

DISTRICT I

1686 N. French Dr., Hobbs, N.M. 88240
Phone: (505) 368-6161 Fax: (505) 363-0720

DISTRICT II

811 E. First St., Artesia, N.M. 88210
Phone: (505) 748-1883 Fax: (505) 748-8720

DISTRICT III

1000 Rio Grande Rd., Aztec, N.M. 87410
Phone: (505) 834-6178 Fax: (505) 834-6170

DISTRICT IV

1280 E. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 478-8480 Fax: (505) 478-8488

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

☒ AS-DRILLED
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35652		² Pool Code 98194	³ Pool Name CROW CANYON MANCOS OIL POOL
⁴ Property Code 325183	⁵ Property Name CROW CANYON UNIT		⁶ Well Number 123H
⁷ OGED No. 371838	⁸ Operator Name DJR OPERATING, LLC		⁹ Elevation 6793'

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	19	24N	8W		1085'	SOUTH	2095'	WEST	SAN JUAN

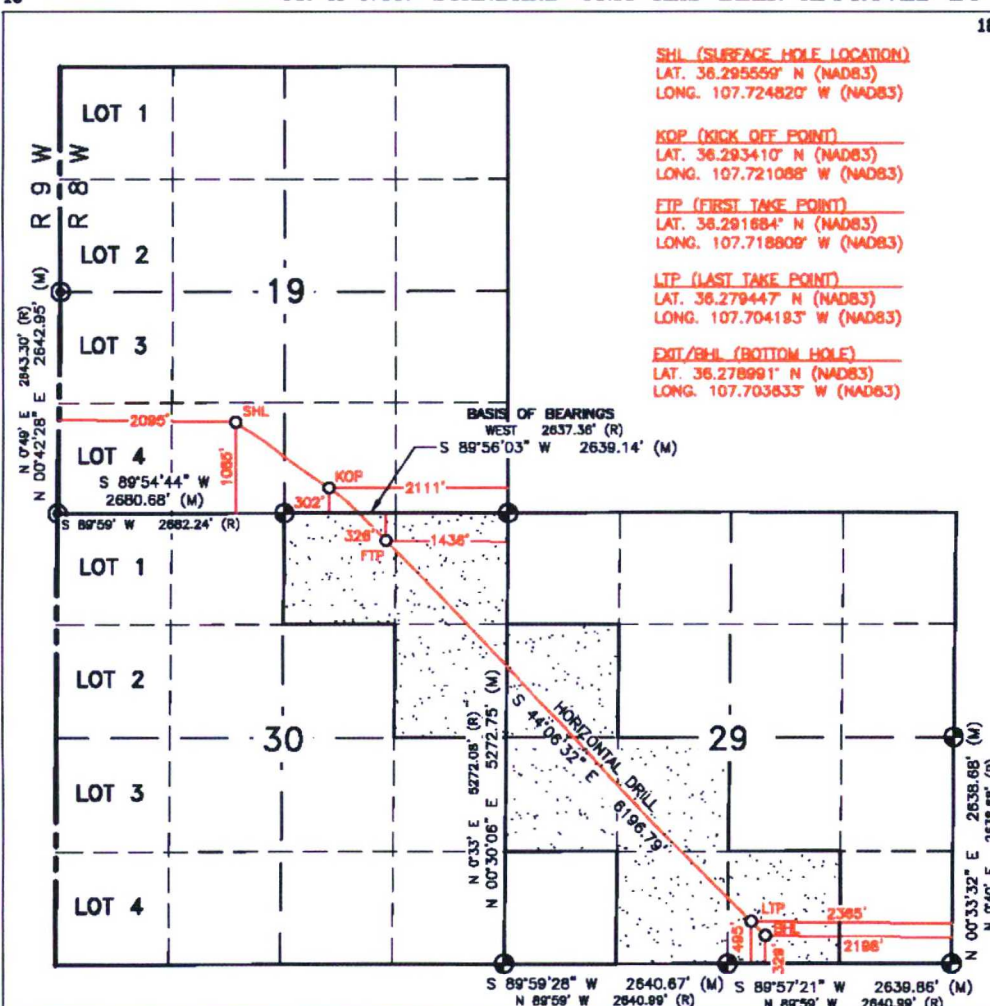
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	29	24N	8W		329'	SOUTH	2198'	EAST	SAN JUAN

¹² Dedicated Acres NW/NE, NE/NE, SE/NE SEC 30 (120 AC.); SW/NW, NW/SW, NE/SW, SE/SW, & SW/SE SEC 29 (200 AC.) = 320.00 ACRES TOTAL			¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
--	--	--	-------------------------------	----------------------------------	-------------------------

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16



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.

Shaw-Marie Ford 11/18/19
Signature Date

Shaw-Marie Ford

Printed Name

sford@djrlc.com

E-mail Address

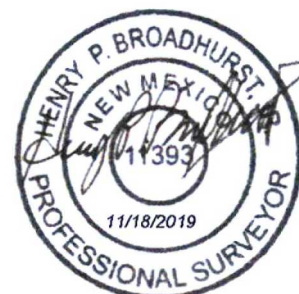
SURVEYOR CERTIFICATION

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.

OCTOBER 11, 2019

Date of Survey

Signature and Seal of Professional Surveyor:



Certificate Number

11393

DISTRICT I

1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II

811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III

1000 Rio Brasos Rd., Asteo, N.M. 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

DJR OPERATING, LLC
CROW CANYON UNIT #123H

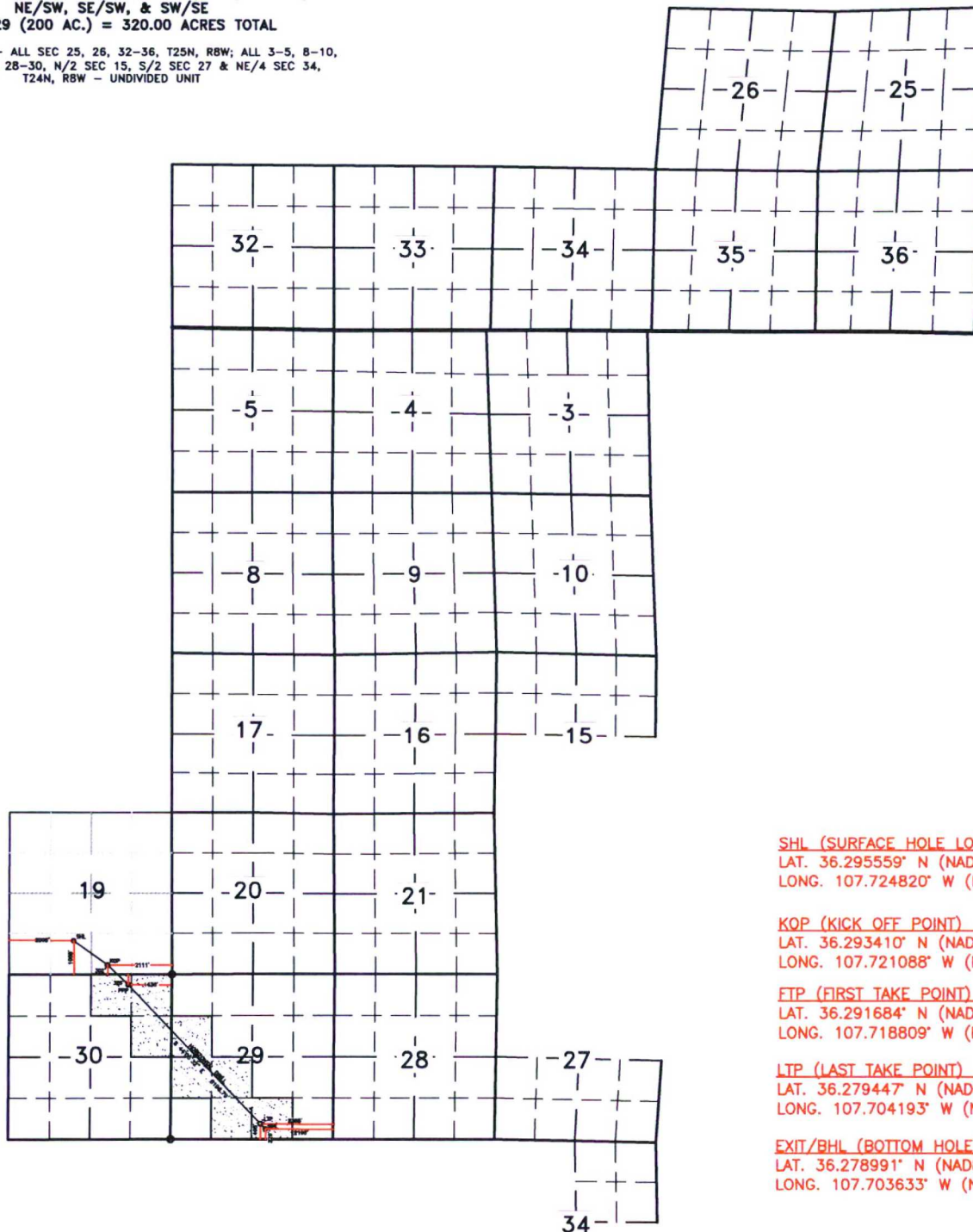
Form C-102
Revised August 1, 2011

Submit one copy to appropriate
District Office

☐ AMENDED REPORT
☒ AS-DRILLED

PENETRATED SPACING UNIT;
NW/NE, NE/NE, SE/NE SEC 30 (120 AC.); SW/NW, NW/SW,
NE/SW, SE/SW, & SW/SE
SEC 29 (200 AC.) = 320.00 ACRES TOTAL

13,604.06 ACRES - ALL SEC 25, 26, 32-36, T25N, R8W; ALL 3-5, 8-10,
16, 17, 20, 21, 28-30, N/2 SEC 15, S/2 SEC 27 & NE/4 SEC 34,
T24N, R8W - UNDIVIDED UNIT



SHL (SURFACE HOLE LOCATION)
LAT. 36.295559° N (NAD83)
LONG. 107.724820° W (NAD83)

KOP (KICK OFF POINT)
LAT. 36.293410° N (NAD83)
LONG. 107.721088° W (NAD83)

FTP (FIRST TAKE POINT)
LAT. 36.291684° N (NAD83)
LONG. 107.718809° W (NAD83)

LTP (LAST TAKE POINT)
LAT. 36.279447° N (NAD83)
LONG. 107.704193° W (NAD83)

EXIT/BHL (BOTTOM HOLE)
LAT. 36.278991° N (NAD83)
LONG. 107.703633° W (NAD83)



Scientific Drilling

Directional Survey Certification

2948 I-70 Business Loop
Grand Junction, CO 81504
(970)-245-9447 Fax (970)-245-9454

Operator	DJR Operating
Well Name & No.	N19 2408 123H
County & State	San Juan, NM
SDI Job No.	OP.021131
Rig	Aztec 920

I, Janie Collins, having personal knowledge of all the facts, hereby certify that the attached directional survey run from a measured depth of 440 feet to a measured depth of 12,614 feet is true and correct as determined from all available records.


Signature

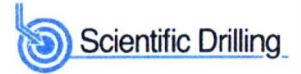
9-Oct-19
Date

Janie Collins

Colorado District Well Planner
Scientific Drilling International

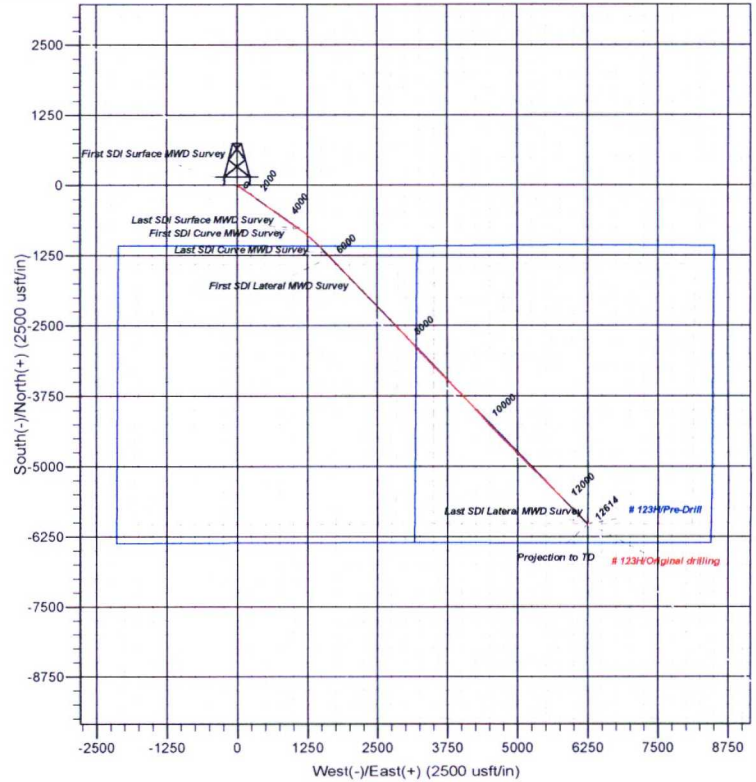
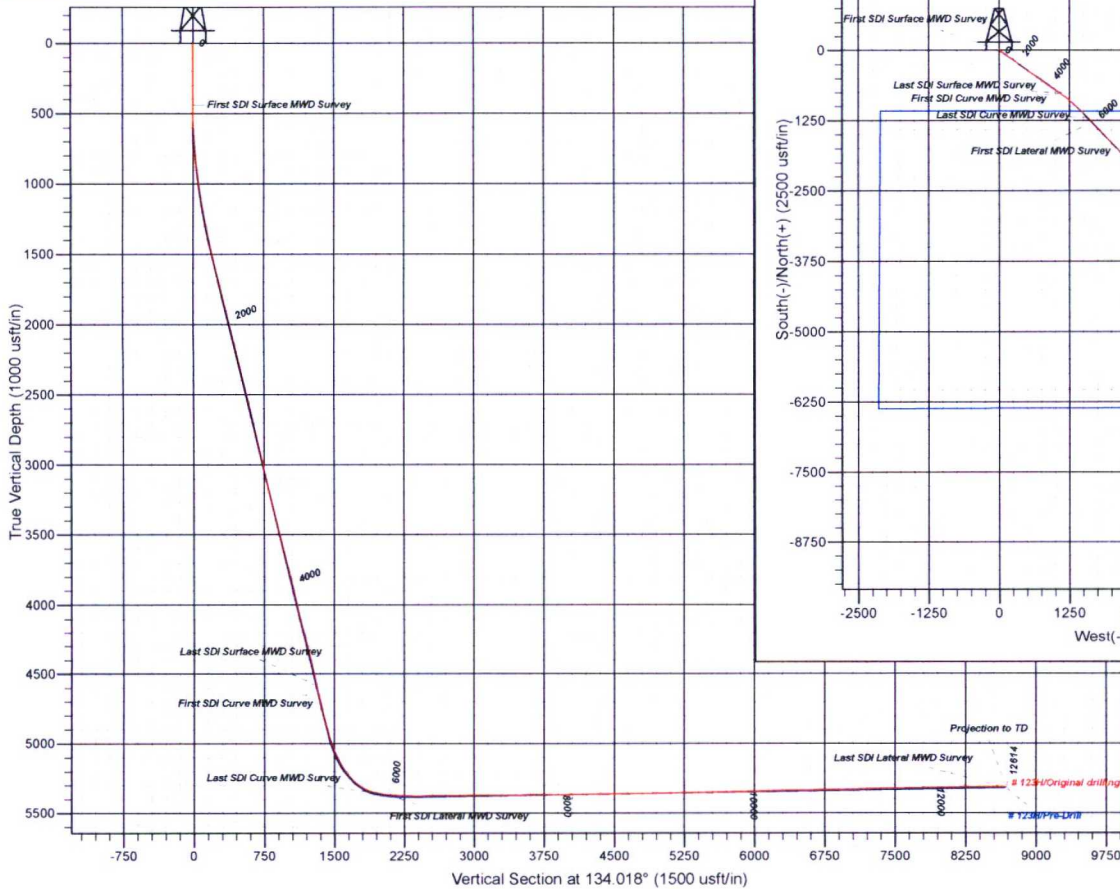


Company Name: DJR Operating
Project: Crow Canyon Unit
Site: N19 2408 Pad
Well: # 123H
Wellbore: Original drilling



WELL DETAILS: # 123H

GL 6792' & RKB 14' @ 6806.00usft (Aztec 920) 6792.00
+N/-S +E/-W Northing Easting Latitude Longitude
0.00 0.00 1926901.02 2755068.35 36.2955590 -107.7248200



Design: Original drilling (# 123H/Original drilling)

Created By: Janie Collins Date: 14:51, October 09 2019

PROJECT DETAILS: Crow Canyon Unit

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Western Zone

System Datum: Mean Sea Level
Local North: True



Scientific Drilling, Intl
Survey Report



Company: DJR Operating
Project: Crow Canyon Unit
Site: N19 2408 Pad
Well: # 123H
Wellbore: Original drilling
Design: Original drilling

Local Co-ordinate Reference: Well # 123H
TVD Reference: GL 6792' & RKB 14' @ 6806.00usft (Aztec 920)
MD Reference: GL 6792' & RKB 14' @ 6806.00usft (Aztec 920)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Grand Junction District

Project	Crow Canyon Unit		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	N19 2408 Pad				
Site Position:		Northing:	1,926,901.02 usft	Latitude:	36.2955590
From:	Lat/Long	Easting:	2,755,068.36 usft	Longitude:	-107.7248200
Position Uncertainty:	0.00 usft	Slot Radius:	16.00 in	Grid Convergence:	0.06 °

Well	# 123H, FKA 01H				
Well Position	+N/-S	0.00 usft	Northing:	1,926,901.02 usft	Latitude: 36.2955590
	+E/-W	0.00 usft	Easting:	2,755,068.36 usft	Longitude: -107.7248200
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft	Ground Level: 6,792.00 usft

Wellbore	Original drilling				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	9/23/2019	8.77	62.83	49,469

Design	Original drilling				
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	134.018	

Survey Program	Date	10/9/2019			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
440.00	4,808.00	Survey #1 - Surface MWD Survey (Original)	MWD+HDGM	OWSG MWD + HDGM	
4,871.00	5,896.00	Survey #2 - Curve MWD Survey (Original)	MWD+HDGM	OWSG MWD + HDGM	
6,009.00	12,614.00	Survey #3 - Lateral MWD Survey (Original)	MWD+HDGM	OWSG MWD + HDGM	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
440.00	0.15	33.320	440.00	0.48	0.32	-0.11	0.03	0.03	0.00	
501.00	1.19	157.270	501.00	-0.04	0.61	0.46	2.10	1.70	203.20	
562.00	2.15	132.500	561.97	-1.39	1.69	2.19	1.93	1.57	-40.61	
623.00	4.16	120.870	622.87	-3.30	4.44	5.48	3.44	3.30	-19.07	
685.00	5.71	125.270	684.64	-6.24	8.89	10.72	2.57	2.50	7.10	
746.00	7.36	127.100	745.24	-10.35	14.48	17.60	2.73	2.70	3.00	
808.00	7.46	129.280	806.73	-15.29	20.76	25.56	0.48	0.16	3.52	
869.00	9.29	129.810	867.07	-20.95	27.61	34.41	3.00	3.00	0.87	



Scientific Drilling, Intl
Survey Report



Company: DJR Operating
Project: Crow Canyon Unit
Site: N19 2408 Pad
Well: # 123H
Wellbore: Original drilling
Design: Original drilling

Local Co-ordinate Reference: Well # 123H
TVD Reference: GL 6792' & RKB 14' @ 6806.00usft (Aztec 920)
MD Reference: GL 6792' & RKB 14' @ 6806.00usft (Aztec 920)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
930.00	10.26	129.670	927.19	-27.57	35.57	44.74	1.59	1.59	-0.23
991.00	10.92	126.750	987.15	-34.50	44.39	55.89	1.39	1.08	-4.79
1,052.00	12.42	125.150	1,046.89	-41.73	54.38	68.10	2.52	2.46	-2.62
1,113.00	14.08	125.280	1,106.26	-49.79	65.80	81.92	2.72	2.72	0.21
1,174.00	14.77	125.860	1,165.34	-58.63	78.16	96.95	1.16	1.13	0.95
1,235.00	16.03	125.580	1,224.15	-68.09	91.31	112.98	2.07	2.07	-0.46
1,296.00	17.28	122.830	1,282.59	-77.90	105.78	130.20	2.42	2.05	-4.51
1,357.00	17.36	122.060	1,340.82	-87.64	121.10	147.99	0.40	0.13	-1.26
1,419.00	18.75	123.900	1,399.77	-98.11	137.21	166.85	2.42	2.24	2.97
1,479.00	19.04	123.040	1,456.53	-108.83	153.42	185.95	0.67	0.48	-1.43
1,539.00	20.20	125.230	1,513.05	-120.14	170.09	205.80	2.29	1.93	3.65
1,600.00	20.59	124.670	1,570.23	-132.32	187.51	226.79	0.71	0.64	-0.92
1,661.00	20.70	124.810	1,627.31	-144.57	205.18	248.01	0.20	0.18	0.23
1,722.00	20.45	124.450	1,684.42	-156.75	222.82	269.16	0.46	-0.41	-0.59
1,783.00	20.49	124.610	1,741.57	-168.85	240.40	290.20	0.11	0.07	0.26
1,843.00	20.91	124.040	1,797.69	-180.80	257.91	311.11	0.78	0.70	-0.95
1,905.00	20.85	123.410	1,855.62	-193.07	276.29	332.85	0.37	-0.10	-1.02
1,968.00	20.93	122.520	1,914.48	-205.30	295.14	354.90	0.52	0.13	-1.41
2,031.00	20.50	124.960	1,973.41	-217.67	313.67	376.82	1.53	-0.68	3.87
2,094.00	20.13	124.150	2,032.49	-230.07	331.68	398.39	0.74	-0.59	-1.29
2,157.00	19.09	122.850	2,091.83	-241.75	349.31	419.18	1.79	-1.65	-2.06
2,220.00	19.48	123.470	2,151.30	-253.13	366.73	439.62	0.70	0.62	0.98
2,283.00	19.96	125.630	2,210.61	-265.19	384.23	460.58	1.39	0.76	3.43
2,347.00	20.29	124.650	2,270.70	-277.86	402.24	482.34	0.74	0.52	-1.53
2,410.00	20.47	124.440	2,329.75	-290.30	420.31	503.98	0.31	0.29	-0.33
2,473.00	20.46	124.100	2,388.78	-302.70	438.51	525.69	0.19	-0.02	-0.54
2,537.00	20.24	127.220	2,448.79	-315.67	456.59	547.70	1.73	-0.34	4.88
2,599.00	20.36	128.870	2,506.93	-328.93	473.53	569.09	0.94	0.19	2.66
2,663.00	19.86	128.890	2,567.03	-342.74	490.66	591.01	0.78	-0.78	0.03
2,726.00	20.01	129.360	2,626.26	-356.29	507.32	612.41	0.35	0.24	0.75
2,789.00	19.64	129.130	2,685.52	-369.81	523.87	633.70	0.60	-0.59	-0.37
2,852.00	19.84	129.210	2,744.82	-383.25	540.36	654.90	0.32	0.32	0.13
2,915.00	19.03	129.280	2,804.23	-396.51	556.60	675.79	1.29	-1.29	0.11
2,978.00	18.19	130.050	2,863.94	-409.34	572.07	695.84	1.39	-1.33	1.22
3,041.00	18.28	128.320	2,923.77	-421.80	587.35	715.48	0.87	0.14	-2.75
3,105.00	18.84	125.240	2,984.45	-433.98	603.67	735.68	1.76	0.88	-4.81
3,168.00	19.50	126.520	3,043.95	-446.11	620.43	756.16	1.24	1.05	2.03
3,231.00	19.39	126.080	3,103.36	-458.53	637.33	776.94	0.29	-0.17	-0.70
3,294.00	19.55	125.460	3,162.76	-470.80	654.37	797.72	0.41	0.25	-0.98
3,357.00	19.85	126.360	3,222.07	-483.26	671.57	818.75	0.68	0.48	1.43
3,420.00	20.19	128.120	3,281.26	-496.31	688.73	840.16	1.10	0.54	2.79
3,483.00	20.60	127.650	3,340.31	-509.79	706.06	861.99	0.70	0.65	-0.75
3,546.00	20.63	127.380	3,399.28	-523.30	723.66	884.03	0.16	0.05	-0.43



Scientific Drilling, Intl
Survey Report



Company: DJR Operating
Project: Crow Canyon Unit
Site: N19 2408 Pad
Well: # 123H
Wellbore: Original drilling
Design: Original drilling

Local Co-ordinate Reference: Well # 123H
TVD Reference: GL 6792' & RKB 14' @ 6806.00usft (Aztec 920)
MD Reference: GL 6792' & RKB 14' @ 6806.00usft (Aztec 920)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,609.00	20.26	127.370	3,458.31	-536.66	741.14	905.89	0.59	-0.59	-0.02
3,673.00	20.96	125.380	3,518.22	-550.01	759.28	928.21	1.55	1.09	-3.11
3,736.00	20.94	124.340	3,577.05	-562.89	777.77	950.45	0.59	-0.03	-1.65
3,799.00	20.85	125.370	3,635.91	-575.73	796.21	972.63	0.60	-0.14	1.63
3,862.00	20.95	125.230	3,694.76	-588.71	814.55	994.85	0.18	0.16	-0.22
3,925.00	20.56	125.220	3,753.67	-601.59	832.79	1,016.91	0.62	-0.62	-0.02
3,988.00	20.48	125.270	3,812.68	-614.33	850.82	1,038.73	0.13	-0.13	0.08
4,051.00	20.16	125.200	3,871.76	-626.96	868.69	1,060.36	0.51	-0.51	-0.11
4,114.00	20.35	124.810	3,930.86	-639.47	886.56	1,081.90	0.37	0.30	-0.62
4,177.00	19.41	124.210	3,990.11	-651.61	904.21	1,103.03	1.53	-1.49	-0.95
4,240.00	19.99	123.940	4,049.42	-663.50	921.80	1,123.94	0.93	0.92	-0.43
4,303.00	19.73	124.130	4,108.67	-675.48	939.53	1,145.02	0.43	-0.41	0.30
4,366.00	21.37	123.030	4,167.66	-687.71	957.96	1,166.77	2.67	2.60	-1.75
4,429.00	21.84	122.310	4,226.23	-700.23	977.49	1,189.51	0.86	0.75	-1.14
4,492.00	21.14	122.690	4,284.85	-712.63	996.95	1,212.12	1.13	-1.11	0.60
4,555.00	20.10	122.290	4,343.82	-724.54	1,015.67	1,233.86	1.67	-1.65	-0.63
4,619.00	19.11	123.080	4,404.11	-736.14	1,033.74	1,254.92	1.60	-1.55	1.23
4,682.00	18.85	123.040	4,463.68	-747.32	1,050.91	1,275.03	0.41	-0.41	-0.06
4,745.00	18.41	123.270	4,523.38	-758.32	1,067.76	1,294.80	0.71	-0.70	0.37
4,808.00	18.29	125.120	4,583.18	-769.47	1,084.17	1,314.34	0.94	-0.19	2.94
4,871.00	18.86	125.720	4,642.89	-781.10	1,100.52	1,334.18	0.95	0.90	0.95
4,934.00	19.60	124.990	4,702.38	-793.10	1,117.44	1,354.69	1.24	1.17	-1.16
4,997.00	19.83	126.020	4,761.69	-805.45	1,134.74	1,375.71	0.66	0.37	1.63
5,060.00	21.13	126.050	4,820.70	-818.41	1,152.57	1,397.54	2.06	2.06	0.05
5,109.00	21.13	126.470	4,866.41	-828.86	1,166.81	1,415.04	0.31	0.00	0.86
5,172.00	22.65	126.730	4,924.86	-842.87	1,185.67	1,438.33	2.42	2.41	0.41
5,235.00	25.73	124.900	4,982.33	-857.95	1,206.61	1,463.87	5.03	4.89	-2.90
5,298.00	29.99	127.790	5,038.01	-875.43	1,230.28	1,493.04	7.09	6.76	4.59
5,362.00	35.56	130.530	5,091.81	-897.34	1,257.09	1,527.55	9.00	8.70	4.28
5,424.00	40.05	130.400	5,140.78	-922.00	1,286.00	1,565.47	7.24	7.24	-0.21
5,488.00	44.18	131.570	5,188.25	-950.15	1,318.38	1,608.32	6.57	6.45	1.83
5,551.00	50.56	133.040	5,230.89	-981.36	1,352.62	1,654.63	10.27	10.13	2.33
5,614.00	56.68	132.730	5,268.24	-1,015.85	1,389.77	1,705.31	9.72	9.71	-0.49
5,677.00	63.20	131.530	5,299.78	-1,052.40	1,430.19	1,759.78	10.48	10.35	-1.90
5,740.00	70.41	134.310	5,324.59	-1,091.83	1,472.54	1,817.63	12.14	11.44	4.41
5,803.00	77.74	135.840	5,341.86	-1,134.70	1,515.28	1,878.16	11.87	11.63	2.43
5,866.00	80.75	136.690	5,353.62	-1,179.42	1,558.06	1,940.00	4.96	4.78	1.35
5,896.00	82.98	136.870	5,357.86	-1,201.06	1,578.40	1,969.66	7.46	7.43	0.60
6,009.00	86.54	137.820	5,368.18	-1,283.80	1,654.63	2,081.98	3.26	3.15	0.84
6,072.00	88.32	136.690	5,371.00	-1,330.02	1,697.35	2,144.81	3.35	2.83	-1.79
6,135.00	88.32	136.010	5,372.85	-1,375.59	1,740.81	2,207.73	1.08	0.00	-1.08
6,198.00	88.19	135.310	5,374.77	-1,420.62	1,784.82	2,270.67	1.13	-0.21	-1.11
6,261.00	89.16	135.080	5,376.23	-1,465.31	1,829.21	2,333.64	1.58	1.54	-0.37



Scientific Drilling, Intl
Survey Report



Company: DJR Operating
Project: Crow Canyon Unit
Site: N19 2408 Pad
Well: # 123H
Wellbore: Original drilling
Design: Original drilling

Local Co-ordinate Reference: Well # 123H
TVD Reference: GL 6792' & RKB 14' @ 6806.00usft (Aztec 920)
MD Reference: GL 6792' & RKB 14' @ 6806.00usft (Aztec 920)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,324.00	89.87	135.210	5,376.76	-1,509.97	1,873.64	2,396.63	1.15	1.13	0.21
6,387.00	90.50	135.640	5,376.56	-1,554.84	1,917.86	2,459.61	1.21	1.00	0.68
6,450.00	90.81	135.580	5,375.84	-1,599.86	1,961.92	2,522.58	0.50	0.49	-0.10
6,513.00	90.97	134.970	5,374.86	-1,644.62	2,006.25	2,585.56	1.00	0.25	-0.97
6,576.00	91.11	135.830	5,373.71	-1,689.47	2,050.48	2,648.53	1.38	0.22	1.37
6,639.00	90.77	137.310	5,372.68	-1,735.21	2,093.78	2,711.45	2.41	-0.54	2.35
6,701.00	90.17	136.790	5,372.17	-1,780.59	2,136.03	2,773.37	1.28	-0.97	-0.84
6,765.00	89.66	135.890	5,372.27	-1,826.89	2,180.21	2,837.31	1.62	-0.80	-1.41
6,827.00	89.93	135.430	5,372.49	-1,871.23	2,223.54	2,899.29	0.86	0.44	-0.74
6,891.00	89.97	135.220	5,372.54	-1,916.74	2,268.54	2,963.27	0.33	0.06	-0.33
6,954.00	90.13	134.700	5,372.49	-1,961.26	2,313.12	3,026.26	0.86	0.25	-0.83
7,017.00	90.47	135.000	5,372.16	-2,005.69	2,357.78	3,089.25	0.72	0.54	0.48
7,080.00	90.13	135.110	5,371.83	-2,050.28	2,402.29	3,152.24	0.57	-0.54	0.17
7,143.00	90.07	135.260	5,371.72	-2,094.97	2,446.69	3,215.23	0.26	-0.10	0.24
7,206.00	90.50	135.550	5,371.41	-2,139.83	2,490.92	3,278.21	0.82	0.68	0.46
7,269.00	90.37	136.780	5,370.93	-2,185.27	2,534.55	3,341.16	1.96	-0.21	1.95
7,331.00	90.20	136.510	5,370.62	-2,230.35	2,577.11	3,403.10	0.51	-0.27	-0.44
7,391.00	90.54	135.670	5,370.23	-2,273.58	2,618.72	3,463.05	1.51	0.57	-1.40
7,452.00	91.21	136.620	5,369.30	-2,317.56	2,660.98	3,524.00	1.91	1.10	1.56
7,513.00	91.78	136.620	5,367.71	-2,361.88	2,702.86	3,584.92	0.93	0.93	0.00
7,574.00	90.07	137.150	5,366.72	-2,406.40	2,744.55	3,645.83	2.93	-2.80	0.87
7,636.00	89.56	136.310	5,366.92	-2,451.54	2,787.04	3,707.76	1.58	-0.82	-1.35
7,697.00	89.73	136.580	5,367.30	-2,495.75	2,829.08	3,768.71	0.52	0.28	0.44
7,758.00	90.00	136.750	5,367.45	-2,540.12	2,870.94	3,829.64	0.52	0.44	0.28
7,820.00	89.56	136.010	5,367.68	-2,585.00	2,913.71	3,891.59	1.39	-0.71	-1.19
7,881.00	89.23	135.370	5,368.33	-2,628.65	2,956.32	3,952.56	1.18	-0.54	-1.05
7,941.00	91.01	136.480	5,368.20	-2,671.75	2,998.05	4,012.52	3.50	2.97	1.85
8,003.00	91.75	138.610	5,366.71	-2,717.48	3,039.89	4,074.38	3.64	1.19	3.44
8,063.00	91.41	138.810	5,365.06	-2,762.55	3,079.46	4,134.16	0.66	-0.57	0.33
8,124.00	90.84	138.680	5,363.86	-2,808.40	3,119.68	4,194.94	0.96	-0.93	-0.21
8,185.00	91.14	138.270	5,362.80	-2,854.06	3,160.11	4,255.75	0.83	0.49	-0.67
8,246.00	90.17	137.790	5,362.11	-2,899.41	3,200.90	4,316.59	1.77	-1.59	-0.79
8,306.00	90.77	138.030	5,361.61	-2,943.93	3,241.12	4,376.45	1.08	1.00	0.40
8,367.00	90.67	138.090	5,360.85	-2,989.30	3,281.89	4,437.29	0.19	-0.16	0.10
8,428.00	90.47	136.620	5,360.24	-3,034.17	3,323.21	4,498.19	2.43	-0.33	-2.41
8,489.00	91.01	136.190	5,359.45	-3,078.34	3,365.27	4,559.13	1.13	0.89	-0.70
8,550.00	89.83	135.320	5,359.01	-3,122.04	3,407.83	4,620.10	2.40	-1.93	-1.43
8,611.00	89.66	135.000	5,359.28	-3,165.29	3,450.84	4,681.08	0.59	-0.28	-0.52
8,672.00	89.50	134.990	5,359.72	-3,208.42	3,493.97	4,742.07	0.26	-0.26	-0.02
8,733.00	90.84	134.970	5,359.54	-3,251.54	3,537.12	4,803.06	2.20	2.20	-0.03
8,793.00	90.47	135.070	5,358.86	-3,293.97	3,579.53	4,863.05	0.64	-0.62	0.17
8,855.00	89.87	134.230	5,358.67	-3,337.55	3,623.64	4,925.04	1.66	-0.97	-1.35
8,916.00	90.74	134.430	5,358.35	-3,380.17	3,667.27	4,986.04	1.46	1.43	0.33
8,977.00	91.55	135.640	5,357.13	-3,423.32	3,710.37	5,047.02	2.39	1.33	1.98



Scientific Drilling, Intl
Survey Report



Company: DJR Operating
Project: Crow Canyon Unit
Site: N19 2408 Pad
Well: # 123H
Wellbore: Original drilling
Design: Original drilling

Local Co-ordinate Reference: Well # 123H
TVD Reference: GL 6792' & RKB 14' @ 6806.00usft (Aztec 920)
MD Reference: GL 6792' & RKB 14' @ 6806.00usft (Aztec 920)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,039.00	91.08	136.160	5,355.71	-3,467.83	3,753.50	5,108.97	1.13	-0.76	0.84
9,100.00	90.91	135.880	5,354.65	-3,511.72	3,795.86	5,169.92	0.54	-0.28	-0.46
9,161.00	90.74	135.220	5,353.77	-3,555.26	3,838.57	5,230.89	1.12	-0.28	-1.08
9,223.00	90.77	135.890	5,352.95	-3,599.52	3,881.98	5,292.86	1.08	0.05	1.08
9,283.00	91.01	136.590	5,352.02	-3,642.85	3,923.47	5,352.81	1.23	0.40	1.17
9,343.00	90.74	136.310	5,351.10	-3,686.33	3,964.81	5,412.75	0.65	-0.45	-0.47
9,404.00	90.67	135.840	5,350.35	-3,730.26	4,007.12	5,473.71	0.78	-0.11	-0.77
9,465.00	90.64	135.880	5,349.66	-3,774.04	4,049.60	5,534.67	0.08	-0.05	0.07
9,525.00	90.37	135.510	5,349.13	-3,816.97	4,091.50	5,594.64	0.76	-0.45	-0.62
9,585.00	90.60	134.820	5,348.62	-3,859.52	4,133.81	5,654.63	1.21	0.38	-1.15
9,646.00	89.76	134.190	5,348.43	-3,902.28	4,177.31	5,715.63	1.72	-1.38	-1.03
9,707.00	90.84	135.910	5,348.11	-3,945.45	4,220.40	5,776.61	3.33	1.77	2.82
9,769.00	91.44	137.330	5,346.87	-3,990.50	4,262.98	5,838.53	2.49	0.97	2.29
9,830.00	91.72	138.390	5,345.19	-4,035.71	4,303.89	5,899.37	1.80	0.46	1.74
9,891.00	90.91	139.010	5,343.79	-4,081.53	4,344.14	5,960.15	1.67	-1.33	1.02
9,952.00	90.40	138.750	5,343.10	-4,127.48	4,384.25	6,020.93	0.94	-0.84	-0.43
10,012.00	90.84	138.800	5,342.45	-4,172.60	4,423.79	6,080.72	0.74	0.73	0.08
10,073.00	91.24	138.900	5,341.34	-4,218.53	4,463.92	6,141.49	0.68	0.66	0.16
10,134.00	90.71	138.740	5,340.30	-4,264.43	4,504.08	6,202.27	0.91	-0.87	-0.26
10,195.00	90.67	138.300	5,339.57	-4,310.13	4,544.48	6,263.07	0.72	-0.07	-0.72
10,256.00	90.74	137.490	5,338.82	-4,355.38	4,585.38	6,323.93	1.33	0.11	-1.33
10,316.00	90.94	136.470	5,337.94	-4,399.24	4,626.31	6,383.84	1.73	0.33	-1.70
10,377.00	91.71	135.200	5,336.53	-4,442.99	4,668.80	6,444.79	2.43	1.26	-2.08
10,438.00	90.20	134.590	5,335.51	-4,486.03	4,712.00	6,505.78	2.67	-2.48	-1.00
10,499.00	90.30	134.160	5,335.24	-4,528.69	4,755.60	6,566.77	0.72	0.16	-0.70
10,560.00	90.94	134.140	5,334.58	-4,571.18	4,799.37	6,627.77	1.05	1.05	-0.03
10,621.00	90.34	134.010	5,333.90	-4,613.61	4,843.19	6,688.77	1.01	-0.98	-0.21
10,682.00	90.03	134.640	5,333.70	-4,656.23	4,886.83	6,749.76	1.15	-0.51	1.03
10,742.00	90.24	134.780	5,333.56	-4,698.44	4,929.47	6,809.76	0.42	0.35	0.23
10,803.00	90.71	134.470	5,333.06	-4,741.29	4,972.88	6,870.75	0.92	0.77	-0.51
10,864.00	91.51	134.980	5,331.88	-4,784.21	5,016.21	6,931.74	1.56	1.31	0.84
10,925.00	90.94	135.980	5,330.57	-4,827.69	5,058.97	6,992.70	1.89	-0.93	1.64
10,986.00	91.04	136.470	5,329.52	-4,871.73	5,101.17	7,053.65	0.82	0.16	0.80
11,048.00	90.94	136.660	5,328.45	-4,916.74	5,143.79	7,115.58	0.35	-0.16	0.31
11,108.00	90.84	136.250	5,327.51	-4,960.23	5,185.12	7,175.52	0.70	-0.17	-0.68
11,169.00	91.18	136.350	5,326.44	-5,004.32	5,227.26	7,236.46	0.58	0.56	0.16
11,230.00	91.18	134.890	5,325.18	-5,047.91	5,269.91	7,297.42	2.39	0.00	-2.39
11,290.00	91.01	134.010	5,324.04	-5,089.92	5,312.73	7,357.41	1.49	-0.28	-1.47
11,351.00	90.47	133.540	5,323.25	-5,132.12	5,356.78	7,418.40	1.17	-0.89	-0.77
11,411.00	90.47	133.430	5,322.76	-5,173.41	5,400.31	7,478.40	0.18	0.00	-0.18
11,471.00	91.11	134.160	5,321.93	-5,214.93	5,443.61	7,538.39	1.62	1.07	1.22
11,531.00	90.34	135.100	5,321.17	-5,257.07	5,486.31	7,598.38	2.03	-1.28	1.57
11,592.00	90.37	134.990	5,320.79	-5,300.24	5,529.41	7,659.37	0.19	0.05	-0.18



Scientific Drilling, Intl
Survey Report



Company: DJR Operating
Project: Crow Canyon Unit
Site: N19 2408 Pad
Well: # 123H
Wellbore: Original drilling
Design: Original drilling

Local Co-ordinate Reference: Well # 123H
TVD Reference: GL 6792' & RKB 14' @ 6806.00usft (Aztec 920)
MD Reference: GL 6792' & RKB 14' @ 6806.00usft (Aztec 920)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,651.00	90.67	134.670	5,320.26	-5,341.83	5,571.25	7,718.36	0.74	0.51	-0.54
11,711.00	90.74	135.440	5,319.52	-5,384.30	5,613.63	7,778.35	1.29	0.12	1.28
11,773.00	90.44	135.500	5,318.88	-5,428.49	5,657.11	7,840.32	0.49	-0.48	0.10
11,833.00	90.37	134.500	5,318.46	-5,470.92	5,699.53	7,900.31	1.67	-0.12	-1.67
11,894.00	90.81	135.620	5,317.83	-5,514.09	5,742.62	7,961.30	1.97	0.72	1.84
11,955.00	90.77	136.320	5,316.99	-5,557.95	5,785.01	8,022.25	1.15	-0.07	1.15
12,016.00	90.57	135.620	5,316.27	-5,601.80	5,827.40	8,083.21	1.19	-0.33	-1.15
12,077.00	90.47	134.900	5,315.72	-5,645.13	5,870.34	8,144.20	1.19	-0.16	-1.18
12,138.00	90.37	134.370	5,315.27	-5,687.98	5,913.75	8,205.19	0.88	-0.16	-0.87
12,198.00	90.24	133.900	5,314.95	-5,729.76	5,956.81	8,265.19	0.81	-0.22	-0.78
12,260.00	91.01	134.850	5,314.28	-5,773.12	6,001.12	8,327.19	1.97	1.24	1.53
12,324.00	90.30	134.790	5,313.55	-5,818.23	6,046.51	8,391.17	1.11	-1.11	-0.09
12,387.00	90.30	135.370	5,313.22	-5,862.84	6,091.00	8,454.16	0.92	0.00	0.92
12,449.00	90.24	135.930	5,312.92	-5,907.17	6,134.34	8,516.14	0.91	-0.10	0.90
12,513.00	89.19	134.900	5,313.24	-5,952.75	6,179.26	8,580.11	2.30	-1.64	-1.61
12,562.00	89.33	134.360	5,313.87	-5,987.17	6,214.13	8,629.11	1.14	0.29	-1.10
12,614.00	89.33	134.360	5,314.48	-6,023.53	6,251.30	8,681.10	0.00	0.00	0.00

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
440.00	440.00	0.48	0.32	First SDI Surface MWD Survey
4,808.00	4,583.18	-769.47	1,084.17	Last SDI Surface MWD Survey
4,871.00	4,642.89	-781.10	1,100.52	First SDI Curve MWD Survey
5,896.00	5,357.86	-1,201.06	1,578.40	Last SDI Curve MWD Survey
6,009.00	5,368.18	-1,283.80	1,654.63	First SDI Lateral MWD Survey
12,562.00	5,313.87	-5,987.17	6,214.13	Last SDI Lateral MWD Survey
12,614.00	5,314.48	-6,023.53	6,251.30	Projection to TD

Checked By: _____ Approved By: _____ Date: _____