February 15, 2018

Ms. Olivia Yu
Environmental Specialist
New Mexico Oil Conservation Division
Hobbs District 1 Office
1625 French Drive
Hobbs, New Mexico 88240

SUBMITTED VIA EMAIL
Olivia.Yu@state.nm.us

PRELIMINARY RESULTS

Re: Release Characterization Report
Chalupa #4 SWD Pipeline Release Site
Lea County, New Mexico
NMOCD Case No. 1R-4633

Dear Ms. Yu:

Enviro Clean Cardinal LLC (ECC) is pleased to submit to the New Mexico Oil Conservation Division (NMOCD), on behalf of our client Foundation Energy Management, LLC (FEM), the following ***Release Characterization Report*** that describes the activities that have been performed by FEM to assess the environmental impacts that resulted from a produced water release at their Chalupa #4 SWD Release Site (Site). This release occurred from an aboveground pipeline that connected FEM's tank battery to their Chalupa #4 SWD well. This release site is referred to within this report as the Chalupa #4 SWD Pipeline Release Site (Site) and is located approximately 18 miles northwest of the City of Lovington in Lea County, New Mexico. The Site property is owned by New Mexico State Trust Lands and administered by the New Mexico State Land Office (NMSLO). Records show the NMSLO has leased the surface of the Site to Norman and Elwanda Hahn Ranches, LTD for agricultural purposes. The location of the Site and its topographic features are shown on the attached **Figure 1**. The Site is located in the west-half of the southwest quarter of Section 13, Township 14 South, Range 33 East, and the geodetic coordinates of the Site are 33.103422ºN latitude and -103.576112ºW longitude. The following report describes the results of FEM's release characterization.

Description of Release

On March 2, 2017, FEM experienced a release of produced water at the Site from a leak that developed in a pipeline connecting FEM's tank battery to their Chalupa #4 saltwater disposal well or SWD. These two structures are separated by a distance of approximately 2,500 feet and the release occurred approximately 648 feet south of tank battery. Approximately 25 bbls of saltwater were released to the ground surface and approximately 15 bbls were recovered (10 bbls were not recovered). FEM submitted a *Release Notification and Corrective Action* Form C-141 to the NMOCD on March 6, 2017. The NMOCD assigned incident database and remediation case number 1R-4633 to the Site and established a maximum permissible chloride level in soil of 600 mg/kg in their response documentation. A copy of FEM's Form C-141 and the NMOCD's response documentation are provided in the attached **Appendix A**. The released fluids appear to have flowed across the ground surface approximately 550 feet towards the northeast.

7060 South Yale Avenue, Suite 603 ▪ Tulsa, Oklahoma ▪ 74136 ▪ 918.794.7828
www.EnviroCleanPS.com

Initial Assessment

The NMOCD directed FEM to conduct both horizontal and vertical delineation of the chloride impacts and to demonstrate that at least 10 feet of separation exists between the base of chloride impact and top of groundwater saturation. The New Mexico Office of the State Engineer's (OSE's) online water well database indicates the depth-to-groundwater levels of wells within 2,000-meter radius of the site range between 80 and 120 feet, and average 108 feet below ground surface. The ChevronTexaco Lea County Depth to Groundwater Map (W. Johnson, 2005) indicates that the depth to groundwater is approximately 90 to 100 feet below ground surface.

FEM initially retained Basin Environmental Service Technologies, LLC (Basin) to conduct a release characterization at the Site. During this investigation, Basin collected surface soil samples at locations SP #1 through SP #8 as shown on Basin's figure which is re-presented in this report as **Figure 2**. Subsurface soil samples were also collected at locations SP #6, 7 and 8. These soil samples were submitted to Cardinal Laboratories in Midland, Texas for chloride analyses (Method SM4500-CI B). Basin delineated the lateral limits of impact by mapping the visually apparent surface soil staining. This work was performed on May 16, 2017. The results of Basin's characterization work are presented graphically on **Figure 2**. As can be seen from these results, all but two soil samples contained chloride levels that exceed the NMOCD's cleanup level for this Site of 600 mg/kg. The horizontal and vertical limits of impact were not fully defined through these initial assessment activities.

Release Characterization Work Plan

To complete both the horizontal and vertical delineation of the chloride impacts at this Site, FEM retained ECC to prepare a ***Release Characterization Work Plan***. This document was completed and submitted to the NMOCD on August 18, 2017. NMOCD approved this plan on September 20, 2017. The following assessment activities were to be performed:

- Conduct an EM38 ground conductivity survey at the Site to explore the upper 5 feet of the soil profile and identify the lateral limits of brine impacts to surface soils.

- Based upon the results of the EM38 survey, install at least 4 borings to augment the soil data already generated for the site by Basin. These borings were to be drilled to depths of approximately 6 feet below ground surface and soil samples were to be collected from the following depth intervals: 0 to 0.5 feet, 0.5 to 1 foot, 1 to 2 feet, 2 to 3 feet, 3 to 4 feet, 4 to 5 feet, and 5 to 6 feet below ground surface. These soil samples were to be submitted to the laboratory for chloride analyses by Method 300.

- Vertical delineation was to be accomplished by installing a single deep boring at the Site to the base of chloride impacts in soil or to groundwater saturation whichever occurred first. FEM increased this to two deep borings based upon comments made by the NMOCD during their conditional approval of FEM's Release Characterization Work Plan. Both borings were to be located to assess the areas of highest EM ground conductivity. The borings were to be drilled and sampled on 5-foot depth intervals until a 10-foot interval of soil/rock (i.e., three 5-foot soil samples taken consecutively) were identified through field chloride analyses. When field analyses confirmed the base of chloride impacts, drilling and sampling were to be terminated and the borehole plugged. The soil samples collected from the borings were to be submitted to the laboratory for confirmation chloride analyses by Method 300.

Implementation of Release Characterization Work Plan

On October 31 and November 1, 2017, ECC performed the field work described within the Release Characterization Work Plan. The two primary elements of this plan were to conduct a ground conductivity survey followed by the installation of soil borings and the collection of soil samples. These elements are described below.

Ground Conductivity Surveys

On October 31, 2017, ECC conducted two ground conductivity surveys across the Site using an EM38-MK2 meter manufactured by Geonics Limited, Ontario, Canada. This meter has two sets of fixed coils; one separated by 0.5 meters, and a second set separated by 1 meter. The meter also has two dipole orientations; a horizontal and a vertical dipole. The distance between the coils and dipole orientation control the depths that the meter propagates its signal within the subsurface as well as the distribution of the conductivity responses as a function of depth. The greatest depths of investigation are achieved when the meter is run in the vertical dipole, or VD, orientation. Therefore, ECC conducted the EM38 ground conductivity surveys of the entire effected areas around the Site with the meter in the EM38/0.5mVD and EM38/1mVD modes. With the meter in these configurations the maximum depths of investigation were approximately 2.5 feet and 5 feet, respectively.

The EM38 meter outputs both the EM38/0.5mVD and EM38/1mVD ground conductivities separately and continuously. The units of measurement for a ground conductivity meter are millimhos per meter (mmhos/m). To allow these streams of conductivity data to be captured the EM38 was connected to a field computer that was configured to record both conductivity data streams at a frequency of 2 readings per second. The field computer also was connected to a Hemisphere GPS that outputs latitude and longitude coordinates continuously. These wired interconnections of the EM38 meter, field computer and GPS allowed ECC's operator to walk continuously across the Site and capture location and conductivity readings at 3,371 locations. The paths the operator took across the Site (traverses) for the EM38/0.5mVD and EM38/1mVD surveys are shown on **Figures 3** and **4**, respectively. These walking traverses appear as continuous dotted and curved lines that typically run perpendicular to the axes of the impacted areas.

The ground conductivity responses are shown graphically for the EM38/0.5mVD and EM38/1mVD surveys on **Figures 3** and **4**, respectively. The actual EM38 field measurements are presented in tabular format in **Appendix B**. Background EM conductivity readings at the Site were quite variable, but appeared to be less than 50 mmhos/m for both meter configurations. Therefore, on these figures the areas shown shaded in light green are areas that are likely unimpacted from the release. Conversely, the areas shown in dark green and the other colors of blue, orange and red are areas progressively higher in ground conductivity and likely represent areas more heavily impacted by the brine release. The peak EM38/0.5mVD and EM38/1mVD conductivity readings recorded at the Site were 455 mmhos/m and 492 mmhos/m, respectively.

As can been seen on **Figures 3** and **4**, the areas immediately surrounding the point of release do not appear to be significantly impacted. ECC believes this is because resistant caliche soils are prevalent at the surface in this area and the ground surface slopes towards the east-northeast. From the point of release the brine appears to have flowed east-northeast through a narrow trough (small valley), and then collected and spread laterally into a flat-lying area. The dimensions of the affected areas appear to be approximately 620 feet in length and as wide as 160 feet in the broad accumulation area at the distal end of the flowpath.

Within the area surveyed, there appear to be three pipelines as shown on **Figures 3** and **4**. The first is an FEM aboveground pipeline from which the release occurred. This pipeline is north-south trending and runs along the western side of the surveyed area. The second pipeline is below ground and trends southwest to northeast across the surveyed area as shown. This pipeline is owned by Targa Resources and was marked by them during ECC's utility clearance. The third pipeline trends west to east across the northern portion of the surveyed area. This pipeline is below ground and was identified by the EM survey. It is important to note that the owner of this pipeline did not respond to ECC's utility locate request.

Soil Sampling

To assess the depths to which the brine impacts infiltrated vertically at the Site, ECC installed two deep soil borings, identified as BH-1 and BH-2, as shown on **Figures 3** and **4**. BH-1 was located approximately 80 downslope (east) from the point of release, and BH-2 was located approximately 470 feet downslope (northeast). Both borings were drilled using air rotary methods and had total depths of 30 feet below ground surface. The soils at BH-1 were largely caliche below a depth of 1 foot. Conversely, the soils at BH-2 graded from silt, sandy silt, silt, and then to sand. The boring records for BH-1 and BH-2 are provided in **Appendix C**.

Soil samples were collected from both deep borings from the following depth intervals: 0-1 feet, 1-2 feet, 2-3 feet, 3-4 feet, 4-5 feet, 5-6 feet, 9-10 feet, 14-15 feet, 19-20 feet, 24-25 feet, and 29-30 feet. These soil samples were initially field screened to estimate the chloride concentrations in each. Field screening consisted of using a Mettler Toledo Seven2Go portable conductivity/salinity meter to first measure the salinity of a 1:1 mixture (by weight) of soil and deionized water. During ECC's assessment 50 grams of soil were mixed with 50 grams of water. After thorough mixing, the salinity was read directly in parts per thousand (ppt). The salinity was then converted to parts per million (ppm) by multiplying by 1,000. The salinity in ppm was then multiplied by 2.26 because ECC has observed for soils in this area that salinity measurements in soils obtained from a 1:1 soil mixture must be multiplied by 2.26 to arrive at an estimate of total salinity, or total soluble salts, obtained from a soil paste extract. ECC has found these derived values to be good estimates of the total soluble salts in a soil. Then assuming that the dominant salts within a soil/water solution for soils taken at a brine release site will be sodium and chloride, ECC multiplied the total salinity values by 0.607 which is the molar weight ratio of chloride to sodium (Cl = 35.453 and Na = 22.9898 grams). The results of these field measured chloride concentrations are provided on **Table 1**. The field measured chloride measurements indicated that the base of the chloride impacts in BH-1 and BH-2 occurred at depths of 6 feet and 10 feet, respectively. Therefore, ECC terminated both borings at 30 feet to provide adequate sample to demonstrate adequate separation with groundwater. The borings were properly plugged following sample collection.

ECC also installed eight (8) borings, identified as HA-1 through HA-8, to assess the chloride levels within the near surface soils at various levels of EM response in an effort to calibrate the EM survey results. The locations of these borings are shown on **Figures 3** and **4**. These borings were intended to be installed using hand augers, but resistant caliche caused the borings to be drilled using air rotary drilling methods. Borings HA-1 through HA-4 were drilled near the point of release and BH-1, and borings HA-5 through HA-8 were drilled near the distal end of the flowpath not far removed from BH-2. Soil samples were taken from these borings at the following depth intervals: 0-1 feet, 1-2 feet, 2-3 feet, 3-4 feet, 4-5 feet and 5-6 feet. The borings were properly plugged following sample collection. The boring records for HA-1 through HA-8 are provided in **Appendix C**.

All of the soil samples taken from the above-described borings were placed into containers provided by the laboratory, labeled as to source, placed on ice, and transported to the laboratory (Xenco Laboratory, Midland, Texas) under chain-of-custody control. The soil samples were hand delivered to the lab. The soil samples were all analyzed for chloride analyses by Method 300. The results of these laboratory analyses are summarized on **Tables 1** and **2**. The complete laboratory report and chain-of-custody are provided in **Appendix D**.

The laboratory results for these soil analyses confirm that the base of the chloride impacts greater than 600 mg/kg occurs above 9-10 feet in boring BH-1, and above 14-15 feet in boring BH-2. Assuming that groundwater occurs at approximately 90 below ground surface, these results indicate that approximately 76 to 81 feet of vertical separation exists between the base of the chloride impacts and the top of groundwater saturation.

The results of the shallow soil borings help to confirm that the lateral limits of the soils containing chloride greater than 600 mg/kg are approximately equivalent to the EM responses greater than 50 mmhos/m. The areas of ground conductivities greater than 50 mmhos/m at this Site total approximately 57,411 square feet, or 1.32 acres.

If you have any questions regarding this proposal or our estimated costs, please do not hesitate to contact Ms. Alyssa Beard at Foundation Energy Management in Denver at 303-244-8114, or myself at 918-794-7828. Thanks.

Sincerely,
Enviro Clean Cardinal, LLC

George H. (Buddy) Richardson, P.G.
Manager Hydrogeology

Attachments: Table 1 - Summary of Laboratory Analytical Results for Deep Soil Samples
Table 2 - Summary of Laboratory Analytical Results for Shallow Soil Samples
Figure 1 - Site Location and Topographic Features
Figure 2 - Basin Environmental Sample Locations and Results
Figure 3 - EM38 0.5m/VD Survey Results with Sample Locations
Figure 4 - EM38 1m/VD Survey Results with Sample Locations
Appendix A - FEM's Form C-141 and NMOCD Response
Appendix B - EM38 Field Measurements
Appendix C - Boring Records
Appendix D - Laboratory Report and Chain-of-Custody

xc (w/attms): Ms. Amber Groves, New Mexico State Land Office, Hobbs, NM
Ms. Rachel Grant, Foundation Energy Management, Tulsa, OK
Ms. Alyssa Beard, Foundation Energy Management, Denver, CO

TABLES

Table 1 : Summary of Laboratory Analytical Results for Deep Soil Samples
Foundation Energy Management, Chalupa #4 SWD Pipeline Release
NMOCD # 1R-4633, Lea County, New Mexico

Sample ID	Sample Date	Depth	Lab Chloride (mg/kg)	Field Chloride Reading (ppm)
BH-1	1-Nov-17	(0-1 ft)	4,980	9,026
		(1-2 ft)	2,990	6,218
		(2-3 ft)	1,650	3,835
		(3-4 ft)	1,090	2,287
		(4-5 ft)	720	1,027
		(5-6 ft)	707	986
		(9-10 ft)	388	205
		(14-15 ft)	323	96
		(19-20 ft)	354	110
		(24-25 ft)	189	96
		(29-30 ft)	392	137
BH-2	1-Nov-17	(0-1 ft)	2,690	5,616
		(1-2 ft)	1,960	6,205
		(2-3 ft)	2,520	5,027
		(3-4 ft)	3,010	5,260
		(4-5 ft)	3,290	4,780
		(5-6 ft)	2,470	4,821
		(9-10 ft)	1,010	1,383
		(14-15 ft)	388	260
		(19-20 ft)	316	164
		(24-25 ft)	86.4	110
		(29-30 ft)	340	123

Notes:

1. mg/kg: denotes milligrams per kilogram.
2. ft: denotes feet.
3. ppm: denotes parts per million.
4. Blue shaded blocks denote sample results that are greater than the laboratory's Reporting Limit (RL).
5. Regulatory Limit: denotes 600 mg/kg.
6. Values in red font exceed the regulatory limit.
7. Field chloride values detemined by measuring salinity with a meter and converting to TSS and then chloride.

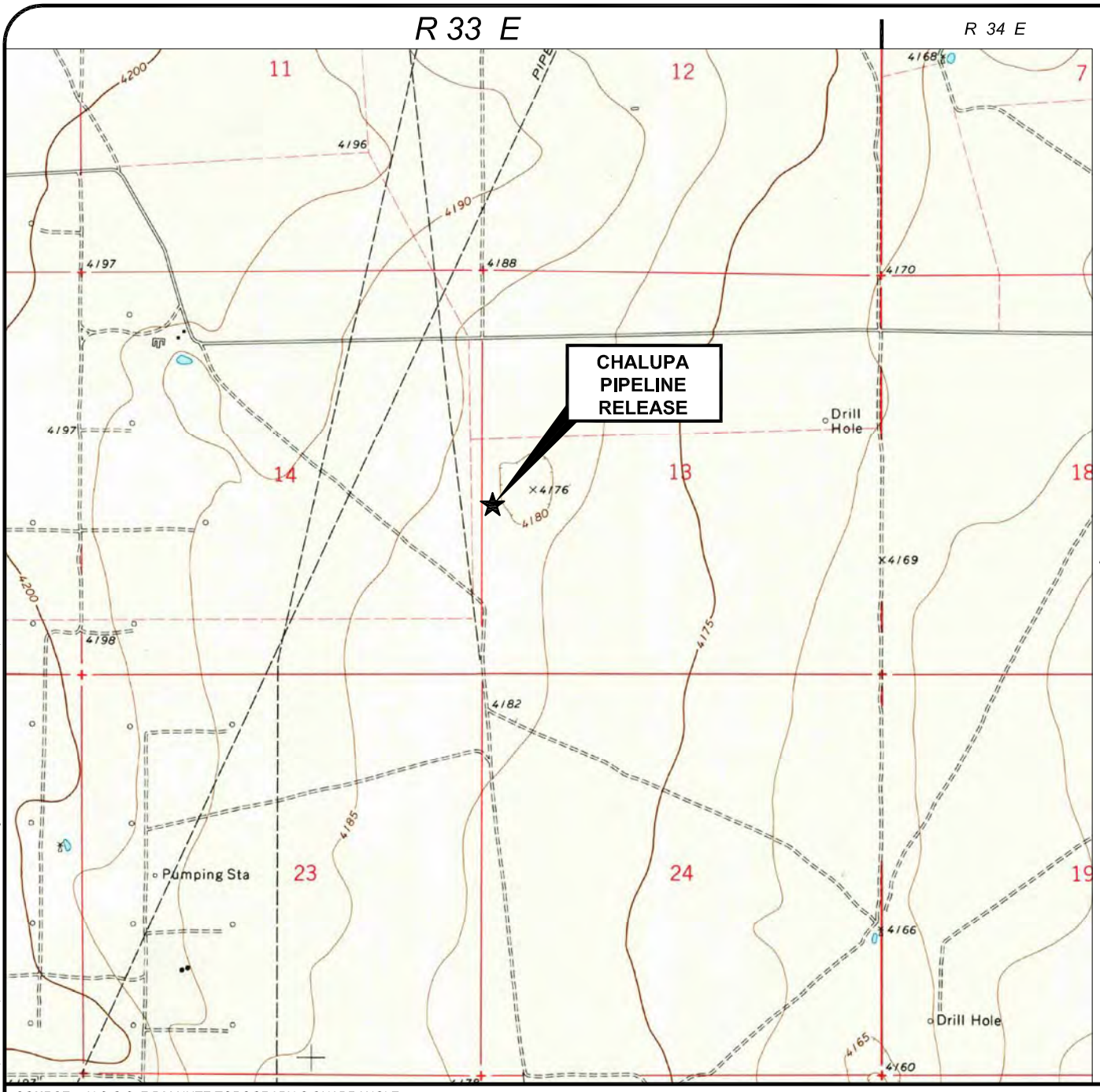
Table 2 : Summary of Laboratory Analytical Results for Shallow Soil Samples
Foundation Energy Management, Chalupa #4 SWD Pipeline Release
NMOCD # 1R-4633, Lea County, New Mexico

Sample ID	Sample Date	Depth	Lab Chloride (mg/kg)
HA-1	1-Nov-17	(0-1 ft)	2,280
		(1-2 ft)	1,690
		(2-3 ft)	1,080
		(3-4 ft)	1,380
		(4-5 ft)	1,240
		(5-6 ft)	1,740
HA-2	1-Nov-17	(0-1 ft)	6,240
		(1-2 ft)	1,840
		(2-3 ft)	1,620
		(3-4 ft)	1,310
		(4-5 ft)	1,170
		(5-6 ft)	1,120
HA-3	1-Nov-17	(0-1 ft)	8,950
		(1-2 ft)	3,110
		(2-3 ft)	1,210
		(3-4 ft)	815
		(4-5 ft)	939
		(5-6 ft)	1,470
HA-4	1-Nov-17	(0-1 ft)	1,090
		(1-2 ft)	7,210
		(2-3 ft)	2,690
		(3-4 ft)	1,470
		(4-5 ft)	1,570
		(5-6 ft)	1,700
HA-5	1-Nov-17	(0-1 ft)	1,790
		(1-2 ft)	1,180
		(2-3 ft)	819
		(3-4 ft)	469
		(4-5 ft)	317
		(5-6 ft)	399
HA-6	1-Nov-17	(0-1 ft)	1,950
		(1-2 ft)	1,450
		(2-3 ft)	1,140
		(3-4 ft)	497
		(4-5 ft)	291
		(5-6 ft)	322
HA-7	1-Nov-17	(0-1 ft)	1,600
		(1-2 ft)	1,330
		(2-3 ft)	1,380
		(3-4 ft)	1,620
		(4-5 ft)	557
		(5-6 ft)	475
HA-8	1-Nov-17	(0-1 ft)	1,080
		(1-2 ft)	1,860
		(2-3 ft)	2,360
		(3-4 ft)	3,370
		(4-5 ft)	2,960
		(5-6 ft)	1,930

Notes:

1. mg/kg: denotes milligrams per kilogram.
2. ft: denotes feet.
3. ppm: denotes parts per million.
4. Blue shaded blocks denote sample results that are greater than the laboratory's Reporting Limit (RL).
5. Regulatory Limit: denotes 600 mg/kg.
6. Values in red font exceed the regulatory limit.

FIGURES



SOURCE: U.S.G.S. 7.5 MINUTE TOPOGRAPHIC QUADRANGLE
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SCALE
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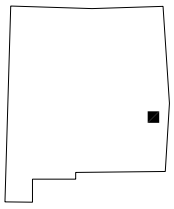
NEW MEXICO



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CLIENT	FOUNDATION ENERGY MANAGEMENT TULSA, OKLAHOMA
FIGURE TITLE	***SITE LOCATION AND TOPOGRAPHIC FEATURES***
LOCATION	SEC. 13, T14S, R33E LEA COUNTY, NEW MEXICO
DOCUMENT TITLE	RELEASE CHARACTERIZATION REPORT

ENVIRO CLEAN CARDINAL

Enviro Clean Cardinal, LLC
7060 South Yale Avenue, Suite 603
Tulsa, Oklahoma 74136
918.794.7828
www.ECCGRP.com

		DESIGNED BY	GHR
DATE	2/15/2018	APPROVED BY	GHR
SCALE	AS SHOWN	DRAWN BY	SKG
PROJECT NUMBER		FIGURE NUMBER	
FEMHCHAPN1		1	

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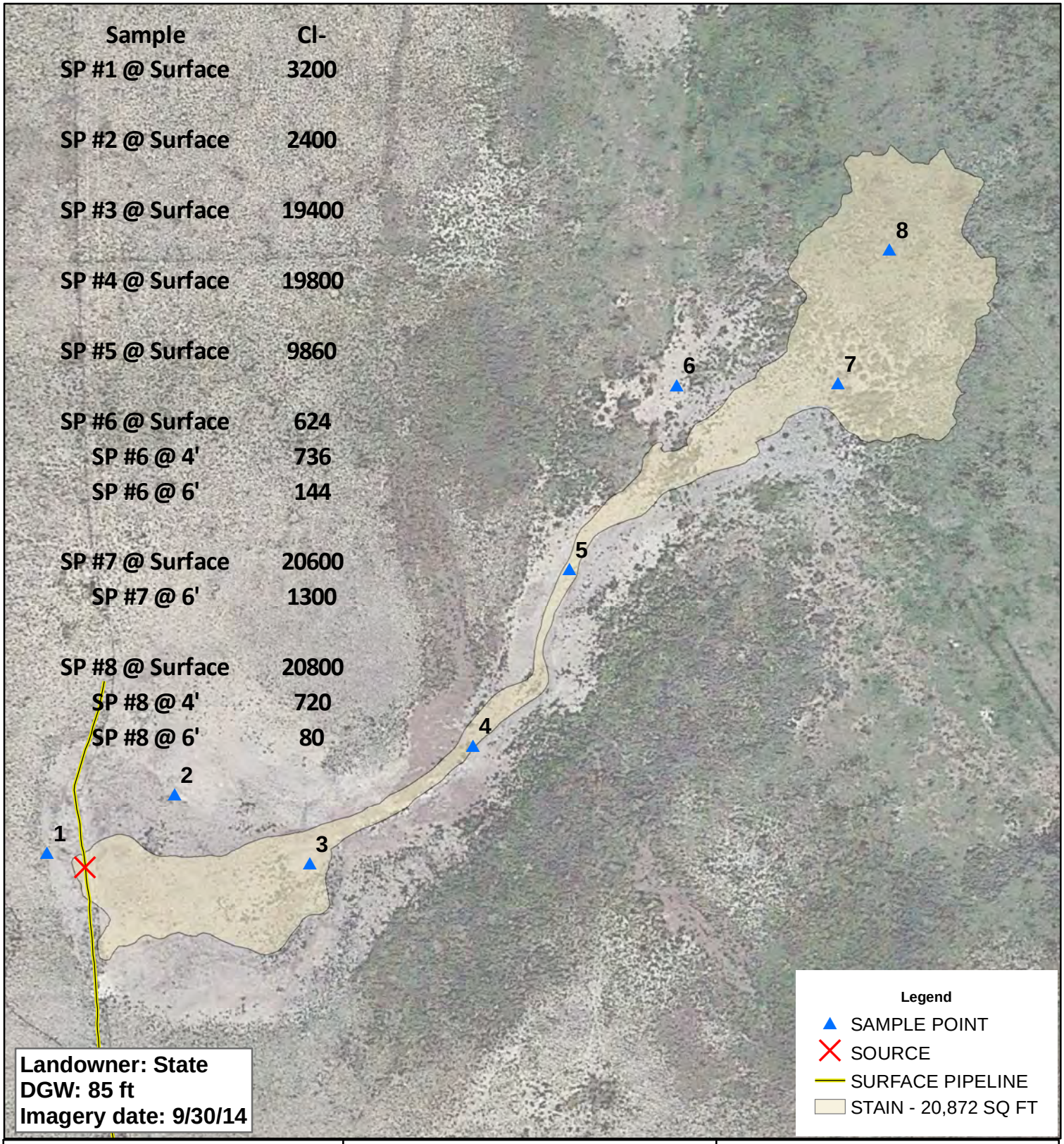


Basin Environmental Effective Solutions Service Technologies

FOUNDATION CHALUPA #4 SWD NORTH AREA

UL L SECTION 13
T-14-S R-33-E
LEA COOUNTY, NM

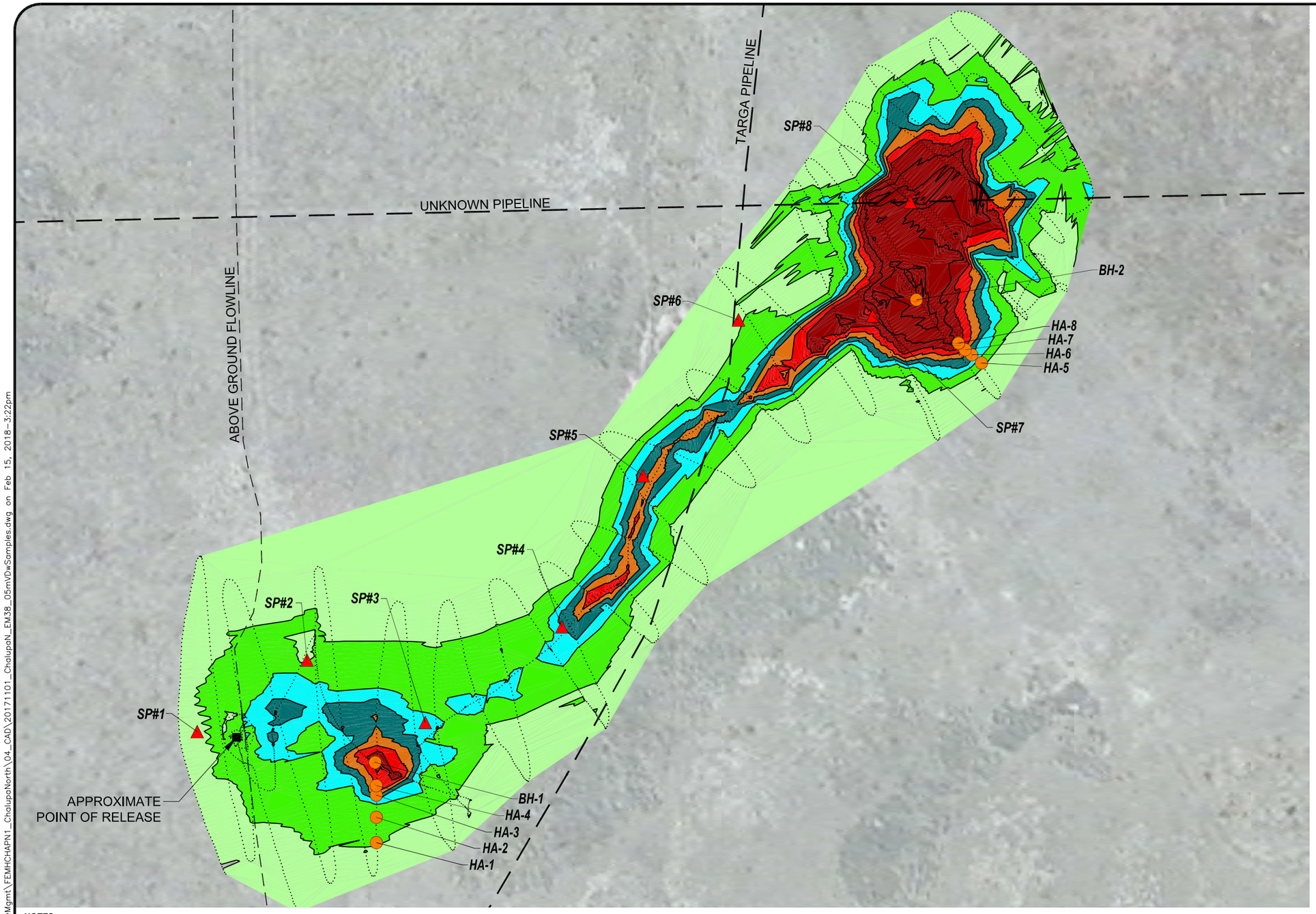
GPS: 33.103422 -103.576112

FIGURE 2

0 50 100 Feet

N W E S

GPS date: 3/14/17 TG, 5/16/17 RR
Drawing date: 5/25/17
Drafted by: T. Grieco



LEGEND

- LOCATIONS OF EM38–MK2 GROUND CONDUCTIVITY MEASUREMENTS
- APPROXIMATE POINT OF RELEASE
- SP#1 — SOIL SAMPLE LOCATION COLLECTED BY BASIN ENVIRONMENTAL
- HA-1 — SOIL SAMPLE LOCATION COLLECTED BY ENVIRO CLEAN CARDINAL ON 11/1/2017
- APPROXIMATE LOCATION OF BELOW GROUND PIPELINE
- APPROXIMATE LOCATION OF ABOVE GROUND FLOWLINE

APPARENT GROUND CONDUCTIVITIES

Minimum mmhos/m	Maximum mmhos/m	Color
0	50	
50	100	
100	150	
150	200	
200	250	
250	300	
300	350+	

N

30 0 30 60

SCALE FEET

NOTES:

1) EM SURVEY PERFORMED BY ENVIRO CLEAN CARDINAL, LLC ON OCTOBER 31, 2017.
2) EM SURVEY CONDUCTED BY GEORGE H. RICHARDSON, P.G. USING GEONICS EM38-MK2 GROUND CONDUCTIVITY METER.
3) AERIAL PHOTOGRAPH DATED OCTOBER 26, 2010, GEOREFRENCED ESRI

ENVIRO CLEAN CARDINAL
Enviro Clean Cardinal, LLC
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Tulsa, Oklahoma 74136
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DOCUMENT TITLE: RELEASE CHARACTERIZATION REPORT

FIGURE TITLE: ***EM38 0.5-METER VD SURVEY RESULTS WITH SAMPLE LOCATIONS***

CLIENT: FOUNDATION ENERGY MANAGEMENT, LLC TULSA, OKLAHOMA

LOCATION: CHALUPA #4 SWD PIPELINE RELEASE SITE SEC. 13, T14S, R33E, LEA COUNTY, NEW MEXICO

DESIGNED BY	GHR		
APPROVED BY	GHR	SCALE	1"= 60'
DRAWN BY	SKG	DATE	2/15/2018

PROJECT NUMBER	FIGURE NUMBER
FEMHCHAPN1	3

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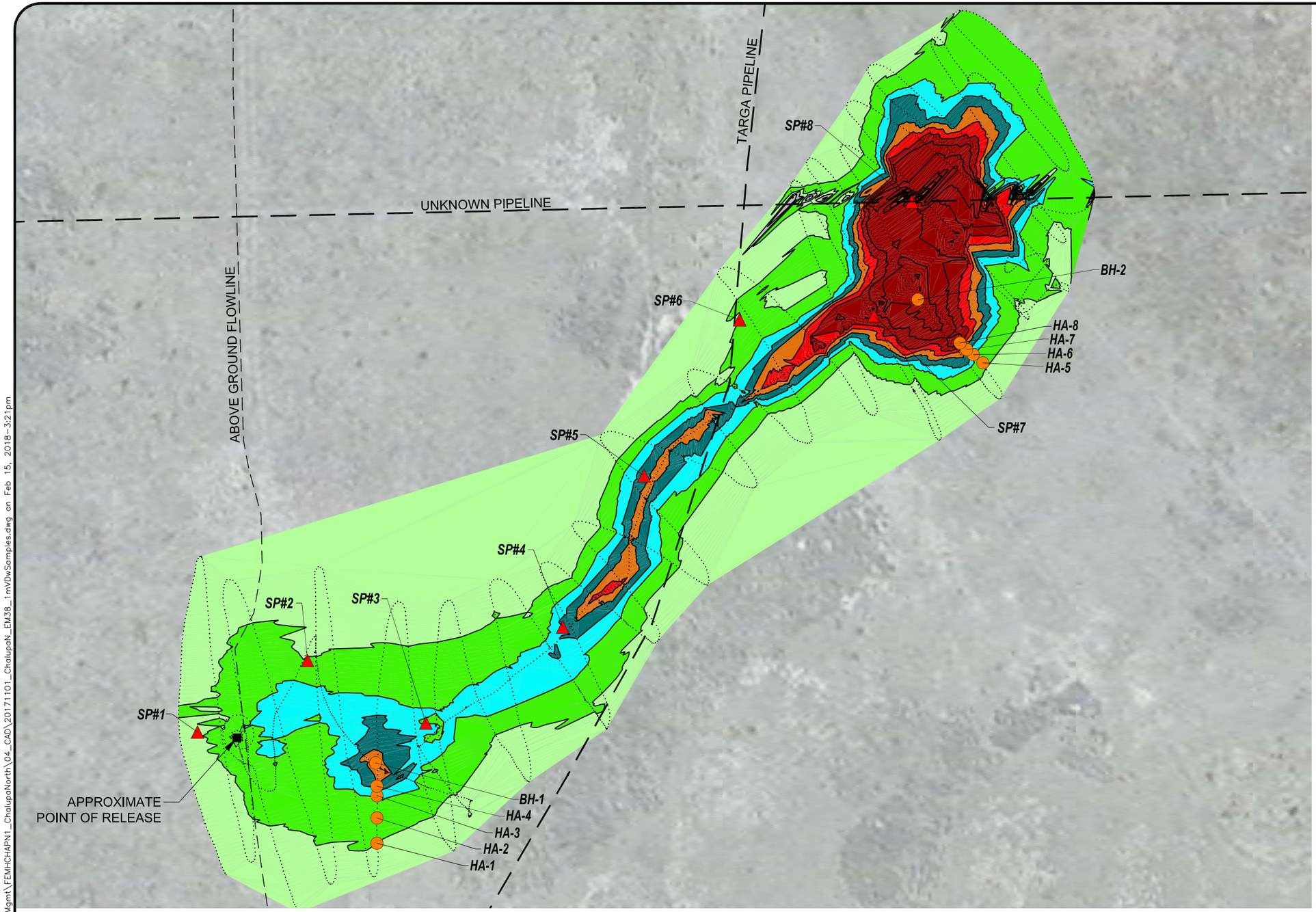

LEGEND

- LOCATIONS OF EM38–MK2 GROUND CONDUCTIVITY MEASUREMENTS
- APPROXIMATE POINT OF RELEASE
- SP#1 — SOIL SAMPLE LOCATION COLLECTED BY BASIN ENVIRONMENTAL
- HA-1 — SOIL SAMPLE LOCATION COLLECTED BY ENVIRO CLEAN CARDINAL ON 11/1/2017
- APPROXIMATE LOCATION OF BELOW GROUND PIPELINE
- APPROXIMATE LOCATION OF ABOVE GROUND FLOWLINE

APPARENT GROUND CONDUCTIVITIES

Minimum mmhos/m	Maximum mmhos/m	Color
0	50	
50	100	
100	150	
150	200	
200	250	
250	300	
300	350+	

N

30 0 30 60
SCALE FEET

NOTES:

1) EM SURVEY PERFORMED BY ENVIRO CLEAN CARDINAL, LLC ON OCTOBER 31, 2017.
2) EM SURVEY CONDUCTED BY GEORGE H. RICHARDSON, P.G. USING GEONICS EM38-MK2 GROUND CONDUCTIVITY METER.
3) AERIAL PHOTOGRAPH DATED OCTOBER 26, 2010, GEOREFRENCED ESRI

ENVIRO CLEAN CARDINAL
Enviro Clean Cardinal, LLC
7060 South Yale Avenue, Suite 603
Tulsa, Oklahoma 74136
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DOCUMENT TITLE: RELEASE CHARACTERIZATION REPORT

FIGURE TITLE: ***EM38 1.0-METER VD SURVEY RESULTS WITH SAMPLE LOCATIONS***

CLIENT: FOUNDATION ENERGY MANAGEMENT, LLC TULSA, OKLAHOMA

LOCATION: CHALUPA #4 SWD PIPELINE RELEASE SITE SEC. 13, T14S, R33E, LEA COUNTY, NEW MEXICO

DESIGNED BY	GHR		
APPROVED BY	GHR	SCALE	1"= 60'
DRAWN BY	SKG	DATE	2/15/2018

PROJECT NUMBER	FIGURE NUMBER
FEMHCHAPN1	4

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APPENDIX A

FEM'S FORM C-141 AND NMOCD RESPONSE

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Foundation Energy Management, LLC	Contact Rachel Grant
Address 16000 Dallas Parkway, Suite 875	Telephone No. 918-526-5592
Facility Name Chalupa SWD	Facility Type Salt water disposal well

Surface Owner	Mineral Owner	API No. 30-025-29184

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
I	13	14S	33E	330	South	330	West	Lea

Latitude 33.0982437 Longitude -103.5753937

NATURE OF RELEASE

Type of Release Saltwater	Volume of Release 25 bbls	Volume Recovered 15 bbls
Source of Release Flowline leak	Date and Hour of Occurrence	Date and Hour of Discovery 3/2/2017, 2:30pm
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.* NA

RECEIVED
By Olivia Yu at 8:47 am, Mar 07, 2017

Describe Cause of Problem and Remedial Action Taken.* Pumper installed repair clamp to fix leak until line can be replaced. Vacuum truck picked up 15 bbl fluid.

Describe Area Affected and Cleanup Action Taken.* Scheduling flowline repair. Once flowline is repaired, remaining flowline will be pressure tested to ensure no future leaks.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION
Printed Name: Rachel Grant	Approved by Environmental Specialist:
Title: HSE/Regulatory Manager	Approval Date: 3/7/2017 Expiration Date:
E-mail Address: regulatory@foundationenergy.com	Conditions of Approval: see attached directive Attached ☑
Date: 3/6/17 Phone: 918-526-5592	

* Attach Additional Sheets If Necessary

1RP-4633 nOY1706631442 pOY1706631752

Operator/Responsible Party,

The OCD has received the form C-141 you provided on _3/7/2017_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number __1R-_4633_ has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District _1_ office in __Hobbs____ on or before _4/7/2017_. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

•Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

• If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

• Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

APPENDIX B

EM38 FIELD MEASUREMENTS

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
1	0.0	33.10319679	-103.57614758	19.61	-0.06	32.81	0.91
2	0.5	33.10319944	-103.57614984	21.60	-0.08	33.20	0.90
3	1.0	33.10320341	-103.57615224	18.48	0.10	35.04	1.20
4	1.6	33.10320862	-103.57615475	-26.84	0.46	27.11	1.49
5	2.1	33.10321394	-103.57615727	15.20	-0.04	29.61	1.14
6	2.6	33.10321935	-103.57615979	18.40	-0.06	32.19	0.91
7	3.1	33.10322461	-103.57616193	21.45	-0.11	32.34	0.83
8	3.7	33.10322982	-103.57616391	21.33	-0.09	31.60	0.82
9	4.2	33.10323496	-103.57616593	20.98	-0.11	29.92	0.75
10	4.7	33.10324005	-103.57616796	22.27	-0.12	30.20	0.72
11	5.2	33.10324513	-103.57617041	20.00	-0.09	29.38	0.72
12	5.7	33.10325020	-103.57617293	23.32	-0.14	29.81	0.66
13	6.3	33.10325563	-103.57617596	21.09	-0.09	28.91	0.68
14	6.8	33.10326108	-103.57617899	24.26	-0.13	30.20	0.67
15	7.3	33.10326682	-103.57618178	21.37	-0.08	29.73	0.72
16	7.8	33.10327256	-103.57618451	24.77	-0.13	29.38	0.66
17	8.4	33.10327829	-103.57618685	23.13	-0.10	29.88	0.66
18	8.9	33.10328406	-103.57618912	25.39	-0.15	30.23	0.61
19	9.4	33.10328990	-103.57619112	23.20	-0.10	29.88	0.64
20	9.9	33.10329569	-103.57619314	25.59	-0.15	29.84	0.63
21	10.4	33.10330133	-103.57619519	25.43	-0.12	31.48	0.64
22	11.0	33.10330716	-103.57619755	22.46	-0.10	29.14	0.66
23	11.5	33.10331325	-103.57620041	23.32	-0.11	29.26	0.66
24	12.0	33.10331923	-103.57620288	20.86	-0.08	28.59	0.68
25	12.5	33.10332511	-103.57620489	24.84	-0.13	28.95	0.66
26	13.1	33.10333094	-103.57620712	19.61	-0.10	27.97	0.67
27	13.6	33.10333683	-103.57620957	22.31	-0.12	27.31	0.62
28	14.1	33.10334281	-103.57621185	19.34	-0.07	28.09	0.74
29	14.6	33.10334884	-103.57621403	26.06	-0.15	30.39	0.70
30	15.1	33.10335481	-103.57621606	20.12	-0.06	29.18	0.76
31	15.7	33.10336076	-103.57621803	22.70	-0.13	29.92	0.73
32	16.2	33.10336653	-103.57621995	19.96	-0.07	29.18	0.77
33	16.7	33.10337225	-103.57622185	26.29	-0.14	31.02	0.74
34	17.2	33.10337843	-103.57622385	22.42	-0.04	32.15	0.84
35	17.8	33.10338469	-103.57622586	25.55	-0.10	34.30	0.82
36	18.3	33.10339097	-103.57622756	23.48	-0.05	34.84	0.88
37	18.8	33.10339723	-103.57622925	28.95	-0.12	37.19	0.90
38	19.3	33.10340333	-103.57623093	26.48	-0.05	38.79	0.97
39	19.8	33.10340945	-103.57623248	27.70	-0.07	40.31	1.05
40	20.4	33.10341562	-103.57623316	28.16	-0.04	43.40	1.13
41	20.9	33.10342178	-103.57623377	31.17	-0.07	43.79	1.14
42	21.4	33.10342783	-103.57623417	32.97	-0.05	44.69	1.12
43	21.9	33.10343399	-103.57623461	35.63	-0.07	45.63	1.15
44	22.5	33.10344015	-103.57623515	38.16	-0.05	48.16	1.20
45	23.0	33.10344638	-103.57623547	37.19	-0.05	49.69	1.23
46	23.5	33.10345262	-103.57623547	39.30	-0.05	51.88	1.20
47	24.0	33.10345902	-103.57623537	39.41	-0.04	51.41	1.18
48	24.5	33.10346556	-103.57623514	38.87	-0.06	50.63	1.07
49	25.1	33.10347204	-103.57623470	33.63	-0.04	45.59	1.06
50	25.6	33.10347846	-103.57623410	34.49	-0.07	44.34	1.03
51	26.1	33.10348493	-103.57623349	31.41	-0.05	43.09	1.00
52	26.6	33.10349142	-103.57623287	34.38	-0.12	42.42	0.91
53	27.2	33.10349754	-103.57623220	27.66	-0.07	37.89	0.92
54	27.7	33.10350354	-103.57623150	27.34	-0.08	36.68	0.92
55	28.2	33.10350977	-103.57623110	23.32	-0.03	34.45	0.92
56	28.7	33.10351606	-103.57623077	25.39	-0.08	34.53	0.90
57	29.2	33.10352225	-103.57623052	21.72	-0.04	33.59	0.95
58	29.8	33.10352839	-103.57623028	26.13	-0.08	33.79	0.98
59	30.3	33.10353475	-103.57622990	23.44	-0.02	34.10	1.04
60	30.8	33.10354110	-103.57622951	27.54	-0.08	36.56	1.02
61	31.3	33.10354741	-103.57622907	22.54	-0.04	35.00	1.01
62	31.9	33.10355369	-103.57622865	26.06	-0.08	36.41	1.02
63	32.4	33.10355990	-103.57622838	23.71	-0.03	36.52	1.07
64	32.9	33.10356615	-103.57622796	29.88	-0.09	40.31	1.14
65	33.4	33.10357260	-103.57622704	25.04	-0.02	39.69	1.13
66	33.9	33.10357904	-103.57622602	26.37	-0.05	39.61	1.14
67	34.5	33.10358544	-103.57622476	23.67	-0.01	38.52	1.16
68	35.0	33.10359188	-103.57622368	29.41	-0.10	38.71	1.09

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
69	35.5	33.10359841	-103.57622283	22.70	-0.02	37.03	1.11
70	36.0	33.10360478	-103.57622152	25.39	-0.09	35.66	1.05
71	36.6	33.10361096	-103.57621977	20.94	-0.04	32.38	1.00
72	37.1	33.10361706	-103.57621804	24.69	-0.12	30.82	0.88
73	37.6	33.10362311	-103.57621633	18.67	-0.06	28.36	0.87
74	38.1	33.10362926	-103.57621481	22.97	-0.12	28.13	0.80
75	38.6	33.10363542	-103.57621341	18.95	-0.06	26.72	0.81
76	39.2	33.10364158	-103.57621211	22.27	-0.13	26.64	0.74
77	39.7	33.10364775	-103.57621084	17.11	-0.08	25.00	0.76
78	40.2	33.10365412	-103.57620916	21.68	-0.15	25.66	0.66
79	40.7	33.10366054	-103.57620739	16.48	-0.07	23.24	0.68
80	41.3	33.10366650	-103.57620568	19.77	-0.15	22.54	0.66
81	41.8	33.10367242	-103.57620397	15.35	-0.09	21.45	0.67
82	42.3	33.10367831	-103.57620260	17.66	-0.14	20.59	0.62
83	42.8	33.10368422	-103.57620127	14.45	-0.10	19.69	0.62
84	43.3	33.10369014	-103.57620040	13.13	-0.11	18.98	0.61
85	43.9	33.10369584	-103.57619912	12.77	-0.09	19.22	0.63
86	44.4	33.10370013	-103.57619622	14.49	-0.11	19.34	0.61
87	44.9	33.10370336	-103.57619353	12.46	-0.07	18.63	0.66
88	45.4	33.10370346	-103.57619154	13.05	-0.07	18.83	0.67
89	46.0	33.10370313	-103.57619002	12.93	-0.06	18.71	0.70
90	46.5	33.10370200	-103.57618939	12.89	-0.03	19.53	0.70
91	47.0	33.10369926	-103.57618841	14.65	-0.01	19.02	0.66
92	47.5	33.10369446	-103.57618699	25.59	-0.20	20.16	0.50
93	48.0	33.10368868	-103.57618587	14.26	-0.09	18.13	0.53
94	48.6	33.10368199	-103.57618501	16.72	-0.13	17.89	0.52
95	49.1	33.10367503	-103.57618387	11.91	-0.08	16.09	0.52
96	49.6	33.10366788	-103.57618254	14.14	-0.14	16.45	0.47
97	50.1	33.10366068	-103.57618179	10.90	-0.09	15.47	0.49
98	50.7	33.10365346	-103.57618129	19.69	-0.19	18.09	0.39
99	51.2	33.10364621	-103.57618076	13.24	-0.10	15.78	0.46
100	51.7	33.10363894	-103.57618023	17.27	-0.16	17.11	0.44
101	52.2	33.10363165	-103.57617970	13.63	-0.10	16.13	0.47
102	52.7	33.10362436	-103.57617918	20.47	-0.17	18.56	0.40
103	53.3	33.10361696	-103.57617860	15.51	-0.10	18.63	0.45
104	53.8	33.10360956	-103.57617802	20.94	-0.15	19.84	0.45
105	54.3	33.10360211	-103.57617740	17.42	-0.10	19.38	0.47
106	54.8	33.10359475	-103.57617679	25.78	-0.18	23.71	0.37
107	55.4	33.10358779	-103.57617620	24.41	-0.11	25.27	0.43
108	55.9	33.10358083	-103.57617565	32.46	-0.17	26.88	0.41
109	56.4	33.10357390	-103.57617526	32.62	-0.10	26.41	0.44
110	56.9	33.10356692	-103.57617482	41.06	-0.16	32.15	0.39
111	57.4	33.10355982	-103.57617425	36.52	-0.09	31.56	0.43
112	58.0	33.10355272	-103.57617358	38.95	-0.14	35.90	0.40
113	58.5	33.10354568	-103.57617277	39.22	-0.10	35.00	0.44
114	59.0	33.10353862	-103.57617190	46.72	-0.14	38.09	0.43
115	59.5	33.10353151	-103.57617097	49.38	-0.09	40.08	0.49
116	60.1	33.10352451	-103.57616974	53.87	-0.15	38.13	0.44
117	60.6	33.10351759	-103.57616825	51.25	-0.10	42.27	0.47
118	61.1	33.10351068	-103.57616696	57.77	-0.15	44.22	0.46
119	61.6	33.10350376	-103.57616578	57.46	-0.10	46.52	0.50
120	62.1	33.10349666	-103.57616462	67.66	-0.18	51.09	0.42
121	62.7	33.10348951	-103.57616347	64.96	-0.09	51.21	0.47
122	63.2	33.10348248	-103.57616256	72.03	-0.18	47.03	0.42
123	63.7	33.10347552	-103.57616171	63.24	-0.10	52.97	0.44
124	64.2	33.10346854	-103.57616100	65.74	-0.18	55.00	0.39
125	64.7	33.10346158	-103.57616031	54.73	-0.10	48.44	0.43
126	65.3	33.10345451	-103.57615943	61.29	-0.20	50.59	0.37
127	65.8	33.10344743	-103.57615853	53.44	-0.12	48.05	0.41
128	66.3	33.10344023	-103.57615744	61.64	-0.18	55.47	0.36
129	66.8	33.10343305	-103.57615636	55.00	-0.09	50.04	0.40
130	67.4	33.10342607	-103.57615536	62.38	-0.17	53.01	0.38
131	67.9	33.10341906	-103.57615431	58.01	-0.10	55.74	0.41
132	68.4	33.10341192	-103.57615309	64.41	-0.16	57.07	0.38
133	68.9	33.10340473	-103.57615187	57.23	-0.11	52.46	0.41
134	69.5	33.10339766	-103.57615069	61.52	-0.14	60.23	0.39
135	70.0	33.10339051	-103.57614942	53.44	-0.13	52.93	0.40
136	70.5	33.10338341	-103.57614806	56.29	-0.15	55.12	0.39

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
137	71.0	33.10337629	-103.57614677	57.66	-0.13	52.42	0.41
138	71.5	33.10336918	-103.57614556	65.78	-0.13	51.48	0.43
139	72.1	33.10336226	-103.57614437	65.82	-0.15	49.30	0.43
140	72.6	33.10335549	-103.57614321	63.32	-0.16	47.42	0.43
141	73.1	33.10334874	-103.57614184	51.68	-0.16	39.34	0.47
142	73.6	33.10334199	-103.57614037	46.21	-0.13	40.74	0.47
143	74.2	33.10333530	-103.57613917	38.71	-0.15	38.13	0.48
144	74.7	33.10332864	-103.57613808	35.12	-0.14	35.70	0.46
145	75.2	33.10332206	-103.57613647	29.30	-0.18	32.03	0.44
146	75.7	33.10331549	-103.57613474	27.54	-0.15	30.66	0.44
147	76.2	33.10330933	-103.57613251	24.34	-0.18	27.85	0.44
148	76.8	33.10330322	-103.57613023	21.29	-0.15	26.09	0.42
149	77.3	33.10329636	-103.57612810	20.86	-0.15	26.68	0.40
150	77.8	33.10328948	-103.57612599	24.61	-0.15	29.26	0.40
151	78.3	33.10328274	-103.57612431	22.54	-0.17	26.52	0.40
152	78.9	33.10327600	-103.57612263	24.69	-0.17	24.84	0.39
153	79.4	33.10326935	-103.57612096	20.20	-0.11	22.62	0.46
154	79.9	33.10326283	-103.57611928	19.69	-0.16	21.33	0.44
155	80.4	33.10325640	-103.57611754	16.21	-0.16	19.22	0.41
156	80.9	33.10325005	-103.57611582	19.77	-0.19	18.63	0.38
157	81.5	33.10324383	-103.57611417	13.36	-0.12	16.68	0.44
158	82.0	33.10323752	-103.57611252	18.87	-0.18	17.89	0.41
159	82.5	33.10323106	-103.57611085	13.95	-0.12	16.29	0.42
160	83.0	33.10322548	-103.57610896	17.70	-0.17	17.23	0.39
161	83.6	33.10322082	-103.57610684	11.72	-0.13	15.39	0.40
162	84.1	33.10321796	-103.57610376	13.13	-0.18	15.39	0.36
163	84.6	33.10321640	-103.57610000	10.16	-0.15	13.56	0.38
164	85.1	33.10321787	-103.57609656	13.09	-0.18	14.92	0.36
165	85.6	33.10322087	-103.57609328	13.36	-0.12	15.04	0.40
166	86.2	33.10322617	-103.57609246	16.95	-0.18	16.17	0.37
167	86.7	33.10323222	-103.57609245	16.64	-0.13	15.98	0.39
168	87.2	33.10323884	-103.57609301	17.89	-0.17	17.73	0.38
169	87.7	33.10324559	-103.57609368	17.11	-0.12	19.06	0.41
170	88.3	33.10325283	-103.57609429	22.07	-0.17	21.76	0.39
171	88.8	33.10326012	-103.57609490	24.22	-0.13	23.95	0.41
172	89.3	33.10326701	-103.57609511	38.79	-0.21	29.49	0.35
173	89.8	33.10327387	-103.57609533	42.42	-0.15	38.05	0.40
174	90.3	33.10328046	-103.57609566	56.33	-0.24	47.58	0.30
175	90.9	33.10328719	-103.57609606	57.66	-0.13	51.41	0.39
176	91.4	33.10329414	-103.57609671	65.70	-0.19	58.16	0.35
177	91.9	33.10330117	-103.57609727	63.71	-0.12	61.02	0.41
178	92.4	33.10330819	-103.57609753	72.93	-0.24	64.81	0.31
179	93.0	33.10331514	-103.57609787	68.75	-0.14	64.26	0.34
180	93.5	33.10332203	-103.57609833	72.19	-0.22	62.15	0.29
181	94.0	33.10332887	-103.57609889	65.74	-0.13	60.12	0.36
182	94.5	33.10333567	-103.57609959	72.19	-0.20	65.08	0.32
183	95.0	33.10334214	-103.57610038	67.89	-0.11	69.30	0.42
184	95.6	33.10334828	-103.57610128	67.85	-0.16	73.83	0.42
185	96.1	33.10335452	-103.57610199	67.54	-0.11	74.88	0.45
186	96.6	33.10336079	-103.57610257	76.06	-0.18	81.95	0.37
187	97.1	33.10336662	-103.57610312	74.22	-0.14	74.61	0.39
188	97.7	33.10337226	-103.57610366	79.22	-0.19	76.29	0.32
189	98.2	33.10337754	-103.57610405	80.78	-0.16	79.10	0.34
190	98.7	33.10338272	-103.57610440	85.27	-0.18	82.97	0.34
191	99.2	33.10338725	-103.57610458	81.13	-0.16	81.99	0.36
192	99.7	33.10339166	-103.57610472	84.65	-0.13	87.42	0.38
193	100.3	33.10339550	-103.57610455	87.73	-0.19	97.46	0.36
194	100.8	33.10339930	-103.57610440	87.93	-0.15	98.67	0.39
195	101.3	33.10340287	-103.57610520	83.71	-0.13	91.21	0.39
196	101.8	33.10340645	-103.57610599	90.20	-0.16	81.09	0.37
197	102.4	33.10341009	-103.57610660	99.18	-0.13	79.53	0.39
198	102.9	33.10341372	-103.57610716	101.84	-0.16	79.18	0.39
199	103.4	33.10341735	-103.57610753	105.63	-0.16	78.87	0.36
200	103.9	33.10342110	-103.57610810	102.81	-0.13	84.81	0.38
201	104.4	33.10342513	-103.57610917	91.91	-0.17	86.80	0.39
202	105.0	33.10342876	-103.57611008	97.27	-0.16	96.60	0.40
203	105.5	33.10343174	-103.57611069	102.93	-0.14	113.75	0.41
204	106.0	33.10343377	-103.57611073	101.21	-0.18	105.39	0.42

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
205	106.5	33.10343463	-103.57611007	101.56	-0.14	89.18	0.42
206	107.1	33.10343499	-103.57611065	92.03	-0.16	77.62	0.39
207	107.6	33.10343492	-103.57611233	82.31	-0.18	71.45	0.41
208	108.1	33.10343386	-103.57611398	88.32	-0.06	77.07	0.51
209	108.6	33.10343220	-103.57611561	84.77	0.32	82.07	0.80
210	109.1	33.10343014	-103.57611698	84.49	0.60	81.72	0.90
211	109.7	33.10342790	-103.57611825	84.73	0.41	80.74	0.99
212	110.2	33.10342533	-103.57611815	75.04	0.81	81.02	1.40
213	110.7	33.10342267	-103.57611770	89.73	0.67	84.34	0.98
214	111.2	33.10342016	-103.57611778	93.83	0.15	88.87	1.05
215	111.8	33.10341767	-103.57611795	94.22	0.24	93.52	1.02
216	112.3	33.10341609	-103.57611696	90.51	0.29	91.76	0.78
217	112.8	33.10341451	-103.57611594	89.77	0.04	87.85	0.63
218	113.3	33.10341237	-103.57611550	90.55	-0.10	85.94	0.61
219	113.8	33.10341045	-103.57611510	94.30	-0.10	85.59	0.61
220	114.4	33.10340998	-103.57611497	92.73	-0.09	85.82	0.58
221	114.9	33.10340998	-103.57611492	88.63	-0.11	86.25	0.51
222	115.4	33.10341174	-103.57611518	84.34	-0.14	84.26	0.45
223	115.9	33.10341452	-103.57611524	81.56	-0.18	83.24	0.35
224	116.5	33.10341952	-103.57611488	75.23	-0.12	79.73	0.35
225	117.0	33.10342479	-103.57611441	56.06	-0.16	67.07	0.29
226	117.5	33.10343047	-103.57611377	68.01	-0.17	81.09	0.34
227	118.0	33.10343670	-103.57611355	83.91	-0.15	92.58	0.36
228	118.5	33.10344351	-103.57611378	108.67	-0.15	75.08	0.39
229	119.1	33.10345027	-103.57611453	108.01	-0.16	75.35	0.38
230	119.6	33.10345696	-103.57611569	93.32	-0.16	79.02	0.37
231	120.1	33.10346395	-103.57611685	77.66	-0.14	78.28	0.37
232	120.6	33.10347110	-103.57611800	75.94	-0.17	69.45	0.37
233	121.2	33.10347787	-103.57611913	68.36	-0.14	66.37	0.34
234	121.7	33.10348451	-103.57612025	68.83	-0.16	70.63	0.34
235	122.2	33.10349133	-103.57612150	66.95	-0.14	65.82	0.37
236	122.7	33.10349814	-103.57612278	72.89	-0.18	66.13	0.34
237	123.2	33.10350487	-103.57612435	70.59	-0.14	68.05	0.38
238	123.8	33.10351160	-103.57612596	70.59	-0.16	68.75	0.38
239	124.3	33.10351839	-103.57612732	68.40	-0.13	71.21	0.38
240	124.8	33.10352515	-103.57612867	65.59	-0.15	64.30	0.38
241	125.3	33.10353190	-103.57612996	62.27	-0.14	69.10	0.37
242	125.9	33.10353867	-103.57613125	63.71	-0.17	72.81	0.34
243	126.4	33.10354565	-103.57613261	56.06	-0.12	60.51	0.37
244	126.9	33.10355250	-103.57613390	55.66	-0.12	54.69	0.38
245	127.4	33.10355906	-103.57613505	48.13	-0.11	48.67	0.42
246	127.9	33.10356569	-103.57613618	50.27	-0.14	53.91	0.40
247	128.5	33.10357244	-103.57613726	46.88	-0.12	50.74	0.42
248	129.0	33.10357917	-103.57613835	52.31	-0.15	47.46	0.38
249	129.5	33.10358586	-103.57613944	48.40	-0.13	46.99	0.40
250	130.0	33.10359252	-103.57614060	49.26	-0.14	39.65	0.37
251	130.6	33.10359914	-103.57614181	45.47	-0.13	37.23	0.39
252	131.1	33.10360573	-103.57614338	44.06	-0.16	34.61	0.36
253	131.6	33.10361229	-103.57614520	32.93	-0.13	29.61	0.39
254	132.1	33.10361856	-103.57614674	27.50	-0.14	25.59	0.40
255	132.6	33.10362470	-103.57614813	17.85	-0.10	21.17	0.43
256	133.2	33.10363094	-103.57614904	16.99	-0.12	19.10	0.41
257	133.7	33.10363717	-103.57614978	12.93	-0.08	17.73	0.42
258	134.2	33.10364294	-103.57614959	14.06	-0.11	16.88	0.45
259	134.7	33.10364863	-103.57614923	10.98	-0.06	16.37	0.45
260	135.3	33.10365361	-103.57614812	15.00	-0.13	15.98	0.44
261	135.8	33.10365854	-103.57614695	12.58	-0.08	15.16	0.47
262	136.3	33.10366265	-103.57614473	15.31	-0.15	14.92	0.40
263	136.8	33.10366636	-103.57614219	11.95	-0.11	14.45	0.40
264	137.3	33.10366616	-103.57613646	11.99	-0.11	14.18	0.43
265	137.9	33.10366514	-103.57613082	11.48	-0.08	15.00	0.40
266	138.4	33.10366055	-103.57612595	9.84	-0.08	13.71	0.39
267	138.9	33.10365554	-103.57612141	13.44	-0.11	15.27	0.42
268	139.4	33.10364946	-103.57611798	11.37	-0.09	14.49	0.42
269	140.0	33.10364329	-103.57611449	16.37	-0.15	16.21	0.39
270	140.5	33.10363693	-103.57611088	13.56	-0.12	17.66	0.40
271	141.0	33.10363030	-103.57610760	21.41	-0.18	20.08	0.35
272	141.5	33.10362327	-103.57610474	20.35	-0.12	23.13	0.35

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
273	142.0	33.10361616	-103.57610193	30.20	-0.15	29.18	0.34
274	142.6	33.10360892	-103.57609914	34.02	-0.13	35.20	0.33
275	143.1	33.10360160	-103.57609629	40.47	-0.15	43.24	0.33
276	143.6	33.10359422	-103.57609341	45.86	-0.14	54.34	0.33
277	144.1	33.10358707	-103.57609079	56.48	-0.15	55.43	0.33
278	144.7	33.10357998	-103.57608828	63.01	-0.16	57.93	0.36
279	145.2	33.10357287	-103.57608569	75.98	-0.15	69.65	0.37
280	145.7	33.10356574	-103.57608308	83.16	-0.14	72.54	0.38
281	146.2	33.10355879	-103.57608084	95.23	-0.15	73.71	0.39
282	146.7	33.10355192	-103.57607869	97.66	-0.16	79.84	0.43
283	147.3	33.10354512	-103.57607601	97.15	-0.16	82.70	0.40
284	147.8	33.10353832	-103.57607329	91.21	-0.16	84.69	0.40
285	148.3	33.10353127	-103.57607096	94.02	-0.15	89.38	0.41
286	148.8	33.10352421	-103.57606864	98.36	-0.16	87.15	0.40
287	149.4	33.10351701	-103.57606655	96.09	-0.15	81.91	0.40
288	149.9	33.10350975	-103.57606449	96.72	-0.17	91.52	0.39
289	150.4	33.10350245	-103.57606259	98.56	-0.16	92.73	0.39
290	150.9	33.10349519	-103.57606066	104.41	-0.17	94.77	0.37
291	151.4	33.10348813	-103.57605868	110.82	-0.13	92.46	0.41
292	152.0	33.10348115	-103.57605672	127.27	-0.18	105.94	0.37
293	152.5	33.10347427	-103.57605479	154.02	-0.14	123.05	0.40
294	153.0	33.10346753	-103.57605278	170.78	-0.18	113.87	0.39
295	153.5	33.10346094	-103.57605068	187.07	-0.14	137.54	0.45
296	154.1	33.10345444	-103.57604858	166.41	-0.19	136.60	0.39
297	154.6	33.10344801	-103.57604647	160.78	-0.14	131.45	0.42
298	155.1	33.10344181	-103.57604457	165.86	-0.19	116.21	0.40
299	155.6	33.10343575	-103.57604280	153.75	-0.14	108.20	0.44
300	156.1	33.10342970	-103.57604096	143.09	-0.18	111.45	0.43
301	156.7	33.10342369	-103.57603909	130.20	-0.14	110.70	0.40
302	157.2	33.10341723	-103.57603680	130.63	-0.18	102.81	0.36
303	157.7	33.10341066	-103.57603441	120.98	-0.13	89.30	0.40
304	158.2	33.10340402	-103.57603247	117.70	-0.17	100.35	0.40
305	158.8	33.10339741	-103.57603061	96.48	-0.16	82.89	0.38
306	159.3	33.10339057	-103.57602861	103.48	-0.18	93.01	0.37
307	159.8	33.10338371	-103.57602661	104.69	-0.14	75.94	0.39
308	160.3	33.10337707	-103.57602465	100.74	-0.19	71.80	0.33
309	160.8	33.10337042	-103.57602261	81.80	-0.13	79.34	0.37
310	161.4	33.10336360	-103.57602009	78.48	-0.17	79.57	0.36
311	161.9	33.10335679	-103.57601761	70.90	-0.13	74.34	0.37
312	162.4	33.10334999	-103.57601532	76.68	-0.18	74.57	0.32
313	162.9	33.10334303	-103.57601296	74.88	-0.12	67.66	0.36
314	163.5	33.10333598	-103.57601056	78.83	-0.17	64.14	0.37
315	164.0	33.10332897	-103.57600804	71.48	-0.11	64.65	0.40
316	164.5	33.10332211	-103.57600536	72.81	-0.17	65.27	0.35
317	165.0	33.10331547	-103.57600271	63.63	-0.11	60.51	0.39
318	165.5	33.10330915	-103.57600012	66.02	-0.17	60.12	0.36
319	166.1	33.10330274	-103.57599752	66.13	-0.11	63.56	0.37
320	166.6	33.10329624	-103.57599488	73.09	-0.18	67.34	0.32
321	167.1	33.10328963	-103.57599232	65.23	-0.12	62.27	0.36
322	167.6	33.10328293	-103.57598979	69.69	-0.17	66.25	0.36
323	168.2	33.10327629	-103.57598756	62.34	-0.09	66.95	0.40
324	168.7	33.10326968	-103.57598545	63.16	-0.14	58.16	0.35
325	169.2	33.10326299	-103.57598342	59.18	-0.06	53.87	0.41
326	169.7	33.10325628	-103.57598140	59.84	-0.12	49.18	0.38
327	170.2	33.10324957	-103.57597915	52.27	-0.06	51.09	0.41
328	170.8	33.10324285	-103.57597687	56.48	-0.15	50.35	0.36
329	171.3	33.10323613	-103.57597446	53.05	-0.09	47.62	0.38
330	171.8	33.10322943	-103.57597204	54.69	-0.14	48.16	0.37
331	172.3	33.10322295	-103.57596957	42.15	-0.06	38.83	0.42
332	172.9	33.10321651	-103.57596717	38.01	-0.12	35.59	0.38
333	173.4	33.10321031	-103.57596516	25.98	-0.07	30.66	0.47
334	173.9	33.10320442	-103.57596322	24.69	-0.11	29.26	0.49
335	174.4	33.10319951	-103.57596148	22.07	-0.09	25.35	0.53
336	174.9	33.10319475	-103.57595986	20.23	-0.11	23.24	0.50
337	175.5	33.10319033	-103.57595847	21.09	-0.08	23.32	0.53
338	176.0	33.10318622	-103.57595664	15.86	-0.05	21.33	0.60
339	176.5	33.10318256	-103.57595417	17.50	-0.13	20.12	0.52
340	177.0	33.10318081	-103.57595121	15.90	-0.13	18.79	0.49

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
341	177.6	33.10318102	-103.57594774	15.23	-0.19	18.67	0.44
342	178.1	33.10318411	-103.57594460	16.95	-0.16	19.92	0.53
343	178.6	33.10318931	-103.57594170	19.02	-0.15	23.75	0.46
344	179.1	33.10319560	-103.57594013	21.21	-0.12	25.35	0.48
345	179.6	33.10320247	-103.57593923	24.14	-0.17	25.98	0.44
346	180.2	33.10320951	-103.57593980	24.69	-0.13	26.68	0.43
347	180.7	33.10321660	-103.57594085	28.01	-0.14	29.53	0.41
348	181.2	33.10322403	-103.57594211	32.34	-0.12	36.76	0.42
349	181.7	33.10323154	-103.57594342	44.38	-0.15	45.08	0.36
350	182.2	33.10323931	-103.57594451	48.98	-0.12	45.23	0.38
351	182.8	33.10324712	-103.57594558	58.98	-0.18	49.88	0.33
352	183.3	33.10325481	-103.57594648	56.64	-0.12	55.74	0.38
353	183.8	33.10326247	-103.57594739	60.82	-0.16	55.08	0.36
354	184.3	33.10327009	-103.57594838	60.90	-0.09	52.70	0.41
355	184.9	33.10327787	-103.57594939	72.07	-0.16	59.06	0.37
356	185.4	33.10328514	-103.57595036	64.69	-0.10	58.79	0.38
357	185.9	33.10329255	-103.57595139	69.96	-0.16	67.27	0.34
358	186.4	33.10329987	-103.57595253	64.45	-0.12	64.10	0.38
359	187.0	33.10330707	-103.57595366	70.86	-0.18	66.56	0.31
360	187.5	33.10331402	-103.57595476	75.59	-0.13	72.89	0.35
361	188.0	33.10332102	-103.57595581	91.64	-0.17	81.91	0.36
362	188.5	33.10332807	-103.57595679	100.04	-0.13	90.78	0.38
363	189.0	33.10333519	-103.57595776	113.79	-0.17	92.46	0.37
364	189.6	33.10334237	-103.57595875	108.91	-0.11	90.66	0.39
365	190.1	33.10334937	-103.57595979	96.06	-0.14	89.73	0.40
366	190.6	33.10335619	-103.57596085	84.57	-0.10	95.00	0.43
367	191.1	33.10336304	-103.57596199	85.23	-0.17	88.75	0.36
368	191.7	33.10336990	-103.57596315	79.57	-0.11	94.84	0.40
369	192.2	33.10337683	-103.57596373	86.60	-0.15	96.68	0.39
370	192.7	33.10338378	-103.57596414	92.54	-0.11	90.59	0.41
371	193.2	33.10339047	-103.57596464	99.77	-0.15	81.64	0.39
372	193.7	33.10339711	-103.57596516	85.90	-0.11	87.93	0.41
373	194.3	33.10340383	-103.57596609	75.39	-0.15	78.40	0.38
374	194.8	33.10341051	-103.57596704	62.93	-0.13	74.84	0.39
375	195.3	33.10341738	-103.57596785	66.09	-0.14	79.14	0.40
376	195.8	33.10342425	-103.57596859	69.22	-0.15	73.95	0.40
377	196.4	33.10343119	-103.57596880	82.38	-0.16	81.25	0.36
378	196.9	33.10343816	-103.57596903	97.34	-0.17	102.23	0.38
379	197.4	33.10344515	-103.57596933	112.89	-0.15	94.57	0.39
380	197.9	33.10345208	-103.57596968	137.58	-0.16	101.21	0.41
381	198.4	33.10345889	-103.57597018	142.11	-0.14	112.11	0.39
382	199.0	33.10346575	-103.57597075	134.30	-0.16	112.70	0.41
383	199.5	33.10347266	-103.57597145	130.82	-0.14	117.19	0.40
384	200.0	33.10347956	-103.57597215	120.16	-0.17	106.09	0.40
385	200.5	33.10348640	-103.57597286	111.99	-0.13	108.75	0.39
386	201.1	33.10349326	-103.57597352	111.91	-0.18	102.77	0.34
387	201.6	33.10350012	-103.57597413	96.17	-0.13	84.30	0.37
388	202.1	33.10350698	-103.57597444	80.31	-0.15	83.36	0.37
389	202.6	33.10351385	-103.57597454	71.25	-0.14	81.91	0.37
390	203.1	33.10352091	-103.57597487	66.84	-0.18	74.81	0.32
391	203.7	33.10352804	-103.57597528	59.84	-0.14	75.35	0.32
392	204.2	33.10353520	-103.57597534	56.45	-0.17	66.56	0.31
393	204.7	33.10354237	-103.57597530	50.94	-0.13	51.37	0.34
394	205.2	33.10354936	-103.57597506	59.92	-0.20	51.25	0.30
395	205.8	33.10355632	-103.57597479	52.15	-0.13	47.62	0.38
396	206.3	33.10356340	-103.57597493	53.16	-0.17	43.09	0.36
397	206.8	33.10357049	-103.57597507	51.13	-0.12	42.50	0.39
398	207.3	33.10357743	-103.57597483	57.19	-0.18	43.09	0.34
399	207.8	33.10358440	-103.57597461	51.76	-0.13	43.48	0.37
400	208.4	33.10359123	-103.57597445	53.98	-0.15	48.48	0.36
401	208.9	33.10359804	-103.57597437	50.63	-0.10	44.92	0.42
402	209.4	33.10360470	-103.57597463	52.66	-0.17	41.25	0.37
403	209.9	33.10361145	-103.57597479	52.03	-0.11	43.56	0.40
404	210.5	33.10361825	-103.57597475	51.84	-0.19	39.65	0.36
405	211.0	33.10362507	-103.57597477	40.16	-0.09	37.07	0.43
406	211.5	33.10363187	-103.57597489	43.28	-0.17	39.92	0.39
407	212.0	33.10363857	-103.57597493	35.04	-0.11	32.85	0.40
408	212.5	33.10364517	-103.57597488	35.70	-0.17	32.54	0.35

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
409	213.1	33.10365143	-103.57597504	26.99	-0.11	29.14	0.40
410	213.6	33.10365736	-103.57597537	28.05	-0.15	28.32	0.40
411	214.1	33.10366315	-103.57597568	25.90	-0.11	25.20	0.40
412	214.6	33.10366888	-103.57597598	23.32	-0.13	24.38	0.41
413	215.2	33.10367368	-103.57597596	22.73	-0.13	22.15	0.39
414	215.7	33.10367813	-103.57597582	18.95	-0.11	19.88	0.43
415	216.2	33.10368212	-103.57597293	24.61	-0.18	20.86	0.37
416	216.7	33.10368601	-103.57596939	17.62	-0.11	19.18	0.40
417	217.2	33.10368431	-103.57596536	20.08	-0.13	18.01	0.38
418	217.8	33.10368195	-103.57596130	21.99	-0.11	18.52	0.37
419	218.3	33.10367621	-103.57595945	18.09	-0.08	19.34	0.38
420	218.8	33.10367035	-103.57595769	21.25	-0.08	21.72	0.40
421	219.3	33.10366371	-103.57595660	20.35	-0.09	23.16	0.40
422	219.9	33.10365701	-103.57595546	25.74	-0.12	25.23	0.41
423	220.4	33.10365003	-103.57595408	24.18	-0.07	26.45	0.45
424	220.9	33.10364297	-103.57595275	30.23	-0.13	30.12	0.40
425	221.4	33.10363565	-103.57595156	30.27	-0.11	29.84	0.37
426	221.9	33.10362828	-103.57595037	34.92	-0.12	30.74	0.40
427	222.5	33.10362081	-103.57594915	34.65	-0.13	35.08	0.39
428	223.0	33.10361339	-103.57594804	36.41	-0.10	34.65	0.40
429	223.5	33.10360603	-103.57594707	38.71	-0.12	32.73	0.40
430	224.0	33.10359861	-103.57594619	41.17	-0.11	36.29	0.40
431	224.6	33.10359112	-103.57594540	42.23	-0.13	36.95	0.37
432	225.1	33.10358357	-103.57594461	44.06	-0.11	43.75	0.38
433	225.6	33.10357597	-103.57594381	45.86	-0.15	41.60	0.38
434	226.1	33.10356859	-103.57594302	46.72	-0.13	39.34	0.35
435	226.6	33.10356135	-103.57594224	55.86	-0.17	43.13	0.32
436	227.2	33.10355399	-103.57594136	58.79	-0.13	50.86	0.38
437	227.7	33.10354658	-103.57594043	65.98	-0.16	58.52	0.34
438	228.2	33.10353926	-103.57593950	61.95	-0.11	54.77	0.37
439	228.7	33.10353199	-103.57593856	71.52	-0.18	57.93	0.32
440	229.3	33.10352460	-103.57593750	59.81	-0.12	57.11	0.37
441	229.8	33.10351720	-103.57593642	65.63	-0.18	62.97	0.30
442	230.3	33.10350978	-103.57593568	63.87	-0.12	68.91	0.32
443	230.8	33.10350235	-103.57593491	81.02	-0.17	84.41	0.32
444	231.3	33.10349496	-103.57593400	82.77	-0.11	77.54	0.36
445	231.9	33.10348745	-103.57593306	98.59	-0.17	96.25	0.34
446	232.4	33.10348003	-103.57593210	113.48	-0.12	108.01	0.39
447	232.9	33.10347257	-103.57593116	139.26	-0.16	113.28	0.37
448	233.4	33.10346535	-103.57593030	161.41	-0.14	112.58	0.41
449	234.0	33.10345821	-103.57592946	181.09	-0.14	134.53	0.44
450	234.5	33.10345114	-103.57592865	180.70	-0.15	142.66	0.45
451	235.0	33.10344404	-103.57592774	182.27	-0.14	133.67	0.43
452	235.5	33.10343693	-103.57592672	164.96	-0.15	127.07	0.42
453	236.0	33.10342994	-103.57592566	146.99	-0.14	125.78	0.41
454	236.6	33.10342305	-103.57592457	131.95	-0.14	111.56	0.44
455	237.1	33.10341615	-103.57592339	122.23	-0.13	105.00	0.44
456	237.6	33.10340926	-103.57592216	121.68	-0.16	111.56	0.42
457	238.1	33.10340227	-103.57592096	137.07	-0.13	111.25	0.45
458	238.7	33.10339520	-103.57591977	165.12	-0.17	118.79	0.42
459	239.2	33.10338821	-103.57591852	192.54	-0.14	118.44	0.45
460	239.7	33.10338121	-103.57591725	214.18	-0.20	134.49	0.42
461	240.2	33.10337427	-103.57591548	224.34	-0.13	174.26	0.50
462	240.7	33.10336733	-103.57591361	206.21	-0.16	147.97	0.47
463	241.3	33.10336049	-103.57591177	179.84	-0.12	141.95	0.47
464	241.8	33.10335364	-103.57590993	145.78	-0.18	117.34	0.42
465	242.3	33.10334668	-103.57590838	114.10	-0.11	117.38	0.46
466	242.8	33.10333972	-103.57590686	108.05	-0.22	118.67	0.36
467	243.3	33.10333299	-103.57590557	92.50	-0.12	102.77	0.41
468	243.9	33.10332618	-103.57590420	98.05	-0.19	95.23	0.38
469	244.4	33.10331933	-103.57590254	87.70	-0.12	82.46	0.42
470	244.9	33.10331237	-103.57590101	84.34	-0.18	75.43	0.35
471	245.4	33.10330527	-103.57589985	70.55	-0.11	70.63	0.42
472	246.0	33.10329822	-103.57589869	76.60	-0.21	70.43	0.32
473	246.5	33.10329124	-103.57589757	67.50	-0.10	64.88	0.43
474	247.0	33.10328433	-103.57589612	73.44	-0.15	63.79	0.38
475	247.5	33.10327749	-103.57589428	66.02	-0.10	62.38	0.42
476	248.1	33.10327064	-103.57589238	67.15	-0.16	63.24	0.37

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
477	248.6	33.10326378	-103.57589043	61.52	-0.10	57.50	0.39
478	249.1	33.10325705	-103.57588864	59.10	-0.15	55.66	0.35
479	249.6	33.10325040	-103.57588697	50.16	-0.09	51.06	0.38
480	250.1	33.10324362	-103.57588542	54.14	-0.17	55.74	0.32
481	250.7	33.10323679	-103.57588393	48.79	-0.08	55.12	0.39
482	251.2	33.10323031	-103.57588266	51.06	-0.17	44.69	0.34
483	251.7	33.10322393	-103.57588145	43.09	-0.09	39.77	0.39
484	252.2	33.10321787	-103.57588030	42.19	-0.18	35.63	0.33
485	252.8	33.10321185	-103.57587917	26.95	-0.10	27.42	0.39
486	253.3	33.10320637	-103.57587778	23.36	-0.16	24.57	0.38
487	253.8	33.10320095	-103.57587633	19.45	-0.11	22.31	0.41
488	254.3	33.10319653	-103.57587382	17.97	-0.11	21.02	0.43
489	254.8	33.10319260	-103.57587126	17.54	-0.12	19.53	0.39
490	255.4	33.10319202	-103.57586836	14.49	-0.13	17.31	0.38
491	255.9	33.10319254	-103.57586551	12.54	-0.15	16.02	0.37
492	256.4	33.10319711	-103.57586282	13.52	-0.12	18.52	0.39
493	256.9	33.10320250	-103.57586082	19.96	-0.18	21.45	0.37
494	257.5	33.10320947	-103.57586049	18.05	-0.12	22.19	0.39
495	258.0	33.10321653	-103.57586024	23.79	-0.14	25.82	0.38
496	258.5	33.10322358	-103.57586015	27.38	-0.12	31.09	0.37
497	259.0	33.10323067	-103.57586030	41.02	-0.18	39.77	0.33
498	259.5	33.10323778	-103.57586075	44.45	-0.12	40.55	0.34
499	260.1	33.10324486	-103.57586123	56.29	-0.16	47.93	0.31
500	260.6	33.10325185	-103.57586175	56.13	-0.10	52.89	0.36
501	261.1	33.10325883	-103.57586201	63.40	-0.14	59.84	0.37
502	261.6	33.10326580	-103.57586214	59.53	-0.08	61.52	0.39
503	262.1	33.10327281	-103.57586233	68.87	-0.17	57.42	0.35
504	262.7	33.10327982	-103.57586254	64.65	-0.10	60.08	0.40
505	263.2	33.10328683	-103.57586228	69.88	-0.14	60.74	0.42
506	263.7	33.10329383	-103.57586192	68.63	-0.11	66.17	0.41
507	264.2	33.10330096	-103.57586131	84.96	-0.17	78.28	0.37
508	264.8	33.10330809	-103.57586068	107.23	-0.12	93.24	0.40
509	265.3	33.10331497	-103.57586023	162.03	-0.17	92.97	0.41
510	265.8	33.10332180	-103.57585980	212.81	-0.13	114.77	0.45
511	266.3	33.10332838	-103.57585975	258.44	-0.16	158.28	0.46
512	266.8	33.10333495	-103.57585975	260.94	-0.13	165.35	0.50
513	267.4	33.10334132	-103.57586003	278.05	-0.17	210.82	0.49
514	267.9	33.10334771	-103.57586020	276.84	-0.14	206.88	0.51
515	268.4	33.10335415	-103.57585999	291.99	-0.15	211.64	0.53
516	268.9	33.10336060	-103.57585980	315.16	-0.12	209.96	0.55
517	269.5	33.10336700	-103.57585964	309.34	-0.17	197.85	0.53
518	270.0	33.10337339	-103.57585942	294.81	-0.12	240.78	0.57
519	270.5	33.10337977	-103.57585910	311.84	-0.15	230.66	0.55
520	271.0	33.10338616	-103.57585897	321.06	-0.11	208.87	0.56
521	271.6	33.10339258	-103.57585905	291.33	-0.17	200.47	0.53
522	272.1	33.10339903	-103.57585925	254.30	-0.12	189.18	0.53
523	272.6	33.10340552	-103.57585956	231.09	-0.16	179.88	0.51
524	273.1	33.10341205	-103.57585984	213.52	-0.11	182.81	0.53
525	273.6	33.10341865	-103.57586011	212.03	-0.17	172.34	0.47
526	274.2	33.10342534	-103.57586058	206.02	-0.13	162.11	0.49
527	274.7	33.10343208	-103.57586112	197.77	-0.15	158.95	0.47
528	275.2	33.10343899	-103.57586113	200.82	-0.13	166.06	0.47
529	275.7	33.10344591	-103.57586101	203.28	-0.15	161.72	0.49
530	276.2	33.10345282	-103.57586060	196.84	-0.12	133.75	0.47
531	276.8	33.10345972	-103.57586015	177.11	-0.14	126.25	0.44
532	277.3	33.10346669	-103.57585942	155.94	-0.14	124.92	0.44
533	277.8	33.10347363	-103.57585867	151.95	-0.15	125.00	0.43
534	278.3	33.10348026	-103.57585780	131.37	-0.15	96.13	0.42
535	278.9	33.10348706	-103.57585697	123.20	-0.14	93.87	0.43
536	279.4	33.10349374	-103.57585643	87.31	-0.15	72.42	0.38
537	279.9	33.10350060	-103.57585574	76.17	-0.14	81.72	0.37
538	280.4	33.10350734	-103.57585464	68.28	-0.15	70.63	0.37
539	281.0	33.10351423	-103.57585341	59.69	-0.13	69.84	0.36
540	281.5	33.10352134	-103.57585194	59.49	-0.15	78.16	0.36
541	282.0	33.10352835	-103.57585063	56.29	-0.12	59.49	0.37
542	282.5	33.10353520	-103.57584957	60.12	-0.16	56.45	0.35
543	283.0	33.10354209	-103.57584840	58.63	-0.12	55.23	0.36
544	283.6	33.10354905	-103.57584711	62.07	-0.17	53.83	0.32

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
545	284.1	33.10355590	-103.57584582	55.04	-0.12	51.68	0.37
546	284.6	33.10356270	-103.57584453	56.64	-0.19	52.62	0.34
547	285.1	33.10356944	-103.57584350	43.56	-0.12	40.08	0.36
548	285.6	33.10357615	-103.57584258	40.78	-0.16	44.26	0.32
549	286.2	33.10358256	-103.57584141	34.02	-0.11	33.79	0.36
550	286.7	33.10358888	-103.57584016	33.52	-0.16	30.20	0.33
551	287.2	33.10359498	-103.57583869	25.82	-0.11	28.28	0.38
552	287.7	33.10360105	-103.57583719	26.06	-0.18	24.84	0.34
553	288.3	33.10360687	-103.57583524	20.55	-0.11	21.68	0.37
554	288.8	33.10361267	-103.57583324	19.38	-0.14	19.61	0.39
555	289.3	33.10361774	-103.57583079	19.41	-0.14	18.67	0.38
556	289.8	33.10362268	-103.57582817	14.92	-0.12	17.58	0.38
557	290.3	33.10362674	-103.57582397	15.94	-0.13	17.81	0.37
558	290.9	33.10362977	-103.57581956	13.63	-0.09	15.66	0.40
559	291.4	33.10362830	-103.57581416	14.30	-0.12	16.13	0.39
560	291.9	33.10362564	-103.57580956	11.91	-0.05	15.00	0.38
561	292.4	33.10361989	-103.57580712	13.98	-0.10	16.72	0.38
562	293.0	33.10361375	-103.57580533	13.87	-0.09	16.09	0.41
563	293.5	33.10360694	-103.57580471	18.28	-0.15	17.97	0.37
564	294.0	33.10359995	-103.57580401	17.58	-0.11	19.22	0.38
565	294.5	33.10359275	-103.57580323	24.81	-0.18	24.45	0.32
566	295.1	33.10358556	-103.57580254	23.71	-0.12	26.80	0.34
567	295.6	33.10357839	-103.57580193	36.88	-0.17	27.38	0.33
568	296.1	33.10357124	-103.57580128	39.06	-0.11	33.16	0.39
569	296.6	33.10356409	-103.57580061	53.40	-0.18	43.79	0.35
570	297.1	33.10355699	-103.57580015	57.38	-0.10	51.45	0.40
571	297.7	33.10354993	-103.57579980	73.05	-0.22	59.22	0.31
572	298.2	33.10354289	-103.57579937	68.01	-0.11	61.37	0.38
573	298.7	33.10353588	-103.57579892	72.34	-0.18	67.38	0.33
574	299.2	33.10352898	-103.57579860	66.88	-0.10	70.55	0.37
575	299.7	33.10352210	-103.57579829	73.24	-0.20	73.79	0.32
576	300.3	33.10351519	-103.57579750	67.62	-0.10	73.56	0.39
577	300.8	33.10350825	-103.57579666	71.37	-0.17	74.26	0.36
578	301.3	33.10350132	-103.57579558	65.43	-0.11	79.77	0.41
579	301.8	33.10349437	-103.57579454	69.96	-0.19	83.59	0.37
580	302.4	33.10348715	-103.57579387	70.16	-0.11	79.96	0.38
581	302.9	33.10348006	-103.57579325	88.40	-0.15	85.82	0.37
582	303.4	33.10347353	-103.57579288	86.02	-0.09	71.68	0.44
583	303.9	33.10346674	-103.57579237	94.22	-0.18	83.79	0.36
584	304.5	33.10345966	-103.57579158	89.34	-0.11	100.90	0.42
585	305.0	33.10345276	-103.57579078	106.84	-0.15	118.48	0.42
586	305.5	33.10344625	-103.57579000	125.59	-0.09	109.18	0.48
587	306.0	33.10343973	-103.57578926	140.82	-0.16	103.79	0.50
588	306.5	33.10343316	-103.57578857	128.36	-0.11	105.08	0.48
589	307.1	33.10342672	-103.57578788	129.18	-0.17	136.52	0.42
590	307.6	33.10342042	-103.57578718	119.53	-0.10	130.00	0.49
591	308.1	33.10341441	-103.57578639	160.98	-0.19	150.78	0.48
592	308.6	33.10340857	-103.57578554	148.87	-0.11	144.14	0.50
593	309.1	33.10340322	-103.57578448	159.96	-0.16	107.31	0.48
594	309.7	33.10339804	-103.57578334	165.66	-0.12	116.72	0.51
595	310.2	33.10339247	-103.57578216	165.94	-0.14	132.54	0.46
596	310.7	33.10338678	-103.57578095	155.51	-0.12	126.06	0.46
597	311.2	33.10338129	-103.57578002	149.45	-0.14	133.87	0.47
598	311.8	33.10337580	-103.57577911	151.37	-0.14	136.37	0.47
599	312.3	33.10337101	-103.57577788	144.57	-0.11	116.64	0.50
600	312.8	33.10336624	-103.57577666	128.59	-0.14	97.54	0.47
601	313.3	33.10336156	-103.57577561	113.05	-0.12	99.34	0.47
602	313.8	33.10335732	-103.57577488	105.78	-0.17	106.41	0.43
603	314.4	33.10335568	-103.57577611	96.84	-0.14	102.31	0.43
604	314.9	33.10335388	-103.57577667	88.09	-0.13	90.90	0.43
605	315.4	33.10335155	-103.57577502	87.46	-0.12	85.00	0.44
606	315.9	33.10334810	-103.57577344	92.31	-0.07	79.61	0.45
607	316.5	33.10334227	-103.57577200	87.27	-0.15	77.85	0.40
608	317.0	33.10333614	-103.57577047	76.76	-0.09	90.82	0.46
609	317.5	33.10332957	-103.57576881	81.91	-0.14	86.84	0.48
610	318.0	33.10332295	-103.57576713	71.21	-0.05	71.13	0.52
611	318.6	33.10331628	-103.57576544	77.11	-0.15	74.02	0.44
612	319.1	33.10330952	-103.57576341	67.81	-0.05	68.40	0.48

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
613	319.6	33.10330270	-103.57576112	70.12	-0.15	64.10	0.39
614	320.1	33.10329601	-103.57575873	56.52	-0.07	57.03	0.46
615	320.6	33.10328938	-103.57575628	55.31	-0.15	53.09	0.44
616	321.2	33.10328316	-103.57575347	40.47	-0.10	45.74	0.49
617	321.7	33.10327711	-103.57575056	30.16	-0.10	40.12	0.47
618	322.2	33.10327126	-103.57574777	26.64	-0.12	36.13	0.41
619	322.7	33.10326546	-103.57574500	25.63	-0.14	32.97	0.37
620	323.2	33.10326077	-103.57574237	27.46	-0.12	32.73	0.42
621	323.8	33.10325619	-103.57573975	26.13	-0.09	33.28	0.47
622	324.3	33.10325262	-103.57573736	25.51	-0.14	31.60	0.48
623	324.8	33.10324912	-103.57573491	20.74	-0.11	28.67	0.51
624	325.3	33.10324593	-103.57573175	18.40	-0.12	26.68	0.50
625	325.9	33.10324255	-103.57572845	22.07	-0.15	25.08	0.48
626	326.4	33.10323912	-103.57572525	19.30	-0.08	23.87	0.51
627	326.9	33.10323584	-103.57572221	21.09	-0.13	23.48	0.48
628	327.4	33.10323332	-103.57571996	17.03	-0.12	20.51	0.46
629	328.0	33.10323217	-103.57571758	16.13	-0.16	18.71	0.43
630	328.5	33.10323371	-103.57571497	14.14	-0.14	17.85	0.47
631	329.0	33.10323685	-103.57571326	13.05	-0.13	18.24	0.45
632	329.5	33.10324215	-103.57571281	16.45	-0.15	19.02	0.44
633	330.0	33.10324817	-103.57571306	15.12	-0.13	18.95	0.52
634	330.6	33.10325486	-103.57571401	18.52	-0.13	21.52	0.49
635	331.1	33.10326158	-103.57571499	18.95	-0.13	22.03	0.47
636	331.6	33.10326833	-103.57571600	21.88	-0.15	24.06	0.50
637	332.1	33.10327528	-103.57571674	19.34	-0.12	24.34	0.57
638	332.7	33.10328229	-103.57571735	26.09	-0.19	28.48	0.49
639	333.2	33.10328927	-103.57571826	22.70	-0.11	29.92	0.53
640	333.7	33.10329624	-103.57571925	29.45	-0.15	31.68	0.55
641	334.2	33.10330321	-103.57572022	29.14	-0.15	32.31	0.47
642	334.7	33.10331020	-103.57572118	44.61	-0.17	38.95	0.51
643	335.3	33.10331734	-103.57572224	53.98	-0.05	45.63	0.59
644	335.8	33.10332447	-103.57572331	69.30	-0.14	51.09	0.55
645	336.3	33.10333105	-103.57572429	62.42	-0.05	58.40	0.58
646	336.8	33.10333755	-103.57572529	70.86	-0.14	63.40	0.51
647	337.3	33.10334337	-103.57572642	67.11	-0.04	69.88	0.57
648	337.9	33.10334914	-103.57572762	77.50	-0.15	73.24	0.54
649	338.4	33.10335481	-103.57572908	76.60	-0.05	68.87	0.64
650	338.9	33.10336049	-103.57573054	89.41	-0.12	76.64	0.61
651	339.4	33.10336616	-103.57573196	93.79	-0.05	78.28	0.64
652	340.0	33.10337185	-103.57573346	113.95	-0.14	79.18	0.59
653	340.5	33.10337757	-103.57573507	124.92	-0.08	90.39	0.67
654	341.0	33.10338329	-103.57573671	126.29	-0.09	96.60	0.67
655	341.5	33.10338901	-103.57573841	116.48	-0.07	103.09	0.67
656	342.0	33.10339440	-103.57573991	107.38	-0.15	105.66	0.59
657	342.6	33.10339952	-103.57574123	101.25	-0.14	114.69	0.54
658	343.1	33.10340469	-103.57574200	93.09	-0.11	114.18	0.54
659	343.6	33.10340991	-103.57574242	81.99	-0.14	95.04	0.54
660	344.1	33.10341569	-103.57574343	80.94	-0.10	90.47	0.55
661	344.7	33.10342171	-103.57574471	87.03	-0.17	94.88	0.51
662	345.2	33.10342817	-103.57574576	95.08	-0.12	107.11	0.52
663	345.7	33.10343479	-103.57574675	112.66	-0.17	99.61	0.48
664	346.2	33.10344114	-103.57574756	103.87	-0.11	85.12	0.49
665	346.7	33.10344748	-103.57574835	99.38	-0.16	96.88	0.43
666	347.3	33.10345398	-103.57574922	87.11	-0.10	102.31	0.45
667	347.8	33.10346049	-103.57575006	78.28	-0.15	97.54	0.43
668	348.3	33.10346694	-103.57575017	70.35	-0.11	93.79	0.44
669	348.8	33.10347338	-103.57575031	76.33	-0.16	87.19	0.41
670	349.4	33.10347984	-103.57575072	67.97	-0.08	78.95	0.46
671	349.9	33.10348630	-103.57575114	67.70	-0.12	81.37	0.47
672	350.4	33.10349265	-103.57575161	68.75	-0.07	88.09	0.52
673	350.9	33.10349915	-103.57575187	74.34	-0.12	79.41	0.45
674	351.4	33.10350554	-103.57575162	79.14	-0.07	78.67	0.46
675	352.0	33.10351204	-103.57575117	84.06	-0.14	80.59	0.44
676	352.5	33.10351855	-103.57575040	83.83	-0.07	78.24	0.48
677	353.0	33.10352506	-103.57574957	87.15	-0.12	75.35	0.43
678	353.5	33.10353157	-103.57574868	81.48	-0.10	75.70	0.41
679	354.1	33.10353805	-103.57574780	79.22	-0.18	76.29	0.35
680	354.6	33.10354449	-103.57574691	58.63	-0.10	60.66	0.39

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
681	355.1	33.10355080	-103.57574607	57.97	-0.19	64.02	0.35
682	355.6	33.10355705	-103.57574526	46.48	-0.11	60.74	0.36
683	356.1	33.10356333	-103.57574461	47.85	-0.18	52.03	0.32
684	356.7	33.10356963	-103.57574402	34.88	-0.11	41.84	0.37
685	357.2	33.10357595	-103.57574341	32.15	-0.17	35.35	0.34
686	357.7	33.10358227	-103.57574279	21.72	-0.12	28.87	0.39
687	358.2	33.10358877	-103.57574218	21.41	-0.17	24.96	0.37
688	358.8	33.10359530	-103.57574156	15.78	-0.12	20.16	0.41
689	359.3	33.10360160	-103.57574072	16.95	-0.17	19.81	0.39
690	359.8	33.10360785	-103.57573985	13.98	-0.13	18.32	0.39
691	360.3	33.10361345	-103.57573840	13.87	-0.14	18.24	0.40
692	360.8	33.10361892	-103.57573672	11.09	-0.11	15.74	0.41
693	361.4	33.10362344	-103.57573375	13.48	-0.12	14.92	0.39
694	361.9	33.10362755	-103.57573025	11.99	-0.12	16.91	0.39
695	362.4	33.10363023	-103.57572499	13.59	-0.08	15.51	0.40
696	362.9	33.10363096	-103.57572025	10.51	-0.08	14.45	0.40
697	363.5	33.10362743	-103.57571665	9.88	-0.05	14.18	0.43
698	364.0	33.10362305	-103.57571372	12.58	-0.10	16.21	0.44
699	364.5	33.10361745	-103.57571185	12.85	-0.10	16.60	0.44
700	365.0	33.10361142	-103.57570996	13.87	-0.12	17.97	0.41
701	365.5	33.10360495	-103.57570804	18.24	-0.13	19.02	0.38
702	366.1	33.10359834	-103.57570647	18.32	-0.11	20.63	0.45
703	366.6	33.10359167	-103.57570517	26.64	-0.16	27.50	0.40
704	367.1	33.10358518	-103.57570350	27.50	-0.11	30.98	0.39
705	367.6	33.10357880	-103.57570165	37.54	-0.15	39.14	0.39
706	368.2	33.10357239	-103.57569973	42.97	-0.12	50.23	0.41
707	368.7	33.10356596	-103.57569777	58.75	-0.16	57.34	0.39
708	369.2	33.10355957	-103.57569617	63.32	-0.12	62.58	0.45
709	369.7	33.10355322	-103.57569466	78.98	-0.17	70.31	0.43
710	370.2	33.10354687	-103.57569336	78.63	-0.11	76.68	0.44
711	370.8	33.10354051	-103.57569207	89.81	-0.16	84.22	0.44
712	371.3	33.10353417	-103.57569044	88.59	-0.10	79.30	0.47
713	371.8	33.10352784	-103.57568877	86.29	-0.16	82.23	0.42
714	372.3	33.10352169	-103.57568681	77.03	-0.11	80.23	0.45
715	372.9	33.10351558	-103.57568478	78.91	-0.19	96.41	0.38
716	373.4	33.10351047	-103.57568270	65.66	-0.10	91.52	0.40
717	373.9	33.10350528	-103.57568067	68.48	-0.16	85.12	0.38
718	374.4	33.10350008	-103.57567884	69.61	-0.13	94.77	0.43
719	374.9	33.10349509	-103.57567712	74.45	-0.16	104.10	0.43
720	375.5	33.10349051	-103.57567560	78.44	-0.15	103.67	0.44
721	376.0	33.10348591	-103.57567403	82.89	-0.13	103.44	0.43
722	376.5	33.10348126	-103.57567241	99.81	-0.20	117.89	0.45
723	377.0	33.10347665	-103.57567045	105.86	-0.11	125.39	0.50
724	377.6	33.10347203	-103.57566816	117.03	-0.12	125.31	0.52
725	378.1	33.10346735	-103.57566565	126.88	-0.02	120.59	0.67
726	378.6	33.10346261	-103.57566299	130.86	-0.07	123.75	0.70
727	379.1	33.10345747	-103.57566013	114.45	-0.02	123.75	0.73
728	379.6	33.10345216	-103.57565719	95.43	-0.07	116.52	0.66
729	380.2	33.10344669	-103.57565419	80.12	-0.08	103.87	0.67
730	380.7	33.10344116	-103.57565117	64.81	-0.07	86.17	0.71
731	381.2	33.10343577	-103.57564797	57.77	-0.15	78.40	0.64
732	381.7	33.10343041	-103.57564473	44.65	-0.10	67.73	0.65
733	382.3	33.10342486	-103.57564136	44.38	-0.17	61.06	0.64
734	382.8	33.10341932	-103.57563799	35.04	-0.12	52.89	0.65
735	383.3	33.10341391	-103.57563480	31.80	-0.17	47.50	0.59
736	383.8	33.10340860	-103.57563162	29.30	-0.13	44.49	0.60
737	384.3	33.10340411	-103.57562850	42.66	-0.26	44.88	0.56
738	384.9	33.10339981	-103.57562507	36.72	-0.12	41.48	0.62
739	385.4	33.10339625	-103.57562027	35.90	-0.16	41.17	0.57
740	385.9	33.10339250	-103.57561567	34.14	-0.11	39.92	0.61
741	386.4	33.10338828	-103.57561168	35.86	-0.15	41.33	0.61
742	387.0	33.10338419	-103.57560825	32.97	-0.15	39.41	0.58
743	387.5	33.10338033	-103.57560583	31.09	-0.16	38.59	0.57
744	388.0	33.10337649	-103.57560364	30.55	-0.18	38.48	0.52
745	388.5	33.10337267	-103.57560173	28.36	-0.10	37.81	0.60
746	389.0	33.10336907	-103.57559946	29.34	-0.15	36.06	0.61
747	389.6	33.10336571	-103.57559688	40.86	-0.33	37.93	0.41
748	390.1	33.10336241	-103.57559403	25.04	-0.13	30.43	0.53

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
749	390.6	33.10335916	-103.57559100	20.63	-0.13	27.27	0.59
750	391.1	33.10335574	-103.57558844	23.44	-0.19	27.19	0.55
751	391.7	33.10335225	-103.57558608	19.61	-0.14	25.04	0.59
752	392.2	33.10334932	-103.57558389	19.65	-0.12	24.53	0.61
753	392.7	33.10334654	-103.57558175	23.56	-0.20	24.10	0.59
754	393.2	33.10334459	-103.57557947	17.54	-0.10	22.54	0.60
755	393.7	33.10334277	-103.57557719	16.09	-0.15	21.76	0.55
756	394.3	33.10334189	-103.57557524	16.88	-0.18	19.77	0.51
757	394.8	33.10334123	-103.57557331	16.25	-0.18	18.83	0.50
758	395.3	33.10334553	-103.57557157	16.88	-0.21	19.61	0.47
759	395.8	33.10335002	-103.57557005	17.27	-0.18	19.69	0.56
760	396.4	33.10335591	-103.57557009	18.20	-0.22	20.86	0.48
761	396.9	33.10336186	-103.57557029	17.03	-0.15	21.64	0.52
762	397.4	33.10336800	-103.57557111	19.26	-0.20	23.16	0.50
763	397.9	33.10337412	-103.57557198	19.53	-0.17	24.14	0.50
764	398.4	33.10338013	-103.57557298	20.08	-0.19	27.03	0.53
765	399.0	33.10338611	-103.57557420	17.19	-0.12	28.79	0.56
766	399.5	33.10339202	-103.57557579	23.91	-0.18	31.64	0.51
767	400.0	33.10339795	-103.57557750	28.98	-0.20	33.20	0.48
768	400.5	33.10340391	-103.57557935	31.29	-0.19	35.90	0.52
769	401.1	33.10340994	-103.57558150	34.18	-0.19	41.02	0.53
770	401.6	33.10341605	-103.57558391	34.30	-0.17	46.06	0.53
771	402.1	33.10342216	-103.57558632	34.65	-0.19	47.58	0.49
772	402.6	33.10342826	-103.57558873	32.15	-0.19	46.76	0.42
773	403.1	33.10343452	-103.57559072	36.13	-0.17	53.87	0.47
774	403.7	33.10344085	-103.57559255	44.92	-0.18	60.55	0.49
775	404.2	33.10344703	-103.57559395	57.50	-0.20	66.91	0.51
776	404.7	33.10345321	-103.57559525	64.61	-0.18	78.67	0.52
777	405.2	33.10345956	-103.57559667	77.81	-0.18	92.62	0.61
778	405.8	33.10346595	-103.57559811	90.55	-0.12	105.51	0.65
779	406.3	33.10347230	-103.57559986	105.00	-0.14	113.16	0.65
780	406.8	33.10347864	-103.57560162	119.06	-0.12	128.01	0.65
781	407.3	33.10348465	-103.57560316	128.95	-0.12	140.35	0.67
782	407.8	33.10349069	-103.57560476	127.31	-0.10	134.18	0.68
783	408.4	33.10349696	-103.57560669	119.38	-0.11	135.59	0.63
784	408.9	33.10350321	-103.57560859	111.68	-0.12	129.69	0.52
785	409.4	33.10350939	-103.57561038	96.76	-0.15	129.69	0.44
786	409.9	33.10351548	-103.57561229	88.32	-0.13	123.16	0.44
787	410.5	33.10352129	-103.57561445	72.97	-0.17	108.83	0.40
788	411.0	33.10352729	-103.57561640	58.71	-0.13	92.89	0.42
789	411.5	33.10353356	-103.57561799	56.72	-0.16	83.83	0.39
790	412.0	33.10353977	-103.57561954	50.47	-0.11	75.31	0.42
791	412.5	33.10354594	-103.57562103	50.12	-0.16	71.37	0.40
792	413.1	33.10355203	-103.57562238	49.02	-0.10	70.20	0.41
793	413.6	33.10355815	-103.57562364	53.36	-0.15	70.63	0.39
794	414.1	33.10356422	-103.57562495	56.91	-0.12	65.27	0.41
795	414.6	33.10357035	-103.57562629	62.54	-0.16	63.48	0.38
796	415.2	33.10357656	-103.57562776	57.27	-0.13	64.14	0.38
797	415.7	33.10358284	-103.57562928	54.96	-0.14	62.73	0.40
798	416.2	33.10358890	-103.57563079	50.63	-0.12	58.75	0.40
799	416.7	33.10359492	-103.57563229	49.41	-0.16	54.06	0.39
800	417.2	33.10360109	-103.57563404	47.23	-0.13	50.23	0.40
801	417.8	33.10360730	-103.57563582	44.84	-0.13	51.91	0.41
802	418.3	33.10361365	-103.57563733	42.81	-0.13	49.34	0.42
803	418.8	33.10361998	-103.57563884	39.34	-0.14	41.88	0.45
804	419.3	33.10362590	-103.57564044	33.79	-0.16	36.88	0.45
805	419.9	33.10363179	-103.57564204	23.01	-0.14	28.91	0.45
806	420.4	33.10363752	-103.57564361	18.91	-0.14	24.34	0.44
807	420.9	33.10364325	-103.57564487	15.04	-0.10	21.25	0.46
808	421.4	33.10364889	-103.57564516	17.07	-0.15	19.65	0.44
809	421.9	33.10365440	-103.57564454	13.44	-0.09	16.99	0.46
810	422.5	33.10365961	-103.57564212	17.58	-0.17	16.84	0.42
811	423.0	33.10366313	-103.57563780	12.81	-0.13	15.35	0.44
812	423.5	33.10366427	-103.57563077	13.71	-0.15	16.45	0.40
813	424.0	33.10366342	-103.57562402	12.50	-0.08	16.68	0.42
814	424.6	33.10366064	-103.57561755	16.56	-0.14	18.48	0.42
815	425.1	33.10365704	-103.57561179	16.33	-0.10	20.27	0.43
816	425.6	33.10365289	-103.57560659	18.48	-0.14	21.84	0.41

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
817	426.1	33.10364817	-103.57560168	18.98	-0.14	25.20	0.41
818	426.6	33.10364319	-103.57559692	20.12	-0.14	28.32	0.39
819	427.2	33.10363808	-103.57559271	24.81	-0.12	30.78	0.38
820	427.7	33.10363295	-103.57558871	26.02	-0.12	34.73	0.37
821	428.2	33.10362743	-103.57558513	27.23	-0.11	37.23	0.39
822	428.7	33.10362184	-103.57558162	29.61	-0.09	40.70	0.42
823	429.3	33.10361644	-103.57557782	40.66	-0.14	44.61	0.40
824	429.8	33.10361108	-103.57557403	42.50	-0.09	49.96	0.43
825	430.3	33.10360570	-103.57556998	52.31	-0.13	47.58	0.41
826	430.8	33.10360033	-103.57556590	60.20	-0.09	59.34	0.43
827	431.3	33.10359506	-103.57556156	61.60	-0.15	65.43	0.41
828	431.9	33.10358977	-103.57555725	51.84	-0.09	58.36	0.44
829	432.4	33.10358457	-103.57555316	55.78	-0.17	69.69	0.41
830	432.9	33.10357931	-103.57554918	53.16	-0.08	71.80	0.47
831	433.4	33.10357398	-103.57554555	64.10	-0.13	78.71	0.50
832	434.0	33.10356893	-103.57554230	76.48	-0.11	91.41	0.51
833	434.5	33.10356444	-103.57553978	93.79	-0.14	105.35	0.51
834	435.0	33.10356061	-103.57553727	114.02	-0.11	118.32	0.53
835	435.5	33.10355764	-103.57553480	137.85	-0.13	142.23	0.57
836	436.0	33.10355584	-103.57553347	141.76	-0.09	147.70	0.60
837	436.6	33.10355514	-103.57553318	145.63	-0.07	145.70	0.63
838	437.1	33.10355355	-103.57553155	150.04	-0.06	143.91	0.62
839	437.6	33.10355139	-103.57552905	152.11	-0.04	134.81	0.63
840	438.1	33.10354761	-103.57552582	149.34	-0.11	134.77	0.60
841	438.7	33.10354310	-103.57552226	144.41	-0.06	157.77	0.68
842	439.2	33.10353831	-103.57551831	140.98	-0.14	155.78	0.65
843	439.7	33.10353344	-103.57551426	133.67	-0.06	140.55	0.67
844	440.2	33.10352838	-103.57551008	117.27	-0.14	125.12	0.64
845	440.7	33.10352329	-103.57550588	94.57	-0.10	125.94	0.66
846	441.3	33.10351846	-103.57550171	84.73	-0.18	119.38	0.60
847	441.8	33.10351364	-103.57549757	74.61	-0.15	106.21	0.62
848	442.3	33.10350857	-103.57549387	73.16	-0.18	104.30	0.59
849	442.8	33.10350361	-103.57549025	69.14	-0.15	101.29	0.61
850	443.4	33.10349945	-103.57548708	65.47	-0.19	95.70	0.58
851	443.9	33.10349555	-103.57548402	64.65	-0.20	93.95	0.57
852	444.4	33.10349266	-103.57548137	60.43	-0.18	88.16	0.55
853	444.9	33.10348996	-103.57547912	58.95	-0.19	84.69	0.56
854	445.4	33.10348775	-103.57547786	52.54	-0.11	79.10	0.50
855	446.0	33.10348535	-103.57547620	43.20	-0.14	67.66	0.33
856	446.5	33.10348265	-103.57547387	35.74	-0.09	56.37	0.22
857	447.0	33.10347959	-103.57547152	33.48	-0.13	53.79	0.21
858	447.5	33.10347609	-103.57546916	35.63	-0.16	55.47	0.30
859	448.1	33.10347353	-103.57546760	37.19	-0.20	58.24	0.37
860	448.6	33.10347175	-103.57546671	46.99	-0.24	62.73	0.48
861	449.1	33.10347080	-103.57546645	52.11	-0.23	64.53	0.52
862	449.6	33.10347034	-103.57546655	53.09	-0.23	65.16	0.54
863	450.1	33.10346893	-103.57546451	43.32	-0.17	59.77	0.40
864	450.7	33.10346715	-103.57546161	37.46	-0.18	55.98	0.34
865	451.2	33.10346396	-103.57545860	40.59	-0.24	55.39	0.28
866	451.7	33.10346041	-103.57545556	32.93	-0.09	57.46	0.32
867	452.2	33.10345742	-103.57545295	39.18	-0.19	61.09	0.25
868	452.8	33.10345450	-103.57545039	48.95	-0.25	68.67	0.15
869	453.3	33.10345208	-103.57544784	55.51	-0.17	77.54	0.10
870	453.8	33.10344969	-103.57544536	50.39	-0.20	69.10	0.16
871	454.3	33.10344776	-103.57544434	27.77	-0.19	29.69	0.47
872	454.8	33.10344589	-103.57544331	22.27	-0.09	6.29	0.74
873	455.4	33.10344435	-103.57544224	27.31	-0.12	4.96	0.77
874	455.9	33.10344237	-103.57544076	30.47	-0.17	10.86	0.67
875	456.4	33.10343887	-103.57543783	34.06	-0.24	34.73	0.41
876	456.9	33.10343558	-103.57543498	28.83	-0.17	43.28	0.37
877	457.5	33.10343274	-103.57543231	24.10	-0.17	39.69	0.42
878	458.0	33.10342992	-103.57543004	27.73	-0.24	34.22	0.45
879	458.5	33.10342715	-103.57542841	24.02	-0.13	30.66	0.52
880	459.0	33.10342518	-103.57542724	21.17	-0.14	27.85	0.54
881	459.5	33.10342410	-103.57542655	19.18	-0.19	25.43	0.44
882	460.1	33.10342510	-103.57542540	15.59	-0.18	22.89	0.39
883	460.6	33.10342768	-103.57542388	14.18	-0.20	21.72	0.34
884	461.1	33.10343214	-103.57542222	15.47	-0.19	22.77	0.42

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
885	461.6	33.10343756	-103.57542050	15.59	-0.18	22.97	0.44
886	462.2	33.10344342	-103.57542008	19.69	-0.22	25.23	0.40
887	462.7	33.10344944	-103.57542011	20.23	-0.16	27.66	0.46
888	463.2	33.10345529	-103.57542155	26.52	-0.23	32.50	0.39
889	463.7	33.10346111	-103.57542330	29.18	-0.19	39.81	0.34
890	464.2	33.10346686	-103.57542586	35.08	-0.26	44.53	0.24
891	464.8	33.10347260	-103.57542850	21.64	-0.16	14.18	0.67
892	465.3	33.10347775	-103.57543174	40.98	-0.26	29.65	0.39
893	465.8	33.10348283	-103.57543498	41.45	-0.21	58.87	0.18
894	466.3	33.10348780	-103.57543819	45.98	-0.23	64.69	0.22
895	466.9	33.10349283	-103.57544133	47.62	-0.18	65.90	0.32
896	467.4	33.10349815	-103.57544411	52.27	-0.21	69.61	0.40
897	467.9	33.10350351	-103.57544694	57.66	-0.18	76.02	0.44
898	468.4	33.10350891	-103.57544988	63.59	-0.21	81.52	0.45
899	468.9	33.10351442	-103.57545298	70.55	-0.18	90.74	0.47
900	469.5	33.10352018	-103.57545639	69.49	-0.18	95.04	0.49
901	470.0	33.10352581	-103.57545965	68.48	-0.18	98.91	0.53
902	470.5	33.10353124	-103.57546268	66.91	-0.16	101.56	0.57
903	471.0	33.10353684	-103.57546563	72.07	-0.14	102.07	0.60
904	471.6	33.10354261	-103.57546849	68.48	-0.11	100.55	0.65
905	472.1	33.10354851	-103.57547147	79.06	-0.13	111.48	0.63
906	472.6	33.10355452	-103.57547453	95.16	-0.12	116.45	0.64
907	473.1	33.10356062	-103.57547749	136.45	-0.13	117.31	0.60
908	473.6	33.10356678	-103.57548039	152.15	-0.11	146.41	0.62
909	474.2	33.10357264	-103.57548340	159.53	-0.14	160.70	0.61
910	474.7	33.10357840	-103.57548645	171.48	-0.10	185.04	0.60
911	475.2	33.10358312	-103.57548917	178.44	-0.14	170.39	0.57
912	475.7	33.10358763	-103.57549184	184.02	-0.09	149.49	0.59
913	476.3	33.10359221	-103.57549488	189.14	-0.15	164.34	0.54
914	476.8	33.10359680	-103.57549795	189.06	-0.10	184.77	0.53
915	477.3	33.10360189	-103.57550137	189.06	-0.15	181.64	0.50
916	477.8	33.10360703	-103.57550480	170.82	-0.11	139.84	0.53
917	478.3	33.10361254	-103.57550828	148.75	-0.17	128.98	0.46
918	478.9	33.10361796	-103.57551194	109.73	-0.10	119.73	0.50
919	479.4	33.10362270	-103.57551612	88.24	-0.16	112.07	0.45
920	479.9	33.10362756	-103.57552016	71.48	-0.12	90.31	0.45
921	480.4	33.10363269	-103.57552377	73.52	-0.15	66.84	0.45
922	481.0	33.10363766	-103.57552717	70.98	-0.13	65.27	0.46
923	481.5	33.10364247	-103.57553026	57.31	-0.14	66.45	0.46
924	482.0	33.10364725	-103.57553320	44.61	-0.12	54.30	0.45
925	482.5	33.10365201	-103.57553595	34.57	-0.09	47.23	0.46
926	483.0	33.10365678	-103.57553867	37.50	-0.19	44.49	0.39
927	483.6	33.10366157	-103.57554135	28.79	-0.09	39.57	0.48
928	484.1	33.10366585	-103.57554388	30.12	-0.17	35.04	0.42
929	484.6	33.10366980	-103.57554632	22.42	-0.12	28.56	0.46
930	485.1	33.10367400	-103.57554843	21.88	-0.17	24.53	0.47
931	485.7	33.10367832	-103.57555040	25.70	-0.20	27.23	0.38
932	486.2	33.10368303	-103.57554902	16.76	-0.10	23.48	0.44
933	486.7	33.10368786	-103.57554667	19.18	-0.15	23.01	0.41
934	487.2	33.10368968	-103.57554097	15.12	-0.07	20.66	0.43
935	487.7	33.10369100	-103.57553473	17.19	-0.13	22.77	0.46
936	488.3	33.10368913	-103.57552819	16.84	-0.06	23.05	0.47
937	488.8	33.10368704	-103.57552168	20.90	-0.15	25.47	0.43
938	489.3	33.10368355	-103.57551589	20.20	-0.10	26.99	0.46
939	489.8	33.10368001	-103.57551014	23.36	-0.15	30.66	0.46
940	490.4	33.10367613	-103.57550485	25.59	-0.12	34.69	0.45
941	490.9	33.10367226	-103.57549961	31.56	-0.14	40.74	0.45
942	491.4	33.10366840	-103.57549455	37.50	-0.12	43.87	0.46
943	491.9	33.10366446	-103.57548941	46.99	-0.12	51.56	0.45
944	492.4	33.10366035	-103.57548407	57.97	-0.17	71.45	0.43
945	493.0	33.10365615	-103.57547856	77.50	-0.14	88.44	0.44
946	493.5	33.10365184	-103.57547284	129.18	-0.15	108.71	0.45
947	494.0	33.10364773	-103.57546697	177.42	-0.12	148.24	0.48
948	494.5	33.10364388	-103.57546092	240.31	-0.15	171.02	0.53
949	495.1	33.10363992	-103.57545506	268.16	-0.10	210.90	0.58
950	495.6	33.10363585	-103.57544934	288.24	-0.13	259.61	0.64
951	496.1	33.10363228	-103.57544392	287.11	-0.07	261.21	0.66
952	496.6	33.10362902	-103.57543866	250.66	-0.12	221.99	0.62

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
953	497.1	33.10362584	-103.57543352	200.08	-0.09	188.95	0.63
954	497.7	33.10362272	-103.57542845	153.98	-0.16	195.51	0.57
955	498.2	33.10361956	-103.57542360	120.51	-0.12	172.34	0.55
956	498.7	33.10361640	-103.57541880	120.00	-0.14	157.34	0.56
957	499.2	33.10361295	-103.57541351	119.65	-0.16	148.05	0.54
958	499.8	33.10360947	-103.57540818	95.51	-0.13	128.28	0.57
959	500.3	33.10360639	-103.57540440	82.54	-0.20	115.31	0.51
960	500.8	33.10360332	-103.57540067	71.02	-0.14	105.63	0.52
961	501.3	33.10360040	-103.57539672	63.83	-0.16	97.62	0.54
962	501.8	33.10359760	-103.57539297	60.82	-0.15	93.75	0.56
963	502.4	33.10359564	-103.57539054	56.64	-0.13	90.27	0.59
964	502.9	33.10359362	-103.57538820	57.62	-0.18	86.25	0.55
965	503.4	33.10359140	-103.57538618	65.74	-0.28	84.41	0.44
966	503.9	33.10358933	-103.57538362	55.74	-0.19	75.94	0.52
967	504.5	33.10358763	-103.57537991	50.51	-0.17	70.59	0.53
968	505.0	33.10358495	-103.57537536	49.57	-0.21	65.74	0.42
969	505.5	33.10358076	-103.57536947	44.22	-0.17	61.76	0.34
970	506.0	33.10357697	-103.57536396	36.13	-0.21	54.49	0.25
971	506.5	33.10357365	-103.57535886	25.94	-0.19	24.81	0.56
972	507.1	33.10357082	-103.57535414	26.99	-0.21	30.35	0.48
973	507.6	33.10356835	-103.57534971	33.56	-0.25	36.72	0.40
974	508.1	33.10356642	-103.57534635	26.33	-0.18	35.04	0.31
975	508.6	33.10356479	-103.57534360	23.56	-0.18	34.92	0.31
976	509.2	33.10356276	-103.57534120	27.11	-0.24	33.52	0.39
977	509.7	33.10356060	-103.57533892	14.45	-0.07	30.23	0.39
978	510.2	33.10356047	-103.57533584	20.63	-0.17	29.49	0.38
979	510.7	33.10356079	-103.57533257	20.31	-0.21	28.28	0.35
980	511.2	33.10356339	-103.57532938	19.45	-0.20	27.54	0.33
981	511.8	33.10356623	-103.57532621	18.63	-0.20	26.64	0.33
982	512.3	33.10357091	-103.57532531	18.67	-0.20	26.37	0.33
983	512.8	33.10357577	-103.57532474	18.44	-0.19	26.56	0.34
984	513.3	33.10358229	-103.57532756	20.12	-0.21	27.34	0.34
985	513.9	33.10358865	-103.57533060	20.90	-0.19	30.20	0.29
986	514.4	33.10359418	-103.57533477	24.06	-0.22	34.49	0.19
987	514.9	33.10359949	-103.57533905	24.88	-0.20	26.37	0.51
988	515.4	33.10360417	-103.57534371	29.65	-0.20	47.62	0.33
989	515.9	33.10360881	-103.57534841	31.64	-0.18	48.79	0.36
990	516.5	33.10361338	-103.57535322	41.60	-0.26	49.92	0.29
991	517.0	33.10361801	-103.57535794	37.19	-0.19	50.16	0.41
992	517.5	33.10362278	-103.57536254	42.38	-0.23	54.92	0.41
993	518.0	33.10362748	-103.57536697	42.42	-0.18	60.70	0.47
994	518.6	33.10363213	-103.57537124	52.31	-0.20	71.68	0.47
995	519.1	33.10363697	-103.57537543	62.81	-0.15	89.30	0.50
996	519.6	33.10364197	-103.57537958	98.05	-0.21	121.13	0.52
997	520.1	33.10364636	-103.57538355	134.73	-0.16	145.70	0.56
998	520.6	33.10365048	-103.57538743	181.09	-0.18	169.65	0.58
999	521.2	33.10365452	-103.57539173	239.41	-0.14	195.39	0.62
1000	521.7	33.10365855	-103.57539619	271.99	-0.16	249.14	0.63
1001	522.2	33.10366268	-103.57540048	255.82	-0.10	236.80	0.64
1002	522.7	33.10366685	-103.57540475	231.56	-0.13	227.85	0.61
1003	523.3	33.10367143	-103.57540885	201.64	-0.11	223.67	0.62
1004	523.8	33.10367605	-103.57541294	178.48	-0.15	203.63	0.59
1005	524.3	33.10368085	-103.57541720	165.86	-0.15	189.02	0.53
1006	524.8	33.10368563	-103.57542151	139.10	-0.14	155.35	0.55
1007	525.3	33.10369018	-103.57542633	123.05	-0.14	137.93	0.53
1008	525.9	33.10369470	-103.57543123	100.39	-0.12	124.49	0.50
1009	526.4	33.10369884	-103.57543620	91.37	-0.17	111.52	0.44
1010	526.9	33.10370304	-103.57544124	80.59	-0.11	101.33	0.46
1011	527.4	33.10370734	-103.57544642	84.30	-0.18	90.47	0.45
1012	528.0	33.10371162	-103.57545158	63.48	-0.10	63.67	0.51
1013	528.5	33.10371588	-103.57545671	53.44	-0.17	58.59	0.45
1014	529.0	33.10371989	-103.57546170	36.84	-0.11	50.55	0.47
1015	529.5	33.10372359	-103.57546651	34.65	-0.17	43.36	0.42
1016	530.0	33.10372739	-103.57547112	25.20	-0.12	37.15	0.46
1017	530.6	33.10373126	-103.57547553	27.85	-0.19	34.45	0.44
1018	531.1	33.10373503	-103.57547964	23.83	-0.14	30.27	0.47
1019	531.6	33.10373871	-103.57548351	21.21	-0.16	27.23	0.47
1020	532.1	33.10374308	-103.57548628	26.09	-0.17	26.17	0.45

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
1021	532.7	33.10374774	-103.57548855	20.43	-0.10	24.30	0.49
1022	533.2	33.10375151	-103.57548632	19.49	-0.13	23.67	0.44
1023	533.7	33.10375499	-103.57548276	16.02	-0.09	22.31	0.43
1024	534.2	33.10375527	-103.57547652	20.31	-0.16	24.26	0.40
1025	534.7	33.10375505	-103.57546985	20.59	-0.12	26.52	0.41
1026	535.3	33.10375368	-103.57546285	24.06	-0.16	29.34	0.43
1027	535.8	33.10375223	-103.57545584	25.59	-0.12	33.95	0.43
1028	536.3	33.10375023	-103.57544936	33.98	-0.16	40.63	0.45
1029	536.8	33.10374824	-103.57544282	42.89	-0.12	41.88	0.42
1030	537.4	33.10374623	-103.57543590	56.06	-0.14	48.05	0.44
1031	537.9	33.10374421	-103.57542904	60.31	-0.13	62.77	0.45
1032	538.4	33.10374216	-103.57542251	59.77	-0.11	73.20	0.47
1033	538.9	33.10374014	-103.57541614	64.65	-0.13	78.36	0.46
1034	539.4	33.10373821	-103.57541017	70.86	-0.10	84.34	0.48
1035	540.0	33.10373623	-103.57540432	84.77	-0.14	101.68	0.49
1036	540.5	33.10373419	-103.57539874	110.16	-0.10	120.27	0.54
1037	541.0	33.10373230	-103.57539423	136.48	-0.15	137.31	0.53
1038	541.5	33.10373057	-103.57539099	164.65	-0.11	140.63	0.56
1039	542.1	33.10372927	-103.57538769	197.23	-0.14	146.29	0.56
1040	542.6	33.10372834	-103.57538435	232.42	-0.18	174.53	0.54
1041	543.1	33.10372728	-103.57538063	240.00	-0.16	201.48	0.55
1042	543.6	33.10372616	-103.57537669	214.92	-0.09	204.96	0.56
1043	544.1	33.10372448	-103.57537265	198.91	-0.14	183.75	0.52
1044	544.7	33.10372258	-103.57536856	186.72	-0.11	183.16	0.56
1045	545.2	33.10372032	-103.57536355	166.02	-0.10	179.81	0.58
1046	545.7	33.10371797	-103.57535828	149.92	-0.11	175.70	0.57
1047	546.2	33.10371530	-103.57535219	124.10	-0.06	157.77	0.61
1048	546.8	33.10371260	-103.57534599	108.40	-0.12	136.84	0.58
1049	547.3	33.10370955	-103.57533974	92.70	-0.06	127.27	0.60
1050	547.8	33.10370651	-103.57533353	90.94	-0.15	120.98	0.53
1051	548.3	33.10370325	-103.57532741	78.20	-0.09	106.80	0.56
1052	548.8	33.10369999	-103.57532131	79.61	-0.18	101.33	0.50
1053	549.4	33.10369669	-103.57531542	74.30	-0.11	90.51	0.55
1054	549.9	33.10369341	-103.57530953	71.02	-0.15	75.31	0.55
1055	550.4	33.10369024	-103.57530366	56.41	-0.11	65.78	0.58
1056	550.9	33.10368701	-103.57529782	45.55	-0.16	59.22	0.55
1057	551.5	33.10368370	-103.57529209	40.47	-0.17	56.88	0.47
1058	552.0	33.10368034	-103.57528652	34.61	-0.17	49.30	0.45
1059	552.5	33.10367688	-103.57528119	28.91	-0.18	33.05	0.53
1060	553.0	33.10367347	-103.57527582	26.80	-0.16	32.89	0.51
1061	553.5	33.10367008	-103.57527037	30.04	-0.23	35.27	0.45
1062	554.1	33.10366688	-103.57526488	23.48	-0.17	32.77	0.48
1063	554.6	33.10366382	-103.57525933	25.86	-0.23	30.43	0.46
1064	555.1	33.10366099	-103.57525413	23.32	-0.18	27.54	0.50
1065	555.6	33.10365827	-103.57524912	26.25	-0.24	27.66	0.49
1066	556.2	33.10365591	-103.57524438	24.38	-0.16	25.63	0.49
1067	556.7	33.10365367	-103.57523974	21.56	-0.18	25.12	0.51
1068	557.2	33.10365279	-103.57523640	21.76	-0.19	23.87	0.51
1069	557.7	33.10365223	-103.57523336	16.72	-0.19	22.07	0.45
1070	558.2	33.10365572	-103.57523192	14.69	-0.19	21.88	0.42
1071	558.8	33.10365967	-103.57523064	15.20	-0.19	21.60	0.46
1072	559.3	33.10366527	-103.57523150	18.56	-0.21	22.77	0.45
1073	559.8	33.10367093	-103.57523254	20.04	-0.17	24.38	0.51
1074	560.3	33.10367632	-103.57523466	20.82	-0.19	25.51	0.48
1075	560.9	33.10368162	-103.57523699	23.95	-0.19	25.98	0.46
1076	561.4	33.10368666	-103.57524048	22.27	-0.19	27.15	0.47
1077	561.9	33.10369157	-103.57524415	25.82	-0.20	29.53	0.44
1078	562.4	33.10369611	-103.57524836	23.01	-0.17	30.35	0.46
1079	562.9	33.10370064	-103.57525272	28.98	-0.23	32.62	0.40
1080	563.5	33.10370513	-103.57525735	25.90	-0.16	34.22	0.40
1081	564.0	33.10370955	-103.57526173	27.89	-0.21	34.84	0.39
1082	564.5	33.10371385	-103.57526575	23.32	-0.14	26.72	0.50
1083	565.0	33.10371817	-103.57527008	29.14	-0.21	33.48	0.43
1084	565.6	33.10372250	-103.57527470	29.53	-0.17	45.31	0.38
1085	566.1	33.10372693	-103.57527945	35.08	-0.20	49.77	0.37
1086	566.6	33.10373142	-103.57528427	36.76	-0.14	47.23	0.42
1087	567.1	33.10373599	-103.57528913	43.44	-0.18	51.45	0.45
1088	567.6	33.10374059	-103.57529401	42.62	-0.14	60.20	0.50

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
1089	568.2	33.10374522	-103.57529898	48.20	-0.18	68.36	0.45
1090	568.7	33.10374984	-103.57530396	51.02	-0.12	72.89	0.51
1091	569.2	33.10375429	-103.57530880	58.16	-0.17	73.87	0.50
1092	569.7	33.10375869	-103.57531359	62.15	-0.12	77.81	0.54
1093	570.3	33.10376287	-103.57531835	66.68	-0.14	86.13	0.52
1094	570.8	33.10376704	-103.57532310	68.44	-0.11	86.25	0.53
1095	571.3	33.10377100	-103.57532788	74.10	-0.14	96.48	0.54
1096	571.8	33.10377496	-103.57533264	88.44	-0.12	108.59	0.54
1097	572.3	33.10377915	-103.57533732	117.81	-0.13	119.81	0.54
1098	572.9	33.10378325	-103.57534188	159.45	-0.13	154.02	0.55
1099	573.4	33.10378673	-103.57534563	190.74	-0.11	185.08	0.58
1100	573.9	33.10378995	-103.57534918	214.61	-0.15	191.84	0.58
1101	574.4	33.10379232	-103.57535205	230.94	-0.12	205.12	0.59
1102	575.0	33.10379491	-103.57535477	241.25	-0.16	223.36	0.55
1103	575.5	33.10379794	-103.57535721	229.65	-0.14	222.93	0.56
1104	576.0	33.10380121	-103.57536018	200.94	-0.09	194.69	0.56
1105	576.5	33.10380478	-103.57536386	173.52	-0.16	176.25	0.52
1106	577.0	33.10380869	-103.57536798	148.28	-0.11	162.93	0.56
1107	577.6	33.10381292	-103.57537254	128.09	-0.14	148.98	0.54
1108	578.1	33.10381766	-103.57537697	116.17	-0.12	138.67	0.48
1109	578.6	33.10382272	-103.57538131	108.79	-0.15	120.20	0.49
1110	579.1	33.10382773	-103.57538529	102.62	-0.14	113.48	0.46
1111	579.7	33.10383271	-103.57538912	91.06	-0.13	100.16	0.45
1112	580.2	33.10383762	-103.57539297	80.74	-0.15	84.77	0.42
1113	580.7	33.10384253	-103.57539684	61.21	-0.10	69.26	0.45
1114	581.2	33.10384687	-103.57540105	46.91	-0.17	57.81	0.39
1115	581.7	33.10385112	-103.57540532	31.68	-0.12	47.38	0.42
1116	582.3	33.10385568	-103.57540929	32.19	-0.19	41.80	0.35
1117	582.8	33.10386027	-103.57541326	23.36	-0.10	35.86	0.42
1118	583.3	33.10386445	-103.57541690	29.49	-0.21	33.05	0.35
1119	583.8	33.10386858	-103.57542053	20.70	-0.13	28.59	0.44
1120	584.4	33.10387243	-103.57542401	19.61	-0.16	26.09	0.42
1121	584.9	33.10387621	-103.57542746	20.59	-0.14	24.73	0.43
1122	585.4	33.10387962	-103.57543072	18.48	-0.10	23.59	0.44
1123	585.9	33.10388349	-103.57543324	23.56	-0.20	23.44	0.37
1124	586.4	33.10388852	-103.57543389	16.41	-0.10	21.41	0.41
1125	587.0	33.10389279	-103.57543220	17.11	-0.13	21.52	0.40
1126	587.5	33.10389577	-103.57542649	17.89	-0.11	21.95	0.39
1127	588.0	33.10389747	-103.57542010	19.14	-0.11	21.95	0.40
1128	588.5	33.10389763	-103.57541290	18.56	-0.11	23.98	0.41
1129	589.1	33.10389683	-103.57540587	17.46	-0.12	24.30	0.41
1130	589.6	33.10389518	-103.57539896	20.63	-0.12	26.91	0.42
1131	590.1	33.10389323	-103.57539217	20.39	-0.13	28.32	0.45
1132	590.6	33.10389109	-103.57538544	24.84	-0.13	31.72	0.44
1133	591.1	33.10388902	-103.57537876	26.88	-0.13	34.45	0.43
1134	591.7	33.10388697	-103.57537208	31.45	-0.14	40.90	0.41
1135	592.2	33.10388497	-103.57536525	40.66	-0.09	50.43	0.44
1136	592.7	33.10388298	-103.57535838	55.94	-0.17	61.41	0.42
1137	593.2	33.10388097	-103.57535137	77.85	-0.12	74.92	0.45
1138	593.8	33.10387895	-103.57534433	106.09	-0.21	106.56	0.40
1139	594.3	33.10387707	-103.57533777	116.48	-0.12	124.69	0.46
1140	594.8	33.10387519	-103.57533122	140.20	-0.18	149.10	0.45
1141	595.3	33.10387339	-103.57532473	161.72	-0.11	165.31	0.51
1142	595.8	33.10387158	-103.57531825	193.79	-0.18	181.95	0.51
1143	596.4	33.10386964	-103.57531183	205.04	-0.12	199.10	0.58
1144	596.9	33.10386767	-103.57530549	203.20	-0.17	206.91	0.57
1145	597.4	33.10386562	-103.57529948	176.72	-0.11	183.59	0.60
1146	597.9	33.10386346	-103.57529341	150.86	-0.13	172.23	0.57
1147	598.5	33.10386111	-103.57528739	126.95	-0.12	164.96	0.60
1148	599.0	33.10385862	-103.57528117	107.89	-0.12	153.09	0.61
1149	599.5	33.10385592	-103.57527468	107.15	-0.12	145.59	0.60
1150	600.0	33.10385326	-103.57526818	110.74	-0.09	137.11	0.61
1151	600.5	33.10385067	-103.57526170	119.81	-0.14	137.23	0.59
1152	601.1	33.10384826	-103.57525518	110.66	-0.10	118.44	0.58
1153	601.6	33.10384599	-103.57524865	114.26	-0.15	122.73	0.51
1154	602.1	33.10384389	-103.57524211	100.47	-0.09	121.48	0.55
1155	602.6	33.10384186	-103.57523556	90.31	-0.16	108.95	0.46
1156	603.2	33.10383998	-103.57522929	79.53	-0.11	100.59	0.49

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
1157	603.7	33.10383817	-103.57522316	61.29	-0.18	73.28	0.49
1158	604.2	33.10383632	-103.57521673	51.95	-0.13	57.93	0.50
1159	604.7	33.10383448	-103.57521025	42.50	-0.15	57.19	0.46
1160	605.2	33.10383205	-103.57520389	35.70	-0.12	50.82	0.47
1161	605.8	33.10382955	-103.57519757	31.17	-0.15	42.73	0.47
1162	606.3	33.10382613	-103.57519202	26.37	-0.12	36.33	0.48
1163	606.8	33.10382267	-103.57518656	22.70	-0.12	32.77	0.48
1164	607.3	33.10381906	-103.57518186	27.38	-0.20	31.60	0.43
1165	607.9	33.10381562	-103.57517718	20.63	-0.15	27.54	0.46
1166	608.4	33.10381310	-103.57517252	23.13	-0.22	25.70	0.40
1167	608.9	33.10381082	-103.57516774	19.06	-0.13	23.79	0.46
1168	609.4	33.10380927	-103.57516248	19.34	-0.17	23.91	0.44
1169	609.9	33.10380792	-103.57515734	18.01	-0.13	22.38	0.46
1170	610.5	33.10380701	-103.57515248	21.48	-0.21	21.80	0.43
1171	611.0	33.10380652	-103.57514798	16.84	-0.11	21.88	0.44
1172	611.5	33.10380666	-103.57514400	19.41	-0.20	21.72	0.42
1173	612.0	33.10380798	-103.57514099	17.50	-0.18	21.29	0.41
1174	612.6	33.10381051	-103.57513899	16.76	-0.19	20.70	0.35
1175	613.1	33.10381447	-103.57513897	16.84	-0.18	20.47	0.40
1176	613.6	33.10381951	-103.57514040	15.51	-0.15	21.33	0.47
1177	614.1	33.10382473	-103.57514332	19.10	-0.19	23.13	0.42
1178	614.6	33.10382998	-103.57514696	16.06	-0.13	22.31	0.46
1179	615.2	33.10383506	-103.57515068	23.36	-0.21	23.91	0.40
1180	615.7	33.10384009	-103.57515442	19.18	-0.14	24.49	0.45
1181	616.2	33.10384482	-103.57515846	22.85	-0.20	25.16	0.41
1182	616.7	33.10384953	-103.57516258	21.06	-0.14	27.42	0.45
1183	617.3	33.10385433	-103.57516670	31.25	-0.24	33.75	0.38
1184	617.8	33.10385916	-103.57517082	29.45	-0.15	35.43	0.44
1185	618.3	33.10386437	-103.57517505	43.91	-0.20	42.93	0.41
1186	618.8	33.10386955	-103.57517926	51.33	-0.13	60.00	0.47
1187	619.3	33.10387448	-103.57518340	68.79	-0.19	68.16	0.44
1188	619.9	33.10387945	-103.57518766	83.13	-0.14	83.36	0.49
1189	620.4	33.10388407	-103.57519200	94.73	-0.18	89.22	0.48
1190	620.9	33.10388876	-103.57519649	92.66	-0.15	103.16	0.48
1191	621.4	33.10389336	-103.57520115	86.76	-0.18	105.94	0.40
1192	622.0	33.10389801	-103.57520560	94.73	-0.16	133.36	0.27
1193	622.5	33.10390272	-103.57520962	114.65	-0.21	159.22	0.14
1194	623.0	33.10390749	-103.57521369	137.85	-0.18	139.45	0.41
1195	623.5	33.10391236	-103.57521785	173.75	-0.16	109.77	1.05
1196	624.0	33.10391705	-103.57522191	236.29	-0.25	189.38	0.47
1197	624.6	33.10392158	-103.57522590	243.36	-0.20	242.15	0.09
1198	625.1	33.10392600	-103.57522958	241.17	-0.20	235.90	0.21
1199	625.6	33.10393035	-103.57523306	219.30	-0.13	217.77	0.37
1200	626.1	33.10393490	-103.57523686	153.40	-0.18	147.15	0.36
1201	626.7	33.10393956	-103.57524082	90.51	-0.11	102.66	0.46
1202	627.2	33.10394417	-103.57524503	61.09	-0.19	81.29	0.41
1203	627.7	33.10394876	-103.57524931	39.84	-0.11	60.39	0.48
1204	628.2	33.10395318	-103.57525305	34.81	-0.18	44.18	0.44
1205	628.7	33.10395757	-103.57525671	27.62	-0.12	38.95	0.47
1206	629.3	33.10396210	-103.57525956	25.51	-0.16	34.38	0.49
1207	629.8	33.10396664	-103.57526235	26.37	-0.16	32.46	0.48
1208	630.3	33.10397099	-103.57526455	21.02	-0.12	29.53	0.49
1209	630.8	33.10397534	-103.57526662	31.37	-0.29	30.43	0.32
1210	631.4	33.10397970	-103.57526762	22.54	-0.12	26.72	0.47
1211	631.9	33.10398406	-103.57526840	22.50	-0.19	25.82	0.47
1212	632.4	33.10398833	-103.57526830	20.31	-0.14	25.31	0.49
1213	632.9	33.10399207	-103.57526692	18.67	-0.14	23.52	0.50
1214	633.4	33.10399453	-103.57526225	20.94	-0.17	23.01	0.44
1215	634.0	33.10399579	-103.57525692	18.16	-0.10	22.66	0.45
1216	634.5	33.10399496	-103.57525043	22.66	-0.19	24.06	0.44
1217	635.0	33.10399372	-103.57524406	19.45	-0.14	24.84	0.46
1218	635.5	33.10399199	-103.57523785	22.54	-0.18	26.80	0.45
1219	636.1	33.10399015	-103.57523154	24.30	-0.12	30.16	0.43
1220	636.6	33.10398823	-103.57522514	26.72	-0.16	32.97	0.46
1221	637.1	33.10398614	-103.57521842	32.46	-0.14	41.60	0.44
1222	637.6	33.10398396	-103.57521152	52.66	-0.21	47.77	0.41
1223	638.1	33.10398143	-103.57520524	86.25	-0.16	37.54	0.46
1224	638.7	33.10397875	-103.57519923	88.20	-0.13	32.81	0.62

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
1225	639.2	33.10397611	-103.57519410	78.56	-0.18	58.83	0.45
1226	639.7	33.10397347	-103.57518921	70.59	-0.14	89.77	0.36
1227	640.2	33.10397061	-103.57518421	65.66	-0.20	96.99	0.35
1228	640.8	33.10396772	-103.57517921	60.86	-0.14	93.44	0.43
1229	641.3	33.10396508	-103.57517436	69.18	-0.17	102.27	0.41
1230	641.8	33.10396247	-103.57516954	85.31	-0.16	116.60	0.44
1231	642.3	33.10396010	-103.57516484	126.60	-0.13	83.67	0.47
1232	642.8	33.10395769	-103.57516017	184.88	-0.18	91.13	0.48
1233	643.4	33.10395493	-103.57515568	228.16	-0.13	166.95	0.54
1234	643.9	33.10395207	-103.57515132	241.37	-0.18	212.77	0.52
1235	644.4	33.10394882	-103.57514730	261.56	-0.16	209.77	0.53
1236	644.9	33.10394548	-103.57514312	218.48	-0.12	154.84	0.51
1237	645.5	33.10394200	-103.57513865	134.88	-0.18	78.44	0.50
1238	646.0	33.10393842	-103.57513406	83.98	-0.12	86.06	0.51
1239	646.5	33.10393473	-103.57512937	60.90	-0.22	85.12	0.45
1240	647.0	33.10393103	-103.57512449	41.80	-0.12	68.05	0.51
1241	647.5	33.10392730	-103.57511940	37.66	-0.17	56.02	0.49
1242	648.1	33.10392366	-103.57511445	34.26	-0.12	47.58	0.51
1243	648.6	33.10392009	-103.57510960	33.48	-0.17	41.91	0.49
1244	649.1	33.10391647	-103.57510464	32.93	-0.16	38.67	0.48
1245	649.6	33.10391281	-103.57509959	29.34	-0.14	37.54	0.47
1246	650.2	33.10390909	-103.57509479	32.07	-0.17	36.95	0.46
1247	650.7	33.10390534	-103.57509008	28.48	-0.12	34.49	0.46
1248	651.2	33.10390127	-103.57508632	36.45	-0.21	35.16	0.42
1249	651.7	33.10389713	-103.57508278	30.20	-0.13	33.01	0.48
1250	652.2	33.10389325	-103.57507912	35.51	-0.22	33.01	0.41
1251	652.8	33.10388939	-103.57507543	28.01	-0.14	31.33	0.43
1252	653.3	33.10388632	-103.57507090	23.36	-0.18	28.44	0.44
1253	653.8	33.10388332	-103.57506632	25.66	-0.18	28.01	0.44
1254	654.3	33.10388131	-103.57506151	21.56	-0.15	26.41	0.44
1255	654.9	33.10387944	-103.57505663	27.85	-0.22	27.54	0.41
1256	655.4	33.10387839	-103.57505157	22.15	-0.13	25.98	0.47
1257	655.9	33.10387744	-103.57504673	22.85	-0.20	25.39	0.44
1258	656.4	33.10387679	-103.57504261	24.84	-0.19	26.13	0.43
1259	656.9	33.10387710	-103.57503878	20.04	-0.16	23.13	0.43
1260	657.5	33.10387940	-103.57503563	18.71	-0.19	21.99	0.42
1261	658.0	33.10388283	-103.57503385	18.32	-0.14	23.09	0.49
1262	658.5	33.10388791	-103.57503409	24.96	-0.22	24.02	0.42
1263	659.0	33.10389298	-103.57503556	21.91	-0.15	24.41	0.45
1264	659.6	33.10389806	-103.57503832	21.37	-0.17	25.82	0.45
1265	660.1	33.10390329	-103.57504044	23.28	-0.14	28.16	0.45
1266	660.6	33.10390861	-103.57504209	24.73	-0.15	28.75	0.42
1267	661.1	33.10391417	-103.57504335	32.11	-0.19	32.46	0.43
1268	661.6	33.10391986	-103.57504443	32.23	-0.16	36.17	0.43
1269	662.2	33.10392529	-103.57504602	37.27	-0.20	41.09	0.41
1270	662.7	33.10393063	-103.57504779	36.13	-0.15	41.41	0.45
1271	663.2	33.10393552	-103.57505076	47.27	-0.27	45.12	0.36
1272	663.7	33.10394035	-103.57505398	38.32	-0.16	48.52	0.44
1273	664.3	33.10394502	-103.57505772	44.57	-0.19	58.40	0.46
1274	664.8	33.10394967	-103.57506149	53.87	-0.14	70.20	0.49
1275	665.3	33.10395441	-103.57506497	88.67	-0.21	94.92	0.46
1276	665.8	33.10395914	-103.57506841	130.82	-0.15	117.27	0.53
1277	666.3	33.10396378	-103.57507154	194.96	-0.19	127.19	0.55
1278	666.9	33.10396840	-103.57507472	237.93	-0.16	164.77	0.58
1279	667.4	33.10397260	-103.57507790	255.35	-0.16	215.98	0.62
1280	667.9	33.10397687	-103.57508110	253.28	-0.16	258.71	0.65
1281	668.4	33.10398125	-103.57508429	245.66	-0.12	255.31	0.70
1282	669.0	33.10398556	-103.57508748	254.26	-0.16	259.84	0.69
1283	669.5	33.10398977	-103.57509067	249.49	-0.13	267.77	0.72
1284	670.0	33.10399422	-103.57509384	251.48	-0.18	243.44	0.68
1285	670.5	33.10399899	-103.57509697	256.56	-0.13	243.09	0.72
1286	671.0	33.10400380	-103.57510005	242.85	-0.18	235.70	0.68
1287	671.6	33.10400867	-103.57510310	238.98	-0.14	232.54	0.70
1288	672.1	33.10401363	-103.57510609	224.14	-0.17	236.25	0.70
1289	672.6	33.10401865	-103.57510904	189.30	-0.16	200.16	0.65
1290	673.1	33.10402375	-103.57511202	136.33	-0.11	148.09	0.64
1291	673.7	33.10402890	-103.57511501	111.84	-0.21	147.27	0.56
1292	674.2	33.10403392	-103.57511851	80.27	-0.15	125.23	0.55

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
1293	674.7	33.10403891	-103.57512216	82.23	-0.26	115.20	0.45
1294	675.2	33.10404378	-103.57512580	69.26	-0.15	99.96	0.51
1295	675.7	33.10404862	-103.57512942	77.07	-0.24	92.03	0.45
1296	676.3	33.10405347	-103.57513300	71.56	-0.16	84.30	0.51
1297	676.8	33.10405831	-103.57513657	80.78	-0.26	86.88	0.42
1298	677.3	33.10406332	-103.57514019	76.99	-0.15	92.27	0.50
1299	677.8	33.10406831	-103.57514382	71.29	-0.21	71.64	0.45
1300	678.4	33.10407332	-103.57514759	58.98	-0.15	64.96	0.51
1301	678.9	33.10407826	-103.57515139	54.41	-0.19	67.07	0.50
1302	679.4	33.10408298	-103.57515531	48.79	-0.14	60.74	0.51
1303	679.9	33.10408772	-103.57515924	48.24	-0.17	52.42	0.51
1304	680.4	33.10409256	-103.57516319	49.88	-0.13	51.95	0.50
1305	681.0	33.10409740	-103.57516711	49.14	-0.15	58.09	0.50
1306	681.5	33.10410222	-103.57517096	51.21	-0.16	60.23	0.50
1307	682.0	33.10410715	-103.57517483	42.03	-0.12	46.76	0.53
1308	682.5	33.10411220	-103.57517867	45.51	-0.20	37.31	0.45
1309	683.1	33.10411734	-103.57518266	30.78	-0.11	36.48	0.49
1310	683.6	33.10412256	-103.57518678	34.38	-0.22	34.53	0.42
1311	684.1	33.10412692	-103.57519081	22.66	-0.13	25.23	0.52
1312	684.6	33.10413072	-103.57519476	17.70	-0.14	22.58	0.42
1313	685.1	33.10413433	-103.57519904	14.45	-0.12	21.45	0.42
1314	685.7	33.10413788	-103.57520347	18.36	-0.18	21.80	0.46
1315	686.2	33.10414212	-103.57520690	17.54	-0.16	21.13	0.48
1316	686.7	33.10414653	-103.57521007	15.82	-0.13	21.06	0.48
1317	687.2	33.10415110	-103.57520794	20.66	-0.18	22.03	0.46
1318	687.8	33.10415571	-103.57520505	16.48	-0.09	20.86	0.50
1319	688.3	33.10415680	-103.57519858	20.00	-0.17	21.25	0.44
1320	688.8	33.10415764	-103.57519194	16.68	-0.09	22.89	0.43
1321	689.3	33.10415609	-103.57518505	24.41	-0.20	24.22	0.40
1322	689.8	33.10415434	-103.57517820	24.57	-0.14	15.31	0.58
1323	690.4	33.10415118	-103.57517166	28.59	-0.19	22.31	0.50
1324	690.9	33.10414796	-103.57516524	30.12	-0.13	29.14	0.40
1325	691.4	33.10414447	-103.57515921	32.27	-0.17	34.77	0.43
1326	691.9	33.10414092	-103.57515318	35.90	-0.13	41.91	0.46
1327	692.5	33.10413741	-103.57514738	41.41	-0.15	47.03	0.47
1328	693.0	33.10413383	-103.57514155	45.59	-0.16	42.66	0.47
1329	693.5	33.10413024	-103.57513580	47.23	-0.15	49.30	0.48
1330	694.0	33.10412643	-103.57513009	51.13	-0.18	58.32	0.45
1331	694.5	33.10412239	-103.57512442	40.23	-0.12	49.14	0.51
1332	695.1	33.10411835	-103.57511904	45.78	-0.19	51.45	0.49
1333	695.6	33.10411429	-103.57511388	37.54	-0.13	48.59	0.52
1334	696.1	33.10411016	-103.57510877	42.58	-0.21	45.78	0.45
1335	696.6	33.10410599	-103.57510369	33.01	-0.14	39.41	0.52
1336	697.2	33.10410172	-103.57509885	44.06	-0.23	43.98	0.44
1337	697.7	33.10409740	-103.57509409	38.59	-0.12	46.95	0.50
1338	698.2	33.10409338	-103.57508934	44.41	-0.21	49.10	0.45
1339	698.7	33.10408944	-103.57508460	40.59	-0.15	48.83	0.51
1340	699.2	33.10408562	-103.57507986	46.45	-0.20	52.38	0.47
1341	699.8	33.10408182	-103.57507512	48.40	-0.16	60.55	0.49
1342	700.3	33.10407774	-103.57507029	53.24	-0.17	67.31	0.49
1343	700.8	33.10407367	-103.57506550	74.14	-0.16	87.77	0.50
1344	701.3	33.10406955	-103.57506108	107.03	-0.16	102.03	0.52
1345	701.9	33.10406548	-103.57505665	180.98	-0.21	118.20	0.49
1346	702.4	33.10406179	-103.57505217	226.68	-0.13	175.51	0.57
1347	702.9	33.10405810	-103.57504765	269.45	-0.20	234.57	0.60
1348	703.4	33.10405446	-103.57504297	285.12	-0.11	259.38	0.68
1349	703.9	33.10405067	-103.57503862	303.87	-0.18	275.35	0.67
1350	704.5	33.10404662	-103.57503499	316.21	-0.12	299.65	0.76
1351	705.0	33.10404267	-103.57503134	313.98	-0.17	305.16	0.75
1352	705.5	33.10403882	-103.57502767	327.70	-0.13	320.78	0.77
1353	706.0	33.10403491	-103.57502376	324.81	-0.14	327.23	0.78
1354	706.6	33.10403094	-103.57501960	328.05	-0.15	309.45	0.74
1355	707.1	33.10402701	-103.57501546	310.59	-0.11	289.53	0.73
1356	707.6	33.10402311	-103.57501131	303.67	-0.16	283.24	0.65
1357	708.1	33.10401882	-103.57500710	258.56	-0.11	249.02	0.62
1358	708.6	33.10401434	-103.57500286	196.02	-0.23	161.88	0.47
1359	709.2	33.10400996	-103.57499868	107.50	-0.13	92.70	0.51
1360	709.7	33.10400561	-103.57499450	68.16	-0.19	82.27	0.44

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
1361	710.2	33.10400143	-103.57499010	46.76	-0.13	68.36	0.48
1362	710.7	33.10399730	-103.57498566	38.09	-0.18	52.81	0.44
1363	711.3	33.10399273	-103.57498152	33.71	-0.15	45.74	0.41
1364	711.8	33.10398812	-103.57497742	29.73	-0.16	41.06	0.43
1365	712.3	33.10398328	-103.57497360	31.60	-0.16	38.20	0.40
1366	712.8	33.10397844	-103.57496979	30.04	-0.15	34.92	0.42
1367	713.3	33.10397360	-103.57496612	38.32	-0.22	36.64	0.37
1368	713.9	33.10396879	-103.57496244	30.35	-0.14	35.82	0.41
1369	714.4	33.10396414	-103.57495867	30.00	-0.18	33.95	0.39
1370	714.9	33.10395943	-103.57495492	23.09	-0.13	29.22	0.41
1371	715.4	33.10395455	-103.57495123	27.19	-0.20	30.08	0.37
1372	716.0	33.10394968	-103.57494770	22.81	-0.14	27.58	0.42
1373	716.5	33.10394484	-103.57494442	29.18	-0.24	27.70	0.37
1374	717.0	33.10394013	-103.57494104	21.68	-0.14	24.06	0.40
1375	717.5	33.10393561	-103.57493751	27.31	-0.22	25.94	0.36
1376	718.0	33.10393135	-103.57493400	23.48	-0.16	26.09	0.42
1377	718.6	33.10392734	-103.57493051	22.46	-0.17	24.18	0.42
1378	719.1	33.10392419	-103.57492696	23.20	-0.16	23.71	0.39
1379	719.6	33.10392163	-103.57492337	21.72	-0.17	22.46	0.39
1380	720.1	33.10392066	-103.57491945	22.58	-0.18	23.56	0.38
1381	720.7	33.10392041	-103.57491537	20.27	-0.15	22.85	0.38
1382	721.2	33.10392302	-103.57491253	23.40	-0.19	25.43	0.36
1383	721.7	33.10392650	-103.57491007	23.83	-0.15	26.48	0.40
1384	722.2	33.10393145	-103.57491042	27.31	-0.20	29.22	0.36
1385	722.7	33.10393665	-103.57491125	27.23	-0.15	30.43	0.37
1386	723.3	33.10394228	-103.57491343	33.48	-0.22	30.74	0.35
1387	723.8	33.10394795	-103.57491571	31.37	-0.15	31.33	0.36
1388	724.3	33.10395345	-103.57491852	31.13	-0.19	32.70	0.36
1389	724.8	33.10395898	-103.57492138	28.91	-0.16	31.99	0.37
1390	725.4	33.10396457	-103.57492460	26.95	-0.17	30.43	0.40
1391	725.9	33.10397013	-103.57492783	29.30	-0.16	31.02	0.38
1392	726.4	33.10397554	-103.57493105	26.60	-0.16	29.81	0.40
1393	726.9	33.10398100	-103.57493417	27.38	-0.15	30.43	0.39
1394	727.4	33.10398651	-103.57493704	26.41	-0.16	30.47	0.39
1395	728.0	33.10399218	-103.57493992	28.48	-0.17	32.38	0.39
1396	728.5	33.10399814	-103.57494283	26.41	-0.14	32.81	0.42
1397	729.0	33.10400408	-103.57494560	33.91	-0.19	36.29	0.37
1398	729.5	33.10400995	-103.57494818	29.61	-0.13	37.70	0.42
1399	730.1	33.10401570	-103.57495085	34.84	-0.16	43.44	0.43
1400	730.6	33.10402133	-103.57495359	37.27	-0.12	51.72	0.47
1401	731.1	33.10402687	-103.57495626	57.62	-0.17	69.49	0.43
1402	731.6	33.10403234	-103.57495888	84.53	-0.12	86.64	0.52
1403	732.1	33.10403749	-103.57496144	154.22	-0.19	93.91	0.48
1404	732.7	33.10404247	-103.57496396	223.87	-0.14	139.65	0.53
1405	733.2	33.10404749	-103.57496625	273.28	-0.18	208.20	0.58
1406	733.7	33.10405252	-103.57496849	307.62	-0.13	259.69	0.68
1407	734.2	33.10405732	-103.57497062	327.73	-0.16	292.66	0.70
1408	734.7	33.10406210	-103.57497275	341.99	-0.12	305.20	0.73
1409	735.3	33.10406703	-103.57497502	359.81	-0.11	342.15	0.79
1410	735.8	33.10407196	-103.57497733	357.27	-0.16	346.45	0.77
1411	736.3	33.10407663	-103.57497997	350.70	-0.10	358.09	0.82
1412	736.8	33.10408134	-103.57498262	351.68	-0.16	351.64	0.78
1413	737.4	33.10408639	-103.57498525	335.23	-0.11	335.12	0.79
1414	737.9	33.10409153	-103.57498786	310.35	-0.17	309.57	0.65
1415	738.4	33.10409700	-103.57499036	267.62	-0.12	264.10	0.65
1416	738.9	33.10410254	-103.57499277	181.13	-0.25	166.48	0.46
1417	739.5	33.10410805	-103.57499488	95.35	-0.15	93.52	0.49
1418	740.0	33.10411361	-103.57499707	58.98	-0.17	83.52	0.47
1419	740.5	33.10411922	-103.57499939	43.83	-0.15	68.40	0.43
1420	741.0	33.10412475	-103.57500176	37.11	-0.18	56.72	0.45
1421	741.5	33.10413025	-103.57500422	34.02	-0.15	49.69	0.44
1422	742.1	33.10413564	-103.57500672	35.20	-0.15	47.81	0.46
1423	742.6	33.10414094	-103.57500924	42.85	-0.19	48.87	0.42
1424	743.1	33.10414609	-103.57501187	42.58	-0.15	45.59	0.44
1425	743.6	33.10415114	-103.57501457	50.59	-0.19	49.22	0.44
1426	744.2	33.10415643	-103.57501710	51.60	-0.14	54.30	0.43
1427	744.7	33.10416183	-103.57501957	63.63	-0.28	58.59	0.34
1428	745.2	33.10416720	-103.57502218	55.63	-0.16	56.48	0.41

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
1429	745.7	33.10417258	-103.57502485	56.64	-0.21	56.25	0.39
1430	746.2	33.10417764	-103.57502719	53.24	-0.16	57.03	0.40
1431	746.7	33.10418265	-103.57502950	55.74	-0.20	59.38	0.39
1432	747.3	33.10418762	-103.57503182	54.45	-0.16	58.48	0.42
1433	747.8	33.10419259	-103.57503413	52.62	-0.17	55.08	0.42
1434	748.3	33.10419766	-103.57503633	54.88	-0.19	55.39	0.39
1435	748.8	33.10420278	-103.57503854	47.73	-0.15	52.38	0.42
1436	749.4	33.10420808	-103.57504077	51.60	-0.25	48.32	0.35
1437	749.9	33.10421351	-103.57504301	41.48	-0.15	45.94	0.41
1438	750.4	33.10421940	-103.57504528	43.75	-0.23	44.41	0.37
1439	750.9	33.10422522	-103.57504753	36.13	-0.16	42.11	0.44
1440	751.5	33.10423089	-103.57504972	45.43	-0.27	46.60	0.36
1441	752.0	33.10423656	-103.57505205	40.98	-0.16	42.93	0.44
1442	752.5	33.10424223	-103.57505457	45.98	-0.20	45.04	0.47
1443	753.0	33.10424776	-103.57505705	45.08	-0.14	49.22	0.59
1444	753.6	33.10425315	-103.57505952	50.16	-0.09	60.00	0.89
1445	754.1	33.10425836	-103.57506178	104.18	0.89	100.47	2.42
1446	754.6	33.10426345	-103.57506390	54.69	1.01	-62.11	-8.90
1447	755.1	33.10426844	-103.57506620	97.34	1.49	-101.99	-10.59
1448	755.6	33.10427340	-103.57506860	61.84	0.37	42.03	-0.37
1449	756.2	33.10427819	-103.57507011	50.04	-0.07	62.19	0.82
1450	756.7	33.10428289	-103.57507132	38.91	-0.08	52.70	0.75
1451	757.2	33.10428706	-103.57507063	36.91	-0.19	43.91	0.61
1452	757.7	33.10429111	-103.57506955	33.52	-0.16	39.10	0.52
1453	758.2	33.10429349	-103.57506671	34.26	-0.15	36.84	0.51
1454	758.8	33.10429571	-103.57506371	39.30	-0.21	37.27	0.43
1455	759.3	33.10429374	-103.57505850	35.90	-0.16	37.50	0.46
1456	759.8	33.10429146	-103.57505335	33.63	-0.13	38.28	0.47
1457	760.3	33.10428708	-103.57504946	41.88	-0.17	44.22	0.54
1458	760.9	33.10428249	-103.57504561	44.73	-0.07	55.63	0.78
1459	761.4	33.10427761	-103.57504247	78.09	0.16	85.98	1.69
1460	761.9	33.10427249	-103.57503922	91.29	1.63	30.20	-2.87
1461	762.4	33.10426699	-103.57503585	106.84	1.73	-99.57	-10.78
1462	763.0	33.10426149	-103.57503245	74.22	0.49	36.95	-1.25
1463	763.5	33.10425600	-103.57502899	60.70	-0.06	66.95	0.53
1464	764.0	33.10425038	-103.57502562	52.19	-0.11	56.84	0.53
1465	764.5	33.10424462	-103.57502238	51.91	-0.18	47.89	0.42
1466	765.0	33.10423887	-103.57501931	45.63	-0.15	44.41	0.41
1467	765.6	33.10423318	-103.57501641	41.88	-0.19	39.14	0.41
1468	766.1	33.10422770	-103.57501316	39.81	-0.17	39.06	0.39
1469	766.6	33.10422236	-103.57500966	37.42	-0.20	39.77	0.40
1470	767.1	33.10421703	-103.57500630	39.92	-0.16	45.59	0.40
1471	767.7	33.10421169	-103.57500299	41.60	-0.19	45.66	0.39
1472	768.2	33.10420652	-103.57499978	46.95	-0.17	47.62	0.39
1473	768.7	33.10420140	-103.57499659	46.48	-0.16	49.92	0.41
1474	769.2	33.10419615	-103.57499343	54.14	-0.20	53.79	0.38
1475	769.7	33.10419087	-103.57499026	50.00	-0.15	54.53	0.42
1476	770.3	33.10418667	-103.57498731	54.84	-0.19	56.41	0.39
1477	770.8	33.10418257	-103.57498443	48.67	-0.16	59.26	0.41
1478	771.3	33.10418004	-103.57498311	43.36	-0.16	58.56	0.42
1479	771.8	33.10417729	-103.57498168	50.47	-0.17	59.30	0.39
1480	772.4	33.10417270	-103.57497919	52.70	-0.16	58.67	0.40
1481	772.9	33.10416802	-103.57497663	53.98	-0.20	60.66	0.39
1482	773.4	33.10416286	-103.57497371	55.23	-0.16	64.65	0.41
1483	773.9	33.10415768	-103.57497084	57.31	-0.15	69.88	0.45
1484	774.4	33.10415251	-103.57496811	67.42	-0.19	74.84	0.39
1485	775.0	33.10414738	-103.57496517	87.70	-0.13	86.06	0.46
1486	775.5	33.10414233	-103.57496188	117.70	-0.20	103.71	0.43
1487	776.0	33.10413733	-103.57495832	151.25	-0.14	112.11	0.48
1488	776.5	33.10413241	-103.57495442	196.09	-0.17	141.45	0.50
1489	777.0	33.10412756	-103.57495082	232.97	-0.13	192.54	0.55
1490	777.6	33.10412274	-103.57494745	262.66	-0.16	225.51	0.56
1491	778.1	33.10411788	-103.57494398	295.74	-0.14	249.69	0.63
1492	778.6	33.10411297	-103.57494043	319.22	-0.16	293.32	0.66
1493	779.1	33.10410820	-103.57493708	334.65	-0.14	315.00	0.70
1494	779.7	33.10410348	-103.57493380	340.55	-0.10	320.66	0.78
1495	780.2	33.10409910	-103.57493090	326.02	-0.14	317.77	0.78
1496	780.7	33.10409480	-103.57492809	301.60	-0.09	302.81	0.82

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
1497	781.2	33.10409059	-103.57492535	294.81	-0.15	316.09	0.80
1498	781.7	33.10408641	-103.57492262	275.66	-0.11	312.19	0.84
1499	782.3	33.10408204	-103.57491979	278.75	-0.14	311.09	0.81
1500	782.8	33.10407767	-103.57491696	306.37	-0.12	325.86	0.81
1501	783.3	33.10407321	-103.57491405	291.45	-0.10	293.59	0.79
1502	783.8	33.10406874	-103.57491114	311.56	-0.14	308.56	0.76
1503	784.4	33.10406428	-103.57490823	310.04	-0.09	313.83	0.77
1504	784.9	33.10405983	-103.57490533	305.23	-0.16	289.65	0.70
1505	785.4	33.10405540	-103.57490251	295.04	-0.12	271.48	0.69
1506	785.9	33.10405085	-103.57489964	307.07	-0.19	293.87	0.62
1507	786.4	33.10404629	-103.57489680	303.24	-0.15	304.34	0.61
1508	787.0	33.10404148	-103.57489391	284.22	-0.18	267.89	0.58
1509	787.5	33.10403637	-103.57489097	288.13	-0.18	236.21	0.53
1510	788.0	33.10403122	-103.57488791	259.92	-0.15	217.77	0.50
1511	788.5	33.10402602	-103.57488472	250.90	-0.18	210.27	0.47
1512	789.1	33.10402089	-103.57488149	224.45	-0.13	191.91	0.48
1513	789.6	33.10401584	-103.57487824	226.13	-0.29	170.20	0.33
1514	790.1	33.10401084	-103.57487508	166.45	-0.14	131.21	0.42
1515	790.6	33.10400589	-103.57487198	126.17	-0.22	112.38	0.38
1516	791.2	33.10400111	-103.57486859	94.34	-0.14	94.41	0.42
1517	791.7	33.10399640	-103.57486509	77.77	-0.21	80.43	0.34
1518	792.2	33.10399165	-103.57486161	62.03	-0.17	69.30	0.35
1519	792.7	33.10398690	-103.57485814	54.88	-0.23	63.16	0.38
1520	793.2	33.10398229	-103.57485518	52.07	-0.20	59.49	0.36
1521	793.8	33.10397770	-103.57485228	47.77	-0.14	55.31	0.39
1522	794.3	33.10397334	-103.57484993	55.16	-0.22	53.44	0.35
1523	794.8	33.10396902	-103.57484758	50.82	-0.14	49.88	0.40
1524	795.3	33.10396512	-103.57484484	50.55	-0.19	48.83	0.38
1525	795.9	33.10396130	-103.57484211	53.40	-0.19	50.04	0.36
1526	796.4	33.10395793	-103.57483954	49.96	-0.13	50.47	0.41
1527	796.9	33.10395441	-103.57483691	47.50	-0.20	48.52	0.36
1528	797.4	33.10395045	-103.57483413	45.31	-0.10	47.34	0.39
1529	797.9	33.10394649	-103.57483148	46.17	-0.13	46.09	0.40
1530	798.5	33.10394252	-103.57482911	51.72	-0.22	45.70	0.36
1531	799.0	33.10393845	-103.57482649	47.54	-0.15	43.75	0.38
1532	799.5	33.10393425	-103.57482354	46.95	-0.21	44.49	0.35
1533	800.0	33.10392997	-103.57482064	44.02	-0.17	45.16	0.37
1534	800.5	33.10392562	-103.57481781	40.55	-0.15	43.16	0.39
1535	801.1	33.10392096	-103.57481562	49.38	-0.27	44.49	0.28
1536	801.6	33.10391608	-103.57481393	41.37	-0.17	40.74	0.36
1537	802.1	33.10391134	-103.57481260	38.20	-0.20	38.36	0.35
1538	802.6	33.10390669	-103.57481146	40.04	-0.22	37.46	0.33
1539	803.2	33.10390290	-103.57480947	32.27	-0.15	34.92	0.39
1540	803.7	33.10389940	-103.57480718	29.81	-0.19	33.01	0.34
1541	804.2	33.10389534	-103.57480518	29.14	-0.17	31.56	0.33
1542	804.7	33.10389118	-103.57480326	26.80	-0.13	30.04	0.38
1543	805.2	33.10388764	-103.57480144	27.93	-0.22	27.81	0.35
1544	805.8	33.10388415	-103.57479962	23.40	-0.18	26.06	0.39
1545	806.3	33.10388191	-103.57479642	22.81	-0.21	25.55	0.37
1546	806.8	33.10388001	-103.57479328	24.92	-0.19	25.94	0.36
1547	807.3	33.10388152	-103.57479116	22.97	-0.18	25.16	0.33
1548	807.9	33.10388374	-103.57478948	28.28	-0.18	27.50	0.34
1549	808.4	33.10388887	-103.57478994	33.44	-0.15	34.06	0.35
1550	808.9	33.10389416	-103.57479093	41.33	-0.21	35.98	0.34
1551	809.4	33.10389971	-103.57479346	42.66	-0.15	40.31	0.38
1552	809.9	33.10390522	-103.57479607	47.38	-0.23	41.33	0.34
1553	810.5	33.10391072	-103.57479882	43.87	-0.15	42.07	0.38
1554	811.0	33.10391625	-103.57480159	46.09	-0.23	44.53	0.32
1555	811.5	33.10392187	-103.57480441	41.88	-0.16	43.67	0.36
1556	812.0	33.10392739	-103.57480731	42.62	-0.21	42.66	0.31
1557	812.6	33.10393285	-103.57481029	39.22	-0.16	41.45	0.34
1558	813.1	33.10393816	-103.57481328	39.49	-0.20	43.67	0.35
1559	813.6	33.10394341	-103.57481630	39.88	-0.18	43.79	0.33
1560	814.1	33.10394854	-103.57481961	37.27	-0.16	42.77	0.37
1561	814.7	33.10395362	-103.57482307	36.06	-0.14	42.73	0.36
1562	815.2	33.10395854	-103.57482633	33.67	-0.13	43.71	0.38
1563	815.7	33.10396346	-103.57482956	39.30	-0.18	45.59	0.34
1564	816.2	33.10396863	-103.57483242	36.91	-0.14	44.92	0.37

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
1565	816.7	33.10397387	-103.57483522	42.93	-0.18	47.62	0.36
1566	817.3	33.10397864	-103.57483751	41.76	-0.14	48.95	0.39
1567	817.8	33.10398338	-103.57483977	47.62	-0.20	55.12	0.32
1568	818.3	33.10398808	-103.57484264	55.66	-0.12	68.48	0.38
1569	818.8	33.10399283	-103.57484548	75.35	-0.19	75.63	0.35
1570	819.4	33.10399796	-103.57484818	128.13	-0.09	82.07	0.38
1571	819.9	33.10400300	-103.57485083	177.11	-0.17	122.93	0.42
1572	820.4	33.10400776	-103.57485332	224.81	-0.14	164.34	0.45
1573	820.9	33.10401252	-103.57485569	264.10	-0.16	219.10	0.49
1574	821.4	33.10401730	-103.57485773	298.95	-0.16	271.29	0.53
1575	822.0	33.10402200	-103.57485987	319.45	-0.11	289.69	0.59
1576	822.5	33.10402659	-103.57486219	328.98	-0.15	292.46	0.63
1577	823.0	33.10403109	-103.57486461	331.21	-0.11	301.84	0.69
1578	823.5	33.10403549	-103.57486716	330.66	-0.16	313.91	0.68
1579	824.0	33.10403971	-103.57486952	323.98	-0.12	311.60	0.74
1580	824.6	33.10404376	-103.57487172	328.79	-0.13	302.54	0.75
1581	825.1	33.10404809	-103.57487390	349.38	-0.15	305.90	0.75
1582	825.6	33.10405261	-103.57487609	359.02	-0.09	330.90	0.80
1583	826.1	33.10405719	-103.57487881	368.24	-0.16	348.28	0.81
1584	826.7	33.10406179	-103.57488178	378.32	-0.09	350.12	0.88
1585	827.2	33.10406654	-103.57488454	386.68	-0.14	354.06	0.85
1586	827.7	33.10407134	-103.57488725	383.98	-0.10	348.16	0.88
1587	828.2	33.10407626	-103.57488986	382.58	-0.13	352.07	0.90
1588	828.7	33.10408118	-103.57489243	393.91	-0.12	386.72	0.93
1589	829.3	33.10408612	-103.57489551	381.56	-0.09	409.14	0.95
1590	829.8	33.10409106	-103.57489860	384.30	-0.11	373.09	0.96
1591	830.3	33.10409599	-103.57490155	388.56	-0.09	374.96	0.99
1592	830.8	33.10410090	-103.57490445	401.91	-0.13	408.16	0.96
1593	831.4	33.10410592	-103.57490713	410.20	-0.07	383.75	1.01
1594	831.9	33.10411100	-103.57490970	418.44	-0.16	393.20	0.96
1595	832.4	33.10411632	-103.57491189	407.73	-0.09	378.36	0.96
1596	832.9	33.10412155	-103.57491422	392.81	-0.18	380.98	0.86
1597	833.4	33.10412614	-103.57491670	354.41	-0.12	367.66	0.83
1598	834.0	33.10413105	-103.57491949	299.73	-0.13	303.13	0.78
1599	834.5	33.10413633	-103.57492271	295.90	-0.16	281.45	0.67
1600	835.0	33.10414157	-103.57492586	259.61	-0.11	275.94	0.65
1601	835.5	33.10414679	-103.57492894	233.79	-0.18	246.37	0.62
1602	836.1	33.10415211	-103.57493216	212.62	-0.12	224.18	0.60
1603	836.6	33.10415748	-103.57493547	216.25	-0.23	235.12	0.52
1604	837.1	33.10416266	-103.57493896	211.56	-0.15	233.28	0.56
1605	837.6	33.10416769	-103.57494255	213.40	-0.22	210.35	0.50
1606	838.1	33.10417283	-103.57494615	215.31	-0.15	185.00	0.51
1607	838.7	33.10417800	-103.57494977	206.80	-0.21	178.36	0.46
1608	839.2	33.10418326	-103.57495306	152.11	-0.13	134.77	0.50
1609	839.7	33.10418850	-103.57495626	125.16	-0.17	135.59	0.50
1610	840.2	33.10419363	-103.57495949	115.51	-0.15	155.82	0.48
1611	840.8	33.10419873	-103.57496272	111.88	-0.17	137.15	0.50
1612	841.3	33.10420395	-103.57496606	117.27	-0.17	117.31	0.46
1613	841.8	33.10420918	-103.57496941	115.16	-0.17	110.31	0.46
1614	842.3	33.10421427	-103.57497268	118.20	-0.22	109.65	0.41
1615	842.8	33.10421936	-103.57497594	102.15	-0.15	98.28	0.44
1616	843.4	33.10422447	-103.57497914	91.29	-0.23	82.50	0.38
1617	843.9	33.10422948	-103.57498230	69.77	-0.15	69.61	0.43
1618	844.4	33.10423418	-103.57498538	63.71	-0.26	72.46	0.38
1619	844.9	33.10423891	-103.57498849	51.41	-0.16	64.53	0.44
1620	845.5	33.10424372	-103.57499170	50.35	-0.19	61.02	0.43
1621	846.0	33.10424842	-103.57499471	49.88	-0.11	64.57	0.54
1622	846.5	33.10425294	-103.57499740	59.18	-0.12	77.19	0.70
1623	847.0	33.10425736	-103.57500023	87.93	0.18	104.92	1.50
1624	847.5	33.10426169	-103.57500321	114.53	1.73	66.29	-0.66
1625	848.1	33.10426620	-103.57500585	113.32	2.04	-71.48	-8.76
1626	848.6	33.10427084	-103.57500822	88.83	0.79	11.13	-2.64
1627	849.1	33.10427526	-103.57501024	70.39	0.04	75.31	0.78
1628	849.6	33.10427956	-103.57501206	53.20	-0.10	68.36	0.78
1629	850.2	33.10428402	-103.57501455	47.19	-0.18	57.31	0.60
1630	850.7	33.10428856	-103.57501728	43.67	-0.17	51.09	0.49
1631	851.2	33.10429309	-103.57502042	37.73	-0.16	43.09	0.46
1632	851.7	33.10429761	-103.57502365	39.10	-0.20	40.39	0.40

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
1633	852.2	33.10430130	-103.57502715	33.40	-0.15	38.13	0.42
1634	852.8	33.10430492	-103.57503069	34.73	-0.21	38.20	0.38
1635	853.3	33.10430896	-103.57503421	31.95	-0.16	36.52	0.41
1636	853.8	33.10431312	-103.57503761	31.48	-0.21	33.75	0.36
1637	854.3	33.10431848	-103.57503947	31.45	-0.17	31.48	0.37
1638	854.9	33.10432366	-103.57504059	31.52	-0.20	31.21	0.38
1639	855.4	33.10432784	-103.57503787	28.75	-0.16	31.09	0.36
1640	855.9	33.10433078	-103.57503448	28.40	-0.14	30.55	0.35
1641	856.4	33.10432998	-103.57502917	32.34	-0.20	31.02	0.34
1642	856.9	33.10432829	-103.57502394	29.34	-0.13	30.51	0.34
1643	857.5	33.10432483	-103.57501890	32.93	-0.20	32.34	0.32
1644	858.0	33.10432114	-103.57501390	31.84	-0.13	33.67	0.38
1645	858.5	33.10431712	-103.57500893	34.69	-0.19	34.41	0.35
1646	859.0	33.10431300	-103.57500407	33.91	-0.15	34.49	0.36
1647	859.6	33.10430877	-103.57499928	36.06	-0.19	36.80	0.36
1648	860.1	33.10430428	-103.57499455	40.27	-0.19	42.66	0.36
1649	860.6	33.10429963	-103.57498987	37.81	-0.14	43.09	0.41
1650	861.1	33.10429500	-103.57498557	48.59	-0.22	48.40	0.41
1651	861.6	33.10429039	-103.57498145	46.02	-0.13	53.16	0.50
1652	862.2	33.10428588	-103.57497765	56.02	-0.21	63.20	0.51
1653	862.7	33.10428142	-103.57497397	63.83	-0.04	80.82	0.85
1654	863.2	33.10427674	-103.57497037	101.02	0.59	106.84	1.77
1655	863.7	33.10427201	-103.57496679	106.64	1.93	22.77	-3.52
1656	864.3	33.10426727	-103.57496366	118.56	1.68	-32.38	-6.14
1657	864.8	33.10426254	-103.57496056	108.59	0.38	94.10	-0.02
1658	865.3	33.10425756	-103.57495687	104.18	-0.01	123.52	0.73
1659	865.8	33.10425262	-103.57495314	132.58	-0.17	132.23	0.55
1660	866.3	33.10424802	-103.57494909	150.63	-0.13	152.19	0.49
1661	866.9	33.10424340	-103.57494500	223.71	-0.19	170.55	0.46
1662	867.4	33.10423869	-103.57494083	274.65	-0.13	226.06	0.55
1663	867.9	33.10423400	-103.57493679	318.16	-0.19	269.84	0.56
1664	868.4	33.10422934	-103.57493316	340.27	-0.12	318.98	0.69
1665	869.0	33.10422462	-103.57492957	350.23	-0.22	347.93	0.68
1666	869.5	33.10421982	-103.57492608	371.52	-0.12	354.38	0.80
1667	870.0	33.10421508	-103.57492256	378.91	-0.16	368.83	0.80
1668	870.5	33.10421041	-103.57491902	398.13	-0.10	382.93	0.84
1669	871.0	33.10420581	-103.57491557	394.69	-0.16	387.27	0.85
1670	871.6	33.10420132	-103.57491222	406.41	-0.15	394.41	0.87
1671	872.1	33.10419676	-103.57490867	395.12	-0.10	382.54	0.88
1672	872.6	33.10419215	-103.57490498	400.51	-0.17	381.84	0.85
1673	873.1	33.10418757	-103.57490110	389.41	-0.09	370.70	0.90
1674	873.7	33.10418301	-103.57489713	397.54	-0.20	352.46	0.82
1675	874.2	33.10417859	-103.57489309	396.33	-0.10	341.99	0.87
1676	874.7	33.10417421	-103.57488903	391.76	-0.19	353.71	0.81
1677	875.2	33.10416997	-103.57488497	382.03	-0.11	365.78	0.90
1678	875.7	33.10416575	-103.57488091	396.21	-0.16	360.47	0.90
1679	876.3	33.10416101	-103.57487709	414.14	-0.10	384.34	0.92
1680	876.8	33.10415627	-103.57487330	401.84	-0.11	388.63	0.97
1681	877.3	33.10415186	-103.57486977	405.66	-0.10	399.14	1.03
1682	877.8	33.10414747	-103.57486621	417.27	-0.13	437.11	1.04
1683	878.4	33.10414307	-103.57486242	426.56	-0.11	436.95	1.08
1684	878.9	33.10413866	-103.57485867	431.76	-0.06	411.33	1.14
1685	879.4	33.10413417	-103.57485504	435.47	-0.13	416.17	1.12
1686	879.9	33.10412974	-103.57485151	421.56	-0.07	436.06	1.15
1687	880.4	33.10412547	-103.57484826	421.52	-0.10	435.63	1.16
1688	881.0	33.10412121	-103.57484483	413.83	-0.06	406.91	1.17
1689	881.5	33.10411698	-103.57484108	417.15	-0.12	411.09	1.15
1690	882.0	33.10411270	-103.57483729	414.22	-0.06	429.06	1.20
1691	882.5	33.10410831	-103.57483338	414.45	-0.10	427.89	1.19
1692	883.1	33.10410408	-103.57482935	405.78	-0.08	418.24	1.19
1693	883.6	33.10409996	-103.57482523	418.87	-0.08	444.65	1.21
1694	884.1	33.10409581	-103.57482128	423.52	-0.07	441.60	1.21
1695	884.6	33.10409161	-103.57481742	418.20	-0.04	411.17	1.19
1696	885.1	33.10408731	-103.57481403	420.51	-0.10	432.97	1.19
1697	885.7	33.10408297	-103.57481082	412.42	-0.05	433.71	1.23
1698	886.2	33.10407869	-103.57480755	406.48	-0.13	420.94	1.17
1699	886.7	33.10407442	-103.57480427	436.17	-0.05	428.20	1.21
1700	887.2	33.10406987	-103.57480078	430.98	-0.13	440.82	1.13

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
1701	887.8	33.10406527	-103.57479726	423.13	-0.07	418.59	1.14
1702	888.3	33.10406063	-103.57479363	400.16	-0.14	424.22	1.05
1703	888.8	33.10405597	-103.57478993	400.43	-0.09	404.06	1.07
1704	889.3	33.10405141	-103.57478559	396.52	-0.13	392.81	1.00
1705	889.8	33.10404687	-103.57478128	374.49	-0.09	365.98	0.98
1706	890.4	33.10404250	-103.57477718	357.38	-0.11	351.29	0.96
1707	890.9	33.10403825	-103.57477309	371.21	-0.13	359.06	0.90
1708	891.4	33.10403442	-103.57476904	354.38	-0.10	381.13	0.86
1709	891.9	33.10403069	-103.57476524	346.68	-0.15	364.57	0.81
1710	892.5	33.10402718	-103.57476195	331.02	-0.11	334.77	0.75
1711	893.0	33.10402358	-103.57475848	300.66	-0.16	276.68	0.62
1712	893.5	33.10401983	-103.57475472	263.75	-0.13	239.10	0.58
1713	894.0	33.10401598	-103.57475101	230.86	-0.16	221.72	0.49
1714	894.5	33.10401204	-103.57474735	208.95	-0.14	203.52	0.48
1715	895.1	33.10400793	-103.57474359	191.29	-0.17	190.23	0.43
1716	895.6	33.10400369	-103.57473976	178.20	-0.16	171.88	0.42
1717	896.1	33.10399954	-103.57473583	149.84	-0.18	135.74	0.38
1718	896.6	33.10399547	-103.57473185	108.09	-0.18	94.88	0.36
1719	897.2	33.10399119	-103.57472808	70.74	-0.16	72.19	0.38
1720	897.7	33.10398682	-103.57472437	61.06	-0.24	67.42	0.30
1721	898.2	33.10398283	-103.57472085	47.97	-0.15	58.05	0.38
1722	898.7	33.10397892	-103.57471736	50.31	-0.24	52.81	0.33
1723	899.2	33.10397556	-103.57471431	43.98	-0.16	47.93	0.38
1724	899.8	33.10397227	-103.57471132	43.40	-0.20	45.47	0.38
1725	900.3	33.10396854	-103.57470838	46.91	-0.21	45.51	0.33
1726	900.8	33.10396485	-103.57470543	42.19	-0.14	45.08	0.38
1727	901.3	33.10396153	-103.57470223	50.31	-0.28	43.71	0.25
1728	901.9	33.10395826	-103.57469896	42.58	-0.21	41.84	0.27
1729	902.4	33.10395535	-103.57469524	39.65	-0.18	40.27	0.33
1730	902.9	33.10395252	-103.57469163	43.95	-0.26	42.03	0.26
1731	903.4	33.10394996	-103.57468832	36.68	-0.16	39.18	0.37
1732	903.9	33.10394767	-103.57468525	38.52	-0.22	38.79	0.34
1733	904.5	33.10394595	-103.57468266	38.16	-0.18	37.93	0.36
1734	905.0	33.10394522	-103.57467984	30.74	-0.16	36.29	0.33
1735	905.5	33.10394593	-103.57467669	29.34	-0.17	36.60	0.33
1736	906.0	33.10394848	-103.57467482	28.36	-0.17	34.73	0.33
1737	906.6	33.10395290	-103.57467426	29.88	-0.19	35.94	0.31
1738	907.1	33.10395748	-103.57467555	30.70	-0.16	37.23	0.34
1739	907.6	33.10396218	-103.57467816	32.62	-0.20	37.97	0.33
1740	908.1	33.10396682	-103.57468171	33.71	-0.17	38.20	0.35
1741	908.6	33.10397142	-103.57468573	34.69	-0.18	38.28	0.34
1742	909.2	33.10397644	-103.57468991	37.81	-0.19	40.47	0.34
1743	909.7	33.10398159	-103.57469413	36.25	-0.14	41.84	0.37
1744	910.2	33.10398656	-103.57469838	45.16	-0.25	45.04	0.29
1745	910.7	33.10399150	-103.57470264	40.59	-0.15	47.70	0.34
1746	911.3	33.10399646	-103.57470707	51.91	-0.21	54.18	0.30
1747	911.8	33.10400144	-103.57471153	61.21	-0.15	63.56	0.35
1748	912.3	33.10400643	-103.57471571	97.27	-0.25	63.13	0.29
1749	912.8	33.10401140	-103.57471990	125.82	-0.16	71.60	0.37
1750	913.3	33.10401612	-103.57472402	143.24	-0.19	95.12	0.36
1751	913.9	33.10402085	-103.57472826	162.93	-0.16	122.58	0.40
1752	914.4	33.10402552	-103.57473285	190.20	-0.18	150.04	0.40
1753	914.9	33.10403018	-103.57473741	251.21	-0.14	188.83	0.45
1754	915.4	33.10403479	-103.57474185	283.71	-0.18	227.70	0.51
1755	916.0	33.10403924	-103.57474637	305.43	-0.14	307.93	0.60
1756	916.5	33.10404340	-103.57475102	322.15	-0.14	356.95	0.72
1757	917.0	33.10404751	-103.57475559	340.66	-0.13	357.97	0.78
1758	917.5	33.10405157	-103.57476008	339.41	-0.10	335.59	0.79
1759	918.0	33.10405577	-103.57476448	352.85	-0.12	366.95	0.83
1760	918.6	33.10406011	-103.57476881	354.73	-0.06	366.29	0.91
1761	919.1	33.10406424	-103.57477299	346.68	-0.13	371.21	0.89
1762	919.6	33.10406823	-103.57477708	347.62	-0.08	383.20	0.96
1763	920.1	33.10407234	-103.57478104	354.26	-0.15	370.51	0.95
1764	920.7	33.10407653	-103.57478496	375.98	-0.10	380.78	0.98
1765	921.2	33.10408060	-103.57478937	374.06	-0.09	373.56	1.02
1766	921.7	33.10408464	-103.57479391	396.17	-0.13	389.06	1.00
1767	922.2	33.10408871	-103.57479842	371.37	-0.06	402.46	1.07
1768	922.7	33.10409280	-103.57480293	376.91	-0.12	409.92	1.07

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
1769	923.3	33.10409694	-103.57480714	389.69	-0.06	397.97	1.12
1770	923.8	33.10410109	-103.57481133	403.67	-0.13	402.11	1.06
1771	924.3	33.10410549	-103.57481552	402.50	-0.06	415.86	1.12
1772	924.8	33.10410990	-103.57481972	399.57	-0.15	417.89	1.07
1773	925.4	33.10411426	-103.57482392	385.74	-0.07	402.03	1.11
1774	925.9	33.10411865	-103.57482812	389.02	-0.10	399.14	1.13
1775	926.4	33.10412310	-103.57483229	400.08	-0.07	413.56	1.13
1776	926.9	33.10412758	-103.57483643	395.00	-0.09	416.91	1.13
1777	927.4	33.10413218	-103.57484048	397.27	-0.10	420.82	1.10
1778	928.0	33.10413696	-103.57484429	391.80	-0.06	417.97	1.13
1779	928.5	33.10414205	-103.57484770	390.63	-0.12	411.25	1.09
1780	929.0	33.10414741	-103.57485075	389.02	-0.07	409.53	1.11
1781	929.5	33.10415309	-103.57485339	397.58	-0.15	405.63	1.02
1782	930.1	33.10415875	-103.57485609	392.58	-0.07	403.01	1.09
1783	930.6	33.10416440	-103.57485886	398.91	-0.13	418.24	1.05
1784	931.1	33.10417006	-103.57486172	387.07	-0.07	411.68	1.10
1785	931.6	33.10417575	-103.57486466	362.73	-0.19	385.20	0.93
1786	932.1	33.10418123	-103.57486777	375.74	-0.08	398.16	1.04
1787	932.7	33.10418662	-103.57487096	380.08	-0.12	401.21	1.04
1788	933.2	33.10419197	-103.57487487	387.58	-0.07	412.31	1.07
1789	933.7	33.10419732	-103.57487897	369.69	-0.11	390.23	1.03
1790	934.2	33.10420278	-103.57488232	380.63	-0.07	396.06	1.06
1791	934.8	33.10420824	-103.57488557	366.09	-0.12	389.57	1.03
1792	935.3	33.10421393	-103.57488920	364.06	-0.08	399.61	1.05
1793	935.8	33.10421961	-103.57489281	359.18	-0.10	395.98	1.06
1794	936.3	33.10422543	-103.57489596	377.62	-0.08	393.87	1.06
1795	936.8	33.10423120	-103.57489910	342.66	-0.09	364.49	1.03
1796	937.4	33.10423679	-103.57490234	352.73	-0.08	379.53	1.03
1797	937.9	33.10424239	-103.57490564	362.89	-0.09	393.67	1.05
1798	938.4	33.10424795	-103.57490915	388.16	-0.10	408.48	1.06
1799	938.9	33.10425350	-103.57491269	396.45	-0.06	418.40	1.20
1800	939.5	33.10425903	-103.57491629	431.09	0.31	463.20	2.06
1801	940.0	33.10426449	-103.57492007	387.15	1.89	322.34	-3.07
1802	940.5	33.10426986	-103.57492413	370.27	1.84	198.91	-7.05
1803	941.0	33.10427512	-103.57492821	256.72	0.43	260.66	-0.04
1804	941.5	33.10428029	-103.57493231	149.96	-0.01	189.73	0.70
1805	942.1	33.10428541	-103.57493615	89.81	-0.09	138.95	0.62
1806	942.6	33.10429047	-103.57493977	69.02	-0.18	101.33	0.48
1807	943.1	33.10429518	-103.57494360	53.87	-0.13	77.81	0.48
1808	943.6	33.10429967	-103.57494753	49.45	-0.19	65.12	0.41
1809	944.2	33.10430392	-103.57495093	43.20	-0.13	56.29	0.42
1810	944.7	33.10430809	-103.57495416	40.82	-0.16	51.84	0.40
1811	945.2	33.10431246	-103.57495700	40.70	-0.16	48.52	0.41
1812	945.7	33.10431686	-103.57495975	39.49	-0.17	46.95	0.41
1813	946.2	33.10432122	-103.57496272	38.59	-0.17	45.35	0.38
1814	946.8	33.10432557	-103.57496571	35.59	-0.13	43.01	0.40
1815	947.3	33.10433004	-103.57496879	41.80	-0.21	43.44	0.34
1816	947.8	33.10433450	-103.57497185	38.56	-0.14	42.11	0.36
1817	948.3	33.10433900	-103.57497463	37.19	-0.17	40.39	0.35
1818	948.9	33.10434344	-103.57497669	35.12	-0.13	39.73	0.35
1819	949.4	33.10434783	-103.57497512	35.55	-0.14	40.04	0.37
1820	949.9	33.10435101	-103.57497235	38.24	-0.17	39.06	0.34
1821	950.4	33.10435052	-103.57496587	36.17	-0.12	38.28	0.36
1822	950.9	33.10434940	-103.57495952	38.59	-0.17	41.33	0.36
1823	951.5	33.10434700	-103.57495343	37.97	-0.12	42.54	0.35
1824	952.0	33.10434436	-103.57494751	39.84	-0.19	43.71	0.33
1825	952.5	33.10434138	-103.57494187	38.36	-0.14	45.23	0.36
1826	953.0	33.10433815	-103.57493615	40.39	-0.15	46.80	0.36
1827	953.6	33.10433466	-103.57493036	46.09	-0.17	51.48	0.36
1828	954.1	33.10433105	-103.57492470	45.86	-0.13	54.34	0.38
1829	954.6	33.10432735	-103.57491915	52.38	-0.17	60.20	0.36
1830	955.1	33.10432354	-103.57491360	53.87	-0.13	66.84	0.41
1831	955.6	33.10431967	-103.57490804	63.48	-0.18	78.09	0.40
1832	956.2	33.10431594	-103.57490269	67.70	-0.12	91.88	0.46
1833	956.7	33.10431224	-103.57489737	91.13	-0.20	116.45	0.46
1834	957.2	33.10430809	-103.57489254	118.98	-0.12	141.95	0.50
1835	957.7	33.10430385	-103.57488779	183.98	-0.19	158.44	0.52
1836	958.3	33.10429989	-103.57488328	273.48	-0.13	213.40	0.62

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
1837	958.8	33.10429596	-103.57487879	312.77	-0.14	291.64	0.71
1838	959.3	33.10429175	-103.57487394	340.90	-0.08	334.41	0.87
1839	959.8	33.10428752	-103.57486912	356.80	-0.10	373.56	1.05
1840	960.3	33.10428317	-103.57486467	386.99	0.00	428.83	1.44
1841	960.9	33.10427874	-103.57486020	450.08	0.62	491.88	2.66
1842	961.4	33.10427433	-103.57485594	416.37	2.22	332.89	-3.24
1843	961.9	33.10426985	-103.57485160	427.07	2.19	178.36	-6.56
1844	962.4	33.10426531	-103.57484714	427.77	0.64	401.68	0.78
1845	963.0	33.10426083	-103.57484278	377.46	0.14	412.81	1.65
1846	963.5	33.10425645	-103.57483859	385.90	-0.09	398.20	1.34
1847	964.0	33.10425226	-103.57483424	353.87	-0.05	367.66	1.22
1848	964.5	33.10424831	-103.57482968	340.55	-0.12	348.67	1.08
1849	965.0	33.10424412	-103.57482506	332.23	-0.06	347.97	1.08
1850	965.6	33.10423971	-103.57482040	339.26	-0.13	349.45	0.99
1851	966.1	33.10423537	-103.57481588	335.66	-0.08	344.30	0.98
1852	966.6	33.10423109	-103.57481147	339.96	-0.12	336.64	0.94
1853	967.1	33.10422691	-103.57480690	333.87	-0.09	333.36	0.95
1854	967.7	33.10422278	-103.57480226	343.95	-0.12	326.76	0.93
1855	968.2	33.10421886	-103.57479761	332.66	-0.10	312.81	0.86
1856	968.7	33.10421501	-103.57479298	320.43	-0.09	304.26	0.87
1857	969.2	33.10421112	-103.57478871	307.42	-0.15	324.65	0.85
1858	969.7	33.10420721	-103.57478450	310.98	-0.09	316.48	0.87
1859	970.3	33.10420303	-103.57478035	313.95	-0.15	312.89	0.83
1860	970.8	33.10419882	-103.57477619	329.30	-0.10	307.66	0.87
1861	971.3	33.10419451	-103.57477160	336.45	-0.11	313.71	0.88
1862	971.8	33.10419018	-103.57476700	333.40	-0.09	320.78	0.89
1863	972.4	33.10418573	-103.57476236	333.16	-0.08	338.36	0.90
1864	972.9	33.10418136	-103.57475768	355.12	-0.16	350.39	0.87
1865	973.4	33.10417723	-103.57475275	369.06	-0.08	335.23	0.87
1866	973.9	33.10417306	-103.57474775	369.02	-0.15	329.22	0.82
1867	974.4	33.10416879	-103.57474260	357.70	-0.09	361.21	0.84
1868	975.0	33.10416455	-103.57473742	327.70	-0.15	324.41	0.72
1869	975.5	33.10416034	-103.57473216	309.26	-0.11	293.75	0.68
1870	976.0	33.10415622	-103.57472716	261.25	-0.16	261.13	0.57
1871	976.5	33.10415217	-103.57472245	234.06	-0.12	232.19	0.57
1872	977.1	33.10414806	-103.57471768	229.41	-0.16	216.21	0.54
1873	977.6	33.10414390	-103.57471286	223.44	-0.13	214.18	0.53
1874	978.1	33.10413987	-103.57470798	201.13	-0.16	194.14	0.51
1875	978.6	33.10413595	-103.57470308	170.23	-0.15	156.29	0.46
1876	979.1	33.10413204	-103.57469804	137.54	-0.13	132.54	0.44
1877	979.7	33.10412812	-103.57469295	99.26	-0.17	115.31	0.40
1878	980.2	33.10412411	-103.57468765	70.04	-0.13	93.09	0.40
1879	980.7	33.10412007	-103.57468229	62.70	-0.19	76.68	0.36
1880	981.2	33.10411646	-103.57467728	49.57	-0.13	65.51	0.38
1881	981.8	33.10411291	-103.57467232	50.08	-0.17	60.63	0.38
1882	982.3	33.10410916	-103.57466773	46.02	-0.12	55.98	0.39
1883	982.8	33.10410540	-103.57466317	48.13	-0.18	54.18	0.33
1884	983.3	33.10410143	-103.57465884	44.10	-0.15	50.90	0.37
1885	983.8	33.10409742	-103.57465457	47.11	-0.21	50.94	0.33
1886	984.4	33.10409315	-103.57465056	47.38	-0.16	51.09	0.32
1887	984.9	33.10408904	-103.57464654	43.16	-0.17	49.06	0.33
1888	985.4	33.10408557	-103.57464251	44.22	-0.17	49.34	0.33
1889	985.9	33.10408219	-103.57463853	41.52	-0.16	48.24	0.34
1890	986.5	33.10407906	-103.57463469	44.34	-0.19	47.81	0.33
1891	987.0	33.10407615	-103.57463107	41.45	-0.15	46.80	0.37
1892	987.5	33.10407358	-103.57462779	39.41	-0.18	46.17	0.36
1893	988.0	33.10407189	-103.57462529	41.17	-0.18	45.00	0.34
1894	988.5	33.10407117	-103.57462367	34.53	-0.17	42.62	0.31
1895	989.1	33.10407250	-103.57462257	33.32	-0.18	41.72	0.31
1896	989.6	33.10407544	-103.57462188	36.17	-0.16	42.23	0.33
1897	990.1	33.10407941	-103.57462378	34.96	-0.17	41.91	0.32
1898	990.6	33.10408397	-103.57462709	38.91	-0.15	45.23	0.32
1899	991.2	33.10408837	-103.57463145	37.27	-0.15	45.51	0.35
1900	991.7	33.10409272	-103.57463620	40.35	-0.16	46.91	0.34
1901	992.2	33.10409702	-103.57464120	39.65	-0.14	46.76	0.35
1902	992.7	33.10410130	-103.57464622	43.32	-0.19	49.38	0.31
1903	993.2	33.10410547	-103.57465073	40.47	-0.14	50.39	0.36
1904	993.8	33.10410962	-103.57465518	47.97	-0.20	52.42	0.33

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
1905	994.3	33.10411381	-103.57465994	46.80	-0.13	52.89	0.36
1906	994.8	33.10411801	-103.57466472	53.44	-0.24	54.77	0.29
1907	995.3	33.10412232	-103.57466946	46.29	-0.14	54.53	0.36
1908	995.9	33.10412663	-103.57467418	46.37	-0.17	54.73	0.31
1909	996.4	33.10413089	-103.57467873	49.34	-0.13	59.45	0.34
1910	996.9	33.10413522	-103.57468326	53.16	-0.16	64.06	0.36
1911	997.4	33.10413972	-103.57468771	61.33	-0.19	72.38	0.32
1912	997.9	33.10414417	-103.57469218	59.92	-0.14	77.15	0.40
1913	998.5	33.10414852	-103.57469669	67.70	-0.17	86.48	0.39
1914	999.0	33.10415288	-103.57470120	66.60	-0.12	90.90	0.43
1915	999.5	33.10415724	-103.57470572	76.48	-0.18	100.51	0.42
1916	1,000.0	33.10416158	-103.57471033	74.81	-0.11	108.56	0.47
1917	1,000.6	33.10416589	-103.57471505	85.59	-0.16	123.01	0.48
1918	1,001.1	33.10417019	-103.57471984	108.09	-0.10	148.05	0.57
1919	1,001.6	33.10417450	-103.57472469	146.60	-0.18	176.60	0.54
1920	1,002.1	33.10417866	-103.57472944	203.32	-0.11	201.37	0.60
1921	1,002.6	33.10418274	-103.57473414	237.42	-0.16	224.88	0.60
1922	1,003.2	33.10418712	-103.57473886	283.79	-0.13	276.72	0.70
1923	1,003.7	33.10419161	-103.57474359	294.02	-0.11	330.39	0.80
1924	1,004.2	33.10419574	-103.57474787	305.78	-0.15	330.66	0.83
1925	1,004.7	33.10419983	-103.57475207	304.88	-0.08	325.16	0.88
1926	1,005.3	33.10420401	-103.57475638	313.56	-0.12	341.09	0.89
1927	1,005.8	33.10420821	-103.57476070	299.77	-0.08	303.24	0.91
1928	1,006.3	33.10421256	-103.57476533	306.80	-0.14	300.78	0.87
1929	1,006.8	33.10421692	-103.57476992	301.60	-0.09	309.65	0.91
1930	1,007.3	33.10422146	-103.57477420	299.41	-0.13	303.20	0.89
1931	1,007.9	33.10422600	-103.57477860	303.71	-0.08	303.87	0.91
1932	1,008.4	33.10423032	-103.57478342	311.99	-0.13	299.49	0.91
1933	1,008.9	33.10423461	-103.57478820	308.56	-0.10	308.87	0.94
1934	1,009.4	33.10423873	-103.57479282	306.37	-0.10	317.19	0.98
1935	1,010.0	33.10424280	-103.57479755	320.47	-0.13	326.17	1.03
1936	1,010.5	33.10424680	-103.57480247	333.44	-0.06	326.68	1.13
1937	1,011.0	33.10425080	-103.57480716	346.17	-0.13	324.34	1.21
1938	1,011.5	33.10425483	-103.57481156	374.10	0.01	387.93	1.61
1939	1,012.0	33.10425894	-103.57481611	422.89	0.31	463.40	2.59
1940	1,012.6	33.10426316	-103.57482084	454.92	2.17	423.48	1.05
1941	1,013.1	33.10426741	-103.57482506	403.71	2.50	182.85	-7.03
1942	1,013.6	33.10427169	-103.57482897	454.92	1.30	328.79	-2.64
1943	1,014.1	33.10427582	-103.57483311	405.43	0.29	434.77	1.52
1944	1,014.7	33.10427989	-103.57483736	394.88	0.02	445.90	1.60
1945	1,015.2	33.10428429	-103.57484192	386.56	-0.02	419.92	1.39
1946	1,015.7	33.10428876	-103.57484652	385.39	-0.08	402.15	1.22
1947	1,016.2	33.10429306	-103.57485088	384.53	-0.04	396.17	1.21
1948	1,016.7	33.10429735	-103.57485520	370.94	-0.10	385.94	1.13
1949	1,017.3	33.10430154	-103.57485962	355.98	-0.06	393.75	1.12
1950	1,017.8	33.10430573	-103.57486405	339.22	-0.14	396.13	0.99
1951	1,018.3	33.10431025	-103.57486848	335.35	-0.09	387.89	0.99
1952	1,018.8	33.10431479	-103.57487289	329.34	-0.18	381.21	0.86
1953	1,019.4	33.10431939	-103.57487711	310.16	-0.12	338.16	0.80
1954	1,019.9	33.10432402	-103.57488125	284.18	-0.17	309.02	0.70
1955	1,020.4	33.10432865	-103.57488500	263.05	-0.15	299.22	0.63
1956	1,020.9	33.10433323	-103.57488879	235.27	-0.15	260.16	0.58
1957	1,021.4	33.10433764	-103.57489264	200.16	-0.18	201.06	0.50
1958	1,022.0	33.10434193	-103.57489655	149.81	-0.14	169.45	0.45
1959	1,022.5	33.10434602	-103.57490056	107.34	-0.19	128.67	0.39
1960	1,023.0	33.10434980	-103.57490476	82.73	-0.14	112.07	0.40
1961	1,023.5	33.10435322	-103.57490919	70.12	-0.20	95.43	0.37
1962	1,024.1	33.10435661	-103.57491362	62.58	-0.13	80.98	0.39
1963	1,024.6	33.10435993	-103.57491800	56.41	-0.17	72.77	0.38
1964	1,025.1	33.10436349	-103.57492191	55.82	-0.20	66.84	0.34
1965	1,025.6	33.10436719	-103.57492553	47.89	-0.14	60.82	0.38
1966	1,026.1	33.10437122	-103.57492946	51.56	-0.23	57.73	0.30
1967	1,026.7	33.10437535	-103.57493350	46.09	-0.16	51.37	0.33
1968	1,027.2	33.10437959	-103.57493732	43.36	-0.20	47.85	0.33
1969	1,027.7	33.10438384	-103.57494107	41.29	-0.16	46.64	0.34
1970	1,028.2	33.10438790	-103.57494537	39.26	-0.15	45.59	0.36
1971	1,028.8	33.10439190	-103.57494972	44.22	-0.21	45.31	0.29
1972	1,029.3	33.10439574	-103.57495394	37.85	-0.14	43.01	0.36

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
1973	1,029.8	33.10439960	-103.57495811	38.28	-0.20	41.60	0.32
1974	1,030.3	33.10440380	-103.57496135	36.33	-0.10	39.61	0.34
1975	1,030.8	33.10440817	-103.57496406	38.87	-0.18	39.45	0.29
1976	1,031.4	33.10441365	-103.57496341	33.24	-0.13	38.44	0.30
1977	1,031.9	33.10441835	-103.57496167	35.74	-0.17	38.05	0.30
1978	1,032.4	33.10442031	-103.57495605	34.26	-0.14	37.50	0.28
1979	1,032.9	33.10442130	-103.57495009	32.23	-0.12	36.52	0.30
1980	1,033.5	33.10442010	-103.57494348	37.34	-0.18	40.78	0.30
1981	1,034.0	33.10441833	-103.57493708	36.33	-0.14	42.50	0.31
1982	1,034.5	33.10441568	-103.57493104	39.73	-0.20	43.87	0.29
1983	1,035.0	33.10441316	-103.57492524	38.59	-0.10	45.98	0.30
1984	1,035.5	33.10441078	-103.57491976	41.37	-0.17	47.77	0.32
1985	1,036.1	33.10440812	-103.57491415	48.28	-0.16	54.88	0.32
1986	1,036.6	33.10440524	-103.57490843	58.79	-0.14	65.78	0.33
1987	1,037.1	33.10440200	-103.57490277	77.03	-0.20	71.72	0.30
1988	1,037.6	33.10439858	-103.57489714	99.14	-0.13	81.37	0.38
1989	1,038.2	33.10439528	-103.57489165	132.85	-0.28	109.10	0.26
1990	1,038.7	33.10439205	-103.57488623	146.64	-0.14	134.34	0.38
1991	1,039.2	33.10438894	-103.57488041	164.73	-0.20	151.68	0.37
1992	1,039.7	33.10438587	-103.57487450	179.81	-0.13	176.21	0.41
1993	1,040.2	33.10438283	-103.57486859	190.86	-0.18	192.70	0.43
1994	1,040.8	33.10437978	-103.57486268	198.48	-0.17	208.98	0.43
1995	1,041.3	33.10437668	-103.57485682	202.46	-0.13	226.17	0.49
1996	1,041.8	33.10437358	-103.57485098	216.48	-0.18	234.26	0.50
1997	1,042.3	33.10437056	-103.57484538	221.21	-0.11	236.33	0.59
1998	1,042.9	33.10436755	-103.57483980	236.88	-0.17	267.89	0.59
1999	1,043.4	33.10436458	-103.57483434	236.29	-0.12	271.29	0.63
2000	1,043.9	33.10436147	-103.57482896	258.95	-0.15	272.58	0.66
2001	1,044.4	33.10435785	-103.57482379	298.98	-0.10	320.98	0.76
2002	1,044.9	33.10435422	-103.57481882	315.12	-0.15	339.49	0.79
2003	1,045.5	33.10435056	-103.57481426	320.66	-0.07	355.82	0.92
2004	1,046.0	33.10434696	-103.57480969	325.86	-0.12	377.15	0.97
2005	1,046.5	33.10434342	-103.57480510	341.41	-0.09	379.18	1.05
2006	1,047.0	33.10433987	-103.57480041	328.56	-0.09	385.43	1.07
2007	1,047.6	33.10433630	-103.57479558	340.51	-0.11	400.08	1.09
2008	1,048.1	33.10433281	-103.57479063	354.34	-0.06	412.50	1.17
2009	1,048.6	33.10432936	-103.57478556	363.83	-0.10	413.44	1.19
2010	1,049.1	33.10432590	-103.57478049	382.58	-0.05	404.18	1.27
2011	1,049.6	33.10432241	-103.57477540	382.85	-0.09	427.77	1.28
2012	1,050.2	33.10431902	-103.57477022	398.98	-0.03	439.84	1.35
2013	1,050.7	33.10431567	-103.57476500	396.60	-0.12	429.26	1.31
2014	1,051.2	33.10431227	-103.57475991	404.84	-0.01	468.36	1.42
2015	1,051.7	33.10430885	-103.57475483	389.14	-0.13	447.03	1.32
2016	1,052.3	33.10430550	-103.57474971	407.23	-0.04	448.28	1.39
2017	1,052.8	33.10430213	-103.57474455	387.11	-0.09	436.21	1.37
2018	1,053.3	33.10429872	-103.57473914	394.34	-0.02	434.22	1.42
2019	1,053.8	33.10429536	-103.57473369	397.62	-0.09	444.06	1.44
2020	1,054.3	33.10429242	-103.57472783	402.42	-0.05	441.09	1.44
2021	1,054.9	33.10428943	-103.57472196	406.56	-0.06	430.39	1.48
2022	1,055.4	33.10428642	-103.57471650	402.46	0.02	443.40	1.63
2023	1,055.9	33.10428315	-103.57471124	372.34	0.23	451.88	2.16
2024	1,056.4	33.10427924	-103.57470668	401.95	1.54	446.60	3.03
2025	1,057.0	33.10427491	-103.57470227	296.41	2.03	156.84	-6.99
2026	1,057.5	33.10426978	-103.57469817	331.06	1.56	99.45	-7.27
2027	1,058.0	33.10426454	-103.57469452	286.21	0.38	306.91	0.30
2028	1,058.5	33.10425921	-103.57469152	278.48	-0.04	355.12	0.90
2029	1,059.0	33.10425390	-103.57468854	282.34	-0.07	357.38	0.87
2030	1,059.6	33.10424863	-103.57468560	301.48	-0.14	329.92	0.83
2031	1,060.1	33.10424332	-103.57468251	322.73	-0.08	316.60	0.87
2032	1,060.6	33.10423804	-103.57467936	327.85	-0.12	366.60	0.88
2033	1,061.1	33.10423268	-103.57467623	309.38	-0.08	361.56	0.95
2034	1,061.7	33.10422729	-103.57467312	314.14	-0.16	357.93	0.89
2035	1,062.2	33.10422196	-103.57467006	310.78	-0.08	352.89	0.92
2036	1,062.7	33.10421664	-103.57466702	302.97	-0.16	345.31	0.82
2037	1,063.2	33.10421167	-103.57466410	300.66	-0.10	337.58	0.81
2038	1,063.7	33.10420676	-103.57466121	269.34	-0.17	308.09	0.70
2039	1,064.3	33.10420165	-103.57465881	261.45	-0.13	291.29	0.68
2040	1,064.8	33.10419654	-103.57465650	247.46	-0.18	263.24	0.61

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
2041	1,065.3	33.10419066	-103.57465571	246.41	-0.18	239.22	0.50
2042	1,065.8	33.10418484	-103.57465520	225.66	-0.15	224.14	0.50
2043	1,066.4	33.10417945	-103.57465690	201.52	-0.19	198.91	0.46
2044	1,066.9	33.10417417	-103.57465876	157.97	-0.13	164.96	0.45
2045	1,067.4	33.10416938	-103.57466121	112.42	-0.20	115.27	0.40
2046	1,067.9	33.10416462	-103.57466353	83.44	-0.13	104.14	0.43
2047	1,068.4	33.10415990	-103.57466550	70.90	-0.21	98.87	0.39
2048	1,069.0	33.10415560	-103.57466685	60.90	-0.14	87.19	0.39
2049	1,069.5	33.10415205	-103.57466712	54.26	-0.14	78.98	0.40
2050	1,070.0	33.10414919	-103.57466672	51.99	-0.17	71.88	0.40
2051	1,070.5	33.10414717	-103.57466551	48.48	-0.14	65.51	0.40
2052	1,071.1	33.10414640	-103.57466266	46.68	-0.18	61.52	0.34
2053	1,071.6	33.10414669	-103.57465840	52.85	-0.15	68.16	0.38
2054	1,072.1	33.10414874	-103.57465416	59.34	-0.16	75.55	0.38
2055	1,072.6	33.10415186	-103.57464994	76.88	-0.17	78.44	0.37
2056	1,073.1	33.10415525	-103.57464590	101.45	-0.15	79.22	0.39
2057	1,073.7	33.10415875	-103.57464195	127.34	-0.19	100.55	0.38
2058	1,074.2	33.10416231	-103.57463765	142.85	-0.15	121.52	0.40
2059	1,074.7	33.10416588	-103.57463325	126.37	-0.19	112.77	0.36
2060	1,075.2	33.10416877	-103.57462821	96.56	-0.16	91.76	0.34
2061	1,075.8	33.10417155	-103.57462306	74.96	-0.18	92.70	0.37
2062	1,076.3	33.10417341	-103.57461735	64.45	-0.19	85.27	0.33
2063	1,076.8	33.10417517	-103.57461160	53.59	-0.14	73.44	0.36
2064	1,077.3	33.10417551	-103.57460581	50.51	-0.19	64.22	0.33
2065	1,077.8	33.10417564	-103.57460009	46.02	-0.15	57.34	0.34
2066	1,078.4	33.10417437	-103.57459477	43.16	-0.18	53.24	0.36
2067	1,078.9	33.10417234	-103.57459019	40.63	-0.16	50.20	0.34
2068	1,079.4	33.10416762	-103.57458816	39.61	-0.13	49.34	0.36
2069	1,079.9	33.10416292	-103.57458777	45.16	-0.20	51.68	0.31
2070	1,080.5	33.10415832	-103.57459107	45.90	-0.13	55.43	0.34
2071	1,081.0	33.10415399	-103.57459460	55.23	-0.20	64.26	0.31
2072	1,081.5	33.10415012	-103.57459850	69.30	-0.16	79.22	0.34
2073	1,082.0	33.10414635	-103.57460240	86.06	-0.16	81.72	0.35
2074	1,082.5	33.10414275	-103.57460623	118.36	-0.22	73.36	0.30
2075	1,083.1	33.10413899	-103.57460994	117.93	-0.17	86.41	0.35
2076	1,083.6	33.10413512	-103.57461354	97.38	-0.21	82.77	0.31
2077	1,084.1	33.10413120	-103.57461685	76.37	-0.17	78.13	0.33
2078	1,084.6	33.10412723	-103.57462001	61.09	-0.19	76.76	0.34
2079	1,085.2	33.10412302	-103.57462335	55.94	-0.19	69.84	0.32
2080	1,085.7	33.10411871	-103.57462677	46.99	-0.13	60.23	0.34
2081	1,086.2	33.10411443	-103.57462978	45.20	-0.18	55.51	0.31
2082	1,086.7	33.10411015	-103.57463271	40.66	-0.15	51.56	0.35
2083	1,087.2	33.10410552	-103.57463537	41.17	-0.18	50.59	0.33
2084	1,087.8	33.10410084	-103.57463799	45.04	-0.18	51.88	0.31
2085	1,088.3	33.10409633	-103.57464000	42.93	-0.15	50.66	0.34
2086	1,088.8	33.10409189	-103.57464185	48.67	-0.23	49.30	0.31
2087	1,089.3	33.10408849	-103.57464157	42.97	-0.16	48.20	0.35
2088	1,089.9	33.10408526	-103.57464097	42.50	-0.22	47.97	0.29
2089	1,090.4	33.10408295	-103.57463864	43.79	-0.16	47.42	0.31
2090	1,090.9	33.10408139	-103.57463569	40.63	-0.18	45.63	0.31
2091	1,091.4	33.10408218	-103.57463085	41.29	-0.18	46.88	0.32
2092	1,091.9	33.10408384	-103.57462597	38.56	-0.14	46.68	0.34
2093	1,092.5	33.10408730	-103.57462108	46.84	-0.24	48.32	0.28
2094	1,093.0	33.10409093	-103.57461629	41.60	-0.15	46.76	0.33
2095	1,093.5	33.10409479	-103.57461167	41.80	-0.19	47.58	0.31
2096	1,094.0	33.10409867	-103.57460738	43.71	-0.15	49.30	0.32
2097	1,094.6	33.10410259	-103.57460343	46.95	-0.19	52.54	0.32
2098	1,095.1	33.10410636	-103.57459941	50.08	-0.17	58.59	0.32
2099	1,095.6	33.10411002	-103.57459534	58.59	-0.15	69.34	0.34
2100	1,096.1	33.10411323	-103.57459168	69.73	-0.19	75.04	0.32
2101	1,096.6	33.10411619	-103.57458825	70.66	-0.17	57.27	0.36
2102	1,097.2	33.10411894	-103.57458429	70.63	-0.21	39.34	0.32
2103	1,097.7	33.10412161	-103.57458016	66.41	-0.16	44.06	0.32
2104	1,098.2	33.10412377	-103.57457524	57.23	-0.15	65.35	0.33
2105	1,098.7	33.10412582	-103.57457019	53.16	-0.22	66.02	0.29
2106	1,099.3	33.10412753	-103.57456479	41.84	-0.16	55.90	0.31
2107	1,099.8	33.10412918	-103.57455936	38.20	-0.18	48.79	0.32
2108	1,100.3	33.10412734	-103.57455341	35.94	-0.15	45.51	0.31

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
2109	1,100.8	33.10412518	-103.57454796	35.86	-0.15	43.59	0.31
2110	1,101.3	33.10411988	-103.57454691	35.82	-0.15	43.56	0.32
2111	1,101.9	33.10411570	-103.57454689	36.48	-0.14	43.95	0.34
2112	1,102.4	33.10411677	-103.57455131	37.46	-0.15	43.67	0.33
2113	1,102.9	33.10411879	-103.57455557	35.86	-0.11	42.42	0.31
2114	1,103.4	33.10412343	-103.57455927	39.81	-0.18	43.36	0.23
2115	1,104.0	33.10412830	-103.57456305	34.65	-0.12	44.38	0.31
2116	1,104.5	33.10413364	-103.57456696	40.78	-0.21	46.33	0.25
2117	1,105.0	33.10413888	-103.57457101	39.41	-0.17	46.95	0.30
2118	1,105.5	33.10414396	-103.57457524	44.10	-0.22	48.40	0.26
2119	1,106.0	33.10414884	-103.57457988	43.24	-0.16	48.91	0.31
2120	1,106.6	33.10415354	-103.57458490	41.99	-0.18	48.59	0.29
2121	1,107.1	33.10415827	-103.57458973	41.68	-0.16	49.73	0.32
2122	1,107.6	33.10416298	-103.57459439	41.72	-0.19	49.96	0.32
2123	1,108.1	33.10416771	-103.57459891	43.28	-0.18	50.90	0.29
2124	1,108.7	33.10417247	-103.57460338	40.59	-0.16	50.04	0.33
2125	1,109.2	33.10417688	-103.57460790	47.85	-0.21	53.20	0.27
2126	1,109.7	33.10418120	-103.57461245	44.49	-0.15	54.18	0.33
2127	1,110.2	33.10418556	-103.57461709	49.57	-0.18	59.14	0.34
2128	1,110.7	33.10418991	-103.57462173	51.13	-0.14	63.67	0.36
2129	1,111.3	33.10419434	-103.57462627	65.86	-0.22	76.68	0.30
2130	1,111.8	33.10419879	-103.57463079	72.07	-0.14	78.91	0.38
2131	1,112.3	33.10420337	-103.57463498	92.58	-0.21	85.43	0.35
2132	1,112.8	33.10420794	-103.57463917	104.69	-0.13	100.59	0.43
2133	1,113.4	33.10421239	-103.57464346	118.28	-0.20	120.16	0.39
2134	1,113.9	33.10421687	-103.57464767	135.94	-0.13	135.78	0.46
2135	1,114.4	33.10422146	-103.57465156	168.56	-0.19	157.27	0.46
2136	1,114.9	33.10422604	-103.57465553	199.69	-0.14	189.61	0.51
2137	1,115.4	33.10423056	-103.57465970	220.90	-0.17	231.52	0.57
2138	1,116.0	33.10423510	-103.57466378	240.74	-0.12	268.71	0.64
2139	1,116.5	33.10423965	-103.57466771	257.81	-0.14	276.91	0.68
2140	1,117.0	33.10424416	-103.57467174	272.70	-0.13	283.20	0.72
2141	1,117.5	33.10424864	-103.57467589	267.77	-0.12	298.40	0.77
2142	1,118.1	33.10425319	-103.57467996	256.37	-0.13	299.38	0.81
2143	1,118.6	33.10425784	-103.57468397	245.90	-0.05	302.27	1.00
2144	1,119.1	33.10426251	-103.57468809	244.10	0.36	314.77	1.85
2145	1,119.6	33.10426721	-103.57469228	186.64	1.67	171.64	-2.29
2146	1,120.1	33.10427207	-103.57469607	178.75	1.76	13.75	-6.30
2147	1,120.7	33.10427703	-103.57469969	176.48	0.69	137.97	-0.91
2148	1,121.2	33.10428205	-103.57470342	169.02	0.04	223.28	1.03
2149	1,121.7	33.10428709	-103.57470719	198.01	-0.06	209.41	0.93
2150	1,122.2	33.10429175	-103.57471152	251.52	-0.15	219.69	0.78
2151	1,122.8	33.10429636	-103.57471593	285.94	-0.09	272.73	0.79
2152	1,123.3	33.10430059	-103.57472015	287.73	-0.14	304.53	0.81
2153	1,123.8	33.10430478	-103.57472435	315.20	-0.10	343.13	0.89
2154	1,124.3	33.10430820	-103.57472830	322.50	-0.12	354.02	0.96
2155	1,124.8	33.10431164	-103.57473231	342.31	-0.10	353.83	0.99
2156	1,125.4	33.10431518	-103.57473664	343.44	-0.07	362.38	1.05
2157	1,125.9	33.10431880	-103.57474099	348.67	-0.14	378.13	1.01
2158	1,126.4	33.10432270	-103.57474541	363.98	-0.08	407.97	1.12
2159	1,126.9	33.10432657	-103.57474999	366.45	-0.14	405.04	1.07
2160	1,127.5	33.10433035	-103.57475490	384.26	-0.07	411.80	1.10
2161	1,128.0	33.10433411	-103.57475977	359.88	-0.16	394.61	1.03
2162	1,128.5	33.10433787	-103.57476457	326.45	-0.11	384.81	1.04
2163	1,129.0	33.10434178	-103.57476949	313.05	-0.10	377.42	0.99
2164	1,129.5	33.10434586	-103.57477456	317.58	-0.12	362.42	0.96
2165	1,130.1	33.10434994	-103.57477973	307.46	-0.14	348.09	0.90
2166	1,130.6	33.10435401	-103.57478496	295.08	-0.13	332.77	0.83
2167	1,131.1	33.10435822	-103.57478997	278.09	-0.11	316.48	0.78
2168	1,131.6	33.10436249	-103.57479484	287.46	-0.15	330.31	0.74
2169	1,132.2	33.10436671	-103.57480012	274.96	-0.12	298.01	0.71
2170	1,132.7	33.10437088	-103.57480555	268.32	-0.16	295.27	0.65
2171	1,133.2	33.10437484	-103.57481083	244.65	-0.13	264.30	0.61
2172	1,133.7	33.10437875	-103.57481609	212.15	-0.21	216.84	0.50
2173	1,134.2	33.10438236	-103.57482102	147.42	-0.13	170.78	0.51
2174	1,134.8	33.10438595	-103.57482591	127.54	-0.18	179.18	0.47
2175	1,135.3	33.10438933	-103.57483181	122.54	-0.12	190.86	0.49
2176	1,135.8	33.10439273	-103.57483772	122.34	-0.18	178.13	0.43

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
2177	1,136.3	33.10439648	-103.57484337	141.72	-0.15	177.81	0.48
2178	1,136.9	33.10440023	-103.57484905	172.07	-0.22	166.29	0.42
2179	1,137.4	33.10440400	-103.57485493	185.86	-0.15	183.63	0.44
2180	1,137.9	33.10440771	-103.57486075	187.73	-0.22	195.78	0.42
2181	1,138.4	33.10441123	-103.57486637	186.17	-0.15	199.77	0.43
2182	1,138.9	33.10441487	-103.57487177	174.10	-0.18	190.08	0.41
2183	1,139.5	33.10441881	-103.57487675	167.58	-0.16	168.36	0.39
2184	1,140.0	33.10442293	-103.57488170	146.72	-0.19	139.14	0.37
2185	1,140.5	33.10442733	-103.57488664	114.45	-0.20	105.63	0.30
2186	1,141.0	33.10443172	-103.57489147	81.29	-0.16	84.65	0.32
2187	1,141.6	33.10443612	-103.57489618	64.38	-0.18	70.90	0.32
2188	1,142.1	33.10444029	-103.57490071	49.26	-0.14	59.34	0.34
2189	1,142.6	33.10444432	-103.57490513	48.44	-0.20	54.26	0.31
2190	1,143.1	33.10444840	-103.57490915	42.34	-0.14	49.30	0.35
2191	1,143.6	33.10445251	-103.57491299	43.91	-0.21	47.23	0.29
2192	1,144.2	33.10445664	-103.57491628	41.29	-0.15	46.37	0.34
2193	1,144.7	33.10446080	-103.57491940	40.59	-0.20	45.39	0.34
2194	1,145.2	33.10446540	-103.57492233	37.42	-0.15	43.28	0.32
2195	1,145.7	33.10447008	-103.57492521	37.85	-0.17	41.64	0.33
2196	1,146.2	33.10447392	-103.57492232	36.56	-0.14	41.45	0.32
2197	1,146.8	33.10447766	-103.57491882	37.07	-0.13	41.25	0.32
2198	1,147.3	33.10447836	-103.57491258	38.95	-0.19	41.76	0.29
2199	1,147.8	33.10447887	-103.57490631	36.37	-0.14	42.23	0.31
2200	1,148.3	33.10447751	-103.57489977	39.06	-0.19	43.32	0.28
2201	1,148.9	33.10447583	-103.57489320	38.44	-0.14	44.34	0.29
2202	1,149.4	33.10447293	-103.57488701	40.39	-0.17	45.59	0.30
2203	1,149.9	33.10446979	-103.57488090	44.18	-0.18	47.58	0.31
2204	1,150.4	33.10446611	-103.57487530	42.19	-0.14	46.95	0.32
2205	1,151.0	33.10446237	-103.57486991	49.22	-0.22	50.78	0.28
2206	1,151.5	33.10445848	-103.57486493	45.94	-0.14	53.44	0.33
2207	1,152.0	33.10445467	-103.57485988	57.97	-0.23	62.07	0.29
2208	1,152.5	33.10445097	-103.57485477	64.45	-0.15	70.04	0.35
2209	1,153.0	33.10444735	-103.57484996	88.09	-0.22	80.12	0.30
2210	1,153.6	33.10444381	-103.57484544	112.27	-0.16	93.71	0.35
2211	1,154.1	33.10444021	-103.57484075	135.20	-0.19	118.95	0.35
2212	1,154.6	33.10443656	-103.57483592	147.97	-0.17	135.63	0.37
2213	1,155.1	33.10443279	-103.57483124	151.76	-0.17	143.83	0.39
2214	1,155.7	33.10442897	-103.57482663	157.38	-0.18	147.54	0.38
2215	1,156.2	33.10442517	-103.57482192	143.91	-0.15	137.50	0.41
2216	1,156.7	33.10442137	-103.57481718	129.77	-0.23	128.16	0.33
2217	1,157.2	33.10441788	-103.57481213	106.25	-0.13	123.05	0.38
2218	1,157.7	33.10441443	-103.57480704	99.77	-0.19	127.34	0.35
2219	1,158.3	33.10441100	-103.57480220	104.38	-0.14	118.40	0.40
2220	1,158.8	33.10440755	-103.57479738	122.62	-0.21	109.14	0.37
2221	1,159.3	33.10440383	-103.57479306	129.34	-0.15	112.19	0.40
2222	1,159.8	33.10440013	-103.57478873	133.59	-0.18	125.08	0.40
2223	1,160.4	33.10439656	-103.57478430	123.01	-0.16	128.63	0.44
2224	1,160.9	33.10439306	-103.57477992	114.77	-0.13	147.46	0.44
2225	1,161.4	33.10438978	-103.57477579	119.38	-0.20	163.36	0.42
2226	1,161.9	33.10438641	-103.57477159	130.63	-0.13	178.95	0.45
2227	1,162.4	33.10438281	-103.57476721	158.28	-0.23	178.24	0.43
2228	1,163.0	33.10437914	-103.57476250	193.28	-0.15	177.23	0.50
2229	1,163.5	33.10437534	-103.57475722	227.34	-0.17	218.67	0.54
2230	1,164.0	33.10437153	-103.57475207	241.60	-0.11	247.42	0.58
2231	1,164.5	33.10436771	-103.57474708	257.62	-0.15	276.80	0.63
2232	1,165.1	33.10436376	-103.57474185	286.72	-0.14	308.40	0.68
2233	1,165.6	33.10435972	-103.57473643	301.09	-0.13	306.29	0.74
2234	1,166.1	33.10435558	-103.57473098	320.39	-0.14	337.97	0.74
2235	1,166.6	33.10435140	-103.57472550	303.91	-0.10	339.49	0.77
2236	1,167.1	33.10434722	-103.57472017	278.05	-0.12	316.02	0.76
2237	1,167.7	33.10434303	-103.57471490	248.24	-0.09	303.98	0.73
2238	1,168.2	33.10433859	-103.57470998	219.77	-0.14	281.17	0.67
2239	1,168.7	33.10433406	-103.57470512	195.08	-0.08	250.98	0.64
2240	1,169.2	33.10432975	-103.57470105	153.40	-0.20	186.60	0.51
2241	1,169.8	33.10432548	-103.57469708	108.40	-0.11	142.73	0.53
2242	1,170.3	33.10432110	-103.57469293	87.07	-0.18	126.95	0.47
2243	1,170.8	33.10431673	-103.57468876	73.13	-0.14	111.56	0.48
2244	1,171.3	33.10431236	-103.57468429	71.72	-0.20	99.73	0.49

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
2245	1,171.8	33.10430801	-103.57467977	68.67	-0.16	93.16	0.48
2246	1,172.4	33.10430381	-103.57467492	65.55	-0.15	90.78	0.52
2247	1,172.9	33.10429962	-103.57467013	72.11	-0.18	94.69	0.53
2248	1,173.4	33.10429548	-103.57466550	73.95	-0.10	101.80	0.63
2249	1,173.9	33.10429133	-103.57466086	94.26	-0.16	121.88	0.75
2250	1,174.5	33.10428716	-103.57465620	119.81	0.04	162.81	1.31
2251	1,175.0	33.10428299	-103.57465177	209.61	0.72	243.79	2.97
2252	1,175.5	33.10427884	-103.57464770	168.01	1.78	100.66	-5.44
2253	1,176.0	33.10427474	-103.57464389	234.81	2.04	-100.20	-13.20
2254	1,176.5	33.10427066	-103.57464036	249.18	0.73	169.26	-2.29
2255	1,177.1	33.10426661	-103.57463686	248.87	0.08	267.85	1.02
2256	1,177.6	33.10426260	-103.57463340	248.05	-0.06	254.96	0.97
2257	1,178.1	33.10425846	-103.57463002	222.89	-0.13	229.06	0.75
2258	1,178.6	33.10425425	-103.57462669	196.02	-0.15	190.98	0.62
2259	1,179.2	33.10424966	-103.57462331	139.65	-0.12	135.78	0.54
2260	1,179.7	33.10424497	-103.57461993	105.27	-0.19	114.22	0.45
2261	1,180.2	33.10424051	-103.57461634	72.38	-0.13	100.66	0.43
2262	1,180.7	33.10423611	-103.57461270	63.71	-0.21	84.26	0.37
2263	1,181.2	33.10423221	-103.57460834	52.62	-0.14	71.76	0.40
2264	1,181.8	33.10422837	-103.57460390	53.09	-0.22	63.56	0.36
2265	1,182.3	33.10422453	-103.57459932	49.73	-0.11	58.09	0.38
2266	1,182.8	33.10422068	-103.57459478	49.26	-0.19	54.34	0.37
2267	1,183.3	33.10421672	-103.57459075	49.84	-0.20	53.48	0.36
2268	1,183.9	33.10421276	-103.57458667	42.97	-0.13	51.21	0.37
2269	1,184.4	33.10420896	-103.57458255	45.31	-0.21	49.02	0.32
2270	1,184.9	33.10420522	-103.57457828	39.53	-0.14	46.91	0.37
2271	1,185.4	33.10420165	-103.57457359	40.12	-0.18	46.41	0.34
2272	1,185.9	33.10419835	-103.57456898	38.28	-0.15	44.57	0.35
2273	1,186.5	33.10419557	-103.57456454	34.92	-0.15	41.88	0.35
2274	1,187.0	33.10419362	-103.57456031	38.87	-0.19	41.95	0.35
2275	1,187.5	33.10419286	-103.57455638	34.81	-0.14	41.29	0.37
2276	1,188.0	33.10419342	-103.57455341	36.02	-0.18	41.48	0.36
2277	1,188.6	33.10419534	-103.57455144	36.76	-0.12	41.41	0.35
2278	1,189.1	33.10419867	-103.57455172	33.28	-0.16	39.73	0.32
2279	1,189.6	33.10420303	-103.57455363	34.34	-0.14	42.31	0.36
2280	1,190.1	33.10420779	-103.57455680	38.67	-0.18	46.06	0.34
2281	1,190.6	33.10421278	-103.57456063	37.15	-0.15	46.48	0.37
2282	1,191.2	33.10421746	-103.57456452	39.69	-0.18	45.47	0.34
2283	1,191.7	33.10422205	-103.57456842	40.08	-0.14	47.77	0.36
2284	1,192.2	33.10422643	-103.57457296	38.95	-0.14	49.92	0.38
2285	1,192.7	33.10423078	-103.57457762	41.68	-0.16	51.09	0.37
2286	1,193.3	33.10423527	-103.57458226	41.37	-0.13	51.60	0.39
2287	1,193.8	33.10423978	-103.57458691	48.16	-0.18	58.13	0.38
2288	1,194.3	33.10424457	-103.57459126	48.52	-0.13	62.27	0.46
2289	1,194.8	33.10424938	-103.57459561	63.87	-0.24	72.03	0.39
2290	1,195.3	33.10425437	-103.57459990	68.36	-0.12	87.19	0.56
2291	1,195.9	33.10425941	-103.57460423	96.09	-0.16	119.61	0.73
2292	1,196.4	33.10426425	-103.57460834	159.61	0.40	194.30	2.04
2293	1,196.9	33.10426909	-103.57461254	160.98	2.12	90.00	-3.62
2294	1,197.4	33.10427369	-103.57461682	153.32	2.06	-116.45	-11.19
2295	1,198.0	33.10427821	-103.57462118	137.38	0.68	79.61	-1.31
2296	1,198.5	33.10428258	-103.57462569	102.50	0.10	138.40	0.98
2297	1,199.0	33.10428697	-103.57463009	76.41	-0.07	115.70	0.80
2298	1,199.5	33.10429138	-103.57463432	67.73	-0.14	97.19	0.57
2299	1,200.0	33.10429589	-103.57463859	57.34	-0.10	82.03	0.50
2300	1,200.6	33.10430053	-103.57464292	55.78	-0.16	74.26	0.46
2301	1,201.1	33.10430535	-103.57464701	51.02	-0.11	69.49	0.47
2302	1,201.6	33.10431030	-103.57465095	54.92	-0.19	67.15	0.39
2303	1,202.1	33.10431506	-103.57465481	51.60	-0.13	66.21	0.44
2304	1,202.7	33.10431972	-103.57465864	57.46	-0.20	68.44	0.37
2305	1,203.2	33.10432432	-103.57466249	57.27	-0.12	72.03	0.40
2306	1,203.7	33.10432889	-103.57466635	68.83	-0.20	83.24	0.40
2307	1,204.2	33.10433351	-103.57467028	83.52	-0.15	97.85	0.40
2308	1,204.7	33.10433814	-103.57467422	109.92	-0.17	104.73	0.42
2309	1,205.3	33.10434268	-103.57467831	152.89	-0.18	143.56	0.42
2310	1,205.8	33.10434721	-103.57468241	177.07	-0.14	172.27	0.46
2311	1,206.3	33.10435178	-103.57468615	201.13	-0.17	198.95	0.47
2312	1,206.8	33.10435639	-103.57468991	211.09	-0.13	225.27	0.54

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
2313	1,207.4	33.10436140	-103.57469379	229.30	-0.18	240.94	0.49
2314	1,207.9	33.10436636	-103.57469766	235.47	-0.12	235.47	0.55
2315	1,208.4	33.10437120	-103.57470160	239.34	-0.17	249.81	0.53
2316	1,208.9	33.10437599	-103.57470554	242.81	-0.14	245.94	0.56
2317	1,209.4	33.10438066	-103.57470950	240.78	-0.17	246.48	0.52
2318	1,210.0	33.10438538	-103.57471350	251.95	-0.15	252.93	0.55
2319	1,210.5	33.10439023	-103.57471759	247.66	-0.16	242.07	0.55
2320	1,211.0	33.10439518	-103.57472158	246.60	-0.16	244.53	0.53
2321	1,211.5	33.10440028	-103.57472547	241.37	-0.15	248.24	0.54
2322	1,212.1	33.10440525	-103.57472923	227.07	-0.19	220.55	0.50
2323	1,212.6	33.10441014	-103.57473289	195.23	-0.15	201.64	0.48
2324	1,213.1	33.10441511	-103.57473683	171.91	-0.22	176.56	0.39
2325	1,213.6	33.10442015	-103.57474094	143.09	-0.14	167.77	0.41
2326	1,214.1	33.10442530	-103.57474487	119.34	-0.22	135.98	0.36
2327	1,214.7	33.10443050	-103.57474874	89.02	-0.14	103.36	0.38
2328	1,215.2	33.10443582	-103.57475259	77.42	-0.24	95.63	0.30
2329	1,215.7	33.10444119	-103.57475644	60.35	-0.14	80.82	0.39
2330	1,216.2	33.10444649	-103.57476004	60.86	-0.24	71.21	0.30
2331	1,216.8	33.10445180	-103.57476361	53.09	-0.15	65.43	0.37
2332	1,217.3	33.10445682	-103.57476719	53.91	-0.22	60.78	0.30
2333	1,217.8	33.10446179	-103.57477076	49.06	-0.16	57.07	0.33
2334	1,218.3	33.10446649	-103.57477444	46.80	-0.18	55.00	0.31
2335	1,218.8	33.10447119	-103.57477813	48.36	-0.17	54.57	0.31
2336	1,219.4	33.10447587	-103.57478200	47.54	-0.19	53.32	0.34
2337	1,219.9	33.10448049	-103.57478573	46.91	-0.18	53.32	0.34
2338	1,220.4	33.10448498	-103.57478900	45.23	-0.15	52.77	0.33
2339	1,220.9	33.10448940	-103.57479211	48.79	-0.20	53.24	0.33
2340	1,221.5	33.10449349	-103.57479475	45.12	-0.15	51.99	0.35
2341	1,222.0	33.10449762	-103.57479731	47.27	-0.19	52.58	0.33
2342	1,222.5	33.10450173	-103.57479972	45.94	-0.16	50.78	0.35
2343	1,223.0	33.10450603	-103.57480171	46.45	-0.20	50.70	0.32
2344	1,223.5	33.10451054	-103.57480323	46.64	-0.18	51.60	0.31
2345	1,224.1	33.10451505	-103.57480296	44.81	-0.16	51.06	0.32
2346	1,224.6	33.10451951	-103.57480127	43.87	-0.13	49.45	0.30
2347	1,225.1	33.10452095	-103.57479686	41.88	-0.13	48.75	0.32
2348	1,225.6	33.10452068	-103.57479088	46.02	-0.20	48.40	0.29
2349	1,226.2	33.10451769	-103.57478585	43.95	-0.12	48.28	0.30
2350	1,226.7	33.10451370	-103.57478117	44.38	-0.18	49.22	0.30
2351	1,227.2	33.10450889	-103.57477737	42.46	-0.13	50.27	0.31
2352	1,227.7	33.10450390	-103.57477378	45.90	-0.20	50.27	0.31
2353	1,228.2	33.10449875	-103.57477026	45.47	-0.18	51.68	0.29
2354	1,228.8	33.10449357	-103.57476674	44.96	-0.16	52.34	0.31
2355	1,229.3	33.10448858	-103.57476282	50.55	-0.21	54.73	0.30
2356	1,229.8	33.10448360	-103.57475888	45.70	-0.14	54.30	0.34
2357	1,230.3	33.10447885	-103.57475469	49.06	-0.21	55.00	0.30
2358	1,230.9	33.10447408	-103.57475047	44.92	-0.16	55.74	0.33
2359	1,231.4	33.10446932	-103.57474619	52.54	-0.23	59.69	0.27
2360	1,231.9	33.10446465	-103.57474198	49.88	-0.14	61.52	0.33
2361	1,232.4	33.10446023	-103.57473802	58.40	-0.20	69.77	0.31
2362	1,232.9	33.10445623	-103.57473467	68.83	-0.15	78.36	0.33
2363	1,233.5	33.10445319	-103.57473267	82.23	-0.18	81.72	0.34
2364	1,234.0	33.10445145	-103.57473221	90.20	-0.13	89.34	0.37
2365	1,234.5	33.10445161	-103.57473397	91.56	-0.10	93.52	0.35
2366	1,235.0	33.10445353	-103.57473429	94.81	-0.16	93.52	0.31
2367	1,235.6	33.10445729	-103.57473312	85.59	-0.12	94.65	0.36
2368	1,236.1	33.10446070	-103.57473001	75.51	-0.16	84.45	0.35
2369	1,236.6	33.10446387	-103.57472547	75.31	-0.14	74.22	0.32
2370	1,237.1	33.10446416	-103.57472005	81.48	-0.17	72.77	0.30
2371	1,237.6	33.10446298	-103.57471420	82.89	-0.18	77.27	0.29
2372	1,238.2	33.10446022	-103.57470925	89.57	-0.13	85.86	0.35
2373	1,238.7	33.10445692	-103.57470461	105.12	-0.23	94.96	0.30
2374	1,239.2	33.10445337	-103.57470021	111.48	-0.15	97.42	0.34
2375	1,239.7	33.10444976	-103.57469585	100.59	-0.19	90.63	0.34
2376	1,240.2	33.10444572	-103.57469178	96.52	-0.15	107.19	0.35
2377	1,240.8	33.10444164	-103.57468772	91.06	-0.15	111.88	0.36
2378	1,241.3	33.10443768	-103.57468412	96.84	-0.22	101.76	0.31
2379	1,241.8	33.10443370	-103.57468051	97.89	-0.15	103.63	0.39
2380	1,242.3	33.10442957	-103.57467679	104.96	-0.23	107.54	0.32

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Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
2381	1,242.9	33.10442539	-103.57467286	100.70	-0.17	99.22	0.37
2382	1,243.4	33.10442140	-103.57466841	96.80	-0.19	102.58	0.36
2383	1,243.9	33.10441752	-103.57466405	88.01	-0.17	102.58	0.34
2384	1,244.4	33.10441411	-103.57466011	86.21	-0.16	106.80	0.37
2385	1,245.0	33.10441051	-103.57465617	86.72	-0.18	111.02	0.34
2386	1,245.5	33.10440651	-103.57465223	88.98	-0.15	99.92	0.37
2387	1,246.0	33.10440221	-103.57464831	100.70	-0.25	95.31	0.28
2388	1,246.5	33.10439750	-103.57464439	99.30	-0.17	99.49	0.34
2389	1,247.0	33.10439271	-103.57464042	98.75	-0.19	109.38	0.36
2390	1,247.6	33.10438783	-103.57463642	102.46	-0.17	108.71	0.34
2391	1,248.1	33.10438312	-103.57463226	102.38	-0.17	103.71	0.36
2392	1,248.6	33.10437851	-103.57462800	103.16	-0.18	101.37	0.35
2393	1,249.1	33.10437382	-103.57462396	91.52	-0.14	98.16	0.37
2394	1,249.7	33.10436911	-103.57462005	94.06	-0.25	91.91	0.28
2395	1,250.2	33.10436491	-103.57461600	71.17	-0.15	80.04	0.34
2396	1,250.7	33.10436088	-103.57461190	62.73	-0.21	74.69	0.32
2397	1,251.2	33.10435700	-103.57460777	54.61	-0.15	71.56	0.37
2398	1,251.7	33.10435316	-103.57460366	56.64	-0.21	66.72	0.34
2399	1,252.3	33.10434922	-103.57459957	53.67	-0.16	62.66	0.36
2400	1,252.8	33.10434525	-103.57459548	49.26	-0.18	59.73	0.36
2401	1,253.3	33.10434093	-103.57459143	49.22	-0.15	58.32	0.38
2402	1,253.8	33.10433663	-103.57458745	45.98	-0.14	56.99	0.38
2403	1,254.4	33.10433249	-103.57458403	52.62	-0.21	59.92	0.31
2404	1,254.9	33.10432840	-103.57458061	48.01	-0.14	58.87	0.37
2405	1,255.4	33.10432453	-103.57457718	52.50	-0.20	59.88	0.35
2406	1,255.9	33.10432094	-103.57457372	53.52	-0.16	60.98	0.40
2407	1,256.4	33.10431810	-103.57457018	51.60	-0.15	61.02	0.40
2408	1,257.0	33.10431526	-103.57456655	56.29	-0.20	63.71	0.39
2409	1,257.5	33.10431244	-103.57456276	54.06	-0.15	63.09	0.42
2410	1,258.0	33.10430996	-103.57455911	53.71	-0.18	62.70	0.40
2411	1,258.5	33.10430788	-103.57455562	55.82	-0.17	66.56	0.42
2412	1,259.1	33.10430687	-103.57455207	50.74	-0.13	65.47	0.44
2413	1,259.6	33.10430681	-103.57454846	50.70	-0.16	65.23	0.40
2414	1,260.1	33.10430846	-103.57454619	51.99	-0.16	65.39	0.41
2415	1,260.6	33.10431115	-103.57454476	47.19	-0.16	61.99	0.38
2416	1,261.1	33.10431534	-103.57454463	53.56	-0.19	62.42	0.35
2417	1,261.7	33.10432015	-103.57454504	50.70	-0.14	62.07	0.38
2418	1,262.2	33.10432524	-103.57454677	56.80	-0.22	62.03	0.31
2419	1,262.7	33.10433038	-103.57454886	53.95	-0.14	59.10	0.36
2420	1,263.2	33.10433534	-103.57455172	54.65	-0.21	58.48	0.32
2421	1,263.8	33.10434026	-103.57455469	52.42	-0.12	58.59	0.35
2422	1,264.3	33.10434502	-103.57455828	51.33	-0.18	58.24	0.34
2423	1,264.8	33.10434973	-103.57456192	52.81	-0.18	58.71	0.31
2424	1,265.3	33.10435400	-103.57456619	48.56	-0.15	57.50	0.34
2425	1,265.8	33.10435830	-103.57457048	54.22	-0.22	58.28	0.29
2426	1,266.4	33.10436270	-103.57457478	49.34	-0.14	57.11	0.34
2427	1,266.9	33.10436714	-103.57457913	53.63	-0.20	58.91	0.30
2428	1,267.4	33.10437168	-103.57458366	49.18	-0.15	57.66	0.36
2429	1,267.9	33.10437625	-103.57458818	55.31	-0.23	58.28	0.28
2430	1,268.5	33.10438059	-103.57459244	52.70	-0.14	57.81	0.31
2431	1,269.0	33.10438502	-103.57459679	51.25	-0.18	57.31	0.34
2432	1,269.5	33.10438948	-103.57460114	50.74	-0.16	58.09	0.35
2433	1,270.0	33.10439403	-103.57460551	50.55	-0.18	59.14	0.35
2434	1,270.5	33.10439866	-103.57460987	52.89	-0.19	59.65	0.29
2435	1,271.1	33.10440335	-103.57461450	49.06	-0.16	57.23	0.31
2436	1,271.6	33.10440805	-103.57461933	50.35	-0.12	57.54	0.32
2437	1,272.1	33.10441268	-103.57462368	51.80	-0.18	57.19	0.34
2438	1,272.6	33.10441727	-103.57462777	50.27	-0.16	58.13	0.33
2439	1,273.2	33.10442216	-103.57463168	47.62	-0.18	56.56	0.33
2440	1,273.7	33.10442717	-103.57463552	50.08	-0.17	57.27	0.32
2441	1,274.2	33.10443208	-103.57463925	48.01	-0.19	55.78	0.32
2442	1,274.7	33.10443697	-103.57464297	46.13	-0.17	55.94	0.32
2443	1,275.2	33.10444178	-103.57464732	45.70	-0.17	55.51	0.33
2444	1,275.8	33.10444659	-103.57465176	50.08	-0.19	57.34	0.30
2445	1,276.3	33.10445142	-103.57465643	47.19	-0.15	55.27	0.33
2446	1,276.8	33.10445623	-103.57466115	49.14	-0.19	55.86	0.32
2447	1,277.3	33.10446054	-103.57466623	45.27	-0.15	54.49	0.34
2448	1,277.9	33.10446482	-103.57467133	47.89	-0.21	55.39	0.29

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
2449	1,278.4	33.10446898	-103.57467659	43.59	-0.14	54.18	0.33
2450	1,278.9	33.10447319	-103.57468179	49.02	-0.22	55.04	0.29
2451	1,279.4	33.10447755	-103.57468677	44.14	-0.14	54.61	0.34
2452	1,279.9	33.10448184	-103.57469169	47.58	-0.20	55.35	0.30
2453	1,280.5	33.10448602	-103.57469654	46.06	-0.16	55.00	0.35
2454	1,281.0	33.10449021	-103.57470142	51.25	-0.23	55.27	0.29
2455	1,281.5	33.10449442	-103.57470638	47.54	-0.16	53.95	0.33
2456	1,282.0	33.10449868	-103.57471136	49.49	-0.22	54.10	0.29
2457	1,282.6	33.10450301	-103.57471639	47.42	-0.16	54.30	0.31
2458	1,283.1	33.10450740	-103.57472135	47.89	-0.21	53.13	0.30
2459	1,283.6	33.10451187	-103.57472629	49.96	-0.20	54.38	0.27
2460	1,284.1	33.10451625	-103.57473130	26.60	0.02	51.33	0.38
2461	1,284.6	33.10452060	-103.57473638	43.44	-0.16	52.34	0.37
2462	1,285.2	33.10452497	-103.57474127	43.48	-0.16	54.10	0.32
2463	1,285.7	33.10452937	-103.57474611	48.16	-0.20	53.59	0.30
2464	1,286.2	33.10453346	-103.57475079	45.23	-0.16	53.16	0.33
2465	1,286.7	33.10453748	-103.57475544	44.38	-0.18	52.34	0.29
2466	1,287.2	33.10454232	-103.57475881	42.77	-0.15	52.27	0.33
2467	1,287.8	33.10454723	-103.57476204	47.27	-0.22	52.38	0.30
2468	1,288.3	33.10455274	-103.57476200	43.40	-0.16	49.81	0.29
2469	1,288.8	33.10455803	-103.57476146	47.62	-0.24	50.70	0.26
2470	1,289.3	33.10456111	-103.57475561	43.63	-0.15	48.91	0.28
2471	1,289.9	33.10456361	-103.57474949	45.86	-0.20	49.41	0.29
2472	1,290.4	33.10456330	-103.57474297	43.83	-0.15	50.63	0.29
2473	1,290.9	33.10456271	-103.57473631	44.61	-0.15	51.80	0.30
2474	1,291.4	33.10456132	-103.57472959	46.52	-0.18	53.44	0.28
2475	1,291.9	33.10455958	-103.57472312	43.32	-0.14	52.50	0.31
2476	1,292.5	33.10455714	-103.57471704	47.50	-0.21	53.09	0.25
2477	1,293.0	33.10455447	-103.57471099	44.96	-0.15	52.89	0.29
2478	1,293.5	33.10455149	-103.57470496	47.54	-0.21	53.09	0.29
2479	1,294.0	33.10454834	-103.57469910	45.39	-0.14	53.01	0.31
2480	1,294.6	33.10454504	-103.57469346	47.23	-0.20	54.38	0.30
2481	1,295.1	33.10454151	-103.57468804	46.60	-0.16	54.14	0.30
2482	1,295.6	33.10453783	-103.57468277	46.68	-0.19	54.10	0.31
2483	1,296.1	33.10453389	-103.57467759	49.61	-0.21	54.81	0.29
2484	1,296.6	33.10452983	-103.57467247	46.33	-0.16	54.34	0.32
2485	1,297.2	33.10452585	-103.57466745	51.88	-0.23	55.59	0.27
2486	1,297.7	33.10452190	-103.57466246	46.45	-0.16	55.00	0.33
2487	1,298.2	33.10451776	-103.57465756	51.06	-0.22	56.13	0.29
2488	1,298.7	33.10451359	-103.57465267	47.89	-0.17	54.88	0.33
2489	1,299.3	33.10450942	-103.57464753	51.25	-0.23	54.57	0.27
2490	1,299.8	33.10450527	-103.57464239	47.77	-0.17	55.00	0.30
2491	1,300.3	33.10450144	-103.57463700	46.95	-0.18	54.61	0.29
2492	1,300.8	33.10449760	-103.57463159	45.31	-0.15	54.34	0.30
2493	1,301.3	33.10449375	-103.57462611	47.03	-0.18	55.08	0.31
2494	1,301.9	33.10448990	-103.57462073	48.28	-0.18	56.76	0.30
2495	1,302.4	33.10448609	-103.57461580	46.02	-0.15	56.56	0.31
2496	1,302.9	33.10448209	-103.57461088	51.76	-0.21	56.99	0.29
2497	1,303.4	33.10447766	-103.57460607	47.07	-0.14	55.47	0.34
2498	1,304.0	33.10447299	-103.57460156	50.63	-0.20	57.50	0.31
2499	1,304.5	33.10446784	-103.57459758	47.62	-0.14	56.76	0.32
2500	1,305.0	33.10446220	-103.57459509	54.73	-0.23	57.54	0.22
2501	1,305.5	33.10445594	-103.57459447	48.71	-0.13	56.91	0.29
2502	1,306.1	33.10444999	-103.57459584	51.02	-0.20	56.64	0.31
2503	1,306.6	33.10444430	-103.57459898	48.36	-0.12	55.86	0.34
2504	1,307.1	33.10444020	-103.57460149	49.30	-0.19	54.53	0.31
2505	1,307.6	33.10443708	-103.57460362	44.73	-0.12	54.49	0.31
2506	1,308.1	33.10443329	-103.57460216	44.38	-0.18	53.59	0.29
2507	1,308.7	33.10442921	-103.57459916	46.80	-0.15	56.06	0.34
2508	1,309.2	33.10442496	-103.57459469	48.71	-0.19	56.56	0.32
2509	1,309.7	33.10442068	-103.57458982	49.61	-0.17	56.60	0.32
2510	1,310.2	33.10441638	-103.57458462	48.44	-0.15	56.80	0.31
2511	1,310.7	33.10441206	-103.57457937	50.23	-0.16	57.38	0.33
2512	1,311.3	33.10440742	-103.57457463	46.68	-0.15	56.17	0.33
2513	1,311.8	33.10440274	-103.57456991	51.02	-0.18	56.80	0.32
2514	1,312.3	33.10439809	-103.57456569	48.44	-0.15	56.95	0.32
2515	1,312.8	33.10439340	-103.57456154	49.92	-0.18	57.07	0.31
2516	1,313.4	33.10438853	-103.57455793	47.15	-0.14	57.42	0.34

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
2517	1,313.9	33.10438358	-103.57455436	52.15	-0.21	58.40	0.30
2518	1,314.4	33.10437843	-103.57455105	48.83	-0.16	57.66	0.32
2519	1,314.9	33.10437339	-103.57454796	51.68	-0.22	57.50	0.30
2520	1,315.4	33.10436866	-103.57454542	48.71	-0.14	56.56	0.33
2521	1,316.0	33.10436393	-103.57454316	49.06	-0.16	56.25	0.33
2522	1,316.5	33.10435928	-103.57454142	56.95	-0.25	58.28	0.24
2523	1,317.0	33.10435471	-103.57453917	50.20	-0.13	56.76	0.34
2524	1,317.5	33.10435025	-103.57453631	51.48	-0.20	56.72	0.29
2525	1,318.1	33.10434574	-103.57453315	49.02	-0.14	56.99	0.33
2526	1,318.6	33.10434118	-103.57452971	49.57	-0.17	57.27	0.33
2527	1,319.1	33.10433620	-103.57452608	51.06	-0.17	59.06	0.34
2528	1,319.6	33.10433095	-103.57452234	48.24	-0.13	58.13	0.37
2529	1,320.1	33.10432601	-103.57451877	53.56	-0.18	59.69	0.34
2530	1,320.7	33.10432117	-103.57451528	50.63	-0.14	58.83	0.38
2531	1,321.2	33.10431631	-103.57451226	54.41	-0.19	62.11	0.35
2532	1,321.7	33.10431144	-103.57450937	53.05	-0.13	63.52	0.41
2533	1,322.2	33.10430651	-103.57450680	57.54	-0.20	65.31	0.38
2534	1,322.8	33.10430155	-103.57450426	58.05	-0.14	69.45	0.43
2535	1,323.3	33.10429598	-103.57450199	58.87	-0.14	74.22	0.50
2536	1,323.8	33.10429042	-103.57449978	70.78	-0.12	89.57	0.65
2537	1,324.3	33.10428511	-103.57449835	101.76	0.10	129.26	1.39
2538	1,324.8	33.10427974	-103.57449700	126.72	1.43	84.53	-2.31
2539	1,325.4	33.10427399	-103.57449612	128.67	1.96	-149.61	-13.71
2540	1,325.9	33.10426824	-103.57449574	125.47	0.47	45.98	-2.91
2541	1,326.4	33.10426249	-103.57449708	86.95	0.04	116.80	0.59
2542	1,326.9	33.10425717	-103.57449937	73.91	-0.15	103.32	0.64
2543	1,327.5	33.10425279	-103.57450381	66.99	-0.16	89.14	0.50
2544	1,328.0	33.10424891	-103.57450873	59.92	-0.14	78.48	0.48
2545	1,328.5	33.10424579	-103.57451436	68.83	-0.30	75.27	0.29
2546	1,329.0	33.10424318	-103.57452040	55.16	-0.16	68.59	0.41
2547	1,329.5	33.10424111	-103.57452686	59.84	-0.25	67.07	0.35
2548	1,330.1	33.10423982	-103.57453361	50.98	-0.14	63.16	0.39
2549	1,330.6	33.10423912	-103.57454058	57.54	-0.25	63.59	0.31
2550	1,331.1	33.10423926	-103.57454780	49.22	-0.14	60.23	0.39
2551	1,331.6	33.10423984	-103.57455512	49.69	-0.18	59.26	0.37
2552	1,332.2	33.10424098	-103.57456239	48.32	-0.13	60.16	0.39
2553	1,332.7	33.10424231	-103.57456962	50.16	-0.16	61.29	0.40
2554	1,333.2	33.10424375	-103.57457662	52.31	-0.16	64.38	0.40
2555	1,333.7	33.10424521	-103.57458358	51.76	-0.15	64.65	0.41
2556	1,334.2	33.10424653	-103.57459065	56.25	-0.17	69.14	0.42
2557	1,334.8	33.10424783	-103.57459770	56.76	-0.13	76.37	0.45
2558	1,335.3	33.10424878	-103.57460523	72.70	-0.18	90.12	0.45
2559	1,335.8	33.10424970	-103.57461275	91.09	-0.12	95.27	0.53
2560	1,336.3	33.10425046	-103.57462003	153.32	-0.26	120.27	0.43
2561	1,336.9	33.10425114	-103.57462730	186.80	-0.12	163.05	0.58
2562	1,337.4	33.10425143	-103.57463457	224.65	-0.23	199.18	0.54
2563	1,337.9	33.10425169	-103.57464186	236.64	-0.11	231.76	0.68
2564	1,338.4	33.10425186	-103.57464925	247.58	-0.20	247.54	0.63
2565	1,338.9	33.10425185	-103.57465653	253.28	-0.09	269.73	0.72
2566	1,339.5	33.10425148	-103.57466363	242.27	-0.16	272.03	0.71
2567	1,340.0	33.10425087	-103.57467065	243.24	-0.11	282.58	0.80
2568	1,340.5	33.10424994	-103.57467761	254.34	-0.18	290.39	0.74
2569	1,341.0	33.10424865	-103.57468440	273.59	-0.12	310.55	0.78
2570	1,341.6	33.10424701	-103.57469099	285.16	-0.13	336.09	0.81
2571	1,342.1	33.10424508	-103.57469735	302.66	-0.10	322.66	0.88
2572	1,342.6	33.10424294	-103.57470354	340.66	-0.09	362.62	0.96
2573	1,343.1	33.10424053	-103.57470983	374.77	-0.11	370.23	1.05
2574	1,343.6	33.10423800	-103.57471613	399.84	-0.06	398.52	1.14
2575	1,344.2	33.10423552	-103.57472178	396.72	-0.11	407.27	1.14
2576	1,344.7	33.10423305	-103.57472724	388.09	-0.05	376.91	1.17
2577	1,345.2	33.10423015	-103.57473230	365.12	-0.14	383.09	1.08
2578	1,345.7	33.10422715	-103.57473729	350.23	-0.07	382.93	1.11
2579	1,346.3	33.10422307	-103.57474156	336.84	-0.11	358.44	1.03
2580	1,346.8	33.10421891	-103.57474577	338.75	-0.08	348.32	1.02
2581	1,347.3	33.10421408	-103.57474976	316.80	-0.10	323.91	0.95
2582	1,347.8	33.10420924	-103.57475377	298.28	-0.08	297.70	0.91
2583	1,348.3	33.10420458	-103.57475779	305.70	-0.12	314.92	0.90
2584	1,348.9	33.10419985	-103.57476189	318.13	-0.12	302.38	0.87

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
2585	1,349.4	33.10419527	-103.57476598	321.64	-0.09	295.86	0.86
2586	1,349.9	33.10419072	-103.57477032	346.60	-0.15	322.34	0.82
2587	1,350.4	33.10418625	-103.57477534	366.95	-0.08	321.91	0.90
2588	1,351.0	33.10418199	-103.57478058	366.37	-0.12	325.59	0.87
2589	1,351.5	33.10417810	-103.57478619	373.83	-0.08	330.12	0.92
2590	1,352.0	33.10417419	-103.57479161	375.86	-0.16	359.22	0.88
2591	1,352.5	33.10417025	-103.57479680	376.21	-0.09	367.15	0.94
2592	1,353.0	33.10416625	-103.57480172	383.56	-0.14	374.65	0.95
2593	1,353.6	33.10416218	-103.57480642	388.87	-0.08	374.41	0.98
2594	1,354.1	33.10415805	-103.57481110	386.56	-0.10	384.84	1.02
2595	1,354.6	33.10415387	-103.57481578	401.02	-0.08	409.61	1.04
2596	1,355.1	33.10414967	-103.57482074	407.77	-0.07	409.06	1.07
2597	1,355.7	33.10414546	-103.57482582	419.49	-0.09	403.28	1.09
2598	1,356.2	33.10414142	-103.57483122	408.98	-0.04	395.04	1.11
2599	1,356.7	33.10413743	-103.57483673	403.05	-0.10	412.03	1.10
2600	1,357.2	33.10413350	-103.57484212	392.70	-0.06	409.53	1.14
2601	1,357.7	33.10412958	-103.57484749	414.06	-0.12	432.77	1.14
2602	1,358.3	33.10412571	-103.57485290	421.60	-0.05	431.99	1.17
2603	1,358.8	33.10412185	-103.57485830	407.23	-0.10	422.42	1.16
2604	1,359.3	33.10411834	-103.57486337	401.52	-0.04	421.13	1.18
2605	1,359.8	33.10411483	-103.57486850	402.85	-0.11	424.53	1.13
2606	1,360.4	33.10411134	-103.57487399	395.94	-0.05	421.48	1.14
2607	1,360.9	33.10410790	-103.57487963	399.73	-0.10	414.61	1.10
2608	1,361.4	33.10410473	-103.57488575	408.01	-0.09	413.52	1.05
2609	1,361.9	33.10410167	-103.57489193	392.70	-0.08	389.26	1.02
2610	1,362.4	33.10409889	-103.57489824	409.06	-0.11	413.52	1.00
2611	1,363.0	33.10409599	-103.57490454	383.13	-0.08	397.89	0.96
2612	1,363.5	33.10409288	-103.57491081	340.23	-0.14	340.66	0.87
2613	1,364.0	33.10408980	-103.57491709	319.65	-0.09	356.56	0.86
2614	1,364.5	33.10408671	-103.57492342	295.74	-0.13	326.45	0.80
2615	1,365.1	33.10408358	-103.57492982	292.77	-0.07	333.91	0.83
2616	1,365.6	33.10408040	-103.57493629	317.50	-0.18	343.20	0.75
2617	1,366.1	33.10407715	-103.57494233	324.57	-0.09	303.71	0.81
2618	1,366.6	33.10407385	-103.57494813	344.65	-0.15	328.13	0.80
2619	1,367.1	33.10407015	-103.57495316	356.52	-0.09	335.47	0.83
2620	1,367.7	33.10406628	-103.57495789	349.34	-0.15	334.14	0.76
2621	1,368.2	33.10406186	-103.57496262	332.89	-0.11	322.66	0.76
2622	1,368.7	33.10405732	-103.57496733	317.93	-0.14	310.90	0.72
2623	1,369.2	33.10405349	-103.57497290	306.25	-0.11	303.16	0.71
2624	1,369.8	33.10404976	-103.57497857	304.92	-0.12	300.78	0.67
2625	1,370.3	33.10404615	-103.57498459	288.59	-0.14	277.62	0.63
2626	1,370.8	33.10404255	-103.57499063	285.86	-0.12	267.50	0.65
2627	1,371.3	33.10403893	-103.57499672	303.79	-0.14	277.93	0.64
2628	1,371.8	33.10403534	-103.57500279	304.38	-0.10	286.76	0.69
2629	1,372.4	33.10403187	-103.57500894	312.15	-0.16	313.44	0.69
2630	1,372.9	33.10402843	-103.57501507	312.77	-0.08	304.69	0.72
2631	1,373.4	33.10402512	-103.57502120	317.73	-0.16	299.41	0.68
2632	1,373.9	33.10402188	-103.57502740	308.83	-0.10	299.77	0.73
2633	1,374.5	33.10401884	-103.57503371	292.93	-0.23	278.20	0.60
2634	1,375.0	33.10401566	-103.57503996	290.00	-0.11	289.06	0.71
2635	1,375.5	33.10401226	-103.57504614	277.77	-0.20	286.95	0.63
2636	1,376.0	33.10400871	-103.57505211	275.04	-0.12	270.66	0.68
2637	1,376.5	33.10400497	-103.57505787	276.45	-0.18	270.63	0.65
2638	1,377.1	33.10400119	-103.57506336	263.48	-0.10	250.86	0.69
2639	1,377.6	33.10399738	-103.57506861	249.84	-0.17	261.76	0.67
2640	1,378.1	33.10399350	-103.57507413	249.65	-0.13	268.87	0.69
2641	1,378.6	33.10398959	-103.57507979	248.98	-0.14	268.09	0.69
2642	1,379.2	33.10398605	-103.57508573	250.55	-0.14	266.37	0.72
2643	1,379.7	33.10398264	-103.57509178	272.85	-0.14	286.60	0.71
2644	1,380.2	33.10397970	-103.57509814	297.42	-0.16	302.58	0.69
2645	1,380.7	33.10397685	-103.57510458	290.59	-0.11	268.40	0.72
2646	1,381.2	33.10397356	-103.57511067	298.98	-0.16	282.58	0.69
2647	1,381.7	33.10397023	-103.57511672	286.52	-0.12	265.23	0.68
2648	1,382.3	33.10396668	-103.57512327	293.59	-0.17	263.01	0.62
2649	1,382.8	33.10396312	-103.57512981	274.06	-0.10	245.23	0.61
2650	1,383.3	33.10395969	-103.57513585	261.41	-0.14	252.54	0.61
2651	1,383.9	33.10395621	-103.57514191	234.53	-0.11	232.15	0.59
2652	1,384.4	33.10395262	-103.57514794	250.12	-0.19	246.13	0.50

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
2653	1,384.9	33.10394912	-103.57515406	238.91	-0.12	222.34	0.52
2654	1,385.4	33.10394589	-103.57516039	234.49	-0.22	211.17	0.43
2655	1,385.9	33.10394256	-103.57516655	229.88	-0.15	199.84	0.47
2656	1,386.5	33.10393904	-103.57517231	200.59	-0.20	177.46	0.40
2657	1,387.0	33.10393547	-103.57517829	187.66	-0.13	151.84	0.43
2658	1,387.5	33.10393183	-103.57518456	193.44	-0.25	172.93	0.31
2659	1,388.0	33.10392845	-103.57519081	193.63	-0.14	180.78	0.31
2660	1,388.6	33.10392536	-103.57519695	210.39	-0.24	199.10	0.08
2661	1,389.1	33.10392283	-103.57520329	209.88	-0.16	197.70	0.27
2662	1,389.6	33.10392067	-103.57520976	206.09	-0.19	143.71	0.96
2663	1,390.1	33.10391847	-103.57521621	239.61	-0.20	214.88	0.37
2664	1,390.6	33.10391625	-103.57522264	233.16	-0.22	237.54	0.21
2665	1,391.2	33.10391345	-103.57522856	226.88	-0.16	236.17	0.36
2666	1,391.7	33.10391046	-103.57523433	217.07	-0.17	227.62	0.47
2667	1,392.2	33.10390711	-103.57523991	217.77	-0.15	225.63	0.52
2668	1,392.7	33.10390368	-103.57524548	228.24	-0.14	237.50	0.58
2669	1,393.3	33.10390009	-103.57525123	227.19	-0.14	240.82	0.59
2670	1,393.8	33.10389649	-103.57525701	223.32	-0.10	226.17	0.61
2671	1,394.3	33.10389363	-103.57526339	223.83	-0.12	223.95	0.61
2672	1,394.8	33.10389078	-103.57526975	227.50	-0.08	238.71	0.63
2673	1,395.3	33.10388819	-103.57527575	218.20	-0.15	228.13	0.58
2674	1,395.9	33.10388547	-103.57528156	206.37	-0.08	212.38	0.61
2675	1,396.4	33.10388215	-103.57528652	208.79	-0.14	211.21	0.58
2676	1,396.9	33.10387855	-103.57529138	202.42	-0.09	212.70	0.61
2677	1,397.4	33.10387414	-103.57529597	210.31	-0.12	211.13	0.58
2678	1,398.0	33.10386967	-103.57530043	220.16	-0.08	215.16	0.61
2679	1,398.5	33.10386511	-103.57530463	218.32	-0.14	220.51	0.60
2680	1,399.0	33.10386031	-103.57530853	223.44	-0.09	217.70	0.62
2681	1,399.5	33.10385522	-103.57531204	219.45	-0.16	216.52	0.56
2682	1,400.0	33.10384995	-103.57531545	220.27	-0.10	221.84	0.61
2683	1,400.6	33.10384452	-103.57531878	231.17	-0.19	229.22	0.54
2684	1,401.1	33.10383910	-103.57532229	229.26	-0.10	232.66	0.57
2685	1,401.6	33.10383370	-103.57532589	227.07	-0.14	222.31	0.53
2686	1,402.1	33.10382856	-103.57532949	231.13	-0.09	222.15	0.56
2687	1,402.7	33.10382355	-103.57533309	224.10	-0.12	210.78	0.57
2688	1,403.2	33.10381814	-103.57533613	233.32	-0.09	219.65	0.57
2689	1,403.7	33.10381264	-103.57533899	235.90	-0.12	223.75	0.55
2690	1,404.2	33.10380686	-103.57534179	246.99	-0.13	231.17	0.53
2691	1,404.7	33.10380104	-103.57534458	243.71	-0.12	226.52	0.54
2692	1,405.3	33.10379533	-103.57534742	248.83	-0.15	231.02	0.49
2693	1,405.8	33.10378962	-103.57535026	244.65	-0.11	226.80	0.53
2694	1,406.3	33.10378380	-103.57535305	259.81	-0.22	229.81	0.45
2695	1,406.8	33.10377799	-103.57535582	248.87	-0.11	230.66	0.51
2696	1,407.4	33.10377216	-103.57535842	247.03	-0.14	228.05	0.50
2697	1,407.9	33.10376628	-103.57536103	254.14	-0.10	230.94	0.55
2698	1,408.4	33.10376020	-103.57536371	269.34	-0.16	238.09	0.50
2699	1,408.9	33.10375404	-103.57536639	263.95	-0.08	230.66	0.56
2700	1,409.4	33.10374817	-103.57536889	254.77	-0.15	225.31	0.51
2701	1,410.0	33.10374213	-103.57537135	264.92	-0.09	230.78	0.54
2702	1,410.5	33.10373599	-103.57537367	264.02	-0.17	236.29	0.47
2703	1,411.0	33.10373005	-103.57537620	271.41	-0.11	255.51	0.50
2704	1,411.5	33.10372435	-103.57537899	241.09	-0.15	224.96	0.46
2705	1,412.1	33.10371860	-103.57538065	233.16	-0.08	210.70	0.57
2706	1,412.6	33.10371279	-103.57538137	238.67	-0.14	215.82	0.51
2707	1,413.1	33.10370697	-103.57538144	251.60	-0.09	232.97	0.52
2708	1,413.6	33.10370116	-103.57538113	221.45	-0.13	229.22	0.47
2709	1,414.1	33.10369535	-103.57538117	239.02	-0.11	235.00	0.51
2710	1,414.7	33.10368956	-103.57538136	242.31	-0.16	233.01	0.50
2711	1,415.2	33.10368340	-103.57538161	256.17	-0.10	233.40	0.54
2712	1,415.7	33.10367719	-103.57538188	253.24	-0.11	243.52	0.56
2713	1,416.2	33.10367117	-103.57538343	262.62	-0.07	248.75	0.58
2714	1,416.8	33.10366523	-103.57538512	269.96	-0.08	246.64	0.61
2715	1,417.3	33.10366084	-103.57538987	284.57	-0.08	260.82	0.61
2716	1,417.8	33.10365658	-103.57539480	295.59	-0.06	271.02	0.62
2717	1,418.3	33.10365373	-103.57540134	307.81	-0.13	277.97	0.60
2718	1,418.8	33.10365093	-103.57540785	292.70	-0.10	273.98	0.64
2719	1,419.4	33.10364842	-103.57541423	296.21	-0.16	277.58	0.62
2720	1,419.9	33.10364584	-103.57542067	290.31	-0.08	276.02	0.64

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
2721	1,420.4	33.10364303	-103.57542723	293.79	-0.14	269.69	0.59
2722	1,420.9	33.10364015	-103.57543374	290.31	-0.07	268.20	0.62
2723	1,421.5	33.10363713	-103.57544008	295.12	-0.14	271.52	0.61
2724	1,422.0	33.10363381	-103.57544603	298.52	-0.08	270.74	0.65
2725	1,422.5	33.10363005	-103.57545139	292.66	-0.13	261.99	0.61
2726	1,423.0	33.10362581	-103.57545652	285.04	-0.08	257.77	0.63
2727	1,423.5	33.10362105	-103.57546141	271.02	-0.13	243.79	0.58
2728	1,424.1	33.10361619	-103.57546620	256.37	-0.09	233.01	0.59
2729	1,424.6	33.10361127	-103.57547090	238.24	-0.14	225.27	0.53
2730	1,425.1	33.10360645	-103.57547547	218.20	-0.09	214.65	0.53
2731	1,425.6	33.10360169	-103.57547997	197.66	-0.13	205.51	0.50
2732	1,426.2	33.10359693	-103.57548460	179.77	-0.09	186.02	0.51
2733	1,426.7	33.10359220	-103.57548926	167.46	-0.15	175.70	0.47
2734	1,427.2	33.10358739	-103.57549423	160.04	-0.09	178.48	0.49
2735	1,427.7	33.10358258	-103.57549925	154.30	-0.14	174.65	0.48
2736	1,428.2	33.10357781	-103.57550426	134.14	-0.09	140.39	0.50
2737	1,428.7	33.10357303	-103.57550927	125.31	-0.17	152.77	0.47
2738	1,429.3	33.10356840	-103.57551403	115.47	-0.11	150.23	0.45
2739	1,429.8	33.10356384	-103.57551879	110.51	-0.12	147.89	0.47
2740	1,430.3	33.10355993	-103.57552371	121.09	-0.09	149.10	0.50
2741	1,430.9	33.10355603	-103.57552870	130.82	-0.13	147.58	0.51
2742	1,431.4	33.10355227	-103.57553410	140.63	-0.13	147.81	0.48
2743	1,431.9	33.10354853	-103.57553960	125.47	-0.09	144.57	0.51
2744	1,432.4	33.10354478	-103.57554547	116.99	-0.14	143.71	0.46
2745	1,432.9	33.10354096	-103.57555140	102.70	-0.09	136.29	0.46
2746	1,433.5	33.10353702	-103.57555740	99.41	-0.14	124.69	0.44
2747	1,434.0	33.10353329	-103.57556327	91.56	-0.10	121.29	0.44
2748	1,434.5	33.10352984	-103.57556897	91.48	-0.16	125.55	0.42
2749	1,435.0	33.10352638	-103.57557477	84.14	-0.11	118.36	0.44
2750	1,435.6	33.10352290	-103.57558066	95.94	-0.15	120.70	0.39
2751	1,436.1	33.10351962	-103.57558644	107.27	-0.08	123.36	0.48
2752	1,436.6	33.10351647	-103.57559217	115.00	-0.18	106.48	0.47
2753	1,437.1	33.10351294	-103.57559785	111.33	-0.11	132.19	0.47
2754	1,437.6	33.10350920	-103.57560351	108.13	-0.19	130.00	0.40
2755	1,438.2	33.10350564	-103.57560818	95.16	-0.12	115.63	0.44
2756	1,438.7	33.10350212	-103.57561254	89.53	-0.14	109.30	0.45
2757	1,439.2	33.10349826	-103.57561728	103.52	-0.10	118.67	0.48
2758	1,439.7	33.10349432	-103.57562211	110.20	-0.08	125.08	0.52
2759	1,440.3	33.10349057	-103.57562722	115.82	-0.11	128.28	0.52
2760	1,440.8	33.10348684	-103.57563238	112.42	-0.08	127.85	0.51
2761	1,441.3	33.10348374	-103.57563840	110.82	-0.15	113.28	0.47
2762	1,441.8	33.10348071	-103.57564445	104.45	-0.08	114.65	0.51
2763	1,442.3	33.10347813	-103.57565095	100.04	-0.14	124.10	0.44
2764	1,442.9	33.10347548	-103.57565750	109.65	-0.06	129.02	0.48
2765	1,443.4	33.10347264	-103.57566406	126.37	-0.21	141.09	0.40
2766	1,443.9	33.10346985	-103.57567048	115.59	-0.06	133.32	0.51
2767	1,444.4	33.10346723	-103.57567644	115.39	-0.17	122.93	0.48
2768	1,445.0	33.10346466	-103.57568203	118.71	-0.05	120.47	0.62
2769	1,445.5	33.10346213	-103.57568693	125.08	-0.14	119.06	0.60
2770	1,446.0	33.10346054	-103.57569016	131.84	-0.07	116.45	0.66
2771	1,446.5	33.10346013	-103.57569125	126.13	-0.11	115.04	0.70
2772	1,447.0	33.10346002	-103.57569172	133.24	-0.08	114.38	0.71
2773	1,447.6	33.10346017	-103.57569164	139.57	-0.07	113.24	0.69
2774	1,448.1	33.10346034	-103.57569159	138.91	-0.07	113.63	0.71
2775	1,448.6	33.10346053	-103.57569155	136.25	-0.07	114.06	0.73
2776	1,449.1	33.10346053	-103.57569155	138.67	-0.06	113.83	0.72
2777	1,449.7	33.10346046	-103.57569156	140.04	-0.05	113.71	0.70
2778	1,450.2	33.10346048	-103.57569157	139.26	-0.06	114.53	0.71
2779	1,450.7	33.10346052	-103.57569158	139.41	-0.06	114.41	0.72
2780	1,451.2	33.10346054	-103.57569156	141.17	-0.06	113.87	0.70
2781	1,451.7	33.10346057	-103.57569153	141.48	-0.06	114.18	0.72
2782	1,452.3	33.10346057	-103.57569154	140.55	-0.06	114.38	0.71
2783	1,452.8	33.10346058	-103.57569155	140.98	-0.06	114.30	0.71
2784	1,453.3	33.10346061	-103.57569149	141.09	-0.06	114.26	0.71
2785	1,453.8	33.10346062	-103.57569144	140.55	-0.07	114.81	0.70
2786	1,454.4	33.10346051	-103.57569148	140.66	-0.07	113.98	0.71
2787	1,454.9	33.10346035	-103.57569159	141.48	-0.06	114.30	0.70
2788	1,455.4	33.10345999	-103.57569194	141.37	-0.06	113.95	0.71

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
2789	1,455.9	33.10345911	-103.57569298	143.87	-0.05	114.02	0.70
2790	1,456.4	33.10345698	-103.57569568	136.72	-0.11	112.58	0.64
2791	1,457.0	33.10345479	-103.57569887	136.60	-0.14	112.23	0.61
2792	1,457.5	33.10345253	-103.57570293	119.10	-0.07	112.66	0.66
2793	1,458.0	33.10345025	-103.57570734	100.74	-0.13	111.21	0.56
2794	1,458.5	33.10344796	-103.57571215	94.69	-0.09	107.54	0.50
2795	1,459.1	33.10344556	-103.57571696	88.91	-0.12	103.63	0.47
2796	1,459.6	33.10344307	-103.57572176	87.03	-0.12	107.77	0.44
2797	1,460.1	33.10344019	-103.57572646	93.05	-0.07	114.30	0.48
2798	1,460.6	33.10343710	-103.57573108	98.83	-0.14	104.45	0.45
2799	1,461.1	33.10343390	-103.57573487	107.15	-0.09	99.30	0.49
2800	1,461.7	33.10343066	-103.57573831	106.84	-0.14	95.86	0.45
2801	1,462.2	33.10342737	-103.57574243	106.06	-0.13	93.36	0.44
2802	1,462.7	33.10342407	-103.57574673	100.35	-0.11	95.43	0.44
2803	1,463.2	33.10342098	-103.57575133	112.58	-0.17	107.03	0.40
2804	1,463.8	33.10341794	-103.57575596	110.20	-0.09	100.90	0.45
2805	1,464.3	33.10341476	-103.57576007	112.19	-0.14	88.09	0.44
2806	1,464.8	33.10341156	-103.57576413	102.19	-0.09	83.75	0.43
2807	1,465.3	33.10340808	-103.57576757	94.30	-0.10	87.85	0.44
2808	1,465.8	33.10340474	-103.57577106	108.24	-0.18	115.12	0.38
2809	1,466.4	33.10340226	-103.57577478	116.06	-0.10	113.28	0.43
2810	1,466.9	33.10340022	-103.57577837	137.93	-0.15	110.78	0.42
2811	1,467.4	33.10339970	-103.57578147	145.51	-0.13	128.13	0.45
2812	1,467.9	33.10339933	-103.57578349	146.60	-0.13	135.35	0.46
2813	1,468.5	33.10339927	-103.57578311	154.18	-0.11	134.81	0.45
2814	1,469.0	33.10339918	-103.57578273	163.28	-0.09	133.44	0.46
2815	1,469.5	33.10339906	-103.57578232	165.70	-0.09	134.18	0.46
2816	1,470.0	33.10339905	-103.57578220	166.68	-0.08	135.08	0.47
2817	1,470.5	33.10339919	-103.57578237	168.95	-0.08	134.10	0.47
2818	1,471.1	33.10339931	-103.57578253	170.31	-0.09	134.41	0.46
2819	1,471.6	33.10339941	-103.57578269	169.53	-0.09	134.69	0.49
2820	1,472.1	33.10339935	-103.57578315	169.10	-0.09	134.49	0.47
2821	1,472.6	33.10339918	-103.57578378	168.28	-0.09	134.96	0.47
2822	1,473.2	33.10339912	-103.57578392	164.65	-0.10	136.80	0.48
2823	1,473.7	33.10339909	-103.57578388	162.50	-0.10	136.99	0.47
2824	1,474.2	33.10339911	-103.57578276	163.87	-0.09	135.55	0.47
2825	1,474.7	33.10339913	-103.57578139	165.55	-0.09	134.81	0.46
2826	1,475.2	33.10339801	-103.57578076	157.97	-0.07	131.29	0.45
2827	1,475.8	33.10339675	-103.57578021	163.16	-0.03	129.69	0.46
2828	1,476.3	33.10339257	-103.57577774	159.81	-0.12	130.43	0.40
2829	1,476.8	33.10338821	-103.57577510	144.92	-0.10	121.99	0.45
2830	1,477.3	33.10338331	-103.57577141	126.37	-0.11	140.59	0.45
2831	1,477.9	33.10337848	-103.57576767	127.23	-0.13	108.79	0.43
2832	1,478.4	33.10337407	-103.57576363	112.34	-0.10	104.18	0.45
2833	1,478.9	33.10336988	-103.57575967	105.63	-0.12	94.45	0.46
2834	1,479.4	33.10336628	-103.57575589	91.37	-0.08	84.02	0.49
2835	1,479.9	33.10336277	-103.57575239	92.34	-0.11	98.32	0.48
2836	1,480.5	33.10335945	-103.57574944	89.41	-0.06	105.94	0.50
2837	1,481.0	33.10335596	-103.57574651	90.20	-0.04	89.69	0.56
2838	1,481.5	33.10335220	-103.57574360	101.56	-0.02	70.78	0.59
2839	1,482.0	33.10334835	-103.57574035	100.51	0.01	69.34	0.63
2840	1,482.6	33.10334440	-103.57573675	96.48	-0.10	72.54	0.54
2841	1,483.1	33.10334044	-103.57573290	85.31	-0.03	73.40	0.57
2842	1,483.6	33.10333652	-103.57572891	77.15	-0.06	70.20	0.56
2843	1,484.1	33.10333251	-103.57572495	74.65	-0.04	67.85	0.56
2844	1,484.6	33.10332844	-103.57572101	68.20	-0.06	62.58	0.55
2845	1,485.2	33.10332416	-103.57571715	67.70	-0.09	56.45	0.54
2846	1,485.7	33.10331980	-103.57571331	54.92	-0.05	49.02	0.59
2847	1,486.2	33.10331603	-103.57571014	55.70	-0.16	48.75	0.51
2848	1,486.7	33.10331236	-103.57570709	43.05	-0.10	42.89	0.56
2849	1,487.3	33.10330930	-103.57570386	37.70	-0.16	39.18	0.56
2850	1,487.8	33.10330631	-103.57570062	33.87	-0.12	36.45	0.55
2851	1,488.3	33.10330421	-103.57569725	27.66	-0.07	33.71	0.57
2852	1,488.8	33.10330217	-103.57569410	26.48	-0.13	29.88	0.55
2853	1,489.3	33.10330079	-103.57569308	25.31	-0.10	27.38	0.54
2854	1,489.9	33.10329937	-103.57569187	23.28	-0.08	26.33	0.53
2855	1,490.4	33.10329783	-103.57568993	21.76	-0.15	23.32	0.48
2856	1,490.9	33.10329602	-103.57568777	22.07	-0.16	23.52	0.47

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
2857	1,491.4	33.10329347	-103.57568505	20.16	-0.12	23.52	0.52
2858	1,492.0	33.10329160	-103.57568319	18.40	-0.12	24.30	0.48
2859	1,492.5	33.10329095	-103.57568289	16.48	-0.11	23.71	0.45
2860	1,493.0	33.10328966	-103.57568326	16.48	-0.10	23.56	0.43
2861	1,493.5	33.10328751	-103.57568447	13.24	-0.06	22.58	0.40
2862	1,494.0	33.10328679	-103.57568521	-0.74	-0.02	21.09	0.37
2863	1,494.6	33.10328738	-103.57568551	10.90	-0.03	22.54	0.42
2864	1,495.1	33.10328763	-103.57568550	17.34	-0.06	24.38	0.45
2865	1,495.6	33.10328766	-103.57568527	18.87	-0.07	25.00	0.48
2866	1,496.1	33.10328761	-103.57568540	19.41	-0.08	24.84	0.47
2867	1,496.7	33.10328752	-103.57568569	19.34	-0.07	24.45	0.48
2868	1,497.2	33.10328747	-103.57568584	19.06	-0.07	24.45	0.47
2869	1,497.7	33.10328743	-103.57568593	19.14	-0.07	24.69	0.49
2870	1,498.2	33.10328757	-103.57568546	18.79	-0.06	24.65	0.49
2871	1,498.7	33.10328775	-103.57568490	19.53	-0.06	24.53	0.48
2872	1,499.3	33.10328763	-103.57568471	20.00	-0.08	24.18	0.46
2873	1,499.8	33.10328751	-103.57568455	19.02	-0.07	24.65	0.47
2874	1,500.3	33.10328773	-103.57568455	19.38	-0.06	23.95	0.45
2875	1,500.8	33.10328794	-103.57568454	19.38	-0.08	24.61	0.46
2876	1,501.4	33.10328802	-103.57568449	19.53	-0.08	24.49	0.46
2877	1,501.9	33.10328809	-103.57568447	20.00	-0.07	24.38	0.47
2878	1,502.4	33.10328812	-103.57568459	20.39	-0.07	25.00	0.45
2879	1,502.9	33.10328816	-103.57568468	19.96	-0.07	23.95	0.46
2880	1,503.4	33.10328824	-103.57568470	19.81	-0.07	24.69	0.47
2881	1,504.0	33.10328827	-103.57568469	19.69	-0.07	24.38	0.47
2882	1,504.5	33.10328824	-103.57568462	20.16	-0.07	24.53	0.48
2883	1,505.0	33.10328822	-103.57568460	20.23	-0.07	24.49	0.47
2884	1,505.5	33.10328822	-103.57568464	20.23	-0.07	24.96	0.47
2885	1,506.1	33.10328820	-103.57568467	20.04	-0.07	24.49	0.47
2886	1,506.6	33.10328815	-103.57568469	19.61	-0.07	24.88	0.46
2887	1,507.1	33.10328813	-103.57568475	19.77	-0.07	24.45	0.45
2888	1,507.6	33.10328813	-103.57568482	19.84	-0.07	24.30	0.45
2889	1,508.1	33.10328810	-103.57568478	19.57	-0.07	24.45	0.46
2890	1,508.7	33.10328805	-103.57568470	19.69	-0.07	24.38	0.47
2891	1,509.2	33.10328792	-103.57568482	19.61	-0.08	24.41	0.45
2892	1,509.7	33.10328777	-103.57568501	19.73	-0.08	24.10	0.46
2893	1,510.2	33.10328772	-103.57568520	18.95	-0.08	24.18	0.46
2894	1,510.8	33.10328768	-103.57568540	18.91	-0.06	24.34	0.45
2895	1,511.3	33.10328768	-103.57568531	18.98	-0.06	24.18	0.45
2896	1,511.8	33.10328767	-103.57568521	19.41	-0.07	24.26	0.45
2897	1,512.3	33.10328760	-103.57568520	19.41	-0.08	24.14	0.47
2898	1,512.8	33.10328755	-103.57568518	19.30	-0.07	23.87	0.45
2899	1,513.4	33.10328762	-103.57568516	19.49	-0.07	23.98	0.46
2900	1,513.9	33.10328768	-103.57568513	19.61	-0.07	23.91	0.45
2901	1,514.4	33.10328774	-103.57568509	19.45	-0.07	24.53	0.46
2902	1,514.9	33.10328781	-103.57568506	19.96	-0.07	24.84	0.44
2903	1,515.5	33.10328792	-103.57568504	19.88	-0.07	24.22	0.46
2904	1,516.0	33.10328799	-103.57568498	20.35	-0.07	24.26	0.47
2905	1,516.5	33.10328798	-103.57568487	20.04	-0.07	24.45	0.47
2906	1,517.0	33.10328796	-103.57568487	19.92	-0.07	24.30	0.47
2907	1,517.5	33.10328793	-103.57568497	19.81	-0.07	23.87	0.47
2908	1,518.1	33.10328785	-103.57568537	19.81	-0.07	24.18	0.45
2909	1,518.6	33.10328773	-103.57568601	19.18	-0.07	24.77	0.46
2910	1,519.1	33.10328769	-103.57568616	18.52	-0.07	24.45	0.48
2911	1,519.6	33.10328770	-103.57568604	18.05	-0.05	24.26	0.48
2912	1,520.2	33.10328770	-103.57568598	18.48	-0.07	24.14	0.49
2913	1,520.7	33.10328771	-103.57568594	18.95	-0.08	24.41	0.48
2914	1,521.2	33.10328779	-103.57568568	18.98	-0.07	23.87	0.48
2915	1,521.7	33.10328789	-103.57568537	19.10	-0.07	24.10	0.48
2916	1,522.2	33.10328793	-103.57568520	20.04	-0.07	24.38	0.47
2917	1,522.8	33.10328796	-103.57568504	19.92	-0.07	24.81	0.47
2918	1,523.3	33.10328799	-103.57568506	19.88	-0.07	24.45	0.47
2919	1,523.8	33.10328802	-103.57568509	19.73	-0.07	24.88	0.47
2920	1,524.3	33.10328800	-103.57568509	19.65	-0.07	24.69	0.47
2921	1,524.9	33.10328796	-103.57568508	19.69	-0.07	24.22	0.46
2922	1,525.4	33.10328790	-103.57568502	19.81	-0.07	24.06	0.46
2923	1,525.9	33.10328786	-103.57568496	20.04	-0.07	23.98	0.45
2924	1,526.4	33.10328786	-103.57568489	20.08	-0.07	24.18	0.46

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
2925	1,526.9	33.10328786	-103.57568486	19.96	-0.07	24.30	0.46
2926	1,527.5	33.10328785	-103.57568488	19.88	-0.07	24.65	0.47
2927	1,528.0	33.10328786	-103.57568486	19.88	-0.07	24.14	0.46
2928	1,528.5	33.10328787	-103.57568480	19.57	-0.06	24.30	0.46
2929	1,529.0	33.10328788	-103.57568479	19.45	-0.07	24.06	0.44
2930	1,529.6	33.10328789	-103.57568484	19.45	-0.07	24.18	0.45
2931	1,530.1	33.10328793	-103.57568487	19.45	-0.06	24.45	0.45
2932	1,530.6	33.10328798	-103.57568488	19.96	-0.07	23.79	0.45
2933	1,531.1	33.10328798	-103.57568490	19.38	-0.07	23.91	0.46
2934	1,531.6	33.10328797	-103.57568492	19.61	-0.07	24.26	0.45
2935	1,532.2	33.10328780	-103.57568535	19.49	-0.07	24.22	0.45
2936	1,532.7	33.10328759	-103.57568592	18.98	-0.07	23.83	0.46
2937	1,533.2	33.10328759	-103.57568595	18.87	-0.07	23.71	0.48
2938	1,533.7	33.10328762	-103.57568587	18.79	-0.07	23.75	0.46
2939	1,534.3	33.10328760	-103.57568573	18.87	-0.07	23.87	0.46
2940	1,534.8	33.10328758	-103.57568559	18.87	-0.07	23.91	0.46
2941	1,535.3	33.10328767	-103.57568569	18.75	-0.06	24.10	0.46
2942	1,535.8	33.10328776	-103.57568577	18.83	-0.06	24.18	0.46
2943	1,536.3	33.10328774	-103.57568573	18.59	-0.06	24.10	0.48
2944	1,536.9	33.10328771	-103.57568569	19.38	-0.07	23.87	0.46
2945	1,537.4	33.10328763	-103.57568563	19.10	-0.07	23.48	0.46
2946	1,537.9	33.10328756	-103.57568561	18.91	-0.06	23.95	0.47
2947	1,538.4	33.10328755	-103.57568573	18.95	-0.06	23.91	0.46
2948	1,539.0	33.10328756	-103.57568579	19.02	-0.07	24.45	0.46
2949	1,539.5	33.10328761	-103.57568573	18.83	-0.06	24.73	0.48
2950	1,540.0	33.10328770	-103.57568557	19.06	-0.06	24.14	0.46
2951	1,540.5	33.10328781	-103.57568526	19.02	-0.06	24.18	0.45
2952	1,541.0	33.10328790	-103.57568512	19.38	-0.06	24.10	0.45
2953	1,541.6	33.10328797	-103.57568514	19.53	-0.06	23.87	0.47
2954	1,542.1	33.10328800	-103.57568513	19.49	-0.06	24.30	0.47
2955	1,542.6	33.10328801	-103.57568511	19.45	-0.06	24.22	0.46
2956	1,543.1	33.10328799	-103.57568508	19.34	-0.06	24.49	0.46
2957	1,543.7	33.10328795	-103.57568505	19.02	-0.06	23.67	0.45
2958	1,544.2	33.10328790	-103.57568501	19.06	-0.07	23.95	0.45
2959	1,544.7	33.10328784	-103.57568497	19.02	-0.06	24.53	0.45
2960	1,545.2	33.10328776	-103.57568502	19.38	-0.06	24.30	0.45
2961	1,545.7	33.10328766	-103.57568509	18.95	-0.07	24.84	0.45
2962	1,546.3	33.10328753	-103.57568563	18.71	-0.07	24.34	0.46
2963	1,546.8	33.10328740	-103.57568619	18.28	-0.06	23.79	0.47
2964	1,547.3	33.10328746	-103.57568621	17.77	-0.05	23.20	0.48
2965	1,547.8	33.10328752	-103.57568622	18.09	-0.05	23.83	0.48
2966	1,548.4	33.10328758	-103.57568616	18.75	-0.06	23.79	0.47
2967	1,548.9	33.10328763	-103.57568613	18.83	-0.06	23.87	0.48
2968	1,549.4	33.10328764	-103.57568613	18.79	-0.06	24.18	0.48
2969	1,549.9	33.10328764	-103.57568611	19.02	-0.06	24.02	0.47
2970	1,550.4	33.10328759	-103.57568600	19.10	-0.06	23.87	0.46
2971	1,551.0	33.10328756	-103.57568592	18.87	-0.06	23.83	0.46
2972	1,551.5	33.10328756	-103.57568591	18.75	-0.06	24.10	0.46
2973	1,552.0	33.10328757	-103.57568589	18.91	-0.06	23.83	0.47
2974	1,552.5	33.10328760	-103.57568588	18.63	-0.06	23.79	0.47
2975	1,553.1	33.10328757	-103.57568590	18.95	-0.06	24.06	0.46
2976	1,553.6	33.10328749	-103.57568592	18.63	-0.06	24.10	0.48
2977	1,554.1	33.10328751	-103.57568597	18.67	-0.06	24.10	0.47
2978	1,554.6	33.10328760	-103.57568604	18.75	-0.05	24.02	0.47
2979	1,555.1	33.10328765	-103.57568597	18.91	-0.05	23.87	0.47
2980	1,555.7	33.10328770	-103.57568586	19.10	-0.06	24.14	0.47
2981	1,556.2	33.10328765	-103.57568573	19.26	-0.06	24.18	0.48
2982	1,556.7	33.10328757	-103.57568560	19.38	-0.06	24.30	0.46
2983	1,557.2	33.10328753	-103.57568558	19.02	-0.06	24.30	0.48
2984	1,557.8	33.10328750	-103.57568557	19.38	-0.06	24.10	0.47
2985	1,558.3	33.10328753	-103.57568559	19.34	-0.06	24.34	0.46
2986	1,558.8	33.10328756	-103.57568560	19.14	-0.05	23.75	0.48
2987	1,559.3	33.10328758	-103.57568561	19.34	-0.06	24.26	0.46
2988	1,559.8	33.10328759	-103.57568562	19.53	-0.06	23.87	0.48
2989	1,560.4	33.10328752	-103.57568561	19.38	-0.06	23.95	0.47
2990	1,560.9	33.10328747	-103.57568560	18.83	-0.06	23.95	0.47
2991	1,561.4	33.10328746	-103.57568558	19.22	-0.06	24.02	0.48
2992	1,561.9	33.10328746	-103.57568559	19.34	-0.06	24.02	0.47

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
2993	1,562.5	33.10328748	-103.57568565	19.06	-0.06	24.26	0.48
2994	1,563.0	33.10328751	-103.57568568	19.06	-0.06	24.26	0.47
2995	1,563.5	33.10328754	-103.57568568	19.22	-0.06	24.38	0.48
2996	1,564.0	33.10328759	-103.57568572	19.10	-0.06	24.30	0.48
2997	1,564.5	33.10328765	-103.57568580	19.30	-0.06	24.34	0.48
2998	1,565.1	33.10328761	-103.57568587	19.10	-0.06	24.22	0.47
2999	1,565.6	33.10328751	-103.57568593	19.22	-0.06	24.14	0.49
3000	1,566.1	33.10328742	-103.57568589	18.79	-0.06	24.30	0.48
3001	1,566.6	33.10328734	-103.57568580	19.14	-0.06	23.98	0.47
3002	1,567.2	33.10328694	-103.57568626	19.69	-0.06	24.38	0.46
3003	1,567.7	33.10328642	-103.57568691	18.01	-0.06	23.59	0.45
3004	1,568.2	33.10328627	-103.57568701	11.91	-0.01	23.56	0.44
3005	1,568.7	33.10328620	-103.57568698	13.83	-0.01	23.83	0.46
3006	1,569.2	33.10328631	-103.57568696	15.55	-0.03	23.79	0.46
3007	1,569.7	33.10328644	-103.57568693	15.94	-0.04	23.48	0.45
3008	1,570.3	33.10328654	-103.57568700	16.45	-0.04	23.56	0.45
3009	1,570.8	33.10328664	-103.57568707	16.09	-0.04	23.52	0.45
3010	1,571.3	33.10328663	-103.57568715	16.37	-0.04	23.95	0.46
3011	1,571.9	33.10328664	-103.57568718	16.68	-0.04	24.06	0.46
3012	1,572.4	33.10328674	-103.57568696	17.50	-0.05	24.22	0.46
3013	1,572.9	33.10328684	-103.57568699	18.56	-0.07	23.71	0.46
3014	1,573.4	33.10328692	-103.57568780	18.20	-0.09	23.09	0.45
3015	1,573.9	33.10328743	-103.57568842	15.51	-0.04	22.38	0.44
3016	1,574.5	33.10328881	-103.57568866	18.87	-0.07	22.31	0.43
3017	1,575.0	33.10329085	-103.57568849	20.59	-0.14	22.03	0.38
3018	1,575.5	33.10329387	-103.57568774	22.03	-0.16	24.06	0.36
3019	1,576.0	33.10329677	-103.57568738	19.73	-0.13	24.18	0.38
3020	1,576.6	33.10329957	-103.57568744	19.96	-0.15	24.02	0.39
3021	1,577.1	33.10330243	-103.57568715	20.63	-0.15	23.09	0.40
3022	1,577.6	33.10330534	-103.57568662	21.56	-0.12	22.23	0.44
3023	1,578.1	33.10330778	-103.57568591	26.29	-0.17	24.06	0.46
3024	1,578.6	33.10330999	-103.57568512	27.81	-0.12	27.97	0.51
3025	1,579.2	33.10331108	-103.57568462	29.38	-0.12	31.06	0.53
3026	1,579.7	33.10331179	-103.57568422	28.40	-0.09	32.03	0.52
3027	1,580.2	33.10331180	-103.57568373	30.31	-0.08	32.89	0.55
3028	1,580.7	33.10331166	-103.57568322	30.16	-0.09	31.99	0.56
3029	1,581.3	33.10331169	-103.57568321	30.35	-0.09	31.60	0.55
3030	1,581.8	33.10331173	-103.57568324	30.20	-0.09	31.95	0.54
3031	1,582.3	33.10331171	-103.57568334	30.31	-0.09	31.80	0.56
3032	1,582.8	33.10331169	-103.57568343	30.00	-0.09	31.33	0.55
3033	1,583.3	33.10331170	-103.57568341	30.08	-0.09	31.95	0.56
3034	1,583.9	33.10331172	-103.57568340	30.04	-0.09	31.60	0.56
3035	1,584.4	33.10331177	-103.57568340	30.04	-0.09	32.07	0.56
3036	1,584.9	33.10331180	-103.57568341	30.20	-0.09	31.48	0.55
3037	1,585.4	33.10331177	-103.57568341	30.08	-0.09	31.99	0.56
3038	1,586.0	33.10331173	-103.57568341	30.27	-0.09	32.58	0.57
3039	1,586.5	33.10331169	-103.57568340	30.00	-0.09	31.95	0.56
3040	1,587.0	33.10331166	-103.57568339	30.12	-0.09	31.21	0.55
3041	1,587.5	33.10331165	-103.57568337	30.00	-0.09	31.21	0.56
3042	1,588.0	33.10331166	-103.57568336	30.35	-0.09	31.41	0.57
3043	1,588.6	33.10331170	-103.57568335	30.47	-0.08	31.06	0.55
3044	1,589.1	33.10331164	-103.57568318	29.84	-0.09	31.33	0.52
3045	1,589.6	33.10331151	-103.57568288	30.00	-0.07	32.27	0.54
3046	1,590.1	33.10331145	-103.57568260	31.09	-0.07	33.20	0.55
3047	1,590.7	33.10331142	-103.57568232	30.39	-0.09	32.07	0.56
3048	1,591.2	33.10331143	-103.57568227	30.70	-0.09	32.34	0.56
3049	1,591.7	33.10331145	-103.57568228	30.47	-0.09	32.66	0.56
3050	1,592.2	33.10331143	-103.57568231	29.92	-0.09	32.62	0.55
3051	1,592.7	33.10331140	-103.57568235	30.20	-0.09	32.42	0.56
3052	1,593.3	33.10331137	-103.57568227	30.35	-0.08	31.56	0.56
3053	1,593.8	33.10331135	-103.57568220	30.16	-0.09	31.76	0.56
3054	1,594.3	33.10331143	-103.57568211	30.74	-0.09	31.76	0.55
3055	1,594.8	33.10331152	-103.57568204	30.74	-0.08	31.80	0.56
3056	1,595.4	33.10331163	-103.57568208	30.35	-0.09	31.91	0.56
3057	1,595.9	33.10331170	-103.57568211	30.31	-0.09	31.80	0.56
3058	1,596.4	33.10331164	-103.57568208	30.43	-0.09	32.19	0.56
3059	1,596.9	33.10331160	-103.57568204	30.27	-0.09	32.38	0.57
3060	1,597.4	33.10331167	-103.57568200	30.27	-0.09	31.95	0.56

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
3061	1,598.0	33.10331169	-103.57568198	30.16	-0.09	32.62	0.56
3062	1,598.5	33.10331165	-103.57568198	30.23	-0.09	32.42	0.58
3063	1,599.0	33.10331198	-103.57568284	30.31	-0.08	31.68	0.56
3064	1,599.5	33.10331278	-103.57568475	29.61	-0.08	31.41	0.55
3065	1,600.1	33.10331388	-103.57568768	33.79	-0.17	33.63	0.48
3066	1,600.6	33.10331525	-103.57569148	33.44	-0.12	37.11	0.52
3067	1,601.1	33.10331641	-103.57569631	33.98	-0.13	38.87	0.54
3068	1,601.6	33.10331746	-103.57570180	45.82	-0.17	41.95	0.48
3069	1,602.1	33.10331872	-103.57570789	49.49	-0.07	45.35	0.55
3070	1,602.7	33.10332007	-103.57571423	59.14	-0.14	46.52	0.53
3071	1,603.2	33.10332157	-103.57572122	61.80	-0.09	51.09	0.56
3072	1,603.7	33.10332310	-103.57572839	66.76	-0.13	58.24	0.49
3073	1,604.2	33.10332508	-103.57573541	72.62	-0.06	63.40	0.50
3074	1,604.8	33.10332711	-103.57574239	77.97	-0.10	68.59	0.50
3075	1,605.3	33.10332927	-103.57574857	83.59	-0.08	70.20	0.52
3076	1,605.8	33.10333137	-103.57575461	91.37	-0.06	70.43	0.57
3077	1,606.3	33.10333201	-103.57575890	90.51	-0.07	66.95	0.57
3078	1,606.8	33.10333266	-103.57576288	78.40	-0.08	65.63	0.57
3079	1,607.4	33.10333334	-103.57576486	79.06	-0.15	65.66	0.48
3080	1,607.9	33.10333407	-103.57576716	79.88	-0.11	67.97	0.49
3081	1,608.4	33.10333499	-103.57577064	81.13	-0.08	79.18	0.51
3082	1,608.9	33.10333619	-103.57577413	86.13	-0.15	94.88	0.45
3083	1,609.5	33.10333795	-103.57577753	92.58	-0.14	94.92	0.40
3084	1,610.0	33.10333960	-103.57578115	102.70	-0.09	73.63	0.42
3085	1,610.5	33.10334103	-103.57578511	124.41	-0.14	68.36	0.42
3086	1,611.0	33.10334231	-103.57578909	145.35	-0.15	92.15	0.43
3087	1,611.5	33.10334341	-103.57579311	153.98	-0.12	120.00	0.45
3088	1,612.1	33.10334483	-103.57579699	163.36	-0.20	139.14	0.40
3089	1,612.6	33.10334650	-103.57580075	181.52	-0.15	137.66	0.44
3090	1,613.1	33.10334774	-103.57580453	214.96	-0.10	132.50	0.48
3091	1,613.6	33.10334875	-103.57580832	252.50	-0.19	160.51	0.45
3092	1,614.2	33.10334980	-103.57581236	292.70	-0.15	195.20	0.48
3093	1,614.7	33.10335088	-103.57581649	313.71	-0.12	210.86	0.53
3094	1,615.2	33.10335226	-103.57582012	318.32	-0.19	189.84	0.49
3095	1,615.7	33.10335370	-103.57582362	319.18	-0.12	156.21	0.54
3096	1,616.2	33.10335479	-103.57582799	312.19	-0.11	148.98	0.54
3097	1,616.8	33.10335584	-103.57583248	307.15	-0.16	184.96	0.52
3098	1,617.3	33.10335708	-103.57583691	295.31	-0.12	233.95	0.54
3099	1,617.8	33.10335834	-103.57584124	292.38	-0.12	263.91	0.54
3100	1,618.3	33.10335972	-103.57584391	295.35	-0.13	254.73	0.54
3101	1,618.9	33.10336097	-103.57584654	285.16	-0.10	231.13	0.58
3102	1,619.4	33.10336148	-103.57584886	279.30	-0.10	217.27	0.58
3103	1,619.9	33.10336239	-103.57585129	283.67	-0.15	204.49	0.54
3104	1,620.4	33.10336457	-103.57585399	313.40	-0.16	196.60	0.53
3105	1,620.9	33.10336671	-103.57585702	321.29	-0.10	209.10	0.58
3106	1,621.5	33.10336878	-103.57586073	310.74	-0.17	235.08	0.52
3107	1,622.0	33.10337075	-103.57586439	310.23	-0.13	259.77	0.55
3108	1,622.5	33.10337255	-103.57586794	302.66	-0.12	249.18	0.57
3109	1,623.0	33.10337450	-103.57587110	301.64	-0.17	224.10	0.53
3110	1,623.6	33.10337660	-103.57587385	296.52	-0.13	208.59	0.55
3111	1,624.1	33.10337891	-103.57587713	299.92	-0.12	210.82	0.56
3112	1,624.6	33.10338135	-103.57588078	296.95	-0.17	231.17	0.51
3113	1,625.1	33.10338378	-103.57588439	289.10	-0.11	223.13	0.56
3114	1,625.6	33.10338620	-103.57588798	265.20	-0.14	179.73	0.52
3115	1,626.2	33.10338936	-103.57589134	272.70	-0.17	154.57	0.48
3116	1,626.7	33.10339276	-103.57589464	242.11	-0.10	148.48	0.53
3117	1,627.2	33.10339603	-103.57589763	210.27	-0.18	149.57	0.47
3118	1,627.7	33.10339927	-103.57590056	182.38	-0.12	146.99	0.49
3119	1,628.3	33.10340213	-103.57590377	171.95	-0.10	149.10	0.48
3120	1,628.8	33.10340497	-103.57590702	151.88	-0.17	140.74	0.42
3121	1,629.3	33.10340812	-103.57591046	142.42	-0.11	133.01	0.46
3122	1,629.8	33.10341131	-103.57591388	137.46	-0.12	129.45	0.44
3123	1,630.3	33.10341483	-103.57591714	148.63	-0.15	123.67	0.40
3124	1,630.9	33.10341838	-103.57592039	156.68	-0.09	121.80	0.47
3125	1,631.4	33.10342169	-103.57592323	159.45	-0.19	119.53	0.38
3126	1,631.9	33.10342501	-103.57592616	161.52	-0.13	121.17	0.44
3127	1,632.4	33.10342821	-103.57592930	160.94	-0.10	132.62	0.46
3128	1,633.0	33.10343147	-103.57593223	167.58	-0.16	128.91	0.39

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
3129	1,633.5	33.10343484	-103.57593478	175.00	-0.10	123.01	0.44
3130	1,634.0	33.10343829	-103.57593713	176.91	-0.13	121.76	0.43
3131	1,634.5	33.10344186	-103.57593922	193.01	-0.15	125.70	0.41
3132	1,635.0	33.10344521	-103.57594150	182.85	-0.09	129.69	0.48
3133	1,635.6	33.10344838	-103.57594400	178.44	-0.17	137.23	0.43
3134	1,636.1	33.10345163	-103.57594641	177.38	-0.13	139.88	0.44
3135	1,636.6	33.10345494	-103.57594878	173.87	-0.09	135.55	0.46
3136	1,637.1	33.10345837	-103.57595060	164.30	-0.16	129.57	0.39
3137	1,637.7	33.10346186	-103.57595218	161.21	-0.12	121.95	0.41
3138	1,638.2	33.10346573	-103.57595404	153.98	-0.08	118.63	0.45
3139	1,638.7	33.10346971	-103.57595598	146.76	-0.14	119.53	0.41
3140	1,639.2	33.10347351	-103.57595797	132.58	-0.10	114.26	0.44
3141	1,639.7	33.10347728	-103.57595996	120.43	-0.13	103.75	0.41
3142	1,640.3	33.10348130	-103.57596148	120.00	-0.13	101.84	0.39
3143	1,640.8	33.10348533	-103.57596295	112.62	-0.08	107.23	0.44
3144	1,641.3	33.10348946	-103.57596407	112.19	-0.14	107.93	0.40
3145	1,641.8	33.10349361	-103.57596524	116.13	-0.13	105.27	0.39
3146	1,642.4	33.10349787	-103.57596684	111.52	-0.08	95.23	0.42
3147	1,642.9	33.10350225	-103.57596833	99.73	-0.15	83.56	0.35
3148	1,643.4	33.10350715	-103.57596939	87.73	-0.10	82.62	0.39
3149	1,643.9	33.10351185	-103.57597031	82.34	-0.17	87.50	0.36
3150	1,644.4	33.10351603	-103.57597084	74.61	-0.13	78.20	0.34
3151	1,645.0	33.10351988	-103.57597127	64.96	-0.11	73.63	0.33
3152	1,645.5	33.10352318	-103.57597153	66.33	-0.16	75.78	0.33
3153	1,646.0	33.10352644	-103.57597200	61.88	-0.12	77.38	0.35
3154	1,646.5	33.10352964	-103.57597272	60.66	-0.13	77.42	0.34
3155	1,647.1	33.10353313	-103.57597326	62.19	-0.17	73.20	0.31
3156	1,647.6	33.10353688	-103.57597362	55.74	-0.12	64.30	0.33
3157	1,648.1	33.10354076	-103.57597398	51.56	-0.14	54.34	0.34
3158	1,648.6	33.10354471	-103.57597433	53.59	-0.13	46.56	0.33
3159	1,649.1	33.10354850	-103.57597477	53.67	-0.10	46.02	0.36
3160	1,649.7	33.10355221	-103.57597526	54.10	-0.15	46.60	0.35
3161	1,650.2	33.10355620	-103.57597528	58.44	-0.11	45.51	0.36
3162	1,650.7	33.10356027	-103.57597518	52.15	-0.08	44.22	0.37
3163	1,651.2	33.10356459	-103.57597499	53.95	-0.12	42.54	0.35
3164	1,651.8	33.10356892	-103.57597479	54.81	-0.10	43.36	0.38
3165	1,652.3	33.10357210	-103.57597456	54.65	-0.16	45.20	0.35
3166	1,652.8	33.10357507	-103.57597441	50.90	-0.14	44.22	0.32
3167	1,653.3	33.10357484	-103.57597615	40.27	-0.13	39.06	0.33
3168	1,653.8	33.10357416	-103.57597809	38.05	-0.13	38.71	0.33
3169	1,654.4	33.10357062	-103.57598128	38.36	-0.10	38.98	0.38
3170	1,654.9	33.10356668	-103.57598436	37.97	-0.12	39.96	0.34
3171	1,655.4	33.10356134	-103.57598705	38.05	-0.11	39.92	0.35
3172	1,655.9	33.10355587	-103.57598981	36.72	-0.10	38.56	0.36
3173	1,656.5	33.10355033	-103.57599257	40.20	-0.11	43.01	0.36
3174	1,657.0	33.10354466	-103.57599541	39.22	-0.08	46.06	0.35
3175	1,657.5	33.10353887	-103.57599832	43.71	-0.11	49.49	0.34
3176	1,658.0	33.10353323	-103.57600121	48.24	-0.07	55.86	0.36
3177	1,658.5	33.10352775	-103.57600406	61.25	-0.12	64.26	0.36
3178	1,659.1	33.10352218	-103.57600698	81.21	-0.10	69.10	0.40
3179	1,659.6	33.10351659	-103.57600995	98.75	-0.13	73.63	0.38
3180	1,660.1	33.10351093	-103.57601296	115.20	-0.09	95.74	0.40
3181	1,660.6	33.10350527	-103.57601599	116.56	-0.14	100.39	0.39
3182	1,661.2	33.10349987	-103.57601930	122.81	-0.10	105.86	0.41
3183	1,661.7	33.10349457	-103.57602273	125.39	-0.14	115.35	0.40
3184	1,662.2	33.10348949	-103.57602628	129.14	-0.11	114.65	0.41
3185	1,662.7	33.10348446	-103.57602988	128.24	-0.12	112.93	0.41
3186	1,663.2	33.10347931	-103.57603346	140.63	-0.12	122.27	0.40
3187	1,663.8	33.10347417	-103.57603703	154.34	-0.10	124.30	0.42
3188	1,664.3	33.10346895	-103.57604056	167.34	-0.12	119.18	0.43
3189	1,664.8	33.10346382	-103.57604406	168.13	-0.10	113.79	0.44
3190	1,665.3	33.10345998	-103.57604722	178.01	-0.13	142.93	0.45
3191	1,665.9	33.10345618	-103.57605018	154.14	-0.10	144.34	0.45
3192	1,666.4	33.10345259	-103.57605209	141.80	-0.14	127.73	0.43
3193	1,666.9	33.10344894	-103.57605374	151.84	-0.11	141.33	0.44
3194	1,667.4	33.10344511	-103.57605453	141.52	-0.08	144.26	0.45
3195	1,667.9	33.10344108	-103.57605521	149.96	-0.14	120.74	0.41
3196	1,668.5	33.10343656	-103.57605567	165.00	-0.10	134.06	0.45

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
3197	1,669.0	33.10343197	-103.57605615	146.80	-0.13	115.43	0.44
3198	1,669.5	33.10342728	-103.57605666	151.17	-0.11	113.59	0.44
3199	1,670.0	33.10342287	-103.57605725	153.20	-0.12	125.39	0.44
3200	1,670.6	33.10341874	-103.57605792	169.96	-0.12	121.45	0.45
3201	1,671.1	33.10341498	-103.57605771	170.47	-0.10	100.59	0.47
3202	1,671.6	33.10341149	-103.57605684	169.06	-0.12	100.16	0.46
3203	1,672.1	33.10340829	-103.57605646	165.00	-0.11	111.06	0.46
3204	1,672.6	33.10340524	-103.57605633	152.27	-0.09	109.77	0.46
3205	1,673.2	33.10340214	-103.57605614	153.56	-0.14	113.09	0.44
3206	1,673.7	33.10339901	-103.57605593	148.16	-0.13	121.41	0.41
3207	1,674.2	33.10339570	-103.57605522	139.92	-0.10	126.84	0.43
3208	1,674.7	33.10339235	-103.57605442	137.15	-0.12	130.04	0.41
3209	1,675.3	33.10338857	-103.57605426	139.92	-0.12	129.53	0.39
3210	1,675.8	33.10338474	-103.57605416	125.86	-0.08	107.89	0.40
3211	1,676.3	33.10338098	-103.57605412	106.68	-0.17	84.26	0.36
3212	1,676.8	33.10337725	-103.57605401	105.35	-0.12	89.96	0.37
3213	1,677.3	33.10337384	-103.57605322	94.14	-0.10	103.52	0.36
3214	1,677.9	33.10337042	-103.57605258	98.63	-0.15	100.74	0.34
3215	1,678.4	33.10336730	-103.57605262	95.43	-0.10	90.94	0.38
3216	1,678.9	33.10336401	-103.57605266	85.78	-0.04	83.87	0.41
3217	1,679.4	33.10336037	-103.57605271	91.60	-0.14	83.98	0.37
3218	1,680.0	33.10335653	-103.57605278	87.50	-0.06	86.52	0.43
3219	1,680.5	33.10335233	-103.57605290	84.96	-0.07	86.17	0.44
3220	1,681.0	33.10334832	-103.57605284	90.04	-0.09	88.16	0.46
3221	1,681.5	33.10334456	-103.57605256	90.78	-0.08	88.24	0.41
3222	1,682.0	33.10334027	-103.57605260	95.94	-0.12	81.76	0.35
3223	1,682.6	33.10333547	-103.57605296	89.53	-0.08	74.96	0.40
3224	1,683.1	33.10333220	-103.57605516	83.24	-0.12	71.84	0.39
3225	1,683.6	33.10332995	-103.57605859	82.58	-0.09	70.63	0.38
3226	1,684.1	33.10332919	-103.57606282	81.95	-0.08	67.54	0.39
3227	1,684.7	33.10332910	-103.57606744	81.91	-0.13	67.46	0.35
3228	1,685.2	33.10333094	-103.57607340	79.57	-0.09	73.24	0.36
3229	1,685.7	33.10333337	-103.57607978	74.88	-0.11	74.73	0.36
3230	1,686.2	33.10333709	-103.57608529	71.41	-0.09	70.43	0.36
3231	1,686.7	33.10334103	-103.57609066	66.25	-0.09	65.39	0.40
3232	1,687.3	33.10334510	-103.57609490	70.90	-0.11	70.90	0.40
3233	1,687.8	33.10334918	-103.57609904	68.36	-0.07	76.48	0.40
3234	1,688.3	33.10335287	-103.57610178	69.73	-0.12	72.77	0.39
3235	1,688.8	33.10335658	-103.57610449	72.66	-0.09	69.41	0.39
3236	1,689.4	33.10336044	-103.57610704	70.94	-0.14	64.34	0.35
3237	1,689.9	33.10336436	-103.57610944	71.64	-0.13	63.48	0.36
3238	1,690.4	33.10336856	-103.57611121	67.85	-0.09	64.18	0.37
3239	1,690.9	33.10337264	-103.57611277	64.77	-0.14	68.28	0.36
3240	1,691.4	33.10337642	-103.57611379	62.38	-0.11	73.05	0.40
3241	1,692.0	33.10337988	-103.57611469	66.21	-0.14	76.17	0.41
3242	1,692.5	33.10338272	-103.57611539	74.61	-0.19	79.81	0.39
3243	1,693.0	33.10338486	-103.57611597	74.18	-0.04	80.98	0.51
3244	1,693.5	33.10338613	-103.57611641	69.45	0.17	77.93	0.57
3245	1,694.1	33.10338793	-103.57611734	71.45	0.28	75.74	0.54
3246	1,694.6	33.10339017	-103.57611869	74.41	0.18	72.15	0.72
3247	1,695.1	33.10339271	-103.57611935	80.39	0.21	75.27	0.76
3248	1,695.6	33.10339543	-103.57611958	81.72	0.30	77.93	0.94
3249	1,696.1	33.10339819	-103.57612058	81.41	0.45	80.23	0.91
3250	1,696.7	33.10340095	-103.57612189	78.95	0.04	83.44	0.78
3251	1,697.2	33.10340369	-103.57612235	88.83	-0.07	88.75	0.65
3252	1,697.7	33.10340640	-103.57612257	85.51	-0.07	81.25	0.51
3253	1,698.2	33.10340853	-103.57612291	88.28	-0.09	76.91	0.45
3254	1,698.8	33.10341056	-103.57612326	93.28	-0.10	81.52	0.44
3255	1,699.3	33.10341179	-103.57612600	88.75	-0.09	79.45	0.45
3256	1,699.8	33.10341298	-103.57612884	84.34	-0.14	71.21	0.37
3257	1,700.3	33.10341450	-103.57613179	75.90	-0.12	75.86	0.40
3258	1,700.8	33.10341588	-103.57613475	66.80	-0.13	74.18	0.37
3259	1,701.4	33.10341626	-103.57613772	62.81	-0.12	65.12	0.40
3260	1,701.9	33.10341641	-103.57613965	59.06	-0.13	62.73	0.38
3261	1,702.4	33.10341569	-103.57613778	57.97	-0.04	65.51	0.38
3262	1,702.9	33.10341387	-103.57613553	69.26	-0.11	68.40	0.35
3263	1,703.5	33.10340971	-103.57613251	67.23	-0.09	61.56	0.37
3264	1,704.0	33.10340561	-103.57613008	64.65	-0.12	67.89	0.36

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
3265	1,704.5	33.10340166	-103.57612864	63.87	-0.11	71.37	0.37
3266	1,705.0	33.10340005	-103.57612747	62.73	-0.12	69.73	0.35
3267	1,705.5	33.10340114	-103.57612660	57.34	-0.14	64.88	0.36
3268	1,706.1	33.10340347	-103.57612402	61.17	-0.12	67.27	0.42
3269	1,706.6	33.10340681	-103.57612004	65.23	-0.08	75.47	0.54
3270	1,707.1	33.10341061	-103.57611728	64.77	-0.14	76.33	0.42
3271	1,707.6	33.10341470	-103.57611520	73.52	-0.12	79.88	0.38
3272	1,708.2	33.10341859	-103.57611558	70.98	-0.14	77.54	0.34
3273	1,708.7	33.10342241	-103.57611688	72.93	-0.15	75.23	0.33
3274	1,709.2	33.10342458	-103.57612057	71.06	-0.04	74.73	0.59
3275	1,709.7	33.10342636	-103.57612483	66.17	-0.05	68.59	0.72
3276	1,710.2	33.10342483	-103.57612959	62.11	-0.11	61.41	0.47
3277	1,710.7	33.10342291	-103.57613441	54.81	-0.13	60.70	0.38
3278	1,711.3	33.10341828	-103.57613578	55.94	-0.12	65.27	0.40
3279	1,711.8	33.10341350	-103.57613667	51.25	-0.14	60.35	0.39
3280	1,712.3	33.10340887	-103.57613344	52.38	-0.13	58.83	0.40
3281	1,712.9	33.10340443	-103.57613005	51.52	-0.13	65.20	0.38
3282	1,713.4	33.10340102	-103.57612568	59.14	-0.12	69.18	0.38
3283	1,713.9	33.10339817	-103.57612104	59.38	-0.15	66.99	0.36
3284	1,714.4	33.10339711	-103.57611553	56.37	-0.06	63.75	0.45
3285	1,714.9	33.10339731	-103.57610991	58.05	-0.13	70.66	0.41
3286	1,715.5	33.10340018	-103.57610402	66.09	-0.13	80.31	0.36
3287	1,716.0	33.10340416	-103.57609915	64.84	-0.12	78.32	0.38
3288	1,716.5	33.10340979	-103.57609579	80.12	-0.13	93.52	0.37
3289	1,717.0	33.10341592	-103.57609388	86.52	-0.13	92.27	0.39
3290	1,717.6	33.10342258	-103.57609347	95.74	-0.13	83.63	0.40
3291	1,718.1	33.10342904	-103.57609466	92.89	-0.13	82.50	0.41
3292	1,718.6	33.10343537	-103.57609704	103.24	-0.13	104.41	0.38
3293	1,719.1	33.10344082	-103.57610110	105.20	-0.13	97.54	0.38
3294	1,719.6	33.10344577	-103.57610601	108.75	-0.13	85.47	0.38
3295	1,720.2	33.10344874	-103.57611215	82.77	-0.12	74.57	0.39
3296	1,720.7	33.10345102	-103.57611873	58.83	-0.12	66.76	0.40
3297	1,721.2	33.10345072	-103.57612583	44.53	-0.12	57.54	0.40
3298	1,721.7	33.10344989	-103.57613304	44.53	-0.12	54.06	0.40
3299	1,722.3	33.10344664	-103.57613909	46.52	-0.12	49.81	0.40
3300	1,722.8	33.10344315	-103.57614504	48.52	-0.12	48.36	0.37
3301	1,723.3	33.10343710	-103.57614809	48.20	-0.12	51.72	0.38
3302	1,723.8	33.10343101	-103.57615089	46.95	-0.11	47.97	0.42
3303	1,724.3	33.10342433	-103.57615119	47.42	-0.12	52.15	0.40
3304	1,724.9	33.10341759	-103.57615114	49.81	-0.11	53.09	0.44
3305	1,725.4	33.10341150	-103.57614959	49.65	-0.12	50.94	0.41
3306	1,725.9	33.10340542	-103.57614758	54.61	-0.11	54.30	0.42
3307	1,726.4	33.10339963	-103.57614431	52.89	-0.13	58.28	0.39
3308	1,727.0	33.10339425	-103.57614064	52.70	-0.12	54.84	0.40
3309	1,727.5	33.10338967	-103.57613618	53.44	-0.12	56.60	0.39
3310	1,728.0	33.10338565	-103.57613172	58.48	-0.11	59.10	0.40
3311	1,728.5	33.10338244	-103.57612727	58.09	-0.10	57.93	0.41
3312	1,729.0	33.10337982	-103.57612312	60.78	-0.13	60.20	0.39
3313	1,729.6	33.10337780	-103.57611929	56.88	-0.10	61.84	0.46
3314	1,730.1	33.10337590	-103.57611643	56.17	-0.11	62.62	0.46
3315	1,730.6	33.10337409	-103.57611425	60.31	-0.05	66.56	0.46
3316	1,731.1	33.10337354	-103.57611187	62.54	-0.08	68.52	0.46
3317	1,731.6	33.10337358	-103.57610939	62.97	-0.09	67.07	0.42
3318	1,732.2	33.10337279	-103.57610657	75.86	-0.24	69.61	0.29
3319	1,732.7	33.10337175	-103.57610366	70.63	-0.10	66.95	0.32
3320	1,733.2	33.10337060	-103.57610036	67.58	-0.09	62.03	0.39
3321	1,733.7	33.10336943	-103.57609699	68.98	-0.12	61.06	0.34
3322	1,734.3	33.10336581	-103.57609433	75.51	-0.12	65.27	0.30
3323	1,734.8	33.10336197	-103.57609174	72.23	-0.08	72.23	0.36
3324	1,735.3	33.10335665	-103.57609019	71.29	-0.11	76.29	0.35
3325	1,735.8	33.10335128	-103.57608865	66.80	-0.06	74.14	0.44
3326	1,736.4	33.10334565	-103.57608712	64.65	-0.10	71.72	0.40
3327	1,736.9	33.10333995	-103.57608562	67.34	-0.08	70.08	0.40
3328	1,737.4	33.10333405	-103.57608424	68.75	-0.13	66.72	0.38
3329	1,737.9	33.10332819	-103.57608282	70.35	-0.10	66.09	0.37
3330	1,738.4	33.10332242	-103.57608126	68.32	-0.12	64.65	0.37
3331	1,739.0	33.10331658	-103.57607960	65.43	-0.09	61.37	0.36
3332	1,739.5	33.10331061	-103.57607777	67.38	-0.10	62.31	0.41

EM38 Survey Results, Foundation Energy Management
Chalupa #4 SWD Pipeline Release, Lea County, New Mexico

Reading	Time (Sec)	Latitude	Longitude	Cond 0.5m/VD	Inphase 0.5m/VD	Cond 1m/VD	Inphase 1m/VD
3333	1,740.0	33.10330468	-103.57607576	68.83	-0.10	66.13	0.38
3334	1,740.5	33.10329879	-103.57607352	67.31	-0.10	63.44	0.38
3335	1,741.1	33.10329283	-103.57607123	65.16	-0.13	56.80	0.35
3336	1,741.6	33.10328680	-103.57606889	57.07	-0.07	52.81	0.41
3337	1,742.1	33.10328074	-103.57606674	53.36	-0.11	58.75	0.38
3338	1,742.6	33.10327464	-103.57606471	46.84	-0.08	51.64	0.40
3339	1,743.1	33.10326841	-103.57606275	42.54	-0.09	41.95	0.39
3340	1,743.7	33.10326207	-103.57606082	35.47	-0.06	37.58	0.39
3341	1,744.2	33.10325603	-103.57605892	32.97	-0.12	31.64	0.38
3342	1,744.7	33.10325006	-103.57605704	24.34	-0.05	28.32	0.43
3343	1,745.2	33.10324449	-103.57605527	28.95	-0.16	27.07	0.36
3344	1,745.8	33.10323896	-103.57605352	20.66	-0.07	24.22	0.39
3345	1,746.3	33.10323379	-103.57605129	24.73	-0.17	23.13	0.35
3346	1,746.8	33.10322862	-103.57604904	18.05	-0.09	21.45	0.42
3347	1,747.3	33.10322331	-103.57604673	18.79	-0.13	20.59	0.37
3348	1,747.8	33.10321800	-103.57604445	16.21	-0.05	20.23	0.41
3349	1,748.4	33.10321284	-103.57604244	16.64	-0.10	18.63	0.40
3350	1,748.9	33.10320760	-103.57604055	15.08	-0.08	16.84	0.43
3351	1,749.4	33.10320211	-103.57603915	15.74	-0.09	16.17	0.45
3352	1,749.9	33.10319671	-103.57603754	18.01	-0.12	16.41	0.41
3353	1,750.5	33.10319183	-103.57603560	11.29	-0.08	14.96	0.45
3354	1,751.0	33.10318684	-103.57603361	13.56	-0.08	15.00	0.46
3355	1,751.5	33.10318172	-103.57603158	11.56	-0.05	14.10	0.47
3356	1,752.0	33.10317664	-103.57602954	15.27	-0.12	14.96	0.42
3357	1,752.5	33.10317163	-103.57602749	10.59	-0.06	13.67	0.48
3358	1,753.1	33.10316667	-103.57602542	13.95	-0.11	13.95	0.47
3359	1,753.6	33.10316176	-103.57602333	11.09	-0.06	13.52	0.48
3360	1,754.1	33.10315702	-103.57602179	12.31	-0.08	13.13	0.47
3361	1,754.6	33.10315235	-103.57602056	12.07	-0.08	13.40	0.43
3362	1,755.2	33.10314850	-103.57601847	11.02	-0.10	13.24	0.44
3363	1,755.7	33.10314496	-103.57601606	11.29	-0.09	13.16	0.47
3364	1,756.2	33.10314173	-103.57601466	12.50	-0.01	13.28	0.47
3365	1,756.7	33.10313858	-103.57601351	10.70	-0.03	12.27	0.47
3366	1,757.2	33.10313692	-103.57601343	11.33	-0.06	12.81	0.50
3367	1,757.8	33.10313544	-103.57601347	10.00	-0.03	12.31	0.48
3368	1,758.3	33.10313550	-103.57601306	12.19	-0.03	13.09	0.49
3369	1,758.8	33.10313562	-103.57601262	10.98	-0.05	12.62	0.49
3370	1,759.3	33.10313578	-103.57601225	10.90	-0.05	12.81	0.51
3371	1,759.9	33.10313588	-103.57601203	11.84	-0.04	13.67	0.53
3372	1,760.4	33.10313561	-103.57601262	13.01	-0.07	13.79	0.53

APPENDIX C

BORING RECORDS

BORING RECORD

GEOLOG. UNIT	DEPTH (FEET)	LITHOLOGIC DESCRIPTION	UNIFIED SOIL CLASSIFICATION	GRAPHIC LOG	OVM SOIL GAS PPM X 1.0 (2 4 6 8 10 12 14 16 18)	SAMPLE NUMBER	SAMPLE OVM READING	SAMPLE RECOVERY	SAMPLE DEPTH	REMARKS
		Start: Stop: GROUND SURFACE:								BACKGROUND OVM READING: SOIL: _____ PPM AIR: _____ PPM
	0	SILT: DARK BROWN, 7.5YR 3/2, 100% SILT, SLIGHTLY MOIST, NO ODOR	SC			–		30		
	1.0	CALICHE: PINKISH WHITE, 5YR 8/2, 100% CALICHE, DRY, NO ODOR								
	5									
	10									
	15						–			
	20									
	25									
	30	TOTAL DEPTH: 30.0 FEET							30.0	
	35									

CME CONTINUOUS AUGER SAMPLER

WATER TABLE (TIME OF BORING)

WATER TABLE (24 HOURS)

NR: NO RECOVERY

FEM – CHALUPA PIPELINE

JOB NAME/NUMBER ***FEMHCHAPN1***

BORING NUMBER ***BH-01***

ENVIRO CLEAN CARDINAL

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DATE DRILLED 11/1/2017

DRILLING METHOD AIR ROTARY

DRILLED BY SCARBOROUGH DRILLING

LOGGED BY M.MUGAVERO

CHECKED BY M.MUGAVERO DRAWING NO. BH-01_BORE

DRAWN BY: S.GRAUE PAGE 1 OF 1

BORING RECORD

GEOLOG. UNIT	DEPTH (FEET)	LITHOLOGIC DESCRIPTION	UNIFIED SOIL CLASSIFICATION	GRAPHIC LOG	OVM SOIL GAS PPM X 1.0 (2 4 6 8 10 12 14 16 18)	SAMPLE NUMBER	SAMPLE OVM READING	SAMPLE RECOVERY	SAMPLE DEPTH	REMARKS
		Start: Stop: GROUND SURFACE:								BACKGROUND OVM READING: SOIL: _____ PPM AIR: _____ PPM
	0	SILT: DARK BROWN, 7.5YR 3/2, 100% SILT, SLIGHTLY MOIST, NO ODOR	SC			–		30		
	5	SANDY SILT: PINK, 7.5YR 7/4, 60% SILT, 40% VERY FINE SAND, SLIGHTLY MOIST, NO ODOR	SC							
	10									
	13.0	SILT: WHITE, 7.5YR 8/1, 100% SILT, SLIGHTLY MOIST, NO ODOR	SC				–			
	15									
	18.0	SAND: LIGHT BROWN, 7.5YR 6/4, 100% SAND, DRY, NO ODOR	SC							
	20									
	25									
	30	TOTAL DEPTH: 30.0 FEET							30.0	
	35									

CME CONTINUOUS AUGER SAMPLER

WATER TABLE (TIME OF BORING)

WATER TABLE (24 HOURS)

NR: NO RECOVERY

FEM – CHALUPA PIPELINE

JOB NAME/NUMBER **FEMHCHAPN1**

BORING NUMBER **BH-02**

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CHECKED BY M.MUGAVERO DRAWING NO. BH-02

DRAWN BY: S.GRAUE PAGE 1 OF 1

BORING RECORD

GEOLOG. UNIT	DEPTH (FEET)	LITHOLOGIC DESCRIPTION	UNIFIED SOIL CLASSIFICATION	GRAPHIC LOG	OVM SOIL GAS PPM X 1.0 (2 4 6 8 10 12 14 16 18)	SAMPLE NUMBER	SAMPLE OVM READING	SAMPLE RECOVERY	SAMPLE DEPTH	REMARKS
		Start: Stop: GROUND SURFACE:								BACKGROUND OVM READING: SOIL: _____ PPM AIR: _____ PPM
	0	SILT: DARK BROWN, 7.5YR 3/2, 100% SILT, SLIGHTLY MOIST, NO ODOR	SC			–		6.0		
	1.5	CALICHE: PINKISH WHITE, 5YR 8/2, 100% CALICHE, DRY, NO ODOR					–			
	5								6.0	
	6.0	TOTAL DEPTH: 6.0 FEET								
	10									
	15									
	20									
	25									
	30									
	35									

CME CONTINUOUS AUGER SAMPLER

WATER TABLE (TIME OF BORING)

WATER TABLE (24 HOURS)

NR: NO RECOVERY

FEM – CHALUPA PIPELINE

JOB NAME/NUMBER ***FEMHCHAPN1***

BORING NUMBER ***HA–1***

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DRAWING NO. HA–1_BORE

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PAGE 1 OF 1

D:\Projects\FoundationEnergyMgmt\FEMHCHAPN1_ChalupaNorth\04_CAD\HA–1_BORE.dwg on Nov 27, 2017–2:37pm

BORING RECORD

GEOLOG. UNIT	DEPTH (FEET)	LITHOLOGIC DESCRIPTION	UNIFIED SOIL CLASSIFICATION	GRAPHIC LOG	OVM SOIL GAS PPM X 1.0 (2 4 6 8 10 12 14 16 18)	SAMPLE NUMBER	SAMPLE OVM READING	SAMPLE RECOVERY	SAMPLE DEPTH	REMARKS
		Start: Stop: GROUND SURFACE:								BACKGROUND OVM READING: SOIL: _____ PPM AIR: _____ PPM
	0	SILT: DARK BROWN, 7.5YR 3/2, 100% SILT, SLIGHTLY MOIST, NO ODOR	SC			–		6.0		
	1.5	CALICHE: PINKISH WHITE, 5YR 8/2, 100% CALICHE, DRY, NO ODOR					–			
	5								6.0	
	6.0	TOTAL DEPTH: 6.0 FEET								
	10									
	15									
	20									
	25									
	30									
	35									

CME CONTINUOUS AUGER SAMPLER

WATER TABLE (TIME OF BORING)

WATER TABLE (24 HOURS)

NR: NO RECOVERY

FEM – CHALUPA PIPELINE

JOB NAME/NUMBER ***FEMHCHAPN1***

BORING NUMBER ***HA–2***

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CHECKED BY M.MUGAVERO DRAWING NO. HA–2_BORE

DRAWN BY: S.GRAUE PAGE 1 OF 1

BORING RECORD

GEOLOG. UNIT	DEPTH (FEET)	LITHOLOGIC DESCRIPTION	UNIFIED SOIL CLASSIFICATION	GRAPHIC LOG	OVM SOIL GAS PPM X 1.0 (2 4 6 8 10 12 14 16 18)	SAMPLE NUMBER	SAMPLE OVM READING	SAMPLE RECOVERY	SAMPLE DEPTH	REMARKS
		Start: Stop: GROUND SURFACE:								BACKGROUND OVM READING: SOIL: _____ PPM AIR: _____ PPM
	0	SILT: DARK BROWN, 7.5YR 3/2, 100% SILT, SLIGHTLY MOIST, NO ODOR	SC			–		6.0		
	1.5	CALICHE: PINKISH WHITE, 5YR 8/2, 100% CALICHE, DRY, NO ODOR					–			
	5								6.0	
	6.0	TOTAL DEPTH: 6.0 FEET								
	10									
	15									
	20									
	25									
	30									
	35									

CME CONTINUOUS AUGER SAMPLER

WATER TABLE (24 HOURS)

WATER TABLE (TIME OF BORING)

NR: NO RECOVERY

FEM – CHALUPA PIPELINE

JOB NAME/NUMBER **FEMHCHAPN1**

BORING NUMBER **HA-3**

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CHECKED BY M.MUGAVERO

DRAWING NO. HA-3_BORE

DRAWN BY: S.GRAUE

PAGE 1 OF 1

BORING RECORD

GEOLOG. UNIT	DEPTH (FEET)	LITHOLOGIC DESCRIPTION	UNIFIED SOIL CLASSIFICATION	GRAPHIC LOG	OVM SOIL GAS PPM X 1.0 (2 4 6 8 10 12 14 16 18)	SAMPLE NUMBER	SAMPLE OVM READING	SAMPLE RECOVERY	SAMPLE DEPTH	REMARKS
		Start: Stop: GROUND SURFACE:								BACKGROUND OVM READING: SOIL: _____ PPM AIR: _____ PPM
	0	SILT: DARK BROWN, 7.5YR 3/2, 100% SILT, SLIGHTLY MOIST, NO ODOR	SC			–		6.0		
	1.5	CALICHE: PINKISH WHITE, 5YR 8/2, 100% CALICHE, DRY, NO ODOR					–			
	5								6.0	
	6.0	TOTAL DEPTH: 6.0 FEET								
	10									
	15									
	20									
	25									
	30									
	35									

CME CONTINUOUS AUGER SAMPLER

WATER TABLE (TIME OF BORING)

WATER TABLE (24 HOURS)

NR: NO RECOVERY

FEM – CHALUPA PIPELINE

JOB NAME/NUMBER ***FEMHCHAPN1***

BORING NUMBER ***HA–4***

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BORING RECORD

GEOLOG. UNIT	DEPTH (FEET)	LITHOLOGIC DESCRIPTION	UNIFIED SOIL CLASSIFICATION	GRAPHIC LOG	OVM SOIL GAS PPM X 1.0 (2 4 6 8 10 12 14 16 18)	SAMPLE NUMBER	SAMPLE OVM READING	SAMPLE RECOVERY	SAMPLE DEPTH	REMARKS
		Start: Stop: GROUND SURFACE:								BACKGROUND OVM READING: SOIL: _____ PPM AIR: _____ PPM
	0	SILT: DARK BROWN, 7.5YR 3/2, 100% SILT, SLIGHTLY MOIST, NO ODOR	SC			–	–	6.0		
	4.0	SANDY SILT: PINK, 7.5YR 7/4, 60% SILT, 40% VERY FINE SAND, SLIGHTLY MOIST, NO ODOR	SC						6.0	
	6.0	TOTAL DEPTH: 6.0 FEET								

0 5 10 15 20 25 30 35

CME CONTINUOUS AUGER SAMPLER

WATER TABLE (TIME OF BORING)

WATER TABLE (24 HOURS)

NR: NO RECOVERY

FEM – CHALUPA PIPELINE

JOB NAME/NUMBER ***FEMHCHAPN1***

BORING NUMBER ***HA–5***

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BORING RECORD

GEOLOG. UNIT	DEPTH (FEET)	LITHOLOGIC DESCRIPTION	UNIFIED SOIL CLASSIFICATION	GRAPHIC LOG	OVM SOIL GAS PPM X 1.0 (2 4 6 8 10 12 14 16 18)	SAMPLE NUMBER	SAMPLE OVM READING	SAMPLE RECOVERY	SAMPLE DEPTH	REMARKS
		Start: Stop: GROUND SURFACE:								BACKGROUND OVM READING: SOIL: _____ PPM AIR: _____ PPM
	0	SILT: DARK BROWN, 7.5YR 3/2, 100% SILT, SLIGHTLY MOIST, NO ODOR	SC			–	–	6.0		
	4.0	SANDY SILT: PINK, 7.5YR 7/4, 60% SILT, 40% VERY FINE SAND, SLIGHTLY MOIST, NO ODOR	SC						6.0	
	6.0	TOTAL DEPTH: 6.0 FEET								

0, 5, 10, 15, 20, 25, 30, 35

CME CONTINUOUS AUGER SAMPLER

WATER TABLE (TIME OF BORING)

WATER TABLE (24 HOURS)

NR: NO RECOVERY

FEM – CHALUPA PIPELINE

JOB NAME/NUMBER **FEMHCHAPN1**

BORING NUMBER **HA-6**

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LOGGED BY M.MUGAVERO

CHECKED BY M.MUGAVERO DRAWING NO. HA-6_BORE

DRAWN BY: S.GRAUE PAGE 1 OF 1

BORING RECORD

GEOLOG. UNIT	DEPTH (FEET)	LITHOLOGIC DESCRIPTION	UNIFIED SOIL CLASSIFICATION	GRAPHIC LOG	OVM SOIL GAS PPM X 1.0 (2 4 6 8 10 12 14 16 18)	SAMPLE NUMBER	SAMPLE OVM READING	SAMPLE RECOVERY	SAMPLE DEPTH	REMARKS
		Start: Stop: GROUND SURFACE:								BACKGROUND OVM READING: SOIL: _____ PPM AIR: _____ PPM
	0	SILT: DARK BROWN, 7.5YR 3/2, 100% SILT, SLIGHTLY MOIST, NO ODOR	SC			–	–	6.0		
	4.0	SANDY SILT: PINK, 7.5YR 7/4, 60% SILT, 40% VERY FINE SAND, SLIGHTLY MOIST, NO ODOR	SC						6.0	
	6.0	TOTAL DEPTH: 6.0 FEET								

0 5 10 15 20 25 30 35

CME CONTINUOUS AUGER SAMPLER

WATER TABLE (TIME OF BORING)

WATER TABLE (24 HOURS)

NR: NO RECOVERY

FEM – CHALUPA PIPELINE

JOB NAME/NUMBER ***FEMHCHAPN1***

BORING NUMBER ***HA–7***

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DRILLING METHOD AIR ROTARY

DRILLED BY SCARBOROUGH DRILLING

LOGGED BY M.MUGAVERO

CHECKED BY M.MUGAVERO DRAWING NO. HA–7_BORE

DRAWN BY: S.GRAUE PAGE 1 OF 1

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BORING RECORD

GEOLOG. UNIT	DEPTH (FEET)	LITHOLOGIC DESCRIPTION	UNIFIED SOIL CLASSIFICATION	GRAPHIC LOG	OVM SOIL GAS PPM X 1.0 (2 4 6 8 10 12 14 16 18)	SAMPLE NUMBER	SAMPLE OVM READING	SAMPLE RECOVERY	SAMPLE DEPTH	REMARKS
		Start: Stop: GROUND SURFACE:								BACKGROUND OVM READING: SOIL: _____ PPM AIR: _____ PPM
	0	SILT: DARK BROWN, 7.5YR 3/2, 100% SILT, SLIGHTLY MOIST, NO ODOR	SC			–	–	6.0		
	4.0	SANDY SILT: PINK, 7.5YR 7/4, 60% SILT, 40% VERY FINE SAND, SLIGHTLY MOIST, NO ODOR	SC						6.0	
	6.0	TOTAL DEPTH: 6.0 FEET								

0 5 10 15 20 25 30 35

CME CONTINUOUS AUGER SAMPLER

WATER TABLE (TIME OF BORING)

WATER TABLE (24 HOURS)

NR: NO RECOVERY

FEM – CHALUPA PIPELINE

JOB NAME/NUMBER ***FEMHCHAPN1***

BORING NUMBER ***HA–8***

ENVIRO CLEAN CARDINAL

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DATE DRILLED 11/1/2017

DRILLING METHOD AIR ROTARY

DRILLED BY SCARBOROUGH DRILLING

LOGGED BY M.MUGAVERO

CHECKED BY M.MUGAVERO DRAWING NO. HA–8_BORE

DRAWN BY: S.GRAUE PAGE 1 OF 1

APPENDIX D

LABORATORY REPORT AND CHAIN-OF-CUSTODY

Analytical Report 567390

for

Enviroclean- Midland

Project Manager: Julie Czech

FEM Chalupa #4 SWD- Pipeline

FEMHCHAPN1

20-NOV-17

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-17-23), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-15), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-17-13)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

20-NOV-17

Project Manager: **Julie Czech**
Enviroclean- Midland
2405 ECR 123
Midland, TX 79706

Reference: XENCO Report No(s): **567390**
FEM Chalupa #4 SWD- Pipeline
Project Address: TX

Julie Czech:

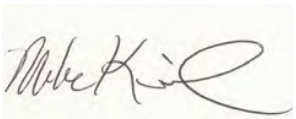
We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 567390. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 567390 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,



Mike Kimmel
Client Services Manager

Sample Cross Reference 567390

Enviroclean- Midland, Midland, TX

FEM Chalupa #4 SWD- Pipeline

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-1	S	11-01-17 09:15	0 - 1 ft	567390-001
BH-1	S	11-01-17 09:15	1 - 2 ft	567390-002
BH-1	S	11-01-17 09:15	2 - 3 ft	567390-003
BH-1	S	11-01-17 09:15	3 - 4 ft	567390-004
BH-1	S	11-01-17 09:15	4 - 5 ft	567390-005
BH-1	S	11-01-17 09:15	5 - 6 ft	567390-006
BH-1	S	11-01-17 09:15	9 - 10 ft	567390-007
BH-1	S	11-01-17 09:15	14 - 15 ft	567390-008
BH-1	S	11-01-17 09:15	19 - 20 ft	567390-009
BH-1	S	11-01-17 09:15	24 - 25 ft	567390-010
BH-1	S	11-01-17 09:15	29 - 30 ft	567390-011
HA-1	S	11-01-17 10:50	0 - 1 ft	567390-012
HA-1	S	11-01-17 10:50	1 - 2 ft	567390-013
HA-1	S	11-01-17 10:50	2 - 3 ft	567390-014
HA-1	S	11-01-17 10:50	3 - 4 ft	567390-015
HA-1	S	11-01-17 10:50	4 - 5 ft	567390-016
HA-1	S	11-01-17 10:50	5 - 6 ft	567390-017
HA-2	S	11-01-17 10:40	0 - 1 ft	567390-018
HA-2	S	11-01-17 10:40	1 - 2 ft	567390-019
HA-2	S	11-01-17 10:40	2 - 3 ft	567390-020
HA-2	S	11-01-17 10:40	3 - 4 ft	567390-021
HA-2	S	11-01-17 10:40	4 - 5 ft	567390-022
HA-2	S	11-01-17 10:40	5 - 6 ft	567390-023
HA-3	S	11-01-17 10:25	0 - 1 ft	567390-024
HA-3	S	11-01-17 10:25	1 - 2 ft	567390-025
HA-3	S	11-01-17 10:25	2 - 3 ft	567390-026
HA-3	S	11-01-17 10:25	3 - 4 ft	567390-027
HA-3	S	11-01-17 10:25	4 - 5 ft	567390-028
HA-3	S	11-01-17 10:25	5 - 6 ft	567390-029
HA-4	S	11-01-17 10:10	0 - 1 ft	567390-030
HA-4	S	11-01-17 10:10	1 - 2 ft	567390-031
HA-4	S	11-01-17 10:10	2 - 3 ft	567390-032
HA-4	S	11-01-17 10:10	3 - 4 ft	567390-033
HA-4	S	11-01-17 10:10	4 - 5 ft	567390-034
HA-4	S	11-01-17 10:10	5 - 6 ft	567390-035
BH-2	S	11-01-17 11:10	0 - 1 ft	567390-036
BH-2	S	11-01-17 11:10	1 - 2 ft	567390-037
BH-2	S	11-01-17 11:10	2 - 3 ft	567390-038
BH-2	S	11-01-17 11:10	3 - 4 ft	567390-039
BH-2	S	11-01-17 11:10	4 - 5 ft	567390-040
BH-2	S	11-01-17 11:10	5 - 6 ft	567390-041
BH-2	S	11-01-17 11:10	9 - 10 ft	567390-042
BH-2	S	11-01-17 11:10	14 - 15 ft	567390-043

BH-2	S	11-01-17 11:10	19 - 20 ft	567390-044
BH-2	S	11-01-17 11:10	24 - 25 ft	567390-045
BH-2	S	11-01-17 11:10	29 - 30 ft	567390-046
HA-5	S	11-01-17 12:20	0 - 1 ft	567390-047
HA-5	S	11-01-17 12:20	1 - 2 ft	567390-048
HA-5	S	11-01-17 12:20	2 - 3 ft	567390-049
HA-5	S	11-01-17 12:20	3 - 4 ft	567390-050
HA-5	S	11-01-17 12:20	4 - 5 ft	567390-051
HA-5	S	11-01-17 12:20	5 - 6 ft	567390-052
HA-6	S	11-01-17 12:30	0 - 1 ft	567390-053
HA-6	S	11-01-17 12:30	1 - 2 ft	567390-054
HA-6	S	11-01-17 12:30	2 - 3 ft	567390-055
HA-6	S	11-01-17 12:30	3 - 4 ft	567390-056
HA-6	S	11-01-17 12:30	4 - 5 ft	567390-057
HA-6	S	11-01-17 12:30	5 - 6 ft	567390-058
HA-7	S	11-01-17 12:45	0 - 1 ft	567390-059
HA-7	S	11-01-17 12:45	1 - 2 ft	567390-060
HA-7	S	11-01-17 12:45	2 - 3 ft	567390-061
HA-7	S	11-01-17 12:45	3 - 4 ft	567390-062
HA-7	S	11-01-17 12:45	4 - 5 ft	567390-063
HA-7	S	11-01-17 12:45	5 - 6 ft	567390-064
HA-8	S	11-01-17 13:00	0 - 1 ft	567390-065
HA-8	S	11-01-17 13:00	1 - 2 ft	567390-066
HA-8	S	11-01-17 13:00	2 - 3 ft	567390-067
HA-8	S	11-01-17 13:00	3 - 4 ft	567390-068
HA-8	S	11-01-17 13:00	4 - 5 ft	567390-069
HA-8	S	11-01-17 13:00	5 - 6 ft	567390-070

Sample receipt non conformances and comments:

11/20/17: Revised report to include the re-analysis of samples 567390-010 and 011 for Chloride per Julie Czech.

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3032677 Inorganic Anions by EPA 300
Lab Sample ID 567390-020 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 567390-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3032691 Inorganic Anions by EPA 300
Lab Sample ID 567390-050 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 567390-041, -042, -043, -044, -045, -046, -047, -048, -049, -050, -051, -052, -053, -054, -055, -056, -057, -058, -059, -060.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. DHE 11/08/17

Certificate of Analysis Summary 567390

Enviroclean- Midland, Midland, TX

Project Name: FEM Chalupa #4 SWD- Pipeline

Project Id: FEMHCHAPN1
Contact: Julie Czech
Project Location: TX

Date Received in Lab: Thu Nov-02-17 04:21 pm
Report Date: 20-NOV-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	567390-001		567390-002		567390-003		567390-004		567390-005		567390-006	
	Field Id:	BH-1		BH-1		BH-1		BH-1		BH-1		BH-1	
	Depth:	0-1 ft		1-2 ft		2-3 ft		3-4 ft		4-5 ft		5-6 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-01-17 09:15		Nov-01-17 09:15		Nov-01-17 09:15		Nov-01-17 09:15		Nov-01-17 09:15		Nov-01-17 09:15	
Inorganic Anions by EPA 300 **SUB: TX104704215-17-23**	***Extracted:***	Nov-06-17 17:00		Nov-06-17 17:00		Nov-06-17 17:00		Nov-06-17 17:00		Nov-06-17 17:00		Nov-06-17 17:00	
	Analyzed:	Nov-06-17 19:05		Nov-06-17 19:27		Nov-06-17 19:34		Nov-06-17 19:41		Nov-06-17 19:49		Nov-06-17 20:10	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		4980	193	2990	185	1650	188	1090	200	720	186	707	200

Mike Kimmel
Client Services Manager

Certificate of Analysis Summary 567390

Enviroclean- Midland, Midland, TX

Project Name: FEM Chalupa #4 SWD- Pipeline

Project Id: FEMHCHAPN1
Contact: Julie Czech
Project Location: TX

Date Received in Lab: Thu Nov-02-17 04:21 pm
Report Date: 20-NOV-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	567390-007		567390-008		567390-009		567390-010		567390-011		567390-012	
	Field Id:	BH-1		BH-1		BH-1		BH-1		BH-1		HA-1	
	Depth:	9-10 ft		14-15 ft		19-20 ft		24-25 ft		29-30 ft		0-1 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-01-17 09:15		Nov-01-17 09:15		Nov-01-17 09:15		Nov-01-17 09:15		Nov-01-17 09:15		Nov-01-17 10:50	
Inorganic Anions by EPA 300 **SUB: TX104704215-17-23**	***Extracted:***	Nov-06-17 17:00		Nov-06-17 17:00		Nov-06-17 17:00		Nov-06-17 17:00		Nov-06-17 17:00		Nov-06-17 17:00	
	Analyzed:	Nov-06-17 20:18		Nov-06-17 20:25		Nov-06-17 20:32		Nov-06-17 20:32		Nov-06-17 20:32		Nov-06-17 20:54	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		388	194	323	192	354	193	189	185	392	200	2280	180

Mike Kimmel
Client Services Manager

Certificate of Analysis Summary 567390

Enviroclean- Midland, Midland, TX

Project Name: FEM Chalupa #4 SWD- Pipeline

Project Id: FEMHCHAPN1
Contact: Julie Czech
Project Location: TX

Date Received in Lab: Thu Nov-02-17 04:21 pm
Report Date: 20-NOV-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	567390-013		567390-014		567390-015		567390-016		567390-017		567390-018	
	Field Id:	HA-1		HA-1		HA-1		HA-1		HA-1		HA-2	
	Depth:	1-2 ft		2-3 ft		3-4 ft		4-5 ft		5-6 ft		0-1 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-01-17 10:50		Nov-01-17 10:50		Nov-01-17 10:50		Nov-01-17 10:50		Nov-01-17 10:50		Nov-01-17 10:40	
Inorganic Anions by EPA 300 **SUB: TX104704215-17-23**	***Extracted:***	Nov-06-17 17:00		Nov-06-17 17:00		Nov-06-17 17:00		Nov-06-17 17:00		Nov-06-17 17:00		Nov-06-17 17:00	
	Analyzed:	Nov-06-17 21:01		Nov-06-17 21:08		Nov-06-17 21:16		Nov-06-17 21:37		Nov-06-17 21:44		Nov-06-17 21:52	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1690	185	1080	193	1380	193	1240	191	1740	192	6240	185

Mike Kimmel
Client Services Manager

Certificate of Analysis Summary 567390

Enviroclean- Midland, Midland, TX

Project Name: FEM Chalupa #4 SWD- Pipeline

Project Id: FEMHCHAPN1
Contact: Julie Czech
Project Location: TX

Date Received in Lab: Thu Nov-02-17 04:21 pm
Report Date: 20-NOV-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	567390-019		567390-020		567390-021		567390-022		567390-023		567390-024	
	Field Id:	HA-2		HA-2		HA-2		HA-2		HA-2		HA-3	
	Depth:	1-2 ft		2-3 ft		3-4 ft		4-5 ft		5-6 ft		0-1 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-01-17 10:40		Nov-01-17 10:40		Nov-01-17 10:40		Nov-01-17 10:40		Nov-01-17 10:40		Nov-01-17 10:25	
Inorganic Anions by EPA 300 **SUB: TX104704215-17-23**	***Extracted:***	Nov-06-17 17:00		Nov-06-17 17:00		Nov-06-17 17:43		Nov-06-17 17:43		Nov-06-17 17:43		Nov-06-17 17:43	
	Analyzed:	Nov-06-17 21:59		Nov-06-17 22:06		Nov-06-17 23:04		Nov-06-17 23:26		Nov-06-17 23:33		Nov-06-17 23:40	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1840	178	1620	192	1310	185	1170	195	1120	163	8950	189

Mike Kimmel
Client Services Manager

Certificate of Analysis Summary 567390

Enviroclean- Midland, Midland, TX

Project Name: FEM Chalupa #4 SWD- Pipeline

Project Id: FEMHCHAPN1
Contact: Julie Czech
Project Location: TX

Date Received in Lab: Thu Nov-02-17 04:21 pm
Report Date: 20-NOV-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	567390-025		567390-026		567390-027		567390-028		567390-029		567390-030	
	Field Id:	HA-3		HA-3		HA-3		HA-3		HA-3		HA-4	
	Depth:	1-2 ft		2-3 ft		3-4 ft		4-5 ft		5-6 ft		0-1 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-01-17 10:25		Nov-01-17 10:25		Nov-01-17 10:25		Nov-01-17 10:25		Nov-01-17 10:25		Nov-01-17 10:10	
Inorganic Anions by EPA 300 **SUB: TX104704215-17-23**	***Extracted:***	Nov-06-17 17:43		Nov-06-17 17:43		Nov-06-17 17:43		Nov-06-17 17:43		Nov-06-17 17:43		Nov-06-17 17:43	
	Analyzed:	Nov-06-17 23:48		Nov-07-17 00:09		Nov-07-17 00:17		Nov-07-17 00:24		Nov-07-17 00:31		Nov-07-17 00:38	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		3110	186	1210	182	815	182	939	201	1470	179	1090	175

Mike Kimmel
Client Services Manager

Certificate of Analysis Summary 567390

Enviroclean- Midland, Midland, TX

Project Name: FEM Chalupa #4 SWD- Pipeline

Project Id: FEMHCHAPN1
Contact: Julie Czech
Project Location: TX

Date Received in Lab: Thu Nov-02-17 04:21 pm
Report Date: 20-NOV-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	567390-031		567390-032		567390-033		567390-034		567390-035		567390-036	
	Field Id:	HA-4		HA-4		HA-4		HA-4		HA-4		BH-2	
	Depth:	1-2 ft		2-3 ft		3-4 ft		4-5 ft		5-6 ft		0-1 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-01-17 10:10		Nov-01-17 10:10		Nov-01-17 10:10		Nov-01-17 10:10		Nov-01-17 10:10		Nov-01-17 11:10	
Inorganic Anions by EPA 300 **SUB: TX104704215-17-23**	***Extracted:***	Nov-06-17 17:43		Nov-06-17 17:43		Nov-06-17 17:43		Nov-06-17 17:43		Nov-06-17 17:43		Nov-06-17 17:43	
	Analyzed:	Nov-07-17 00:46		Nov-07-17 00:53		Nov-07-17 01:00		Nov-07-17 01:07		Nov-07-17 01:29		Nov-07-17 01:36	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		7210	189	2690	192	1470	185	1570	195	1700	199	2690	189

Mike Kimmel
Client Services Manager

Certificate of Analysis Summary 567390

Enviroclean- Midland, Midland, TX

Project Name: FEM Chalupa #4 SWD- Pipeline

Project Id: FEMHCHAPN1
Contact: Julie Czech
Project Location: TX

Date Received in Lab: Thu Nov-02-17 04:21 pm
Report Date: 20-NOV-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	567390-037		567390-038		567390-039		567390-040		567390-041		567390-042	
	Field Id:	BH-2		BH-2		BH-2		BH-2		BH-2		BH-2	
	Depth:	1-2 ft		2-3 ft		3-4 ft		4-5 ft		5-6 ft		9-10 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-01-17 11:10		Nov-01-17 11:10		Nov-01-17 11:10		Nov-01-17 11:10		Nov-01-17 11:10		Nov-01-17 11:10	
Inorganic Anions by EPA 300 **SUB: TX104704215-17-23**	***Extracted:***	Nov-06-17 17:43		Nov-06-17 17:43		Nov-06-17 17:43		Nov-06-17 17:43		Nov-06-17 13:26		Nov-06-17 13:26	
	Analyzed:	Nov-07-17 01:43		Nov-07-17 01:51		Nov-07-17 01:58		Nov-07-17 02:05		Nov-07-17 09:38		Nov-07-17 10:00	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1960	175	2520	182	3010	191	3290	188	2470	192	1010	204

Mike Kimmel
Client Services Manager

Certificate of Analysis Summary 567390

Enviroclean- Midland, Midland, TX

Project Name: FEM Chalupa #4 SWD- Pipeline

Project Id: FEMHCHAPN1
Contact: Julie Czech
Project Location: TX

Date Received in Lab: Thu Nov-02-17 04:21 pm
Report Date: 20-NOV-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	567390-043		567390-044		567390-045		567390-046		567390-047		567390-048	
	Field Id:	BH-2		BH-2		BH-2		BH-2		HA-5		HA-5	
	Depth:	14-15 ft		19-20 ft		24-25 ft		29-30 ft		0-1 ft		1-2 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-01-17 11:10		Nov-01-17 11:10		Nov-01-17 11:10		Nov-01-17 11:10		Nov-01-17 12:20		Nov-01-17 12:20	
Inorganic Anions by EPA 300 **SUB: TX104704215-17-23**	***Extracted:***	Nov-06-17 13:26		Nov-06-17 13:26		Nov-06-17 13:26		Nov-06-17 13:26		Nov-06-17 13:26		Nov-06-17 13:26	
	Analyzed:	Nov-07-17 10:07		Nov-07-17 10:14		Nov-08-17 00:58		Nov-07-17 10:43		Nov-07-17 10:50		Nov-07-17 10:58	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		388	191	316	175	86.4	47.1	340	198	1790	193	1180	180

Mike Kimmel
Client Services Manager

Certificate of Analysis Summary 567390

Enviroclean- Midland, Midland, TX

Project Name: FEM Chalupa #4 SWD- Pipeline

Project Id: FEMHCHAPN1
Contact: Julie Czech
Project Location: TX

Date Received in Lab: Thu Nov-02-17 04:21 pm
Report Date: 20-NOV-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	567390-049		567390-050		567390-051		567390-052		567390-053		567390-054	
	Field Id:	HA-5		HA-5		HA-5		HA-5		HA-6		HA-6	
	Depth:	2-3 ft		3-4 ft		4-5 ft		5-6 ft		0-1 ft		1-2 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-01-17 12:20		Nov-01-17 12:20		Nov-01-17 12:20		Nov-01-17 12:20		Nov-01-17 12:30		Nov-01-17 12:30	
Inorganic Anions by EPA 300 **SUB: TX104704215-17-23**	***Extracted:***	Nov-06-17 13:26		Nov-06-17 13:26		Nov-06-17 13:26		Nov-06-17 13:26		Nov-06-17 13:26		Nov-06-17 13:26	
	Analyzed:	Nov-07-17 11:05		Nov-07-17 11:12		Nov-07-17 11:34		Nov-07-17 11:41		Nov-07-17 11:48		Nov-07-17 12:10	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		819	188	469	198	317	198	399	188	1950	184	1450	190

Mike Kimmel
Client Services Manager

Certificate of Analysis Summary 567390

Enviroclean- Midland, Midland, TX

Project Name: FEM Chalupa #4 SWD- Pipeline

Project Id: FEMHCHAPN1
Contact: Julie Czech
Project Location: TX

Date Received in Lab: Thu Nov-02-17 04:21 pm
Report Date: 20-NOV-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	567390-055		567390-056		567390-057		567390-058		567390-059		567390-060	
	Field Id:	HA-6		HA-6		HA-6		HA-6		HA-7		HA-7	
	Depth:	2-3 ft		3-4 ft		4-5 ft		5-6 ft		0-1 ft		1-2 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-01-17 12:30		Nov-01-17 12:30		Nov-01-17 12:30		Nov-01-17 12:30		Nov-01-17 12:45		Nov-01-17 12:45	
Inorganic Anions by EPA 300 **SUB: TX104704215-17-23**	***Extracted:***	Nov-06-17 13:26		Nov-06-17 13:26		Nov-06-17 13:26		Nov-06-17 13:26		Nov-06-17 13:26		Nov-06-17 13:26	
	Analyzed:	Nov-07-17 12:17		Nov-07-17 12:25		Nov-07-17 12:32		Nov-07-17 12:39		Nov-07-17 12:46		Nov-07-17 12:54	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1140	175	497	185	291	180	322	201	1600	190	1330	178

Mike Kimmel
Client Services Manager

Certificate of Analysis Summary 567390

Enviroclean- Midland, Midland, TX

Project Name: FEM Chalupa #4 SWD- Pipeline

Project Id: FEMHCHAPN1
Contact: Julie Czech
Project Location: TX

Date Received in Lab: Thu Nov-02-17 04:21 pm
Report Date: 20-NOV-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	567390-061		567390-062		567390-063		567390-064		567390-065		567390-066	
	Field Id:	HA-7		HA-7		HA-7		HA-7		HA-8		HA-8	
	Depth:	2-3 ft		3-4 ft		4-5 ft		5-6 ft		0-1 ft		1-2 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-01-17 12:45		Nov-01-17 12:45		Nov-01-17 12:45		Nov-01-17 12:45		Nov-01-17 13:00		Nov-01-17 13:00	
Inorganic Anions by EPA 300 **SUB: TX104704215-17-23**	***Extracted:***	Nov-07-17 10:31		Nov-07-17 10:31		Nov-07-17 10:31		Nov-07-17 10:31		Nov-07-17 10:31		Nov-07-17 10:31	
	Analyzed:	Nov-07-17 13:52		Nov-07-17 14:13		Nov-07-17 14:21		Nov-07-17 14:28		Nov-07-17 14:35		Nov-07-17 14:57	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1380	170	1620	185	557	166	475	191	1080	187	1860	177

Mike Kimmel
Client Services Manager

Certificate of Analysis Summary 567390

Enviroclean- Midland, Midland, TX

Project Name: FEM Chalupa #4 SWD- Pipeline

Project Id: FEMHCHAPN1
Contact: Julie Czech
Project Location: TX

Date Received in Lab: Thu Nov-02-17 04:21 pm
Report Date: 20-NOV-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	567390-067		567390-068		567390-069		567390-070					
	Field Id:	HA-8		HA-8		HA-8		HA-8					
	Depth:	2-3 ft		3-4 ft		4-5 ft		5-6 ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Nov-01-17 13:00		Nov-01-17 13:00		Nov-01-17 13:00		Nov-01-17 13:00					
Inorganic Anions by EPA 300 **SUB: TX104704215-17-23**	***Extracted:***	Nov-07-17 10:31		Nov-07-17 10:31		Nov-07-17 10:31		Nov-07-17 10:31					
	Analyzed:	Nov-07-17 15:04		Nov-07-17 15:11		Nov-07-17 15:19		Nov-07-17 15:26					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		2360	194	3370	172	2960	164	1930	197				

Mike Kimmel
Client Services Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

BS / BSD Recoveries

Project Name: FEM Chalupa #4 SWD- Pipeline

Work Order #: 567390, 567390 **Project ID:** FEMHCHAPN1

Analyst: MAB **Date Prepared:** 11/06/2017 **Date Analyzed:** 11/06/2017

Lab Batch ID: 3032677 **Sample:** 7633885-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	1.63	50.0	45.5	91	50.0	47.5	95	4	80-120	20	

Analyst: MAB **Date Prepared:** 11/06/2017 **Date Analyzed:** 11/06/2017

Lab Batch ID: 3032681 **Sample:** 7633886-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<1.00	50.0	44.9	90	50.0	44.6	89	1	80-120	20	

Analyst: MAB **Date Prepared:** 11/06/2017 **Date Analyzed:** 11/07/2017

Lab Batch ID: 3032691 **Sample:** 7633925-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<1.00	50.0	44.8	90	50.0	44.4	89	1	80-120	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: FEM Chalupa #4 SWD- Pipeline

Work Order #: 567390, 567390 **Project ID:** FEMHCHAPN1

Analyst: MAB **Date Prepared:** 11/07/2017 **Date Analyzed:** 11/07/2017

Lab Batch ID: 3032694 **Sample:** 7633926-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<1.00	50.0	45.6	91	50.0	47.0	94	3	80-120	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: FEM Chalupa #4 SWD- Pipeline

Work Order # : 567390 **Project ID:** FEMHCHAPN1

Lab Batch ID: 3032677 **QC- Sample ID:** 567390-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 11/06/2017 **Date Prepared:** 11/06/2017 **Analyst:** MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	4980	2410	7260	95	2410	7140	90	2	80-120	20	

Lab Batch ID: 3032677 **QC- Sample ID:** 567390-020 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 11/06/2017 **Date Prepared:** 11/06/2017 **Analyst:** MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	1620	2390	3410	75	2390	3390	74	1	80-120	20	X

Lab Batch ID: 3032681 **QC- Sample ID:** 567390-021 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 11/06/2017 **Date Prepared:** 11/06/2017 **Analyst:** MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	1310	1850	2830	82	1850	2820	82	0	80-120	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: FEM Chalupa #4 SWD- Pipeline

Work Order # : 567390 **Project ID:** FEMHCHAPN1

Lab Batch ID: 3032681 **QC- Sample ID:** 567390-040 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 11/07/2017 **Date Prepared:** 11/06/2017 **Analyst:** MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	3290	1880	4960	89	1880	4910	86	1	80-120	20	

Lab Batch ID: 3032691 **QC- Sample ID:** 567390-041 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 11/07/2017 **Date Prepared:** 11/06/2017 **Analyst:** MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	2470	1920	4400	101	1920	4350	98	1	80-120	20	

Lab Batch ID: 3032691 **QC- Sample ID:** 567390-050 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 11/07/2017 **Date Prepared:** 11/06/2017 **Analyst:** MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	469	1980	1980	76	1980	1960	75	1	80-120	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: FEM Chalupa #4 SWD- Pipeline

Work Order # : 567390 **Project ID:** FEMHCHAPN1

Lab Batch ID: 3032694 **QC- Sample ID:** 567390-061 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 11/07/2017 **Date Prepared:** 11/07/2017 **Analyst:** MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	1380	1700	3270	111	1700	3260	111	0	80-120	20	

Lab Batch ID: 3032694 **QC- Sample ID:** 567390-070 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 11/07/2017 **Date Prepared:** 11/07/2017 **Analyst:** MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	1930	1970	3570	83	1970	3540	82	1	80-120	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

CHAIN OF CUSTODY RECORD 567890 No. 03351

ENVIRO CLEAN SERVICES, LLC
(918) 794-7828

PROJECT NUMBER: FEMHCHAPN1	PROJECT NAME: FEM CHALUPA #4 SWD - PIPELINE
SHIPPED TO: XENCO	PROJECT MANAGER: MATT MUGAVERO
COC 1 of 5	TAT: STANDARD

SAMPLER'S PRINTED NAME: GEORGE RICHARDSON
SAMPLER'S SIGNATURE:

Date	Time	Sample ID	Sample Matrix	# of Sample Containers	CHLORIDE-300	REMARKS
11/1/17	0915	BH-1 (0-1 ft)	SOIL	1	X	
		BH-1 (1-2 ft)			X	
		BH-1 (2-3 ft)			X	
		BH-1 (3-4 ft)			X	
		BH-1 (4-5 ft)			X	
		BH-1 (5-6 ft)			X	
		BH-1 (9-10 ft)			X	
		BH-1 (14-15 ft)			X	
		BH-1 (19-20 ft)			X	
		BH-1 (24-25 ft)			X	
		BH-1 (29-30 ft)			X	
	1050	HA-1 (0-1 ft)			X	
		HA-1 (1-2 ft)			X	
		HA-1 (2-3 ft)			X	
		HA-1 (3-4 ft)			X	

Temp: 1.4 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 1.2

TOTAL NUMBER OF CONTAINERS: 15

RELINQUISHED BY:	DATE 11/2/17	RECEIVED BY:	DATE 11.02.17
	TIME 1621		TIME 16:21
RELINQUISHED BY:	DATE	RECEIVED BY:	DATE
	TIME		TIME

METHOD OF SHIPMENT: HAND DELIVERED
AIRBILL NUMBER:
RECEIVED IN LABORATORY BY: DATE TIME
Send PDF, EDD, and INVOICE (if applicable) to: JULIE CZECH at julie.czech@eccgrp.com
LABORATORY CONTACT: KELSEY BROOKS
LABORATORY ADDRESS: 1211 W. FLORIDA AVE MIDLAND, TX 79701

POINT OF ORIGIN: ☐ OKLAHOMA CITY ☒ TULSA ☐ NORMAN ☐ WOODWARD ☐ ARLINGTON ☐ MIDLAND ☐ OTHER:

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CHAIN OF CUSTODY RECORD 567390 No. 03382

ENVIRO CLEAN SERVICES, LLC
(918) 794-7828

PROJECT NUMBER: FEMHCHAPN1
PROJECT NAME: FEM CHALUPA #4 SWD - PIPELINE
COC 2 of 5
SHIPPED TO: XENCO
PROJECT MANAGER: MATT MUGAVERO
TAT: STANDARD
SAMPLER'S PRINTED NAME: GEORGE RICHARDSON
SAMPLER'S SIGNATURE:

Date	Time	Sample ID	Sample Matrix	# of Sample Containers	CHLORIDE-300	REMARKS
11/1/17	1050	HA-1 (4-5 ft)	SOIL	1	X	
		HA-1 (5-6 ft)			X	
	1040	HA-2 (0-1 ft)			X	
		HA-2 (1-2 ft)			X	
		HA-2 (2-3 ft)			X	
		HA-2 (3-4 ft)			X	
		HA-2 (4-5 ft)			X	
		HA-2 (5-6 ft)			X	
	1025	HA-3 (0-1 ft)			X	
		HA-3 (1-2 ft)			X	
		HA-3 (2-3 ft)			X	
		HA-3 (3-4 ft)			X	
		HA-3 (4-5 ft)			X	
		HA-3 (5-6 ft)			X	
	1010	HA-4 (0-1 ft)			X	

Temp: 1.4 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 1.2

TOTAL NUMBER OF CONTAINERS: 15

RELINQUISHED BY: DATE 11/2/17 TIME 1624
RECEIVED BY: Shannee Smith DATE 11.02.17 TIME 1621

RELINQUISHED BY: DATE TIME
RECEIVED BY: DATE TIME

METHOD OF SHIPMENT: HAND DELIVERED
AIRBILL NUMBER:

RECEIVED IN LABORATORY BY: DATE TIME
Send PDF, EDD, and INVOICE (if applicable) to: JULIE CZECH at julie.czech@eccgrp.com

LABORATORY CONTACT: Kelsey Brooks
LABORATORY ADDRESS: 1211 W. Florida Ave. Midland, TX 79701

POINT OF ORIGIN: ☐ OKLAHOMA CITY ☒ TULSA ☐ NORMAN ☐ WOODWARD ☐ ARLINGTON ☐ MIDLAND ☐ OTHER:

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CHAIN OF CUSTODY RECORD 567390 No. 03356

ENVIRO CLEAN SERVICES, LLC
(918) 794-7828

PROJECT NUMBER: FEMH CHAPN1
PROJECT NAME: FEM CHALUPA #4 SWD - PIPELINE
COC 3 of 5
SHIPPED TO: XENCO
PROJECT MANAGER: MATT MUGAVERO
TAT: STANDARD

SAMPLER'S PRINTED NAME: GEORGE RICHARDSON
SAMPLER'S SIGNATURE:

Date	Time	Sample ID	Sample Matrix	# of Sample Containers	CHLORIDE - 300	REMARKS
11/1/17	1010	HA-4 (1-2 ft)	SOIL	1	X	
		HA-4 (2-3 ft)			X	
		HA-4 (3-4 ft)			X	
		HA-4 (4-5 ft)			X	
		HA-4 (5-6 ft)			X	
	1110	BH-2 (0-1 ft)			X	
		BH-2 (1-2 ft)			X	
		BH-2 (2-3 ft)			X	
		BH-2 (3-4 ft)			X	
		BH-2 (4-5 ft)			X	
		BH-2 (5-6 ft)			X	
		BH-2 (9-10 ft)			X	
		BH-2 (14-15 ft)			X	
		BH-2 (19-20 ft)			X	
		BH-2 (24-25 ft)			X	
TOTAL NUMBER OF CONTAINERS				15		

Temp: 1.4 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 1.2

RELINQUISHED BY: DATE 11/2/17 TIME 1621
RECEIVED BY: DATE 11.02.17 TIME 16:21
RELINQUISHED BY: DATE TIME
RECEIVED BY: DATE TIME

METHOD OF SHIPMENT: HAND DELIVERED
AIRBILL NUMBER:

RECEIVED IN LABORATORY BY: DATE TIME

Send PDF, EDD, and INVOICE (if applicable) to:
JULIE CZECH at julie.czech@eccgrp.com

LABORATORY CONTACT: KELSEY BROOKS
LABORATORY ADDRESS: 1211 W. FLORIDA AVE MIDLAND, TX 79701

POINT OF ORIGIN: ☐ OKLAHOMA CITY ☒ TULSA ☐ NORMAN ☐ WOODWARD ☐ ARLINGTON ☐ MIDLAND ☐ OTHER:

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CHAIN OF CUSTODY RECORD 567390 No. 03372

ENVIRO CLEAN SERVICES, LLC
(918) 794-7828

PROJECT NUMBER: FEMH CHAPN1	PROJECT NAME: FEM CHALUPA #4 SWD - PIPELINE
SHIPPED TO: XENCO	PROJECT MANAGER: MATT MUGAVERO
COC 4 of 5	TAT: STANDARD

SAMPLER'S PRINTED NAME: GEORGE RICHARDSON
SAMPLER'S SIGNATURE:

Date	Time	Sample ID	Sample Matrix	# of Sample Containers	CHLORIDE - 300	REMARKS
11/1/17	1110	BH-2 (29-30 ft)	SOIL	1	X	
	1220	HA-5 (0-1 ft)			X	
		HA-5 (1-2 ft)			X	
		HA-5 (2-3 ft)			X	
		HA-5 (3-4 ft)			X	
		HA-5 (4-5 ft)			X	
		HA-5 (5-6 ft)			X	
	1230	HA-6 (0-1 ft)			X	
		HA-6 (1-2 ft)			X	
		HA-6 (2-3 ft)			X	
		HA-6 (3-4 ft)			X	
		HA-6 (4-5 ft)			X	
		HA-6 (5-6 ft)			X	
	1245	HA-7 (0-1 ft)			X	
		HA-7 (1-2 ft)			X	
TOTAL NUMBER OF CONTAINERS				15		

Temp: 1.4 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 1.2

RELINQUISHED BY:	DATE 11/2/17	RECEIVED BY:	DATE ~~11.01.17~~ 11/02/17
	TIME 1621		TIME 16:21
RELINQUISHED BY:	DATE	RECEIVED BY:	DATE
	TIME		TIME
METHOD OF SHIPMENT: HAND DELIVERED		AIRBILL NUMBER:	
RECEIVED IN LABORATORY BY:	DATE	Send PDF, EDD, and INVOICE (if applicable) to: JULIE CZECH at julie.czech@eccgrp.com	
	TIME		
LABORATORY CONTACT: Kelsey Brooks		LABORATORY ADDRESS: 1211 W. Florida Ave. Midland, TX 79701	

POINT OF ORIGIN: ☐ OKLAHOMA CITY ☒ TULSA ☐ NORMAN ☐ WOODWARD ☐ ARLINGTON ☐ MIDLAND ☐ OTHER:

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CHAIN OF CUSTODY RECORD 567390 No. 03355

ENVIRO CLEAN SERVICES, LLC
(918) 794-7828

PROJECT NUMBER: FEMHCHAPN1	PROJECT NAME: FEM CHALUPA #4 SWD - PIPELINE
SHIPPED TO: XENCO	PROJECT MANAGER: MATT MUGAVERO
COC 5 of 5	TAT: STANDARD

SAMPLER'S PRINTED NAME: GEORGE RICHARDSON
SAMPLER'S SIGNATURE:

Date	Time	Sample ID	Sample Matrix	# of Sample Containers	CHLORIDE-300	REMARKS
11/1/17	1245	HA-7 (2-3 ft)	SOIL	1	X	
		HA-7 (3-4 ft)			X	
		HA-7 (4-5 ft)			X	
		HA-7 (5-6 ft)			X	
11/1/17	1300	HA-8 (0-1 ft)			X	
		HA-8 (1-2 ft)			X	
		HA-8 (2-3 ft)			X	
		HA-8 (3-4 ft)			X	
		HA-8 (4-5 ft)			X	
		HA-8 (5-6 ft)			X	

Temp: 1.4 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 1.2

TOTAL NUMBER OF CONTAINERS → 10

RELINQUISHED BY:	DATE 11/2/17	RECEIVED BY:	DATE 11.02.17
	TIME 1621		TIME 16:21
RELINQUISHED BY:	DATE	RECEIVED BY:	DATE
	TIME		TIME

METHOD OF SHIPMENT: HAND DELIVERED
AIRBILL NUMBER:
RECEIVED IN LABORATORY BY: DATE / TIME
Send PDF, EDD, and INVOICE (if applicable) to: JULIE CZECH at julie.czech@eccgrp.com
LABORATORY CONTACT: KELSEY BROOKS
LABORATORY ADDRESS: 1211 W. FLORIDA AVE MIDLAND, TX 79701

POINT OF ORIGIN: ☐ OKLAHOMA CITY ☒ TULSA ☐ NORMAN ☐ WOODWARD ☐ ARLINGTON ☐ MIDLAND ☐ OTHER:

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Inter-Office Shipment

IOS Number **1051321**

Date/Time: 11/03/17 10:48
Lab# From: **Midland**
Lab# To: **Houston**

Created by: Jessica Kramer
Delivery Priority:
Air Bill No.: 770668844250

Please send report to: Kelsey Brooks
Address: 1211 W. Florida Ave, Midland TX 79701
Phone:
E-Mail: kelsey.brooks@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
567390-001	S	BH-1	11/01/17 09:15	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-002	S	BH-1	11/01/17 09:15	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-003	S	BH-1	11/01/17 09:15	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-004	S	BH-1	11/01/17 09:15	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-005	S	BH-1	11/01/17 09:15	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-006	S	BH-1	11/01/17 09:15	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-007	S	BH-1	11/01/17 09:15	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-008	S	BH-1	11/01/17 09:15	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-009	S	BH-1	11/01/17 09:15	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-010	S	BH-1	11/01/17 09:15	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-011	S	BH-1	11/01/17 09:15	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-012	S	HA-1	11/01/17 10:50	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-013	S	HA-1	11/01/17 10:50	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-014	S	HA-1	11/01/17 10:50	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-015	S	HA-1	11/01/17 10:50	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-016	S	HA-1	11/01/17 10:50	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-017	S	HA-1	11/01/17 10:50	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-018	S	HA-2	11/01/17 10:40	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-019	S	HA-2	11/01/17 10:40	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-020	S	HA-2	11/01/17 10:40	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-021	S	HA-2	11/01/17 10:40	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-022	S	HA-2	11/01/17 10:40	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-023	S	HA-2	11/01/17 10:40	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-024	S	HA-3	11/01/17 10:25	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-025	S	HA-3	11/01/17 10:25	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	

Inter-Office Shipment

IOS Number **1051321**

Date/Time: 11/03/17 10:48
Lab# From: **Midland**
Lab# To: **Houston**

Created by: Jessica Kramer
Delivery Priority:
Air Bill No.: 770668844250

Please send report to: Kelsey Brooks
Address: 1211 W. Florida Ave, Midland TX 79701
Phone:
E-Mail: kelsey.brooks@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
567390-026	S	HA-3	11/01/17 10:25	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-027	S	HA-3	11/01/17 10:25	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-028	S	HA-3	11/01/17 10:25	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-029	S	HA-3	11/01/17 10:25	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-030	S	HA-4	11/01/17 10:10	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-031	S	HA-4	11/01/17 10:10	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-032	S	HA-4	11/01/17 10:10	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-033	S	HA-4	11/01/17 10:10	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-034	S	HA-4	11/01/17 10:10	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-035	S	HA-4	11/01/17 10:10	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-036	S	BH-2	11/01/17 11:10	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-037	S	BH-2	11/01/17 11:10	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-038	S	BH-2	11/01/17 11:10	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-039	S	BH-2	11/01/17 11:10	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-040	S	BH-2	11/01/17 11:10	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-041	S	BH-2	11/01/17 11:10	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-042	S	BH-2	11/01/17 11:10	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-043	S	BH-2	11/01/17 11:10	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-044	S	BH-2	11/01/17 11:10	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-045	S	BH-2	11/01/17 11:10	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-046	S	BH-2	11/01/17 11:10	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-047	S	HA-5	11/01/17 12:20	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-048	S	HA-5	11/01/17 12:20	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-049	S	HA-5	11/01/17 12:20	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-050	S	HA-5	11/01/17 12:20	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	

Inter-Office Shipment

IOS Number **1051321**

Date/Time: 11/03/17 10:48
Lab# From: **Midland**
Lab# To: **Houston**

Created by: Jessica Kramer
Delivery Priority:
Air Bill No.: 770668844250

Please send report to: Kelsey Brooks
Address: 1211 W. Florida Ave, Midland TX 79701
Phone:
E-Mail: kelsey.brooks@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
567390-051	S	HA-5	11/01/17 12:20	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-052	S	HA-5	11/01/17 12:20	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-053	S	HA-6	11/01/17 12:30	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-054	S	HA-6	11/01/17 12:30	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-055	S	HA-6	11/01/17 12:30	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-056	S	HA-6	11/01/17 12:30	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-057	S	HA-6	11/01/17 12:30	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-058	S	HA-6	11/01/17 12:30	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-059	S	HA-7	11/01/17 12:45	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-060	S	HA-7	11/01/17 12:45	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-061	S	HA-7	11/01/17 12:45	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-062	S	HA-7	11/01/17 12:45	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-063	S	HA-7	11/01/17 12:45	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-064	S	HA-7	11/01/17 12:45	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-065	S	HA-8	11/01/17 13:00	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-066	S	HA-8	11/01/17 13:00	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-067	S	HA-8	11/01/17 13:00	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-068	S	HA-8	11/01/17 13:00	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-069	S	HA-8	11/01/17 13:00	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	
567390-070	S	HA-8	11/01/17 13:00	E300	Inorganic Anions by EPA 300	11/08/17	11/29/17	KEB	CL	

Inter-Office Shipment

IOS Number **1051321**

Date/Time:	11/03/17 10:48	Created by:	Jessica Kramer
Lab# From:	**Midland**	Delivery Priority:	
Lab# To:	**Houston**	Air Bill No.:	770668844250

Please send report to: Kelsey Brooks
Address: 1211 W. Florida Ave, Midland TX 79701
Phone:
E-Mail: kelsey.brooks@xenco.com

Inter Office Shipment or Sample Comments:

Relinquished By: Jessica Kramer

Jessica Kramer

Date Relinquished: 11/03/2017

Received By:

Jean Quila

Date Received: 11/04/2017 10:30

Cooler Temperature: 3.6

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 1051321

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used :

Sent By: Jessica Kramer **Date Sent:** 11/03/2017 10:48 AM

Received By: Jean Quila **Date Received:** 11/04/2017 10:30 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	3.6	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**No**	
#5 *Custody Seals Signed and dated for Containers/coolers	**No**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: _____ Date: 11/04/2017

Jean Quila

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Enviroclean- Midland

Date/ Time Received: 11/02/2017 04:21:00 PM

Work Order #: 567390

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.2	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 Custody Seals intact on sample bottles?	**N/A**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	Houston
#18 Water VOC samples have zero headspace?	**N/A**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Jessica Kramer Date: 11/03/2017
Jessica Kramer

Checklist reviewed by: Kelsey Brooks Date: 11/03/2017
Kelsey Brooks