

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

State of New Mexico
Energy, Minerals & Natural Resources

Rec'd 04/29/2020 - NMOCD

Form C-104
Revised August 1, 2011

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

Submit one copy to appropriate District Office

☒ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address OXY USA INC. P.O. BOX 50250 MIDLAND, TX 79710		² OGRID Number 16696
		³ Reason for Filing Code/ Effective Date - NW
⁴ API Number 30-025-46474	⁵ Pool Name BILBREY BASIN; BONE SPRING, SOUTH	⁶ Pool Code 97366
⁷ Property Code: 322423	⁸ Property Name: LOST TANK 30-19 FEDERAL COM	⁹ Well Number: 1H

II. ¹⁰ Surface Location

Ul or lot no. D	Section 19	Township 22S	Range 32E	Lot Idn	Feet from the 128'	North/South Line NORTH	Feet from the 1235'	East/West line WEST	County LEA
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¹¹ Bottom Hole Location

FTP: 278' FNL 995' FWL LTP: 143' FSL 1035' FWL

UL or lot no. M	Section 30	Township 22S	Range 32E	Lot Idn	Feet from the 17'	North/South line SOUTH	Feet from the 1035'	East/West line WEST	County LEA
¹² Lse Code F	¹³ Producing Method Code : F		¹⁴ Gas Connection Date: 2/1/20		¹⁵ C-129 Permit Number		¹⁶ C-129 Effective Date		¹⁷ C-129 Expiration Date

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
237722	CENTURION PIPELINE L.P.	O
312824	PILOT TRAVEL CENTERS	O
36785	DCP OPERATING COMPANY, LP	G

IV. Well Completion Data

²¹ Spud Date 11/23/19	²² Ready Date 1/31/2020	²³ TD 20290'M 9874'V	²⁴ PBTB 20215'M 9874'V	²⁵ Perforations 10012-20163'	²⁶ DHC, MC
²⁷ Hole Size		²⁸ Casing & Tubing Size		²⁹ Depth Set	³⁰ Sacks Cement
17-1/2"		13-3/8"		900'	1150
12-1/4"		9-5/8"		6569'	3313
8-1/2"		5-1/2"		20262'	2749

V. Well Test Data

³¹ Date New Oil 02/05/2020	³² Gas Delivery Date 02/05/2020	³³ Test Date 03/09/2020	³⁴ Test Length 24hrs	³⁵ Tbg. Pressure 560	³⁶ Csg. Pressure
³⁷ Choke Size 50/128	³⁸ Oil 1841	³⁹ Water 2704	⁴⁰ Gas 2667		⁴¹ Test Method Gas Lift

⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: *April Santos*

Printed name:
APRIL SANTOS

Title:
REGULATORY SPECIALIST

E-mail Address:
April_Hood@oxy.com

Date:
04/29/2020

Phone:
713-366-5771

OIL CONSERVATION DIVISION

Approved by: **Patricia Martinez**

Title:

Approval Date: **6/11/2020**

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.5. Lease Serial No.
NMNM90587

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.
LOST TANK 30-19 FED COM 1H9. API Well No.
30-025-4647410. Field and Pool or Exploratory Area
LIVINGSTON RIDGE

11. County or Parish, State

LEA COUNTY, NM

SUBMIT IN TRIPLICATE - Other instructions on page 21. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
OXY USA INC
Contact: APRIL SANTOS
E-Mail: APRIL_HOOD@OXY.COM3a. Address
5 GREENWAY PLAZA SUITE 110
HOUSTON, TX 770463b. Phone No. (include area code)
Ph: 713-366-57714. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 19 T22S R32E Mer NMP NWNW 128FNL 1235FWL
32.383907 N Lat, 103.718948 W Lon**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION				
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off	
☒ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity	
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other	
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon		
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal		

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

RUPU 12/28/19, RIH and clean out to PBTD @ 20215?, pressure test casing to 9800psi for 30 min, good test. RIH and perf from 10012-10188, 10212-10388, 10412-10588, 10612-10788, 10812-10988, 11012-11188, 11212-11388, 11412-11588, 11612-11788, 11812-11988, 12012-12188, 12212-12388, 12412-12588, 12612-12788, 12812-12988, 13012-13188, 13212-13388, 13412-13588, 13612-13788, 13812-13988, 14012-14188, 14212-14388, 14412-14588, 14612-14788, 14812-14988, 15012-15188, 15212-15388, 15412-15588, 15612-15788, 15812-15988, 16012-16188, 16212-16388, 16412-16588, 16612-16788, 16812-16988, 17012-17188, 17212-17388, 17412-17588, 17612-17788, 17812-17988, 18012-18188, 18212-18388, 18412-18588, 18612-18788, 18812-18988, 19012-19188, 19212-19388, 19412-19588, 19612-19788, 19812-19988, 20012-20163. Frac in 1236 holes with 435350 bbls slickwater, 25526200 lbs sand and 1053 bbls HCl 7.5% acid. RDMO 1/28/20, pump to clean out and turn well over to production. 1/31/20 Well ready to produce. 2/1/20 RIH 2 7/8? tbg @ 9432 & 2 3/8? tbg & gas lift @ 9660? & pkr @ 9654?.

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #513401 verified by the BLM Well Information System
For OXY USA INC, sent to the Hobbs**

Name (Printed/Typed) APRIL SANTOS

Title REGULATORY SPECIALIST

Signature (Electronic Submission)

Date 04/29/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____	Title _____	Date _____
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office _____	

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other				5. Lease Serial No. NMNM90587	
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr. Other _____				6. If Indian, Allottee or Tribe Name	
2. Name of Operator OXY USA INC.				8. Lease Name and Well No. LOST TANK 30-19 FEDERAL COM 1H	
3. Address 5 GREENWAY PLAZA SUITE 110 HOUSTON, TX 77046-0521				9. API Well No. 30-025-46474	
4. Location of Well (Report location clearly and in accordance with Federal requirements)* Sec 19 T22S R32E Mer NMP At surface NWNW 128FNL 1235FWL 32.303907 N Lat, 103.718947 W Lon Sec 19 T22S R32E Mer NMP At top prod interval reported below NWNW 275FNL 994FWL 32.383500 N Lat, 103.719727 W Lon Sec 30 T22S R32E Mer NMP At total depth SWSW 29FSL 971FWL 32.355276 N Lat, 103.719785 W Lon				10. Field and Pool, or Exploratory BILBREY BONE SPRING;SOUTH	
14. Date Spudded 11/23/2019				15. Date T.D. Reached 12/22/2019	
16. Date Completed ☐ D & A ☒ Ready to Prod. 01/31/2020				17. Elevations (DF, KB, RT, GL)* 3616 GL	
18. Total Depth: MD TVD		20290 9874		19. Plug Back T.D.: MD TVD	
20215 9874		20. Depth Bridge Plug Set: MD TVD			
21. Type Electric & Other Mechanical Logs Run (Submit copy of each) GAMMA RAY				22. Was well cored? ☒ No ☐ Yes (Submit analysis) Was DST run? ☒ No ☐ Yes (Submit analysis) Directional Survey? ☐ No ☒ Yes (Submit analysis)	

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 J55	54.5	0	900		1150	278	0	
12.250	9.625 HCL-80	40.0	0	6569		3313	1010	0	
8.500	5.500 P-110	20.0	0	20262		2749	760	6000	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	9432		2.375	9660	9654			

25. Producing Intervals

26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) BONE SPRINGS	10012	20163				
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
10012 TO 20163	FRAC'D WITH 435350 BBLS SLICKWATER, 25526200 LBS SAND AND 1053 BBLS HCL 7.5% ACID

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
02/05/2020	03/09/2020	24		1841.0	1667.0	2704.0			GAS LIFT
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
50/128	SI	560		1841	1667	2704	1449	POW	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
SI									

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #513450 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

28b. Production - Interval C									
Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	

28c. Production - Interval D									
Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	

29. Disposition of Gas(*Sold, used for fuel, vented, etc.*)
SOLD

30. Summary of Porous Zones (Include Aquifers): Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.	31. Formation (Log) Markers
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Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
CHERRY CANYON	5425	6505	OIL, GAS, WATER	RUSTLER	857
BRUSHY CANYON	6505	8491	OIL, GAS, WATER	SALADO	1191
BONE SPRINGS	8491	9606	OIL, GAS, WATER	CASTILLE	2651
1ST BONE SPRINGS	9606		OIL, GAS, WATER	LAMAR	4605
				CHERRY CANYON	5425
				BRUSHY CANYON	6505
				BONE SPRINGS	8491
				1ST BONE SPINGS	9606

32. Additional remarks (include plugging procedure):

LOGS ATTACHED IN EDOCS 4/29/2020.

LOG HEADER, DIRECTIONAL SURVEY, AS-DRILLED AMENDED C-102 PLAT & WBD ARE ATTACHED

33. Circle enclosed attachments:			
1. Electrical/Mechanical Logs (1 full set req'd.)	2. Geologic Report	3. DST Report	4. Directional Survey
5. Sundry Notice for plugging and cement verification	6. Core Analysis	7 Other:	

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

**Electronic Submission #513450 Verified by the BLM Well Information System.
 For OXY USA INC., sent to the Hobbs**

Name (<i>please print</i>) <u>APRIL SANTOS</u>	Title <u>REGULATORY SPECIALIST</u>
Signature _____ (Electronic Submission)	Date <u>04/29/2020</u>

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (505) 748-1283 Fax: (505) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION AS-DRILLED PLAT

¹ API Number 30-025-46474	² Pool Code 97366	³ Pool Name Bilbrey Basin; Bone Spring, South
⁴ Property Code 322423	Property Name Lost Tank 30-19 Fed Com	⁶ Well Number 1H
⁷ OGRID No. 16696	⁸ Operator Name OXY USA INC	⁹ Elevation 3616'

¹⁰ Surface Location

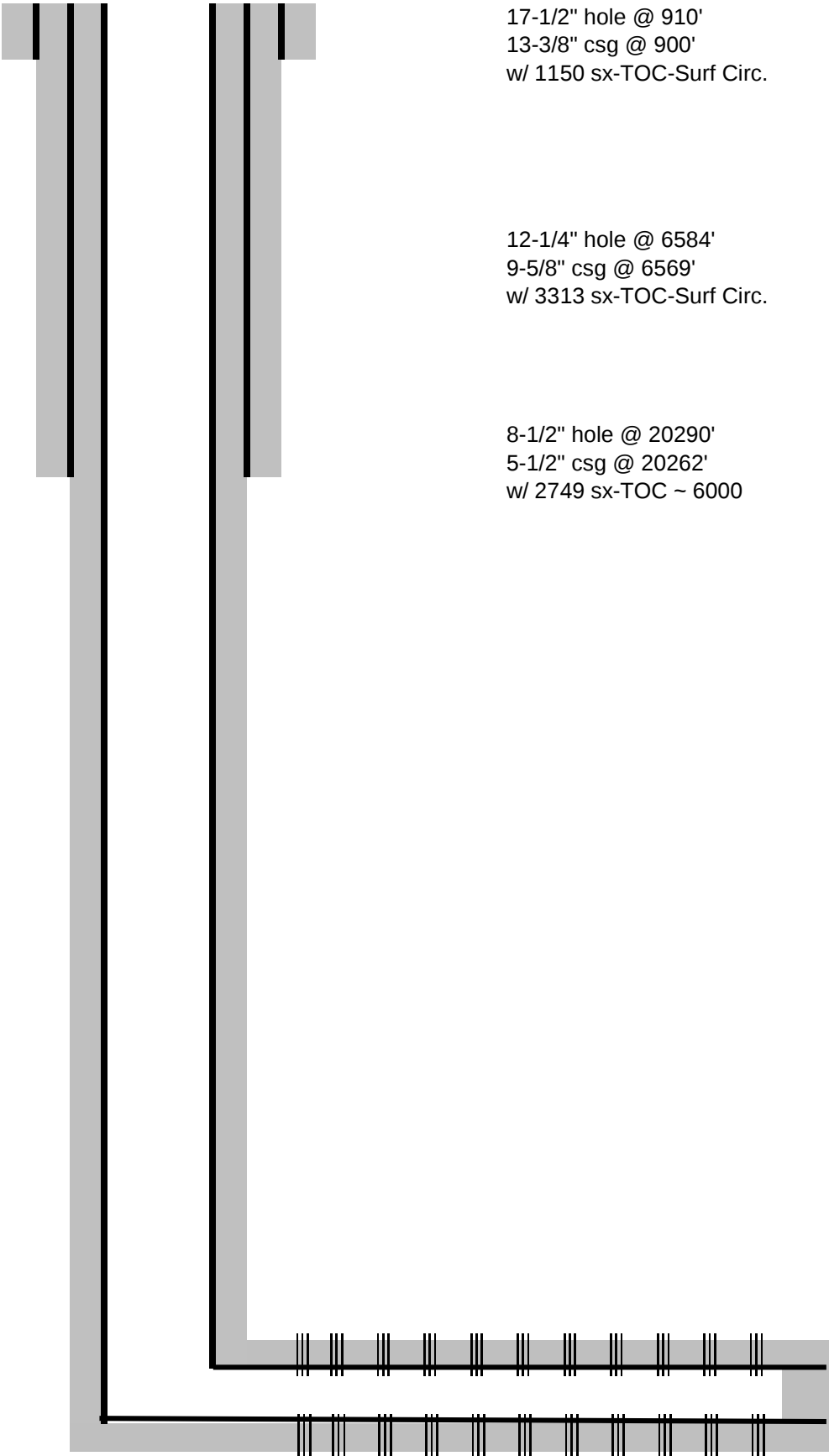
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L 1	19	22S	32E		128	NORTH	1235	WEST	LEA
¹¹ Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L 4	30	22S	32E		29	SOUTH	971	WEST	LEA
¹² Dedicated Acres 358.92	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	CORNER COORDINATES NAD 83, SPCS NM EAST A - X: 729824.17' / Y: 493482.52' B - X: 729786.86' / Y: 498775.98' C - X: 729757.89' / Y: 504056.71' D - X: 731232.25' / Y: 504072.38' E - X: 731267.60' / Y: 498791.87' F - X: 731309.37' / Y: 493501.72'	CORNER COORDINATES NAD 27, SPCS NM EAST A - X: 688641.65' / Y: 493422.32' B - X: 688604.66' / Y: 498715.71' C - X: 688575.54' / Y: 503996.20' D - X: 689972.69' / Y: 504011.06' E - X: 690005.16' / Y: 498730.75' F - X: 690045.01' / Y: 493440.76'	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: April Santos Date: 04/29/2020	
	SURFACE HOLE LOCATION 128' FNL 1235' FWL, SECTION 19 NAD 83, SPCS NM EAST X: 730993.55' / Y: 503941.82' LAT: 32.38390787N / LON: 103.71894735W NAD 27, SPCS NM EAST X: 689811.16' / Y: 503881.40' LAT: 32.38378516N / LON: 103.71845896W	KICK OFF POINT 131' FNL 1238' FWL, SECTION 19 6806' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X: 730996.70' / Y: 503938.75' LAT: 32.38389937N / LON: 103.71893722W NAD 27, SPCS NM EAST X: 689814.31' / Y: 503878.33' LAT: 32.38377666N / LON: 103.71844883W	FIRST TAKE POINT 275' FNL 994' FWL, SECTION 19 10012' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X: 730753.61' / Y: 503792.09' LAT: 32.38350009N / LON: 103.71972737W NAD 27, SPCS NM EAST X: 689571.22' / Y: 503731.67' LAT: 32.38337738N / LON: 103.71923897W	LAST TAKE POINT 156' FSL 971' FWL, SECTION 30 20163' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X: 730793.98' / Y: 493651.24' LAT: 32.35562545N / LON: 103.71978495W NAD 27, SPCS NM EAST X: 689611.30' / Y: 493591.10' LAT: 32.35550261N / LON: 103.71929764W
	BOTTOM HOLE LOCATION 29' FSL 971' FWL, SECTION 30 20290' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X: 730794.45' / Y: 493524.25' LAT: 32.35527639N / LON: 103.71978578W NAD 27, SPCS NM EAST X: 689611.76' / Y: 493464.11' LAT: 32.35515354N / LON: 103.71929848W	¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well surface location shown on this plat was plotted from field notes of the as-staked surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Data used for underground measurements were provided by others for reference only and does not constitute field measurements performed by R-Squared Global. APRIL 7, 2020 Date of Survey Signature and Seal of Professional Surveyor: Certificate Number DAVID W. MYERS 11403		

Distances/areas relative to NAD 83 Combined Scale Factor: 0.99978625 Convergence Angle: 00°11'26.29720"

OXY USA INC
Lost Tank 30-19 Federal Com 1H
API No. 30-025-46474



17-1/2" hole @ 910'
13-3/8" csg @ 900'
w/ 1150 sx-TOC-Surf Circ.

12-1/4" hole @ 6584'
9-5/8" csg @ 6569'
w/ 3313 sx-TOC-Surf Circ.

8-1/2" hole @ 20290'
5-1/2" csg @ 20262'
w/ 2749 sx-TOC ~ 6000

Perfs @ 10012' - 20163' TD- 20290' M 9874' V

Company: Oxy USA Incorporated										Well: Lost Tank 30-19 Federal Com 1H										Field Name: Bone Spring										State Name: New Mexico										Country Name: USA																																																	
Simpulse Gamma Ray										5in/100ft Measured Depth										Final Print										Recorded Mode										Schlumberger																																																	
Company: Oxy USA Incorporated										Well: Lost Tank 30-19 Federal Com 1H										Field Name: Bone Spring										County Name: Lea										State Name: New Mexico										Country Name: USA																																							
Latitude: 32°23'02.068"N										Longitude: 103°43'08.211"W										Spud Date: 12-Nov-2019										Log Interval: 830.00--20289.50(ft)										Depth Source: Driller's Depth										Log Measured From: Drill Floor										Drill Floor Elevation: 3642.6(ft)										Ground Level Elevation: 3616.1(ft)										Permanent Datum: Sea Level									
API Number: 30-025-46474										Rig Name: H&P 617										Rig Type: Land										Job Number: 19MLH0387										Print Type: Final Print										Northing: 503941.82(ft)										Easting: 730993.55(ft)										Coordinate System: NAD83 New Mexico State Plane, Eastern Zone, US Feet																			

Disclaimer

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

Operational Run Summary			
Notes			
Run 1: Gamma Ray gap from 1010.00 ft - 1047.00 ft MD due to WITS input data error. Gamma Ray gap from 1462.00 ft - 1553.00 ft MD due to WITS input data error. Gamma Ray gap from 6475.00 ft - 6544.00 ft MD due to change in MWD sensor offset between runs. ROP gap from 1574.00 ft - 1666.00 ft MD due to WITS input data error. No TEMP_DNI values until 6557.00 ft MD due to a different MWD tool used in Run 1.			
Run 7: ROP gap from 14184.00 ft - 14250.00 ft MD due to TOTCO depth jump error.			
Run 1 (Bit Size: 12.25 in)			
DateTime Log Started	06-Dec-2019 10:46:01	DateTime Log Finished	08-Dec-2019 13:26:53
Start Depth (ft)	900	Stop Depth (ft)	6584
Mud Type	Water Based Mud	Mud Density (lbm/gal)	10.2
Potassium (%)	0	Barite	Yes
GR Sensor Offset (ft)	107.24	Calibration Coefficient	1.05
DNI Sensor Offset (ft)	115.74		
Run 2 (Bit Size: 8.5 in)			
DateTime Log Started	09-Dec-2019 17:19:35	DateTime Log Finished	11-Dec-2019 14:34:55

Oilfield Services, Central U.S. Land
Schlumberger Drilling and Measurements
Drilling Group
Geo Market Area: South West Texas Basin
7220 W I-H 20
Midland, Texas 79706
Phone : (432) 742-5400 (Main)
Fax : (432) 742-5606 (Shared)

Schlumberger

Well Reference:
S19, T22S, R32E Lea, NM
N 32.38391 W -103.71895

I, Jeremy James certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of December 06, 2019 through December 22, 2019, conduct or supervise the taking of the SlimPulse & Third Party Corrected surveys from a depth of 1002.00 feet to a depth of 20250.00 feet referenced to driller's depth; that the data is true, correct, complete and within the limitations of the tool as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of OXY USA Incorporated for the Lost Tank 30-19 Federal Com 1H Well (Original Hole) API No. 30-025-46474 in New Mexico; and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation.

By
Jeremy James
FS

Jeremy James

Subscribed and Sworn to before me this 2 day of January (month) 2020 (yr)

My Commission expires:

6/14/23

Jean-Paul Langlois

Notary Public

Comanche, Oklahoma
(County State)

(signature)



Schlumberger-Private

Oilfield Services, Central U.S. Land
Schlumberger Drilling and Measurements
Drilling Group
Geo Market Area: South West Texas Basin
7220 W I-H 20
Midland, Texas 79706
Phone : (432) 742-5400 (Main)
Fax : (432) 742-5606 (Shared)



January 2, 2020

OXY USA Incorporated
5 Greenway Plaza, Suite 110
Houston, TX 77046

Re:

S19, T22S, R32E Lea, NM
N 32.38391 W -103.71895

CLIENT: OXY USA Incorporated
WELL: Lost Tank 30-19 Federal Com 1H
FIELD: Bone Spring

RIG: H&P 617
COUNTY: Lea
API NO: 30-025-46474
JOB NO: 19MLH0387

Enclosed, please find the original copy of the survey performed on the referenced well by Drilling & Measurements, a division of Schlumberger Technology Corporation (P-5 No. 754900).
Other information required by your office is as follows.

<u>Name & Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Jeremy James FS	Lost Tank 30-19 Federal Com 1H Original Hole	1002.00 Ft to 20250.00 Ft	December 6, 2019 to December 22, 2019	SlimPulse Third Party Corrected



Oxy Lost Tank 30-19 Federal Com 1H Gyro + MWD 0-20290' MD Survey
Geodetic Report
(Def Survey)



Report Date: December 23, 2019 - 02:16 PM
Client: OXY
Field: NM Lea County (NAD 83)
Structure / Slot: Oxy Lost Tank 30-19 Federal Com 1H / Oxy Lost Tank 30-19 Federal Com 1H
Well: Oxy Lost Tank 30-19 Federal Com 1H
Borehole: Original Borehole
UWI / API#: Unknown / 30-025-46474
Survey Name: Oxy Lost Tank 30-19 Federal Com 1H Gyro + MWD 0-20290' MD
Survey Date: December 04, 2019
Tort / AHD / DDI / ERD Ratio: 247.830 ° / 11006.847 ft / 6.749 / 1.115
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 23' 2.06832", W 103° 43' 8.21048"
Location Grid N/E Y/X: N 503941.820 ftUS, E 730993.550 ftUS
CRS Grid Convergence Angle: 0.3291 °
Grid Scale Factor: 0.99995029
Version / Patch: 2.10.787.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 180.987 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3642.600 ft above MSL
Seabed / Ground Elevation: 3616.100 ft above MSL
Magnetic Declination: 6.796 °
Total Gravity Field Strength: 998.4555mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 48044.700 nT
Magnetic Dip Angle: 60.130 °
Declination Date: December 04, 2019
Magnetic Declination Model: IFR1
North Reference: Grid North
Grid Convergence Used: 0.3291 °
Total Corr Mag North->Grid North: 6.4669 °
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
WRP	0.00	0.00	303.07	0.00	0.00	0.00	0.00	N/A	503941.82	730993.55	N 32 23 2.07	W 103 43 8.21
RKB	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	503941.82	730993.55	N 32 23 2.07	W 103 43 8.21
SHL	104.00	0.40	30.00	104.00	-0.24	0.23	0.14	0.52	503942.05	730993.69	N 32 23 2.07	W 103 43 8.21
	133.00	0.44	6.18	133.00	-0.44	0.43	0.20	0.61	503942.25	730993.75	N 32 23 2.07	W 103 43 8.21
	160.00	0.46	17.67	160.00	-0.64	0.64	0.24	0.34	503942.46	730993.79	N 32 23 2.07	W 103 43 8.21
	188.00	0.44	28.34	188.00	-0.85	0.84	0.33	0.31	503942.66	730993.88	N 32 23 2.08	W 103 43 8.21
	217.00	0.36	34.19	217.00	-1.02	1.01	0.43	0.31	503942.83	730993.98	N 32 23 2.08	W 103 43 8.21
	243.00	0.34	31.90	243.00	-1.16	1.15	0.52	0.09	503942.97	730994.07	N 32 23 2.08	W 103 43 8.20
	272.00	0.34	38.45	272.00	-1.30	1.29	0.62	0.13	503943.11	730994.17	N 32 23 2.08	W 103 43 8.20
	304.00	0.23	36.90	303.99	-1.43	1.41	0.71	0.34	503943.23	730994.26	N 32 23 2.08	W 103 43 8.20
	335.00	0.21	51.60	334.99	-1.51	1.50	0.80	0.19	503943.32	730994.35	N 32 23 2.08	W 103 43 8.20
	367.00	0.20	61.49	366.99	-1.58	1.56	0.89	0.11	503943.38	730994.44	N 32 23 2.08	W 103 43 8.20
	398.00	0.12	65.98	397.99	-1.62	1.60	0.97	0.26	503943.42	730994.52	N 32 23 2.08	W 103 43 8.20
	430.00	0.15	80.12	429.99	-1.64	1.62	1.04	0.14	503943.44	730994.59	N 32 23 2.08	W 103 43 8.20
	461.00	0.15	87.62	460.99	-1.65	1.63	1.12	0.06	503943.45	730994.67	N 32 23 2.08	W 103 43 8.20
	494.00	0.13	140.11	493.99	-1.62	1.60	1.19	0.38	503943.42	730994.74	N 32 23 2.08	W 103 43 8.20
	524.00	0.18	147.41	523.99	-1.56	1.54	1.24	0.18	503943.36	730994.79	N 32 23 2.08	W 103 43 8.20
	556.00	0.22	149.49	555.99	-1.46	1.44	1.29	0.13	503943.26	730994.84	N 32 23 2.08	W 103 43 8.20
	587.00	0.28	162.29	586.99	-1.34	1.32	1.35	0.26	503943.14	730994.90	N 32 23 2.08	W 103 43 8.19
	619.00	0.36	163.98	618.99	-1.17	1.15	1.40	0.25	503942.97	730994.95	N 32 23 2.08	W 103 43 8.19
	650.00	0.38	164.90	649.99	-0.98	0.95	1.45	0.07	503942.77	730995.00	N 32 23 2.08	W 103 43 8.19
	682.00	0.33	164.43	681.99	-0.79	0.76	1.50	0.16	503942.58	730995.05	N 32 23 2.08	W 103 43 8.19
	713.00	0.29	166.91	712.99	-0.63	0.60	1.55	0.14	503942.42	730995.10	N 32 23 2.07	W 103 43 8.19
	745.00	0.28	174.95	744.99	-0.47	0.44	1.57	0.13	503942.26	730995.12	N 32 23 2.07	W 103 43 8.19
	777.00	0.27	174.91	776.99	-0.32	0.29	1.58	0.03	503942.11	730995.13	N 32 23 2.07	W 103 43 8.19
	809.00	0.29	171.55	808.99	-0.16	0.14	1.60	0.08	503941.96	730995.15	N 32 23 2.07	W 103 43 8.19
	839.00	0.29	168.70	838.99	-0.01	-0.01	1.63	0.05	503941.81	730995.18	N 32 23 2.07	W 103 43 8.19
	871.00	0.36	171.13	870.99	0.16	-0.19	1.66	0.22	503941.63	730995.21	N 32 23 2.07	W 103 43 8.19
Last Gyro	886.00	0.36	171.84	885.99	0.26	-0.29	1.67	0.03	503941.53	730995.22	N 32 23 2.07	W 103 43 8.19
	1002.00	0.04	181.73	1001.99	0.66	-0.69	1.73	0.28	503941.13	730995.28	N 32 23 2.06	W 103 43 8.19
	1093.00	0.05	253.69	1092.99	0.70	-0.73	1.69	0.06	503941.09	730995.24	N 32 23 2.06	W 103 43 8.19
	1183.00	0.04	58.25	1182.99	0.70	-0.72	1.68	0.10	503941.10	730995.23	N 32 23 2.06	W 103 43 8.19
	1275.00	0.04	54.89	1274.99	0.66	-0.69	1.73	0.00	503941.13	730995.28	N 32 23 2.06	W 103 43 8.19
	1365.00	0.04	111.27	1364.99	0.65	-0.68	1.78	0.04	503941.14	730995.33	N 32 23 2.06	W 103 43 8.19
	1455.00	0.04	182.70	1454.99	0.69	-0.72	1.81	0.05	503941.10	730995.36	N 32 23 2.06	W 103 43 8.19
	1547.00	0.04	341.30	1546.99	0.70	-0.73	1.80	0.09	503941.09	730995.35	N 32 23 2.06	W 103 43 8.19
	1641.00	0.04	339.21	1640.99	0.63	-0.66	1.78	0.00	503941.16	730995.33	N 32 23 2.06	W 103 43 8.19
	1735.00	0.04	152.22	1734.99	0.63	-0.66	1.78	0.08	503941.16	730995.33	N 32 23 2.06	W 103 43 8.19
	1830.00	0.04	356.51	1829.99	0.63	-0.66	1.79	0.08	503941.16	730995.34	N 32 23 2.06	W 103 43 8.19
	1924.00	0.04	235.10	1923.99	0.61	-0.65	1.77	0.07	503941.17	730995.32	N 32 23 2.06	W 103 43 8.19
	2019.00	0.04	52.36	2018.99	0.61	-0.64	1.76	0.08	503941.18	730995.31	N 32 23 2.06	W 103 43 8.19
	2113.00	0.08	129.45	2112.99	0.63	-0.67	1.84	0.09	503941.15	730995.39	N 32 23 2.06	W 103 43 8.19
	2208.00	0.04	62.80	2207.99	0.66	-0.69	1.92	0.08	503941.13	730995.47	N 32 23 2.06	W 103 43 8.19
	2302.00	0.04	296.08	2301.99	0.63	-0.66	1.92	0.08	503941.16	730995.47	N 32 23 2.06	W 103 43 8.19
	2397.00	0.10	354.48	2396.99	0.53	-0.57	1.88	0.09	503941.25	730995.43	N 32 23 2.06	W 103 43 8.19
	2491.00	0.10	76.13	2490.99	0.43	-0.46	1.96	0.14	503941.36	730995.51	N 32 23 2.06	W 103 43 8.19
	2585.00	0.10	225.34	2584.99	0.47	-0.50	1.98	0.21	503941.32	730995.53	N 32 23 2.06	W 103 43 8.19
	2680.00	0.10	258.38	2679.99	0.55	-0.58	1.84	0.06	503941.24	730995.39	N 32 23 2.06	W 103 43 8.19
	2774.00	0.04	150.63	2773.99	0.59	-0.62	1.77	0.13	503941.20	730995.32	N 32 23 2.06	W 103 43 8.19
	2869.00	0.10	125.13	2868.99	0.67	-0.70	1.86	0.07	503941.12	730995.41	N 32 23 2.06	W 103 43 8.19
	2963.00	0.10	123.18	2962.99	0.76	-0.79	1.99	0.00	503941.03	730995.54	N 32 23 2.06	W 103 43 8.19
	3058.00	0.03	333.38	3057.99	0.78	-0.81	2.05	0.13	503941.01	730995.60	N 32 23 2.06	W 103 43 8.19
	3152.00	0.10	24.86	3151.99	0.68	-0.72	2.07	0.09	503941.10	730995.62	N 32 23 2.06	W 103 43 8.19
	3246.00	0.10	155.77	3245.99	0.68	-0.72	2.14	0.19	503941.10	730995.69	N 32 23 2.06	W 103 43 8.19
	3341.00	0.16	270.32	3340.99	0.76	-0.79	2.04	0.23	503941.03	730995.59	N 32 23 2.06	W 103 43 8.19
	3436.00	0.10	20.26	3435.99	0.68	-0.72	1.94	0.23	503941.10	730995.49	N 32 23 2.06	W 103 43 8.19
	3530.00	0.04	16.67	3529.99	0.57	-0.61	1.98	0.06	503941.21	730995.53	N 32 23 2.06	W 103 43 8.19
	3624.00	0.25	129.00	3623.99	0.67	-0.70	2.15	0.28	503941.12	730995.70	N 32 23 2.06	W 103 43 8.19
	3719.00	0.29	116.42	3718.99	0.90	-0.94	2.52	0.08	503940.88	730996.07	N 32 23 2.06	W 103 43 8.18
	3813.00	0.21	143.58	3812.98	1.14	-1.19	2.84	0.15	503940.63	730996.39	N 32 23 2.06	W 103 43 8.18
	3908.00	0.20	301.66	3907.98	1.19	-1.24	2.80	0.42	503940.58	730996.35	N 32 23 2.06	W 103 43 8.18
	4002.00	0.04	316.93	4001.98	1.08	-1.13	2.64	0.17	503940.69	730996.19	N 32 23 2.06	W 103 43 8.18
	4097.00	0.16	61.99	4096.98	1.00	-1.04	2.73	0.18	503940.78	730996.28	N 32 23 2.06	W 103 43 8.18
	4191.00	0.21	128.74	4190.98	1.04	-1.09	2.98	0.22	503940.73	730996.53	N 32 23 2.06	W 103 43 8.18
	4286.00	0.13	130.33	4285.98	1.21	-1.27	3.20	0.08	503940.55	730996.75	N 32 23 2.06	W 103

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
KOP Actual	5800.00	0.12	154.32	5799.98	1.87	-1.93	3.27	0.11	503939.89	730996.82	N 32 23 2.05	W 103 43 8.17
	5894.00	0.10	284.46	5893.98	1.94	-2.00	3.24	0.21	503939.82	730996.79	N 32 23 2.05	W 103 43 8.17
	5989.00	0.12	245.09	5988.98	1.97	-2.02	3.07	0.08	503939.80	730996.62	N 32 23 2.05	W 103 43 8.17
	6083.00	0.10	132.14	6082.98	2.06	-2.12	3.04	0.20	503939.70	730996.59	N 32 23 2.05	W 103 43 8.18
	6178.00	0.10	288.43	6177.98	2.09	-2.15	3.02	0.21	503939.67	730996.57	N 32 23 2.05	W 103 43 8.18
	6272.00	0.12	195.96	6271.98	2.16	-2.22	2.92	0.17	503939.60	730996.47	N 32 23 2.05	W 103 43 8.18
	6367.00	0.17	344.15	6366.98	2.13	-2.18	2.85	0.29	503939.64	730996.40	N 32 23 2.05	W 103 43 8.18
	6461.00	0.12	33.89	6460.98	1.91	-1.96	2.87	0.14	503939.86	730996.42	N 32 23 2.05	W 103 43 8.18
	6616.00	0.23	164.53	6615.98	2.07	-2.12	3.04	0.21	503939.70	730996.59	N 32 23 2.05	W 103 43 8.18
	6711.00	0.40	162.80	6710.98	2.57	-2.63	3.19	0.18	503939.19	730996.74	N 32 23 2.04	W 103 43 8.17
	6806.00	0.23	227.54	6805.98	3.02	-3.07	3.15	0.39	503938.75	730996.70	N 32 23 2.04	W 103 43 8.17
	6995.00	4.08	329.65	6994.82	-2.47	2.48	-0.53	2.19	503944.30	730993.02	N 32 23 2.09	W 103 43 8.22
	7090.00	6.34	332.45	7089.42	-9.96	10.05	-4.67	2.39	503951.87	730988.89	N 32 23 2.17	W 103 43 8.26
	7185.00	7.83	333.62	7183.69	-20.32	20.49	-9.97	1.58	503962.31	730983.58	N 32 23 2.27	W 103 43 8.33
	7279.00	7.11	329.95	7276.89	-30.99	31.27	-15.73	0.92	503973.08	730977.83	N 32 23 2.38	W 103 43 8.39
	7374.00	7.20	329.30	7371.15	-41.09	41.47	-21.71	0.13	503983.29	730971.84	N 32 23 2.48	W 103 43 8.46
	7469.00	7.10	326.77	7465.42	-51.01	51.50	-27.97	0.35	503993.32	730965.59	N 32 23 2.58	W 103 43 8.53
	7563.00	7.01	325.29	7558.70	-60.48	61.08	-34.42	0.22	504002.90	730959.14	N 32 23 2.67	W 103 43 8.61
	7657.00	7.21	322.66	7651.98	-69.76	70.48	-41.26	0.41	504012.30	730952.29	N 32 23 2.77	W 103 43 8.69
	7752.00	7.20	321.33	7746.23	-79.02	79.87	-48.59	0.18	504021.69	730944.96	N 32 23 2.86	W 103 43 8.77
	7846.00	7.19	318.97	7839.49	-87.93	88.91	-56.14	0.31	504030.72	730937.42	N 32 23 2.95	W 103 43 8.86
	7941.00	6.95	314.45	7933.77	-96.30	97.42	-64.14	0.64	504039.23	730929.41	N 32 23 3.04	W 103 43 8.95
	8036.00	7.16	312.31	8028.05	-104.16	105.43	-72.62	0.35	504047.24	730920.93	N 32 23 3.12	W 103 43 9.05
	8130.00	7.22	316.75	8121.31	-112.26	113.67	-81.00	0.59	504055.49	730912.55	N 32 23 3.20	W 103 43 9.15
	8225.00	6.73	325.24	8215.61	-121.06	122.60	-88.27	1.20	504064.41	730905.29	N 32 23 3.29	W 103 43 9.23
	8319.00	7.11	332.92	8308.93	-130.66	132.30	-94.06	1.06	504074.11	730899.50	N 32 23 3.38	W 103 43 9.30
	8413.00	8.96	332.28	8402.00	-142.22	143.96	-100.11	1.97	504085.77	730893.44	N 32 23 3.50	W 103 43 9.37
	8508.00	10.01	331.16	8495.70	-155.87	157.74	-107.53	1.12	504099.56	730886.02	N 32 23 3.64	W 103 43 9.45
	8603.00	9.68	328.27	8589.30	-169.75	171.77	-115.72	0.63	504113.58	730877.84	N 32 23 3.77	W 103 43 9.55
	8697.00	9.95	324.25	8681.93	-182.91	185.08	-124.62	0.78	504126.89	730868.94	N 32 23 3.91	W 103 43 9.65
	8792.00	9.86	320.00	8775.51	-195.63	197.97	-134.64	0.78	504139.78	730858.91	N 32 23 4.03	W 103 43 9.77
	8887.00	10.11	315.48	8869.08	-207.61	210.15	-145.72	0.87	504151.96	730847.84	N 32 23 4.16	W 103 43 9.90
	8982.00	10.02	307.06	8962.62	-218.32	221.08	-158.16	1.55	504162.89	730835.40	N 32 23 4.26	W 103 43 10.04
	9076.00	9.80	298.08	9055.22	-226.78	229.77	-171.74	1.66	504171.58	730821.81	N 32 23 4.35	W 103 43 10.20
	9168.00	10.00	289.09	9145.86	-232.83	236.07	-186.20	1.69	504177.88	730807.36	N 32 23 4.41	W 103 43 10.37
	9251.00	7.68	254.79	9227.92	-233.52	236.97	-198.37	6.81	504178.78	730795.19	N 32 23 4.42	W 103 43 10.51
	9345.00	11.94	212.20	9320.64	-223.43	227.08	-209.64	8.65	504168.89	730783.93	N 32 23 4.33	W 103 43 10.64
	9440.00	17.95	199.94	9412.41	-201.16	204.98	-219.88	7.11	504146.79	730773.69	N 32 23 4.11	W 103 43 10.76
	9534.00	20.04	188.74	9501.31	-171.49	175.43	-227.27	4.46	504117.24	730766.30	N 32 23 3.82	W 103 43 10.85
	1st Bone Spring Sand Intersection	9614.75	29.10	182.41	9574.69	-138.07	142.06	-230.20	11.67	504083.87	730763.36	N 32 23 3.49
LL Crossed	9629.00	30.72	181.66	9587.04	-130.97	134.96	-230.45	11.67	504076.77	730763.11	N 32 23 3.42	W 103 43 10.89
	9646.00	32.02	181.92	9601.55	-122.12	126.11	-230.73	7.70	504067.93	730762.83	N 32 23 3.33	W 103 43 10.89
100' FNL Crossed	9724.00	38.00	182.89	9665.41	-77.41	81.42	-232.63	7.70	504023.24	730760.93	N 32 23 2.89	W 103 43 10.92
	9811.00	47.83	185.89	9729.05	-18.36	22.46	-237.31	11.54	503964.27	730756.26	N 32 23 2.30	W 103 43 10.98
	9819.00	48.74	186.12	9734.38	-12.42	16.52	-237.93	11.54	503958.34	730755.63	N 32 23 2.25	W 103 43 10.98
	9914.00	59.96	181.18	9789.68	64.54	-60.38	-242.60	12.54	503881.45	730750.96	N 32 23 1.48	W 103 43 11.04
	10008.00	71.78	175.87	9828.06	150.05	-145.94	-240.21	13.58	503795.89	730753.35	N 32 23 0.64	W 103 43 11.02
	10103.00	85.01	173.99	9847.13	242.38	-238.42	-231.97	14.06	503703.42	730761.59	N 32 22 59.72	W 103 43 10.93
	10197.00	88.61	173.31	9852.36	335.45	-331.68	-221.59	3.90	503610.16	730771.97	N 32 22 58.80	W 103 43 10.82
	10251.00	88.85	173.43	9853.56	388.96	-385.30	-215.36	0.50	503556.54	730778.20	N 32 22 58.27	W 103 43 10.75
	10346.00	90.85	177.74	9853.81	483.51	-479.99	-208.05	5.00	503461.85	730785.51	N 32 22 57.33	W 103 43 10.67
	10440.00	91.09	179.39	9852.22	577.41	-573.95	-205.70	1.77	503367.90	730787.87	N 32 22 56.40	W 103 43 10.65
	10535.00	91.05	180.75	9850.44	672.37	-668.93	-205.81	1.43	503272.937			

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	16979.00	90.12	180.69	9858.98	7109.83	-7107.74	-182.94	0.93	496834.45	730810.62	N 32 21 51.75	W 103 43 10.82
	17074.00	89.57	181.28	9859.23	7204.83	-7202.72	-184.57	0.85	496739.47	730808.98	N 32 21 50.81	W 103 43 10.84
	17168.00	89.75	181.14	9859.79	7298.83	-7296.70	-186.56	0.24	496645.50	730807.00	N 32 21 49.88	W 103 43 10.87
	17263.00	89.37	181.12	9860.52	7393.83	-7391.68	-188.43	0.40	496550.52	730805.13	N 32 21 48.94	W 103 43 10.90
	17357.00	89.44	181.20	9861.50	7487.82	-7485.65	-190.34	0.11	496456.55	730803.22	N 32 21 48.01	W 103 43 10.93
	17452.00	89.88	181.39	9862.06	7582.82	-7580.63	-192.48	0.50	496361.58	730801.08	N 32 21 47.07	W 103 43 10.96
	17546.00	89.68	181.23	9862.42	7676.82	-7674.60	-194.63	0.27	496267.62	730798.93	N 32 21 46.14	W 103 43 10.99
	17641.00	89.85	181.21	9862.81	7771.81	-7769.58	-196.65	0.18	496172.64	730796.91	N 32 21 45.20	W 103 43 11.02
	17735.00	90.12	181.05	9862.84	7865.81	-7863.56	-198.51	0.33	496078.67	730795.05	N 32 21 44.27	W 103 43 11.05
	17829.00	91.15	181.87	9861.79	7959.80	-7957.52	-200.90	1.40	495984.71	730792.66	N 32 21 43.34	W 103 43 11.09
	17924.00	90.74	181.47	9860.23	8054.78	-8052.47	-203.67	0.60	495889.77	730789.89	N 32 21 42.40	W 103 43 11.12
	18018.00	91.57	180.86	9858.33	8148.76	-8146.43	-205.58	1.10	495795.81	730787.98	N 32 21 41.47	W 103 43 11.15
	18113.00	91.29	180.91	9855.96	8243.73	-8241.39	-207.05	0.30	495700.86	730786.51	N 32 21 40.53	W 103 43 11.18
	18208.00	90.54	180.79	9854.44	8338.72	-8336.36	-208.46	0.80	495605.89	730785.10	N 32 21 39.59	W 103 43 11.20
	18302.00	89.37	180.66	9854.52	8432.72	-8430.36	-209.65	1.25	495511.90	730783.91	N 32 21 38.66	W 103 43 11.22
	18397.00	90.47	180.94	9854.65	8527.71	-8525.34	-210.97	1.19	495416.92	730782.59	N 32 21 37.72	W 103 43 11.24
	18491.00	89.68	181.48	9854.53	8621.71	-8619.32	-212.96	1.02	495322.94	730780.60	N 32 21 36.79	W 103 43 11.27
	18585.00	89.26	181.57	9855.40	8715.70	-8713.29	-215.46	0.46	495228.99	730778.10	N 32 21 35.86	W 103 43 11.31
	18679.00	87.48	181.10	9858.07	8809.66	-8807.22	-217.65	1.96	495135.06	730775.91	N 32 21 34.94	W 103 43 11.34
	18774.00	88.23	181.47	9861.63	8904.59	-8902.13	-219.78	0.88	495040.15	730773.78	N 32 21 34.00	W 103 43 11.37
	18868.00	88.51	180.59	9864.30	8998.55	-8996.07	-221.47	0.98	494946.21	730772.09	N 32 21 33.07	W 103 43 11.39
	18963.00	88.23	179.36	9867.00	9093.50	-9091.03	-221.43	1.33	494851.26	730772.14	N 32 21 32.13	W 103 43 11.40
	19057.00	90.57	181.30	9867.99	9187.47	-9185.01	-221.97	3.23	494757.28	730771.59	N 32 21 31.20	W 103 43 11.41
	19152.00	89.64	179.63	9867.81	9282.47	-9280.01	-222.74	2.01	494662.29	730770.82	N 32 21 30.26	W 103 43 11.43
	19246.00	90.23	178.75	9867.92	9376.42	-9374.00	-221.41	1.13	494568.31	730772.15	N 32 21 29.33	W 103 43 11.42
	19340.00	89.95	178.82	9867.77	9470.35	-9467.97	-219.42	0.31	494474.34	730774.14	N 32 21 28.40	W 103 43 11.40
	19435.00	88.47	178.23	9869.08	9565.25	-9562.93	-216.97	1.68	494379.38	730776.59	N 32 21 27.46	W 103 43 11.38
	19529.00	89.30	177.94	9870.91	9659.11	-9656.86	-213.83	0.94	494285.46	730779.73	N 32 21 26.53	W 103 43 11.35
	19624.00	90.47	178.35	9871.10	9753.99	-9751.81	-210.76	1.31	494190.52	730782.80	N 32 21 25.59	W 103 43 11.32
	19718.00	90.23	178.98	9870.53	9847.91	-9845.78	-208.57	0.72	494096.55	730784.99	N 32 21 24.66	W 103 43 11.30
	19812.00	90.47	178.59	9869.95	9941.84	-9939.76	-206.57	0.49	494002.58	730786.99	N 32 21 23.73	W 103 43 11.28
	19906.00	90.40	179.16	9869.24	10035.77	-10033.74	-204.73	0.61	493908.60	730788.83	N 32 21 22.80	W 103 43 11.27
	20001.00	88.20	178.93	9870.40	10130.71	-10128.71	-203.14	2.33	493813.63	730790.42	N 32 21 21.86	W 103 43 11.26
	20094.00	87.54	178.40	9873.86	10223.56	-10221.62	-200.98	0.91	493720.73	730792.58	N 32 21 20.94	W 103 43 11.24
	20189.00	90.64	179.59	9875.37	10318.48	-10316.58	-199.31	3.50	493625.77	730794.25	N 32 21 20.00	W 103 43 11.22
100' FSL Crossed	20214.00	90.68	179.76	9875.08	10343.47	-10341.58	-199.17	0.69	493600.78	730794.39	N 32 21 19.75	W 103 43 11.22
Final MWD	20250.00	90.74	180.00	9874.63	10379.46	-10377.57	-199.10	0.69	493564.78	730794.46	N 32 21 19.40	W 103 43 11.23
PTB	20290.00	90.74	180.00	9874.11	10419.45	-10417.57	-199.10	0.00	493524.79	730794.46	N 32 21 19.00	W 103 43 11.23

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 3 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	26.500	1/98.425	30.000	30.000	GYD_GC+DROP+OH-Depth Only	Original Borehole / Oxy Lost Tank 30-19 Federal Com 1H Gyro + MWD 0-20290' MD
	1	26.500	26.500	Act Stns	30.000	30.000	GYD_GC+DROP+OH-Depth Only	Original Borehole / Oxy Lost Tank 30-19 Federal Com 1H Gyro + MWD 0-20290' MD
	1	26.500	886.000	Act Stns	30.000	30.000	GYD_GC+DROP+OH	Original Borehole / Oxy Lost Tank 30-19 Federal Com 1H Gyro +
	1	886.000	13181.000	Act Stns	30.000	30.000	A010Mb_MWD+IFR1+SAG+MS	Original Borehole / Oxy Lost Tank 30-19 Federal Com 1H Gyro + MWD 0-20290' MD
	1	13181.000	20290.000	Act Stns	30.000	30.000	A009Mb_MWD+IFR1+SAG	Original Borehole / Oxy Lost Tank 30-19 Federal Com 1H Gyro +



OXY



Borehole:	Well:	Field:	Structure:
Original Borehole	Oxy Lost Tank 30-19 Federal Com 1H	NM Lea County (NAD 83)	Oxy Lost Tank 30-19 Federal Com 1H

Gravity & Magnetic Parameters				Surface Location				NAD83 New Mexico State Plane, Eastern Zone, US Feet				Miscellaneous			
Model:	IFR1	Dip:	60.13°	Date:	04-dic-2019	Lat:	N 32 23 2.07	Northing:	503941.821US	Grid Conv:	0.3291°	Slot:	Oxy Lost Tank 30-19 Federal Com 1H	TVD Ref:	RKB(3642.6ft above MSL)
MagDec:	6.796°	FS:	48044.7nT	Gravity FS:	998.455mgN (9.80665 Based)	Lon:	W 103 43 8.21	Easting:	730993.551US	Scale Fact:	0.99995029	Plan:	Oxy Lost Tank 30-19 Federal Com 1H Gyro + MWD 0-20290' MD		

Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
WRP	0.00	0.00	303.07	0.00	0.00	0.00	0.00	0.00
SHL	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00
RKB	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00
Last Gyro	886.00	0.36	171.84	885.99	0.26	-0.29	1.67	0.03
KOP Actual	6806.00	0.23	227.54	6805.98	3.02	-3.07	3.15	0.39
1st Bone Spring Sand Intersection	9614.75	29.10	182.41	9574.69	-138.07	142.06	-230.20	11.67
LL Crossed	9646.00	32.02	181.92	9601.55	-122.12	126.11	-230.73	7.70
100' FNL Crossed	9811.00	47.83	185.89	9729.05	-18.36	22.46	-237.31	11.54
Exit Target Box	15185.00	90.19	181.01	9858.88	5321.32	-5317.60	-261.57	1.07
Enter Target Box	15485.00	89.35	177.40	9860.17	5621.19	-5617.55	-259.68	2.01
100' FSL Crossed	20214.00	90.68	179.76	9875.08	10343.47	-10341.58	-199.17	0.69
Final MWD	20250.00	90.74	180.00	9874.63	10379.46	-10377.57	-199.10	0.69
PTB	20290.00	90.74	180.00	9874.11	10419.45	-10417.57	-199.10	0.00

