



October 26, 2018

NM OIL CONSERVATION
ARTESIA DISTRICT

FEB 14 2019

RECEIVED

New Mexico Energy, Minerals and Natural Resources Department
Attn: Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Attn: Jackie Lathan

Re: Mewbourne Oil Company
Bogle Flats Federal Unit 9 Y1AD #001H
Indian Basin - Yeso
Eddy County, New Mexico
API# 30-015-45067

Enclosed please find the original and one (1) copy of the survey performed on the reference well by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C. Other information required by your office is as follows:

<u>Name & Title</u>	<u>Drainhole No.</u>	<u>Survey Depths</u>	<u>Dates Performed</u>	<u>Type Survey</u>
Wilmar Reyes	Original Hole	581ft. to 7,792ft.	09-09-18 to 09-23-18	MWD Survey

A certified plat on which the bottom-hole location is oriented to both surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.


Eric Estes

Enclosures

CC:

Mewbourne Oil Company
Attn: Frosty Lathan
P.O. Box 5720
Hobbs, NM 88241

Mewbourne Oil Company
Attn: Robin Terrell
P.O. Box 5720
Hobbs, NM 88241

NMEMaNRD\Mewbourne Oil Company\Bogle Flats Fed Unit 9 Y1AD #1H1M181107

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.
P.O. Box 1250
Montgomery, TX 77356
Office (936) 582-7296 * Fax (936)-588-4163



October 26, 2018

Survey Certification Report

STATE OF TEXAS

COUNTY OF Montgomery

I, Eric Estes, certify that I am employed by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C., and that I did on the day(s) of September 5, 2018, through September 23, 2018 conduct or supervise the taking of a SEDS Original Hole MWD Survey from a depth of 581 feet to a depth of 7,792 feet; that I am authorized and qualified to make this report; that this survey was conducted at the request of Mewbourne Oil Company, for the Bogle Flats Federal Unit 9 Y1AD #1H, well API # 30-015-44870 in Eddy County, New Mexico; and that I have reviewed this report and find that it conforms to the principles as set forth by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

Eric Estes

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Microsoft
MWD Surveys



Company: Mewbourne Oil Company
Project: Eddy County, N.M. Nad (83)
Site: Section 10-8-22S-23E Bogle Flats Fed Unit 9 Y1
Well: Bogle Flats Fed Unit 9 Y1AD 1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Bogle Flats Fed Unit 9 Y1AD 1H
TVD Reference: 4103 + 27 @ 4130.0usft (Silver Oak #4)
MD Reference: 4103 + 27 @ 4130.0usft (Silver Oak #4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Project	Eddy County, N.M. Nad (83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Section 10-8-22S-23E Bogle Flats Fed Unit 9 Y1AD

Site Position:		Northing:	513,905.60 usft	Latitude:	32° 24' 45.081 N
From: Map		Easting:	460,704.40 usft	Longitude:	104° 35' 40.655 W
Position Uncertainty:	0.0 usft	Shot Radius:	13-3/16 "	Grid Convergence:	-0.14 "

Well Bogle Flats Fed Unit 9 Y1AD 1H

Well Position	+N-S	0.0 usft	Northing:	513,905.60 usft	Latitude:	32° 24' 45.081 N
	+E-W	0.0 usft	Easting:	460,704.40 usft	Longitude:	104° 35' 40.655 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	27.0 usft	Ground Level:	4,103.0 usft

Wellbore Original Hole

Magnetics	Model Name	Sample Date	Declination (")	Dip Angle (")	Field Strength (nT)
	IGRF2015	8/24/2018	7.31	60.08	47,612.03141178

Design Original Hole

Audit Notes:

Version: 1.0 Phase: ACTUAL Tie On Depth: 0.0

Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (")
	0.0	0.0	0.0	257.42



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Survey Program Date 9/24/2018

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	454.0	MS gyre Survey (Original Hole)	NSG-CT_WL	Continuous north-seeking gyro on wireline
581.0	7,855.0	MWD Survey (Original Hole)	MWD	MWD v3: standard declination

Survey

MD (usft)	Inc (")	Azi (azimuth) (")	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (")	True-In
454.0	0.04	165.42	454.0	3,676.0	-0.8	0.1	0.6	169.73	
581.0	0.10	214.40	581.0	3,549.0	-0.9	0.1	0.9	174.29	
707.0	0.10	235.00	707.0	3,423.0	-1.1	-0.1	1.1	183.10	
833.0	0.40	241.80	833.0	3,297.0	-1.4	-0.6	1.5	201.58	
980.0	0.40	364.10	980.0	3,170.0	-1.1	-1.0	1.5	220.67	
1,085.0	0.80	304.60	1,085.0	3,045.0	-0.4	-1.5	1.5	255.40	
1,211.0	0.20	354.20	1,211.0	2,919.0	0.1	-1.9	1.9	274.35	
1,339.0	0.50	247.00	1,339.0	2,791.0	0.2	-2.5	2.5	273.51	
1,485.0	0.60	228.80	1,485.0	2,665.0	-0.6	-3.5	3.5	281.87	
1,578.0	0.50	281.50	1,578.0	2,564.0	-1.0	-4.4	4.5	257.79	
1,807.0	0.60	281.90	1,807.0	2,523.0	-1.0	-4.7	4.8	258.01	
1,839.0	1.80	250.80	1,839.0	2,491.0	-1.2	-5.3	5.4	267.42	
1,871.0	4.70	241.50	1,870.9	2,459.1	-2.0	-8.9	7.2	264.08	
1,702.0	8.30	239.80	1,701.7	2,426.3	-3.7	-10.0	10.6	249.66	
1,734.0	12.40	240.20	1,733.2	2,398.8	-8.6	-14.9	18.3	248.19	
1,765.0	16.50	242.50	1,763.2	2,368.8	-10.3	-21.7	24.0	244.89	
1,797.0	20.00	243.00	1,793.8	2,338.4	-14.9	-30.6	34.0	244.12	
1,828.0	23.10	243.50	1,822.4	2,307.8	-20.0	-40.8	45.4	243.91	
1,859.0	28.10	244.20	1,850.6	2,279.4	-25.7	-52.4	58.3	243.90	
1,890.0	28.50	245.10	1,878.0	2,252.0	-31.8	-65.6	72.8	244.05	
1,922.0	32.40	248.10	1,905.5	2,224.5	-38.8	-80.4	89.2	244.34	



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1,953.0	35.10	247.00	1,931.2	2,198.8	-45.6	-98.2	108.4	244.70
1,985.0	38.00	247.70	1,969.9	2,173.1	-52.8	-113.8	125.6	245.11
2,013.0	40.40	248.20	1,978.8	2,151.4	-59.5	-130.2	143.2	245.46
2,045.0	42.70	248.20	2,002.8	2,127.4	-67.3	-149.9	164.4	245.81
2,077.0	44.90	248.10	2,025.7	2,104.3	-75.6	-170.6	188.6	246.09
2,108.0	46.80	247.80	2,047.2	2,082.8	-83.9	-191.1	208.7	246.29
2,139.0	48.70	247.30	2,068.1	2,061.9	-92.7	-212.3	231.7	246.41
2,171.0	50.70	248.60	2,088.8	2,041.2	-102.3	-234.8	256.1	246.48
2,203.0	52.20	248.00	2,108.7	2,021.3	-112.3	-257.7	281.1	246.45
2,235.0	55.10	245.70	2,127.7	2,002.3	-122.9	-281.2	308.9	246.40
2,268.0	57.70	246.10	2,144.8	1,985.2	-133.4	-304.8	332.7	246.38
2,297.0	60.50	245.90	2,160.7	1,969.3	-144.2	-329.1	359.3	246.33
2,328.0	64.30	247.00	2,176.1	1,954.9	-155.2	-354.3	386.8	246.34
2,360.0	68.80	248.00	2,187.9	1,942.1	-166.4	-381.4	416.1	246.42
2,392.0	73.00	248.10	2,198.4	1,931.6	-177.7	-409.4	448.3	246.53
2,423.0	77.80	248.00	2,206.2	1,923.8	-188.9	-437.2	478.3	246.63
2,426.2	78.24	247.96	2,208.9	1,923.1	-190.1	-440.1	479.4	246.64
LP Bogle Flats Fed Unit 9 Y1AD 1H								
2,455.0	82.20	247.80	2,211.8	1,918.2	-200.8	-468.4	507.8	246.70
2,488.0	86.30	247.60	2,214.9	1,915.1	-212.5	-494.9	538.8	246.78
2,518.0	88.30	248.40	2,216.4	1,913.8	-224.5	-524.6	570.8	246.83
2,549.0	89.90	249.20	2,216.9	1,913.1	-235.7	-553.6	601.8	246.94
2,581.0	91.80	249.80	2,216.4	1,913.0	-246.9	-583.4	633.5	247.07
2,612.0	92.70	250.00	2,216.2	1,914.8	-257.6	-612.6	664.6	247.20
2,644.0	92.70	250.40	2,213.7	1,916.3	-268.3	-642.8	696.4	247.33
2,675.0	90.90	251.10	2,212.7	1,917.3	-278.8	-671.8	727.3	247.48
2,706.0	90.50	252.00	2,212.3	1,917.7	-288.4	-701.3	758.2	247.65



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2,738.0	89.80	253.80	2,212.2	1,817.8	-297.8	-731.8	790.1	247.88
2,767.8	90.09	254.28	2,212.3	1,817.7	-305.9	-760.5	819.7	248.09
FTP Bogle Flats Fed Unit Y1AD								
2,768.0	90.10	254.30	2,212.3	1,917.7	-306.2	-761.7	820.9	248.10
2,801.0	90.50	255.40	2,212.1	1,917.9	-314.6	-792.5	852.7	248.35
2,833.0	90.40	257.20	2,211.8	1,918.2	-322.2	-823.6	884.4	248.84
2,884.0	90.90	258.10	2,211.5	1,918.5	-328.8	-853.9	915.0	248.94
2,898.0	90.70	259.30	2,211.0	1,919.0	-335.1	-885.3	946.6	249.27
2,928.0	90.00	261.70	2,210.8	1,919.2	-340.4	-916.8	978.0	249.83
2,959.0	90.30	262.40	2,210.8	1,919.2	-344.7	-947.5	1,008.3	250.01
2,991.0	91.00	262.90	2,210.4	1,919.6	-348.7	-979.3	1,039.5	250.40
3,022.0	91.50	263.70	2,209.7	1,920.3	-352.4	-1,010.1	1,069.8	250.77
3,054.0	91.80	265.20	2,208.8	1,921.2	-355.5	-1,041.9	1,100.9	251.16
3,085.0	92.50	265.70	2,207.6	1,922.4	-357.9	-1,072.8	1,130.9	251.55
3,117.0	92.70	266.80	2,208.2	1,923.8	-360.1	-1,104.7	1,161.9	251.95
3,148.0	92.45	268.80	2,204.8	1,926.2	-361.4	-1,135.6	1,191.7	252.35
3,179.0	91.90	269.70	2,203.6	1,926.4	-361.8	-1,168.8	1,221.4	252.77
3,211.0	89.90	270.80	2,203.1	1,926.9	-361.7	-1,198.8	1,252.0	253.21
3,242.0	89.70	270.90	2,203.2	1,926.8	-361.2	-1,229.8	1,281.5	253.63
3,274.0	90.20	271.40	2,203.3	1,926.7	-360.6	-1,261.6	1,312.1	254.05
3,308.0	90.50	271.10	2,203.1	1,926.9	-359.9	-1,293.6	1,342.7	254.45
3,338.0	91.00	271.30	2,202.6	1,927.4	-359.2	-1,325.6	1,373.4	254.84
3,369.0	91.70	271.80	2,201.9	1,928.1	-358.3	-1,356.5	1,403.1	255.20
3,401.0	92.10	272.50	2,200.8	1,929.2	-357.1	-1,388.6	1,433.7	255.58
3,432.0	90.80	272.20	2,200.1	1,929.9	-355.8	-1,419.5	1,463.4	255.93
3,464.0	89.90	271.80	2,200.0	1,930.0	-354.7	-1,451.4	1,494.2	256.27
3,495.0	88.80	270.90	2,200.3	1,929.7	-354.0	-1,482.4	1,524.1	256.57



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3,528.0	88.80	270.40	2,201.0	1,829.0	-353.8	-1,513.4	1,554.2	258.85
3,558.0	89.80	270.00	2,201.4	1,828.6	-353.5	-1,545.4	1,886.3	257.11
3,589.0	91.80	270.00	2,201.0	1,829.0	-353.5	-1,576.4	1,815.6	257.36
3,620.0	92.40	270.10	2,198.9	1,930.1	-353.5	-1,607.4	1,845.8	257.60
3,652.0	93.50	270.00	2,198.3	1,931.7	-353.5	-1,639.3	1,877.0	257.83
3,684.0	94.10	269.60	2,188.1	1,933.9	-353.6	-1,671.3	1,708.3	258.05
3,715.0	94.80	269.50	2,183.7	1,936.3	-353.8	-1,702.2	1,738.6	258.28
3,747.0	94.30	270.40	2,181.2	1,938.8	-353.9	-1,734.1	1,769.8	258.47
3,779.0	92.80	270.80	2,169.2	1,940.8	-353.5	-1,766.0	1,801.0	258.68
3,810.0	92.60	271.00	2,187.7	1,942.3	-353.0	-1,797.0	1,831.3	258.89
3,841.0	92.80	271.10	2,188.3	1,943.7	-352.4	-1,827.9	1,861.6	259.09
3,873.0	92.80	271.40	2,184.8	1,945.2	-351.7	-1,859.9	1,892.9	259.29
3,904.0	93.20	271.40	2,183.2	1,948.8	-351.0	-1,890.8	1,923.1	259.48
3,936.0	93.70	271.70	2,181.2	1,948.8	-350.1	-1,922.8	1,954.4	259.68
3,968.0	93.80	272.50	2,179.1	1,950.8	-348.9	-1,954.7	1,985.6	259.88
3,999.0	92.80	272.40	2,177.4	1,952.6	-347.8	-1,985.6	2,015.8	260.07
4,031.0	92.70	272.40	2,175.9	1,954.1	-346.3	-2,017.5	2,047.0	260.26
4,062.0	93.20	272.80	2,174.3	1,955.7	-344.9	-2,048.5	2,077.3	260.44
4,094.0	93.00	273.10	2,172.6	1,957.4	-343.2	-2,080.4	2,108.9	260.63
4,125.0	91.90	273.10	2,171.3	1,958.7	-341.5	-2,111.3	2,138.8	260.81
4,157.0	91.50	272.80	2,170.3	1,959.7	-339.9	-2,143.2	2,170.0	260.99
4,188.0	91.60	273.10	2,169.5	1,960.5	-338.2	-2,174.2	2,200.3	261.16
4,219.0	91.80	272.80	2,168.6	1,961.4	-336.7	-2,205.1	2,230.7	261.32
4,251.0	91.30	270.90	2,167.7	1,962.3	-335.6	-2,237.1	2,262.1	261.47
4,282.0	91.60	270.70	2,166.9	1,963.1	-335.2	-2,268.1	2,292.7	261.59
4,313.0	92.00	270.30	2,166.0	1,964.0	-334.9	-2,299.1	2,323.3	261.71
4,346.0	92.70	270.70	2,164.6	1,965.4	-334.6	-2,331.1	2,354.9	261.83



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4,376.0	93.30	270.80	2,183.0	1,987.0	-334.2	-2,362.0	2,385.5	261.95
4,408.0	92.60	270.90	2,181.4	1,988.6	-333.8	-2,394.0	2,417.1	262.06
4,438.0	91.20	270.50	2,160.3	1,969.7	-333.4	-2,424.9	2,447.7	262.17
4,470.0	90.80	270.30	2,159.8	1,970.2	-333.2	-2,455.9	2,478.4	262.27
4,500.0	90.90	270.40	2,159.4	1,970.6	-333.0	-2,485.9	2,508.1	262.37
4,532.0	91.10	270.20	2,158.8	1,971.2	-332.8	-2,517.9	2,539.8	262.47
4,563.0	91.30	270.20	2,158.2	1,971.8	-332.7	-2,548.9	2,570.5	262.56
4,594.0	91.80	270.20	2,157.4	1,972.6	-332.6	-2,579.9	2,601.3	262.65
4,625.0	92.00	270.20	2,156.4	1,973.6	-332.6	-2,610.9	2,632.0	262.74
4,657.0	92.80	270.00	2,155.1	1,974.9	-332.4	-2,642.9	2,663.7	262.83
4,689.0	92.50	270.20	2,153.7	1,976.3	-332.4	-2,674.8	2,695.4	262.92
4,720.0	92.80	270.20	2,152.3	1,977.7	-332.3	-2,706.8	2,726.1	263.00
4,751.0	93.20	270.20	2,150.7	1,979.3	-332.2	-2,736.8	2,756.8	263.08
4,783.0	93.80	270.20	2,148.7	1,981.3	-332.0	-2,768.7	2,788.5	263.16
4,814.0	93.50	270.10	2,146.8	1,983.2	-332.0	-2,799.8	2,819.3	263.24
4,846.0	92.00	269.30	2,145.2	1,984.8	-332.1	-2,831.8	2,851.0	263.31
4,877.0	92.40	269.50	2,144.0	1,986.0	-332.5	-2,862.6	2,881.8	263.38
4,909.0	92.80	269.10	2,142.6	1,987.4	-332.8	-2,894.5	2,913.8	263.44
4,941.0	92.30	270.00	2,141.2	1,988.6	-333.1	-2,926.5	2,945.4	263.51
4,972.0	90.20	269.80	2,140.5	1,989.5	-333.1	-2,957.5	2,976.2	263.57
5,003.0	90.10	269.80	2,140.4	1,989.8	-333.2	-2,988.5	3,007.0	263.64
5,035.0	91.30	270.30	2,140.0	1,990.0	-333.2	-3,020.5	3,038.8	263.71
5,066.0	92.00	270.00	2,139.1	1,990.9	-333.1	-3,051.5	3,069.6	263.77
5,098.0	91.90	271.00	2,138.0	1,992.0	-332.8	-3,083.5	3,101.4	263.84
5,129.0	90.40	270.90	2,137.4	1,992.6	-332.3	-3,114.4	3,132.1	263.91
5,161.0	90.80	271.10	2,137.1	1,992.9	-331.7	-3,146.4	3,163.9	263.98
5,192.0	91.40	271.30	2,136.6	1,993.4	-331.1	-3,177.4	3,194.8	264.05



Microsoft
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Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Bogle Flats Fed Unit 9 Y1AD 1H
TVD Reference: 4103 + 27 @ 4130.0usft (Silver Oak #4)
MD Reference: 4103 + 27 @ 4130.0usft (Silver Oak #4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
5,222.0	92.00	271.50	2,135.7	1,994.3	-330.4	-3,207.4	3,224.4	264.12
5,254.0	91.30	271.80	2,134.8	1,995.2	-328.4	-3,239.4	3,256.1	264.19
5,288.0	90.10	272.00	2,134.4	1,996.6	-328.4	-3,271.4	3,287.8	264.27
5,317.0	89.70	271.70	2,134.4	1,995.6	-327.4	-3,302.3	3,318.5	264.34
5,348.0	91.00	271.90	2,134.2	1,995.6	-326.4	-3,333.3	3,349.3	264.41
5,380.0	91.80	272.30	2,133.4	1,996.6	-325.2	-3,365.3	3,381.0	264.48
5,411.0	92.40	272.00	2,132.3	1,997.7	-324.1	-3,396.3	3,411.7	264.55
5,443.0	91.00	271.60	2,131.3	1,998.7	-323.1	-3,428.2	3,443.4	264.62
5,475.0	90.80	270.80	2,130.8	1,999.2	-322.4	-3,460.2	3,475.2	264.68
5,506.0	91.80	270.70	2,130.1	1,999.9	-322.0	-3,491.2	3,506.0	264.73
5,537.0	92.40	270.70	2,128.9	2,001.1	-321.6	-3,522.2	3,536.8	264.78
5,569.0	92.60	270.50	2,127.6	2,002.4	-321.3	-3,554.1	3,568.6	264.83
5,600.0	92.70	270.10	2,126.2	2,003.6	-321.1	-3,585.1	3,599.5	264.88
5,631.0	90.90	268.90	2,125.2	2,004.8	-321.4	-3,616.1	3,630.3	264.92
5,662.0	90.60	268.40	2,124.6	2,005.2	-322.1	-3,647.1	3,661.3	264.95
5,694.0	91.10	268.60	2,124.3	2,005.7	-323.0	-3,679.1	3,693.2	264.98
5,725.0	92.10	268.50	2,123.4	2,006.6	-323.7	-3,710.0	3,724.1	265.01
5,757.0	91.60	268.80	2,122.4	2,007.6	-324.5	-3,742.0	3,756.1	265.04
5,788.0	90.30	268.20	2,121.9	2,008.1	-325.3	-3,773.0	3,787.0	265.07
5,820.0	90.20	268.60	2,121.7	2,008.3	-326.2	-3,805.0	3,818.9	265.10
5,851.0	91.60	269.30	2,121.3	2,008.7	-326.8	-3,836.0	3,849.8	265.13
5,883.0	92.80	269.50	2,120.0	2,010.0	-327.1	-3,868.0	3,881.8	265.17
5,914.0	92.00	270.00	2,118.7	2,011.3	-327.2	-3,898.9	3,912.6	265.20
5,946.0	90.50	270.40	2,118.0	2,012.0	-327.1	-3,930.9	3,944.5	265.24
5,995.0	91.60	271.10	2,117.1	2,012.9	-328.5	-3,979.9	3,993.3	265.31
6,026.0	90.60	271.60	2,116.5	2,013.5	-325.8	-4,010.9	4,024.1	265.36
6,058.0	89.40	272.20	2,116.5	2,013.5	-324.7	-4,042.9	4,055.9	265.41



Microsoft
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Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Bogle Flats Fed Unit 9 Y1AD 1H
TVD Reference: 4103 + 27 @ 4130.0usft (Silver Oak #4)
MD Reference: 4103 + 27 @ 4130.0usft (Silver Oak #4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
6,089.0	88.20	272.20	2,118.9	2,013.1	-323.5	-4,073.8	4,088.7	265.48
6,121.0	89.10	272.00	2,117.4	2,012.8	-322.3	-4,105.8	4,118.5	265.51
6,152.0	90.00	272.20	2,117.6	2,012.4	-321.2	-4,138.8	4,149.3	265.58
6,184.0	90.50	272.20	2,117.5	2,012.5	-320.0	-4,168.8	4,181.0	265.81
6,215.0	91.00	272.20	2,117.1	2,012.9	-318.8	-4,199.7	4,211.8	265.66
6,247.0	91.30	272.00	2,116.5	2,013.5	-317.6	-4,231.7	4,243.8	265.71
6,278.0	91.30	272.10	2,115.7	2,014.3	-316.5	-4,262.7	4,274.4	265.75
6,310.0	89.50	271.30	2,115.5	2,014.5	-315.5	-4,294.7	4,306.3	265.80
6,342.0	89.50	270.90	2,115.8	2,014.2	-314.9	-4,326.7	4,338.1	265.84
6,373.0	89.70	270.80	2,116.0	2,014.0	-314.5	-4,357.7	4,369.0	265.87
6,405.0	90.50	271.10	2,116.0	2,014.0	-313.9	-4,388.7	4,400.9	265.91
6,436.0	91.30	271.20	2,115.5	2,014.5	-313.3	-4,420.7	4,431.7	265.95
6,468.0	92.00	271.50	2,114.8	2,015.4	-312.8	-4,452.6	4,463.6	265.98
6,499.0	92.50	271.30	2,113.3	2,016.7	-311.8	-4,483.8	4,494.4	266.02
6,531.0	92.50	270.90	2,111.9	2,018.1	-311.2	-4,515.6	4,526.3	266.08
6,562.0	91.30	270.10	2,110.8	2,019.1	-310.9	-4,546.5	4,557.2	266.09
6,594.0	91.40	269.70	2,110.2	2,019.8	-311.0	-4,578.5	4,589.1	266.11
6,626.0	91.80	269.30	2,109.3	2,020.7	-311.3	-4,610.5	4,621.0	266.14
6,657.0	92.40	269.50	2,108.1	2,021.9	-311.6	-4,641.5	4,651.9	266.16
6,688.0	92.90	269.10	2,108.7	2,023.3	-312.0	-4,672.5	4,682.9	266.18
6,720.0	93.00	269.50	2,105.1	2,024.9	-312.4	-4,704.4	4,714.8	266.20
6,751.0	91.10	269.20	2,103.9	2,026.1	-312.7	-4,735.4	4,745.7	266.22
6,783.0	91.10	269.30	2,103.3	2,026.7	-313.1	-4,767.4	4,777.7	266.24
6,815.0	91.80	269.70	2,102.5	2,027.5	-313.4	-4,799.4	4,809.6	266.28
6,846.0	92.40	269.70	2,101.4	2,028.8	-313.6	-4,830.3	4,840.5	266.29
6,878.0	92.80	269.30	2,099.9	2,030.1	-313.8	-4,862.3	4,872.4	266.31
6,909.0	93.70	269.70	2,098.2	2,031.8	-314.1	-4,893.3	4,903.3	266.33



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Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	EW (usft)	Closure Distance (usft)	Closure Azimuth (°)
8,940.0	93.90	269.50	2,098.1	2,033.9	-314.3	-4,924.2	4,934.2	268.35
8,972.0	94.30	270.20	2,093.8	2,036.2	-314.4	-4,958.1	4,966.1	268.37
7,003.0	92.40	270.50	2,092.0	2,038.0	-314.2	-4,987.1	4,996.9	268.39
7,034.0	92.10	270.30	2,090.8	2,039.2	-314.0	-5,018.0	5,027.8	268.42
7,085.0	91.70	271.10	2,089.8	2,040.2	-313.6	-5,049.0	5,058.7	268.45
7,097.0	90.20	271.80	2,089.2	2,040.8	-312.9	-5,081.0	5,090.6	268.48
7,128.0	90.10	271.60	2,089.2	2,040.8	-312.0	-5,112.0	5,121.5	268.51
7,160.0	90.50	271.90	2,089.0	2,041.0	-311.0	-5,144.0	5,153.4	268.54
7,191.0	90.90	271.60	2,088.8	2,041.4	-310.1	-5,175.0	5,184.2	268.57
7,223.0	91.80	271.80	2,087.9	2,042.1	-309.2	-5,206.9	5,216.1	268.60
7,254.0	92.80	271.50	2,086.7	2,043.3	-308.4	-5,237.9	5,247.0	268.63
7,286.0	93.40	271.50	2,085.0	2,045.0	-307.5	-5,269.8	5,278.8	268.66
7,317.0	93.10	271.90	2,083.2	2,046.8	-306.6	-5,300.8	5,309.6	268.69
7,349.0	91.80	271.80	2,081.9	2,048.1	-305.8	-5,332.7	5,341.5	268.72
7,381.0	91.90	271.90	2,080.8	2,049.2	-304.5	-5,364.7	5,373.3	268.75
7,412.0	92.40	272.30	2,079.7	2,050.3	-303.4	-5,395.7	5,404.2	268.78
7,444.0	91.80	272.10	2,078.5	2,051.5	-302.2	-5,427.6	5,436.0	268.81
7,475.0	90.10	271.50	2,078.0	2,052.0	-301.2	-5,458.6	5,468.9	268.84
7,506.0	90.00	271.20	2,078.0	2,052.0	-300.5	-5,489.6	5,497.6	268.87
7,537.0	90.40	271.00	2,077.9	2,052.1	-299.9	-5,520.6	5,528.7	268.89
7,569.0	90.70	270.90	2,077.8	2,052.5	-299.3	-5,552.6	5,560.6	268.91
7,600.0	91.50	271.20	2,077.0	2,053.0	-298.8	-5,583.6	5,591.5	268.94
7,632.0	91.60	270.90	2,076.1	2,053.9	-298.2	-5,615.5	5,623.5	268.96
7,663.0	91.70	270.90	2,075.2	2,054.8	-297.7	-5,646.5	5,654.4	268.98
7,695.0	90.00	270.70	2,074.7	2,055.3	-297.3	-5,678.5	5,686.3	267.00
7,726.0	89.80	270.20	2,074.8	2,055.2	-297.0	-5,709.5	5,717.2	267.02
7,758.0	90.10	270.20	2,074.8	2,055.2	-296.8	-5,741.5	5,749.2	267.04



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Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
7,792.0	91.30	269.90	2,074.4	2,055.6	-209.9	-5,775.9	5,763.1	267.06
7,855.0	91.30	269.90	2,073.0	2,057.0	-297.0	-5,838.6	5,846.0	267.09

7855.0' MD Projected to Bit - PBL Bogle Flats Fed Unit 9 Y1AD 1H

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
7,855.0	2,073.0	-297.0	-5,838.6	7855.0' MD Projected to Bit