



State P No. 003

REVISED WORK PLAN

API No. 30-025-05389

Release Date: Unknown

Unit Letter M, Section 32, Township 16 South, Range 37 East

NMOCD Case #: 1R-4466

APPROVED

By Olivia Yu at 8:37 am, Aug 31, 2017

August 8, 2017

Prepared by:

Michael Alves

Environmental Foreman

Diversified Field Service, Inc.

206 W Snyder

Hobbs, NM 88240

Phone: (575)964-8394

Fax: (575)393-8396

NMOCD approves of the delineation and proposed remediation for 1RP-4466 with these conditions:

- 1) Laboratory analyses (BTEX, TPH extended, and chlorides) of bottom and sidewall samples taken for each for the excavated areas.
- 2) Delineation within the battery will be completed while on site for remediation.

Olivia Yu
Environmental Specialist
NM Oil Conservation District – Division 1
1625 N French Drive
Hobbs, NM 88240

RE: **Sundown Energy State P #003**
Revised Work Plan
UL/M, Section 32, T16S, R37E
API No. 30-025-05389
NMOCD Case #: 1R-4466
NMOCD Score: 10

Ms. Yu,

Sundown Energy (Sundown) has retained Diversified Field Service, Inc. (DFSI) to address environmental issues for the site detailed herein.

The site is located southeast of Lovington, NM, in Lea County. The release area is a historical and unknown spill area. An initial C-141 was submitted to the NMOCD on October 14, 2016 and approved on October 18, 2016 (Appendix I).

Site Assessment and Delineation

On March 14, 2017, DFSI personnel were on site to obtain samples within the area. Thirteen samples were obtained and field sampled for chloride levels, as well as BTEX (Figure 1). The BTEX samples were performed using a Mini Rae Photoionization Detector (PID). Due to hardness of rocks and soil, only surface samples were obtained with no samples submitted for laboratory analysis. DFSI personnel installed soil bores; however, due to the hardness of rock, refusal was encountered at depths of 1' and 2' bgs.

DFSI personnel returned to the site on May 8 and 9, 2017 to install verticals for the collection of additional samples. Three verticals were installed at the site of soil bore installation. Field samples were submitted for analysis at Cardinal Laboratories of Hobbs, NM to obtain confirmation, indicating a decrease in chloride constituents to a NMOCD approved regulatory limits, as discussed during a meeting between DFSI, NMOCD and NMSLO.

As per NMOCD request, DFSI personnel were on site July 17, 2017 to conduct additional soil delineation. SB-4 was installed by vertical installation due to hard rock, with samples submitted at 2' and 15' bgs for laboratory analysis at Cardinal Laboratories of Hobbs, NM, resulting in at or near regulatory guidelines for all constituents.

DFSI has conducted a groundwater study of the area and has determined, according to the New Mexico Office of the State Engineer and Chevron Trend Map, the average depth to groundwater beneath this site is approximately 66 ft bgs (Appendix II).

Conclusion

After careful review DFSI on behalf of Sundown would like to propose the following:

The area encompassing SB-3 will be excavated to a depth of 3' bgs. The areas around SB-2, SP7, SP8, SP9, and SP13 will be excavated to a depth of 2' bgs. The areas around SP11 and SB-4 will be excavated to a depth of 1' bgs. The areas around SP1, SP2, SB-1, SP3, SP4, SP5, SP6, SP10 and SP12 will be scraped 6" bgs. The contaminated soil will be properly disposed of at a NMOCD approved facility. Sidewall samples will be collected and field tested for chlorides and BTEX. Clean samples will be submitted to an approved laboratory for NMOCD requested analysis. Results will be included with the Closure Request submitted upon site remediation activities and indicated on the completed activities map. The excavation will be backfilled with clean, imported soil to ground surface (Figure 2). The entire area will be contoured to the surrounding area and capped with caliche or seeded with an approved mix.

SLO Site Requirements

The site will be seeded with BLM Mix #1 once site activities have been completed, ensuring lovegrass is not included within the seed mixture. The seed mixture will be planted within a one acre broadcast, with no primary or secondary noxious weeds within the seed mixture. The seed will be planted using a mechanical seeder to ensure proper depth of planting. The seed mixture will be spread equally and evenly over the disturbed area. If a mechanical seeder is not possible, the seed will be broadcast over the disturbed area by hand. Site evaluation of the disturbed area of the Sundown location will be monitored for noxious weeds with final documentation submitted to SLO for closure. Should noxious weeds appear during monitoring activities, the weeds will be removed and properly disposed of at an approved facility.

Following the approval of the above plan, DFSI will submit all proper closure documentation to the NMOCD and SLO in accordance to the State Guidelines set forth.

Please feel free to contact me with any questions concerning this remediation plan request.

Sincerely,



Michael Alves

Environmental Foreman | Diversified Field Service, Inc.

206 West Snyder | Hobbs, NM 88240

Office: (575)964-8394 | Mobile: (575)631-3364

Fax: (575)964-8396 | Email: malves@diversifiedfsi.com

cc Amber Groves, NMSLO

Figures: Soil Delineation
Proposed Work

Appendices: Initial C-141
Groundwater Study

Site Diagram

SB1
32.874922 -103.277481

Depth	CI-	Lab	CI-	GRO	DRO	B	T	E	X
1'	309								
2'	278	448	<10	13.5	<0.05	<0.05	<0.05	<0.05	
3'	529								
4'	704								
5'	611								
6'	611								
7'	382								
8'	440								
9'	526								
10'	564								
15'	355	400	<10	<10	<0.05	<0.05	<0.05	<0.15	

SB2
32.874943 -103.276927

Depth	CI-	Lab	CI-	GRO	DRO	B	T	E	X
1'	260								
2'	181	336	<10	63.3	<0.05	0.086	0.059	<0.15	
3'	277								
4'	184								
5'	153								
6'	115								
7'	272								
8'	273								
9'	397								
10'	247								
15'	220	224	<10	<10	<0.05	<0.05	<0.05	<0.15	

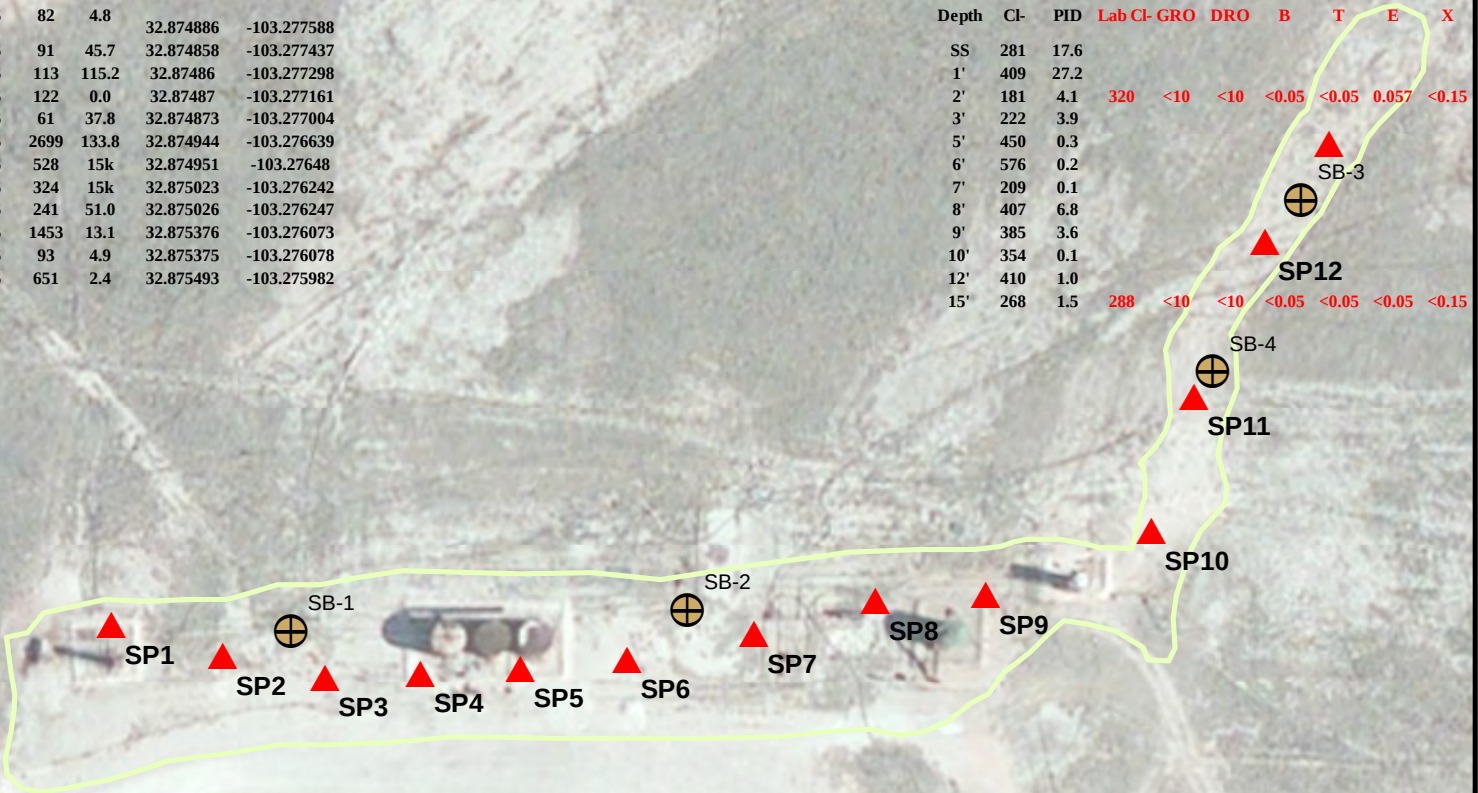
SB3
32.875425 -103.276031

Depth	CI-	Lab	CI-	GRO	DRO	B	T	E	X
1'	229								
2'	190	272	520	16800	0.223	1.75	1.97	5.21	
3'	248								
4'	230								
5'	429								
6'	388								
7'	475								
8'	550								
9'	588								
10'	582								
15'	582	608	<10	57	<0.05	<0.05	<0.05	<0.15	

Depth	CI-	PID	Latitude	Longitude
SP1	SS	68	0.1	32.874925
SP2	SS	82	4.8	32.874886
SP3	SS	91	45.7	32.874858
SP4	SS	113	115.2	32.87486
SP5	SS	122	0.0	32.87487
SP6	SS	61	37.8	32.874873
SP7	SS	2699	133.8	32.874944
SP8	SS	528	15k	32.874951
SP9	SS	324	15k	32.875023
SP10	SS	241	51.0	32.875026
SP11	SS	1453	13.1	32.875376
SP12	SS	93	4.9	32.875375
SP13	SS	651	2.4	32.875493

SB4
32.875221 -103.276161

Depth	CI-	PID	Lab	CI-	GRO	DRO	B	T	E	X
SS	281	17.6								
1'	409	27.2								
2'	181	4.1	320	<10	<10	<0.05	<0.05	0.057	<0.15	
3'	222	3.9								
5'	450	0.3								
6'	576	0.2								
7'	209	0.1								
8'	407	6.8								
9'	385	3.6								
10'	354	0.1								
12'	410	1.0								
15'	268	1.5	288	<10	<10	<0.05	<0.05	<0.05	<0.15	



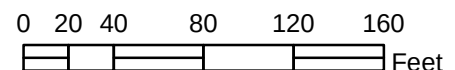
Legend

- Sample Points
- Soil Bores
- Historical (43809 sq ft)

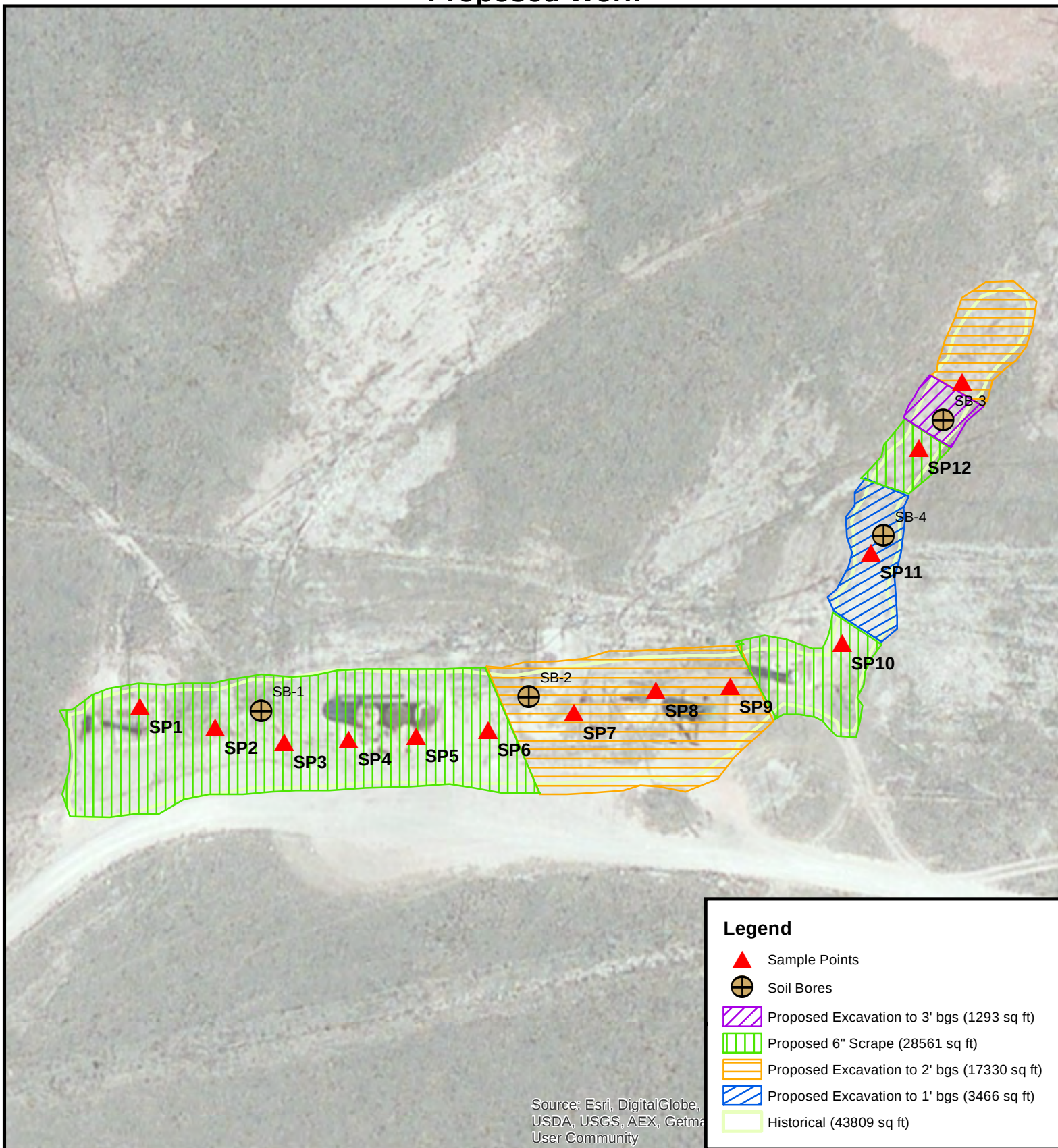
Source: Esri, DigitalGlobe, GeoEye, Earthstar C
USDA, USGS, AEX, Getmapping, Aerogrid, IGN
User Community



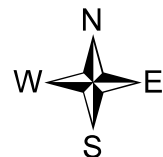
Sundown Energy
State P #003
UL/M, Section 32, T16S, R37E
Lea County, NM
API No. 30-025-05389
NMOCD Case #: 1R-4466



Proposed Work



Sundown Energy
State P #003
UL/M, Section 32, T16S, R37E
Lea County, NM
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0 20 40 80 120 160
Feet

Appendix I

INITIAL C-141

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394

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	SUNDOWN ENERGY LP	Contact	Jimmy Lewis
Address	16400 Dallas Parkway, Ste 100 Dallas, TX 75248	Telephone No.	432-943-8770
Facility Name	State P	Facility Type	Tank Battery
Surface Owner	Mineral Owner	API No.	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	32	16S	37E	800	SOUTH	330	WEST	LEA

Latitude 32.87881 Longitude -103.277211

NATURE OF RELEASE

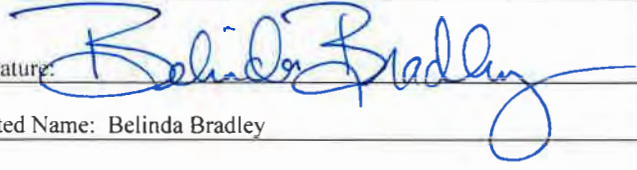
Type of Release	Historical/Unknown	Volume of Release	Volume Recovered
Source of Release		Historical/Unknown	Historical/Unknown
Was Immediate Notice Given?		Date and Hour of Occurrence	Date and Hour of Discovery
☐ Yes ☐ No ☐ Not Required		Historical/Unknown	Historical/Unknown
By Whom?		If YES, To Whom?	
Was a Watercourse Reached?		Date and Hour	
☐ Yes ☐ No		If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Describe Area Affected and Cleanup Action Taken.*

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: Belinda Bradley	Approved by Environmental Specialist: 	
Title: Admin Asst	Approval Date: <u>10/18/2016</u>	Expiration Date: <u>12/18/2016</u>
E-mail Address: <u>bbradley@sundownenergy.com</u>	NMOCD Accepts Discrete Samples Only Conditions of Approval: Please Notify NMOCD Prior to all sampling. Please submit Remediation Plan no later than 11/18/2016.	
Date: <u>10/14/2016</u> Phone: <u>432-943-8770</u>	Attached ☐ <u>1RP 4466</u>	

* Attach Additional Sheets If Necessary

nKL1629238893
pKL1629239006

Appendix II

GROUNDWATER STUDY

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the
POD suffix indicates the
POD has been replaced
& no longer serves a
water right file.)

(R=POD has been
replaced,
O=orphaned,
C=the file is
closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub- basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	DepthWell	DepthWater	Water Column
L 01220 POD1		L	LE	3	3	31	16S	37E		659311	3638504*	120	55	65
L 01435		L	LE	3	3	4	31	16S	37E	660110	3638415*	120	50	70
L 01718		L	LE			1	31	16S	37E	659498	3639507*	150	45	105
L 01718 POD2		L	LE	3	2	31	16S	37E		660199	3639318*	214	80	134
L 01719		L	LE	2	2	3	31	16S	37E	659901	3639011*	148	104	44
L 01719	R	L	LE	2	2	3	31	16S	37E	659901	3639011*	148	104	44
L 02041		L	LE	1	1	31	16S	37E		659290	3639707*	103	50	53
L 02078		L	LE	4	4	31	16S	37E		660613	3638521*	112	50	62
L 02144		L	LE	3	3	28	16S	37E		662602	3640153*	116	34	82
L 02236		L	LE	3	2	32	16S	37E		661810	3639340*	100	45	55
L 02487		L	LE	3	3	32	16S	37E		661016	3638527*	90	35	55
L 02561		L	LE	3	3	3	31	16S	37E	659210	3638403*	137	50	87
L 02595		L	LE	3	1	3	30	16S	37E	659176	3640407*	105	48	57
L 02619		L	LE	3	2	1	29	16S	37E	661278	3641241*	108	44	64
L 04957		L	LE	3	2	2	31	16S	37E	660495	3639624*	220	48	172
L 04984 S		L	LE	3	4	3	30	16S	37E	659684	3640014*	240	48	192
L 05060		L	LE			1	31	16S	37E	659498	3639507*	240	50	190
L 05458		L	LE	1	4	4	31	16S	37E	660512	3638620*	240	50	190
L 05516		L	LE	3	2	1	32	16S	37E	661300	3639635*	105	45	60
L 05735		L	LE			4	4	30	16S	660591	3640126*	110	46	64
L 05898		L	LE	3	1	3	30	16S	37E	659176	3640407*	106	60	46
L 06129		L	LE			1	4	32	16S	661816	3638939*	150	54	96
L 10652		L	LE			4	3	31	16S	659808	3638511*	248	72	176
L 12562 POD12		L	LE	3	1	3	31	16S	37E	659166	3638783	109	94	15
L 12562 POD3		L	LE	3	1	3	31	16S	37E	659316	3638878	108	93	15
L 12562 POD5		L	LE	3	3	1	31	16S	37E	659252	3639117	120	105	15
L 14146 POD1		L	LE	3	3	4	28	16S	37E	663412	3640014	181	110	71
L 14162 POD1		L	LE	4	1	1	29	16S	37E	661183	3641209	180	62	118
L 14207 POD3		L	LE	2	3	3	31	16S	37E	606117	3636977	240	96	144
L 14228 POD2		L	LE	4	1	3	31	16S	37E	659352	3638764	120		

Average Depth to Water: 63 feet

Minimum Depth: 34 feet

Maximum Depth: 110 feet

Record Count: 30

PLSS Search:

Section(s): 28, 29, 30, 31, 32 Township: 16S Range: 37E

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

5/16/17 3:12 PM

WATER COLUMN/ AVERAGE DEPTH TO
WATER

L 12034 POD1	L	LE	3	4	4	05	17S	37E	661996	3636802		160	70	90
L 13038 POD1	L	LE	4	1	2	06	17S	37E	660223	3637928		115		
L 13038 POD2	L	LE	2	3	2	06	17S	37E	660146	3637865		115		
L 13038 POD3	L	LE	2	3	2	06	17S	37E	660146	3637865		115		
L 13038 POD4	L	LE	2	3	2	06	17S	37E	660120	3637865		120		
L 13235 POD1	L	LE	3	3	4	05	17S	37E	661591	3636903		140	70	70
L 13414 POD1	L	LE	4	1	2	06	17S	37E	660176	3637917		110	93	17
L 13414 POD2	L	LE	4	1	2	06	17S	37E	660194	3637900		102	93	9
L 13414 POD3	L	LE	2	3	2	06	17S	37E	660143	3637890		110	93	17
L 13414 POD4	L	LE	2	3	2	06	17S	37E	660248	3637870		110	93	17
L 13414 POD5	L	LE	4	1	2	06	17S	37E	660218	3637979		110	93	17

Average Depth to Water: 69 feet

Minimum Depth: 38 feet

Maximum Depth: 118 feet

Record Count: 44PLSS Search:

Section(s): 4, 5, 6

Township: 17S

Range: 37E

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

5/16/17 3:12 PM

WATER COLUMN/ AVERAGE DEPTH TO
WATER