

State of New Mexico
Energy, Minerals and Natural Resources Department

Michelle Lujan
Grisham Governor

Sarah Cottrell Propst
Cabinet Secretary

Todd E. Leahy, JD, PhD
Deputy Secretary

Adrienne Sandoval, Division Director
Oil Conservation Division



10/30/2020

Operator Notice Regarding

C-104 Denial and Request for Information

30-015-46001 - LEATHERNECK 3029 FEDERAL COM #135H

OCD is providing notice to operators that it will deny your C-104 – *Request for Allowable and Authorization to Transport* if it fails to provide complete and accurate information, including:

Test Allowable, New Well and Recompleted Well

*Please review/amend attachment(s):
Mark C-104 RT HAS EXPIRED:
10/27/2020*

- ☐ C-103 (or BLM equivalent) for all casing strings
 - ☐ Spud Notice
 - ☐ Surface Casing
 - ☐ Intermediate Casing (if applicable)
 - ☐ Additional Intermediate Casing (if applicable)
 - ☐ Production Casing or Liner

*Please submit a C-104 NW with
the following below.*

☐ Applicable Order (NSL, NSP, Other _____)

☐ Deviation Survey for Vertical Wells

☒ Directional Survey

☒ C-102 (As-Drilled Plat for Horizontal Well)

New Well and Recompleted Well Only

☒ C-103 Completion Sundry (or BLM equivalent) *Approved Sundry missing*

☒ C-105 Completion Report (or BLM equivalent) *Missing BLM REVISED approval copy/review highlighted fields*

☐ All Logs Run on Well

The sale or transport of product without an approved C-104 violates the Oil and Gas Act and the implementing rules, including 19.15.7.15 and 19.15.16.19 NMAC. OCD determines that your C-104 is incomplete or inaccurate, it will give you notice to resubmit your C-104 within 30 days. Failure to comply with this notice may result in enforcement action.

If you have any questions, please contact the local OCD District Office.

Once Complete, re-submit through e docs asap. Thank you.

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

NMOCD-REC'D: 9/09/2020

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 MATADOR PRODUCTION COMPANY 5400 LBJ FREEWAY, STE 1500, DALLAS, TX 75240		² OGRID Number 228937
		³ Reason for Filing Code/ Effective Date RT
⁴ API Number 30 - 015-46001	⁵ Pool Name AVALON; BONE SPRING, EAST	⁶ Pool Code 3713
⁷ Property Code 326053	⁸ Property Name LEATHERNECK 3029 FEDERAL COM	⁹ Well Number 135H

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
1	30	20S	29E		870	N	339	W	EDDY

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
A	29	20S	29E		418	N	38	E	EDDY
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				

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
151618	ENTERPRISE FIELD SERVICES, LLC 8111 WESTCHESTER DRIVE, DALLAS, TX 75225	O
214984	PLAINS MARKETING, L.P. 17304 PRESTON RD. STE 140, DALLAS, TX 75252	G

IV. Well Completion Data

²¹ Spud Date 02/04/20	²² Ready Date 07/27/20	²³ TD 9105'/19115'	²⁴ PBTD 18896'	²⁵ Perforations 9035' - 18964'	²⁶ DHC, MC ---
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
Surf: 26"	20" 94.0# J55	397'	1400 C 1.36		
INT1: 17 1/2"	13 3/8" 54.5# J55	1199'	1340 C 1.34		
INT 2: 12 1/4"	9 5/8" 40.0# J55	3115'	1410 C 1.38		
		1283' DV TOOL DEPTH	461 C 1.73		
PROD: 8 3/4"	5 1/2" 20.0# P110	19089 19318'	3049 C 1.35		

V. Well Test Data

³¹ Date New Oil	³² Gas Delivery Date	³³ Test Date	³⁴ Test Length	³⁵ Tbg. Pressure	³⁶ Csg. Pressure
³⁷ Choke Size	³⁸ Oil	³⁹ Water	⁴⁰ Gas		⁴¹ Test Method

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 Approved by: DENIED
Printed name: Ava Monroe	Title:
Title: Sr. Regulatory Analyst	Approval Date:
E-mail Address: amonroe@matadorresources.com	RT EXPIRED: 10/27/2020
Date: 09/09/20	Phone: 972-371-5218

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

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

As-Drilled

¹ API Number 30-015-46001	² Pool Code 3713	³ Pool Name AVALON; BONE SPRING, EAST
⁴ Property Code 326053	⁵ Property Name LEATHERNECK 3029 FED COM	
⁶ Well Number 135H	⁷ Elevation 3238'	
⁸ OGRID No. 228937	⁹ Operator Name MATADOR PRODUCTION COMPANY	

¹⁰Surface Location

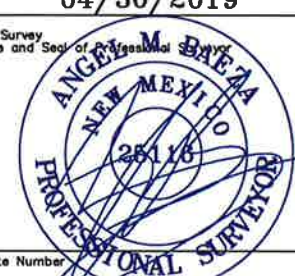
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	30	20-S	29-E	-	870'	NORTH	339'	WEST	EDDY

¹¹Bottom 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
A	29	20-S	29-E	-	418'	NORTH	38'	EAST	EDDY

¹² Dedicated Acres 316.34	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.

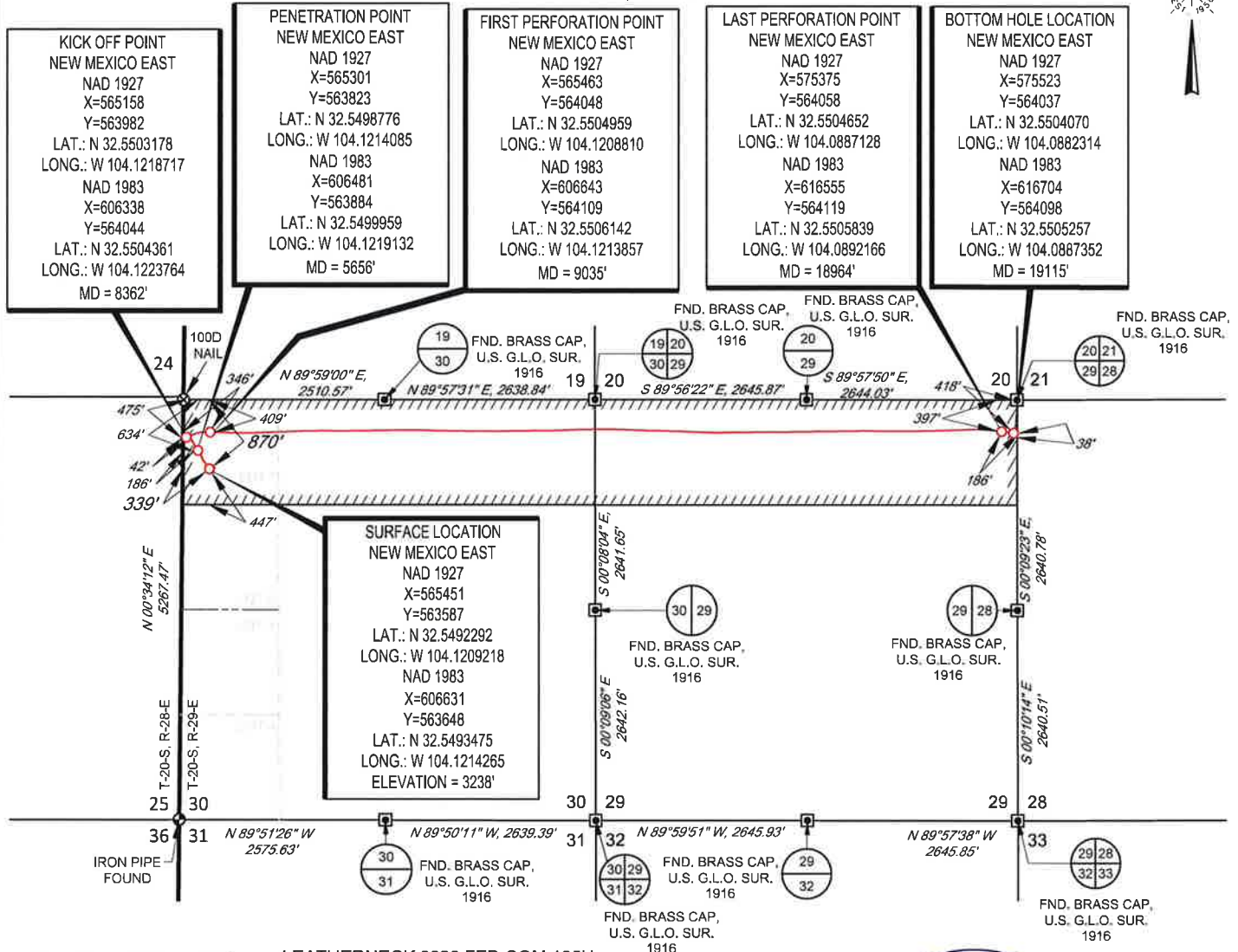
¹⁶ KICK OFF POINT NEW MEXICO EAST NAD 1927 X=565158 Y=563982 LAT.: N 32.5503178 LONG.: W 104.1218717 NAD 1983 X=606338 Y=564044 LAT.: N 32.5504361 LONG.: W 104.1223764 MD = 8362'	FIRST PERFORATION POINT NEW MEXICO EAST NAD 1927 X=565463 Y=564048 LAT.: N 32.5504959 LONG.: W 104.1208810 NAD 1983 X=606643 Y=564109 LAT.: N 32.5506142 LONG.: W 104.1213857 MD = 9035'	LAST PERFORATION POINT NEW MEXICO EAST NAD 1927 X=575375 Y=564058 LAT.: N 32.5504652 LONG.: W 104.0887128 NAD 1983 X=616555 Y=564119 LAT.: N 32.5505839 LONG.: W 104.0892166 MD = 18964'	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 _____ Date _____ Printed Name Cassie Hahn chahn@matadorresources.com E-mail Address
SURFACE LOCATION NEW MEXICO EAST NAD 1927 X=565451 Y=563587 LAT.: N 32.5492292 LONG.: W 104.1209218 NAD 1983 X=606631 Y=563648 LAT.: N 32.5493475 LONG.: W 104.1214265 ELEVATION = 3238'	PENETRATION POINT NEW MEXICO EAST NAD 1927 X=565301 Y=563823 LAT.: N 32.5498776 LONG.: W 104.1214085 NAD 1983 X=606481 Y=563884 LAT.: N 32.5499959 LONG.: W 104.1219132 MD = 5656'	BOTTOM HOLE LOCATION NEW MEXICO EAST NAD 1927 X=575523 Y=564037 LAT.: N 32.5504070 LONG.: W 104.0882314 NAD 1983 X=616704 Y=564098 LAT.: N 32.5505257 LONG.: W 104.0887352 MD = 19115'	¹⁸ 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 to the best of my belief. 04/30/2019 Date of Survey  Signature and Seal of Professional Surveyor Certificate Number

As Drilled

SCALE: 1" = 2000'
0' 1000' 2000'



SECTION 30, TOWNSHIP 20-S, RANGE 29-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



LEASE NAME & WELL NO.: LEATHERNECK 3029 FED COM 135H
SECTION 30 TWP 20-S RGE 29-E SURVEY N.M.P.M.
COUNTY EDDY STATE NM ELEVATION 3238'
DESCRIPTION 870' FNL & 339' FWL

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 140 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
2803 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM



Angel M. Baeza, P.S. No. 25116
AUGUST 20, 2020

LEATHERNECK 3029 FED COM 135H	REVISION:	
DATE: 08/20/2020		
AD_LEATHERNECK_3029_FED_COM_135H		
DRAWN BY: H.B.		
SHEET: 1 OF 1		

- NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
 2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.
 3. THIS WELL LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY MATADOR PRODUCTION COMPANY. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.



I Mike Cook certify that I am employed by VES Survey International. That I did on the day(s) of 02/04/20 through 02/04/20 conduct or supervise the taking of a Rate Gyro survey from a depth of 0.00 feet to a depth of 347.00 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and qualified to make this report; that this survey was conducted at the request of Matador Resources for the Leatherneck 3029 Fed Com Well # 135H API # 30-015-46001 in Eddy County / Parish New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by VES Survey International.

A handwritten signature in blue ink that reads "Mike Cook". The signature is written over a horizontal line.

Mike Cook
Service Technician
VES Survey International



Lease/Well: LEATHERNECK 3029 FED COM /135H
 API: 30-015-46001
 Rig Name: PATTERSON 809
 State/County: NEW MEXICO/EDDY
 Latitude: 32.55, Longitude: -104.12
 GRID North is 0.11 Degrees East of True North
 VS-Azi: 0.00 Degrees



Depth Reference : RKB=28 FEET

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: msgyro_run01-01-de_01.ut

Minimum Curvature Method

Report Date/Time: 2/7/2020 / 10:48

VES Survey International

Midland, Texas

432-563-5444

Surveyor: Mike Cook

Leatherneck 3029 Fed Com 135H / API: 30-015-46001

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
134.50	0.45	119.64	134.50	-0.26	0.46	-0.26	0.53	119.64	0.33
227.25	0.97	85.86	227.24	-0.38	1.56	-0.38	1.60	103.80	0.70
347.00	1.09	65.55	346.97	0.16	3.61	0.16	3.62	87.40	0.32

HORIZONTAL DISPLACEMENT IS
 3.62 FEET AT 87.40 DEGREES



Leatherneck 3029 Fed Com No. 135H
Eddy County, NM

March 11, 2020

30-015-46001

Job No. LNM5103920

ORIGINAL

Certified Report



PRODIRECTIONAL

Survey Certification Letter

March 11, 2020



Operator Name: Matador Resources
Well Name: Leatherneck 3029 Fed Com No. 135H
County/Parish: Eddy County,
State: NM
Rig Name: Patterson 809
Job Number: LNM5103920

This is to certify the surveys performed on the referenced well by Professional Directional Ent., Inc. are true and correct MWD Surveys, data provided as follows:

<u>Surveyor</u>	<u>Surveyed Depths</u>	<u>Projection to Bit</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
ProDirectional	506' MD – 10,534' MD	10,610' MD	02/07/20 – 03/03/20	MWD

Sincerely,

Mike Coats
Regulatory Specialist
Professional Directional

850 Conroe Park West Drive | Conroe, TX 77303 | Phone: 936.441.7266
prodirectional.com



Matador Resources

**Eddy County, NM
Leatherneck 3029 Fed Com
No. 135H
OH**

Survey: ProDirectional

Survey Report

11 March, 2020





ProDirectional Survey Report



Company: Matador Resources
Project: Eddy County, NM (NAD83)
Site: Leatherneck 3029 Fed Com
Well: No. 135H
Wellbore: OH
Design: MWD

Local Co-ordinate Reference: Well No. 135H
TVD Reference: Well @ 3266.50usft
MD Reference: Well @ 3266.50usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Project Eddy County, NM (NAD83)

Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

Site Leatherneck 3029 Fed Com

Site Position:	Northing:	562,948.00 usft	Latitude:	32.547423
From: Map	Easting:	606,522.00 usft	Longitude:	-104.121786
Position Uncertainty: 0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.11 °

Well No. 135H, LNM5103920

Well Position	+N/-S	0.00 usft	Northing:	563,648.00 usft	Latitude:	32.549347
	+E/-W	0.00 usft	Easting:	606,631.00 usft	Longitude:	-104.121428
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,238.00 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	2/13/2020	7.12	60.28	47,902.20

Design MWD

Audit Notes:

Version: 1.0 **Phase:** ACTUAL **Tie On Depth:** 0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	90.01



ProDirectional Survey Report



Company: Matador Resources
Project: Eddy County, NM (NAD83)
Site: Leatherneck 3029 Fed Corn
Well: No. 135H
Wellbore: OH
Design: MWD

Local Co-ordinate Reference: Well No. 135H
TVD Reference: Well @ 3266.50usft
MD Reference: Well @ 3266.50usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey Program Date 3/11/2020

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
134.50	347.00	Survey #1 (OH)	MWD - OWSG	MWD - OWSG
506.00	10,610.00	Survey #2 (OH)	MWD+HDGM	OWSG MWD + HRGM

MD (usft)	Inc (")	Azi (azimuth) (")	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (")	Northing (usft)	Easting (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	563,648.00	606,631.00
134.50	0.45	119.64	134.50	0.46	-0.26	0.46	0.53	119.64	563,647.74	606,631.46
227.25	0.97	85.86	227.24	1.56	-0.38	1.56	1.61	103.86	563,647.62	606,632.56
347.00	1.09	65.55	346.97	3.61	0.16	3.61	3.61	87.46	563,648.16	606,634.61
506.00	1.60	58.60	505.93	6.88	1.94	6.88	7.15	74.23	563,649.94	606,637.88
Pro MWD First Survey: 506' MD										
598.00	1.60	64.00	597.89	9.13	3.17	9.13	9.66	70.82	563,651.17	606,640.13
691.00	1.80	57.10	690.85	11.52	4.54	11.52	12.38	68.51	563,652.54	606,642.52
784.00	2.50	65.40	783.79	14.59	6.17	14.59	15.85	67.06	563,654.17	606,645.59
877.00	3.70	70.20	876.65	19.26	8.04	19.26	20.87	67.35	563,656.04	606,650.26
969.00	3.20	80.50	968.48	24.58	9.47	24.59	26.34	68.94	563,657.47	606,655.59
1,062.00	3.70	92.40	1,061.31	30.14	9.77	30.14	31.69	72.05	563,657.77	606,661.14
1,121.00	4.30	93.70	1,120.17	34.25	9.55	34.25	35.56	74.43	563,657.55	606,665.25
1,250.00	5.10	93.00	1,248.74	44.80	8.93	44.81	45.69	78.72	563,656.93	606,675.81
1,345.00	5.00	92.10	1,343.37	53.16	8.56	53.16	53.84	80.85	563,656.56	606,684.16
1,440.00	3.70	87.90	1,438.09	60.36	8.52	60.36	60.96	81.96	563,656.52	606,691.36
1,536.00	2.60	75.60	1,533.95	65.56	9.18	65.56	66.20	82.03	563,657.18	606,696.56
1,632.00	1.70	59.10	1,629.88	68.89	10.45	68.90	69.68	81.38	563,658.45	606,699.90
1,727.00	0.90	355.30	1,724.86	70.04	11.92	70.04	71.05	80.34	563,659.92	606,701.04
1,823.00	2.20	325.20	1,820.82	68.93	14.18	68.93	70.37	78.37	563,662.18	606,699.93
1,919.00	3.10	316.50	1,916.72	66.09	17.58	66.09	68.39	75.11	563,665.58	606,697.09



ProDirectional Survey Report



Company: Matador Resources
Project: Eddy County, NM (NAD83)
Site: Leatherneck 3029 Fed Com
Well: No. 135H
Wellbore: OH
Design: MWD

Local Co-ordinate Reference: Well No. 135H
TVD Reference: Well @ 3266.50usft
MD Reference: Well @ 3266.50usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
2,014.00	3.90	310.00	2,011.54	61.84	21.52	61.85	65.48	70.82	563,669.52	606,692.85	
2,110.00	3.90	300.60	2,107.32	56.53	25.28	56.54	61.93	65.91	563,673.28	606,687.54	
2,205.00	4.20	298.10	2,202.08	50.68	28.56	50.69	58.18	60.60	563,676.56	606,681.69	
2,301.00	4.30	295.60	2,297.82	44.34	31.77	44.34	54.55	54.38	563,679.77	606,675.34	
2,396.00	4.70	284.40	2,392.53	37.35	34.28	37.36	50.70	47.46	563,682.28	606,668.36	
2,492.00	5.50	279.20	2,488.15	29.00	35.99	29.01	46.23	38.87	563,683.99	606,660.01	
2,588.00	4.80	284.90	2,583.76	20.58	37.76	20.59	43.01	28.60	563,685.76	606,651.59	
2,683.00	4.50	293.70	2,678.45	13.32	40.28	13.33	42.43	18.31	563,688.28	606,644.33	
2,779.00	5.50	294.90	2,774.08	5.70	43.73	5.71	44.10	7.44	563,691.73	606,636.71	
2,875.00	5.90	292.50	2,869.61	-3.03	47.56	-3.02	47.65	356.36	563,695.56	606,627.98	
2,971.00	6.30	292.40	2,965.06	-12.46	51.45	-12.45	52.94	346.40	563,699.45	606,618.55	
3,061.00	7.00	291.00	3,054.46	-22.14	55.30	-22.14	59.56	338.18	563,703.30	606,608.86	
3,169.00	7.30	290.20	3,161.62	-34.73	60.03	-34.72	69.34	329.96	563,708.03	606,596.28	
3,264.00	6.90	310.50	3,255.90	-44.74	65.82	-44.72	79.58	325.80	563,713.82	606,586.28	
3,360.00	7.00	318.00	3,351.20	-53.04	73.91	-53.02	90.96	324.34	563,721.91	606,577.98	
3,455.00	4.90	317.20	3,445.68	-59.67	81.19	-59.65	100.75	323.69	563,729.19	606,571.35	
3,551.00	4.60	317.50	3,541.35	-65.06	87.04	-65.04	108.65	323.23	563,735.04	606,565.96	
3,646.00	4.60	316.70	3,636.05	-70.24	92.62	-70.23	116.23	322.83	563,740.62	606,560.77	
3,742.00	4.50	330.10	3,731.75	-74.76	98.68	-74.74	123.80	322.86	563,746.68	606,556.26	
3,838.00	4.50	332.60	3,827.45	-78.37	105.29	-78.35	131.25	323.34	563,753.29	606,552.65	
3,933.00	4.40	334.00	3,922.16	-81.69	111.88	-81.67	138.51	323.87	563,759.88	606,549.33	
4,029.00	4.40	332.80	4,017.88	-84.99	118.46	-84.96	145.78	324.35	563,766.46	606,546.04	
4,125.00	4.40	332.30	4,113.60	-88.38	125.00	-88.36	153.07	324.74	563,773.00	606,542.64	
4,220.00	4.60	334.90	4,208.31	-91.69	131.67	-91.67	160.44	325.15	563,779.67	606,539.33	
4,316.00	4.40	334.80	4,304.01	-94.89	138.49	-94.87	167.87	325.59	563,786.49	606,536.13	
4,411.00	4.50	337.80	4,398.72	-97.86	145.24	-97.83	175.12	326.04	563,793.24	606,533.17	
4,507.00	4.40	337.40	4,494.43	-100.70	152.13	-100.67	182.42	326.51	563,800.13	606,530.33	



ProDirectional Survey Report



Company: Matador Resources
Project: Eddy County, NM (NAD83)
Site: Leatherneck 3029 Fed Com
Well: No. 135H
Wellbore: OH
Design: MWD

Local Co-ordinate Reference: Well No. 135H
TVD Reference: Well @ 3266.50usft
MD Reference: Well @ 3266.50usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
4,602.00	4.20	339.30	4,589.17	-103.33	158.74	-103.30	189.40	326.95	563,806.74	606,527.70	
4,698.00	4.30	338.30	4,684.90	-105.90	165.38	-105.87	196.36	327.37	563,813.38	606,525.13	
4,793.00	4.20	336.00	4,779.64	-108.63	171.86	-108.60	203.30	327.71	563,819.86	606,522.40	
4,889.00	4.30	336.60	4,875.38	-111.49	178.38	-111.46	210.34	328.00	563,826.38	606,519.54	
4,985.00	4.20	339.90	4,971.11	-114.13	184.98	-114.10	217.34	328.33	563,832.98	606,516.90	
5,081.00	4.30	340.10	5,066.85	-116.57	191.67	-116.53	224.31	328.70	563,839.67	606,514.47	
5,175.00	5.30	322.40	5,160.52	-120.42	198.42	-120.38	232.08	328.75	563,846.42	606,510.62	
5,271.00	5.50	323.00	5,256.10	-125.89	205.61	-125.86	241.07	328.53	563,853.61	606,505.14	
5,366.00	5.40	323.30	5,350.67	-131.30	212.83	-131.27	250.05	328.33	563,860.83	606,499.73	
5,462.00	6.10	320.80	5,446.18	-137.23	220.40	-137.19	259.61	328.10	563,868.40	606,493.81	
5,557.00	6.00	319.00	5,540.66	-143.68	228.06	-143.64	269.53	327.80	563,876.06	606,487.36	
5,653.00	5.80	317.10	5,636.15	-150.27	235.40	-150.23	279.26	327.45	563,883.40	606,480.77	
5,748.00	5.40	313.30	5,730.69	-156.80	241.98	-156.75	288.32	327.07	563,889.98	606,474.25	
5,844.00	6.10	329.60	5,826.22	-162.67	249.48	-162.62	297.80	326.90	563,897.48	606,468.38	
5,939.00	5.70	330.10	5,920.71	-167.57	257.93	-167.53	307.56	327.00	563,905.93	606,463.47	
6,035.00	5.00	328.70	6,016.29	-172.12	265.63	-172.08	316.50	327.06	563,913.63	606,458.92	
6,130.00	8.10	333.20	6,110.66	-177.30	275.15	-177.25	327.30	327.21	563,923.15	606,453.75	
6,226.00	8.40	332.90	6,205.67	-183.54	287.43	-183.49	341.00	327.45	563,935.43	606,447.51	
6,322.00	7.80	333.90	6,300.71	-189.60	299.52	-189.55	354.46	327.67	563,947.52	606,441.45	
6,418.00	7.30	332.90	6,395.88	-195.25	310.80	-195.20	367.01	327.87	563,958.80	606,435.80	
6,513.00	7.10	333.30	6,490.13	-200.64	321.42	-200.58	378.87	328.03	563,969.42	606,430.42	
6,608.00	6.80	333.60	6,584.43	-205.78	331.70	-205.72	390.32	328.19	563,979.70	606,425.28	
6,704.00	6.50	335.00	6,679.79	-210.61	341.71	-210.55	401.37	328.36	563,989.71	606,420.45	
6,799.00	5.90	316.40	6,774.24	-216.25	350.12	-216.19	411.49	328.31	563,998.12	606,414.81	
6,895.00	5.90	316.00	6,869.73	-223.08	357.25	-223.02	421.14	328.02	564,005.25	606,407.98	
6,991.00	5.70	314.30	6,965.24	-229.92	364.13	-229.86	430.61	327.74	564,012.13	606,401.14	
7,086.00	4.20	302.40	7,059.89	-236.23	369.29	-236.17	438.35	327.40	564,017.29	606,394.83	



ProDirectional Survey Report



Company: Matador Resources
Project: Eddy County, NM (NAD83)
Site: Leathemeck 3029 Fed Corn
Well: No. 135H
Wellbore: OH
Design: MWD

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well No. 135H
Well @ 3266.50usft
Well @ 3266.50usft
Grid
Minimum Curvature
WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
7,182.00	4.30	297.10	7,155.62	-242.41	372.81	-242.34	444.65	326.97	564,020.81	606,388.66	
7,277.00	4.10	291.40	7,250.37	-248.74	375.67	-248.67	450.52	326.50	564,023.67	606,382.33	
7,373.00	3.70	293.30	7,346.14	-254.78	378.15	-254.71	455.93	326.04	564,026.15	606,376.29	
7,468.00	3.70	292.90	7,440.95	-260.42	380.55	-260.35	461.09	325.62	564,028.55	606,370.65	
7,564.00	3.10	286.90	7,536.78	-265.76	382.51	-265.69	465.73	325.22	564,030.51	606,365.31	
7,659.00	3.70	280.40	7,631.61	-271.23	383.81	-271.16	469.94	324.76	564,031.81	606,359.84	
7,755.00	3.30	279.00	7,727.43	-277.01	384.80	-276.94	474.10	324.26	564,032.80	606,354.06	
7,850.00	3.20	303.70	7,822.28	-281.91	386.70	-281.85	478.51	323.91	564,034.70	606,349.15	
7,946.00	3.30	317.80	7,918.13	-286.00	390.24	-285.93	483.78	323.77	564,038.24	606,345.07	
8,041.00	3.10	316.70	8,012.98	-289.60	394.13	-289.53	489.05	323.70	564,042.13	606,341.47	
8,137.00	0.10	295.30	8,108.93	-291.46	396.06	-291.39	491.70	323.66	564,044.06	606,339.61	
8,233.00	1.40	246.10	8,204.92	-292.60	395.62	-292.53	492.03	323.52	564,043.62	606,338.47	
8,310.00	0.50	270.80	8,281.91	-293.80	395.24	-293.73	492.44	323.38	564,043.24	606,337.27	
8,362.00	1.10	66.10	8,333.91	-293.57	395.45	-293.50	492.46	323.42	564,043.45	606,337.50	
8,458.00	7.30	72.40	8,429.61	-286.91	397.67	-286.84	490.32	324.20	564,045.67	606,344.16	
8,554.00	16.40	69.10	8,523.46	-268.39	404.36	-268.32	485.29	326.43	564,052.36	606,362.68	
8,649.00	24.00	63.30	8,612.56	-238.56	417.85	-238.49	481.12	330.28	564,065.85	606,392.51	
8,745.00	30.70	68.90	8,697.80	-198.21	435.46	-198.13	478.42	335.53	564,083.46	606,432.87	
8,841.00	40.60	78.40	8,775.77	-144.57	450.62	-144.49	473.22	342.22	564,098.62	606,486.51	
8,888.00	47.30	84.50	8,809.60	-112.35	455.35	-112.27	468.99	346.15	564,103.35	606,518.73	
8,937.00	56.50	87.60	8,839.81	-73.93	457.94	-73.85	463.86	350.84	564,105.94	606,557.15	
9,033.00	63.40	88.40	8,887.85	9.07	460.82	9.15	460.91	1.14	564,108.82	606,640.15	
9,128.00	73.50	89.20	8,922.70	97.29	462.65	97.37	472.78	11.89	564,110.65	606,728.37	
9,238.00	80.70	95.90	8,947.27	204.27	457.79	204.35	501.33	24.05	564,105.79	606,835.35	
9,334.00	83.20	92.10	8,960.72	299.07	451.17	299.15	541.34	33.55	564,099.17	606,930.15	
9,430.00	84.70	89.90	8,970.84	394.51	449.51	394.59	598.13	41.28	564,097.51	607,025.59	
9,525.00	88.10	88.30	8,976.80	489.29	451.00	489.37	665.50	47.34	564,099.00	607,120.37	



ProDirectional Survey Report



Company: Matador Resources
Project: Eddy County, NM (NAD83)
Site: Leatherneck 3029 Fed Com
Well: No. 135H
Wellbore: OH
Design: MWD

Local Co-ordinate Reference: Well No. 135H
TVD Reference: Well @ 3266.50usft
MD Reference: Well @ 3266.50usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
9,621.00	89.70	88.00	8,978.64	585.22	454.10	585.30	740.80	52.19	564,102.10	607,216.30	
9,717.00	90.20	88.20	8,978.73	681.17	457.28	681.25	820.49	56.13	564,105.28	607,312.25	
9,812.00	87.70	87.50	8,980.47	776.08	460.84	776.16	902.66	59.30	564,108.84	607,407.16	
9,908.00	90.10	87.90	8,982.31	871.97	464.70	872.05	988.14	61.95	564,112.70	607,503.05	
10,004.00	90.60	88.10	8,981.73	967.91	468.05	967.99	1,075.21	64.20	564,116.05	607,598.99	
10,099.00	88.80	87.90	8,982.22	1,062.85	471.36	1,062.93	1,162.76	66.08	564,119.36	607,693.93	
10,195.00	89.10	88.70	8,983.98	1,158.79	474.21	1,158.87	1,252.14	67.75	564,122.21	607,789.87	
10,290.00	90.10	88.80	8,984.64	1,253.76	476.28	1,253.84	1,341.26	69.20	564,124.28	607,884.84	
10,385.00	90.80	89.80	8,983.90	1,348.75	477.44	1,348.83	1,430.84	70.51	564,125.44	607,979.83	
10,481.00	91.00	90.20	8,982.39	1,444.74	477.44	1,444.82	1,521.66	71.71	564,125.44	608,075.82	
10,534.00	90.80	90.10	8,981.56	1,497.73	477.30	1,497.81	1,572.03	72.32	564,125.30	608,128.81	
Last Survey: 10534' MD											
10,610.00	90.80	90.10	8,980.50	1,573.72	477.17	1,573.81	1,644.55	73.13	564,125.17	608,204.81	
PTB: 10610' MD											

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
506.00	505.93	1.94	6.88	Pro MWD First Survey: 506' MD
10,534.00	8,981.56	477.30	1,497.81	Last Survey: 10534' MD
10,610.00	8,980.50	477.17	1,573.81	PTB: 10610' MD

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

March 31, 2020

Matador Production Company

One Lincoln Center

5400 LBJ Freeway, Suite 1500

Dallas, TX 75240

Re:

CLIENT: Matador Production Company

WELL: Leatherneck 3029 Federal Com 135H

FIELD: Russell

RIG: Patterson 809

COUNTY: Eddy

API NO: 30-015-46001

JOB NO: 20MLG0249

S33, T23S, R28E Eddy, NM
N 32.260972 W -104.0973453

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>
Eric Jensen FE	Leatherneck 3029 Federal Com 135H Original Hole	10586.00 Ft 19080.00 Ft	March 4, 2020 to March 13, 2020	TelePacer

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:

S33, T23S, R28E Eddy, NM
N 32.260972 W -104.0973453

I, Eric Jensen certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of March 04, 2020 through March 13, 2020, conduct or supervise the taking of the TelePacer surveys from a depth of 10586.00 feet to a depth of 19080.00 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 Matador Production Company for the Leatherneck 3029 Federal Com 135H Well (Original Hole) API No. 30-015-46001 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.

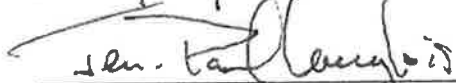
By
Eric Jensen
FE



Subscribed and Sworn to before me this 31 day of March (month) 2020 (yr)

My Commission expires:

6/14/23



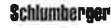
(signature)

Notary Public



(County State)





Matador Leatherneck 3029 Fed Com #135H MWD Surveys Off to 19115ft
MD Survey Geodetic Report
(Def Survey)



Report Date: March 16, 2020 - 11:10 AM
Client: Matador
Field: NM Eddy County (NAD 27)
Structure / Slot: Matador Leatherneck 3029 Fed Com #135H / New Slot
Well: Leatherneck 3029 Fed Com #135H
Borehole: Leatherneck 3029 Fed Com #135H
UWI / API#: Unknown / Unknown
Survey Name: Matador Leatherneck 3029 Fed Com #135H MWD Surveys Off to 19115ft MD
Survey Date: February 20, 2020
Tort / AHD / DDI / ERD Ratio: 238.488° / 11012.433 ft / 6.741 / 1.209
Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 32' 57.22540", W 104° 7' 15.31843"
Location Grid N/E Y/X: N 563587.000 RUS, E 565451.000 RUS
CRS Grid Convergence Angle: 0.1143°
Grid Scale Factor: 0.999914
Version / Patch: 2.10.787.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 90.010° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3286.500 ft above MSL
Seabed / Ground Elevation: 3238.000 ft above MSL
Magnetic Declination: 7.126°
Total Gravity Field Strength: 998.4993mgn (9,80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 47896.193 nT
Magnetic Dip Angle: 60.269°
Declination Date: February 20, 2020
Magnetic Declination Model: HDGM 2019
North Reference: Grid North
Grid Convergence Used: 0.1143°
Total Corr Mag North->Grid North: 7.0114°
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	563587.00	565451.00	N 32 32 57.23 W 104	7 15.32
	134.50	0.45	119.64	134.50	0.46	-0.26	0.46	0.33	563586.74	565451.46	N 32 32 57.22 W 104	7 15.31
	227.25	0.97	85.86	227.24	1.56	-0.38	1.56	0.70	563586.62	565452.56	N 32 32 57.22 W 104	7 15.30
	347.00	1.09	65.55	346.97	3.61	0.16	3.61	0.32	563587.16	565454.61	N 32 32 57.23 W 104	7 15.28
	506.00	1.60	58.80	505.93	6.88	1.94	6.88	0.34	563588.94	565457.88	N 32 32 57.24 W 104	7 15.24
	598.00	1.60	64.00	597.89	9.13	3.17	9.13	0.16	563590.17	565460.13	N 32 32 57.26 W 104	7 15.21
	691.00	1.80	57.10	690.85	11.52	4.54	11.52	0.31	563591.54	565462.52	N 32 32 57.27 W 104	7 15.18
	784.00	2.50	65.40	783.79	14.59	6.17	14.59	0.82	563593.17	565465.59	N 32 32 57.29 W 104	7 15.15
	877.00	3.70	70.20	876.65	19.26	8.04	19.26	1.32	563595.04	565470.26	N 32 32 57.30 W 104	7 15.09
	969.00	3.20	80.50	968.48	24.58	9.47	24.59	0.86	563596.46	565475.58	N 32 32 57.32 W 104	7 15.03
	1062.00	3.70	92.40	1061.31	30.14	9.77	30.14	0.94	563596.77	565481.14	N 32 32 57.32 W 104	7 14.97
	1121.00	4.30	93.70	1120.17	34.25	9.55	34.25	1.03	563596.54	565485.25	N 32 32 57.32 W 104	7 14.92
	1250.00	5.10	93.00	1248.74	44.80	8.93	44.81	0.62	563595.93	565495.80	N 32 32 57.31 W 104	7 14.79
	1345.00	5.00	92.10	1343.37	53.16	8.56	53.16	0.13	563595.56	565504.15	N 32 32 57.31 W 104	7 14.70
	1440.00	3.70	87.90	1438.09	60.36	8.52	60.36	1.41	563595.52	565511.35	N 32 32 57.31 W 104	7 14.61
	1536.00	2.60	75.60	1533.95	65.56	9.18	65.56	1.34	563596.18	565516.56	N 32 32 57.31 W 104	7 14.55
	1632.00	1.70	59.10	1628.88	68.89	10.45	68.90	1.13	563597.45	565519.89	N 32 32 57.33 W 104	7 14.51
	1727.00	0.90	35.50	1724.86	70.04	11.92	70.04	1.61	563598.92	565521.04	N 32 32 57.34 W 104	7 14.50
	1823.00	2.20	32.50	1820.82	68.93	14.18	68.93	1.55	563601.18	565519.92	N 32 32 57.36 W 104	7 14.51
	1919.00	3.10	31.60	1916.72	66.09	17.58	66.09	1.02	563604.58	565517.09	N 32 32 57.40 W 104	7 14.55
	2014.00	3.90	31.00	2011.54	61.84	21.52	61.85	0.94	563608.52	565512.84	N 32 32 57.44 W 104	7 14.60
	2110.00	3.90	300.60	2107.32	56.53	25.28	56.54	0.67	563612.28	565507.53	N 32 32 57.47 W 104	7 14.66
	2205.00	4.20	298.10	2202.08	50.68	28.56	50.69	0.37	563615.56	565501.68	N 32 32 57.51 W 104	7 14.73
	2301.00	4.30	295.60	2297.82	44.34	31.77	44.34	0.22	563618.77	565495.34	N 32 32 57.54 W 104	7 14.80
	2396.00	4.70	284.40	2392.53	37.35	34.28	37.36	1.01	563621.28	565488.36	N 32 32 57.56 W 104	7 14.88
	2492.00	5.50	279.20	2488.15	29.00	35.99	29.01	0.96	563622.99	565480.01	N 32 32 57.58 W 104	7 14.98
	2588.00	4.80	284.90	2583.76	20.58	37.76	20.59	0.90	563624.76	565471.58	N 32 32 57.60 W 104	7 15.08
	2683.00	4.50	293.70	2678.45	13.32	40.28	13.33	0.81	563627.28	565464.33	N 32 32 57.62 W 104	7 15.16
	2779.00	5.50	294.90	2774.08	5.70	43.73	5.71	1.05	563630.73	565456.71	N 32 32 57.66 W 104	7 15.25
	2875.00	5.90	292.50	2869.61	-3.03	47.56	-3.02	0.48	563634.55	565447.98	N 32 32 57.70 W 104	7 15.35
	2971.00	6.30	292.40	2965.06	-12.46	51.45	-12.45	0.42	563638.45	565438.55	N 32 32 57.73 W 104	7 15.46
	3061.00	7.00	291.00	3054.46	-22.14	55.30	-22.14	0.80	563642.29	565428.87	N 32 32 57.77 W 104	7 15.58
	3169.00	7.30	290.20	3161.62	-34.73	60.03	-34.72	0.29	563647.02	565416.28	N 32 32 57.82 W 104	7 15.72
	3264.00	6.90	310.50	3255.90	-44.74	65.82	-44.72	2.66	563652.81	565406.28	N 32 32 57.88 W 104	7 15.84
	3360.00	7.00	318.00	3351.20	-53.04	73.91	-53.02	0.95	563660.90	565397.98	N 32 32 57.96 W 104	7 15.94
	3455.00	4.90	317.20	3445.68	-59.67	81.19	-59.65	2.21	563668.18	565391.35	N 32 32 58.03 W 104	7 16.01
	3551.00	4.60	317.50	3541.35	-65.06	87.04	-65.04	0.31	563674.03	565385.97	N 32 32 58.09 W 104	7 16.08
	3646.00	4.60	316.70	3636.05	-70.24	92.62	-70.23	0.07	563679.61	565380.78	N 32 32 58.14 W 104	7 16.14
	3742.00	4.50	330.10	3731.75	-74.76	98.68	-74.74	1.11	563685.68	565376.26	N 32 32 58.20 W 104	7 16.19
	3838.00	4.50	332.60	3827.45	-78.37	105.29	-78.35	0.20	563692.28	565372.65	N 32 32 58.22 W 104	7 16.23
	3933.00	4.40	334.00	3922.16	-81.69	111.88	-81.67	0.16	563698.87	565369.34	N 32 32 58.33 W 104	7 16.27
	4029.00	4.40	332.80	4017.88	-84.99	118.46	-84.96	0.10	563705.45	565366.04	N 32 32 58.40 W 104	7 16.31
	4125.00	4.40	332.30	4113.60	-88.38	125.00	-88.36	0.04	563711.99	565362.65	N 32 32 58.46 W 104	7 16.35
	4220.00	4.60	334.90	4208.31	-91.69	131.67	-91.67	0.30	563718.66	565359.34	N 32 32 58.53 W 104	7 16.39
	4316.00	4.40	334.80	4304.01	-94.89	138.49	-94.87	0.21	563725.48	565356.14	N 32 32 58.60 W 104	7 16.42
	4411.00	4.50	337.80	4398.72	-97.86	145.24	-97.83	0.27	563732.23	565353.18	N 32 32 58.66 W 104	7 16.46
	4507.00	4.40	337.40	4494.43	-100.70	152.13	-100.67	0.11	563739.11	565350.34	N 32 32 58.73 W 104	7 16.49
	4602.00	4.20	339.30	4589.17	-103.33	158.74	-103.30	0.26	563745.73	565347.71	N 32 32 58.80 W 104	7 16.52
	4698.00	4.30	338.30	4684.90	-105.90	165.38	-105.87	0.13	563752.36	565345.14	N 32 32 58.86 W 104	7 16.55
	4793.00	4.20	336.00	4779.64	-108.63	171.86	-108.60	0.21	563758.85	565342.41	N 32 32 58.93 W 104	7 16.58
	4889.00	4.30	336.60	4875.38	-111.49	178.38	-111.46	0.11	563765.36	565339.55	N 32 32 58.99 W 104	7 16.62
	4985.00	4.20	339.90	4971.11	-114.13	184.98	-114.10	0.28	563771.97	565336.91	N 32 32 59.06 W 104	7 16.65
	5081.00	4.30	340.10	5066.85	-116.57	191.67	-116.53	0.11	563778.65	565334.48	N 32 32 59.12 W 104	7 16.68
	5175.00	5.30	322.40	5160.52	-120.42	198.42	-120.38	1.89	563785.40	565330.63	N 32 32 59.19 W 104	7 16.72
	5271.00	5.50	323.00	5258.10	-125.89	205.61	-125.86	0.22	563792.59	565326.15	N 32 32 59.26 W 104	7 16.78
	5366.00	5.40	323.30	5350.67	-131.30	212.83	-131.27	0.11	563799.81	565319.74	N 32 32 59.33 W 104	7 16.85
	5462.00	6.10	320.80	5446.18	-137.23	220.40	-137.19	0.77	563807.38	565313.82	N 32 32 59.41 W 104	7 16.92
	5557.00	6.00	319.00	5540.66	-143.68	228.06	-143.64	0.23	563815.04	565307.37	N 32 32 59.48 W 104	7 16.99
	5653.00	5.80	317.10	5636.15	-150.27	235.40	-150.23	0.29	563822.38	565300.78	N 32 32 59.56 W 104	7 17.07
	5748.00	5.40	313.30	5730.89	-156.80	241.98	-156.75	0.57	563828.96	565294.26	N 32 32 59.62 W 104	7 17.14
	5844.00	6.10	329.60	5826.22	-162.67	249.48	-162.62	1.84	563836.46	565288.39	N 32 32 59.70 W 104	7 17.21
	5939.00	5.70	330.10	5920.71	-167.57	257.93	-167.53	0.42	563844.90	565283.49	N 32 32 59.78 W 104	7 17.27
	6035.00	5.00	328.70	6016.29	-172.12	265.63	-172.08	0.74	563852.61	565278.94	N 32 32 59.86 W 104	7 17.32
	6130.00	8.10	333.20	6110.66	-177.30	275.15	-177.25	3.31	563862.12	565273.77	N 32 32 59.95 W 104	7 17.38
	6226.00	8.40	332.90	6205.67	-183.54	287.43	-183.49	0.32	563874.40	565267.52	N 32 32 60.07 W 104	7 17.46
	6322.00	7.80	333.90	6300.71	-189.60	299.52	-189.55	0.64	563886.49	565261.47	N 32 32 60.19 W 104	7 17.53
	6418.00	7.30	332.90	6395.88	-195.25	310.80	-195.20	0.54	563897.77	565255.82	N 32 32 60.30 W 104	7 17.59
	6513.00	7.10	333.30	6490.13	-200.64	321.42	-200.58	0.22	563908.39	565250.43	N 32 32 60.41 W 104	7 17.65
	6608.00	6.80	333.60	6584.43	-205.78	331.70	-205.72	0.32	563918.67	565245.30	N 32 32 60.51 W 104	7 17.71
	6704.00	6.50	335.00	6679.79	-210.61	341.71	-210.55	0.36	563928.68	565240.47	N 32 32 60.61 W 104	7 17.77
	6799.00	5.90	316.40	6774.24	-216.25	350.12	-216.19	2.20	563937.09	565234.83	N 32 32 60.69 W 104	7 17.84
	6895.00	5.90	316.00	6869.73	-223.08	357.25	-223.02	0.04	563944.22	565228.00	N 32 32 60.76 W 104	7 17.92
	6991.00	5.70	314.30	6965.24	-229.92	364.13	-229.86	0.27	563951.09	565221.16	N 32 32 60.83 W 104	7 18.00
	7086.00	4.20	302.40	7059.89	-236.23	369.29	-236.17	1.91	563956.25	565214.85	N 32 32 60.88 W 104	7

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 ° ° '")
	7564.00	3.10	286.90	7536.78	-265.76	382.51	-265.69	0.73	563969.48	565185.33	N 32 33	1.02 W 104 7 18.41
	7659.00	3.70	280.40	7631.61	-271.23	383.81	-271.16	0.75	563970.78	565178.86	N 32 33	1.03 W 104 7 18.48
	7755.00	3.30	279.00	7727.43	-277.01	384.80	-276.94	0.43	563971.77	565174.09	N 32 33	1.04 W 104 7 18.54
	7850.00	3.20	303.70	7822.28	-281.81	386.70	-281.85	1.47	563973.67	565169.18	N 32 33	1.06 W 104 7 18.60
	7946.00	3.30	317.80	7918.13	-286.00	390.24	-285.93	0.84	563977.20	565165.09	N 32 33	1.09 W 104 7 18.65
	8041.00	3.10	316.70	8012.98	-289.60	394.13	-289.53	0.22	563981.10	565161.50	N 32 33	1.13 W 104 7 18.69
	8137.00	0.10	295.30	8108.93	-291.46	396.06	-291.39	3.13	563983.02	565158.64	N 32 33	1.15 W 104 7 18.71
	8233.00	1.40	246.10	8204.92	-292.60	395.62	-292.53	1.39	563982.58	565158.49	N 32 33	1.15 W 104 7 18.73
	8310.00	0.50	270.80	8281.91	-293.80	395.24	-293.73	1.26	563982.21	565157.30	N 32 33	1.14 W 104 7 18.74
	8362.00	1.10	66.10	8333.91	-293.57	395.45	-293.50	3.02	563982.41	565157.53	N 32 33	1.14 W 104 7 18.74
	8458.00	7.30	72.40	8429.61	-286.91	397.67	-286.84	6.47	563984.63	565164.19	N 32 33	1.17 W 104 7 18.66
	8554.00	16.40	69.10	8523.46	-268.39	404.36	-268.32	9.50	563991.32	565182.70	N 32 33	1.23 W 104 7 18.44
	8649.00	24.00	63.30	8612.56	-238.56	417.85	-238.49	8.26	564004.81	565212.53	N 32 33	1.36 W 104 7 18.09
	8745.00	30.70	68.90	8697.80	-198.21	435.46	-198.13	7.47	564022.42	565252.89	N 32 33	1.54 W 104 7 17.62
	8841.00	40.60	78.40	8775.77	-144.57	450.62	-144.49	11.79	564037.58	565306.52	N 32 33	1.69 W 104 7 17.00
	8888.00	47.30	84.50	8809.60	-112.35	455.35	-112.27	16.85	564042.31	565338.74	N 32 33	1.73 W 104 7 16.62
	8937.00	56.50	87.60	8839.81	-73.93	457.94	-73.85	19.42	564044.90	565377.16	N 32 33	1.76 W 104 7 16.17
	9033.00	63.40	88.40	8887.85	9.07	460.82	9.15	7.22	564047.78	565460.15	N 32 33	1.78 W 104 7 15.20
	9128.00	73.50	89.20	8922.70	97.29	462.65	97.37	10.66	564049.60	565548.36	N 32 33	1.80 W 104 7 14.17
	9238.00	80.70	95.90	8947.27	204.27	457.79	204.35	8.83	564044.75	565855.33	N 32 33	1.75 W 104 7 12.92
	9334.00	83.20	92.10	8960.72	299.07	451.17	299.15	4.71	564038.13	565750.12	N 32 33	1.68 W 104 7 11.81
	9430.00	84.70	89.90	8970.84	394.51	449.51	394.59	2.76	564036.47	565845.55	N 32 33	1.67 W 104 7 10.70
	9525.00	88.10	88.30	8976.80	489.29	451.00	489.37	3.85	564037.96	565940.33	N 32 33	1.68 W 104 7 9.59
	9621.00	89.70	88.00	8978.64	585.22	454.10	585.30	1.70	564041.06	566036.25	N 32 33	1.71 W 104 7 8.47
	9717.00	90.20	88.20	8978.73	681.17	457.28	681.25	0.56	564044.24	566132.19	N 32 33	1.74 W 104 7 7.35
	9812.00	87.70	87.50	8980.47	776.08	460.84	776.18	2.73	564047.80	566227.09	N 32 33	1.77 W 104 7 6.24
	9908.00	90.10	87.90	8982.31	871.97	464.70	872.05	2.53	564051.65	566322.98	N 32 33	1.81 W 104 7 5.12
	10004.00	90.60	88.10	8981.73	967.91	468.05	967.99	0.56	564055.00	566418.91	N 32 33	1.84 W 104 7 4.00
	10099.00	88.80	87.90	8982.22	1062.85	471.35	1062.93	1.91	564058.32	566513.84	N 32 33	1.87 W 104 7 2.89
	10195.00	89.10	88.70	8983.98	1158.79	474.21	1158.87	0.89	564061.17	566604.73	N 32 33	1.89 W 104 7 1.77
	10290.00	90.10	88.80	8984.64	1253.76	476.28	1253.84	1.06	564063.24	566704.73	N 32 33	1.91 W 104 7 0.66
	10385.00	90.80	89.80	8983.90	1348.75	477.44	1348.83	1.28	564064.40	566799.71	N 32 33	1.92 W 104 6 59.55
	10481.00	91.00	90.20	8982.39	1444.74	477.44	1444.82	0.47	564064.40	566895.59	N 32 33	1.92 W 104 6 58.43
Last 3rd Party Survey	10534.00	90.80	90.10	8981.56	1497.73	477.30	1497.81	0.42	564064.26	566948.68	N 32 33	1.92 W 104 6 57.81
First SLB MWD Survey	10586.00	90.51	90.51	8980.96	1549.73	477.03	1549.81	0.97	564063.98	567000.67	N 32 33	1.91 W 104 6 57.20
	10682.00	90.34	89.85	8990.25	1645.72	476.72	1645.81	0.71	564063.68	567096.66	N 32 33	1.91 W 104 6 56.08
	10778.00	89.83	89.55	8980.11	1741.72	477.23	1741.80	0.62	564064.18	567192.65	N 32 33	1.91 W 104 6 54.96
	10874.00	89.27	89.23	8980.86	1837.71	476.25	1837.80	0.87	564065.21	567288.83	N 32 33	1.92 W 104 6 53.84
	10968.00	88.71	88.81	8982.52	1931.68	476.77	1931.77	0.69	564066.73	567382.60	N 32 33	1.93 W 104 6 52.74
	11064.00	88.32	88.84	8985.01	2027.63	481.66	2027.72	0.41	564068.62	567478.54	N 32 33	1.95 W 104 6 51.62
	11159.00	87.64	88.60	8988.36	2122.55	483.53	2122.64	0.72	564070.49	567573.45	N 32 33	1.97 W 104 6 50.51
	11255.00	87.25	89.66	8992.64	2218.45	484.57	2218.54	1.08	564071.53	567669.34	N 32 33	1.98 W 104 6 49.39
	11350.00	86.58	89.56	8997.75	2313.31	485.05	2313.40	0.77	564072.01	567764.19	N 32 33	1.98 W 104 6 48.28
	11446.00	86.30	89.82	9003.71	2409.13	485.57	2409.21	0.40	564072.52	567860.00	N 32 33	1.98 W 104 6 47.16
	11541.00	86.18	89.93	9009.94	2503.92	485.77	2504.01	0.17	564072.73	567954.79	N 32 33	1.98 W 104 6 46.05
	11637.00	87.31	90.61	9015.39	2599.76	485.32	2599.85	1.37	564072.28	568050.62	N 32 33	1.98 W 104 6 44.93
	11732.00	88.37	91.19	9018.97	2694.68	483.83	2694.77	1.27	564070.79	568145.53	N 32 33	1.96 W 104 6 43.83
	11828.00	88.32	91.30	9021.74	2790.62	481.75	2790.70	0.13	564068.70	568241.46	N 32 33	1.94 W 104 6 42.71
	11923.00	88.54	91.37	9024.35	2885.56	478.53	2885.64	0.24	564066.49	568336.39	N 32 33	1.91 W 104 6 41.60
	12019.00	88.82	91.10	9026.56	2981.51	477.46	2981.59	0.41	564064.42	568432.33	N 32 33	1.89 W 104 6 40.48
	12115.00	89.61	91.16	9027.87	3077.48	475.57	3077.57	0.83	564062.53	568528.30	N 32 33	1.87 W 104 6 39.35
	12211.00	89.72	90.84	9028.43	3173.47	473.90	3173.55	0.35	564060.85	568624.27	N 32 33	1.85 W 104 6 38.23
	12306.00	89.78	90.78	9028.85	3268.46	472.78	3268.54	0.35	564059.74	568719.25	N 32 33	1.84 W 104 6 37.12
	12401.00	89.94	90.35	9029.08	3363.46	472.06	3363.54	0.24	564059.02	568814.24	N 32 33	1.83 W 104 6 36.01
	12497.00	89.94	89.87	9029.18	3459.46	471.88	3459.54	0.50	564058.84	568910.23	N 32 33	1.82 W 104 6 34.89
	12592.00	90.11	88.68	9029.14	3554.46	472.25	3554.54	0.27	564059.21	569005.22	N 32 33	1.83 W 104 6 33.78
	12688.00	89.83	89.03	9029.19	3650.45	473.33	3650.53	0.74	564060.29	569101.21	N 32 33	1.83 W 104 6 32.66
	12784.00	89.72	89.09	9029.57	3746.43	474.91	3746.52	0.13	564061.87	569197.19	N 32 33	1.85 W 104 6 31.54
	12879.00	90.17	89.60	9029.66	3841.43	475.99	3841.51	0.72	564062.95	569292.17	N 32 33	1.86 W 104 6 30.43
	12975.00	90.17	89.71	9029.37	3937.42	476.57	3937.51	0.11	564063.53	569388.15	N 32 33	1.86 W 104 6 29.31
	13070.00	89.10	89.31	9029.98	4032.42	477.38	4032.50	1.20	564064.34	569483.15	N 32 33	1.87 W 104 6 28.20
	13166.00	88.82	89.34	9031.72	4128.40	478.52	4128.48	0.29	564065.47	569579.12	N 32 33	1.88 W 104 6 27.08
	13261.00	89.72	89.16	9032.93	4223.38	479.76	4223.46	0.97	564066.72	569674.09	N 32 33	1.89 W 104 6 25.97
	13357.00	88.82	88.39	9034.16	4319.35	481.81	4319.43	1.23	564068.77	569770.05	N 32 33	1.90 W 104 6 24.85
	13452.00	88.37	88.08	9036.48	4414.27	484.74	4414.36	0.58	564071.69	569864.97	N 32 33	1.93 W 104 6 23.74
	13548.00	88.43	88.22	9039.16	4510.18	487.83	4510.27	0.16	564074.79	569960.87	N 32 33	1.98 W 104 6 22.62
	13643.00	89.33	88.55	9041.02	4605.13	490.51	4605.21	1.01	564077.47	570055.81	N 32 33	1.98 W 104 6 21.51
	13739.00	89.89	88.73	9041.68	4701.10	492.79	4701.18	0.81	564079.75	570151.77	N 32 33	2.01 W 104 6 20.39
	13834.00	90.17	88.26	9041.63	4796.08	494.46	4796.17	0.63	564081.41	570246.75	N 32 33	2.02 W 104 6 19.28
	13930.00	89.27	89.38	9042.09	4892.07	495.60	4892.16	0.95	564082.55	570342.73	N 32 33	2.03 W 104 6 18.16
	14026.00	89.44	90.26	9043.18	4988.06	495.90	4988.15	0.93	564082.85	570438.71	N 32 33	2.03 W 104 6 17.03
	14122.00	89.10	91.00	9044.40	5084.05	494.84	5084.14	0.85	564081.80	570534.69	N 32 33	2.02 W 104 6 15.91
	14217.00	90.79	92.55	9044.49	5179.00	491.90	5179.08	2.41	564078.86	570629.63	N 32 33	1.99 W 104 6 14.80
	14312.00	90.45	92.90	9043.46	5273.89	487.38	5273.97	0.51	564074.34	570724.51	N 32 33	1.94 W 104 6 13.69
	14398.00	91.06	91.35	9042.33	5359.82	484.19	5359.90	1.94	564071.15	570810.43	N 32 33	1.91 W 104 6 12.58
	14494.00	90.84	91.13	9040.74	5455.78	482.12	5455.87	0.32	564069.07	570906.39	N 32 33	1.88 W 104 6 11.57
	14589.00	90.50	91.49	9039.63	5550.75	479.55	5550.83	0.52	564064.37	571001.35	N 32 33	1.86 W 104 6 10.46
	14685.00	90.62	91.53	9038.6								

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 ° ° °)
	17563.00	88.43	90.16	9079.64	8523.71	473.01	8523.79	0.77	564059.97	573074.04	N 32 33	1.73 W 104 5 35.73
	17659.00	88.82	89.95	9081.94	8619.66	472.92	8619.76	0.46	564059.88	574070.00	N 32 33	1.72 W 104 5 34.81
	17754.00	88.82	89.81	9083.90	8714.66	473.12	8714.74	0.15	564060.08	574164.98	N 32 33	1.72 W 104 5 33.50
	17850.00	89.44	90.04	9085.36	8810.65	473.24	8810.73	0.69	564060.20	574260.96	N 32 33	1.72 W 104 5 32.38
	17945.00	89.81	89.39	9086.14	8905.64	473.72	8905.73	0.71	564060.68	574355.94	N 32 33	1.73 W 104 5 31.27
	18041.00	89.83	88.38	9086.61	9001.82	475.59	9001.71	1.08	564062.54	574451.91	N 32 33	1.74 W 104 5 30.15
	18136.00	89.27	88.40	9087.36	9096.58	478.25	9096.66	0.59	564065.21	574546.86	N 32 33	1.77 W 104 5 29.04
	18232.00	89.38	88.25	9088.49	9192.53	481.06	9192.62	0.19	564068.02	574642.81	N 32 33	1.79 W 104 5 27.92
	18327.00	89.50	88.22	9089.42	9287.48	483.99	9287.57	0.13	564070.94	574737.75	N 32 33	1.82 W 104 5 26.81
	18423.00	89.21	87.66	9090.50	9383.41	487.44	9383.50	0.66	564074.39	574833.67	N 32 33	1.85 W 104 5 25.89
	18518.00	89.05	86.96	9091.94	9478.30	491.89	9478.38	0.76	564078.85	574928.55	N 32 33	1.89 W 104 5 24.58
	18614.00	86.97	88.60	9095.28	9574.16	495.61	9574.24	2.76	564082.57	575024.40	N 32 33	1.93 W 104 5 23.46
	18709.00	86.01	91.45	9101.09	9668.97	495.57	9668.05	3.16	564082.53	575119.20	N 32 33	1.92 W 104 5 22.35
	18805.00	87.81	95.05	9106.27	9764.66	490.14	9764.74	4.19	564077.09	575214.88	N 32 33	1.87 W 104 5 21.23
	18901.00	89.68	97.25	9108.39	9860.07	479.85	9860.16	2.99	564066.81	575310.29	N 32 33	1.76 W 104 5 20.12
	18996.00	91.23	98.51	9107.65	9954.17	466.83	9954.25	2.12	564053.79	575404.37	N 32 33	1.63 W 104 5 19.02
HL Crossing	19053.46	91.15	98.00	9106.46	10011.02	458.58	10011.10	0.89	564045.54	575481.22	N 32 33	1.55 W 104 5 18.35
Final Survey	19080.00	91.12	97.77	9105.93	10037.31	454.94	10037.39	0.89	564041.90	575487.50	N 32 33	1.51 W 104 5 18.05
Projection To Bit	19115.00	91.12	97.77	9105.25	10071.98	450.21	10072.06	0.00	564037.17	575522.17	N 32 33	1.47 W 104 5 17.64

Survey Type: Def Survey

Survey Error Model: ISCIWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	28.500	1/98.425	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Leatherneck 3029 Fed Com #135H / Matador Leatherneck 3029 Fed Com #135H MWD Leatherneck 3029 Fed Com
	1	28.500	28.500	Act Stns	30.000	30.000	NAL_NSG+MSHOT-Depth Only	#135H / Matador Leatherneck 3029 Fed Com #135H MWD Leatherneck 3029 Fed Com
	1	28.500	347.000	Act Stns	30.000	30.000	NAL_NSG+MSHOT	Leatherneck 3029 Fed Com #135H / Matador Leatherneck Leatherneck 3029 Fed Com
	1	347.000	10534.000	Act Stns	30.000	30.000	NAL_MWD-NON_SLB	#135H / Matador Leatherneck Leatherneck 3029 Fed Com
	1	10534.000	19115.000	Act Stns	8.500	0.000	NAL_MWD_1.0_DEG	Leatherneck 3029 Fed Com #135H / Matador Leatherneck