

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTNMOCD
HobbsFORM 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. NMNM13647		
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 MARATHON OIL PERMIAN LLC			Contact: ADRIAN COVARRUBIAS E-Mail: acovarrubias@marathonoil.com		
3. Address 5555 SAN FELIPE HOUSTON, TX 77056			3a. Phone No. (include area code) Ph: 713-296-3368		
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At surface SESW 287FSL 1781FWL At top prod interval reported below SESW 287FSL 1781FWL At total depth NENW 101FNL 965FWL			8. Lease Name and Well No. CAVE LION 5 WXY FEDERAL 6H		
14. Date Spudded 02/11/2019			15. Date T.D. Reached 05/02/2019		
16. Date Completed ☐ D & A ☒ Ready to Prod. 08/01/2019			9. API Well No. 30-025-45426		
18. Total Depth: MD 17503 TVD 12590			19. Plug Back T.D.: MD TVD		
20. Depth Bridge Plug Set: MD TVD			10. Field and Pool, or Exploratory WOLFCAMP		
21. Type Electric & Other Mechanical Logs Run (Submit copy of each) MUD AND GR			11. Sec., T., R., M., or Block and Survey or Area Sec 5 T26S R35E Mer NMP		
22. Was well cored? ☒ No ☐ Yes (Submit analysis) Was DST run? ☒ No ☐ Yes (Submit analysis) Directional Survey? ☐ No ☒ Yes (Submit analysis)			12. County or Parish LEA		
23. Casing and Liner Record (Report all strings set in well)			13. State NM		
17. Elevations (DF, KB, RT, GL)* 3263 GL			12. County or Parish LEA		

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	1126		945		0	
12.250	9.625 J55	40.0	0	5421		1720		0	
8.750	7.000 P110	29.0	0	11911		1145		0	
6.125	4.500 P110HC	13.5	0	17460		615		11617	

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) WOLFCAMP	12732	17349	12732 TO 17349	0.360	648	ACTIVE OPEN
B)						
C)						
D)						

Depth Interval	Amount and Type of Material
12732 TO 17349	11,844,340 LBS - 40/70; 100 MESH

28. Production - Interval A									
Date First Produced 08/01/2019	Test Date 08/10/2019	Hours Tested 24	Test Production →	Oil BBL 1034.0	Gas MCF 1318.0	Water BBL 5945.0	Oil Gravity Corr. API	Gas Gravity	Production Method PGW
Choke Size 42	Tbg. Press. Flwg. SI	Csg. Press. 1050.0	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
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. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	

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

ELECTRONIC SUBMISSION #482772 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

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

Reclamation due: 02/01/2006

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

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
SALADO	1509	3546	BRINE	SALADO	1509
CASTILE	3546	5103	BRINE	CASTILE	3546
BASE SALT	5103	5350	BRINE	BASE SALT	5103
LAMAR	5350	5396	OIL, GAS, AND WATER	LAMAR	5350
BELL CANYON	5396	6732	OIL, GAS, AND WATER	BELL CANYON	5396
CHERRY CANYON	6732	7873	OIL, GAS, AND WATER	CHERRY CANYON	6732
BRUSHY CANYON	7873	9297	OIL, GAS, AND WATER	BRUSHY CANYON	7873
BONE SPRING	9297	12479	OIL, GAS, AND WATER	BONE SPRING	9297

32. Additional remarks (include plugging procedure):
Porous Zones continued:

Wolfcamp; 12479' - 12538'; Oil, Gas, and Water

Formation (Log) Markers continued:
Wolfcamp; 12479 MD

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 #482772 Verified by the BLM Well Information System.
For MARATHON OIL PERMIAN LLC, sent to the Hobbs
Committed to AFMSS for processing by JENNIFER SANCHEZ on 11/18/2019 0

Name (please print) ADRIAN COVARRUBIAS

Title CTR - TECHNICIAN HES

Signature _____ (Electronic Submission)

Date 09/10/2019

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: (575) 748-1283 Fax: (575) 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 PLAT

¹ API Number 30-025-45426	² Pool Code 98117	³ Pool Name WC-025 G-09 S263504N; WOLFCAMP
⁴ Property Code	⁵ Property Name CAVE LION 5 WXY FEDERAL	⁶ Well Number 6H
⁷ OGRID No. 372098	⁸ Operator Name MARATHON OIL PERMIAN LLC	⁹ Elevation 3263'

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
N	5	T26S	R35E		287	SOUTH	1781	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
C	5	T26S	R35E		101	NORTH	965	WEST	LEA

¹² Dedicated Acres 160.00	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.

¹⁶				" OPERATOR CERTIFICATION	
SECTION 31 A SECTION 32 B SECTION 6 965' 101' LAST TAKE/BHL 330' (CROSSING 4) MEASURED DEPTH=16,942' 1035' (FARTEST) MEASURED DEPTH=15,726' 330' (CROSSING 3) MEASURED DEPTH=14,942' 330' (CROSSING 2) MEASURED DEPTH=14,442' 330' (CROSSING 1) MEASURED DEPTH=13,478' 330' (NEAREST) MEASURED DEPTH=12,704' 960' 1781' 993' FIRST TAKE 864' SHL SECTION 6 100' KDP 287' SECTION 5 SECTION 7 D SECTION 8 C SECTION 8 T-25-S SECTION 32 T-26-S SECTION 5 LAST TAKE POINT/BOTTOM HOLE LOCATION 17,503' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X:831986.66 / Y:393864.79' LAT:32.07933880N / LON:103.39492877W NAD 27, SPCS NM EAST X:790799.25' / Y:393807.07' LAT:32.07921262N / LON:103.39448554W FIRST TAKE POINT 12,617' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X:832036.37' / Y:389004.92' LAT:32.06597975N / LON:103.39490475W NAD 27, SPCS NM EAST X:790848.75' / Y:388947.33' LAT:32.06585351N / LON:103.39444228W KICK OFF POINT 11,653' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X:832066.55' / Y:388782.14' LAT:32.06536671N / LON:103.39481358W NAD 27, SPCS NM EAST X:790878.92' / Y:388724.55' LAT:32.06524045N / LON:103.39435116W SURFACE HOLE LOCATION 287' FSL 1781' FVL, SECTION 5 NAD 83, SPCS NM EAST X:832852.39' / Y:388974.69' LAT:32.06587713N / LON:103.39227170W NAD 27, SPCS NM EAST X:791664.75' / Y:388917.09' LAT:32.06575085N / LON:103.39180929W CORNER COORDINATES NAD 83, SPCS NM EAST A - X: 831020.60' / Y: 393959.45' B - X: 832342.14' / Y: 393968.72' C - X: 832397.11' / Y: 388684.41' D - X: 831074.50' / Y: 388675.34' CORNER COORDINATES NAD 27, SPCS NM EAST A - X: 789833.20' / Y: 393901.74' B - X: 791154.74' / Y: 393911.00' C - X: 791209.47' / Y: 388626.82' D - X: 789886.87' / Y: 388617.76'				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 undivided 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 Date 9/10/2019 Adrian Covarrubias Printed Name E-mail Address	
				"SURVEYOR CERTIFICATION	
				I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. DATE OF SURVEY Signature and Seal of Professional Surveyor THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION, SALE, BIDDING, RECORDATION, OR THE ISSUANCE OF A PERMIT. Certificate Number	
				2 06/24/2019 DEF REV. DATE BY	

DISTANCES/AREAS RELATIVE TO NAD83 COMBINED SCALE FACTOR: 1.000008454
CONVERGENCE: 0.4997137472; NOTE: ALL DIMENSIONS IN U.S. FEET

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

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 Marathon Oil Permian LLC 5555 San Felipe St., Houston, TX 77056		² OGRID Number 372098
		³ Reason for Filing Code/ Effective Date NW
⁴ API Number 30 - 025-45426	⁵ Pool Name WC-025 G-09 S263504N; WOLFCAMP	⁶ Pool Code 98117
⁷ Property Code 323004	⁸ Property Name CAVE LION 5 WXY FEDERAL	⁹ Well Number 6H

II. 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
N	5	26S	35E		287	SOUTH	1781	WEST	LEA

¹¹ Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	5	26S	35E		101	NORTH	965	WEST	LEA

¹² Lse Code F	¹³ Producing Method Code	¹⁴ Gas Connection Date	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date
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III. Oil and Gas Transporters

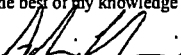
¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/V
	ORYX GATHERING - CARLSBAD	O
	LUCID ENERGY	G

IV. Well Completion Data

²¹ Spud Date 2/11/2019	²² Ready Date 8/1/2019	²³ TD 17503' / 12590'	²⁴ PBTD	²⁵ Perforations 12732' - 17349'	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set		³⁰ Sacks Cement	
17 1/2"	13 3/8"	1126'		945	
12 1/4"	9 5/8"	5421'		1720	
8 3/4"	7"	11911'		1145	
6 1/8"	4 1/2	11617' - 17460'		615	

V. Well Test Data

³¹ Date New Oil 8/1/2109	³² Gas Delivery Date	³³ Test Date 8/10/2019	³⁴ Test Length 24 hrs	³⁵ Tbg. Pressure 0	³⁶ Csg. Pressure 1050
³⁷ Choke Size 42	³⁸ Oil 1034	³⁹ Water 5945	⁴⁰ Gas 1318		⁴¹ Test Method Flowing

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: 		OIL CONSERVATION DIVISION	
Printed name: Adrian Covarrubias		Approved by:	
Title: CTR - Technician HES		Title:	
E-mail Address: acovarrubias@marathonoil.com		Approval Date:	
Date: 9/9/2019	Phone: 713-296-3368		



LEA COUNTY, NM (NAD27-NME)
CAVE LION PAD
CAVE LION 5 FEDERAL WXY #6H

ST01

WELL DETAILS:
GP#ND LEVEL: 3263.00
NORTHING: 38964.09
EASTING: 791664.75
LATITUDE: 32° 5' 24.12 N
LONGITUDE: 102° 22' 50.43 W

SECTION DETAILS

NO PLAN DATA IS AVAILABLE

DESIGN TARGET DETAILS

No target data is available.

TARGET WINDOW: 12560' TVD @ OVS // 90.3° INC
DRILLING TARGET: 7' UP // 7' DOWN - 30' L / 30' P

SITE DETAILS: CAVE LION PAD
SITE CENTRE POINT: 38964.09
EASTING: 791664.75
POSITIONAL UNCERTAINTY: 0.06
CONVERGENCE: 0.50
LOCAL TIE-IN GRID

PROLOGUE TO THIS WELL: CAVE LION 5 (NAD27-NME)
GEOLOGIC SYSTEM: IN STATE (NAD27-NME)
DATE: 1997 (NAD27-NME)
ELEVATION: 3263.00
GRID: NEW MEXICO STATE 3000
SYSTEM DATUM: NEW MEXICO STATE

FORMATION TOP DETAILS

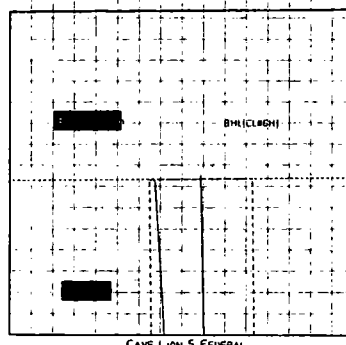
NO FORMATION DATA IS AVAILABLE

MAP SYSTEM: US STATE PLANS 1927 (EXACT LOCATION)
ELEVATION: 3263.00
LINE TYPE: NEW MEXICO STATE 3000
LOCAL UTM: WELL CAVE LION 5 FEDERAL WXY #6H, GRID NORTH
LATITUDE: 32° 5' 24.12 N
LONGITUDE: 102° 22' 50.43 W
GRID EAST: 791664.75
GRID NORTH: 38964.09
SCALE FACTOR: 1.000

FORMATION TOP: 3263.00
MAP DATE: 7-19-19
MAGNETIC DECLINATION: 6.54°
DIP ANGLE FROM HORIZONTAL: 50.0°
FORMATION FIELD STRIKE: 10° N
IN CHARGE: A. M. G. (DIP) 10° N - GRID DIRECTION, 400 0.0°
TO CORRECT A MAGNETIC DIRECTION TO A GRID DIRECTION, ADD 6.54°
TO CORRECT A GRID DIRECTION TO A MAGNETIC DIRECTION, SUBTRACT 6.54°

CASING DETAILS

No casing data is available

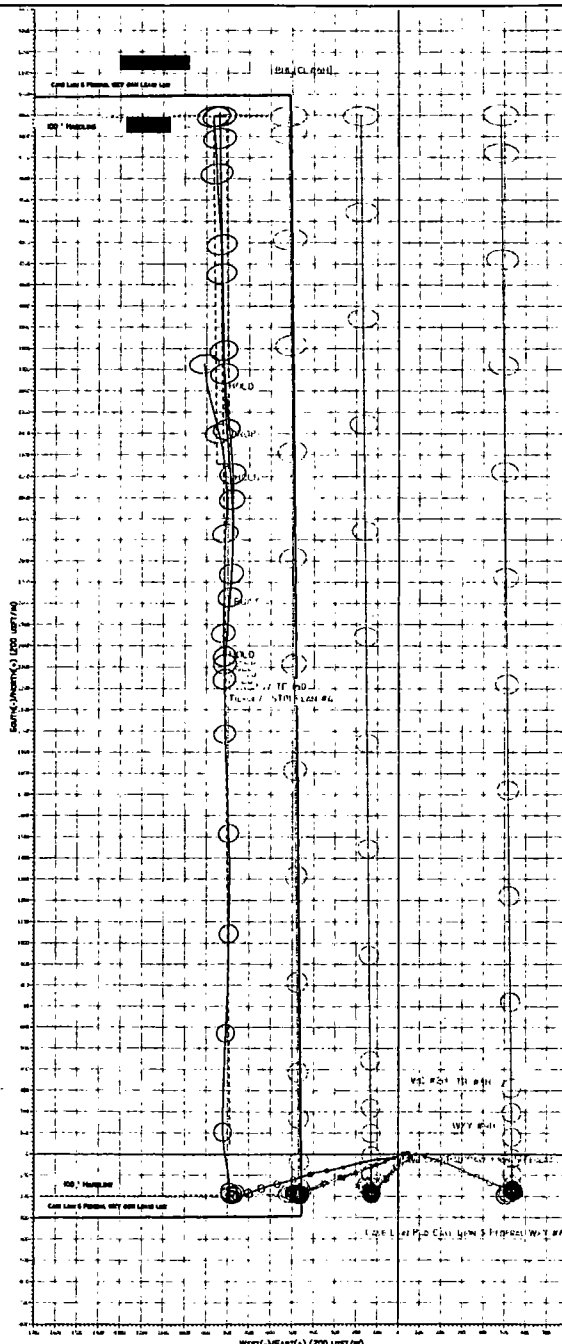
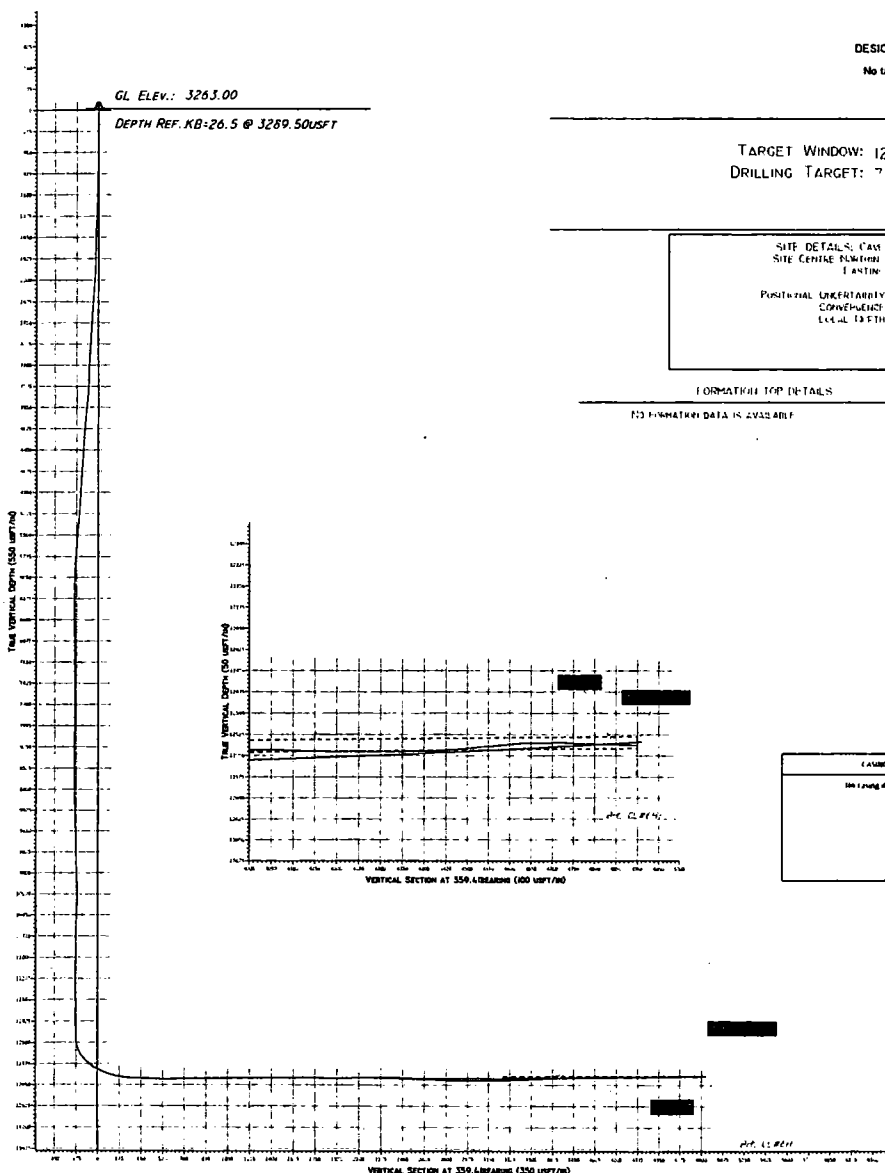


Scientific Drilling



To convert a True Direction to a Grid Direction, Subtract 0.50°
To convert a Magnetic Direction to a Grid Direction, Add 6.54°

ADDITIONAL TO THIS WELL:
TIME: 1997-10-10
MAGNETIC DECLINATION: 6.54°
STRIKE: 10° N
DIP: 50.0°
DATE: 10-10-97
MODEL: 1000



Marathon Oil Permian, LLC
Cave Lion 5 Federal WXY #6H - ST01

Lea County, NM (NAD27-NME)

Cave Lion Pad

Your Ref:

5/3/2019

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate ("/100ft)	Grid X	Grid Y	SSTVD
0	0	0	0	0	0	0	0	791664.8	388917.1	-3289.5
90	0.4	256	90	-0.08	-0.3	-0.07	0.44	791664.5	388917	-3199.5
180	0.4	192	180	-0.46	-0.67	-0.45	0.47	791664.1	388916.6	-3109.5
270	0.5	174	269.99	-1.16	-0.7	-1.15	0.19	791664.1	388915.9	-3019.51
360	0.5	189	359.99	-1.94	-0.72	-1.93	0.15	791664	388915.2	-2929.51
450	0.4	191	449.99	-2.63	-0.84	-2.62	0.11	791663.9	388914.5	-2839.51
540	0.5	190	539.99	-3.33	-0.97	-3.32	0.11	791663.8	388913.8	-2749.51
630	0.4	181	629.98	-4.03	-1.04	-4.02	0.14	791663.7	388913.1	-2659.52
720	0.6	181	719.98	-4.81	-1.06	-4.8	0.22	791663.7	388912.3	-2569.52
810	0.7	201	809.97	-5.8	-1.26	-5.78	0.27	791663.5	388911.3	-2479.53
900	0.7	216	899.97	-6.76	-1.78	-6.74	0.2	791663	388910.3	-2389.53
990	0.8	222	989.96	-7.67	-2.53	-7.64	0.14	791662.2	388909.4	-2299.54
1156	1.31	217.91	1155.93	-10.03	-4.47	-9.98	0.31	791660.3	388907.1	-2133.57
1247	2.29	243.77	1246.89	-11.65	-6.74	-11.58	1.37	791658	388905.4	-2042.61
1341	4.74	247.38	1340.7	-13.97	-12.01	-13.85	2.62	791652.7	388903.1	-1948.8
1436	6.46	253.97	1435.25	-16.96	-20.77	-16.74	1.93	791644	388900.1	-1854.25
1530	8.03	260.42	1528.49	-19.51	-32.32	-19.18	1.88	791632.4	388897.6	-1761.01
1624	8.96	263.33	1621.46	-21.46	-46.07	-20.98	1.09	791618.7	388895.6	-1668.04
1719	9.54	264.3	1715.23	-23.1	-61.25	-22.46	0.63	791603.5	388894	-1574.27
1813	9.83	266.22	1807.89	-24.4	-77.01	-23.61	0.46	791587.7	388892.7	-1481.61
1907	9.78	265.91	1900.51	-25.5	-92.98	-24.54	0.08	791571.8	388891.6	-1388.99
2002	10.18	262.27	1994.08	-27.2	-109.35	-26.08	0.79	791555.4	388889.9	-1295.42
2096	10.9	262.01	2086.49	-29.56	-126.38	-28.25	0.77	791538.4	388887.5	-1203.01
2190	10.52	254.86	2178.86	-33.03	-143.46	-31.55	1.47	791521.3	388884.1	-1110.64
2285	11.14	253.92	2272.16	-37.84	-160.65	-36.18	0.68	791504.1	388879.3	-1017.34
2379	10.69	254.32	2364.46	-42.71	-177.77	-40.88	0.49	791487	388874.4	-925.04
2474	10.7	255.57	2457.81	-47.29	-194.8	-45.28	0.24	791470	388869.8	-831.69
2568	10.57	257.21	2550.2	-51.37	-211.66	-49.19	0.35	791453.1	388865.7	-739.3
2662	9.94	254.49	2642.7	-55.45	-227.88	-53.1	0.85	791436.9	388861.6	-646.8
2756	9.87	257.51	2735.3	-59.36	-243.57	-56.85	0.56	791421.2	388857.7	-554.2
2851	9.37	254.78	2828.96	-63.15	-258.98	-60.48	0.71	791405.8	388853.9	-460.54
2945	9.07	256.36	2921.75	-66.91	-273.56	-64.09	0.42	791391.2	388850.2	-367.75
3040	9.98	258.51	3015.44	-70.32	-288.91	-67.34	1.03	791375.8	388846.8	-274.06
3134	10.23	258.43	3107.98	-73.61	-305.06	-70.47	0.27	791359.7	388843.5	-181.52
3228	9.88	259.95	3200.54	-76.69	-321.18	-73.38	0.47	791343.6	388840.4	-88.96
3323	9.49	259.12	3294.18	-79.59	-336.9	-76.12	0.44	791327.9	388837.5	4.68
3417	9.05	260.96	3386.95	-82.22	-351.81	-78.59	0.56	791312.9	388834.9	97.45
3512	9.71	258.82	3480.68	-84.95	-367.05	-81.16	0.79	791297.7	388832.1	191.18
3606	9.72	260.25	3573.33	-87.83	-382.65	-83.88	0.26	791282.1	388829.3	283.83
3701	10.07	253.62	3666.92	-91.53	-398.52	-87.42	1.25	791266.2	388825.6	377.42
3795	10.26	251.61	3759.45	-96.49	-414.35	-92.21	0.43	791250.4	388820.6	469.95

3890	10.1	253.31	3852.95	-101.55	-430.35	-97.11	0.36	791234.4	388815.5	563.45
3984	9.9	253.35	3945.53	-106.23	-445.99	-101.63	0.21	791218.8	388810.9	656.03
4079	10.08	251.46	4039.09	-111.21	-461.7	-106.45	0.39	791203.1	388805.9	749.59
4173	10.07	251.65	4131.64	-116.42	-477.3	-111.49	0.04	791187.5	388800.7	842.14
4267	9.84	254.13	4224.22	-121.2	-492.82	-116.12	0.52	791171.9	388795.9	934.72
4362	9.77	254.28	4317.83	-125.6	-508.39	-120.36	0.08	791156.4	388791.5	1028.33
4456	9.53	254.94	4410.5	-129.79	-523.58	-124.39	0.28	791141.2	388787.3	1121
4550	9.64	255.07	4503.19	-133.84	-538.7	-128.28	0.12	791126.1	388783.3	1213.69
4645	8.86	255.45	4596.96	-137.72	-553.47	-132.02	0.82	791111.3	388779.4	1307.46
4739	9.58	254.23	4689.74	-141.67	-568	-135.81	0.79	791096.7	388775.4	1400.24
4834	9.68	256.8	4783.4	-145.64	-583.39	-139.62	0.46	791081.4	388771.5	1493.9
4928	9.02	257.13	4876.15	-149.09	-598.26	-142.92	0.7	791066.5	388768	1586.65
5023	9.39	252.72	4969.93	-153.05	-612.92	-146.73	0.84	791051.8	388764	1680.43
5117	9.21	251.34	5062.69	-157.73	-627.37	-151.26	0.3	791037.4	388759.4	1773.19
5212	8.92	251.48	5156.51	-162.5	-641.56	-155.89	0.31	791023.2	388754.6	1867.01
5306	8.28	251.59	5249.45	-166.96	-654.89	-160.2	0.68	791009.9	388750.1	1959.95
5364	8.01	251.4	5306.87	-169.56	-662.69	-162.73	0.47	791002.1	388747.5	2017.37
5491	7.34	249.19	5432.73	-175.27	-678.66	-168.27	0.58	790986.1	388741.8	2143.23
5586	7.3	249.54	5526.95	-179.53	-689.98	-172.42	0.06	790974.8	388737.6	2237.45
5680	7.35	249.26	5620.19	-183.75	-701.2	-176.52	0.07	790963.5	388733.3	2330.69
5774	7.32	248.14	5713.42	-188.11	-712.38	-180.76	0.16	790952.4	388729	2423.92
5869	7.3	247.25	5807.64	-192.7	-723.56	-185.24	0.12	790941.2	388724.4	2518.14
5964	6.23	257.5	5901.99	-196.15	-734.16	-188.58	1.69	790930.6	388720.9	2612.49
6058	6.14	259.62	5995.44	-198.16	-744.09	-190.48	0.26	790920.7	388718.9	2705.94
6152	4.57	256.96	6089.03	-199.91	-752.68	-192.15	1.69	790912.1	388717.2	2799.53
6247	2.31	265.43	6183.85	-200.91	-758.28	-193.1	2.43	790906.5	388716.2	2894.35
6341	1.39	283.2	6277.8	-200.8	-761.28	-192.95	1.14	790903.5	388716.3	2988.3
6435	1.42	289.08	6371.77	-200.16	-763.49	-192.29	0.16	790901.3	388716.9	3082.27
6530	0.86	281.03	6466.75	-199.64	-765.3	-191.75	0.61	790899.5	388717.5	3177.25
6624	0.54	274.1	6560.75	-199.48	-766.43	-191.57	0.35	790898.3	388717.6	3271.25
6719	0.61	284.81	6655.74	-199.31	-767.37	-191.4	0.13	790897.4	388717.8	3366.24
6813	0.49	286.72	6749.74	-199.07	-768.24	-191.15	0.13	790896.5	388718	3460.24
6908	0.55	290.07	6844.73	-198.8	-769.05	-190.87	0.07	790895.7	388718.3	3555.23
7002	0.57	279.2	6938.73	-198.57	-769.94	-190.63	0.11	790894.8	388718.5	3649.23
7097	0.54	285.97	7033.72	-198.37	-770.84	-190.42	0.08	790893.9	388718.7	3744.22
7191	0.57	293.91	7127.72	-198.06	-771.69	-190.1	0.09	790893.1	388719	3838.22
7285	0.58	305.91	7221.71	-197.59	-772.5	-189.62	0.13	790892.2	388719.5	3932.21
7379	0.55	304.8	7315.71	-197.05	-773.26	-189.08	0.03	790891.5	388720	4026.21
7474	0.53	304.08	7410.71	-196.55	-774	-188.57	0.02	790890.8	388720.5	4121.21
7568	0.55	287.3	7504.7	-196.17	-774.79	-188.18	0.17	790890	388720.9	4215.2
7663	0.58	286.17	7599.7	-195.9	-775.69	-187.9	0.03	790889.1	388721.2	4310.2
7757	0.47	276.52	7693.69	-195.72	-776.53	-187.72	0.15	790888.2	388721.4	4404.19
7852	0.5	260.87	7788.69	-195.74	-777.32	-187.73	0.14	790887.4	388721.3	4499.19
7946	0.7	252.98	7882.68	-195.98	-778.28	-187.95	0.23	790886.5	388721.1	4593.18
8040	0.57	244.33	7976.68	-196.35	-779.25	-188.31	0.17	790885.5	388720.7	4687.18
8135	0.5	217.84	8071.67	-196.88	-779.93	-188.84	0.27	790884.8	388720.2	4782.17
8229	0.51	233.26	8165.67	-197.45	-780.51	-189.41	0.14	790884.2	388719.6	4876.17
8324	0.73	244.91	8260.66	-197.96	-781.4	-189.91	0.27	790883.3	388719.1	4971.16
8418	0.75	244.51	8354.66	-198.48	-782.5	-190.41	0.02	790882.3	388718.6	5065.16
8513	0.77	108.43	8449.65	-198.95	-782.45	-190.88	1.48	790882.3	388718.1	5160.15
8607	1.14	96.99	8543.64	-199.27	-780.93	-191.21	0.44	790883.8	388717.8	5254.14
8701	1.11	91.51	8637.62	-199.4	-779.09	-191.37	0.12	790885.7	388717.7	5348.12
8796	1.01	89.06	8732.61	-199.41	-777.33	-191.4	0.12	790887.4	388717.7	5443.11
8890	0.68	27.66	8826.6	-198.91	-776.24	-190.9	0.97	790888.5	388718.2	5537.1
8985	0.87	14.48	8921.59	-197.71	-775.8	-189.71	0.27	790888.9	388719.4	5632.09
9079	0.84	19.58	9015.58	-196.37	-775.39	-188.37	0.09	790889.4	388720.7	5726.08
9174	0.7	11.74	9110.57	-195.14	-775.04	-187.15	0.18	790889.7	388721.9	5821.07
9268	0.77	13	9204.56	-193.97	-774.78	-185.98	0.08	790890	388723.1	5915.06

9362	0.69	12.37	9298.55	-192.8	-774.52	-184.81	0.09	790890.2	388724.3	6009.05
9457	0.9	23.87	9393.55	-191.56	-774.09	-183.58	0.28	790890.7	388725.5	6104.05
9551	1.01	32.71	9487.53	-190.18	-773.35	-182.21	0.2	790891.4	388726.9	6198.03
9645	1.18	28.11	9581.52	-188.63	-772.44	-180.67	0.2	790892.3	388728.5	6292.02
9739	1.6	29.46	9675.49	-186.64	-771.34	-178.68	0.45	790893.4	388730.5	6385.99
9834	1.8	35.42	9770.45	-184.27	-769.83	-176.33	0.28	790894.9	388732.8	6480.95
9928	2.01	39.95	9864.39	-181.8	-767.91	-173.88	0.27	790896.8	388735.3	6574.89
10022	2.1	39.74	9958.33	-179.21	-765.75	-171.32	0.1	790899	388737.9	6668.83
10116	1.74	27.06	10052.28	-176.62	-764	-168.74	0.59	790900.7	388740.5	6762.78
10211	1.79	54.64	10147.24	-174.47	-762.14	-166.62	0.89	790902.6	388742.6	6857.74
10305	2.35	119.93	10241.19	-174.59	-759.27	-166.76	2.43	790905.5	388742.5	6951.69
10399	3	143.18	10335.09	-177.52	-756.12	-169.72	1.33	790908.6	388739.6	7045.59
10494	2.39	157.33	10429.98	-181.33	-753.87	-173.56	0.95	790910.9	388735.8	7140.48
10588	2	199.86	10523.92	-184.69	-753.67	-176.92	1.74	790911.1	388732.4	7234.42
10683	3.17	227.79	10618.82	-188.01	-756.18	-180.21	1.78	790908.6	388729.1	7329.32
10777	3.36	257.68	10712.68	-190.34	-760.8	-182.5	1.8	790904	388726.7	7423.18
10872	1.61	271.95	10807.59	-190.89	-764.85	-183.01	1.94	790899.9	388726.2	7518.09
10966	1.42	263.8	10901.55	-190.97	-767.33	-183.06	0.31	790897.4	388726.1	7612.05
11061	1.83	254.74	10996.52	-191.5	-769.96	-183.56	0.51	790894.8	388725.6	7707.02
11155	2	252.62	11090.46	-192.38	-772.98	-184.42	0.2	790891.8	388724.7	7800.96
11249	2.73	267.14	11184.38	-192.99	-776.78	-184.98	1	790888	388724.1	7894.88
11344	1.29	260.46	11279.32	-193.28	-780.09	-185.23	1.53	790884.7	388723.8	7989.82
11438	0.79	245.59	11373.31	-193.72	-781.72	-185.66	0.6	790883	388723.4	8083.81
11532	1.38	278.06	11467.29	-193.83	-783.44	-185.75	0.88	790881.3	388723.3	8177.79
11627	1.23	315	11562.27	-192.95	-785.29	-184.85	0.88	790879.5	388724.1	8272.77
11721	1.78	302.3	11656.23	-191.45	-787.24	-183.34	0.68	790877.5	388725.6	8366.73
11816	0.82	298.09	11751.21	-190.35	-789.08	-182.21	1.01	790875.7	388726.7	8461.71
11855	0.41	284.24	11790.21	-190.18	-789.46	-182.04	1.11	790875.3	388726.9	8500.71
11949	0.47	314.58	11884.2	-189.83	-790.07	-181.68	0.25	790874.7	388727.3	8594.7
12044	0.2	320.63	11979.2	-189.42	-790.45	-181.28	0.29	790874.3	388727.7	8689.7
12138	1.45	5.11	12073.19	-188.11	-790.45	-179.96	1.4	790874.3	388729	8783.69
12232	12.89	355.33	12166.3	-176.44	-791.2	-168.28	12.2	790873.6	388740.7	8876.8
12326	21.53	358.23	12256.01	-148.7	-792.59	-140.53	9.23	790872.2	388768.4	8966.51
12420	33.93	356.36	12339.05	-105.1	-794.79	-96.91	13.22	790870	388812	9049.55
12515	43.54	347.67	12413.13	-46.5	-803.49	-38.22	11.6	790861.3	388870.6	9123.63
12610	54.79	352.54	12475.17	24.2	-815.56	32.6	12.45	790849.2	388941.3	9185.67
12704	65.32	358.65	12522.06	105.26	-821.57	113.71	12.53	790843.2	389022.4	9232.56
12798	80.69	1.39	12549.45	194.87	-821.45	203.32	16.59	790843.3	389112	9259.95
12893	86.57	2.26	12559.99	289.2	-818.44	297.61	6.26	790846.3	389206.3	9270.49
12987	87.92	1.02	12564.51	383.05	-815.76	391.43	1.95	790849	389300.1	9275.01
13081	88.86	3.43	12567.15	476.93	-812.11	485.27	2.75	790852.6	389394	9277.65
13175	89.93	1.66	12568.14	570.83	-807.93	579.12	2.2	790856.8	389487.9	9278.64
13269	91.91	2.29	12566.63	664.75	-804.7	673.01	2.21	790860.1	389581.9	9277.13
13364	91.21	1.64	12564.05	759.66	-801.44	767.87	1.01	790863.3	389676.8	9274.55
13458	92.08	2.6	12561.35	853.56	-797.96	861.73	1.38	790866.8	389770.7	9271.85
13553	89.93	0.77	12559.68	948.49	-795.17	956.63	2.97	790869.6	389865.6	9270.18
13647	90.23	0.6	12559.55	1042.48	-794.05	1050.61	0.37	790870.7	389959.6	9270.05
13742	90.2	0.75	12559.19	1137.48	-792.93	1145.58	0.16	790871.8	390054.6	9269.69
13836	90.34	1.37	12558.75	1231.46	-791.19	1239.54	0.68	790873.6	390148.6	9269.25
13931	90.23	359.73	12558.28	1326.45	-790.28	1334.52	1.73	790874.5	390243.6	9268.78
14025	90.91	358.36	12557.34	1420.43	-791.84	1428.51	1.63	790872.9	390337.5	9267.84
14120	91.34	357.78	12555.48	1515.36	-795.04	1523.46	0.76	790869.7	390432.5	9265.98
14214	91.38	358.27	12553.25	1609.28	-798.28	1617.41	0.52	790866.5	390526.4	9263.75
14308	89.16	358.38	12552.8	1703.23	-801.03	1711.39	2.36	790863.7	390620.3	9263.3
14403	86.78	356.48	12556.17	1798.06	-805.29	1806.26	3.2	790859.5	390715.2	9266.67
14498	86.98	357.25	12561.34	1892.78	-810.47	1901.02	0.84	790854.3	390809.9	9271.84
14592	95.61	358.22	12559.22	1986.59	-814.18	1994.87	9.24	790850.6	390903.7	9269.72
14686	93.79	0	12551.51	2080.26	-815.64	2088.54	2.7	790849.1	390997.4	9262.01

14781	87.89	359.39	12550.12	2175.2	-816.14	2183.49	6.24	790848.6	391092.3	9260.62
14844	86.85	359.85	12553.01	2238.13	-816.56	2246.42	1.8	790848.2	391155.2	9263.51
14875	85.54	2.16	12555.07	2269.06	-816.02	2277.34	8.55	790848.7	391186.2	9265.57
14920	86.74	3.3	12558.1	2313.9	-813.88	2322.16	3.67	790850.9	391231	9268.6
14969	86.98	3.31	12560.78	2362.75	-811.06	2370.97	0.49	790853.7	391279.9	9271.28
15064	87.58	4.47	12565.29	2457.42	-804.62	2465.58	1.37	790860.1	391374.5	9275.79
15158	87.11	3.9	12569.65	2551.07	-797.77	2559.15	0.79	790867	391468.2	9280.15
15253	87.05	4.02	12574.49	2645.72	-791.22	2653.73	0.14	790873.5	391562.8	9284.99
15347	86.82	4.1	12579.51	2739.35	-784.57	2747.28	0.26	790880.2	391656.5	9290.01
15442	86.85	2.42	12584.76	2834.05	-779.18	2841.92	1.77	790885.6	391751.2	9295.26
15537	88.59	0.57	12588.54	2928.93	-776.7	2936.77	2.67	790888	391846	9299.04
15631	88.66	359.17	12590.79	3022.9	-776.92	3030.74	1.49	790887.8	391940	9301.29
15726	91.61	1.2	12590.57	3117.89	-776.61	3125.72	3.77	790888.1	392035	9301.07
15820	91.04	357.38	12588.39	3211.83	-777.77	3219.67	4.11	790887	392129	9298.89
15914	92.72	355.34	12585.31	3305.59	-783.74	3313.48	2.81	790881	392222.7	9295.81
16009	93.86	354.41	12579.86	3400.05	-792.21	3408.03	1.55	790872.5	392317.2	9290.36
16102	93.86	354.3	12573.6	3492.39	-801.34	3500.45	0.12	790863.4	392409.5	9284.1
16196	95.07	355.68	12566.28	3585.74	-809.52	3593.89	1.95	790855.2	392502.9	9276.78
16290	93.43	355.35	12559.31	3679.19	-816.85	3687.41	1.78	790847.9	392596.3	9269.81
16385	93.43	357.34	12553.63	3773.82	-822.9	3782.1	2.09	790841.9	392690.9	9264.13
16480	93.23	358.59	12548.11	3868.6	-826.26	3876.9	1.33	790838.5	392785.7	9258.61
16574	91.95	359.43	12543.86	3962.49	-827.89	3970.8	1.63	790836.9	392879.6	9254.36
16669	88.25	0.26	12543.7	4057.47	-828.14	4065.78	3.99	790836.6	392974.6	9254.2
16763	89.83	359.17	12545.27	4151.45	-828.61	4159.76	2.04	790836.1	393068.6	9255.77
16857	89.97	358.98	12545.44	4245.44	-830.13	4253.76	0.25	790834.6	393162.6	9255.94
16951	89.66	356.66	12545.74	4339.36	-833.7	4347.72	2.49	790831	393256.5	9256.24
17046	92.15	355.92	12544.24	4434.14	-839.85	4442.56	2.73	790824.9	393351.3	9254.74
17140	92.65	355.86	12540.3	4527.82	-846.58	4536.3	0.54	790818.2	393444.9	9250.8
17234	92.95	358.76	12535.71	4621.59	-850.99	4630.11	3.1	790813.8	393538.7	9246.21
17328	88.12	355.93	12534.83	4715.45	-855.34	4724.01	5.95	790809.4	393632.6	9245.33
17422	89.36	357.23	12536.9	4809.26	-860.94	4817.87	1.91	790803.8	393726.4	9247.4
17448	89.43	356.5	12537.17	4835.22	-862.37	4843.84	2.82	790802.4	393752.3	9247.67
17503	89.43	356.5	12537.72	4890.11	-865.72	4898.77	0	790799	393807.2	9248.22

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North.
Vertical depths are relative to KB=26.5. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100 feet.