

HYDROGEOLOGY REPORT

**Elevation Midstream, LLC
Badger Central Gathering Facility
SWC of Weld County Roads 6 and 15
Weld County, Colorado**

Prepared For:

**Elevation Midstream, LLC
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Prepared by:

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April 2018



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1.0 EXECUTIVE SUMMARY

TRC Environmental (TRC) was contracted by Elevation Midstream, LLC (Elevation) to prepare an Application (Form 28) for a proposed Badger Exploration and Production (E&P) Waste Management Facility (Badger facility) in Weld County, Colorado. The proposed location (Site) for the Badger facility is in the northeast corner of Section 30, Township 1 North, Range 67 West of the 6th Principal Meridian, Weld County, Colorado. The Site is at an elevation of about 5,100 feet above mean sea level (amsl) (Figure 1).

The Badger facility is intended to be used to collect, treat, temporarily store, and/or dispose of produced water generated from more than one oil and gas production facility. Consequently, the facility is classified as a Centralized E&P Waste Management Facility by the Colorado Oil and Gas Conservation Commission (COGCC). The purpose of this report is to assess hydrologic data as required by COGCC Rule 908 for Centralized E&P Waste Management Facilities (COGCC, 2015). The following lists the hydrologic data to be assessed:

- i. Surface water features within two (2) miles;*
- ii. Depth to shallow groundwater and major aquifers;*
- iii. Water wells within one (1) mile of the Site boundary and well depth, depth to water, screened intervals, yields, and aquifer name;*
- iv. Hydrologic properties of shallow groundwater and major aquifers including direction of flow, flow rate, and potentiometric surface;*
- v. Existing quality of shallow groundwater;*
- vi. An evaluation of the potential for impacts to nearby surface water and groundwater.*

This report presents TRC's assessment of these and other hydrologic data, and associated influences on the Site and proposed development.

Key findings of the hydrologic assessment are listed below:

- The Site is located between two tributaries of South Platte River, Little Dry Creek and Big Dry Creek.
- The Site is located on the Laramie Formation which hosts the Laramie-Fox Hills aquifer, a part of the Denver basin aquifer system.
- The depth to groundwater in this area is approximately 5 to 20 feet bgs throughout the Site. Due to the shallow groundwater, monitoring wells may need to be installed at the Site to allow groundwater quality to be monitored during Site operations.
- Site grading and construction activity (e.g. paving, roofs) should be performed in a manner that protects stormwater runoff quality, minimizes erosion, and protects nearby surface waters. Stormwater management can be controlled through the use of Best Management Practices (BMPs).

COGCC may require the installation of groundwater monitoring wells at the Site to demonstrate that shallow groundwater is not impacted as a condition of the approval of the application for a centralized E&P waste management facility per rule 908. The hydrology at and surrounding the Site

was generally found to be suitable for the proposed development of the Badger E&P Waste Management Facility with certain conditions mitigated.

2.0 GENERAL SITE LOCATION AND BACKGROUND

Elevation contracted TRC to conduct this hydrologic assessment to support the proposed development of the Badger Centralized E&P waste management facility. The Badger Centralized E&P Waste Management Facility will be used to store, treat, and dispose produced water and other approved E&P wastes derived from nearby oil and gas wells. A water storage pond is planned to be constructed on Site. The following sections detail the hydrologic setting of the Site.

2.1 Site Description

The Site comprises approximately 156 acres of largely vacant agricultural land located approximately 6 miles southeast of Erie, Colorado (Figure 1). The Site is in the northeast corner of Section 30, Township 1 North, Range 67 West of the 6th Principal Meridian at an elevation of approximately 5,100 feet amsl. The Site can be accessed by a dirt road from Weld County Road 15; this road leads to several on-Site oil and gas production wells, storage tanks, and associated oil and gas extraction equipment.

The general topography of the Site is relatively flat with a gentle slope from the west to the southeast. The Site is largely occupied by invasive weed species. An old railroad grade bisects the site between the northeast corner and southeast edge.

2.2 Surface Water Features

A network of natural creeks, irrigation ditches, and ponds surrounds the Site; one ditch is present on the Site and bisects it from northwest to southeast (Figure 3). This ditch runs parallel to and south of the old railroad grade mentioned above; wetland conditions appear to surround this ditch. The surface water network generally flows to the southeast, towards a tributary that flows to the South Platte River. Some of the ditches carry surface flow largely orthogonal to the natural topographic flow. The majority of the surface water features have intermittent flow throughout the year. The irrigation ditches generally flow from April through September, coinciding with the agricultural season. After a major storm event, the ditches may have standing or flowing water.

Little Dry Creek is located approximately one and three-quarter miles northwest of the proposed facility. Big Dry Creek and Thompson Ditch are both located about one mile to the south of the Site. Little Dry Creek and Big Dry Creek both flow northeast toward the South Platte River. Bull Canal is located approximately half a mile north of the Site. Thompson Reservoir and Mathison Reservoir are both located to the east of the proposed Badger facility. Karshi Reservoir and Yoxall Ditch are located to the east and south of the Site. German Reservoirs Number's 6, 8, 9, 11, and 12 are all located south of the Site. Big Dry Creek Ditch is located almost two miles south of the Site. Bull Canal Reservoir 8 is located southwest of the Site. Trostel Ditch and Whipple Ditch are both located west of the Site.

2.3 Shallow Groundwater

In 2017 Cole Garner Geotechnical (Cole) was contracted by Elevation to create a Geotechnical

Engineering Report. In their preliminary investigation in June 2017 groundwater was encountered from 2 to 7.5 feet bgs. During their supplemental investigations in November 2017 they found shallow groundwater ranging from 5 to 15 feet bgs across the Site (Cole, 2017). According to the U.S Geological Survey Maps, regional groundwater ranges from 5 to 20 feet bgs with seasonal groundwater typically less than 10 feet bgs (Hillier et al, 1979), which is consistent with Cole's findings. Shallow groundwater flows consistent with topography to the southeast, as is demonstrated in the potentiometric surface map in Figure 2.

In March 2018 TRC installed 6 temporary monitoring wells throughout the Site and collected soil and groundwater samples from three of the wells. The wells were installed to ensure a minimum of 5 feet of the screen interval was below the water table. The wells were installed at a depth of 16 feet bgs to 30 feet bgs and were constructed with 1 inch PVC casing and 10 feet of screen. The depth to water ranged from 9 feet bgs to 14.53 feet bgs. Groundwater was sampled from three of the wells and analyzed for Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) and Inorganic compounds. The concentrations of the analyzed constituents in all three wells were below Colorado Department of Public Health & Environment (CDPHE) Groundwater Standards and USEPA's Residential Regional Screening Levels (RSL) (Table 1).

There are 26 water wells within a one-mile radius of the Site, including 2 plugged and abandoned wells (Figure 4). There are no permitted water wells on Site. According to the Colorado Division of Water Resources (DWR) well permit records, the total depths of these wells range from 31 feet to 800 feet bgs. Static water level data ranges from 14 feet to 572 feet bgs. The surface elevation data that is available shows a range of 4,939 feet to 5,140 feet amsl. The well yields range from 3.7 gallons per minute (gpm) to 22 gpm. The associated aquifer for the wells with the available information is the Laramie-Fox Hills aquifer and the Quaternary alluvium. The listed use for all wells, is domestic, monitoring, commercial, irrigation, and household use only. Information for all permitted water wells is presented in Table 2. Table 3 lists groundwater sample results from the permitted water wells within 1-mile from the Site.

2.4 Major Aquifers

The Denver Basin encompasses the Denver metropolitan area in the Great Plains region of Colorado. The administrative boundary of the basin is defined as Greeley in the north, Colorado Springs in the south, Limon in the east, and the Front Range Mountains to the west. The basin structurally extends further to the north, however the area north of Greeley is not considered a significant water source. The geologic formations that contain the Denver basin are the Dawson, Denver, Arapahoe, and Laramie Formations and the Fox Hills Sandstone. The bedrock formation found beneath the Site's location consists of the Upper Cretaceous Laramie Formation. The Laramie Formation consists of interbedded sandstone and shale with a unit thickness ranging from 100 to 600 feet (Topper et al, 2003).

According to the Groundwater Atlas of Colorado, the Laramie Formation contains the Laramie-Fox Hills aquifer. This aquifer is up to 350 feet thick with 40 to 60 percent composed of fine to medium sandstones. The Laramie-Fox Hills aquifer is comprised of two sandstone units from the Laramie Formation and the Fox Hills Sandstone. The Laramie-Fox Hills aquifer is vertically bound by the impermeable Pierre Shale below it and a Laramie confining unit above it. The Pierre Shale

can be up to 7,000 feet thick in some places. Because of the upper confining unit surrounding the aquifer, there is little recharge via vertical movement of water (Topper et al, 2003). The hydrogeology map is presented as Figure 5.

Alluvium deposited along the South Platte River is a locally important aquifer where the accumulated alluvium forms a continuous network called the lower South Platte River basin. The alluvium in this area consists of poorly sorted gravel, sand, and clay with caliche (Topper et al, 2003). The South Platte River is located approximately 10 miles to the east of the Site.

2.5 Hydrologic Setting

The Laramie-Fox Hills aquifer does not receive much recharge of water through vertical movement between aquifers since it is bound by a thick impermeable confining unit in the upper part of the Laramie Formation. This aquifer is generally under artesian pressure and is used extensively for municipal water supply in the southeast Denver area. Subsequently, water levels in this aquifer have been declining in recent years due to development and groundwater withdrawal within the Denver Basin. The principal source of groundwater recharge in the Denver basin is the infiltration of precipitation that hasn't been lost due to evapotranspiration or runoff (Topper et al, 2003).

The potentiometric surface map for the Laramie-Fox Hills aquifer is shown in the Ground Water Atlas of Colorado (Topper et al, 2003) in Figure 6.1-5. Regionally, groundwater flow appears to move towards the South Platte River to the east. This is consistent with the shallow groundwater assumptions of the Site, which should follow the topography and flow to the southeast towards Big Dry Creek, a tributary of South Platte River.

The hydraulic conductivity of the Laramie-Fox Hills aquifer varies by location. Near the town of Littleton, which lies to the southwest of Denver, hydraulic conductivity is about 6 feet per day (ft/day) while further northwest, the hydraulic conductivity is less than 0.05 ft/day (Robson, 1987). The transmissivity values for each of the four aquifers within the Denver basin is presented in Figure 6.1-10 in the Groundwater Atlas of Colorado. The transmissivity value in the Laramie-Fox Hills aquifer at the Site's location ranges from 0 to 100 square feet per day (ft²/day) (Topper et al, 2003).

In parts of the Denver basin, the alluvial aquifers are hydraulically connected to the bedrock aquifers. Groundwater is discharged from the upper aquifer to the alluvium through the valley floors and springs along the valley walls. In the lower South Platte River basin, transmissivity values of the alluvial aquifer range from 1,000 to 100,000 ft²/day (Topper et al, 2003).

2.6 Groundwater Quality

The groundwater quality in the lower South Platte River basin is generally of good quality to the north of the Denver metropolitan area, where the Site is located. The water to the north of the Denver area is classified as calcium-bicarbonate water. The total dissolved solids (TDS) concentrations in groundwater tends to increase as it flows downstream due to evapotranspiration and recharge from irrigation water applications, which contain large amounts of fertilizer. TDS

concentration near Denver is approximately 1,000 milligrams per liter (mg/L) (Topper et al, 2003).

The groundwater quality in the Denver Basin is also generally of good quality. The dissolved solids concentration is approximately 2,000 mg/L in the Laramie-Fox Hills aquifer, while in the Dawson aquifer the concentration is less than 100 mg/L. The groundwater in the Laramie-Fox Hills aquifer is classified as a sodium bicarbonate type. In the area of the Site the groundwater is reported to have high concentrations of sulfate. A table with a typical water analysis for the Denver basin aquifers is presented in the Groundwater Atlas of Colorado as Table 6.1-5 (Topper et al, 2003).

2.7 Flood Plain

According to the Environmental Database Resources (EDR) report conducted for the Phase I Environmental Site Assessment in May 2017 and the DWR Online Map Viewer, the Site is not located within either a 100-year or a 500-year floodplain (Kleinfelder, 2017), and it is not in an area designated a flood hazard by the Federal Emergency Management Agency (FEMA). The approximate Site elevation is at 5,100 ft amsl which is slightly higher than the nearby downgradient surface waters.

3.0 ASSESSMENT OF POTENTIAL IMPACTS

The following sections present the assessment of potential impacts to groundwater and surface water in the vicinity of the proposed Site.

3.1 Bedrock Aquifer

The Laramie-Fox Hills aquifer contained by the Laramie Formation underlies the Site. All of the DWR permitted water wells within one mile of the Site are listed as being used for domestic, household use only, or monitoring purposes. The groundwater at the Site is shallow year-round, ranging from 5 to 20 feet bgs. Due to the shallow nature of the groundwater, monitoring wells may need to be installed to monitor groundwater quality during Site operations.

Impacts to groundwater in the bedrock aquifer can be prevented by proper construction and operation of the proposed water storage pond, including proper lining of the pond and a lined secondary containment for the water storage tanks. Proper secondary containment systems will be designed and installed for all water storage systems to avoid any potential impacts to the groundwater. If a leak were to occur in a liner or from on-Site system operations, the bedrock aquifer could be impacted as well as nearby surface water.

3.2 Surface Water

The Site is located between two tributaries of the South Platte River, Little Dry Creek and Big Dry Creek. Site grading and construction activity (e.g. paving, roofs) should be performed in a manner that protects stormwater runoff quality, minimizes erosion, and protects nearby surface waters. Stormwater management can be controlled through the use of Best Management Practices (BMPs), such as grassed swales, revegetation, and detention basins.

If the planned water storage pond was to overflow or a breach were to occur in the liner as a result of Site operations or if there was a tank rupture, surface water in Big Dry Creek could be adversely impacted. Big Dry Creek flows to the northeast toward South Platte River. Proper secondary containment systems will be designed and installed for all water storage systems to avoid impacts to nearby surface waters.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are based on a review of the available hydrology information for the Badger Central Gathering Facility.

- The Site is located between two tributaries of South Platte River, Little Dry Creek and Big Dry Creek.
- The Site is located on the Laramie Formation which hosts the Laramie-Fox Hills aquifer, a part of the Denver basin aquifer system.
- The depth to groundwater in this area is approximately 5 to 20 feet bgs throughout the Site. Due to the shallow groundwater, monitoring wells may need to be installed at the Site to allow groundwater quality to be monitored during Site operations.
- Site grading and construction activity (e.g. paving, roofs) should be performed in a manner that protects stormwater runoff quality, minimizes erosion, and protects nearby surface waters. Stormwater management can be controlled through the use of Best Management Practices (BMPs).

COGCC may require the installation of groundwater monitoring wells at the Site to demonstrate that shallow groundwater is not impacted as a condition of the approval of the application for a centralized E&P waste management facility per rule 908. The hydrology at and surrounding the Site was generally found to be suitable for the proposed development of the Badger E&P Waste Management Facility with certain conditions mitigated.

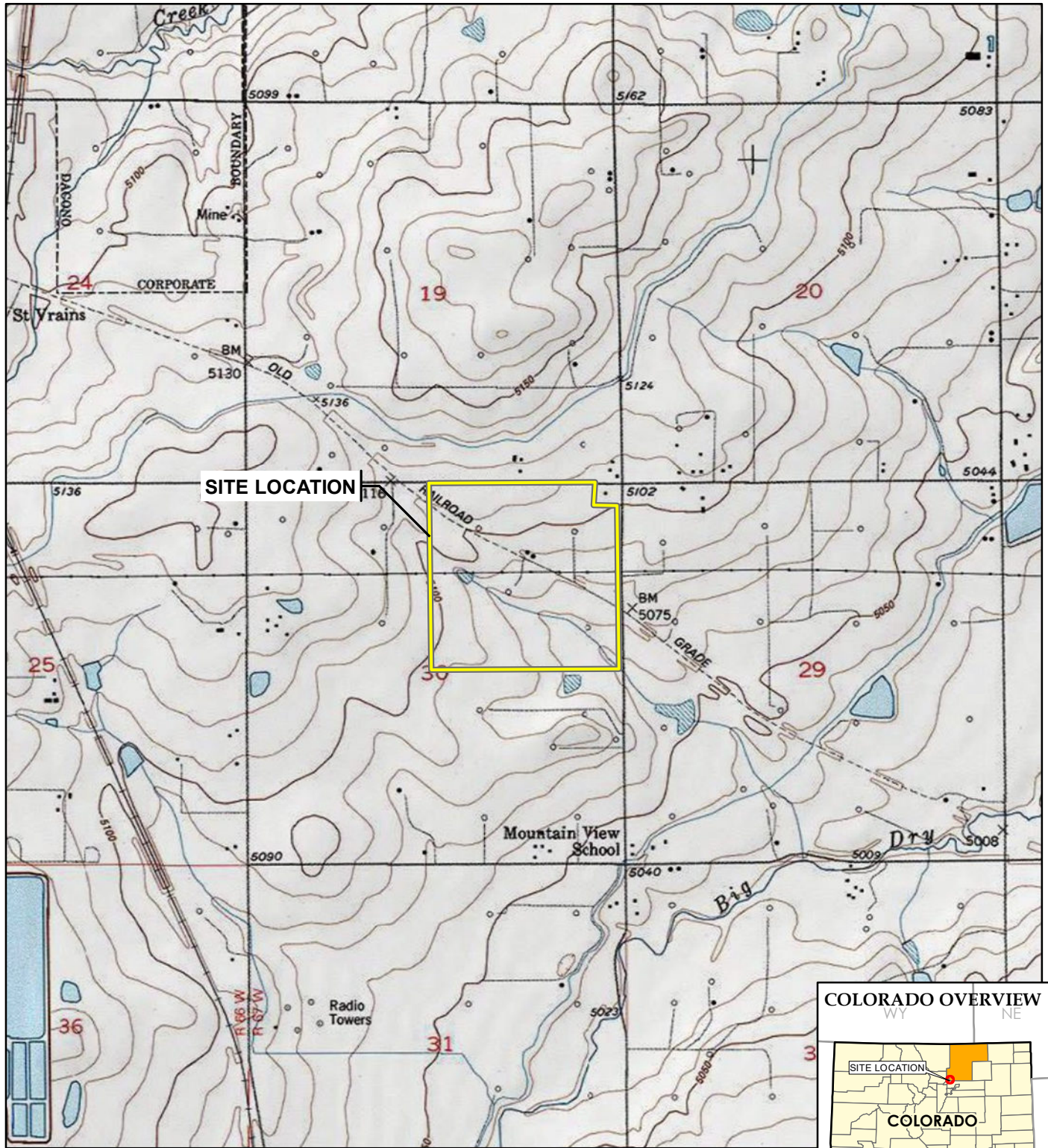
5.0 REFERENCES

- Cole Garner Geotechnical (Cole), 2017, *Geotechnical Engineering Report, SWC of Weld County Roads 6 and 15*.
- Colorado Oil and Gas Conservation Commission (COGCC), 2015, *900 Series E&P Waste Management*.
- Hillier, D.E and Schneider, P.A., 1979, USGS *Depth to Water Table (1976-77) in the Boulder-Fort Collins-Greeley Area, Front Range Urban Corridor, Colorado*, Map I-855-I.
- Kleinfelder, 2017, *Phase I Environmental Site Assessment, 152-Acre Agricultural Property*.
- Robson, S.G, 1987, USGS *Bedrock Aquifers in the Denver Basin, Colorado – A Quantitative Water-Resources Appraisal*.
- Robson, S.G. and Banta, E.R., 1995, USGS *Hydrologic Investigations Atlas 730-C, Groundwater Atlas of the United States, Segment 2, Arizona, Colorado, New Mexico, Utah*.
- Topper, R., Spray, K. L., Bellis, W.H., Hamilton, J.L. and Barkman, P.E., 2003, *Ground Water Atlas of Colorado*, Colorado Geologic Survey, Special Publication 53.

Online References

- Colorado Oil and Gas Information System: <http://cogcc.state.co.us/data.html>
- Colorado Division of Water Resources Map Viewer: <http://water.state.co.us/datamaps/gisandmaps/mapviewer/Pages/FAQ.aspx>
- Weld County Property Map Search: <https://www.co.weld.co.us/maps/propertyportal/>

FIGURES



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.



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Phone: 303.395.4049
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TRC - GIS

PROJECT:

**ELEVATION MIDSTREAM, LLC
BADGER CENTRAL GATHERING FACILITY
NE NE 30 T1N R6W - WELD COUNTY, COLORADO**

TITLE:

SITE LOCATION MAP

DRAWN BY:

B. DEEGAN

CHECKED BY:

N. PABON

APPROVED BY:

D. GRADLE

DATE:

APRIL 2018

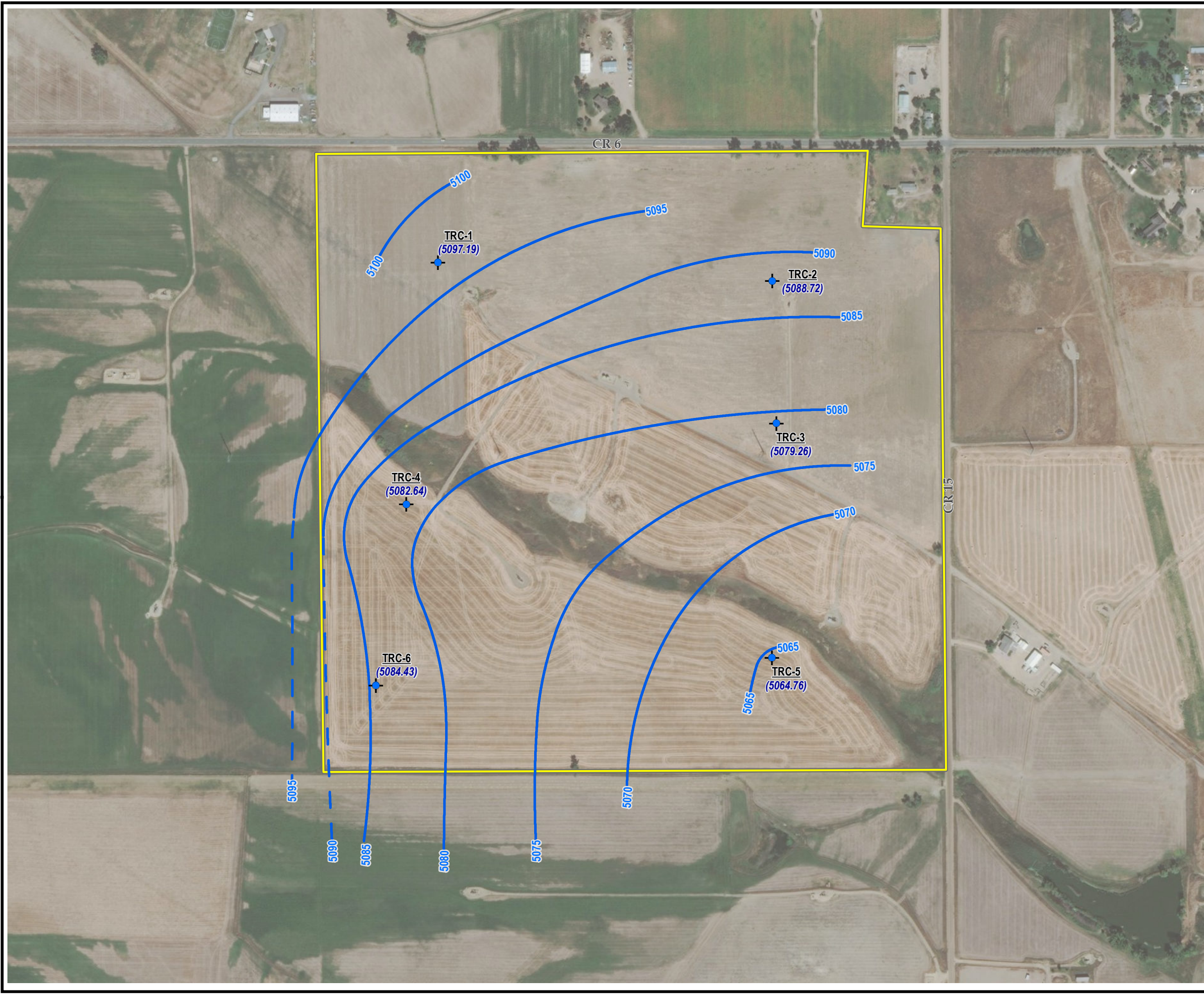
PROJ. NO.:

283926.0007

FILE:

283926-0007-001slm.mxd

FIGURE 1



LEGEND

SITE BOUNDARY

MONITORING WELLS

GROUNDWATER CONTOURS
(DASHED WHERE INFERRED, FT AMSL)

NOTES

1. BASE MAP IMAGERY FROM ESRI/DIGITAL GLOBE, 2016.

0400800

Feet

1" = 400'
1:4,800

PROJECT:

ELEVATION MIDSTREAM, LLC
BADGER CENTRAL GATHERING FACILITY
NE NE 30 T1N R67W - WELD COUNTY, COLORADO

TITLE:

POTENTIOMETRIC SURFACE MAP

DRAWN BY: B. DEEGAN

CHECKED BY: N. PABON

APPROVED BY: D. GRADLE

DATE: APRIL 2018

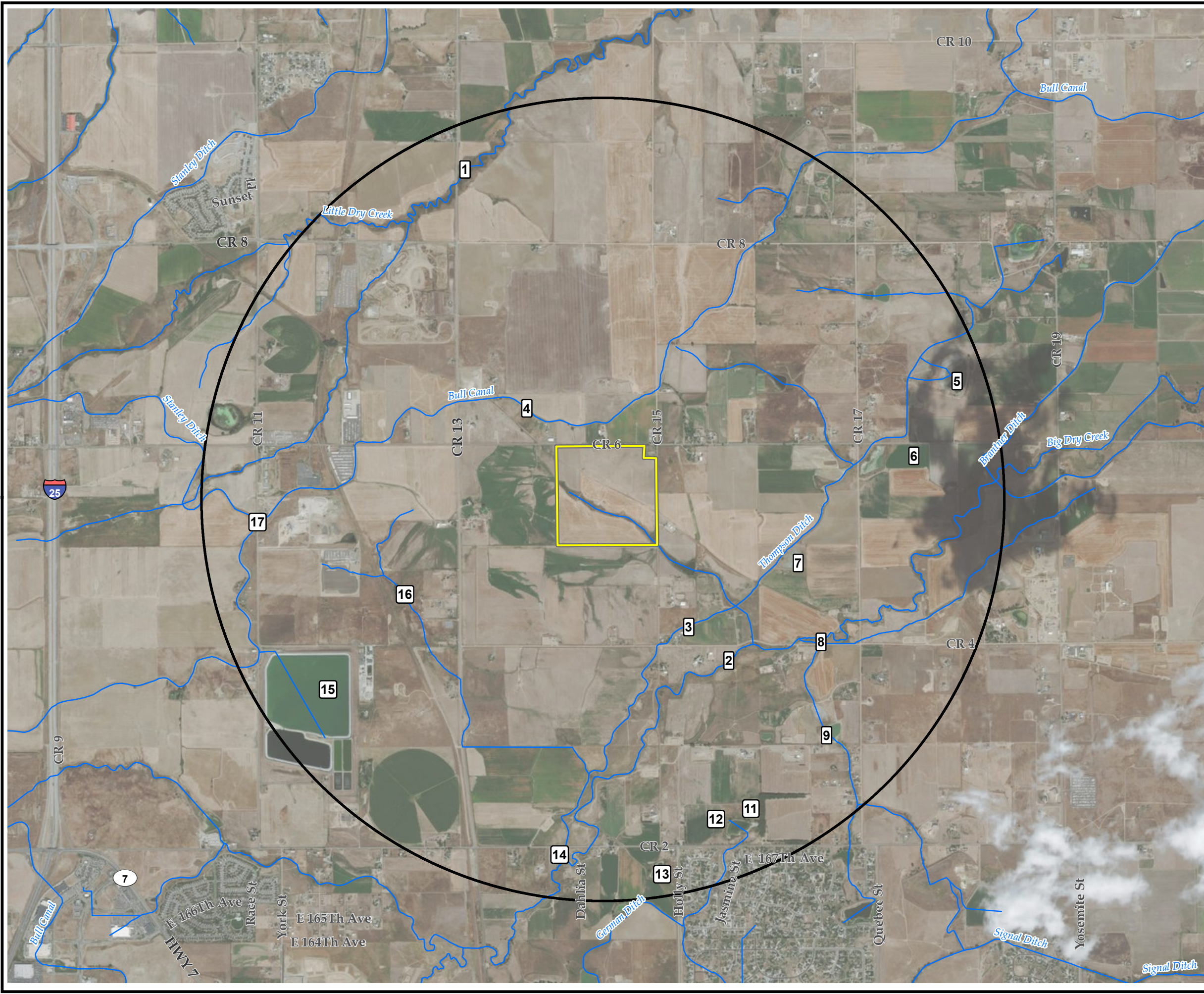
PROJ. NO.: 283926.0007

FIGURE 2

TRC

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FILE NO.: 283926-0007-002.mxd



LEGEND

	SITE BOUNDARY
	2-MILE BUFFER

ID	Surface Water Feature within 2-miles of Site
1	Little Dry Creek
2	Big Dry Creek
3	Thompson Ditch
4	Bull Canal
5	Thompson Reservoir
6	Mathison Reservoir
7	Karsh Reservoir
8	Yoxall Ditch
9	German No 12 Reservoir
10	German No 11 Reservoir
11	German No 8 Reservoir
12	German No 9 Reservoir
13	German No 6 Reservoir
14	Big Dry Creek Ditch
15	Bull Canal Reservoir 8
16	Trostel Ditch
17	Whipple ditch

NOTES

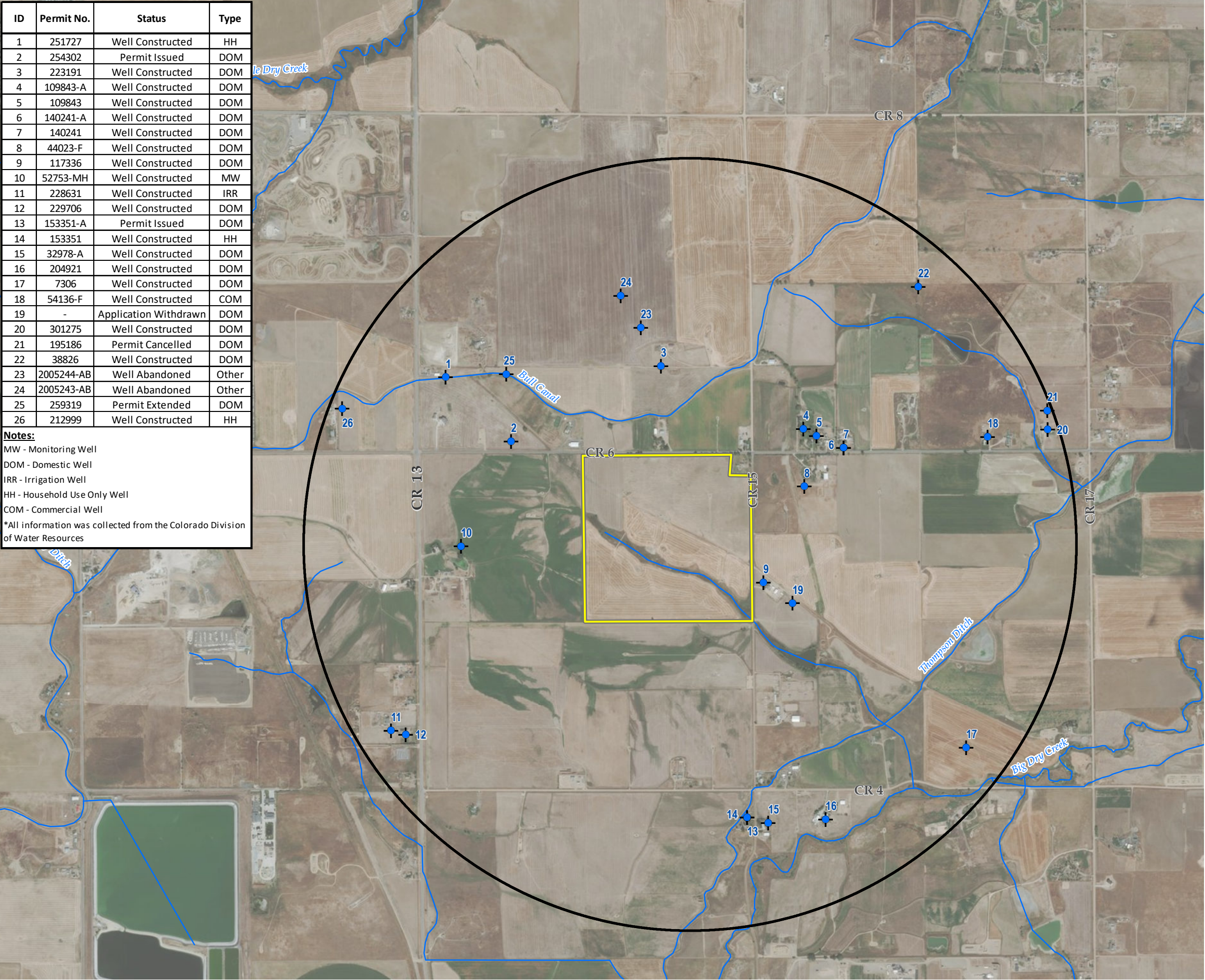
1. BASE MAP IMAGERY FROM ESRI/DIGITAL GLOBE, 2016.

0 2,500 5,000 Feet
1" = 2,500 '
1:30,000

PROJECT:		ELEVATION MIDSTREAM, LLC BADGER CENTRAL GATHERING FACILITY NE NE 30 T1N R67W - WELD COUNTY, COLORADO	
TITLE:			
SURFACE WATER FEATURES MAP			
DRAWN BY:		B. DEEGAN	PROJ. NO.: 283926.0007
CHECKED BY:		N. PABON	FIGURE 3
APPROVED BY:		D. GRADLE	
DATE:		APRIL 2018	
		1526 Cole Boulevard, Building 3, Suite 150 Lakewood, CO 80401 Phone: 303.395.4049 www.trcsolutions.com	
FILE NO.:		283926-0007-003.mxd	

ID	Permit No.	Status	Type
1	251727	Well Constructed	HH
2	254302	Permit Issued	DOM
3	223191	Well Constructed	DOM
4	109843-A	Well Constructed	DOM
5	109843	Well Constructed	DOM
6	140241-A	Well Constructed	DOM
7	140241	Well Constructed	DOM
8	44023-F	Well Constructed	DOM
9	117336	Well Constructed	DOM
10	52753-MH	Well Constructed	MW
11	228631	Well Constructed	IRR
12	229706	Well Constructed	DOM
13	153351-A	Permit Issued	DOM
14	153351	Well Constructed	HH
15	32978-A	Well Constructed	DOM
16	204921	Well Constructed	DOM
17	7306	Well Constructed	DOM
18	54136-F	Well Constructed	COM
19	-	Application Withdrawn	DOM
20	301275	Well Constructed	DOM
21	195186	Permit Cancelled	DOM
22	38826	Well Constructed	DOM
23	2005244-AB	Well Abandoned	Other
24	2005243-AB	Well Abandoned	Other
25	259319	Permit Extended	DOM
26	212999	Well Constructed	HH

Notes:
MW - Monitoring Well
DOM - Domestic Well
IRR - Irrigation Well
HH - Household Use Only Well
COM - Commercial Well
*All information was collected from the Colorado Division of Water Resources



LEGEND

SITE BOUNDARY

1-MILE BUFFER

WATER WELLS

NOTES
1. BASE MAP IMAGERY FROM ESRI/DIGITAL GLOBE, 2016.

015003000

Feet

1" = 1,500 '
1:18,000

PROJECT:

ELEVATION MIDSTREAM, LLC
BADGER CENTRAL GATHERING FACILITY
NE NE 30 T1N R67W - WELD COUNTY, COLORADO

TITLE:

PERMITTED WATER WELLS MAP

DRAWN BY: B. DEEGAN

CHECKED BY: N. PABON

APPROVED BY: D. GRADLE

DATE: APRIL 2018

PROJ. NO.: 283926.0007

FIGURE 4

TRC

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FILE NO.: 283926-0007-004.mxd

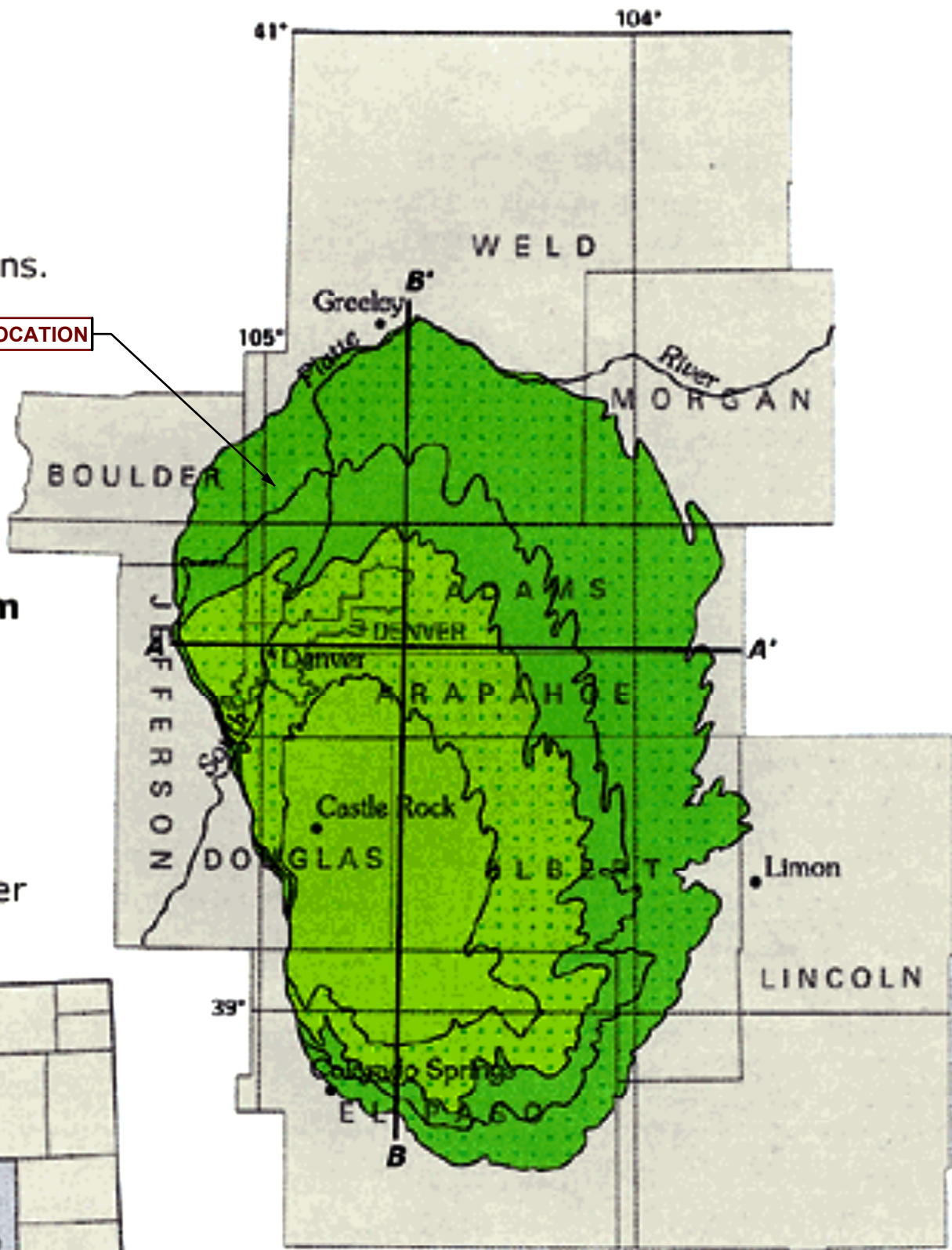
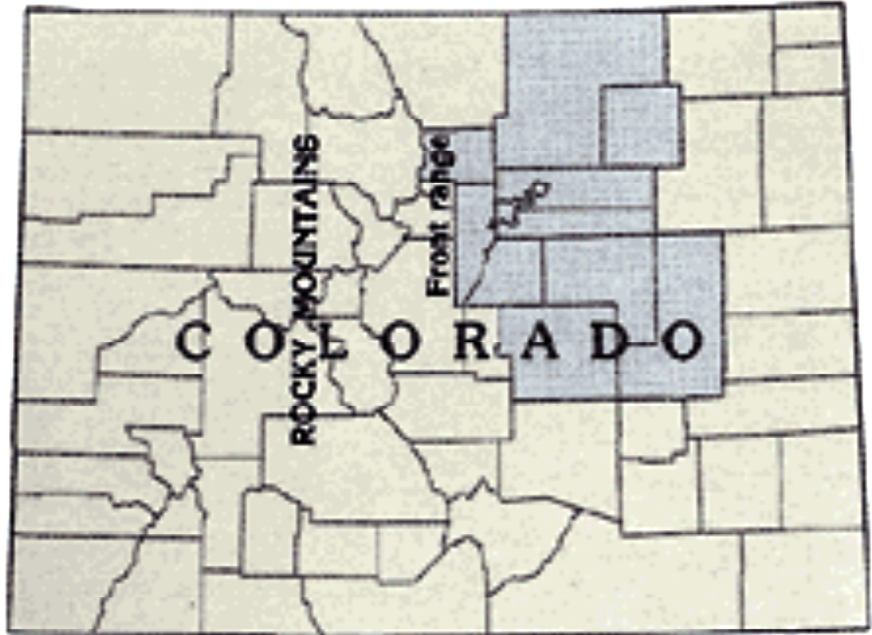
The Denver Basin aquifer system consists of four aquifers that underlie the plains of Colorado to the east of the Rocky Mountains.

APPROXIMATE SITE LOCATION

EXPLANATION

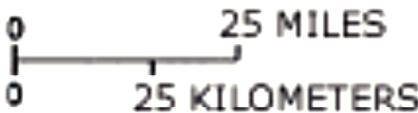
Denver Basin aquifer system

- Dawson aquifer
- Denver aquifer
- Arapahoe aquifer
- Laramie-Fox Hills aquifer



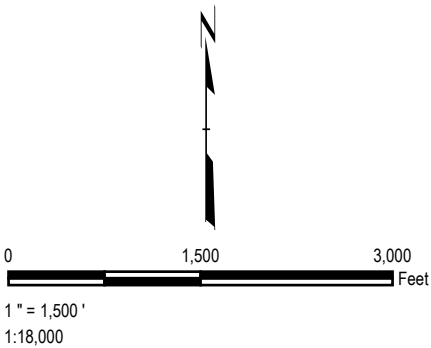
Base modified from U.S. Geological Survey, digital data, 1:2,000,000, 1972


SCALE 1:2,500,000



NOTES

- LOCATION IS APPROXIMATE.
- FIGURE FROM USGS GROUNDWATER ATLAS OF THE UNITED STATES, ARIZONA, COLORADO, NEW MEXICO, UTAH, FIGURE 80 (1995).



PROJECT:		ELEVATION MIDSTREAM, LLC BADGER CENTRAL GATHERING FACILITY NE NE 30 T1N R67W - WELD COUNTY, COLORADO	
TITLE:			
HYDROGEOLOGY MAP			
DRAWN BY:	B. DEEGAN	PROJ. NO.:	283926.0007
CHECKED BY:	N. PABON	FIGURE 5	
APPROVED BY:	D. GRADLE		
DATE:	APRIL 2018		
		1526 Cole Boulevard, Building 3, Suite 150 Lakewood, CO 80401 Phone: 303.395.4049 www.trcsolutions.com	
FILE NO.:		283926-0007-005.mxd	

TABLES

Table 1
Groundwater Sampling Results Table
Elevation Midstream, LLC
Weld County, CO

Client Sample ID				TRC-1-LF29	TRC-6-LF24.5	TRC-3-LF19.3
Lab Sample ID				L980242-01	L980242-02	L980242-03
Date Collected				03/22/2018	03/22/2018	03/22/2018
Analyte	Units	CDPHE Groundwater Standards¹	EPA RSL Residential Tapwater²			
VOCs						
Benzene	mg/l	0.005	0.00046	<0.0005	<0.0005	<0.0005
Toluene	mg/l	0.56	1.1	<0.001	<0.001	<0.001
Ethylbenzene	mg/l	0.7	0.0015	<0.0005	<0.0005	<0.0005
Xylenes, Total	mg/l	1.4	0.19	0.0143	0.00211	<0.0015
Inorganics						
Dissolved Solids	mg/l			10800	4790	8370
Chloride	mg/l			1510	145	B 458
Sulfate	mg/l			6400	3300	5280

Notes:

1 - Colorado Department of Public Health & Environment, Organic Chemical Standards for Groundwater, Table A (CDPHE, 2016) ⁻

2 - United States Environmental Protection Agency (USEPA) November 2017 Regional Screening Levels Summary Table (TR=IE 6, HG=0.1)

Detected Result

B: The same analyte is found in the associated blank.

Table 2
Permitted Water Wells Summary Table
Elevation Midstream, LLC
Weld County, CO

ID	Permit No.	Status	Type	Aquifer	Elevation (ft AMSL)	Well Depth (ft bgs)	Screened Interval (ft)	Static Water Level (ft bgs)	Yield (gal)
1	251727	Well Constructed	HH	Laramie-Fox Hills	5140	800	530-800	383	7
2	254302	Permit Issued	DOM	Laramie-Fox Hills	-	-	-	-	-
3	223191	Well Constructed	DOM	Laramie-Fox Hills	-	725	595-725	420	4
4	109843-A	Well Constructed	DOM	Laramie-Fox Hills	-	725	626-725	413	13
5	109843	Well Constructed	DOM	Laramie-Fox Hills	-	-	-	-	-
6	140241-A	Well Constructed	DOM	All Unnamed Aquifers	-	731		453	11
7	140241	Well Constructed	DOM	Laramie-Fox Hills	-	-		-	-
8	44023-F	Well Constructed	DOM	Laramie-Fox Hills	-	720	550-720	445	22
9	117336	Well Constructed	DOM	All Unnamed Aquifers	-	703	588-703	425	-
10	52753-MH	Well Constructed	MW	Quaternary Alluvium	4939	36		-	-
11	228631	Well Constructed	IRR	Laramie-Fox Hills	-	800		525	7.1
12	229706	Well Constructed	DOM	All Unnamed Aquifers	5100	800		540	3.7
13	153351-A	Permit Issued	DOM	All Unnamed Aquifers	-	-	-	-	-
14	153351	Well Constructed	HH	All Unnamed Aquifers	-	-	-	-	-
15	32978-A	Well Constructed	DOM	All Unnamed Aquifers	-	31	13-30	14	-
16	204921	Well Constructed	DOM	Laramie-Fox Hills	-	745	530-745	462	11
17	7306	Well Constructed	DOM	All Unnamed Aquifers	-	-	-	-	-
18	54136-F	Well Constructed	COM	Laramie-Fox Hills	-	702	540-702	572	10
19	-	Application Withdrawn	DOM	Laramie	-	-	-	-	-
20	301275	Well Constructed	DOM	Laramie-Fox Hills	5050	-	-	-	-
21	195186	Permit Cancelled	DOM	Laramie-Fox Hills	-	740	650-740	-	-
22	38826	Well Constructed	DOM	All Unnamed Aquifers	-	-	-	-	-
23	2005244-AB	Well Abandoned	Other	All Unnamed Aquifers	-	-	-	-	-
24	2005243-AB	Well Abandoned	Other	All Unnamed Aquifers	-	-	-	-	-
25	259319	Permit Extended	DOM	Laramie-Fox Hills	5135	-	-	-	-
26	212999	Well Constructed	HH	All Unnamed Aquifers	-	750	540-750	475	10

Notes:

MW - Monitoring Well

DOM - Domestic Well

IRR - Irrigation Well

HH - Household Use Only Well

COM - Commercial Well

*All information was collected from the Colorado Division of Water Resources

Table 3
Permitted Water Wells Groundwater Results Table
Elevation Midstream, LLC
Weld County, CO

Facility ID	Sample ID	Sample Date	Parameter	Result	Units	Qualifier	Detection Limit	Sampler
704791	458407	1/10/2007	ALUMINUM	0.025	mg/L	U	0.025	
704791	458407	1/10/2007	ANTIMONY	0.002	mg/L	U	0.002	
704791	458407	1/10/2007	ARSENIC	0.0029	mg/L			
704791	458407	1/10/2007	BARIUM	0.04	mg/L			
704791	458409	1/17/2007	BENZENE	2	ug/L	U	2	
704791	458407	1/10/2007	BERYLLIUM	0.001	mg/L	U	0.001	
704791	458407	1/10/2007	BICARBONATE ALKALINITY as CaCO3	611	mg/L			
704791	458407	1/10/2007	CADMIUM	0.0005	mg/L	U	0.0005	
704791	458407	1/10/2007	CALCIUM	3.2	mg/L			
704791	458407	1/10/2007	CARBONATE ALKALINITY AS CaCO3	44	mg/L			
704791	458407	1/10/2007	CHLORIDE	78	mg/L			
704791	458407	1/10/2007	CHROMIUM	0.0092	mg/L			
704791	458407	1/10/2007	COPPER	0.01	mg/L	U	0.01	
704791	458410	1/17/2007	DELTA 13C C1	-70.17	per mil			
704791	458410	1/17/2007	DELTA 13C DIC	-8.54	per mil			
704791	458410	1/17/2007	DELTA D C1	251.7	per mil			
704791	458409	1/17/2007	ETHYLBENZENE	2	ug/L	U	2	
704791	458407	1/10/2007	FLUORIDE	2.7	mg/L			
704791	458407	1/10/2007	HYDROGEN CYANIDE	0.01	mg/L			
704791	458407	1/10/2007	HYDROGEN SULFIDE	0.5	mg/L	U	0.5	
704791	458407	1/10/2007	IRON	0.56	mg/L			
704791	458407	1/10/2007	LEAD	0.0023	mg/L			
704791	458407	1/10/2007	MAGNESIUM	1.1	mg/L			
704791	458407	1/10/2007	MANGANESE	0.037	mg/L			
704791	458407	1/10/2007	MERCURY	0.0001	mg/L	U	0.0001	
704791	458407	1/10/2007	METHANE	5.9	mg/L			
704791	458407	1/10/2007	NICKEL	0.01	mg/L	U	0.01	
704791	458407	1/10/2007	NITRATE	0.056	mg/L	U	0.056	
704791	458407	1/10/2007	NITRITE	0.15	mg/L	U	0.15	
704791	458407	1/10/2007	pH	8.62	SU			
704791	458407	1/10/2007	POTASSIUM	1.9	mg/L			
704791	458407	1/10/2007	SELENIUM	0.0027	mg/L			
704791	458407	1/10/2007	SILVER	0.0002	mg/L	U	0.0002	
704791	458407	1/10/2007	SODIUM	410	mg/L			
704791	458407	1/10/2007	SPECIFIC CONDUCTIVITY	1780	umhos/cm			
704791	458407	1/10/2007	SULFATE	196	mg/L			
704791	458407	1/10/2007	THALLIUM	0.001	mg/L	U	0.001	
704791	458409	1/17/2007	TOLUENE	52	ug/L		2	
704791	458407	1/10/2007	TOTAL ALKALINITY AS CaCO3	655	mg/L			
704791	458407	1/10/2007	TOTAL DISSOLVED SOLIDS	1100	mg/L			
704791	458407	1/10/2007	TOTAL SUSPENDED SOLIDS	31.5	mg/L			
704791	458409	1/17/2007	TOTAL XYLENES	4	ug/L	U	4	
704791	458407	1/10/2007	TURBIDITY	7.6	NTU			
752946	535907	11/6/2013	BACTERIA IRON RELATED	1	NU		1	
752946	548286	1/19/2016	BACTERIA IRON RELATED	500	cfu/ml		25	Apex
752946	535907	11/6/2013	BACTERIA SLIME FORMING	0	NU	U	1	
752946	548286	1/19/2016	BACTERIA SLIME FORMING	500	cfu/ml	U	500	Apex
752946	535907	11/6/2013	BACTERIA SULFATE REDUCING	1	NU		1	
752946	548286	1/19/2016	BACTERIA SULFATE REDUCING	700	cfu/ml		200	Apex
752946	548286	1/19/2016	SPECIFIC CONDUCTIVITY FIELD	1050	umhos/cm		0.5	Apex
752946	548286	1/19/2016	pH	8.6	SU			Apex
752946	548286	1/19/2016	TEMPERATURE FIELD	10.03	degrees C			Apex
752946	548286	1/19/2016	BORON	0.206	mg/L		0.05	Apex
752946	548286	1/19/2016	CALCIUM	2.09	mg/L		0.4	Apex
752946	548286	1/19/2016	IRON	0.0127	mg/L		0.01	Apex
752946	548286	1/19/2016	MAGNESIUM	0.37	mg/L		0.2	Apex
752946	548286	1/19/2016	MANGANESE	0.005	mg/L	U	0.005	Apex
752946	548286	1/19/2016	POTASSIUM	1.4	mg/L		1	Apex
752946	548286	1/19/2016	SODIUM	254	mg/L		0.4	Apex
752946	548286	1/19/2016	STRONTIUM	0.0592	mg/L		0.005	Apex
752946	535907	11/6/2013	BARIUM	39	ug/L		1	
752946	548286	1/19/2016	BARIUM	0.0374	mg/L		0.004	Apex
752946	535907	11/6/2013	BORON	200	ug/L		50	
752946	535907	11/6/2013	CALCIUM	2400	ug/L		1000	
752946	535907	11/6/2013	IRON	100	ug/L	U	100	
752946	535907	11/6/2013	MAGNESIUM	330	ug/L		100	
752946	535907	11/6/2013	MANGANESE	3.1	ug/L		2	
752946	535907	11/6/2013	POTASSIUM	1800	ug/L		1000	
752946	535907	11/6/2013	SELENIUM	1	ug/L	U	1	

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Elevation Midstream, LLC
Weld County, CO

Facility ID	Sample ID	Sample Date	Parameter	Result	Units	Qualifier	Detection Limit	Sampler
752946	548286	1/19/2016	SELENIUM	0.0008	mg/L	U	0.0008	Apex
752946	535907	11/6/2013	SODIUM	280000	ug/L		1000	
752946	535907	11/6/2013	STRONTIUM	59	ug/L		1	
752946	535907	11/6/2013	BROMIDE	0.48	mg/L		0.2	
752946	548286	1/19/2016	BROMIDE	0.5	mg/L	U	0.5	Apex
752946	535907	11/6/2013	CHLORIDE	52	mg/L		2	
752946	548286	1/19/2016	CHLORIDE	49.9	mg/L		5	Apex
752946	535907	11/6/2013	FLUORIDE	2.3	mg/L		0.1	
752946	548286	1/19/2016	FLUORIDE	2.1	mg/L		1	Apex
752946	548286	1/19/2016	NITRATE	0.1	mg/L	U	0.1	Apex
752946	535907	11/6/2013	NITRATE AS N	0.2	mg/L	U	0.2	
752946	535907	11/6/2013	NITRATE/NITRITE AS N	0.1	mg/L	U	0.1	
752946	548286	1/19/2016	NITRATE/NITRITE AS N	0.14	mg/L	U	0.14	Apex
752946	535907	11/6/2013	NITRITE AS N	0.1	mg/L	U	0.1	
752946	548286	1/19/2016	Nitrite as NO2	0.04	mg/L	U	0.04	Apex
752946	535907	11/6/2013	SULFATE	1	mg/L	U	1	
752946	548286	1/19/2016	SULFATE	1	mg/L	U	1	Apex
752946	535907	11/6/2013	BICARBONATE ALKALINITY as CaCO3	500	mg/L		20	
752946	535907	11/6/2013	CARBONATE ALKALINITY AS CaCO3	20	mg/L	U	20	
752946	535907	11/6/2013	TOTAL ALKALINITY AS CaCO3	500	mg/L		20	
752946	548286	1/19/2016	DISSOLVED OXYGEN FIELD	2.2	mg/L			Apex
752946	535907	11/6/2013	PHOSPHORUS	0.091	mg/L		0.05	
752946	548286	1/19/2016	OXIDATION REDUCTION POTENTIAL	102	mV			Apex
752946	548286	1/19/2016	TURBIDITY	0.58	NTU			Apex
752946	548286	1/19/2016	PHOSPHORUS	0.06	mg/L		0.01	Apex
752946	535907	11/6/2013	ETHANE	3.7	ug/L		2	
752946	548286	1/19/2016	ETHANE	0.0077	mg/L		0.0016	Apex
752946	535907	11/6/2013	METHANE	2000	ug/L		1	
752946	548286	1/19/2016	METHANE	2.48	mg/L		0.008	Apex
752946	535907	11/6/2013	PROPANE	1	ug/L	U	1	
752946	548286	1/19/2016	PROPANE	0.0011	mg/L	U	0.0022	Apex
752946	548286	1/19/2016	CATION - ANION BALANCE	1.14	%			Apex
752946	548286	1/19/2016	BICARBONATE ALKALINITY as CaCO3	451	mg/L		5	Apex
752946	548286	1/19/2016	CARBONATE ALKALINITY AS CaCO3	27.6	mg/L		5	Apex
752946	548286	1/19/2016	TOTAL ALKALINITY AS CaCO3	478	mg/L		5	Apex
752946	535907	11/6/2013	SPECIFIC CONDUCTIVITY	1060	umhos/cm		1	
752946	548286	1/19/2016	SPECIFIC CONDUCTIVITY	935	umhos/cm		1	Apex
752946	535907	11/6/2013	TOTAL DISSOLVED SOLIDS	620	mg/L		20	
752946	548286	1/19/2016	TOTAL DISSOLVED SOLIDS	616	mg/L		10	Apex
752946	535907	11/6/2013	pH	8.49	SU		0.1	
752946	548286	1/19/2016	pH	8.63	SU			Apex
752946	548290	1/19/2016	ARGON	0.56	mg/L		0.01	Apex
752946	548290	1/19/2016	ETHANE	0.013	mg/L		0.0002	Apex
752946	548290	1/19/2016	METHANE	4.9	mg/L		0.0002	Apex
752946	548290	1/19/2016	NITROGEN (N2)	17	mg/L		0.01	Apex
752946	548290	1/19/2016	PROPANE	0.0003	mg/L	ND	0.0003	Apex
752946	535907	11/6/2013	TEPH DIESEL RANGE ORGANICS	0.5	mg/L	U	0.5	
752946	548286	1/19/2016	TEPH DIESEL RANGE ORGANICS	0.17	mg/L	U	0.19	Apex
752946	535905	11/6/2013	TVPH - Gasoline Range Organics	0.05	mg/L	U	0.05	InterTechEE
752946	535907	11/6/2013	TVPH - Gasoline Range Organics	0.05	mg/L	U	0.05	
752946	548286	1/19/2016	TVPH - Gasoline Range Organics	0.05	mg/L	U	0.05	Apex
752946	548292	1/19/2016	TVPH - Gasoline Range Organics	0.05	mg/L	U	0.05	Apex
752946	535905	11/6/2013	BENZENE	1	ug/L	U	1	InterTechEE
752946	535907	11/6/2013	BENZENE	1	ug/L	U	1	
752946	548286	1/19/2016	BENZENE	0.5	ug/L	U	1	Apex
752946	548292	1/19/2016	BENZENE	0.5	ug/L	U	1	Apex
752946	535905	11/6/2013	ETHYLBENZENE	1	ug/L	U	1	InterTechEE
752946	535907	11/6/2013	ETHYLBENZENE	1	ug/L	U	1	
752946	548286	1/19/2016	ETHYLBENZENE	0.52	ug/L	U	1	Apex
752946	548292	1/19/2016	ETHYLBENZENE	0.52	ug/L	U	1	Apex
752946	535905	11/6/2013	m-+p-XYLENE	1	ug/L	U	1	InterTechEE
752946	535907	11/6/2013	m-+p-XYLENE	1	ug/L	U	1	
752946	548286	1/19/2016	m-+p-XYLENE	1	ug/L	U	1	Apex
752946	548292	1/19/2016	m-+p-XYLENE	1	ug/L	U	1	Apex
752946	535905	11/6/2013	o-XYLENE	1	ug/L	U	1	InterTechEE
752946	535907	11/6/2013	o-XYLENE	1	ug/L	U	1	
752946	548286	1/19/2016	o-XYLENE	0.5	ug/L	U	1	Apex
752946	548292	1/19/2016	o-XYLENE	0.5	ug/L	U	1	Apex
752946	535905	11/6/2013	TOLUENE	1	ug/L	U	1	InterTechEE

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Permitted Water Wells Groundwater Results Table
Elevation Midstream, LLC
Weld County, CO

Facility ID	Sample ID	Sample Date	Parameter	Result	Units	Qualifier	Detection Limit	Sampler
752946	535907	11/6/2013	TOLUENE	1	ug/L	U	1	
752946	548286	1/19/2016	TOLUENE	0.71	ug/L	U	1	Apex
752946	548292	1/19/2016	TOLUENE	0.71	ug/L	U	1	Apex
752946	535905	11/6/2013	TOTAL XYLENES	1	ug/L	U	1	InterTechEE
752946	535907	11/6/2013	TOTAL XYLENES	1	ug/L	U	1	
752946	548286	1/19/2016	TOTAL XYLENES	1	ug/L	U	1	Apex
752946	548292	1/19/2016	TOTAL XYLENES	1	ug/L	U	1	Apex
753758	540884	11/5/2014	BACTERIA IRON RELATED	2300	cfu/ml		25	InterTech
753758	540884	11/5/2014	BACTERIA SLIME FORMING	500	cfu/ml	U	500	InterTech
753758	540884	11/5/2014	BACTERIA SULFATE REDUCING	700	cfu/ml		200	InterTech
753758	540884	11/5/2014	SPECIFIC CONDUCTIVITY FIELD	1060	umhos/cm		0.5	InterTech
753758	540884	11/5/2014	pH	8.9	SU			InterTech
753758	540884	11/5/2014	TEMPERATURE FIELD	16.21	degrees C			InterTech
753758	540884	11/5/2014	BORON	0.233	mg/L		0.05	InterTech
753758	540884	11/5/2014	CALCIUM	1.16	mg/L		0.4	InterTech
753758	540884	11/5/2014	IRON	0.0169	mg/L		0.01	InterTech
753758	540884	11/5/2014	MAGNESIUM	0.298	mg/L		0.2	InterTech
753758	540884	11/5/2014	MANGANESE	0.005	mg/L	U	0.005	InterTech
753758	540884	11/5/2014	POTASSIUM	1	mg/L	U	1	InterTech
753758	540884	11/5/2014	SODIUM	242	mg/L		0.4	InterTech
753758	540884	11/5/2014	STRONTIUM	0.043	mg/L		0.005	InterTech
753758	540884	11/5/2014	BARIUM	0.0278	mg/L		0.004	InterTech
753758	540884	11/5/2014	SELENIUM	0.0008	mg/L	U	0.0008	InterTech
753758	540884	11/5/2014	BROMIDE	0.37	mg/L		0.1	InterTech
753758	540884	11/5/2014	CHLORIDE	36.6	mg/L		1	InterTech
753758	540884	11/5/2014	FLUORIDE	1.7	mg/L		0.2	InterTech
753758	540884	11/5/2014	NITRATE	0.02	mg/L	U	0.02	InterTech
753758	540884	11/5/2014	NITRATE/NITRITE AS N	0.028	mg/L	U	0.028	InterTech
753758	540884	11/5/2014	Nitrite as NO2	0.008	mg/L	U	0.008	InterTech
753758	540884	11/5/2014	SULFATE	1	mg/L	U	1	InterTech
753758	540884	11/5/2014	DISSOLVED OXYGEN FIELD	0	mg/L			InterTech
753758	540884	11/5/2014	OXIDATION REDUCTION POTENTIAL	-160	mV			InterTech
753758	540884	11/5/2014	TURBIDITY	0.6	NTU			InterTech
753758	540884	11/5/2014	PHOSPHORUS	0.17	mg/L		0.01	InterTech
753758	540884	11/5/2014	ETHANE	0.0138	mg/L		0.0016	InterTech
753758	540884	11/5/2014	METHANE	5.52	mg/L		0.016	InterTech
753758	540884	11/5/2014	PROPANE	0.0011	mg/L	U	0.0022	InterTech
753758	540884	11/5/2014	CATION - ANION BALANCE	3.78	%			InterTech
753758	540884	11/5/2014	BICARBONATE ALKALINITY as CaCO3	441	mg/L		5	InterTech
753758	540884	11/5/2014	CARBONATE ALKALINITY AS CaCO3	55	mg/L		5	InterTech
753758	540884	11/5/2014	TOTAL ALKALINITY AS CaCO3	496	mg/L		5	InterTech
753758	540884	11/5/2014	SPECIFIC CONDUCTIVITY	878	umhos/cm		1	InterTech
753758	540884	11/5/2014	TOTAL DISSOLVED SOLIDS	624	mg/L		10	InterTech
753758	540884	11/5/2014	pH	8.82	SU			InterTech
753758	540888	11/5/2014	ETHANE	0.024	mg/L		0.0002	InterTech
753758	540888	11/5/2014	METHANE	11	mg/L		0.0002	InterTech
753758	540888	11/5/2014	PROPANE	0.0002	mg/L	ND	0.0002	InterTech
753758	540884	11/5/2014	TEPH DIESEL RANGE ORGANICS	0.17	mg/L	U	0.19	InterTech
753758	540884	11/5/2014	TVPH - Gasoline Range Organics	0.05	mg/L	U	0.05	InterTech
753758	540792	11/5/2014	TVPH - Gasoline Range Organics	0.05	mg/L	U	0.05	InterTech
753758	540884	11/5/2014	BENZENE	0.25	ug/L	U	0.5	InterTech
753758	540792	11/5/2014	BENZENE	0.25	ug/L	U	0.5	InterTech
753758	540884	11/5/2014	ETHYLBENZENE	0.25	ug/L	U	1	InterTech
753758	540792	11/5/2014	ETHYLBENZENE	0.25	ug/L	U	1	InterTech
753758	540884	11/5/2014	m-+p-XYLENE	0.38	ug/L	U	1	InterTech
753758	540792	11/5/2014	m-+p-XYLENE	0.38	ug/L	U	1	InterTech
753758	540884	11/5/2014	o-XYLENE	0.3	ug/L	U	1	InterTech
753758	540792	11/5/2014	o-XYLENE	0.3	ug/L	U	1	InterTech
753758	540884	11/5/2014	TOLUENE	0.22	ug/L	U	1	InterTech
753758	540792	11/5/2014	TOLUENE	0.22	ug/L	U	1	InterTech
753758	540884	11/5/2014	TOTAL XYLENES	0.3	ug/L	U	1	InterTech
753758	540792	11/5/2014	TOTAL XYLENES	0.3	ug/L	U	1	InterTech
754011	542781	2/5/2015	BACTERIA IRON RELATED	9000	cfu/ml		25	InterTech
754011	542781	2/5/2015	BACTERIA SLIME FORMING	500	cfu/ml	U	500	InterTech
754011	542781	2/5/2015	BACTERIA SULFATE REDUCING	18000	cfu/ml		200	InterTech
754011	542781	2/5/2015	SPECIFIC CONDUCTIVITY FIELD	1350	umhos/cm		0.5	InterTech
754011	542781	2/5/2015	pH	8.9	SU			InterTech
754011	542781	2/5/2015	TEMPERATURE FIELD	9.5	degrees C			InterTech
754011	542781	2/5/2015	BORON	0.28	mg/L		0.05	InterTech

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Elevation Midstream, LLC
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Facility ID	Sample ID	Sample Date	Parameter	Result	Units	Qualifier	Detection Limit	Sampler
754011	542781	2/5/2015	CALCIUM	1.34	mg/L		0.4	InterTech
754011	542781	2/5/2015	IRON	0.0201	mg/L		0.01	InterTech
754011	542781	2/5/2015	MAGNESIUM	0.438	mg/L		0.2	InterTech
754011	542781	2/5/2015	MANGANESE	0.005	mg/L	U	0.005	InterTech
754011	542781	2/5/2015	POTASSIUM	1.27	mg/L		1	InterTech
754011	542781	2/5/2015	SODIUM	335	mg/L		0.4	InterTech
754011	542781	2/5/2015	STRONTIUM	0.072	mg/L		0.005	InterTech
754011	542781	2/5/2015	BARIUM	0.0322	mg/L		0.004	InterTech
754011	542781	2/5/2015	SELENIUM	0.0008	mg/L	U	0.0008	InterTech
754011	542781	2/5/2015	BROMIDE	0.52	mg/L		0.1	InterTech
754011	542781	2/5/2015	CHLORIDE	46.9	mg/L		1	InterTech
754011	542781	2/5/2015	FLUORIDE	2.3	mg/L		0.2	InterTech
754011	542781	2/5/2015	NITRATE	0.72	mg/L		0.02	InterTech
754011	542781	2/5/2015	NITRATE/NITRITE AS N	0.84	mg/L		0.028	InterTech
754011	542781	2/5/2015	Nitrite as NO2	0.12	mg/L		0.008	InterTech
754011	542781	2/5/2015	SULFATE	59.9	mg/L		1	InterTech
754011	542781	2/5/2015	DISSOLVED OXYGEN FIELD	2	mg/L			InterTech
754011	542781	2/5/2015	OXIDATION REDUCTION POTENTIAL	61.1	mV			InterTech
754011	542781	2/5/2015	TURBIDITY	0.6	NTU			InterTech
754011	542781	2/5/2015	PHOSPHORUS	0.085	mg/L		0.01	InterTech
754011	542781	2/5/2015	ETHANE	0.0008	mg/L	U	0.0016	InterTech
754011	542781	2/5/2015	METHANE	0.0012	mg/L		0.0008	InterTech
754011	542781	2/5/2015	PROPANE	0.0011	mg/L	U	0.0022	InterTech
754011	542781	2/5/2015	CATION - ANION BALANCE	3.11	%			InterTech
754011	542781	2/5/2015	BICARBONATE ALKALINITY as CaCO3	513	mg/L		5	InterTech
754011	542781	2/5/2015	CARBONATE ALKALINITY AS CaCO3	49.7	mg/L		5	InterTech
754011	542781	2/5/2015	TOTAL ALKALINITY AS CaCO3	563	mg/L		5	InterTech
754011	542781	2/5/2015	SPECIFIC CONDUCTIVITY	1120	umhos/cm		1	InterTech
754011	542781	2/5/2015	TOTAL DISSOLVED SOLIDS	818	mg/L		10	InterTech
754011	542781	2/5/2015	pH	8.73	SU			InterTech
754011	542781	2/5/2015	TEPH DIESEL RANGE ORGANICS	0.17	mg/L	U	0.19	InterTech
754011	542781	2/5/2015	TVPH - Gasoline Range Organics	0.05	mg/L	U	0.05	InterTech
754011	542779	2/5/2015	TVPH - Gasoline Range Organics	0.05	mg/L	U	0.05	InterTech
754011	542779	2/5/2015	BENZENE	0.2	ug/L	U	1	InterTech
754011	542781	2/5/2015	BENZENE	0.2	ug/L	U	1	InterTech
754011	542781	2/5/2015	ETHYLBENZENE	0.2	ug/L	U	1	InterTech
754011	542779	2/5/2015	ETHYLBENZENE	0.2	ug/L	U	1	InterTech
754011	542779	2/5/2015	m-+p-XYLENE	0.26	ug/L	U	1	InterTech
754011	542781	2/5/2015	m-+p-XYLENE	0.26	ug/L	U	1	InterTech
754011	542781	2/5/2015	o-XYLENE	0.2	ug/L	U	1	InterTech
754011	542779	2/5/2015	o-XYLENE	0.2	ug/L	U	1	InterTech
754011	542779	2/5/2015	TOLUENE	0.2	ug/L	U	1	InterTech
754011	542781	2/5/2015	TOLUENE	0.2	ug/L	U	1	InterTech
754011	542779	2/5/2015	TOTAL XYLENES	0.46	ug/L	U	1	InterTech
754011	542781	2/5/2015	TOTAL XYLENES	0.46	ug/L	U	1	InterTech
754013	542859	2/5/2015	BACTERIA IRON RELATED	2300	cfu/ml		25	InterTech
754013	542859	2/5/2015	BACTERIA SLIME FORMING	500	cfu/ml		500	InterTech
754013	542859	2/5/2015	BACTERIA SULFATE REDUCING	1200	cfu/ml		200	InterTech
754013	542859	2/5/2015	SPECIFIC CONDUCTIVITY FIELD	942	umhos/cm		0.5	InterTech
754013	542859	2/5/2015	pH	9.1	SU			InterTech
754013	542859	2/5/2015	TEMPERATURE FIELD	18.04	degrees C			InterTech
754013	542859	2/5/2015	BORON	0.21	mg/L		0.05	InterTech
754013	542859	2/5/2015	CALCIUM	0.931	mg/L		0.4	InterTech
754013	542859	2/5/2015	IRON	0.0215	mg/L		0.01	InterTech
754013	542859	2/5/2015	MAGNESIUM	0.235	mg/L		0.2	InterTech
754013	542859	2/5/2015	MANGANESE	0.005	mg/L	U	0.005	InterTech
754013	542859	2/5/2015	POTASSIUM	1	mg/L	U	1	InterTech
754013	542859	2/5/2015	SODIUM	225	mg/L		0.4	InterTech
754013	542859	2/5/2015	STRONTIUM	0.0328	mg/L		0.005	InterTech
754013	542859	2/5/2015	BARIUM	0.0219	mg/L		0.004	InterTech
754013	542859	2/5/2015	SELENIUM	0.0008	mg/L	U	0.0008	InterTech
754013	542859	2/5/2015	BROMIDE	0.32	mg/L		0.1	InterTech
754013	542859	2/5/2015	CHLORIDE	30.3	mg/L		5	InterTech
754013	542859	2/5/2015	FLUORIDE	1.8	mg/L		0.2	InterTech
754013	542859	2/5/2015	NITRATE	0.02	mg/L	U	0.02	InterTech
754013	542859	2/5/2015	NITRATE/NITRITE AS N	0.06	mg/L	U	0.06	InterTech
754013	542859	2/5/2015	Nitrite as NO2	0.04	mg/L	U	0.04	InterTech
754013	542859	2/5/2015	SULFATE	1	mg/L	U	1	InterTech
754013	542859	2/5/2015	DISSOLVED OXYGEN FIELD	0.01	mg/L			InterTech

Table 3
Permitted Water Wells Groundwater Results Table
Elevation Midstream, LLC
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Facility ID	Sample ID	Sample Date	Parameter	Result	Units	Qualifier	Detection Limit	Sampler
754013	542859	2/5/2015	OXIDATION REDUCTION POTENTIAL	-250	mV			InterTech
754013	542859	2/5/2015	TURBIDITY	1.1	NTU			InterTech
754013	542859	2/5/2015	PHOSPHORUS	0.1	mg/L		0.01	InterTech
754013	542859	2/5/2015	ETHANE	0.0165	mg/L		0.0016	InterTech
754013	542859	2/5/2015	METHANE	7.16	mg/L		0.02	InterTech
754013	542859	2/5/2015	PROPANE	0.0011	mg/L	U	0.0022	InterTech
754013	542859	2/5/2015	CATION - ANION BALANCE	2.04	%			InterTech
754013	542859	2/5/2015	BICARBONATE ALKALINITY as CaCO3	365	mg/L		5	InterTech
754013	542859	2/5/2015	CARBONATE ALKALINITY AS CaCO3	66.2	mg/L		5	InterTech
754013	542859	2/5/2015	TOTAL ALKALINITY AS CaCO3	431	mg/L		5	InterTech
754013	542859	2/5/2015	SPECIFIC CONDUCTIVITY	771	umhos/cm		1	InterTech
754013	542859	2/5/2015	TOTAL DISSOLVED SOLIDS	544	mg/L		10	InterTech
754013	542859	2/5/2015	pH	9.11	SU			InterTech
754013	542863	2/5/2015	ETHANE	0.021	mg/L		0.0002	InterTech
754013	542863	2/5/2015	METHANE	12	mg/L		0.0002	InterTech
754013	542863	2/5/2015	PROPANE	0.0002	mg/L	ND	0.0002	InterTech
754013	542859	2/5/2015	TEPH DIESEL RANGE ORGANICS	0.17	mg/L	U	0.19	InterTech
754013	542859	2/5/2015	TVPH - Gasoline Range Organics	0.05	mg/L	U	0.05	InterTech
754013	542857	2/5/2015	TVPH - Gasoline Range Organics	0.05	mg/L	U	0.05	InterTech
754013	542857	2/5/2015	BENZENE	0.2	ug/L	U	1	InterTech
754013	542859	2/5/2015	BENZENE	0.2	ug/L	U	1	InterTech
754013	542859	2/5/2015	ETHYLBENZENE	0.2	ug/L	U	1	InterTech
754013	542857	2/5/2015	ETHYLBENZENE	0.2	ug/L	U	1	InterTech
754013	542857	2/5/2015	m-+p-XYLENE	0.26	ug/L	U	1	InterTech
754013	542859	2/5/2015	m-+p-XYLENE	0.26	ug/L	U	1	InterTech
754013	542859	2/5/2015	o-XYLENE	0.2	ug/L	U	1	InterTech
754013	542857	2/5/2015	o-XYLENE	0.2	ug/L	U	1	InterTech
754013	542859	2/5/2015	TOLUENE	0.2	ug/L	U	1	InterTech
754013	542857	2/5/2015	TOLUENE	0.2	ug/L	U	1	InterTech
754013	542857	2/5/2015	TOTAL XYLENES	0.46	ug/L	U	1	InterTech
754013	542859	2/5/2015	TOTAL XYLENES	0.46	ug/L	U	1	InterTech
754071	542877	2/18/2015	BACTERIA IRON RELATED	25	cfu/ml	U	25	InterTech
754071	546752	10/28/2015	BACTERIA IRON RELATED	74500	cfu/ml		25	Apex
754071	542877	2/18/2015	BACTERIA SLIME FORMING	500	cfu/ml	U	500	InterTech
754071	546752	10/28/2015	BACTERIA SLIME FORMING	500	cfu/ml	U	500	Apex
754071	542877	2/18/2015	BACTERIA SULFATE REDUCING	1200	cfu/ml		200	InterTech
754071	546752	10/28/2015	BACTERIA SULFATE REDUCING	200	cfu/ml	U	200	Apex
754071	542877	2/18/2015	SPECIFIC CONDUCTIVITY FIELD	820	umhos/cm		0.5	InterTech
754071	546752	10/28/2015	SPECIFIC CONDUCTIVITY FIELD	1040	umhos/cm		0.5	Apex
754071	542877	2/18/2015	pH	9.4	SU			InterTech
754071	546752	10/28/2015	pH	9	SU			Apex
754071	542877	2/18/2015	TEMPERATURE FIELD	8.35	degrees C			InterTech
754071	546752	10/28/2015	TEMPERATURE FIELD	16.98	degrees C			Apex
754071	542877	2/18/2015	BORON	0.226	mg/L		0.05	InterTech
754071	546752	10/28/2015	BORON	0.244	mg/L		0.05	Apex
754071	542877	2/18/2015	CALCIUM	1.12	mg/L		0.4	InterTech
754071	546752	10/28/2015	CALCIUM	1.05	mg/L		0.4	Apex
754071	542877	2/18/2015	IRON	0.01	mg/L	U	0.01	InterTech
754071	546752	10/28/2015	IRON	0.011	mg/L		0.01	Apex
754071	542877	2/18/2015	MAGNESIUM	0.29	mg/L		0.2	InterTech
754071	546752	10/28/2015	MAGNESIUM	0.296	mg/L		0.2	Apex
754071	542877	2/18/2015	MANGANESE	0.005	mg/L	U	0.005	InterTech
754071	546752	10/28/2015	MANGANESE	0.005	mg/L	U	0.005	Apex
754071	542877	2/18/2015	POTASSIUM	1	mg/L	U	1	InterTech
754071	546752	10/28/2015	POTASSIUM	1	mg/L	U	1	Apex
754071	542877	2/18/2015	SODIUM	230	mg/L		0.4	InterTech
754071	546752	10/28/2015	SODIUM	243	mg/L		0.4	Apex
754071	542877	2/18/2015	STRONTIUM	0.0413	mg/L		0.005	InterTech
754071	546752	10/28/2015	STRONTIUM	0.0394	mg/L		0.005	Apex
754071	542877	2/18/2015	BARIUM	0.0264	mg/L		0.004	InterTech
754071	546752	10/28/2015	BARIUM	0.0303	mg/L		0.004	Apex
754071	542877	2/18/2015	SELENIUM	0.0008	mg/L	U	0.0008	InterTech
754071	546752	10/28/2015	SELENIUM	0.0008	mg/L	U	0.0008	Apex
754071	542877	2/18/2015	BROMIDE	0.37	mg/L		0.1	InterTech
754071	546752	10/28/2015	BROMIDE	0.38	mg/L		0.1	Apex
754071	542877	2/18/2015	CHLORIDE	41.4	mg/L		2.5	InterTech
754071	546752	10/28/2015	CHLORIDE	39	mg/L		1	Apex
754071	542877	2/18/2015	FLUORIDE	2.1	mg/L		0.2	InterTech
754071	546752	10/28/2015	FLUORIDE	2	mg/L		0.5	Apex

Table 3
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Elevation Midstream, LLC
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Facility ID	Sample ID	Sample Date	Parameter	Result	Units	Qualifier	Detection Limit	Sampler
754071	542877	2/18/2015	NITRATE	0.02	mg/L	U	0.02	InterTech
754071	546752	10/28/2015	NITRATE	0.05	mg/L	U	0.05	Apex
754071	542877	2/18/2015	NITRATE/NITRITE AS N	0.028	mg/L	U	0.028	InterTech
754071	546752	10/28/2015	NITRATE/NITRITE AS N	0.058	mg/L	U	0.058	Apex
754071	542877	2/18/2015	Nitrite as NO2	0.008	mg/L	U	0.008	InterTech
754071	546752	10/28/2015	Nitrite as NO2	0.008	mg/L	U	0.008	Apex
754071	542877	2/18/2015	SULFATE	3.7	mg/L		1	InterTech
754071	546752	10/28/2015	SULFATE	3.7	mg/L		1	Apex
754071	542877	2/18/2015	DISSOLVED OXYGEN FIELD	0.24	mg/L			InterTech
754071	546752	10/28/2015	DISSOLVED OXYGEN FIELD	0.04	mg/L			Apex
754071	542877	2/18/2015	OXIDATION REDUCTION POTENTIAL	173	mV			InterTech
754071	546752	10/28/2015	OXIDATION REDUCTION POTENTIAL	-160	mV			Apex
754071	542877	2/18/2015	TURBIDITY	1.4	NTU			InterTech
754071	546752	10/28/2015	TURBIDITY	0.42	NTU			Apex
754071	542877	2/18/2015	PHOSPHORUS	0.068	mg/L		0.01	InterTech
754071	546752	10/28/2015	PHOSPHORUS	0.054	mg/L		0.01	Apex
754071	542877	2/18/2015	ETHANE	0.12	mg/L		0.0016	InterTech
754071	546752	10/28/2015	ETHANE	0.0225	mg/L		0.0016	Apex
754071	542877	2/18/2015	METHANE	5.84	mg/L		0.016	InterTech
754071	546752	10/28/2015	METHANE	6.69	mg/L		0.016	Apex
754071	542877	2/18/2015	PROPANE	0.0263	mg/L		0.0022	InterTech
754071	546752	10/28/2015	PROPANE	0.0011	mg/L	U	0.0022	Apex
754071	542877	2/18/2015	CATION - ANION BALANCE	3.32	%			InterTech
754071	546752	10/28/2015	CATION - ANION BALANCE	1.34	%			Apex
754071	542877	2/18/2015	BICARBONATE ALKALINITY as CaCO3	409	mg/L		5	InterTech
754071	546752	10/28/2015	BICARBONATE ALKALINITY as CaCO3	397	mg/L		5	Apex
754071	542877	2/18/2015	CARBONATE ALKALINITY AS CaCO3	67.9	mg/L		5	InterTech
754071	546752	10/28/2015	CARBONATE ALKALINITY AS CaCO3	63.7	mg/L		5	Apex
754071	542877	2/18/2015	TOTAL ALKALINITY AS CaCO3	477	mg/L		5	InterTech
754071	546752	10/28/2015	TOTAL ALKALINITY AS CaCO3	461	mg/L		5	Apex
754071	542877	2/18/2015	SPECIFIC CONDUCTIVITY	864	umhos/cm		1	InterTech
754071	546752	10/28/2015	SPECIFIC CONDUCTIVITY	796	umhos/cm		1	Apex
754071	542877	2/18/2015	TOTAL DISSOLVED SOLIDS	618	mg/L		10	InterTech
754071	546752	10/28/2015	TOTAL DISSOLVED SOLIDS	617	mg/L		10	Apex
754071	542877	2/18/2015	pH	8.94	SU			InterTech
754071	546752	10/28/2015	pH	8.93	SU			Apex
754071	542875	2/18/2015	ARGON	0.55	mg/L		0.01	InterTech
754071	546750	10/28/2015	ARGON	0.54	mg/L		0.01	Apex
754071	542875	2/18/2015	ETHANE	0.083	mg/L		0.0002	InterTech
754071	546750	10/28/2015	ETHANE	0.031	mg/L		0.0002	Apex
754071	542875	2/18/2015	METHANE	11	mg/L		0.0002	InterTech
754071	546750	10/28/2015	METHANE	12	mg/L		0.0002	Apex
754071	542875	2/18/2015	NITROGEN (N2)	18	mg/L		0.01	InterTech
754071	546750	10/28/2015	NITROGEN (N2)	16	mg/L		0.01	Apex
754071	542875	2/18/2015	PROPANE	0.012	mg/L		0.0002	InterTech
754071	546750	10/28/2015	PROPANE	0.0007	mg/L		0.0002	Apex
754071	542877	2/18/2015	TEPH DIESEL RANGE ORGANICS	0.17	mg/L	U	0.19	InterTech
754071	546752	10/28/2015	TEPH DIESEL RANGE ORGANICS	0.17	mg/L	U	0.19	Apex
754071	542877	2/18/2015	TVPH - Gasoline Range Organics	0.05	mg/L	U	0.05	InterTech
754071	542879	2/18/2015	TVPH - Gasoline Range Organics	0.05	mg/L	U	0.05	InterTech
754071	546746	10/28/2015	TVPH - Gasoline Range Organics	0.05	mg/L	U	0.05	Apex
754071	546752	10/28/2015	TVPH - Gasoline Range Organics	0.05	mg/L	U	0.05	Apex
754071	542877	2/18/2015	BENZENE	0.2	ug/L	U	1	InterTech
754071	542879	2/18/2015	BENZENE	0.2	ug/L	U	1	InterTech
754071	546746	10/28/2015	BENZENE	0.5	ug/L	U	1	Apex
754071	546752	10/28/2015	BENZENE	0.5	ug/L	U	1	Apex
754071	542877	2/18/2015	ETHYLBENZENE	0.2	ug/L	U	1	InterTech
754071	542879	2/18/2015	ETHYLBENZENE	0.2	ug/L	U	1	InterTech
754071	546746	10/28/2015	ETHYLBENZENE	0.5	ug/L	U	1	Apex
754071	546752	10/28/2015	ETHYLBENZENE	0.5	ug/L	U	1	Apex
754071	542877	2/18/2015	m-+p-XYLENE	0.26	ug/L	U	1	InterTech
754071	542879	2/18/2015	m-+p-XYLENE	0.26	ug/L	U	1	InterTech
754071	546746	10/28/2015	m-+p-XYLENE	1	ug/L	U	1	Apex
754071	546752	10/28/2015	m-+p-XYLENE	1	ug/L	U	1	Apex
754071	542877	2/18/2015	o-XYLENE	0.2	ug/L	U	1	InterTech
754071	542879	2/18/2015	o-XYLENE	0.2	ug/L	U	1	InterTech
754071	546746	10/28/2015	o-XYLENE	0.5	ug/L	U	1	Apex
754071	546752	10/28/2015	o-XYLENE	0.5	ug/L	U	1	Apex
754071	542877	2/18/2015	TOLUENE	0.2	ug/L	U	1	InterTech

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Facility ID	Sample ID	Sample Date	Parameter	Result	Units	Qualifier	Detection Limit	Sampler
754071	542879	2/18/2015	TOLUENE	0.2	ug/L	U	1	InterTech
754071	546746	10/28/2015	TOLUENE	0.71	ug/L	U	1	Apex
754071	546752	10/28/2015	TOLUENE	0.71	ug/L	U	1	Apex
754071	542877	2/18/2015	TOTAL XYLENES	0.46	ug/L	U	1	InterTech
754071	542879	2/18/2015	TOTAL XYLENES	0.46	ug/L	U	1	InterTech
754071	546746	10/28/2015	TOTAL XYLENES	1	ug/L	U	1	Apex
754071	546752	10/28/2015	TOTAL XYLENES	1	ug/L	U	1	Apex