



5125 Carroll Court, Suite 200
Evansville, WY 82636
307-233-8550

Survey Certification Sheet

Date Submitted:	September 30, 2011
Operator Name:	Chesapeake Operating Inc.
Well Name:	Girard 2-63-11 1H
API Number	05-123-32961
Location:	Section 11-T2N-R63W
County/State:	Weld County, CO
Surveyed From a Depth of:	5,696' MD to 10,098' MD
Type of Survey:	Magnetic MWD
Name(s) of MWD Supervisor(s):	Ralph Nicholson / Kyle Sampson

The data and calculations for this survey have been checked by me and conform to the standards and procedures set forth by Professional Directional Ltd. This report represents a true and correct Directional Survey of this well based on the original data obtained at the well site. The survey was calculated using the minimum curvature method.

Robert Hays / Well Planner

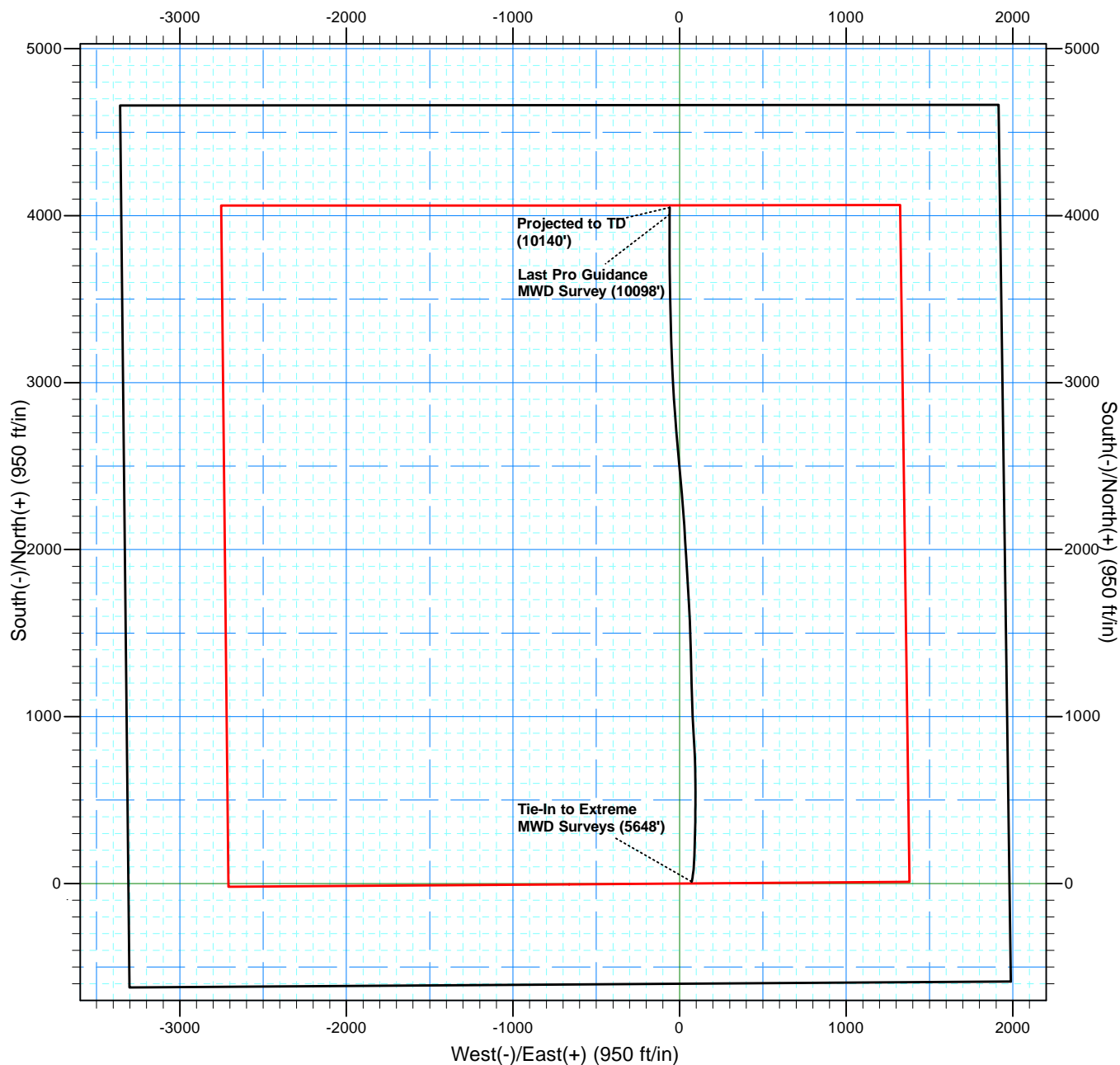
Project: Weld County, Colorado NAD27
Site: Sec 11-T2N-R63W
Well: Girard 2-63-11 1H
Wellbore: Original Hole
Plan: Final Surveys
Rig: SST 53

Surface Location:
SHL 600' FSL & 1980' FEL Sec 11-T2N-R63W

US State Plane 1927 (Exact solution)
Colorado North 501
Elevation: 4734' GL + 22' KB @ 4756.00ft (SST 53)
Northing 298396.81 **Easting** 2306985.20 **Latitude** 40° 8' 50.240 N **Longitude** 104° 24' 6.736 W

To convert a Magnetic Direction to a Grid Direction, Add 7.86°

Magnetic Model: IGRF200510 Date: 19-Sep-11
Azimuths & Coordinates to NAD27 Grid



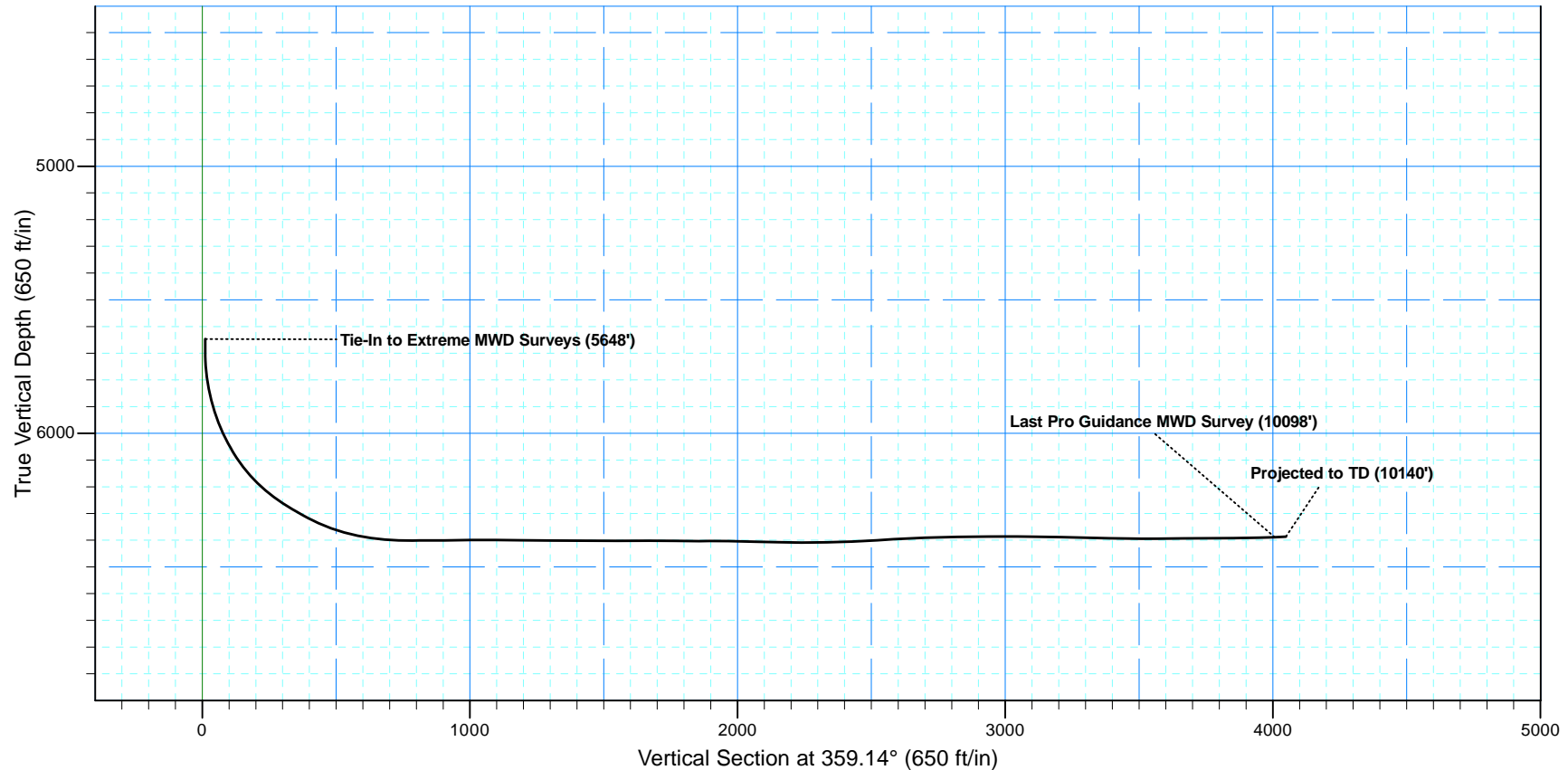
Chesapeake Operating Inc.



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Chesapeake Operating Inc.

Weld County, Colorado NAD27

Sec 11-T2N-R63W

Girard 2-63-11 1H

Original Hole

Design: Final Surveys

Standard Survey Report

30 September, 2011





Professional Directional LTD

Survey Report



Company:	Chesapeake Operating Inc.	Local Co-ordinate Reference:	Well Girard 2-63-11 1H
Project:	Weld County, Colorado NAD27	TVD Reference:	4734' GL + 22' KB @ 4756.00ft (SST 53)
Site:	Sec 11-T2N-R63W	MD Reference:	4734' GL + 22' KB @ 4756.00ft (SST 53)
Well:	Girard 2-63-11 1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Final Surveys	Database:	EDM 5000.1 Single User Db

Project	Weld County, Colorado NAD27		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Colorado North 501		

Site	Sec 11-T2N-R63W		
Site Position:		Northing:	298,396.81 ft
From:	Lat/Long	Easting:	2,306,985.21 ft
Position Uncertainty:	0.00 ft	Slot Radius:	1.10000 ft
		Latitude:	40° 8' 50.240 N
		Longitude:	104° 24' 6.736 W
		Grid Convergence:	0.71 °

Well	Girard 2-63-11 1H		
Well Position	+N/-S	0.00 ft	Northing: 298,396.81 ft
	+E/-W	0.00 ft	Easting: 2,306,985.21 ft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	40° 8' 50.240 N
		Longitude:	104° 24' 6.736 W
		Ground Level:	4,734.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	09/19/11	8.57	66.91	53,032

Design	Final Surveys			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	359.14

Survey Program	Date	09/30/11		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
833.00	5,648.00	Extreme Surveys (Original Hole)	MWD	MWD
5,696.00	10,098.00	Pro Direction MWD Surveys (Original Hole)	MWD	MWD
10,140.00	10,140.00	Projected to TD (Original Hole)	Projection	Projection

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,648.00	0.70	95.98	5,647.05	12.31	71.69	11.22	0.07	0.00	-5.37
Tie-In to Extreme MWD Surveys (5648')									
5,696.00	0.80	83.50	5,695.05	12.31	72.32	11.22	0.40	0.21	-26.00
5,728.00	2.10	21.60	5,727.04	12.88	72.75	11.79	5.82	4.06	-193.44
5,756.00	4.80	16.50	5,754.99	14.48	73.28	13.38	9.70	9.64	-18.21
5,788.00	7.40	12.80	5,786.80	17.78	74.11	16.66	8.21	8.13	-11.56
5,819.00	10.00	9.60	5,817.44	22.38	75.00	21.25	8.53	8.39	-10.32
5,851.00	12.60	7.70	5,848.82	28.58	75.94	27.43	8.21	8.13	-5.94
5,883.00	14.90	8.40	5,879.90	36.11	77.00	34.94	7.21	7.19	2.19

Company:	Chesapeake Operating Inc.	Local Co-ordinate Reference:	Well Girard 2-63-11 1H
Project:	Weld County, Colorado NAD27	TVD Reference:	4734' GL + 22' KB @ 4756.00ft (SST 53)
Site:	Sec 11-T2N-R63W	MD Reference:	4734' GL + 22' KB @ 4756.00ft (SST 53)
Well:	Girard 2-63-11 1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Final Surveys	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,915.00	17.20	9.30	5,910.65	44.85	78.37	43.66	7.23	7.19	2.81
5,946.00	19.80	8.60	5,940.05	54.56	79.90	53.35	8.42	8.39	-2.26
5,978.00	22.20	7.50	5,969.92	65.92	81.50	64.68	7.60	7.50	-3.44
6,010.00	24.80	6.30	5,999.27	78.59	83.02	77.33	8.26	8.13	-3.75
6,042.00	27.30	4.80	6,028.01	92.57	84.37	91.29	8.08	7.81	-4.69
6,074.00	30.10	3.40	6,056.08	107.90	85.46	106.60	9.00	8.75	-4.38
6,105.00	32.80	2.60	6,082.52	124.05	86.30	122.73	8.81	8.71	-2.58
6,137.00	35.50	2.70	6,109.00	141.99	87.14	140.66	8.44	8.44	0.31
6,169.00	38.40	2.70	6,134.57	161.20	88.04	159.86	9.06	9.06	0.00
6,201.00	41.60	2.70	6,159.08	181.75	89.01	180.38	10.00	10.00	0.00
6,232.00	44.90	2.60	6,181.66	202.96	89.99	201.58	10.65	10.65	-0.32
6,264.00	48.30	1.50	6,203.64	226.19	90.82	224.80	10.91	10.63	-3.44
6,296.00	51.30	0.40	6,224.30	250.63	91.22	249.22	9.74	9.38	-3.44
6,327.00	54.20	0.70	6,243.06	275.30	91.46	273.89	9.39	9.35	0.97
6,359.00	56.70	1.40	6,261.20	301.65	91.94	300.23	8.02	7.81	2.19
6,391.00	58.50	1.90	6,278.35	328.66	92.72	327.22	5.78	5.63	1.56
6,423.00	60.10	1.70	6,294.69	356.16	93.58	354.71	5.03	5.00	-0.63
6,454.00	61.80	0.70	6,309.74	383.25	94.15	381.79	6.17	5.48	-3.23
6,486.00	63.20	0.60	6,324.52	411.63	94.47	410.16	4.38	4.38	-0.31
6,518.00	65.60	0.40	6,338.34	440.49	94.72	439.01	7.52	7.50	-0.63
6,550.00	69.10	0.60	6,350.66	470.01	94.98	468.53	10.95	10.94	0.63
6,582.00	72.20	0.60	6,361.26	500.20	95.30	498.71	9.69	9.69	0.00
6,613.00	74.50	0.10	6,370.15	529.90	95.48	528.40	7.58	7.42	-1.61
6,645.00	76.70	359.50	6,378.10	560.89	95.37	559.39	7.11	6.88	-1.88
6,677.00	78.60	359.20	6,384.95	592.15	95.01	590.65	6.01	5.94	-0.94
6,709.00	80.50	359.00	6,390.75	623.61	94.52	622.11	5.97	5.94	-0.63
6,740.00	83.30	358.80	6,395.12	654.29	93.93	652.80	9.05	9.03	-0.65
6,772.00	86.50	358.50	6,397.96	686.15	93.18	684.67	10.04	10.00	-0.94
6,804.00	87.70	358.00	6,399.58	718.10	92.20	716.62	4.06	3.75	-1.56
6,836.00	89.10	358.30	6,400.48	750.07	91.17	748.61	4.47	4.38	0.94
6,899.00	89.70	357.70	6,401.13	813.02	88.97	811.59	1.35	0.95	-0.95
6,994.00	90.80	355.50	6,400.72	907.85	83.34	906.49	2.59	1.16	-2.32
7,090.00	90.90	356.90	6,399.30	1,003.62	76.98	1,002.35	1.46	0.10	1.46
7,185.00	89.40	358.90	6,399.05	1,098.55	73.50	1,097.32	2.63	-1.58	2.11
7,280.00	89.10	359.30	6,400.29	1,193.53	72.00	1,192.31	0.53	-0.32	0.42
7,375.00	89.90	358.40	6,401.12	1,288.51	70.10	1,287.30	1.27	0.84	-0.95
7,470.00	89.20	358.20	6,401.87	1,383.46	67.28	1,382.29	0.77	-0.74	-0.21
7,566.00	90.40	357.80	6,402.20	1,479.40	63.93	1,478.27	1.32	1.25	-0.42
7,661.00	90.10	357.80	6,401.79	1,574.33	60.28	1,573.24	0.32	-0.32	0.00
7,757.00	90.00	357.00	6,401.70	1,670.23	55.93	1,669.20	0.84	-0.10	-0.83
7,852.00	89.10	356.40	6,402.45	1,765.07	50.46	1,764.11	1.14	-0.95	-0.63
7,946.00	89.80	356.70	6,403.35	1,858.89	44.80	1,858.01	0.81	0.74	0.32
8,041.00	90.00	356.40	6,403.52	1,953.72	39.09	1,952.91	0.38	0.21	-0.32

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Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Final Surveys	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
8,137.00	88.00	356.80	6,405.19	2,049.53	33.39	2,048.80	2.12	-2.08	0.42	
8,232.00	89.00	356.10	6,407.68	2,144.32	27.51	2,143.66	1.28	1.05	-0.74	
8,327.00	89.80	355.70	6,408.67	2,239.07	20.72	2,238.50	0.94	0.84	-0.42	
8,422.00	91.10	355.10	6,407.93	2,333.75	13.10	2,333.29	1.51	1.37	-0.63	
8,517.00	92.20	355.10	6,405.19	2,428.37	4.99	2,428.02	1.16	1.16	0.00	
8,612.00	94.00	354.40	6,400.06	2,522.83	-3.69	2,522.59	2.03	1.89	-0.74	
8,707.00	92.70	354.90	6,394.50	2,617.25	-12.53	2,617.14	1.47	-1.37	0.53	
8,802.00	92.30	355.40	6,390.36	2,711.82	-20.55	2,711.82	0.67	-0.42	0.53	
8,897.00	90.80	356.10	6,387.79	2,806.52	-27.59	2,806.61	1.74	-1.58	0.74	
8,992.00	90.60	356.70	6,386.63	2,901.32	-33.56	2,901.50	0.67	-0.21	0.63	
9,088.00	90.20	356.40	6,385.96	2,997.15	-39.33	2,997.40	0.52	-0.42	-0.31	
9,183.00	89.20	357.00	6,386.46	3,091.99	-44.80	3,092.31	1.23	-1.05	0.63	
9,278.00	88.80	358.70	6,388.12	3,186.90	-48.36	3,187.27	1.84	-0.42	1.79	
9,373.00	88.40	358.50	6,390.44	3,281.84	-50.69	3,282.23	0.47	-0.42	-0.21	
9,468.00	89.30	358.10	6,392.34	3,376.78	-53.50	3,377.20	1.04	0.95	-0.42	
9,563.00	88.80	358.70	6,393.92	3,471.73	-56.16	3,472.18	0.82	-0.53	0.63	
9,658.00	90.30	358.80	6,394.66	3,566.70	-58.23	3,567.17	1.58	1.58	0.11	
9,753.00	91.10	359.50	6,393.50	3,661.68	-59.64	3,662.17	1.12	0.84	0.74	
9,849.00	90.30	359.40	6,392.33	3,757.67	-60.56	3,758.16	0.84	-0.83	-0.10	
9,944.00	90.40	0.40	6,391.75	3,852.67	-60.72	3,853.15	1.06	0.11	1.05	
10,039.00	91.30	0.10	6,390.34	3,947.66	-60.31	3,948.12	1.00	0.95	-0.32	
10,098.00	92.30	0.40	6,388.49	4,006.62	-60.05	4,007.07	1.77	1.69	0.51	
Last Pro Guidance MWD Survey (10098')										
10,140.00	92.30	0.40	6,386.80	4,048.59	-59.76	4,049.03	0.00	0.00	0.00	
Projected to TD (10140')										

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
5,648.00	5,647.05	12.31	71.69	Tie-In to Extreme MWD Surveys (5648')	
10,098.00	6,388.49	4,006.62	-60.05	Last Pro Guidance MWD Survey (10098')	
10,140.00	6,386.80	4,048.59	-59.76	Projected to TD (10140')	