J	0.70 U	12000	2.8 J	0.46 J	1700 J	8.1	0.10 U	590000	0.20 U	6.3	17 J	0.080 U			
	DTW31D042016	Duplicate		4/13/2016	70 U	1.0 U	0.33 J	9.5	0.30 U	1.0 U	63000	1.8 U	0.20 U	0.85 J	85 U	0.70 U	12000	2.2 J	0.94 J	1700 J	8.5	0.10 U	580000	0.20 U	6.3	17 J	0.080 U			
	TMW31D102015	Normal		11/5/2015	150 U	1.0 U	0.50 J	10	0.30 U	1.0 U	66000	1.8 U	0.065 J	1.3 J	50 U	0.70 U	11000	2.4 J	1.4 J	1600	7.5	0.054 J	550000	0.052 J	7	19 J	0.080 U			
TMW32	TMW32042017	Normal	North Bedrock	4/27/2017	70 U	1.0 U	1.4 J	7.3	0.30 U	1.0 U	9700	1.8 U	0.20 U	1.8 U	24 U	0.70 U	1000	26	0.31 J	1100 J	4.0 U	0.10 U	670000	0.20 U	2.0 J	3.4 J	0.080 U			
	TMW32102016	Normal		11/2/2016	22 J	0.50 J	1.6 J	7.1	0.30 U	1.0 U	9900	1.8 U	0.061 J	1.8 U	85 U	0.70 U	1100	26	0.56 J	980 J	3.7 U	0.10 U	730000	0.20 U	2.1 J	2.2 J	0.080 U			
	TMW32042016	Normal		4/13/2016	70 U	0.48 J	1.6 J	7.7	0.30 U	1.0 U	10000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	1200	27 J	1.1 J	1200 J	3.4 J	0.084 J	740000	0.20 U	2.0 J	8.0 U	0.080 U			
	TMW32102015	Normal		11/5/2015	150 U	1.0 U	1.4 J	8	0.30 U	1.0 U	11000	1.8 U	0.055 J	1.8 U	50 U	0.70 U	1200	29	0.60 J	1300	3.2 J	0.10 U	720000	0.20 U	2.4 J	3.5 J	0.080 U			
TMW36	TMW36042017	Normal	North Bedrock	4/20/2017	70 U	1.0 U	1.0 U	7.7	0.30 U	1.0 U	8700	0.68 J	0.14 J	1.8 U	85 U	0.25 J	930	15 J	4.5	1200 J	0.82 J	0.037 J	670000	0.10 J	2.0 U	3.6 U	0.080 U			
	TMW36102016	Normal		10/27/2016	70 U	1.0 U	1.0 U	6.7	0.30 U	1.0 U	8600	1.8 U	0.10 J	0.89 J	85 U	0.70 U	960	12	3.2	950 J	1.4 J	0.10 U	700000 J	0.20 U	2.8 J	6.2 J	0.080 U			
	TMW36042016	Normal		4/7/2016	58 J	1.0 U	1.0 U	7.4 J	0.30 U	1.0 U	8700	1.6 J	0.34 J	1.8 U	49 J	0.70 U	880	20	17	950 J	0.75 J	0.10 U	640000	0.20 U	1.2 J	12 U	0.080 U			
	TMW36102015	Normal		10/28/2015	70 U	1.0 U	1.0 U	8.3	0.30 U	1.0 U	8600	0.70 J	0.18 J	1.8 U	85 U	0.36 J	960	15	4.5	1100 J	2.0 U	0.10 U	680000	0.20 U	1.9 J	15 J	0.080 U			
TMW37	TMW37042017	Normal	North Bedrock	4/20/2017	19 J	1.0 U	1.0 U	9.6	0.30 U	1.0 U	5700	1.8 U	0.091 J	1.8 U	85 U	0.70 U	620	7.6 J	4.2	870 J	2.0 U	0.10 U	520000	0.20 U	1.3 J	6.1 U	0.080 U			
	TMW37102016	Normal		10/27/2016	110 J	0.47 J	0.44 J	9.1	0.14 J	1.0 U	5400	2.7 J	0.23 J	0.61 J	86 J	0.49 J	600	7.3	8.3	650 J	1.6 J	0.034 J	540000 J	0.11 J	4.3 J	21	0.080 U			
	TMW37042016	Normal		4/7/2016	35 J	1.0 U	1.0 U	11 J	0.30 U	1.0 U	6300	0.95 J	0.15 J	1.8 U	25 J	0.70 U	650	9	6.4	740 J	2.0 U	0.10 U	580000	0.20 U	2.8 J	8.9 U	0.080 U			
	TMW37102015	Normal		10/28/2015	65 J	1.0 U	0.39 J	9.3	0.30 U	1.0 U	6000	0.67 J	0.20 J	1.8 U	56 J	0.39 J	720	14	6.2	930 J	2.0 U	0.10 U	570000	0.20 U	3.7 J	15 J	0.080 U			
TMW38	TMW38042017	Normal	North Bedrock	4/26/2017	70 U	1.0 U	0.59 J	13	0.30 U	1.0 U	16000	1.8 U	0.094 J	1.8 U	49 J	0.70 U	1800	<b>74</b>	0.54 J	1300 J	2.0 U	0.10 U	840000	0.20 U	2.0 U	8.0 U	0.080 U			
	TMW38102016	Normal		11/4/2016	70 U	1.0 U	0.60 J	14	0.30 U	1.0 U	16000	1.8 U	0.088 J	1.8 U	85 J	0.70 U	1700	<b>86</b>	0.81 J	2100 J	2.0 U	0.10 U	880000	0.20 U	2.0 U	8.0 U	0.080 U			
	TMW38042016	Normal		4/14/2016	70 U	0.68 J	0.70 J	14	0.30 U	1.0 U	12000	1.8 U	0.11 J	1.8 U	76 U	0.70 U	1400	<b>84</b>	0.64 J	2700 J	2.0 U	0.10 U	630000	0.20 U	2.0 U	8.0 U	0.080 U			
	TMW38102015	Normal		11/6/2015	140 J	0.60 J	0.68 J	24 J	0.30 U	1.0 U	20000	1.8 U	0.14 J	1.8 U	130	0.70 U	2200	<b>130</b>	0.92 J	1900	2.0 U	0.085 J	940000	0.084 J	0.84 J	15 J	0.080 U			
TMW39D	TMW39D042017	Normal	North Bedrock	4/27/2017	21 J	1.0 U	1.0 U	7.6	0.30 U	1.0 U	20000	1.8 U	0.20 U	0.70 J	44 U	0.70 U	2100	<b>52</b>	0.51 J	1400 J	2.0 U	0.10 U	690000	0.20 U	2.0 U	3.1 J	0.080 U			
	TMW39D102016	Normal		10/31/2016	18 J	1.0 U	1.0 U	9.1	0.30 U	1.0 U	35000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	5500	37	0.80 J	1300 J	3.1 U	0.10 U	670000	0.20 U	2.0 J	2.1 J	0.080 U			
	TMW39D042016	Normal		4/12/2016	70 U	1.0 U	1.0 U	8	0.30 U	1.0 U	18000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	1800	<b>53</b>	1.0 U	1200 J	2.0 U	0.10 U	750000	0.20 U	2.0 U	8.0 U	0.080 U			
	TMW39D102015	Normal		11/4/2015	420	1.0 U	1.0 U	11	0.30 U	1.0 U	25000	0.51 J	0.21 J	1.0 J	210	0.70 U	3100	<b>57</b>	1.7 J	1700	0.95 J	0.10 U	710000	0.20 U	1.9 J	5.4 J	0.080 U			
TMW40D	TMW40D042017	Normal	North Bedrock	4/25/2017	70 U	1.0 U	0.36 J	9.4	0.30 U	1.0 U	14000	1.8 U	0.064 J	0.61 J	85 U	0.70 U	1900	48	0.47 U	2400 J	2.7 J	0.10 U	730000	0.20 U	2.0 J	3.6 J	0.080 U			
	TMW40D102016	Normal		10/31/2016	70 U	1.0 U	0.44 J	9.1	0.30 U	1.0 U	14000	1.8 U	0.067 J	1.8 U	85 U	0.70 U	1800	50	0.63 J	1100 J	3.9 U	0.10 U	720000	0.20 U	2.9 J	5.3 J	0.080 U			
	TMW40D042016	Normal		4/12/2016	70 U	1.0 U	1.0 U	10	0.30 U	1.0 U	15000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	2000	<b>52</b>	1.0 U	1200 J	3.3 J	0.10 U	730000	0.20 U	3.0 J	2.5 J	0.080 U			
	TMW40D102015	Normal		11/3/2015	150 U	1.0 U	0.43 J	9.3	0.30 U	1.0 U	16000	1.8 U	0.067 J	7.2	50 U	0.70 U	2000	<b>55</b>	0.99 J	1600	3.1 J	0.10 U	740000	0.20 U	2.9 J	2.5 J	0.080 U			
TMW48	TMW48042017	Normal	North Bedrock	4/26/2017	70 U	1.0 U	0.59 J	8.9	0.30 U	1.0 U	77000	1.8 U	0.20 U	0.67 J	85 U	0.70 U	16000	45	0.72 J	1200 J	6.7	0.10 U	560000	0.20 U	4.9 J	8.4 J	0.080 U			
	TMW48102016	Normal		11/1/2016	70 U	1.0 U	0.74 J	11	0.30 U	1.0 U	66000	6.5 J	0.082 J	1.9 J	85 U	0.70 U	11000	<b>55</b>	1.2 J	1500 J	6.4	0.10 U	580000 J	0.20 U	3.7 J	11 J	0.080 U			
	TMW48042016	Normal		4/12/2016	70 U	1.0 U	0.67 J	11	0.30 U	1.0 U	63000	1.8 U	0.20 U	0.75 J	85 U	0.70 U	11000	38	1.0 U	1200 J	6.2	0.10 U	570000	0.20 U	3.3 J	11 J	0.080 U			
	TMW48102015	Normal		11/4/2015	150 U	1.0 U	0.53 J	11	0.30 U	1.0 U	70000	1.8 U	0.20 U	1.7 J	50 U	0.70 U	13000	39	1.2 J	1500	6.4	0.10 U	570000	0.20 U	3.9 J	12 J	0.080 U			
TMW49	TMW49042017	Normal	North Bedrock	4/26/2017	70 U	1.0 U	0.50 J	10	0.30 U	1.0 U	74000	0.99 J	0.064 J	1.6 J	85 U	0.70 U	13000	3.5	1.2 J	1300 J	18	0.059 J	570000	0.20 U	13	13 J	0.080 U			
	TMW49102016	Normal		11/2/2016	70 U	1.0 U	0.51 J	11	0.30 U	1.0 U	75000	0.57 J	0.20 U	1.4 J	85 U	0.70 U	14000	1.8 J	1.1 J	1400 J	20	0.10 U	600000	0.20 U	12	12 J	0.080 U			
	TMW49042016	Normal		4/14/2016	70 U	1.0 U	0.55 J	11	0.30 U	1.0 U	72000	0.79 J	0.20 U	1.0 J	85 U	0.70 U	12000	0.49 J	0.42 J	2400 J	22	0.10 U	450000	0.20 U	11	7.4 U	0.080 U			
	TMW49102015	Normal		11/5/2015	150 U	0.94 J	0.62 J	12	0.30 U	1.0 U	79000	0.69 J	0.055 J	1.7 J	50 U	0.70 U	13000	0.69 J	0.74 J	1600	21	0.093 J	590000	0.084 J	11	8.1 J	0.080 U			

Notes:

TABLE 5-8

## Summary of Total Metals Analytical Detections (Page 1 of 6)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Methods 6010C/6020A (µg/L)																							EPA Method 7470A (µg/L)
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6	
					Regulatory Limit																							
5000 <sup>a</sup>	6 <sup>b</sup>	10 <sup>b</sup>	1000 <sup>a</sup>	4 <sup>b</sup>	5 <sup>b</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	1000 <sup>a</sup>	300 <sup>b</sup>	50 <sup>a</sup>	NE	50 <sup>b</sup>	200 <sup>a</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	NE	2 <sup>b</sup>	86 <sup>c</sup>	5000 <sup>b</sup>	2 <sup>b</sup>						
BGMW01	BGMW01042017	Normal	North Alluvial	4/24/2017	41 J	0.44 J	0.61 J	16 J	0.30 UJ	1.0 UJ	43000	1.8 U	0.27 J	1.8 U	55 J	0.70 UJ	26000	160 J	1.1 J	650 J	2.0 U	0.11 J	810000	0.20 U	1.6 J	8.0 U	0.080 U	
	BGMW01102016	Normal		11/2/2016	100 J	1.0 U	0.90 J	16 J	0.30 U	1.0 U	41000	1.8 U	0.28 U	1.8 U	81 J	0.70 U	23000	200	1.0 J	900 J	2.0 U	0.47 J	780000	0.20 U	1.5 U	8.0 U	0.080 U	
	BGMW01042016	Normal		4/15/2016	90 J	1.0 U	0.70 J	16	0.30 U	1.0 U	39000	1.8 U	0.32 J	0.59 J	60 J	0.70 U	22000	170	1.6 J	820 J	2.0 U	0.10 U	630000	0.20 U	1.9 J	2.0 J	0.080 U	
	BGMW01102015	Normal		11/5/2015	57 J	1.0 U	0.79 J	16	0.30 U	1.0 U	36000	1.9 J	0.27 J	1.1 J	38 J	0.19 J	22000	160	1.2 J	770 J	2.0 U	0.10 U	750000	0.20 U	2.2 J	3.2 J	0.080 U	
BGMW02	BGMW02042017	Normal	North Alluvial	4/21/2017	190 J	1.0 U	0.80 J	16	0.30 U	1.0 U	73000	0.50 J	0.14 J	0.85 J	120	0.70 U	120000	73 J	0.62 J	910 U	62	0.10 U	940000	0.20 U	7	8.0 U	0.080 U	
	BGMW02102016	Normal		11/2/2016	130 J	1.0 U	0.80 J	17 J	0.30 U	1.0 U	84000	0.92 J	0.086 U	1.3 J	93 J	0.70 U	110000	82	0.52 J	1800 J	68	0.10 U	970000	0.20 U	7.4 U	8.0 U	0.080 U	
	BGMW02042016	Normal		4/14/2016	69 J	1.0 U	0.88 J	18	0.30 U	1.0 U	75000	1.8 U	0.091 J	0.98 J	50 J	0.70 U	100000	85	0.61 J	1000 J	71	0.10 U	770000	0.20 U	7.5	8.0 U	0.080 U	
	BGMW02102015	Normal		11/5/2015	240	1.0 U	0.93 J	17	0.30 U	1.0 U	88000	1.8 U	0.10 J	1.1 J	130	0.70 U	120000	73	0.81 J	910 J	66	0.070 J	1000000	0.20 U	7.1	2.5 J	0.080 U	
BGMW03	BGMW03042017	Normal	North Alluvial	4/20/2017	3200 J	0.40 J	1.8 J	61	0.21 J	1.0 U	110000 J	2.0 J	0.95 J	3	2200 J	1.5 J	26000	96	1.5 J	3000	21 J	0.034 J	670000	0.063 J	11	6.9 J	0.080 UJ	
	BGMW03102016	Normal		10/28/2016	9900	1.0 U	2.6 J	110	0.57 J	1.0 U	86000	4.6 J	2.2	5.5	5100	4.5	19000	190	3.3	5600	29	0.034 J	690000	0.11 J	19	21	0.080 U	
	BGMW03042016	Normal		4/8/2016	460	1.0 U	1.4 J	38	0.30 U	1.0 U	94000 J	1.3 J	0.47 J	2.9	380	0.31 J	19000	69	1.0 J	2600 J	23	0.037 J	690000	0.20 U	8.3	4.6 J	0.080 U	
	BGMW03102015	Normal		10/30/2015	11000	1.0 U	3.2 J	150	0.74 J	1.0 U	92000	5.5 J	3.1	6.1	7800	7	19000	240 J	3.8	5200	30	0.046 U	720000	0.16 U	20	29	0.038 J	
FW31	FW31042017	Normal	North Alluvial	4/17/2017	7000 J	1.0 U	7.5	150 J	0.21 J	1.0 U	11000	5.3 J	1.8	4.4	2800 J	2.0 J	4400	210	3.7	4200 J	2.0 U	0.10 U	590000	0.082 J	16	21	0.080 U	
	FW31102016	Normal		10/26/2016	1400	1.0 U	6.5	47	0.30 U	1.0 U	6700	1.5 J	0.40 J	0.86 J	650 J	0.49 J	2700	36 J	0.73 J	1900 J	2.0 U	0.10 U	520000 J	0.20 U	12	6.1 J	0.080 U	
	FW31042016	Normal		4/7/2016	3800 J	1.0 U	7	120 J	0.19 J	1.0 U	7400	4.7 J	1.2	2.7	1300 J	1.6 J	3100	120	3.9	2700 J	2.0 U	0.079 J	490000	0.20 U	14	14 U	0.080 U	
	FW3112015	Normal		11/2/2015	980	1.0 U	7.1	57	0.30 U	1.0 U	6900	2.2 J	0.46 J	1.0 J	780	0.66 J	2800	48	1.4 J	2300 UJ	2.0 U	0.14 U	640000 U	0.052 U	11	6.2 J	0.080 U	
MW01	MW01042017	Normal	North Alluvial	4/19/2017	140000	1.0 U	23	1400	7.5	0.76 J	170000	72	37	61	99000	56	49000	3400 J	71	22000 J	15	0.28 J	960000	0.77 J	130	710	0.17 J	
	MW01102016	Normal		10/27/2016	5500	1.0 U	1.2 J	65	0.23 J	1.0 U	37000	3.7 J	1.4	2.4	3100	2.1 J	8600	120	3.3	2100 J	17	0.10 U	940000 J	0.20 U	7.8	26	0.080 U	
	MW01042016	Normal		4/6/2016	1200 J	1.0 U	0.72 J	28	0.30 U	1.0 U	35000	1.1 J	0.34 J	1.6 J	630 J	0.45 J	8400	28 J	1.3 J	620 J	17	0.10 U	950000	0.20 U	2.6 U	13 J	0.080 U	
	MW01102015	Normal		10/28/2015	4000 J	1.0 U	1.2 J	62	0.16 J	1.0 U	36000	2.7 J	1.2	2.2	2400	1.7 J	8800	140	2.6 U	1500 J	19	0.10 U	940000	0.20 U	6.1	28	0.027 J	
MW02	MW02042017	Normal	North Alluvial	4/19/2017	5300	1.0 U	1.6 J	120	0.46 J	1.0 U	130000	5.0 J	2.1	3.3	3400	3.4	29000	310 J	4	1600 J	11	0.10 U	420000	0.071 J	11	110	0.080 U	
	MW02102016	Normal		10/27/2016	7000	1.0 U	1.4 J	120	0.49 J	1.0 U	140000	5.3 J	2.3	2.8	4400	3.6	32000	310	4.6	2300 J	16	0.10 U	440000 J	0.058 J	11	81	0.080 U	
	MW02042016	Normal		4/6/2016	710 J	1.0 U	1.0 U	40	0.30 U	1.0 U	130000	1.0 J	0.21 J	1.9 J	410 J	0.33 J	32000	27 J	0.83 J	740 J	15	0.10 U	430000	0.20 U	1.8 U	25	0.080 U	
	MW02102015	Normal		10/28/2015	3700 J	1.0 U	1.0 J	100	0.20 J	1.0 U	130000	3.0 J	1.2	1.8 J	2700	2.0 J	31000	190	2.8 U	1700 J	16	0.10 U	380000	0.20 U	6	52	0.080 U	
MW03	MW03042017	Normal	North Alluvial	4/21/2017	70 U	1.0 U	0.41 J	8.4	0.30 U	1.0 U	49000	1.8 U	0.14 J	0.81 J	51 J	0.70 U	11000	47 J	0.78 J	860 U	26	0.10 U	1000000	0.20 U	0.91 J	5.0 J	0.080 U	
	MW03102016	Normal		11/3/2016	70 U	1.0 U	0.42 J	11	0.30 U	1.0 U	56000	1.8 U	0.12 U	2	67 J	0.70 U	10000	47	0.81 J	2100 J	25	0.10 U	1100000	0.20 U	1.0 U	4.7 J	0.080 U	
	MW03042016	Normal		4/12/2016	70 U	1.0 U	1.0 U	9	0.30 U	1.0 U	58000	0.53 J	0.12 J	0.67 J	85 U	0.70 U	11000	48	0.69 J	430 J	24	0.10 U	1100000	0.20 U	1.0 J	6.0 U	0.080 U	
	MW03102015	Normal		10/30/2015	70 U	1.0 U	0.40 J	9.6	0.30 U	1.0 U	55000	1.8 U	0.085 J	1.8 U	85 U	0.70 U	11000	45 J	0.35 J	790 J	22	0.10 U	1200000	0.20 U	0.63 J	4.0 J	0.080 U	
MW18D	MW18D042017	Normal	North Alluvial	4/20/2017	7400 J	0.80 J	1.6 J	78	0.58 J	0.31 J	68000 J	11	2.1	14	4600 J	5.1	21000	670	9.5	2800 J	0.99 J	0.15 J	2100000	0.13 J	33	490	0.080 UJ	
	MW18D102016	Normal		10/28/2016	2500	0.80 J	1.8 J	48	0.13 J	1.0 U	70000	3.0 J	1.6	6.6	1400	5.2	18000	590	4.2	2600 J	1.3 U	0.089 J	2100000	0.20 U	24	420	0.080 U	
	MW18D042016	Normal		4/12/2016	1800	0.73 J	1.7 J	46	0.30 U	1.0 U	76000	1.4 J	1.6	4.7	1100	1.7 J	19000	680	3.8	1300 J	2.0 U	0.10 U	2100000	0.20 U	19	180	0.080 U	
	MW18D102015	Normal		11/2/2015	4500	1.3 U	2.4 J	94	0.29 J	0.32 J	72000	6.6 J	2.4	13	3300	7.8	19000	740	6.8	3300 UJ	2.0 U	0.27 J	1900000	0.089 U	50	800	0.037 J	
MW20	MW20042017	Normal	North Alluvial	4/24/2017	70 U	1.0 U	0.34 J	17 J	0.30 UJ	1.0 UJ	300000	1.8 U	1.2	1.7 J	31 J	0.70 UJ	63000	1400 J	2.9 J	3600	62	0.10 U	3400000	0.20 U	0.62 J	83	0.080 U	
	MW20102016	Normal		11/4/2016	70 UJ	1.0 U	1.0 U	15	0.30 U	1.0 U	330000	1.8 U	1.2	2.1	51 J	0.70 U	63000 J	1300	3	3900 J	51	0.073 J	3800000	0.20 U	2.0 U	95	0.042 J	
	MW20042016	Normal		4/11/2016	70 U	1.0 U	1.0 U	16	0.15 UJ	1.0 U	320000	1.8 U	1.3	1.9 J	38 J	0.70 U	71000	1800	2.9 J	1700 J	67	0.033 J	3700000	0.20 U	0.63 J	100	0.080 U	
	MW20102015	Normal		11/2/2015	70 U	1.0 U	1.0 U	16	0.30 UJ	1.0 U	340000	1.8 UJ	1.3	2	49 J	0.70 U	70000	1800	3.3	4600 UJ	68	0.036 UJ	4100000	0.20 UJ	2.0 U	97	0.080 U	
DMW20102015	Duplicate		11/2/2015	70 U	1.0 U	1.0 U	15	0.38 J	1.0 U	330000	0.65 J	1.4	2.5	52 J	0.70 U	74000	1800	3	5600 UJ	70	0.10 UJ	4400000	0.096 UJ	2.0 U	98	0.080 U		
MW22D	MW22D042017	Normal	North Alluvial	4/19/2017	70 U	1.0 U	0.39 J	12	0.30 U	1.0 U	85000	1.8 U	0.19 J	1.8 U	85 U	0.70 U	17000	130 J	0.50 J	1900 J	38	0.10 U	1000000	0.20 U	1.1 J	19 J	0.080 U	
	MW22D102016	Normal		10/28/2016	70 U	1.0 U	1.0 U	11	0.30 U	1.0 U	83000	1.8 U	0.21 J	1.8 U	85 U	0.70 U	16000	130	0.70 J	890 U	41	0.10 U	1100000	0.20 U	1.4 J	13 J	0.080 U	
	MW22D042016	Normal		4/11/2016	70 U	1.0 U	0.43 J	11	0.30 U	1.0 U	84000	1.8 U	0.17 J	1.8 U	85 U													

TABLE 5-8

## Summary of Total Metals Analytical Detections (Page 2 of 6)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Methods 6010C/6020A (µg/L)																										EPA Method 7470A (µg/L)
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6				
					Regulatory Limit																										
					5000 <sup>a</sup>	6 <sup>b</sup>	10 <sup>b</sup>	1000 <sup>a</sup>	4 <sup>b</sup>	5 <sup>b</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	1000 <sup>a</sup>	300 <sup>b</sup>	50 <sup>a</sup>	NE	50 <sup>b</sup>	200 <sup>a</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	NE	2 <sup>b</sup>	86 <sup>c</sup>	5000 <sup>b</sup>	2 <sup>b</sup>				
MW23	MW23042017	Normal	North Alluvial	4/18/2017	970 J	1.0 U	1.2 J	150 J	0.10 J	1.0 U	10000	0.88 J	0.88 J	3.3	600 J	0.56 J	4700	71	1.6 J	2000 J	2.0 U	0.10 U	470000	0.20 U	9.9	3.7 J	0.080 U				
	DMW23042017	Duplicate		4/18/2017	1300 J	1.0 U	1.3 J	140 J	0.16 J	1.0 U	11000	1.0 J	1	3.8	760 J	0.68 J	4900	72	1.8 J	2600 J	2.0 U	0.074 J	500000	0.052 J	13	4.6 J	0.080 U				
	MW23102016	Normal		10/27/2016	420	1.0 U	1.2 J	170	0.30 U	1.0 U	12000	0.58 J	0.84 J	0.94 J	250	0.33 J	5200	70	1.4 J	1700 J	0.86 U	0.038 J	480000 J	0.20 U	5.0 J	2.4 J	0.080 U				
	MW23042016	Normal		4/7/2016	2400 J	1.0 U	1.1 J	150 J	0.11 J	1.0 U	12000	1.7 J	1.1	3.5	870 J	0.77 J	5100	87	2.6 J	2100 J	2.0 U	0.10 U	480000	0.20 U	8.6	5.0 U	0.080 U				
	DMW23042016	Duplicate		4/7/2016	1900 J	1.0 U	1.1 J	160 J	0.30 U	1.0 U	12000	1.7 J	1.1	3.1	760 J	0.70 J	5100	86	2.5 J	2300 J	2.0 U	0.10 U	350000	0.050 J	7.4	6.1 U	0.080 U				
	MW23102015	Normal		11/6/2015	1300	1.0 U	1.1 J	150 J	0.12 J	1.0 U	12000	0.94 J	1.1	0.79 J	640	0.51 J	5300	88	2.2 J	1800	2.0 U	0.068 J	490000	0.20 U	6.1 J	5.2 J	0.080 U				
	DMW23102015	Duplicate		11/6/2015	2300	1.0 U	1.3 J	150 J	0.22 J	1.0 U	11000	1.5 J	1.3	2.0 J	1100	0.81 J	4800	87	2.6 J	2200	2.0 U	0.10 U	500000	0.10 J	12 J	4.8 J	0.080 U				
MW24	MW24042017	Normal	North Alluvial	4/17/2017	150 J	1.0 U	0.80 J	290 J	0.30 U	1.0 U	33000	1.8 U	0.092 J	1.8 U	1900 J	0.70 U	11000	450	1.0 U	1300 J	2.0 U	0.10 U	260000	0.20 U	2.0 U	8.0 U	0.080 U				
	DMW24042017	Duplicate		4/17/2017	70 U	1.0 U	0.49 J	310 J	0.30 U	1.0 U	32000	1.8 U	0.060 J	1.8 U	1800 J	0.70 U	10000	470	1.0 U	1200 J	2.0 U	0.10 U	260000	0.20 U	2.0 U	8.0 U	0.080 U				
	MW24102016	Normal		10/26/2016	62 J	1.0 U	0.67 J	300	0.30 U	1.0 U	31000	1.8 U	0.059 J	1.8 U	1900 J	0.70 U	11000	430 J	1.0 U	1000 J	2.0 U	0.10 U	260000 J	0.20 U	1.2 U	8.0 U	0.080 U				
	DMW24102016	Duplicate		10/26/2016	58 J	1.0 U	0.65 J	290	0.30 U	1.0 U	31000	1.8 U	0.078 J	1.8 U	1800 J	0.70 U	10000	450 J	1.0 U	1000 J	2.0 U	0.089 J	260000 J	0.20 U	1.1 U	8.0 U	0.080 U				
	MW24042016	Normal		4/6/2016	94 J	1.0 U	0.75 J	300	0.30 U	1.0 U	32000	1.8 U	0.081 J	1.8 U	1900 J	0.70 U	11000	470 J	0.52 J	890 J	2.0 U	0.10 U	270000	0.20 U	2.0 U	3.3 J	0.080 U				
	DMW24042016	Duplicate		4/6/2016	89 J	1.0 U	0.78 J	280	0.30 U	1.0 U	31000	1.8 U	0.073 J	1.8 U	1800 J	0.70 U	10000	450 J	0.49 J	850 J	2.0 U	0.10 U	260000	0.20 U	2.0 U	2.3 J	0.080 U				
	MW24102015	Normal		11/5/2015	520	1.0 U	0.73 J	300	0.30 U	1.0 U	33000	0.55 J	0.13 J	1.8 U	2000	0.26 J	11000	420	1.1 J	1300	2.0 U	0.10 U	270000	0.20 U	1.2 J	2.0 J	0.080 U				
SMW01	SMW01042017	Normal	North Alluvial	4/21/2017	36 J	1.0 U	1.3 J	41	0.30 U	1.0 U	27000	1.8 U	0.97 J	1.6 J	64 J	0.70 U	11000	600 J	2.4 J	880 U	2.0 U	0.10 U	910000	0.20 U	3.0 J	5.9 J	0.080 U				
	SMW01102016	Normal		11/2/2016	43 J	1.0 U	1.2 J	38 J	0.30 U	1.0 U	32000	2.4 J	0.47 U	1.6 J	58 J	0.70 U	10000	240	2.2 J	1300 J	2.0 U	0.10 U	930000	0.20 U	3.0 U	2.5 J	0.080 U				
	SMW01042016	Normal		4/8/2016	70 U	0.57 J	1.4 J	34	0.30 U	1.0 U	33000 J	1.8 U	0.23 J	0.77 J	23 J	0.70 U	11000	130	1.6 J	360 J	2.0 U	0.14 J	860000	0.20 U	2.4 J	8.0 U	0.080 U				
	SMW011102015	Normal		11/3/2015	150 U	1.0 U	0.88 J	37	0.30 U	1.0 U	34000	1.8 U	0.36 J	1.4 J	27 J	0.70 U	11000	180	2.0 J	590 J	2.0 U	0.10 U	870000	0.20 U	2.7 J	2.1 J	0.080 U				
TMW01	TMW01042017	Normal	North Alluvial	4/25/2017	70 U	1.0 U	0.65 J	12	0.30 U	1.0 U	100000	1.8 U	0.20 U	4	85 U	0.70 U	19000	8.4	1.0 U	2800 J	5	0.10 U	520000	0.20 U	13	8.0 U	0.080 U				
	TMW01102016	Normal		10/31/2016	70 U	1.0 U	0.74 J	12	0.30 U	1.0 U	110000	0.60 J	0.20 U	4.6	85 U	0.70 U	20000	8.4	1.0 U	970 J	5.3	0.10 U	530000 J	0.20 U	12	8.0 U	0.080 U				
	TMW01042016	Normal		4/8/2016	70 U	0.71 J	0.83 J	12	0.11 U	1.0 U	110000 J	1.8 U	0.20 U	6.4	85 U	0.70 U	18000	9.7	1.0 U	390 J	4.9 J	0.10 U	570000	0.10 U	12	8.0 U	0.080 U				
	TMW01102015	Normal		11/4/2015	150 U	1.0 U	0.94 J	12	0.30 U	1.0 U	110000	0.90 J	0.071 J	6.7	50 U	0.70 U	20000	11	1.0 U	570 J	5.4	0.10 U	560000	0.19 U	13	8.0 U	0.080 U				
TMW03	TMW03042017	Normal	North Alluvial	4/24/2017	46 J	1.0 U	0.54 J	12 J	0.13 J	1.0 U	50000	1.8 U	0.066 J	1.8 U	44 J	0.70 U	11000	4.9 J	1.0 U	1700 J	53	0.10 U	950000	0.20 U	1.8 J	7.2 J	0.080 U				
	TMW03102016	Normal		10/31/2016	46 J	0.58 J	0.60 J	13	0.30 U	1.0 U	51000	9.8	0.093 J	1.2 J	52 J	0.70 U	11000	6.9	0.56 J	720 J	53	0.10 U	920000 J	0.20 U	2.4 J	10 J	0.080 U				
	TMW03042016	Normal		4/8/2016	70 U	1.0 U	0.52 J	13	0.11 U	1.0 U	49000 J	1.8 U	0.20 U	0.58 J	85 U	0.70 U	10000	4.7	1.0 U	610 J	55	0.10 U	940000	0.20 U	2.2 J	9.7 J	0.080 U				
	TMW03102015	Normal		11/4/2015	150 U	1.0 U	0.56 J	13	0.30 U	1.0 U	50000	0.71 J	0.081 J	1.0 J	20 J	0.70 U	11000	6.7	1.0 U	750 J	59	0.10 U	970000	0.084 U	2.2 J	10 J	0.080 U				
TMW04	TMW04042017	Normal	North Alluvial	4/24/2017	70 U	1.0 U	1.1 J	8.0 J	0.30 U	1.0 U	29000	2.0 J	0.20 U	1.8 U	89 J	0.70 U	5300	0.39 J	1.0 U	1700 J	85	0.10 U	870000	0.20 U	17	2.9 J	0.080 U				
	TMW04102016	Normal		11/3/2016	70 U	1.0 U	1.0 J	8.9	0.30 U	1.0 U	33000	3.3 J	0.20 U	0.96 J	36 J	5.9	5600	0.66 J	1.0 U	1400 J	86	0.10 U	920000	0.20 U	15	3.0 J	0.033 J				
	TMW04042016	Normal		4/13/2016	70 U	1.0 U	1.2 J	7.9	0.30 U	1.0 U	31000	2.2 J	0.20 U	1.8 U	27 J	0.70 U	5600	0.35 J	1.0 U	1200 J	90	0.10 U	690000	0.20 U	15	2.8 J	0.080 U				
	TMW04102015	Normal		11/4/2015	150 U	1.0 U	0.96 J	8.3	0.30 U	1.0 U	30000	2.2 J	0.057 J	1.1 J	50 U	0.70 U	5600	0.95 U	1.0 U	1100	88	0.10 U	910000	0.20 U	16	2.3 J	0.080 U				
TMW06	TMW06042017	Normal	North Alluvial	4/20/2017	70 U	1.0 U	0.85 J	15	0.30 U	1.0 U	30000 J	1.8 U	0.20 U	1.9 J	27 U	0.70 U	7800	32	0.66 J	730 J	1.2 J	0.10 U	2200000	0.20 U	2.9 J	2.2 J	0.080 U				
	TMW06102016	Normal		10/31/2016	52 J	1.0 U	0.87 J	14	0.30 U	1.0 U	34000	0.62 J	0.080 J	3.2	45 J	0.70 U	8100	56	1.1 J	1200 J	1.2 J	0.18 J	850000 J	0.20 U	2.8 J	3.2 J	0.080 U				
	TMW06042016	Normal		4/12/2016	22 J	1.0 U	0.74 J	15	0.30 U	1.0 U	35000	1.8 U	0.056 J	3	85 U	0.70 U	7700	31	1.0 J	380 J	0.96 J	0.083 J	920000	0.20 U	2.7 J	4.1 U	0.080 U				
	TMW06102015	Normal		11/4/2015	150 U	1.0 U	1.0 J	15	0.30 U	1.0 U	34000	0.78 J	0.073 J	2.4	27 J	0.70 U	7700	37	0.48 J	660 J	1.3 J	0.10 U	940000	0.20 U	3.1 J	8.0 U	0.080 U				
TMW07	TMW07042017	Normal	North Alluvial	4/20/2017	490 J	0.63 J	0.94 J	18	0.30 U	1.0 U	56000 J	0.77 J	0.69 J	1.2 J	390 J	0.33 J	11000	350	3.4	3200	2.0 U	0.048 J	1300000	0.20 U	6.6	6.7 J	0.080 U				
	TMW07102016	Normal		10/27/2016	130 J	0.61 J	2.0 J	23	0.30 U	1.0 U	54000	1.8 J	0.77 J	1.8 U	340	0.70 U	9200	390	4.5	6500	0.98 U	0.10 U	1300000	0.20 U	2.6 J	3.0 J	0.080 U				
	TMW07042016	Normal		4/8/2016	830	1.0 U	2.2 J	29	0.30 U	1.0 U	42000 J	2.3 J	0.52 J	2.6	780	0.40 J	7800	260	2.1 J	11000	2.0 U	0.25 J	1100000	0.20 U	2.0 J	4.3 J	0.080 U				
	TMW07102015	Normal		10/30/2015	1500	1.0 U	2.7 J	48	0.30 U	1.0 U	41000	4.5 J	0.89 J	3.9	1100	0.76 J	7900	240 J	4.4	12000	2.0 U	0.39 J	1300000	0.20 U	4.3 J	16 J	0.080 U				
TMW08	TMW08042017	Normal	North Alluvial	4/21/2017	70 U	1.0 U	0.34 J	10	0.30 U	1.0 U	210000	1.8 U	0.62 J	2.5	350	0.70 U	72000	400 J	1.6 J	4000	47	0.10 U	4100000	0.20 U	1.1 J	6.0 J	0.080 U				
	TMW08102016	Normal		11/1/2016	70 U	1.0 U	0.35 J																								

TABLE 5-8

Summary of Total Metals Analytical Detections (Page 3 of 6)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Methods 6010C/6020A (µg/L)																									EPA Method 7470A (µg/L)
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6			
					Regulatory Limit																									
					5000 <sup>a</sup>	6 <sup>b</sup>	10 <sup>b</sup>	1000 <sup>a</sup>	4 <sup>b</sup>	5 <sup>b</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	1000 <sup>a</sup>	300 <sup>b</sup>	50 <sup>a</sup>	NE	50 <sup>b</sup>	200 <sup>a</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	NE	2 <sup>b</sup>	86 <sup>c</sup>	5000 <sup>b</sup>	2 <sup>b</sup>			
TMW11	TMW11042017	Normal	North Alluvial	4/26/2017	1100	1.0 U	0.43 J	28	0.30 U	1.0 U	19000	3.8 J	0.30 J	0.64 J	510	0.35 J	3500	15	0.98 J	4000	15	0.044 J	610000	0.20 U	3.7 J	4.4 J	0.080 U			
	TMW11102016	Normal		11/3/2016	8700	1.0 U	0.86 J	48	0.30 J	1.0 U	24000	7.2 J	1.9	1.4 J	3800	2.1 J	5300	61	3.6	2400 J	13	0.098 J	630000	0.056 J	12 U	13 J	0.027 J			
	DTW11102016	Duplicate		11/3/2016	10000	1.0 U	1.1 J	60	0.33 J	1.0 U	25000	8.9 J	2.3	2.2	4600	2.9 J	5700	82	5.3	2700 J	13	0.17 J	630000	0.058 J	14	17 J	0.028 J			
	TMW11042016	Normal		4/11/2016	2100	1.0 U	0.47 J	29	0.11 U	1.0 U	20000	2.4 J	0.47 J	1.8 U	1000	0.50 J	3800	27	1.5 J	970 J	14	0.037 J	580000	0.20 U	4.7 J	6.6 J	0.080 U			
	TMW11102015	Normal		11/4/2015	1700	1.0 U	0.70 J	34	0.30 U	1.0 U	24000	3.2 J	0.36 J	3.6	1400	0.72 J	4200	42	2.1 J	1200	14	2.5 J	680000	0.20 U	6.5	16 J	0.080 U			
TMW13	TMW13042017	Normal	North Alluvial	4/25/2017	26 J	1.0 U	1.0 U	18	0.30 U	1.0 U	27000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	5300	0.72 J	1.0 U	3300	11	0.10 U	580000	0.20 U	2.5 J	8.0 U	0.080 U			
	TMW13102016	Normal		11/1/2016	70 U	1.0 U	1.0 U	16	0.30 U	1.0 U	26000	0.61 J	0.20 U	1.7 J	85 U	0.70 U	5100	0.77 U	1.0 U	2000 J	13	0.10 U	530000	0.20 U	2.7 J	2.9 U	0.080 U			
	TMW13042016	Normal		4/12/2016	70 U	1.0 U	1.0 U	19	0.30 U	1.0 U	24000	0.69 J	0.20 U	1.8 U	85 U	0.70 U	4600	0.61 J	1.0 U	460 J	11	0.10 U	530000	0.058 U	2.9 J	8.0 U	0.080 U			
	TMW13102015	Normal		11/4/2015	150 U	1.0 U	1.0 U	19	0.30 U	1.0 U	26000	0.66 J	0.20 U	0.68 J	50 U	0.70 U	4800	0.74 U	1.0 U	760 J	11	0.16 J	550000	0.24 U	2.6 J	8.0 U	0.080 U			
TMW15	TMW15042017	Normal	North Alluvial	4/27/2017	70 U	1.0 U	1.0 U	23	0.30 U	1.0 U	20000	0.96 J	0.20 U	1.8 U	85 U	0.70 U	3600	0.37 J	0.60 J	510 J	12	0.10 U	550000	0.20 U	2.2 J	5.8 J	0.080 U			
	DTW15042017	Duplicate		4/27/2017	70 U	1.0 U	1.0 U	21	0.30 U	1.0 U	20000	0.79 J	0.20 U	1.8 U	85 U	0.70 U	3700	0.95 U	1.0 U	480 J	12	0.10 U	570000	0.20 U	1.8 J	5.4 J	0.080 U			
	TMW15102016	Normal		11/2/2016	70 U	1.0 U	1.0 U	22 J	0.30 U	1.0 U	20000	0.92 J	0.20 U	1.8 U	85 U	0.70 U	3500	0.42 J	1.0 U	1200 J	13	0.10 U	560000	0.20 U	1.9 U	5.6 J	0.080 U			
	TMW15042016	Normal		4/13/2016	70 U	1.0 U	1.0 U	22	0.30 U	1.0 U	19000	0.92 J	0.20 U	1.8 U	85 U	0.70 U	3400	0.95 U	1.0 U	800 J	12	0.10 U	420000	0.20 U	1.6 J	4.2 J	0.080 U			
	DTW15042016	Duplicate		4/13/2016	70 U	1.0 U	1.0 U	21	0.30 U	1.0 U	19000	0.96 J	0.20 U	1.8 U	85 U	0.70 U	3400	0.95 U	1.0 U	710 J	13	0.10 U	430000	0.056 J	1.8 J	5.5 J	0.080 U			
	TMW15102015	Normal		11/6/2015	150 U	1.0 U	1.0 U	24 J	0.30 U	1.0 U	21000	0.89 J	0.20 U	1.8 U	41 J	0.70 U	3800	1.5 J	1.0 U	700 J	13	0.051 J	570000	0.20 U	1.9 J	7.8 J	0.080 U			
TMW21	TMW21042017	Normal	North Alluvial	4/26/2017	20000	1.1 J	5.4	270	1.3	1.0 U	49000	14	7.5	26	15000	9.5	13000	530	14	6700	3.0 J	0.17 J	660000	0.20 J	28	44	0.080 U			
	TMW21102016	Normal		10/27/2016	8700	1.0 U	2.6 J	110	0.57 J	1.0 U	37000	6.1 J	2.7	10	5300	3.5	8600	220	5.5	2800 J	3.9 J	0.056 J	620000	0.073 J	14	18 J	0.080 U			
	TMW21042016	Normal		4/11/2016	34000	1.0 U	7.4	410	2.2	1.0 U	50000	20	11	37	22000	15	15000	570	20	6200 J	4.1 J	0.25 J	620000	0.22 J	40	64	0.080 U			
	TMW21102015	Normal		10/29/2015	38000	1.0 U	9.5	510	2.4	0.28 J	54000	19	11	49	25000	17	17000	840	22	6900	2.8 J	0.36 J	700000	0.25 J	43	73	0.060 J			
	TMW22042017	Normal		4/19/2017	37000	1.0 U	4.3 J	540	1.5	1.0 U	62000	30	8.9	13	20000	9.2	21000	510 J	22	6700 J	3.6 J	0.35 J	870000	0.18 J	41	65	0.032 J			
TMW22	TMW22102016	Normal	North Alluvial	10/27/2016	1700	1.3 J	1.1 J	51	0.14 J	1.0 U	38000	4.2 J	0.52 J	1.7 J	930	0.52 J	11000	37	2.6 J	1700 J	4.2 J	0.10 U	870000	0.054 J	7.9	6.1 J	0.080 U			
	TMW22042016	Normal		4/8/2016	140 J	1.0 U	1.0 J	21	0.30 U	1.0 U	33000 J	0.78 J	0.076 J	1.2 J	80 J	0.70 U	10000	7.1	0.63 J	720 J	1.9 J	0.10 U	770000	0.20 U	4.8 J	3.7 J	0.080 U			
	TMW22102015	Normal		10/29/2015	3100	0.70 J	1.2 J	60	0.22 J	1.0 U	36000	2.8 J	0.72 J	1.3 J	1400	0.97 J	12000	56	2.7 J	1600 J	2.9 J	0.12 J	920000	0.099 J	7.6	14 J	0.080 U			
	TMW23042017	Normal		4/20/2017	6600 J	0.44 J	1.9 J	140	0.36 J	1.0 U	21000 J	5.6 J	1.8	3.2	4400 J	2.3 J	6600	140	4.3	2100 J	2.0 U	0.10 U	770000	0.061 J	11	15 J	0.080 U			
TMW23	TMW23102016	Normal	North Alluvial	10/28/2016	2100	1.0 U	1.2 J	41	0.087 J	1.0 U	18000	3.6 J	0.52 J	1.7 J	1200	0.63 J	4800	41	2.0 J	1600 J	1.8 U	0.10 U	750000	0.20 U	5.7 J	5.9 J	0.080 U			
	TMW23042016	Normal		4/8/2016	560	1.0 U	1.2 J	24	0.30 U	1.0 U	18000 J	1.3 J	0.14 J	0.87 J	320	0.70 U	4600	9.2	0.67 J	640 J	2.0 U	0.10 U	710000	0.20 U	2.7 J	2.2 J	0.080 U			
	TMW23102015	Normal		10/30/2015	4500	1.0 U	1.8 J	81	0.21 J	1.0 U	20000	4.0 J	1.1	1.8 J	2500	1.4 J	5800	83 J	2.8 J	1800 J	2.0 U	0.035 U	870000	0.20 U	7.5	13 J	0.080 U			
TMW24	TMW24042017	Normal	North Alluvial	4/25/2017	70 U	1.0 U	0.97 J	39	0.30 U	1.0 U	39000	1.8 U	0.22 J	1.8 U	190	0.70 U	10000	150	1.1 J	5400	2.0 U	0.10 U	1100000	0.20 U	1.4 J	8.0 U	0.080 U			
	TMW24102016	Normal		11/3/2016	70 U	1.0 U	1.2 J	38	0.30 U	1.0 U	37000	1.8 U	0.20 U	0.69 J	58 J	0.70 U	8600	150	0.84 J	1500 J	2.0 U	0.10 U	980000	0.20 U	2.2 U	8.0 U	0.080 U			
	TMW24042016	Normal		4/15/2016	35 J	0.47 J	1.2 J	38	0.35 J	1.0 U	34000	1.8 U	0.28 J	0.89 J	65 J	0.70 U	8200	150	1.2 J	950 J	2.0 U	0.044 U	770000	0.052 J	2.0 J	2.5 J	0.080 U			
	TMW24102015	Normal		11/6/2015	630	1.0 U	1.2 J	43 J	0.30 U	1.0 U	36000	0.78 J	0.29 J	4.9	420	0.34 J	9200	140	1.4 J	1000	2.0 U	0.13 J	1000000	0.20 U	3.2 J	6.2 J	0.080 U			
TMW25	TMW25042017	Normal	North Alluvial	4/27/2017	44 J	1.0 U	0.54 J	11	0.30 U	1.0 U	54000	1.8 U	0.23 J	0.83 J	46 J	0.70 U	11000	200	0.49 J	470 J	2.0 U	0.10 U	910000	0.20 U	3.7 J	3.9 J	0.080 U			
	TMW25102016	Normal		11/1/2016	64 J	1.0 U	0.49 J	11	0.30 U	1.0 U	50000	1.8 U	0.36 J	0.98 J	87 J	0.70 U	11000	280	0.79 J	2000 J	2.0 U	0.27 J	860000	0.20 U	3.8 J	5.9 U	0.080 U			
	TMW25042016	Normal		4/13/2016	140 J	1.0 U	0.83 J	18	0.30 U	1.0 U	49000	1.8 U	1.3	1.3 J	410 J	0.41 J	9800	1100 J	1.8 J	890 J	2.0 U	1.0 J	630000	0.20 U	5.7 J	22	0.080 U			
	TMW25102015	Normal		11/4/2015	340	1.0 U	3.4 J	58	0.30 U	1.0 U	58000	1.9 J	6.9	3.8	4700	1.8 J	11000	6200	9.3	570 J	2.0 U	1.6 J	890000	0.20 U	25	200	0.080 U			
TMW26	TMW26042017	Normal	North Alluvial	4/20/2017	380 J	1.0 U	0.97 J	22	0.30 U	1.0 U	17000 J	1.8 U	0.33 J	2.4	200 J	0.70 U	7400	120	1.9 J	770 J	2.0 U	0.10 U	2100000	0.20 U	4.4 J	2.2 J	0.080 U			
	DTW26042017	Duplicate		4/20/2017	470 J	1.0 U	1.2 J	25	0.30 U	1.0 U	17000 J	1.8 U	0.36 J	2.9	270 J	0.70 U	7700	120	2.1 J	880 J	2.0 U	0.10 U	2100000	0.20 U	4.7 J	2.6 J	0.080 U			
	TMW26102016	Normal		11/1/2016	690	0.45 J	1.3 J	27	0.30 U	1.0 U	18000	0.68 J	0.37 J	3.1	350	0.28 U	7300	110	2.3 J	880 J	2.0 U	0.10 U	810000	0.053 J	4.5 J	6.3 U	0.080 U			
	TMW26042016	Normal		4/8/2016	270 J	1.0 U	1.0 J	22	0.083 U	1.0 U	19000 J	1.8 U	0.30 J	2.3	140	0.70 U	7000	110	1.8 J	520 J	2.0 U	0.10 U	840000	0.20 U	3.9 J	2.1 J	0.080 U			
	DTW26042016	Duplicate		4/8/2016	290 J	1.0 U	0.89 J	21	0.080 U	1.0 U	19000 J	1.8 U	0.29 J	2.2	140															

TABLE 5-8

Summary of Total Metals Analytical Detections (Page 4 of 6)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Methods 6010C/6020A (µg/L)																										EPA Method 7470A (µg/L)
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6				
					Regulatory Limit																										
					5000 <sup>a</sup>	6 <sup>b</sup>	10 <sup>b</sup>	1000 <sup>a</sup>	4 <sup>b</sup>	5 <sup>b</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	1000 <sup>a</sup>	300 <sup>b</sup>	50 <sup>a</sup>	NE	50 <sup>b</sup>	200 <sup>a</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	NE	2 <sup>b</sup>	86 <sup>c</sup>	5000 <sup>b</sup>	2 <sup>b</sup>	
TMW28	TMW28042017	Normal	North Alluvial	4/24/2017	70 U	1.0 U	1.0 U	50 J	0.30 UJ	1.0 UJ	230000	1.8 U	0.27 J	1.8 U	740	0.70 UJ	68000	850 J	0.52 J	2200 J	2.0 U	0.10 U	460000	0.20 U	0.81 J	2.2 J	0.080 U				
	TMW28102016	Normal		11/3/2016	70 U	1.0 U	1.0 U	54	0.30 U	1.0 U	100000	3.5 J	0.17 U	1.8 U	340	0.70 U	30000	410	0.38 J	1600 J	2.0 U	0.10 U	340000	0.20 U	1.2 U	4.0 J	0.027 J				
	TMW28042016	Normal		4/11/2016	27 J	1.0 U	1.0 U	51	0.11 U	1.0 U	110000	1.8 U	0.12 J	1.8 U	400	0.70 U	33000	370	1.0 U	1300 J	2.0 U	0.10 U	340000	0.20 U	1.2 J	28	0.080 U				
	TMW28102015	Normal		11/3/2015	150 U	1.0 U	1.0 U	60	0.30 U	1.0 U	110000	1.8 U	0.099 J	1.8 U	370	0.70 U	32000	430	1.0 U	1300	2.0 U	0.10 U	340000	0.20 U	0.78 J	2.4 J	0.080 U				
TMW29	TMW29042017	Normal	North Alluvial	4/20/2017	8900 J	1.0 U	2.2 J	120	0.40 J	1.0 U	42000 J	7.0 J	2.7	3.7	5600 J	3	10000	150	6.4	3000	20 J	0.10 U	570000	0.068 J	14	16 J	0.080 UJ				
	TMW29102016	Normal		10/28/2016	7100	1.0 U	1.8 J	72	0.26 J	1.0 U	41000	4.7 J	1.6	1.9 J	3500	1.9 J	8600	80	3.9	2800 J	20	0.10 U	580000	0.20 U	12	12 J	0.080 U				
	TMW29042016	Normal		4/7/2016	5800 J	0.73 J	1.9 J	76 J	0.22 J	1.0 U	43000	4.7 J	1.3	2.3	2800 J	1.7 J	8400	78	3.4	2500 J	20	0.10 U	400000	0.20 U	10	13 U	0.080 U				
	TMW29102015	Normal		10/28/2015	6500 J	1.0 U	2.2 J	82	0.29 J	1.0 U	43000	4.6 J	1.6	2.1	4000	3.1	8800	110	4.5	2400 J	19	0.10 U	560000	0.051 U	10	14 J	0.080 U				
TMW31S	TMW31S042017	Normal	North Alluvial	4/19/2017	10000	1.0 U	0.82 J	91	0.48 J	1.0 U	120000	7.3 J	2.2	3.8	4800	2.8 J	23000	200 J	5.1	2000 J	8.1	0.10 U	570000	0.20 U	11	19 J	0.080 U				
	TMW31S102016	Normal		10/27/2016	880	0.73 J	0.34 J	23	0.30 U	1.0 U	110000	2.0	0.32 J	1.8 U	420	0.35 J	20000	43	0.97 J	930 J	11	0.10 U	550000 J	0.20 U	3.3 J	4.3	0.080 U				
	TMW31S042016	Normal		4/6/2016	1700 J	0.68 J	0.47 J	32	0.13 J	1.0 U	110000	2.9 J	0.49 J	1.3 J	790 J	0.65 J	21000	52 J	1.5 J	790 J	9.2	0.038 J	540000	0.065 J	4.3 J	7.8 J	0.080 U				
	TMW31S102015	Normal		10/29/2015	5100	1.0 U	0.60 J	78	0.17 J	1.0 U	110000	4.6 J	1.5	1.2 J	2200	2.9 J	22000	130	3.3	1400 J	9.5	0.10 U	570000	0.20 U	7.3	11 J	0.080 U				
TMW33	TMW33042017	Normal	North Alluvial	4/20/2017	3200 J	1.0 U	1.1 J	54	0.20 J	1.0 U	98000 J	11	1.4	4.7	2200 J	1.5 J	32000	400	8	2600 J	2.0 U	0.058 J	2400000	0.060 J	8.4	6.5 J	0.080 UJ				
	TMW33102016	Normal		10/28/2016	4700	1.0 U	1.4 J	75	0.23 J	1.0 U	100000	4.5 J	1.7	6	2900	2.5 J	29000	410	5.3	3600	2.0 U	0.10 U	2400000	0.053 J	9.4	11 J	0.080 U				
	TMW33042016	Normal		4/7/2016	7000 J	1.0 U	1.8 J	110 J	0.38 J	1.0 U	110000	7.3 J	2.6	5.5	3400 J	2.6 J	28000	820	7.2	4500	2.0 U	0.047 J	2300000	0.053 J	13	15 U	0.080 U				
	TMW33102015	Normal		10/30/2015	840	1.0 U	1.0 J	36	0.13 J	1.0 U	100000	1.5 J	0.64 J	2.5	580	1.1 J	29000	470 J	2.7 J	2900 J	2.0 U	0.049 U	2600000	0.20 U	4.7 J	7.5 J	0.043 J				
TMW34	TMW34042017	Normal	North Alluvial	4/24/2017	54 J	1.0 U	0.33 J	12 J	0.30 UJ	1.0 UJ	120000	1.8 U	0.23 J	1.8 U	75 J	0.29 J	26000	160 J	0.89 J	1700 J	120	0.10 U	1400000	0.20 U	1.4 J	8.0 U	0.080 U				
	DTW34042017	Duplicate		4/24/2017	46 J	1.0 U	0.33 J	12 J	0.30 UJ	1.0 UJ	130000	1.8 U	0.14 J	1.8 U	37 J	0.70 UJ	26000	150 J	0.55 J	2000 J	120	0.10 U	1400000	0.20 U	1.2 J	8.0 U	0.080 U				
	TMW34102016	Normal		11/1/2016	230 J	1.0 U	1.0 U	14	0.30 U	1.0 U	120000	1.8 U	0.54 J	1.0 J	140	0.70 U	27000	300	0.66 J	1900 J	110	0.23 J	1300000	0.20 U	1.5 J	3.3 U	0.080 U				
	TMW34042016	Normal		4/12/2016	70 U	1.0 U	1.0 U	11	0.30 U	1.0 U	130000	1.8 U	0.17 J	1.8 U	85 U	0.70 U	28000	140	0.59 J	910 J	120	0.10 U	1400000	0.20 U	1.1 J	8.0 U	0.080 U				
	DTW34042016	Duplicate		4/12/2016	18 J	1.0 U	0.36 J	12	0.30 U	1.0 U	130000	1.8 U	0.16 J	0.86 J	85 U	0.70 U	27000	140	0.62 J	860 J	120	0.10 U	1400000	0.20 U	1.3 J	2.9 U	0.080 U				
	TMW34102015	Normal		11/3/2015	150 U	1.0 U	1.0 U	12	0.30 U	1.0 U	130000	1.8 U	0.16 J	1.8 U	50 U	0.70 U	27000	160	0.61 J	1300	110	0.10 U	1400000	0.20 U	1.5 J	8.0 U	0.080 UJ				
	DTW34102015	Duplicate		11/3/2015	150 U	1.0 U	1.0 U	12	0.30 U	1.0 U	130000	1.8 U	0.19 J	0.56 J	50 U	0.70 U	27000	150	0.51 J	1400	110	0.10 U	1400000	0.20 U	1.4 J	8.0 U	0.080 UJ				
TMW35	TMW35042017	Normal	North Alluvial	4/24/2017	70 U	1.0 U	0.57 J	12 J	0.30 UJ	1.0 UJ	81000	1.8 U	0.22 J	1.3 J	85 U	0.38 J	15000	170 J	0.94 J	1600 J	13	0.10 U	1200000	0.20 U	2.0 J	8.0 U	0.080 U				
	TMW35102016	Normal		10/31/2016	70 U	1.0 U	0.41 J	12	0.30 U	1.0 U	82000	0.60 J	0.18 J	1.3 J	85 U	0.70 U	16000	150	0.81 J	1400 J	15	0.10 U	1100000	0.20 U	1.8 J	8.0 U	0.080 U				
	DTW35102016	Duplicate		10/31/2016	70 U	1.0 U	0.51 J	11	0.30 U	1.0 U	80000	1.8 UJ	0.17 J	1.2 J	85 U	0.70 U	16000	150	0.89 J	950 J	16	0.10 U	1100000	0.20 U	1.8 J	19 J	0.080 U				
	TMW35042016	Normal		4/11/2016	70 U	1.0 U	0.59 J	12	0.14 U	1.0 U	79000	1.8 U	0.15 J	0.99 J	85 U	0.70 U	15000	140	0.65 J	530 J	20	0.033 J	1200000	0.20 U	2.1 J	8.0 U	0.080 U				
	TMW35102015	Normal		11/2/2015	70 U	1.0 U	0.43 J	11	0.30 U	1.0 U	77000	1.8 U	0.18 J	1.4 J	85 U	0.70 U	15000	160	0.71 J	980 UJ	20	0.10 U	1400000	0.20 U	2.0 J	8.0 U	0.080 U				
TMW39S	TMW39S042017	Normal	North Alluvial	4/19/2017	1800	1.0 U	0.46 J	34	0.30 U	1.0 U	82000	3.8 J	0.59 J	1.6 J	1000	0.67 J	18000	37 J	1.4 J	2100 J	13	0.10 U	1000000	0.20 U	6.2	5.2 J	0.080 U				
	TMW39S102016	Normal		10/27/2016	1900	1.0 U	0.59 J	40	0.10 J	1.0 U	73000	3.6 J	0.58 J	1.0 J	1100	0.86 J	15000	41	1.5 J	1600 J	12	0.10 U	840000 J	0.20 U	6.5	5.6 J	0.080 U				
	TMW39S042016	Normal		4/6/2016	3800 J	0.73 J	0.89 J	60	0.30 U	1.0 U	76000	5.2 J	0.81 J	2.1	1900 J	1.7 J	18000	73 J	2.3 J	1500 J	11	0.041 J	890000	0.20 U	7.2	8.9 J	0.080 U				
	TMW39S102015	Normal		10/29/2015	9900	1.0 U	1.2 J	160	0.47 J	1.0 U	84000	8.2 J	2.6	3.8	4800	3.4	19000	240	5.1	2600 J	10	0.091 J	960000	0.069 J	14	18 J	0.080 U				
TMW40S	TMW40S042017	Normal	North Alluvial	4/24/2017	3100	1.0 U	9.5	53	0.30 J	1.0 U	64000	1.8 J	0.61 J	1.4 J	1600	2.1 J	11000	55	1.3 J	5300	61	0.10 U	1000000	0.20 U	37	19 J	0.080 U				
	TMW40S102016	Normal		10/2016	Well was dry and was not sampled this event																										
	TMW40S042016	Normal		4/8/2016	6200	1.0 U	13	99	0.65 J	1.0 U	66000 J	2.7 J	1.2	2.3	3100	5.3	11000	130	2.7 J	1300 J	61	0.053 J	970000	0.11 U	40	42	0.080 U				
TMW40S102015	Normal	10/28/2015	59000 J	1.0 U	23	1000	9.8	0.70 J	120000	20	11	18	34000	75	27000	1400	25	4900	54	0.33 U	960000	0.23 U	65	480	0.053 J						
TMW41	TMW41042017	Normal	North Alluvial	4/19/2017	850	1.0 U	0.44 J	15	0.12 J	1.0 U	17000	2.1 J	0.22 J	0.86 J	420	0.21 J	4200	7.8 J	0.44 J	1800 J	0.94 J	0.10 U	910000	0.20 U	7.9	4.4 J	0.080 U				
	TMW41102016	Normal		10/27/2016	490	1.0 U	0.49 J	14	0.30 U	1.0 U	16000	2.9 J	0.20 J	1.8 U	240	0.19 J	3800	6.7	0.68 J	1400 J	2.4 U	0.10 U	850000 J	0.20 U	7.9	2.9 J	0.080 U				
	TMW41042016	Normal		4/7/2016	560 J	1.0 U	0.54 J	12 J	0.30 U	1.0 U	16000	2.3 J	0.11 J	0.74 J	210 J	0.70 U	3600	4.6	0.63 U	1100 J	1.2 J	0.10 U	670000	0.20 U	6.4	5.1 U	0.080 U				
	TMW41102015	Normal		10/29/2015	500	1.0 U	0.53 J	16	0.30 U	1.0 U	15000	1.8 J	0.14 J	1.8 U	220	1.8 J	3900	6.7	0.49 J	1300 J	1.4 J	0.070 J	920000	0.20 U	7.5	5.4 J	0.080				

TABLE 5-8

## Summary of Total Metals Analytical Detections (Page 5 of 6)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Methods 6010C/6020A (µg/L)																										EPA Method 7470A (µg/L)
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6				
					Regulatory Limit																										
5000 <sup>a</sup>	6 <sup>b</sup>	10 <sup>b</sup>	1000 <sup>a</sup>	4 <sup>b</sup>	5 <sup>b</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	1000 <sup>a</sup>	300 <sup>b</sup>	50 <sup>a</sup>	NE	50 <sup>b</sup>	200 <sup>a</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	NE	2 <sup>b</sup>	86 <sup>c</sup>	5000 <sup>b</sup>	2 <sup>b</sup>									
TMW44	TMW44042017	Normal	North Alluvial	4/19/2017	4400	1.0 U	1.4 J	56	0.24 J	1.0 U	39000	3.0 J	1.5	2.8	3100	2.2 J	13000	300 J	2.5 J	2100 J	2.2 J	0.046 J	790000	0.061 J	8.6	11 J	0.080 U				
	TMW44102016	Normal		10/27/2016	4400	1.0 U	1.7 J	73	0.35 J	1.0 U	36000	3.7 J	1.9	1.9 J	3000	3.6	11000	190	2.8 J	2000 J	3.4 U	0.10 U	720000 J	0.074 J	11	15 J	0.080 U				
	TMW44042016	Normal		4/8/2016	710	1.0 U	0.85 J	21	0.30 U	1.0 U	34000 J	0.68 J	0.18 J	1.2 J	380	0.29 J	11000	79	1.4 J	610 J	2.1 J	0.10 U	700000	0.20 U	4.2 J	3.8 J	0.080 U				
	TMW44102015	Normal		10/29/2015	4700	1.0 U	1.5 J	62	0.24 J	1.0 U	38000	3.0 J	1.8	1.5 J	2600	1.8 J	13000	330	2.8 J	1700 J	2.0 J	0.042 J	800000	0.050 J	9.1	10 J	0.027 J				
TMW45	TMW45042017	Normal	North Alluvial	4/28/2017	170 J	1.0 U	0.96 J	70	0.30 U	1.0 U	29000	1.8 U	0.29 J	1.6 J	110	0.18 J	7500	150	1.3 J	670 J	0.77 J	0.033 J	930000	0.072 J	4.4 J	8.0 U	0.052 J				
	TMW45102016	Normal		11/4/2016	160 J	0.77 J	0.91 J	68	0.30 U	1.0 U	31000	1.8 U	0.20 J	1.7 J	110	0.36 J	7300 J	110	1.1 J	1400 J	0.87 J	0.046 J	980000	0.056 U	4.3 J	8.0 U	0.030 J				
	DTW45102016	Duplicate		11/4/2016	170 J	1.0 U	0.98 J	66	0.30 U	1.0 U	28000	1.8 U	0.23 J	1.8 J	120	0.70 U	6700 J	120	1.1 J	1400 J	0.83 J	0.058 J	900000	0.20 U	3.9 J	8.0 U	0.028 J				
	TMW45042016	Normal		4/14/2016	82 J	1.0 U	1.1 J	74	0.30 U	1.0 U	26000	1.1 J	0.27 J	1.7 J	59 J	0.70 U	6600	180	2.0 J	990 J	0.76 J	0.10 U	770000 J	0.20 U	4.7 J	8.0 U	0.080 U				
TMW46	TMW45102015	Normal	11/3/2015	79 J	1.0 U	1.0 J	72	0.30 U	1.0 U	29000	0.52 J	0.20 J	2	43 J	0.70 U	7500	170	1.4 J	1000	0.70 J	0.059 U	910000	0.20 U	4.2 J	8.0 U	0.080 U					
	TMW46042017	Normal	North Alluvial	4/20/2017	910 J	1.0 U	0.49 J	27	0.30 U	1.0 U	71000 J	1.6 J	0.37 J	1.6 J	570 J	0.56 J	19000	19	0.91 J	1000 J	110 J	0.10 U	1200000	0.20 U	3.9 J	5.3 J	0.080 U				
	TMW46102016	Normal		10/28/2016	7000	1.0 U	1.1 J	130	0.30 J	1.0 U	80000	4.7 J	2	3.3	4200	3.2	18000	130	3.1	2000 J	120	0.056 J	1200000	0.062 J	9.6	22	0.080 U				
	TMW46042016	Normal		4/7/2016	5700 J	1.0 U	1.2 J	98 J	0.28 J	1.0 U	83000	3.7 J	1.6	4.4	2600 J	2.4 J	18000	100	2.4 J	2900 J	110	0.10 U	1200000	0.20 U	8.3	11 U	0.080 U				
TMW46102015	Normal	10/29/2015		8000	1.0 U	1.9 J	190	0.74 J	1.0 U	85000	5.5 J	2.8	4.7	5300	4.7	19000	200	3.8	2500 J	110	0.042 J	1300000	0.11 J	12	18 J	0.052 J					
TMW47	TMW47042017	Normal	North Alluvial	4/25/2017	20 J	1.0 U	0.44 J	14	0.30 U	1.0 U	6100	1.8 U	0.20 U	1.8 U	85 U	0.70 U	680	38	1.0 U	3300	2.0 U	0.10 U	540000	0.20 U	2.0 U	8.0 U	0.080 U				
	TMW47102016	Normal		11/4/2016	70 U	1.0 U	0.48 J	12	0.12 J	1.0 U	6300	1.8 U	0.092 J	0.78 J	27 J	0.70 U	630 J	33	1.0 U	1300 J	1.0 J	0.10 U	550000	0.081 U	2.0 U	2.3 J	0.080 U				
	TMW47042016	Normal		4/14/2016	19 J	1.0 U	0.47 J	13	0.30 U	1.0 U	5700	1.8 U	0.066 J	0.63 J	44 J	0.70 U	600	41	1.0 U	1100 J	2.0 U	0.10 U	420000 J	0.20 U	0.75 J	8.0 U	0.080 U				
	TMW47102015	Normal		11/5/2015	150 U	1.0 U	0.68 J	13	0.30 U	1.0 U	6200	1.8 U	0.20 U	0.60 J	20 J	0.70 U	700	45	0.33 J	1200	2.0 U	0.10 U	560000	0.20 U	1.0 J	8.0 U	0.080 U				
TMW02	TMW02042017	Normal	North Bedrock	4/24/2017	19 J	1.0 U	1.1 J	7.7 J	0.30 U	1.0 U	22000	1.8 U	0.20 U	1.8 U	22 J	0.70 U	2700	0.92 J	1.0 U	2400 J	79	0.10 U	1100000	0.20 U	42	8.0 U	0.080 U				
	TMW02102016	Normal		11/1/2016	70 U	1.0 U	1.1 J	7.8	0.30 U	1.0 U	23000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	2800	0.52 U	1.0 U	3000	79	0.10 U	1000000	0.20 U	38	8.0 U	0.080 U				
	TMW02042016	Normal		4/13/2016	70 U	1.0 U	1.1 J	8.3	0.30 U	1.0 U	20000	0.60 J	0.20 U	1.8 U	85 U	0.70 U	2400	0.38 J	1.0 U	1800 J	79	0.10 U	880000	0.20 U	40	8.0 U	0.080 U				
	TMW02102015	Normal		11/3/2015	150 U	1.0 U	1.1 J	8.5	0.30 U	1.0 U	23000	0.64 J	0.20 U	1.8 U	20 J	0.70 U	2800	1.0 J	1.0 U	1900	78	0.10 U	1100000	0.20 U	42	2.0 J	0.080 U				
TMW14A	TMW14A042017	Normal	North Bedrock	4/27/2017	43 J	1.0 U	0.73 J	19	0.30 U	1.0 U	3400	1.8 U	0.20 U	1.3 J	34 J	0.70 U	400 J	11	0.60 J	710 J	2.0 U	0.10 U	450000	0.20 U	2.0 U	8.0 U	0.080 U				
	TMW14A102016	Normal		11/3/2016	140 J	1.0 U	0.57 J	20	0.30 U	1.0 U	3400	1.1 J	0.097 U	1.2 J	180	0.70 U	410 J	25	0.37 J	1400 J	2.0 U	0.10 U	430000	0.20 U	2.0 U	3.8 J	0.028 J				
	TMW14A042016	Normal		4/14/2016	28 J	1.0 U	0.39 J	19	0.30 U	1.0 U	3100	1.8 U	0.20 U	1.7 J	31	0.70 U	340 J	13	0.50 J	820 J	2.0 U	0.10 U	400000 J	0.20 U	2.0 U	8.0 U	0.080 U				
	TMW14A102015	Normal		11/3/2015	150 U	1.0 U	1.0 U	18	0.30 U	1.0 U	3300	1.8 U	0.20 U	1.3 J	28 J	0.70 U	380 J	14	0.39 J	800 J	2.0 U	0.10 U	440000	0.20 U	2.0 U	7.5 J	0.080 U				
TMW16	TMW16042017	Normal	North Bedrock	4/20/2017	7000 J	1.0 U	1.6 J	100	0.38 J	1.0 U	5600 J	8.1 J	2.1	5.9	3800 J	2.0 J	2500	76	23	2100 J	2.0 U	1.3 J	430000	0.050 J	54	28	0.080 U				
	TMW16102016	Normal		10/28/2016	890	1.0 U	1.0 U	18	0.30 U	1.0 U	3700	1.9 J	0.31 J	1.3 J	420	0.31 J	560	6.7	8.2	1100 U	1.1 U	0.12 J	420000	0.20 U	13	13 J	0.080 U				
	TMW16042016	Normal		4/7/2016	4700 J	1.0 U	1.1 J	61 J	0.16 J	1.0 U	12000	11	2.1	4.6	1500 J	1.1 J	2100	140	67	2500 J	1.0 J	1.2 J	480000	0.20 U	11	37	0.080 U				
	TMW16102015	Normal		10/28/2015	1900 J	1.0 U	0.75 J	34	0.30 U	1.0 U	4500	2.8 J	0.72 U	2.7	1200	1.0 U	970	27	6.4	1000 J	2.0 U	0.59 J	420000	0.27 U	14	18 J	0.038 J				
TMW17	TMW17042017	Normal	North Bedrock	4/27/2017	180 J	1.0 U	0.42 J	16	0.30 U	1.0 U	3600	1.8 U	0.20 U	0.75 J	51 J	0.72 J	530	14	1.0 U	890 J	2.0 U	0.10 U	440000	0.20 U	2.0 U	18 J	0.080 U				
	TMW17102016	Normal		11/4/2016	160 J	1.0 U	1.0 U	14	0.30 U	1.0 U	3800	1.8 U	0.059 J	1.1 J	80 J	0.70 J	470 J	13	0.35 J	1000 J	2.0 U	0.10 U	420000	0.20 U	0.52 J	54	0.080 U				
	TMW17042016	Normal		4/15/2016	170 J	1.0 U	1.0 U	15	0.30 U	1.0 U	3500	1.8 U	0.075 J	1.1 J	62 J	0.84 J	460 J	14	0.40 J	960 J	2.0 U	0.052 U	430000	0.20 U	0.77 J	55	0.080 U				
	TMW17102015	Normal		11/3/2015	260	1.0 U	1.0 U	15	0.30 U	1.0 U	3700	0.61 J	0.074 J	1.3 J	110	0.90 J	530	16	0.84 J	910 J	2.0 U	0.044 U	420000	0.20 U	0.84 J	110	0.080 U				
TMW18	TMW18042017	Normal	North Bedrock	4/20/2017	780 J	1.0 U	1.8 J	22	0.30 U	1.0 U	6600 J	1.8 J	0.18 J	2.1	370 J	0.95 J	1200	13	0.86 J	3200	2.0 U	0.14 J	640000	0.20 U	26	4.9 J	0.080 U				
	TMW18102016	Normal		10/28/2016	180 J	1.0 U	0.54 J	14	0.30 U	1.0 U	6600	1.8 U	0.20 U	0.67 J	90 J	0.39 J	1100	7.7	0.36 J	3600	1.1 U	0.094 J	680000	0.20 U	6	2.6 J	0.080 U				
	TMW18042016	Normal		4/7/2016	400 J	1.0 U	2.4 J	16 J	0.30 U	1.0 U	6700	1.3 J	0.088 J	0.90 J	130 J	0.34 J	1000	8	0.59 U	4000	0.81 J	0.58 J	470000	0.20 U	13	3.7 U	0.080 U				
	TMW18102015	Normal		10/29/2015	210 J	1.0 U	1.0 U	18	0.30 U	1.0 U	7000	1.8 U	0.20 U	1.6 J	140	0.43 J	1200	7.4	0.35 J	3700	2.0 U	0.10 U	750000	0.20 U	3.9 J	2.8 J	0.080 U				
TMW19	TMW19042017	Normal	North Bedrock	4/20/2017	750 J	1.0 U	1.0 U	8.2	0.087 J	1.0 U	9000 J	0.78 J	0.21 J	1.1 J	350 J	0.35 J	1300	20	2.5 J	1200 J	2.0 U	0.037 J	670000	0.20 U	7.3	7.8 J	0.080 U				
	TMW19102016	Normal		10/28/2016	660	1.0 U	0.36 J	8.9	0.30 U	1.0 U	9300	1.1 J	0.19 J	1.0 J	330	0.33 J	1100	18	3.7	1400 J	1.1 U	0.074 J	650000	0.20 U	7.6	19 J	0.080 U				
	DTW19102016	Duplicate		10/28/2016	630	1.0 U	1.0 U	8.3	0.30 U	1.0 U																					

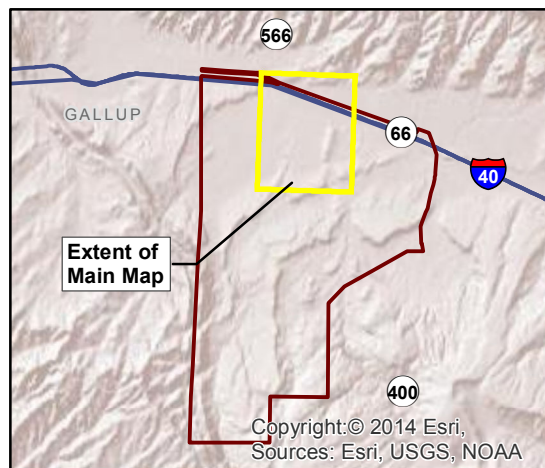
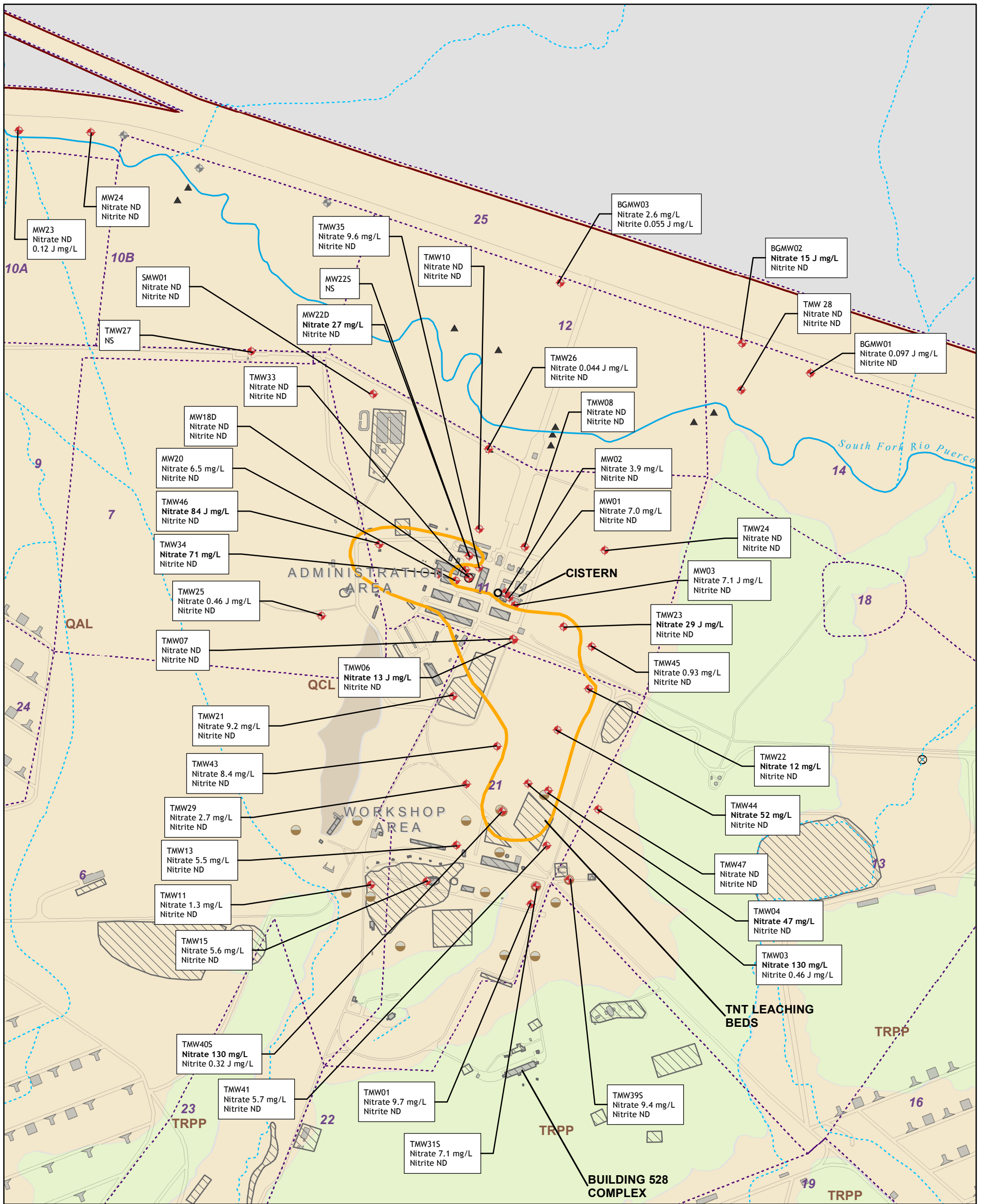
TABLE 5-8

## Summary of Total Metals Analytical Detections (Page 6 of 6)

Groundwater Periodic Monitoring Report January through June 2017 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Methods 6010C/6020A (µg/L)																									EPA Method 7470A (µg/L)
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6			
					Regulatory Limit																									
					5000 <sup>a</sup>	6 <sup>b</sup>	10 <sup>b</sup>	1000 <sup>a</sup>	4 <sup>b</sup>	5 <sup>b</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	1000 <sup>a</sup>	300 <sup>b</sup>	50 <sup>a</sup>	NE	50 <sup>b</sup>	200 <sup>a</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	NE	50 <sup>a</sup>	50 <sup>a</sup>	NE	2 <sup>b</sup>	86 <sup>c</sup>	5000 <sup>b</sup>	2 <sup>b</sup>
TMW31D	TMW31D042017	Normal	North Bedrock	4/27/2017	70 U	1.0 U	0.65 J	11	0.30 U	1.0 U	68000	1.8 U	0.13 J	1.7 J	85 U	0.81 J	11000	5.7	0.55 J	1500 J	8.1	0.10 U	560000	0.20 U	7	23	0.080 U			
	DTW31D042017	Duplicate		4/27/2017	46 J	1.0 U	0.40 J	11	0.30 U	1.0 U	66000	1.8 U	0.20 U	0.71 J	30 J	0.70 U	11000	4	0.36 J	1400 J	8.7	0.10 U	540000	0.20 U	7.3	16 J	0.080 U			
	TMW31D102016	Normal		10/31/2016	70 U	1.0 U	0.40 J	8.2	0.30 U	1.0 U	70000	1.7 J	0.056 J	0.72 J	85 U	0.70 U	13000	2.3 J	0.39 J	2100 J	7.6	0.10 U	540000 J	0.20 U	6.8	16 J	0.080 U			
	DTW31D102016	Duplicate		10/31/2016	70 U	1.0 U	0.48 J	8.7	0.30 U	1.0 U	67000	1.8 U	0.062 J	0.57 J	85 U	0.70 U	12000	1.9 J	0.31 J	2000 J	7.8	0.10 U	520000 J	0.20 U	6.8	15 J	0.080 U			
	TMW31D042016	Normal		4/13/2016	70 U	1.0 U	1.0 U	8.5	0.30 U	1.0 U	64000	0.59 J	0.20 U	0.92 J	85 U	0.70 U	11000	1.8 J	0.51 J	2000 J	7.9	0.10 U	430000	0.20 U	6.7	18 J	0.080 U			
	DTW31D042016	Duplicate		4/13/2016	70 U	1.0 U	0.45 J	8.7	0.30 U	1.0 U	60000	0.63 J	0.20 U	0.62 J	85 U	0.70 U	10000	2.8 J	0.45 J	1800 J	7.7	0.10 U	370000	0.20 U	6.7	17 J	0.080 U			
	TMW31D102015	Normal		11/5/2015	150 U	1.0 U	0.52 J	9	0.30 U	1.0 U	62000	1.8 U	0.062 J	1.8 U	50 U	0.70 U	11000	2.1 J	0.41 J	1600	7.3	0.10 U	530000	0.20 U	6.3	18 J	0.080 U			
DTW31D102015	Duplicate	11/5/2015	150 U	1.0 U	0.40 J	8.3	0.30 U	1.0 U	66000	1.8 U	0.20 U	0.57 J	50 U	0.70 U	11000	2.8 J	0.45 J	1600	7.2	0.10 U	550000	0.20 U	6.6	19 J	0.080 U					
TMW32	TMW32042017	Normal	North Bedrock	4/27/2017	70 U	1.0 U	1.3 J	6.4	0.30 U	1.0 U	11000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	1100	26	0.48 J	1000 J	3.4 J	0.10 U	740000	0.20 U	1.9 J	3.2 J	0.080 U			
	TMW32102016	Normal		11/2/2016	70 U	0.56 J	1.6 J	6.8 J	0.30 U	1.0 U	12000	1.8 U	0.077 U	0.64 J	85 U	0.70 U	1200	27	0.51 J	2000 J	3.8 J	0.10 U	750000	0.20 U	1.7 U	2.3	0.080 U			
	TMW32042016	Normal		4/13/2016	70 U	0.42 J	1.8 J	7.8	0.30 U	1.0 U	11000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	1100	29 J	0.44 J	1400 J	3.6 J	0.039 J	530000	0.20 U	2.0 J	3.7 J	0.080 U			
	TMW32102015	Normal		11/5/2015	150 U	0.42 J	1.5 J	7.9	0.30 U	1.0 U	11000	1.8 U	0.20 U	1.8 U	50 U	0.70 U	1100	28	0.39 J	1300	3.4 J	0.10 U	720000	0.20 U	2.3 J	3.8 J	0.080 U			
TMW36	TMW36042017	Normal	North Bedrock	4/20/2017	160 J	1.0 U	1.0 U	7.7	0.30 U	1.0 U	7900 J	3.6 J	0.23 J	0.90 J	150 U	0.49 J	1000	15	6.6	1200 J	2.0 U	0.91 J	670000	0.20 U	2.0 J	16 J	0.080 U			
	TMW36102016	Normal		10/27/2016	200 J	1.0 U	1.0 U	8.4	0.30 U	1.0 U	8700	1.1 J	0.23 J	0.67 J	120	0.62 J	910	13	4.1	1100 J	1.2 U	0.073 J	650000 J	0.20 U	2.7 J	19 J	0.080 U			
	TMW36042016	Normal		4/7/2016	850 J	1.0 U	1.2 J	12 J	0.080 J	1.0 U	9800	11	0.79 J	2.7	<b>540 J</b>	2.5 J	1200	39	19	1800 J	2.0 U	0.37 J	640000	0.20 U	3.6 J	65	0.080 U			
	TMW36102015	Normal		10/28/2015	250 J	1.0 U	1.0 U	11	0.12 J	1.0 U	8100	12	0.35 U	0.89 J	210	0.91 U	930	28	7	1100 J	2.0 U	0.28 U	620000	0.063 U	3.2 J	25	0.080 U			
TMW37	TMW37042017	Normal	North Bedrock	4/20/2017	540 J	1.0 U	0.35 J	12	0.10 J	1.0 U	5500 J	1.8 J	0.32 J	1.3 J	<b>380 J</b>	1.3 J	800	13	10	1100 J	2.0 U	0.10 U	540000	0.20 U	3.0 J	53	0.080 U			
	TMW37102016	Normal		10/27/2016	500	1.0 U	0.49 J	14	0.30 U	1.0 U	5800	2.8 J	0.36 J	1.1 J	<b>390</b>	1.7 J	690	11	9.4	1300 J	0.75 U	0.86 J	530000 J	0.10 J	4.8 J	64	0.080 U			
	TMW37042016	Normal		4/7/2016	3400 J	1.0 U	0.97 J	35 J	0.11 J	1.0 U	12000	36	2.4	4.4	<b>1800 J</b>	6.2	1800	<b>80</b>	99	2200 J	2.0 U	1.3 J	540000	0.20 U	11	260	0.080 U			
	TMW37102015	Normal		10/28/2015	510 J	1.0 U	0.48 J	13	0.094 J	1.0 U	7100	3.6 J	0.51 U	1.5 J	<b>420</b>	1.7 J	860	29	16	1000 J	2.0 U	0.44 J	580000	0.054 U	3.0 J	66	0.080 U			
TMW38	TMW38042017	Normal	North Bedrock	4/26/2017	290 J	1.0 U	0.60 J	16	0.30 U	1.0 U	17000	1.8 U	0.20 J	0.60 J	<b>350</b>	0.22 J	2100	<b>79</b>	0.59 J	6300	2.0 U	0.10 U	880000	0.20 U	2.0 U	29	0.080 U			
	TMW38102016	Normal		11/4/2016	70 U	1.0 U	0.53 J	14	0.30 U	1.0 U	17000	1.8 U	0.091 J	1.8 U	110	0.70 U	1800 J	<b>74</b>	1.0 U	2000 J	2.0 U	0.044 J	890000	0.20 U	2.0 U	8.0 U	0.027 J			
	TMW38042016	Normal		4/14/2016	42 J	0.55 J	0.60 J	18	0.30 U	1.0 U	16000	1.8 U	0.11 J	1.8 U	210 J	0.70 U	1800	<b>110</b>	1.0 U	1700 J	2.0 U	0.10 U	770000 J	0.20 U	2.0 U	4.5 J	0.080 U			
	TMW38102015	Normal		11/6/2015	4400	0.47 J	1.3 J	44 J	0.20 J	1.0 U	17000	3.8 J	1.4	3.6	<b>3600</b>	2.1 J	2700	<b>150</b>	3.8	2800	2.0 U	0.15 J	870000	0.11 J	11	360	0.080 U			
TMW39D	TMW39D042017	Normal	North Bedrock	4/27/2017	35 J	1.0 U	1.0 U	8.7	0.30 U	1.0 U	20000	1.8 U	0.20 U	1.8 U	27 J	0.70 U	2100	<b>57</b>	0.72 J	1300 J	2.0 U	0.10 U	740000	0.20 U	2.0 U	2.0 J	0.080 U			
	TMW39D102016	Normal		10/31/2016	70 U	1.0 U	1.0 U	7.9	0.30 U	1.0 U	22000	2.7 J	0.20 U	1.8 U	85 U	0.70 U	2700	49	1.0 U	1900 J	0.97 J	0.10 U	700000 J	0.20 U	0.57 J	8.0 U	0.080 U			
	TMW39D042016	Normal		4/12/2016	55 J	0.55 J	1.0 U	7.9	0.30 U	1.0 U	18000	1.8 U	0.20 U	1.8 U	36 J	0.70 U	1900	<b>55</b>	1.0 U	1300 J	2.0 U	0.10 U	740000	0.10 U	2.0 U	8.0 U	0.080 U			
	TMW39D102015	Normal		11/4/2015	150 U	1.0 U	1.0 U	9.9	0.30 U	1.0 U	20000	1.8 U	0.20 U	1.8 U	50 U	0.70 U	2100	<b>58</b>	1.0 U	1400	2.0 U	0.10 U	730000	0.20 U	2.0 U	8.0 U	0.080 U			
TMW40D	TMW40D042017	Normal	North Bedrock	4/25/2017	19 J	1.0 U	0.43 J	9.8	0.30 U	1.0 U	14000	1.8 U	0.082 J	1.8 U	85 U	0.70 U	2000	<b>50</b>	1.0 U	4200	3.2 J	0.10 U	700000	0.20 U	3.2 J	2.4 J	0.080 U			
	TMW40D102016	Normal		10/31/2016	70 U	1.0 U	0.46 J	9.8	0.30 U	1.0 U	15000	5.1 J	0.056 J	0.70 J	85 U	0.70 U	2100	<b>51</b>	1.0 U	1800 J	3.5 J	0.10 U	700000 J	0.20 U	3.0 J	9.2 J	0.080 U			
	TMW40D042016	Normal		4/12/2016	70 U	1.0 U	0.51 J	9.7	0.30 U	1.0 U	15000	1.8 U	0.068 J	1.8 U	85 U	0.70 U	2000	<b>52</b>	1.0 U	1100 J	3.3 J	0.10 U	730000	0.20 U	2.8 J	4.6 U	0.080 U			
	TMW40D102015	Normal		11/3/2015	150 U	1.0 U	0.42 J	10	0.30 U	1.0 U	14000	1.8 U	0.071 J	0.72 J	50 U	0.70 U	1900	<b>53</b>	1.0 U	1200	3.5 J	0.10 U	690000	0.20 U	3.4 J	4.1 J	0.080 U			
TMW48	TMW48042017	Normal	North Bedrock	4/26/2017	70 U	1.0 U	0.58 J	11	0.30 U	1.0 U	84000	1.8 U	0.20 U	0.78 J	85 U	0.70 U	16000	<b>54</b>	0.69 J	5100	6.3	0.10 U	580000	0.20 U	4.0 J	12 J	0.080 U			
	TMW48102016	Normal		11/1/2016	70 U	1.0 U	0.53 J	10	0.30 U	1.0 U	64000	1.8 U	0.20 U	0.85 J	85 U	0.70 U	12000	41	0.36 J	1800 J	6.1	0.10 U	590000	0.20 U	2.9 J	12 U	0.080 U			
	TMW48042016	Normal		4/12/2016	70 U	1.0 U	0.44 J	11	0.30 U	1.0 U	77000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	15000	39	0.42 J	1400 J	7.3	0.10 U	560000	0.20 U	4.9 J	10 U	0.080 U			
	TMW48102015	Normal		11/4/2015	150 U	1.0 U	0.61 J	11	0.30 U	1.0 U	76000	1.8 U	0.20 U	0.79 J	50 U	0.70 U	15000	33	1.0 U	1500	7.3	0.10 U	550000	0.20 U	5.3 J	7.8 J	0.080 U			
TMW49	TMW49042017	Normal	North Bedrock	4/26/2017	35 J	1.0 U	0.57 J	11	0.30 U	1.0 U	80000	0.90 J	0.058 J	1.6 J	30 U	0.70 U	14000	4.2	0.44 J	5000	19	0.10 U	600000	0.20 U	12	7.5 J	0.080 U			
	TMW49102016	Normal		11/2/2016	49 J	1.0 U	0.60 J	11 J	0.30 U	1.0 U	66000	3.6 J	0.20 U	1.4 J	85 U	0.70 U	11000	1.7 J	0.65 J	2600 J	24	0.10 U	670000	0.20 U	11 U	5.9 J	0.080 U			
	TMW49042016	Normal		4/14/2016	300	1.0 U	0.56 J	17	0.30 U	1.0 U	61000	1.7 J	0.22 J	1.6 J	120 J	0.42 J	11000	8.3	5.2	1700 J	23	0.20 U	470000 J	0.20 U	11	8.8 J	0.080 U			
	TMW49102015	Normal																												





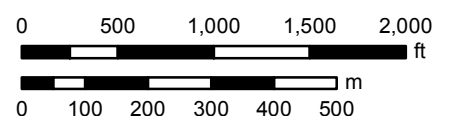
**Legend**

- ◆ Alluvial Monitoring Well
- Bedrock Monitoring Well
- ▲ Piezometer
- ◆ Abandoned Well
- ⊗ Dry Well
- Water Supply Well 69
- Nitrate**  
110 mg/L
- 10A Property Transfer Parcel
- Fort Wingate Installation Boundary
- Surface Geology**
- QAL QAL - Quaternary Alluvial Deposits
- QCL QCL - Quaternary Colluvial and Gravel Deposits
- TRPP TRPP - Petrified Forest Formation, Painted Desert Member
- Arroyo
- Stream
- AOC and SWMU

**FIGURE 5-1**  
**Spring 2017 Northern Area Nitrate and Nitrite Concentrations in Alluvial Groundwater**

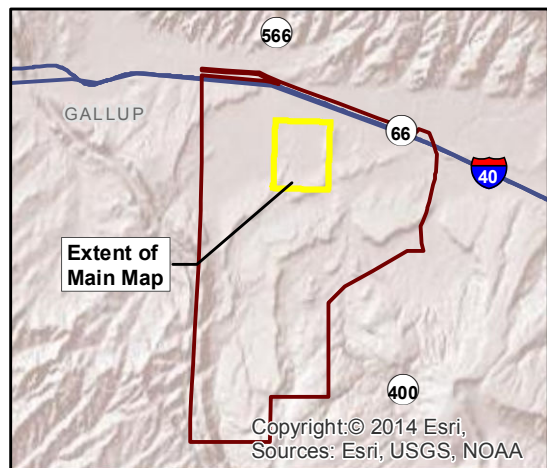
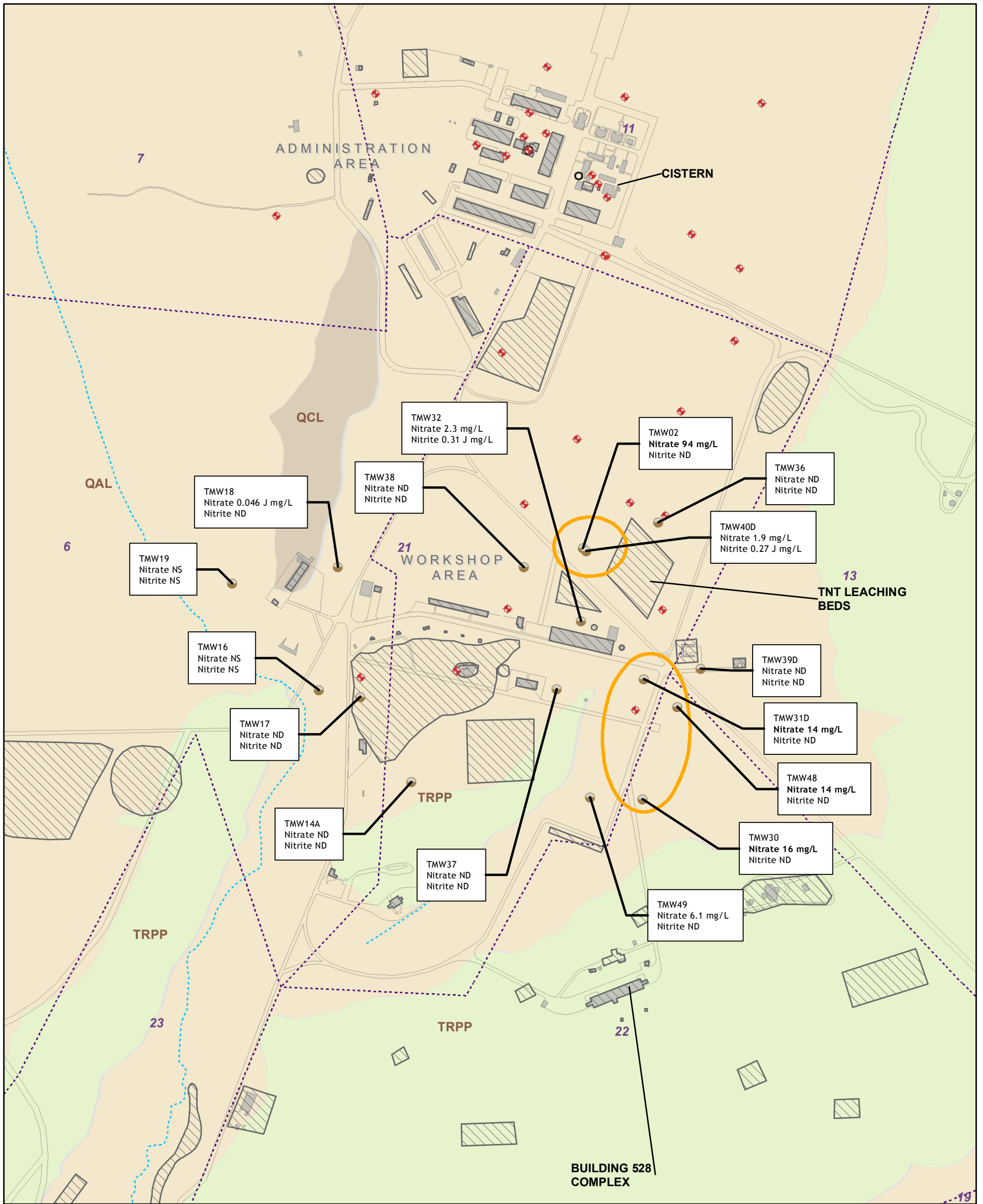
Groundwater Periodic Monitoring Report for January to July 2017  
 Fort Wingate Depot Activity, McKinley County, New Mexico

Notes:  
 \*New Mexico Water Quality Control Commission Standard  
 AOC = area of concern  
 J = analyte was positively identified;  
 reported value is estimated  
 mg/L = milligram(s) per liter  
 ND = not detected  
 NS = not sampled  
 SWMU = solid waste management unit  
 TNT = 2,4,6-trinitrotoluene



State Plane Coordinate System, New Mexico West,  
 North American Datum 1983, US Feet.

Data Sources:  
 Roads, Railroad: Tele Atlas GDT-Dynamap, 2008;  
 Populated Places: ESRI, 2005;  
 Fort Wingate Environmental Restoration Detail: USACE.



**Legend**

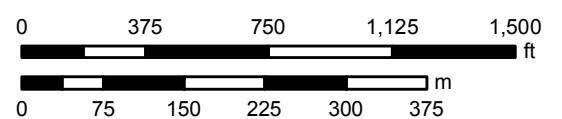
- ◆ Alluvial Monitoring Well
- Bedrock Monitoring Well
- ⊗ Dry Well
- Water Supply Well 69
- Nitrate 16 mg/L** Bold data indicate analytical detection above the regulatory limit
- Building
- 10A Property Transfer Parcel
- Fort Wingate Installation Boundary
- Surface Geology**
- QAL QAL - Quaternary Alluvial Deposits
- QCL QCL - Quaternary Colluvial and Gravel Deposits
- TRPP TRPP - Petrified Forest Formation, Painted Desert Member
- Arroyo
- AOC and SWMU

April 2017 Isoconcentration Contours  
 Nitrate (10 mg/L)\*

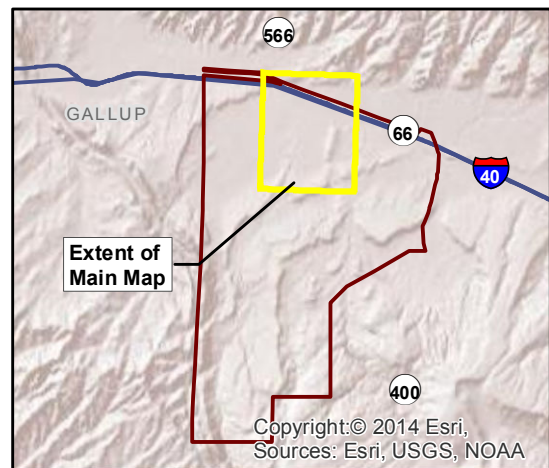
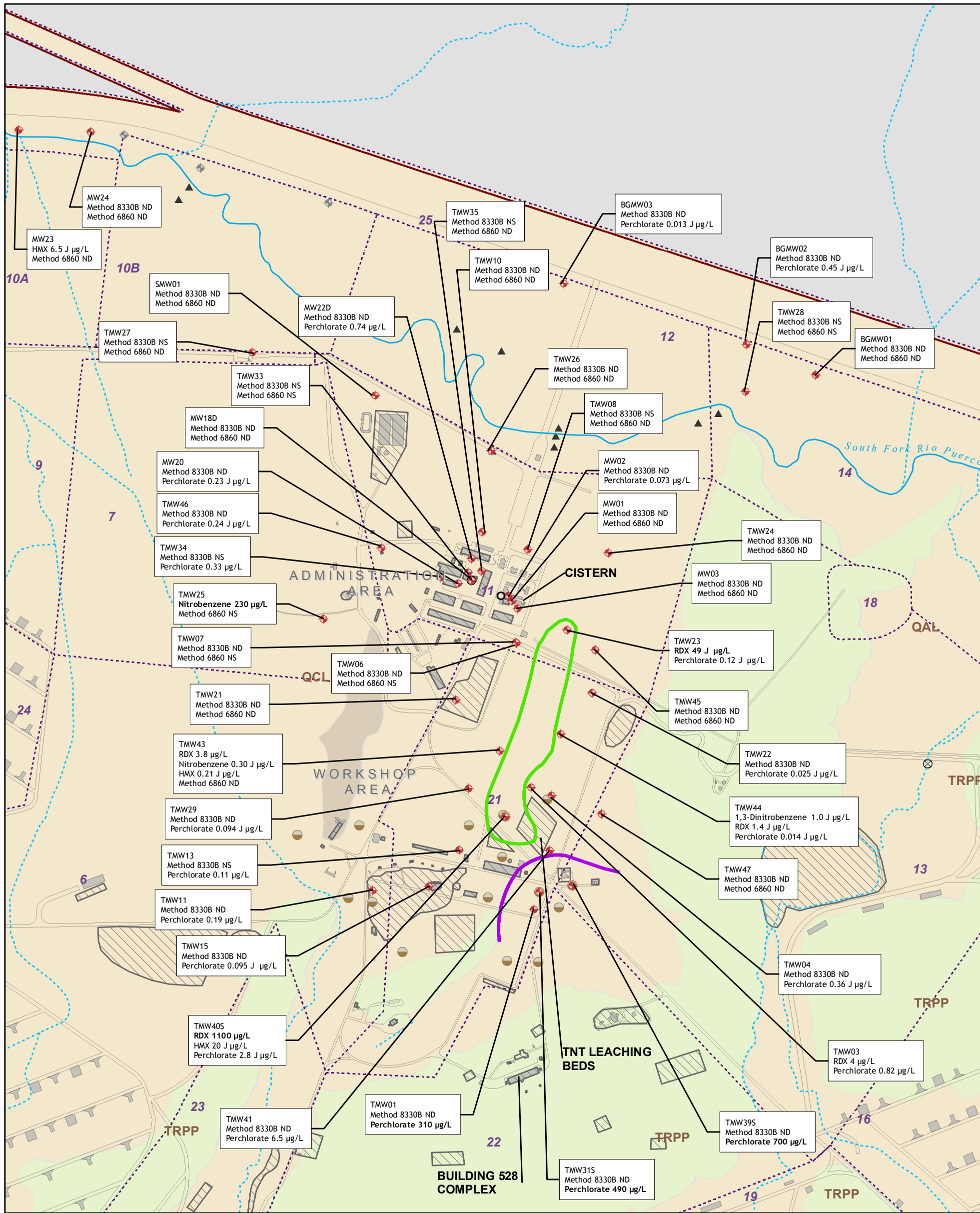
**FIGURE 5-2  
 Spring 2017 Northern Area Nitrate and Nitrite Concentrations in Bedrock Groundwater**

Groundwater Periodic Monitoring Report for January to July 2017  
 Fort Wingate Depot Activity, McKinley County, New Mexico

Notes:  
 \*New Mexico Water Quality Control Commission Standard  
 AOC = area of concern  
 J = analyte was positively identified; reported value is estimated  
 mg/L = milligram(s) per liter  
 ND = not detected  
 NS = not sampled  
 SWMU = solid waste management unit  
 TNT = 2,4,6-trinitrotoluene







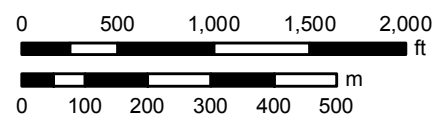
**Legend**

- Alluvial Monitoring Well
- Bedrock Monitoring Well
- Piezometer
- Abandoned Well
- Dry Well
- Water Supply Well 69
- Bold data indicate analytical detection above the regulatory limit
- Perchlorate 300 µg/L
- RDX 7 µg/L
- 10A Building
- Property Transfer Parcel
- Fort Wingate Installation Boundary
- Surface Geology**
- QAL QAL - Quaternary Alluvial Deposits
- QCL QCL - Quaternary Colluvial and Gravel Deposits
- TRPP TRPP - Petrified Forest Formation, Painted Desert Member
- Arroyo
- Stream
- AOC and SWMU

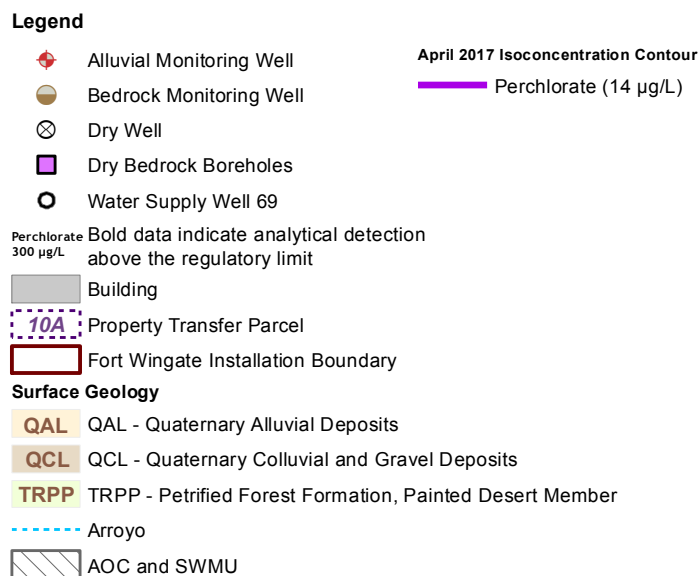
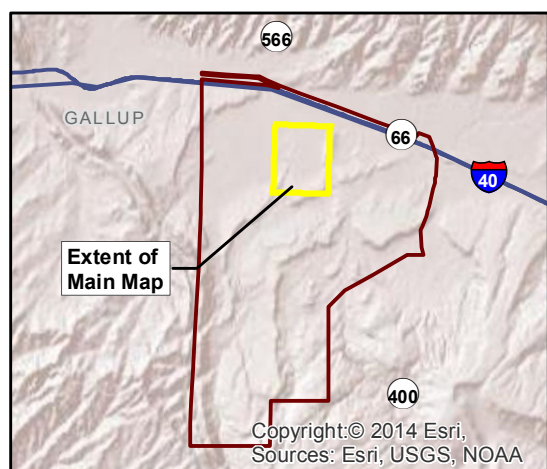
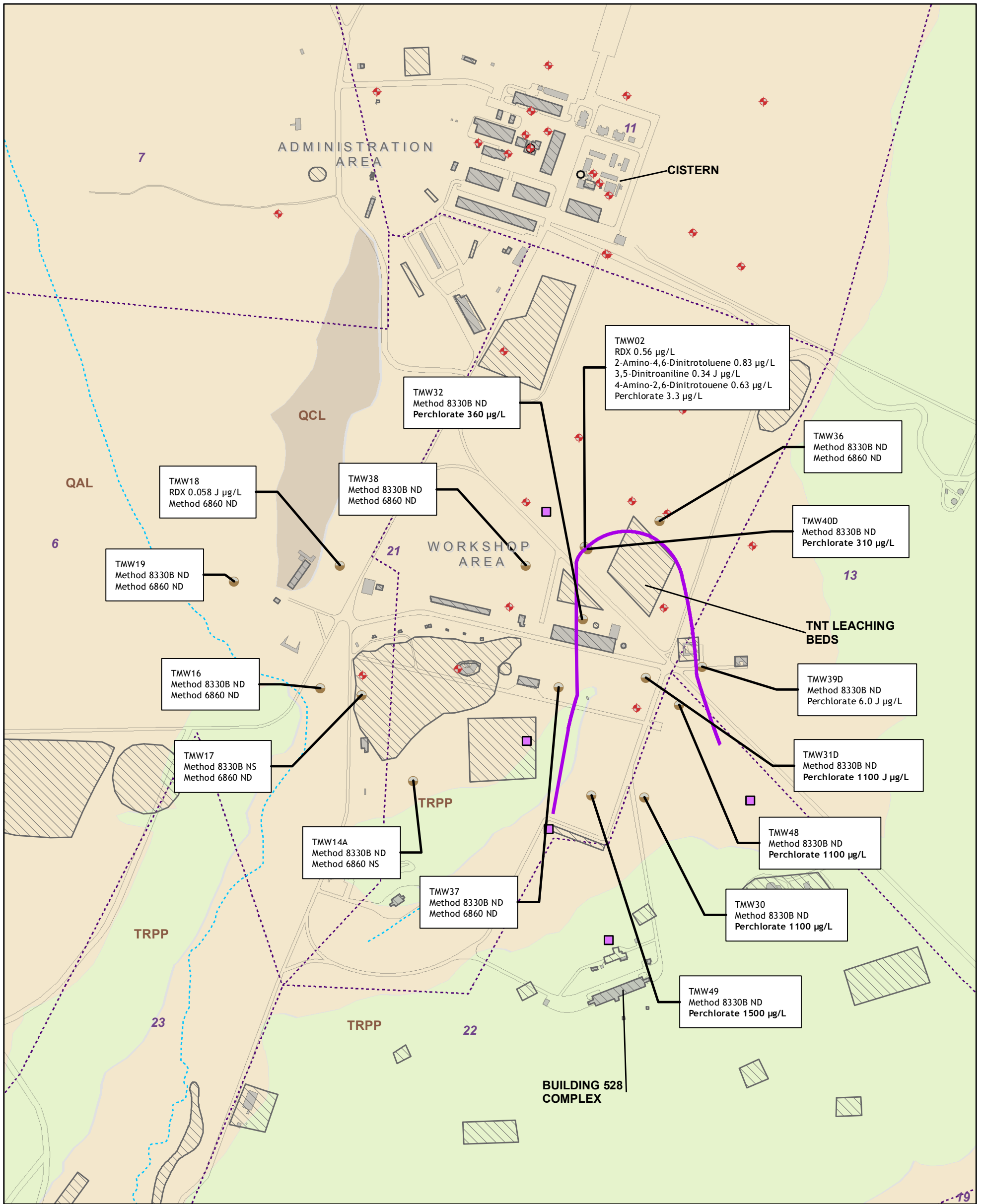
**FIGURE 5-3**  
**Spring 2017 Northern Area Explosives and Perchlorate Concentrations in Alluvial Groundwater**

Groundwater Periodic Monitoring Report for January to July 2017  
 Fort Wingate Depot Activity, McKinley County, New Mexico

Notes:  
 AOC = area of concern  
 J = analyte was positively identified; reported value is estimated  
 ND = not detected  
 NS = not sampled  
 SWMU = solid waste management unit  
 TNT = 2,4,6-trinitrotoluene  
 µg/L = microgram(s) per liter



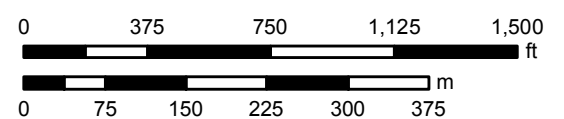
State Plane Coordinate System, New Mexico West, North American Datum 1983, US Feet.  
 Data Sources:  
 Roads, Railroad: Tele Atlas GDT-Dynamap, 2008;  
 Populated Places: ESRI 2005;  
 Fort Wingate Environmental Restoration Detail: USACE.



**FIGURE 5-4**  
**Spring 2017 Northern Area Explosives and Perchlorate Concentrations in Bedrock Groundwater**

Groundwater Periodic Monitoring Report for January to July 2017  
Fort Wingate Depot Activity, McKinley County, New Mexico

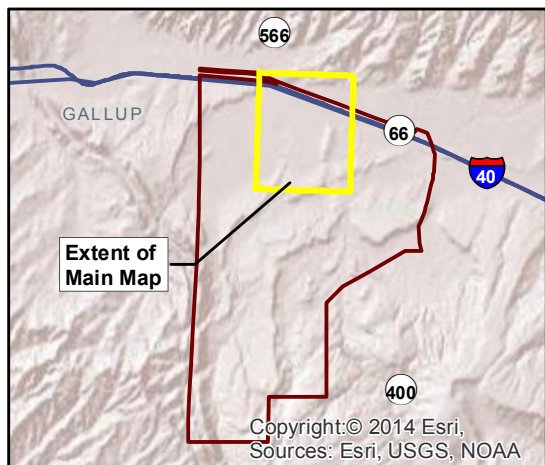
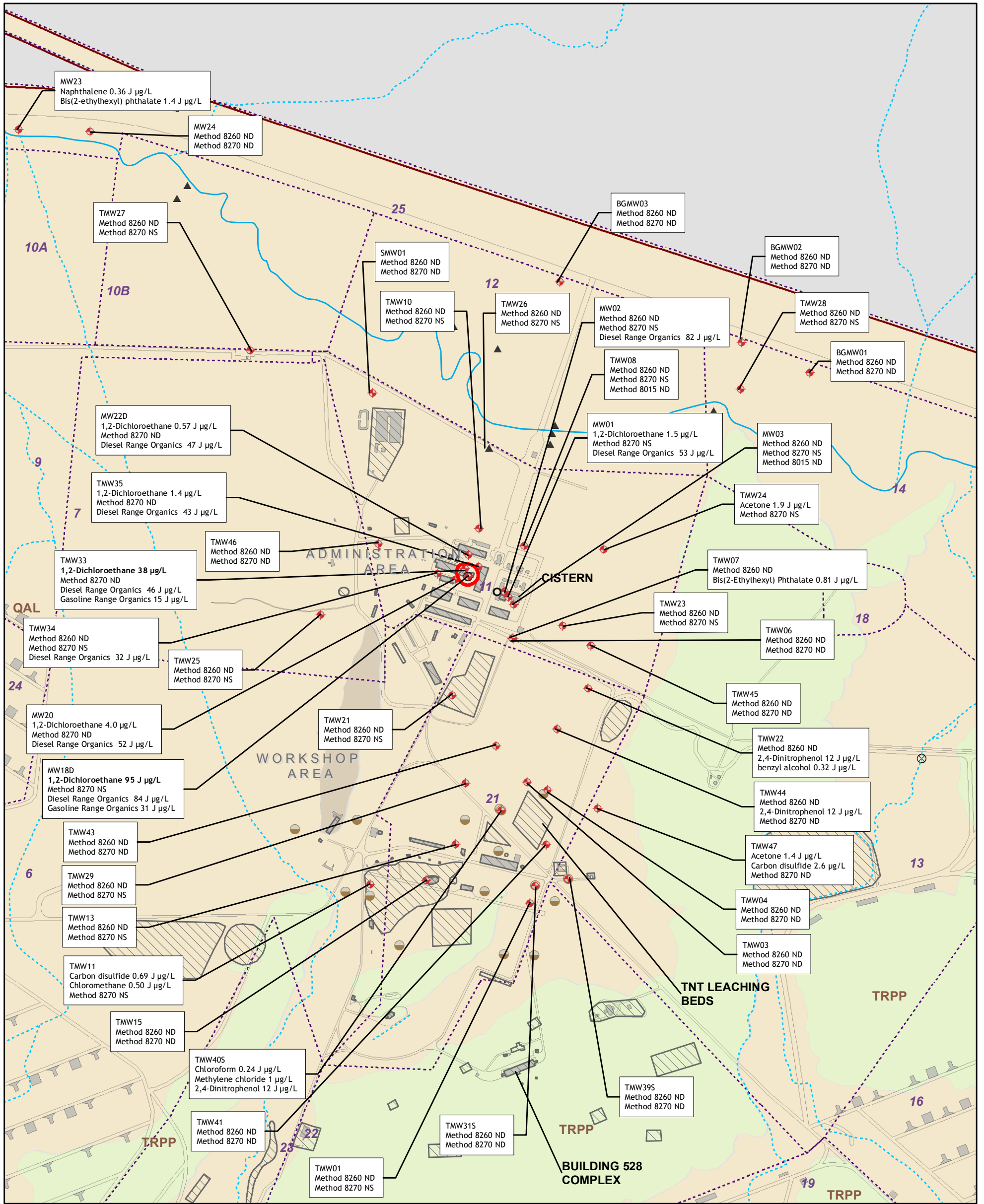
Notes:  
AOC = area of concern  
J = analyte was positively identified; reported value is estimated  
ND = not detected  
NS = not sampled  
SWMU = solid waste management unit  
TNT = 2,4,6-trinitrotoluene  
µg/L = microgram(s) per liter



State Plane Coordinate System, New Mexico West, North American Datum 1983, US Feet.

Data Sources:  
Roads, Railroad: Tele Atlas GDT-Dynamap, 2008;  
Populated Places: ESRI 2005;  
Fort Wingate Environmental Restoration Detail: USACE.

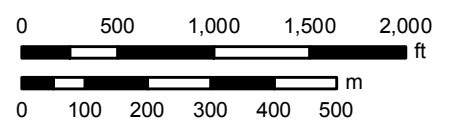




**Legend**

- Alluvial Monitoring Well
- Bedrock Monitoring Well
- Piezometer
- Dry Well
- Water Supply Well 69
- Arroyo
- Stream
- AOC and SWMU
- April 2017 Isoconcentration Contour
- 1,2-DCA (5 µg/L)
- Building
- Property Transfer Parcel
- Fort Wingate Installation Boundary
- Surface Geology**
- QAL - Quaternary Alluvial Deposits
- QCL - Quaternary Colluvial and Gravel Deposits
- TRPP - Petrified Forest Formation, Painted Desert Member

**FIGURE 5-5**  
**Spring 2017 Northern Area VOC, SVOC, and TPH Concentrations in Alluvial Groundwater**  
 Groundwater Periodic Monitoring Report for January to July 2017  
 Fort Wingate Depot Activity, McKinley County, New Mexico



State Plane Coordinate System, New Mexico West, North American Datum 1983, US Feet.

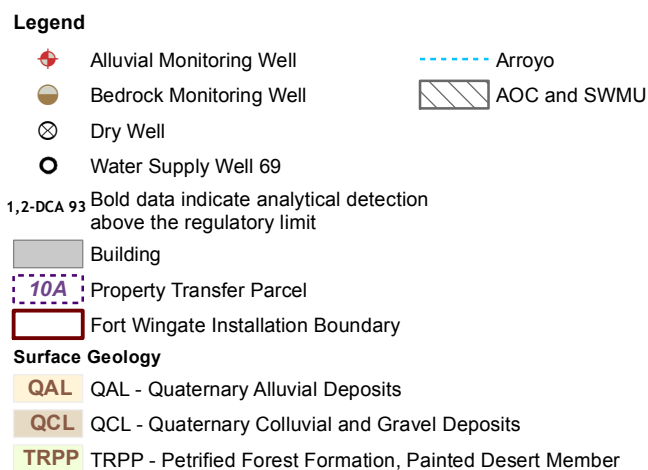
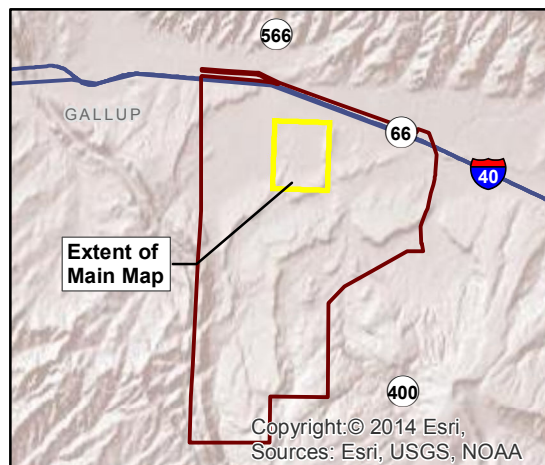
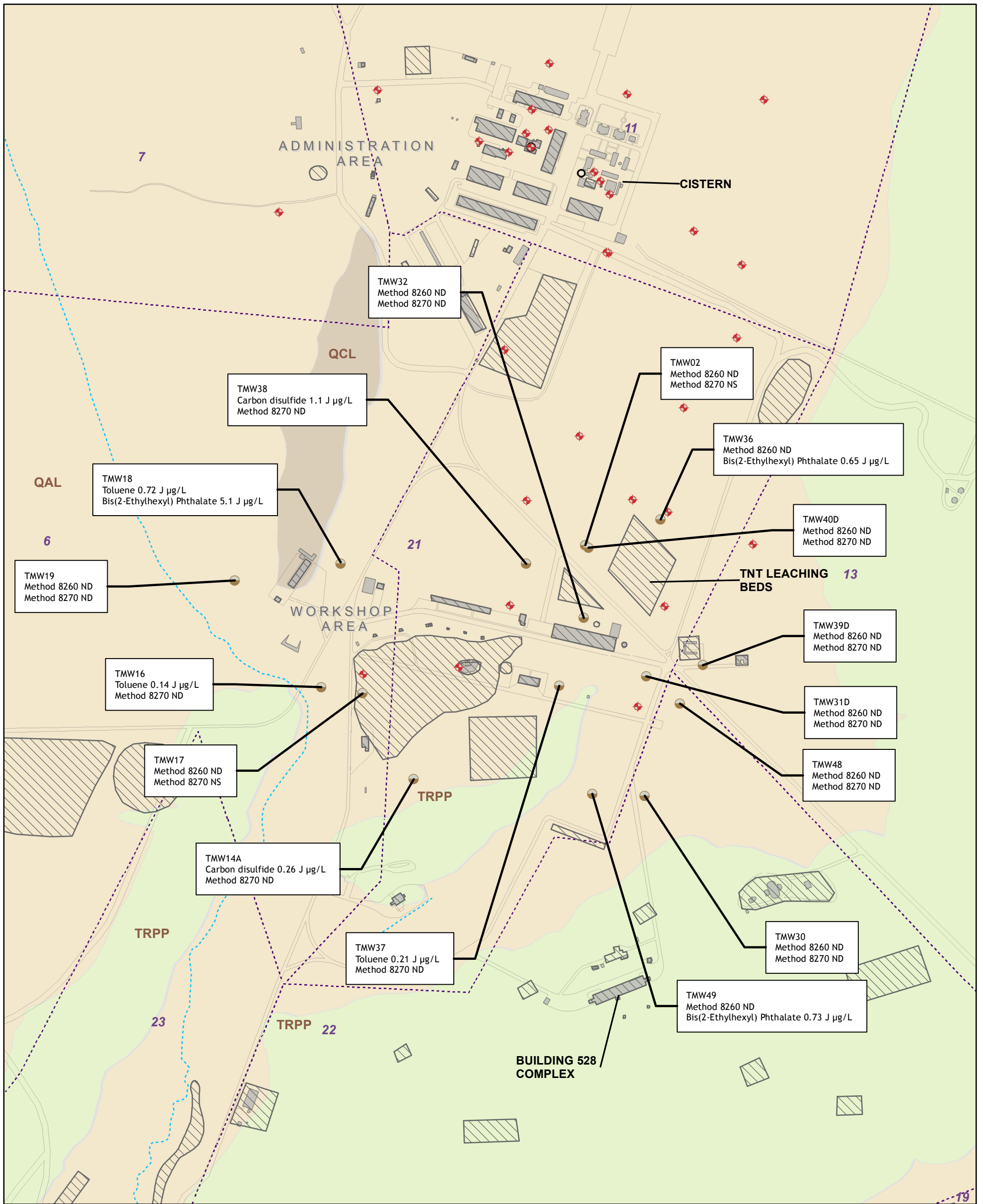
Data Sources:  
 Roads, Railroad: Tele Atlas GDT-Dynamap, 2008;  
 Populated Places: ESRI 2005;  
 Fort Wingate Environmental Restoration Detail: USACE.

**Abbreviations and Acronyms:**

AOC = area of concern, ND = not detected, NS = not sampled, SVOC = semivolatle organic compound, SWMU = solid waste management unit, TNT = 2,4,6-trinitrotoluene, TPH = total petroleum hydrocarbons, VOC = volatile organic compound, µg/L = microgram(s) per liter

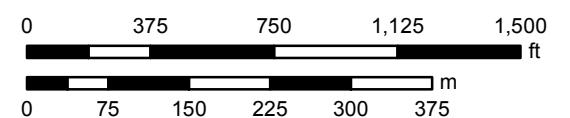
**Notes:**

- Laboratory data flag J = analyte was positively identified; reported value is estimated
- 1) No VOCs were detected at Well FW31. SVOC bis(2-ethylhexyl) phthalate was detected at 2.2 J µg/L (FW31 is located approximately 4,800 feet southeast of map view).
- 2) Organochlorine pesticides (by Method SW8081A) were not detected in any monitoring well.
- 3) Only wells adjacent to the former fueling facility and newly installed wells were analyzed for total petroleum hydrocarbons. For list of wells, see Table 2-1.



**FIGURE 5-6**  
**Spring 2017 Northern Area VOC, SVOC and TPH Concentrations in Bedrock Groundwater**

Groundwater Periodic Monitoring Report for January to July 2017  
 Fort Wingate Depot Activity, McKinley County, New Mexico



State Plane Coordinate System, New Mexico West, North American Datum 1983, US Feet.

Data Sources:  
 Roads, Railroad: Tele Atlas GDT-Dynamap, 2008;  
 Populated Places: ESRI, 2005;  
 Fort Wingate Environmental Restoration Detail: USACE.

**Abbreviations and Acronyms:**

AOC = area of concern, ND = not detected, NS = not sampled, SVOC = semivolatle organic compound, SWMU = solid waste management unit, TNT = 2,4,6-trinitrotoluene, TPH = total petroleum hydrocarbons, VOC = volatile organic compound,  $\mu\text{g/L}$  = microgram(s) per liter

**Notes:**

J = analyte was positively identified; reported value is estimated  
 Organochlorine pesticides (by Method SW8081A) were not detected in any monitoring well. For list of wells, see Table 2-1.

# 1 6.0 Summary

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2 Two groundwater elevation surveys and one groundwater sampling event were performed during the reporting  
3 period from January through June 2017. Groundwater elevation surveys were conducted on January 5 and 6,  
4 2017, and on April 17 and 18, 2017. The groundwater sampling event for the reporting period was performed  
5 from April 17 to 28, 2017.

6 Shallow groundwater in the Northern Area of FWDA is present in both the unconsolidated alluvium and bedrock.  
7 The groundwater flow direction in the alluvium is from potentiometric highs in the east, north, and south toward  
8 a potentiometric low west of the Administration Area. Groundwater in the bedrock appears to flow radially to a  
9 potentiometric low south of monitoring well TMW32 in the eastern portion of the Workshop Area and to the west  
10 in the western portion of the Workshop Area, with an interpreted geologic structural feature impeding flow  
11 between the two areas. The groundwater elevation in the bedrock groundwater unit is slightly higher than in the  
12 alluvial groundwater unit and exists under hydraulically confined conditions under most of the Northern Area. The  
13 confining unit for the bedrock aquifer is missing in the vicinity of monitoring wells TMW30 and TMW48.

14 Nitrate, perchlorate, explosives, one VOC, one SVOC, and metals were detected in groundwater samples at  
15 concentrations above the cleanup or regulatory screening levels. Six groundwater contaminant plumes have been  
16 identified: two nitrate plumes, one in the alluvial groundwater unit and one in the bedrock groundwater unit; two  
17 perchlorate plumes, one in the alluvial groundwater unit and one in the bedrock groundwater unit; an explosives  
18 plume in the alluvial groundwater unit; and a 1,2-dichloroethane plume in the alluvial groundwater unit.

19 The highest concentrations of nitrate contamination occur in alluvial groundwater units of the Northern Area. The  
20 nitrate plume in the alluvial groundwater unit appears to originate from the TNT Leaching Beds (SWMU 1) and  
21 extends downgradient to the Administration Area. The extent of the alluvial nitrate plume is not defined west of  
22 the Administration Area. The bedrock nitrate plume is also present in the vicinity of the TNT Leaching Beds  
23 (SWMU 1) and downgradient of the Building 528 Complex (SWMU 27). The collocated perchlorate and nitrate  
24 plumes appear to have a common source at the Building 528 Complex (SWMU 27).

25 The highest perchlorate concentrations were detected in groundwater samples from the bedrock groundwater  
26 unit in the Workshop Area. The northern boundary of the bedrock perchlorate plume has not been defined. The  
27 alluvial perchlorate plume is located in the same vicinity as the bedrock plume. Historical releases of perchlorate-  
28 containing materials at the Building 528 Complex (SWMU 27) are believed to be the common source of both  
29 plumes in the alluvial and bedrock groundwater units.

30 RDX is the primary explosive compound of interest. This compound is consistently detected at concentrations  
31 above the RSL in the Workshop and eastern Administration Areas. The explosives plume in the alluvial  
32 groundwater unit appears to originate from the TNT Leaching Beds (SWMU 1) in the Workshop Area.  
33 Groundwater concentrations of explosive compounds (primarily RDX) attenuate to levels below the screening  
34 criteria within 2,500 feet downgradient of the TNT Leaching Beds (SWMU 1).

35 One VOC was detected in groundwater samples at concentrations above cleanup standards. The compound  
36 1,2-dichloroethane was historically used as a gasoline additive and degreasing solvent. The 1,2-dichloroethane  
37 plume in the alluvial groundwater unit is limited to a group of wells near a former fueling facility (SWMU 45,  
38 Building 6) in the Administration Area. No other VOCs were detected above cleanup standards or regulatory  
39 screening levels. No SVOCs were detected at concentrations exceeding cleanup or regulatory standards. The SVOC  
40 2,4-dinitrophenol was detected at concentrations below the RSL. This detection is associated with the RDX plume  
41 and is attributed to degradation of explosives compounds.

42 Dissolved aluminum, arsenic, iron, lead, manganese, and selenium were detected above regulatory screening  
43 levels in one or more groundwater samples. Because background groundwater concentrations have not been



## 6.0 Summary

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1 accepted for FWDA, it cannot clearly be demonstrated whether the detected concentrations are a result of  
2 natural conditions or anthropogenic sources of contamination.

3 Additional delineation and investigation for groundwater plumes at FWDA are planned. A Supplemental RCRA RFI  
4 Work Plan will be re-submitted to NMED in August 2017. This Supplemental RFI Work Plan proposes locations for  
5 additional groundwater monitoring wells necessary to further delineate the alluvial and bedrock groundwater  
6 contaminant plumes and to provide background data (Sundance, 2017).

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APPENDIX A  
**Field Notes**

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APPENDIX B

# Groundwater Sampling Field Data Sheets and Chain of Custody Forms

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APPENDIX C

# Laboratory Analytical Data Quality Evaluation

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**Appendix C – Attachment 1**  
**Automated Data Review Reference Output Files by**  
**Sample Delivery Group**  
*(Provided as a separate file on the DVD included with this report)*

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**Appendix C – Attachment 2**  
**TestAmerica Laboratory Data Output**  
*(Provided as a separate file on the DVD included with this report)*

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APPENDIX D

## Historical Groundwater Analytical Data

*(Provided as a separate file on the DVD included with this report)*

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