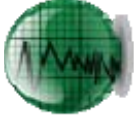




Weatherford[®]



END OF WELL REPORT

FINAL SURVEYS

SECTION 1

DAILY ACTIVITIES

SECTION 2

BHA REPORTS

SECTION 3

MOTOR REPORTS

SECTION 4

SLIDE SHEET REPORTS

SECTION 5



Weatherford®

Weatherford
2000 Oil Drive
Casper, WY 82604

Survey Certification

Operating Company:	BONANZA CREEK
Well Name:	ANTELOPE O34-K31-18HNC
State:	CO
County:	WELD
API Number:	
Datum:	NAD 83
Survey Calculation Method:	Minimum Curvature
North Reference:	True North

I, Matt Maydew, hereby certify the attached
directional survey run from the measure depth of 16.00 feet
to the measured depth of 11,137.00 feet as accurate and true
to the best of my knowledge.

Signature

14-Feb-14

Date

Matt Maydew
Directional Planning
Weatherford - Rockies District



FINAL SURVEYS





Plan Data for ANTELOPE 034-K31-18HNC

Field: DJ_WATTENBERG_NAD 83
Map Unit: USFT
Projected Coordinate System: NAD83 / Colorado North (ftUS)

Site: ANTELOPE T-18 PAD
Unit: USFeet
TVD Reference:

Company Name:
Position:
North Reference: True
Elevation Above VPD: 0.00USft

Northing: 1388373.58USft
Easting: 3317081.59USft
Grid Convergence: 0.74°

Latitude: 40.393900°
Longitude: -104.361580°

Survey Point Information:

Dogleg Severity Unit: °/100.00ft	Az	TVD	+N/-S	+E/-W	VSec	DLS Toolface	Build	Turn	Annotations
(USft)	(°)	(USft)	(USft)	(USft)	(°)	(DLSU)	(DLSU)	(DLSU)	
11137.00	90.35	356.90	6428.29	4112.02	-904.57	4210.24	0.76	229.4	-0.49 -0.58
11190.00	90.35	356.90	6427.97	4164.94	-907.44	4262.60	0.00	0.0	0.00 0.00
									PROJECTION TO TD

Formation Point Information:

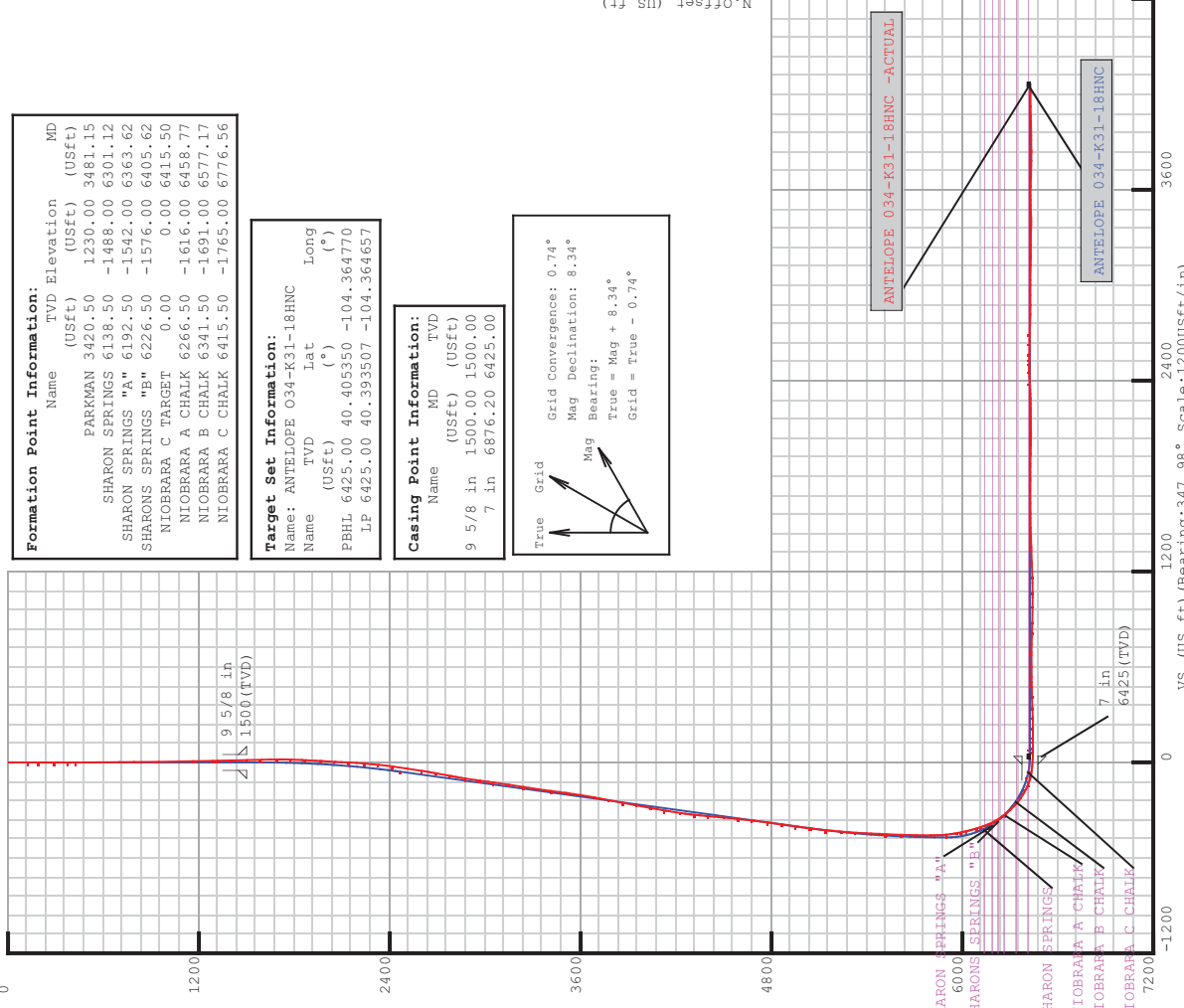
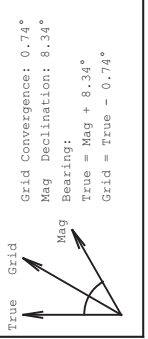
Name	TVD	Elevation	MD
(USft)	(USft)	(USft)	(USft)
PARKMAN	3420.50	1230.00	3481.15
SHARON SPRINGS "A"	6138.50	-1488.00	6301.12
SHARON SPRINGS "B"	6192.50	-1542.00	6363.62
SHARONS SPRINGS "B"	6226.50	-1576.00	6405.62
NIORARA C TARGET	0.00	0.00	6415.50
NIORARA A CHALK	6266.50	-1616.00	6458.77
NIORARA B CHALK	6341.50	-1691.00	6577.17
NIORARA C CHALK	6415.50	-1765.00	6776.56

Target Set Information:

Name	TVD	Lat	Long
(USft)	(°)	(°)	(°)
PBHL 6425.00	40.405350	-104.364770	
LP 6425.00	40.393507	-104.364657	

Casing Point Information:

Name	MD	TVD
(USft)	(USft)	(USft)
9 5/8 in	1500.00	1500.00
7 in	6876.20	6425.00

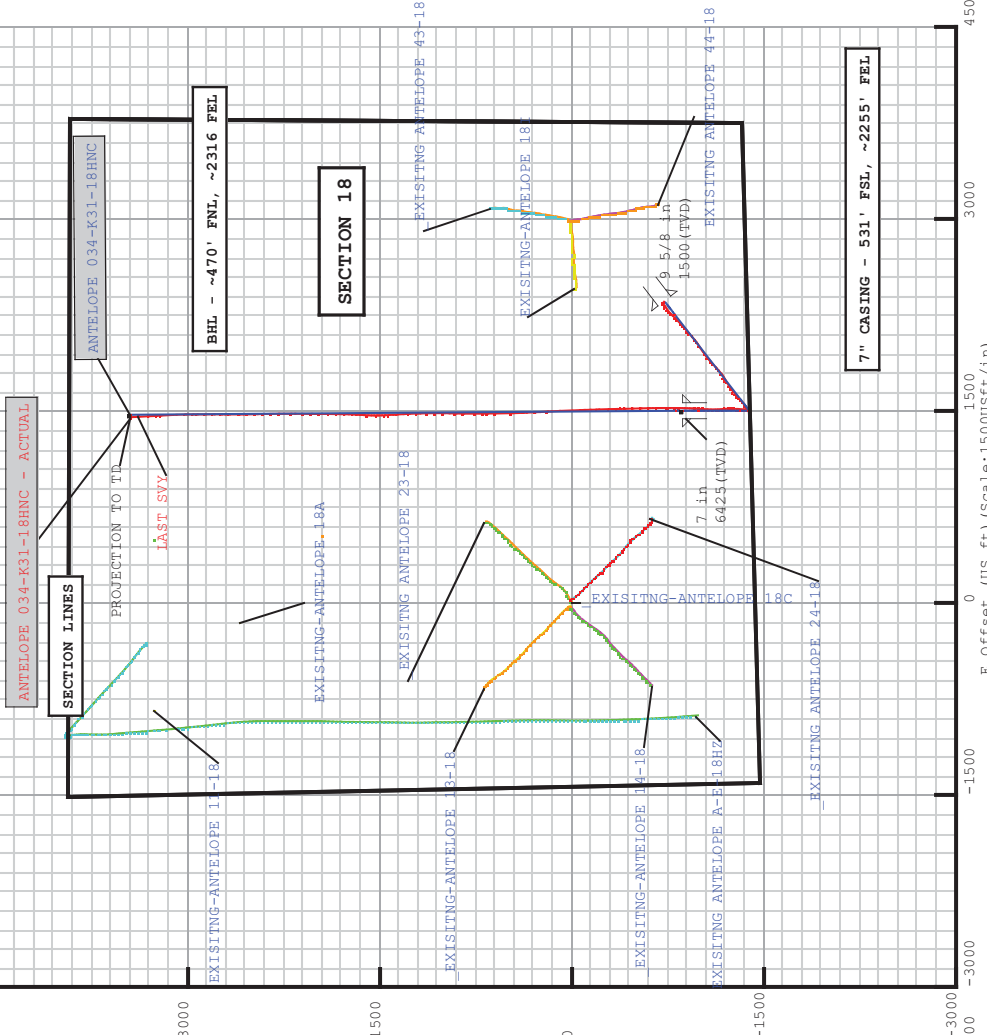


Well: ANTELOPE 034-K31-18HNC
Type: Main-Well
File Number:
Plan Folder: P1
Plan: PLAN 4
Vertical Section: Position offset of origin from Slot centre:
+N/-S: 0.00USft
+E/-W: 0.00USft
Magnetic Parameters:
Model: Field Strength: Declination: Dip: Date:
BGGM 52859 (nT) 8.34° 67.01° 2014-01-10

Slot: ANTELOPE 034-K31-18HNC
Position:
Offset is from Site centre
+N/-S: 0.00USft
+E/-W: 0.00USft
Elevation Above VPD: 0.00USft

Northing: 1388373.58USft
Easting: 3317081.59USft
Grid Convergence: 0.74°

Latitude: 40.393900°
Longitude: -104.361580°



5D Survey Report

Field Name: COLORADO_NORTH_ZONE_NAD83
Site Name: ANTELOPE T-18 PAD
Well Name: ANTELOPE 034-K31-18HNC
Survey: Definitive Survey



DEFINITIVE SURVEYS FOR THE ANTELOPE 034-K31-18HNC

Site Name ANTELOPE T-18 PAD	Units : US ft	North Reference : True	Convergence Angle : 0.74	
	Position	Northing : 1388373.58 US ft	Latitude : 40.393900	
		Easting : 3317081.59 US ft	Longitude : -104.361580	
	Elevation above:0.00 US ft			
Comment :				
Slot Name ANTELOPE 034-K31-18HNC	Position (Offsets relative to Site Centre)			
	+N / -S : 0.00 US ft	Northing :1388373.58 US ft	Latitude : 40.393900	
	+E / -W : 0.00 US ft	Easting :3317081.59 US ft	Longitude : -104.361580	
	Slot TVD Reference : Ground Elevation			
Elevation above : 4634.00 US ft				
Comment :				
Well Name ANTELOPE 034-K31-18HNC	Type : Main well			UWI :
	Rig Height	Drill Floor : 16.50 US ft		Comment :
	Relative to :	4650.50 US ft		
	Closure Distance :	4262.65 US ft		Closure Azimuth : 347.709°
	Vertical Section (Position of Origin Relative to Slot)			
	+N / -S : 0.00 US ft		+E / -W : 0.00 US ft	Az :347.98°
Target Set				
Name : ANTELOPE 034-K31-18HNC		Number of Targets : 2		
Comment :				
TargetName:	Position (Relative to centre)			
PBHL	Northing : 1392533.05 US ft		Latitude : 40°24'19.260000"	
Shape:	Easting : 3316139.73US ft		Longitude : -104°21'53.172000"	
Cuboid	TVD (Drill Floor) : 6425.00 US ft			
Orientation	Azimuth : 0.00°	Inclination : 0.00°	Height : 20.00 US ft	
Dimensions	Length : 20.00 US ft	Breadth : 20.00 US ft		

5D Survey Report

TargetName: LP Shape: Cuboid	Position (Relative to centre)			
	+N / -S : -143.13US ft		Latitude : 40°23'36.625430"	
	+E / -W : -857.00 US ft		Longitude : -104°21'52.764375"	
	TVD (Drill Floor) : 6425.00 US ft			
	Orientation		Inclination : 0.00°	
Dimensions		Breadth : 20.00 US ft		Height : 20.00 US ft
		Length : 20.00 US ft		

Survey Name :Definitive Survey				
Date : 10/Jan/2014		Survey Tool :		Company :
Magnetic Model				
Model Name: BGGM		Date: 10/Jan/2014	Field Strength: 52859.9 nT	Dip: 67.01°
Survey Tool Ranges				
Name		Start MD (us ft)	End MD (us ft)	Source Survey
MWD		0.00	11190.00	WFT MWD SURVEYS

Well path created using minimum curvature

Survey Points (Relative to centre, TVD relative to Drill Floor)														
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (°)	Longitude (°)	DLS (°/100 US ft)	T.Face (°)	CL (US ft)	VS (US ft)	High to Plan (US ft)	Right to Plan (US ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	40.393900	-104.361580	0.00	0.00	0.00	0.00	0.00	0.00	
16.00	0.00	0.00	16.00	0.00	0.00	40.393900	-104.361580	0.00	0.00	16.00	0.00	0.00	0.00	
129.00	0.25	194.71	129.00	-0.24	-0.06	40.393899	-104.361580	0.22	194.71	113.00	-0.22	-0.25	0.00	
193.00	0.20	222.60	193.00	-0.46	-0.17	40.393899	-104.361581	0.19	128.05	64.00	-0.41	-0.45	0.18	
289.00	0.35	262.98	289.00	-0.61	-0.58	40.393898	-104.361582	0.25	73.63	96.00	-0.48	-0.65	0.54	
386.00	0.56	279.89	386.00	-0.57	-1.34	40.393898	-104.361585	0.25	41.24	97.00	-0.28	-1.22	0.79	
435.00	0.60	296.17	434.99	-0.42	-1.81	40.393899	-104.361586	0.34	84.59	49.00	-0.03	-1.44	1.17	
574.00	0.56	301.17	573.99	0.26	-3.04	40.393901	-104.361591	0.05	130.80	139.00	0.88	-2.73	1.35	
701.00	0.69	302.35	700.98	0.99	-4.22	40.393903	-104.361595	0.10	6.24	127.00	1.84	-4.09	1.42	
794.00	0.88	294.26	793.97	1.58	-5.34	40.393904	-104.361599	0.24	325.66	93.00	2.66	-5.52	0.75	
948.00	0.99	297.59	947.95	2.68	-7.60	40.393907	-104.361607	0.08	27.96	154.00	4.21	-7.98	1.14	
1163.00	1.13	346.48	1162.92	5.60	-9.74	40.393915	-104.361615	0.41	106.17	215.00	7.51	-7.72	8.16	
1288.00	0.98	337.28	1287.89	7.79	-10.44	40.393921	-104.361617	0.18	223.94	125.00	9.79	-11.22	6.62	
1319.00	1.06	348.94	1318.89	8.31	-10.60	40.393923	-104.361618	0.72	74.82	31.00	10.34	-10.19	8.81	
1412.00	1.31	350.16	1411.87	10.21	-10.95	40.393928	-104.361619	0.27	6.37	93.00	12.26	-11.92	9.04	
1504.00	1.40	343.77	1503.84	12.32	-11.44	40.393934	-104.361621	0.19	297.56	92.00	14.43	-15.02	7.54	
1597.00	1.75	332.71	1596.81	14.67	-12.41	40.393940	-104.361625	0.50	313.41	93.00	16.94	-18.72	4.30	
1690.00	1.55	268.87	1689.78	15.91	-14.32	40.393944	-104.361631	1.88	232.53	93.00	18.54	-12.87	-17.03	

5D Survey Report

Survey Points (Relative to centre, TVD relative to Drill Floor)														Comment
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (°)	Longitude (°)	DLS (°/100 US ft)	T.Face (°)	CL (US ft)	VS (US ft)	High to Plan (US ft)	Right to Plan (US ft)	Comment
1782.00	3.57	233.36	1781.69	14.18	-17.86	40.393939	-104.361644	2.69	303.20	92.00	17.59	-0.10	-22.15	
1875.00	4.72	222.62	1874.44	9.63	-22.77	40.393926	-104.361662	1.49	320.54	93.00	14.17	4.64	-21.08	
1967.00	6.26	225.63	1966.02	3.34	-28.92	40.393909	-104.361684	1.70	12.09	92.00	9.29	4.95	-19.92	
2060.00	7.59	234.03	2058.34	-3.81	-37.52	40.393890	-104.361715	1.79	41.51	93.00	4.08	4.22	-20.10	
2152.00	9.71	241.21	2149.29	-11.12	-49.24	40.393869	-104.361757	2.58	30.57	92.00	-0.62	3.91	-22.22	
2245.00	11.44	233.78	2240.71	-20.35	-63.55	40.393844	-104.361808	2.36	318.06	93.00	-6.67	9.01	-23.08	
2338.00	13.37	232.27	2331.54	-32.38	-79.50	40.393811	-104.361865	2.10	349.72	93.00	-15.11	11.88	-23.10	
2431.00	14.55	225.77	2421.79	-47.11	-96.38	40.393771	-104.361926	2.11	303.78	93.00	-26.00	17.00	-20.06	
2620.00	16.56	225.09	2603.86	-82.69	-132.47	40.393673	-104.362056	1.07	354.49	189.00	-53.29	23.09	-13.11	
2717.00	18.95	226.45	2696.24	-103.30	-153.67	40.393616	-104.362132	2.50	10.49	97.00	-69.03	22.37	-10.35	
2812.00	19.49	225.93	2785.94	-124.95	-176.24	40.393557	-104.362213	0.60	342.17	95.00	-85.51	19.61	-7.15	
2907.00	16.73	226.61	2876.23	-145.37	-197.57	40.393501	-104.362289	2.91	175.94	95.00	-101.04	18.57	-4.37	
3002.00	15.45	228.26	2967.50	-163.19	-216.95	40.393452	-104.362359	1.43	161.13	95.00	-114.43	20.88	-2.50	
3097.00	16.98	231.34	3058.72	-180.28	-237.22	40.393405	-104.362432	1.85	30.83	95.00	-126.93	23.05	-2.44	
3193.00	17.13	230.17	3150.50	-198.09	-259.03	40.393356	-104.362510	0.39	293.05	96.00	-139.81	24.00	-1.23	
3289.00	17.67	227.47	3242.11	-217.00	-280.62	40.393304	-104.362587	1.01	302.48	96.00	-153.80	24.29	1.59	
3384.00	17.59	229.18	3332.65	-236.13	-302.11	40.393252	-104.362665	0.55	99.60	95.00	-168.04	24.25	2.86	
3480.00	18.54	235.96	3423.93	-254.16	-325.74	40.393202	-104.362749	2.40	68.93	96.00	-180.75	23.68	-0.06	
3576.00	20.80	236.82	3514.32	-272.03	-352.65	40.393153	-104.362846	2.37	7.70	96.00	-192.63	20.10	-2.49	
3767.00	24.87	234.75	3690.31	-313.79	-413.86	40.393039	-104.363066	2.17	347.88	191.00	-220.72	2.74	-5.55	
3863.00	22.61	230.28	3778.19	-337.24	-444.55	40.392974	-104.363176	3.01	216.50	96.00	-237.26	-7.04	-5.92	
3958.00	21.37	228.96	3866.28	-360.27	-471.65	40.392911	-104.363273	1.41	201.12	95.00	-254.15	-14.21	-4.86	
4054.00	20.19	228.19	3956.03	-382.80	-497.19	40.392849	-104.363365	1.26	192.68	96.00	-270.87	-19.54	-3.23	
4150.00	19.29	226.00	4046.39	-404.86	-520.95	40.392789	-104.363450	1.21	218.39	96.00	-287.50	-23.15	-1.43	
4246.00	19.29	229.85	4137.01	-426.10	-544.48	40.392730	-104.363535	1.32	91.82	96.00	-303.37	-26.01	2.33	
4342.00	19.20	231.60	4227.64	-446.13	-568.97	40.392675	-104.363623	0.61	99.69	96.00	-317.86	-28.67	3.89	
4438.00	18.04	239.63	4318.63	-463.46	-594.17	40.392628	-104.363713	2.93	118.11	96.00	-329.56	-29.70	6.14	
4534.00	15.47	238.44	4410.55	-477.67	-617.91	40.392589	-104.363798	2.70	187.03	96.00	-338.52	-28.53	2.10	
4629.00	16.19	240.01	4501.95	-490.93	-640.17	40.392552	-104.363878	0.88	31.50	95.00	-346.84	-25.79	-0.69	
4725.00	15.70	236.22	4594.25	-504.84	-662.56	40.392514	-104.363959	1.20	242.98	96.00	-355.79	-22.95	-5.22	
4821.00	15.66	232.64	4686.68	-519.92	-683.66	40.392473	-104.364034	1.01	265.91	96.00	-366.15	-19.35	-7.59	
4915.00	16.53	231.21	4777.00	-536.00	-704.17	40.392429	-104.364108	1.02	334.81	94.00	-377.60	-16.70	-7.86	
5010.00	16.73	228.83	4868.03	-553.47	-724.99	40.392381	-104.364183	0.75	285.22	95.00	-390.35	-14.80	-7.37	
5106.00	16.42	229.60	4960.04	-571.36	-745.73	40.392332	-104.364257	0.40	145.05	96.00	-403.53	-13.20	-5.66	
5202.00	13.69	226.31	5052.73	-588.00	-764.28	40.392286	-104.364324	2.98	195.80	96.00	-415.95	-8.77	-4.17	
5298.00	12.69	231.77	5146.20	-602.37	-780.78	40.392246	-104.364383	1.66	131.39	96.00	-426.57	-3.91	-2.06	
5394.00	10.34	232.14	5240.27	-614.19	-795.86	40.392214	-104.364437	2.45	178.38	96.00	-434.98	0.84	-1.93	
5488.00	8.34	230.33	5333.02	-623.72	-807.77	40.392188	-104.364480	2.15	187.46	94.00	-441.82	6.01	-1.49	
5583.00	7.02	235.65	5427.16	-631.39	-817.87	40.392167	-104.364516	1.58	154.31	95.00	-447.23	10.63	-2.44	
5677.00	5.32	233.32	5520.61	-637.24	-826.11	40.392151	-104.364546	1.83	187.22	94.00	-451.23	14.84	-2.51	
5773.00	4.41	230.59	5616.27	-642.24	-832.53	40.392137	-104.364569	0.98	192.92	96.00	-454.78	18.14	-1.69	

5D Survey Report

Survey Points (Relative to centre, TVD relative to Drill Floor)																
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	Latitude (°)	Longitude (°)	DLS (°/100 US ft)	T. Face (°)	CL (US ft)	VS (US ft)	High to Plan (US ft)	Right to Plan (US ft)	Comment		
5868.00	3.38	232.95	5711.05	-646.25	-837.58	40.392126	-104.364587	1.10	172.33	95.00	-457.65	19.64	-2.39			
5944.00	1.54	262.61	5806.96	-648.12	-841.12	40.392121	-104.364600	2.27	159.53	96.00	-458.74	16.36	-12.86			
6059.00	5.67	344.59	5901.79	-643.75	-843.64	40.392133	-104.364609	5.96	97.55	95.00	-453.95	-15.89	-18.27			
6092.00	8.67	349.42	5934.52	-639.74	-844.53	40.392144	-104.364612	9.26	13.77	33.00	-449.83	-20.58	-16.54			
6123.00	10.62	352.85	5965.08	-634.60	-845.31	40.392158	-104.364615	6.56	18.12	31.00	-444.65	-23.96	-14.77			
6155.00	11.26	354.99	5996.50	-628.57	-845.95	40.392175	-104.364617	2.37	33.45	32.00	-438.61	-25.68	-13.30			
6186.00	13.40	0.09	6026.79	-621.96	-846.21	40.392193	-104.364618	7.74	29.48	31.00	-432.10	-26.59	-10.75			
6219.00	15.76	1.81	6058.72	-613.65	-846.06	40.392215	-104.364617	7.27	11.23	33.00	-424.00	-25.90	-10.17			
6251.00	18.04	4.13	6089.34	-604.37	-845.57	40.392241	-104.364616	7.43	17.59	32.00	-415.02	-24.51	-9.81			
6282.00	19.27	5.50	6118.71	-594.49	-844.73	40.392268	-104.364613	4.21	20.26	31.00	-405.53	-22.01	-10.39			
6314.00	21.36	2.46	6148.72	-583.41	-843.98	40.392298	-104.364610	7.31	331.77	32.00	-394.86	-17.57	-12.37			
6346.00	25.31	1.78	6178.10	-570.74	-843.51	40.392333	-104.364608	12.37	355.79	32.00	-382.57	-13.29	-13.14			
6378.00	29.76	2.42	6206.46	-555.96	-842.97	40.392374	-104.364606	13.94	4.09	32.00	-368.22	-9.62	-13.71			
6410.00	34.00	3.42	6233.63	-539.09	-842.10	40.392420	-104.364603	13.35	7.53	32.00	-351.90	-6.45	-14.62			
6441.00	37.97	1.67	6258.71	-520.90	-841.30	40.392470	-104.364600	13.23	344.77	31.00	-334.27	-3.11	-15.64			
6473.00	40.24	357.57	6283.54	-500.73	-841.45	40.392525	-104.364601	10.75	309.67	32.00	-314.51	1.00	-15.52			
6504.00	44.36	357.13	6306.47	-479.89	-842.42	40.392583	-104.364604	13.32	355.73	31.00	-293.93	4.30	-14.44			
6536.00	47.24	355.94	6328.78	-456.99	-843.81	40.392646	-104.364609	9.39	343.08	32.00	-271.25	7.76	-12.86			
6567.00	51.70	356.72	6348.92	-433.49	-845.32	40.392710	-104.364615	14.51	7.83	31.00	-247.94	10.67	-11.35			
6599.00	56.01	358.01	6367.79	-407.68	-846.49	40.392781	-104.364619	13.86	13.97	32.00	-222.46	13.11	-10.28			
6631.00	59.48	0.05	6384.86	-380.63	-846.94	40.392855	-104.364621	12.11	26.99	32.00	-195.90	15.28	-10.07			
6662.00	63.14	2.11	6399.74	-353.45	-846.42	40.392930	-104.364619	13.17	26.78	31.00	-169.43	17.30	-10.83			
6694.00	68.20	3.31	6412.92	-324.33	-845.04	40.393010	-104.364614	16.18	12.45	32.00	-141.24	18.95	-12.32			
6725.00	73.19	3.46	6423.17	-295.13	-843.31	40.393090	-104.364608	16.10	1.65	31.00	-113.04	19.73	-14.01			
6757.00	78.45	3.10	6431.01	-264.17	-841.54	40.393175	-104.364601	16.47	356.16	32.00	-83.13	19.55	-15.68			
6785.00	82.99	2.68	6435.52	-236.58	-840.15	40.393251	-104.364596	16.28	354.75	28.00	-56.43	18.55	-16.99			
6914.00	89.65	1.09	6443.80	-107.99	-835.92	40.393604	-104.364581	5.31	346.54	129.00	68.46	18.79	-21.19			
6946.00	90.14	0.29	6443.85	-75.99	-835.53	40.393691	-104.364580	2.93	301.49	32.00	99.67	18.85	-21.81			
6978.00	90.00	0.45	6443.81	-43.99	-835.33	40.393779	-104.364579	0.66	131.19	32.00	130.93	18.81	-22.24			
7009.00	90.42	359.69	6443.70	-13.00	-835.29	40.393864	-104.364579	2.80	298.93	31.00	161.24	18.70	-22.51			
7074.00	90.21	359.22	6443.34	52.00	-835.91	40.394043	-104.364581	0.79	245.93	65.00	224.94	18.34	-22.37			
7137.00	91.68	358.53	6442.30	114.98	-837.14	40.394216	-104.364586	2.58	334.86	63.00	286.80	17.29	-21.59			
7201.00	92.38	358.54	6440.04	178.92	-838.78	40.394391	-104.364591	1.09	0.82	64.00	349.67	15.01	-20.42			
7265.00	91.75	358.43	6437.73	242.85	-840.47	40.394567	-104.364597	1.00	189.90	64.00	412.56	12.71	-19.20			
7329.00	90.84	358.55	6436.29	306.81	-842.16	40.394742	-104.364604	1.43	172.49	64.00	475.47	11.28	-17.98			
7359.00	90.56	358.32	6435.92	336.80	-842.98	40.394824	-104.364606	1.21	219.40	30.00	504.97	10.91	-17.38			
7392.00	90.07	358.96	6435.74	369.79	-843.76	40.394915	-104.364609	2.44	127.44	33.00	537.40	10.74	-16.84			
7456.00	90.28	359.03	6435.54	433.78	-844.88	40.395091	-104.364613	0.35	18.43	64.00	600.22	10.54	-16.18			
7552.00	90.21	357.75	6435.13	529.74	-847.58	40.395354	-104.364623	1.34	266.87	96.00	694.63	10.13	-14.18			
7679.00	87.48	358.10	6437.69	656.62	-852.18	40.395702	-104.364640	2.17	172.70	127.00	819.69	12.69	-10.52			
7742.00	88.67	357.95	6439.81	719.54	-854.35	40.395875	-104.364647	1.90	352.82	63.00	881.69	14.81	-8.81			

5D Survey Report

Survey Points (Relative to centre, TVD relative to Drill Floor)														
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (°)	Longitude (°)	DLS (°/100 US ft)	T.Face (°)	CL (US ft)	VS (US ft)	High to Plan (US ft)	Right to Plan (US ft)	Comment
7837.00	89.37	357.31	6441.43	814.45	-858.27	40.396136	-104.364661	1.00	317.56	95.00	975.33	16.43	-5.57	
7932.00	90.28	356.14	6441.72	909.29	-863.70	40.396396	-104.364681	1.56	307.87	95.00	1069.22	16.72	-0.84	
8027.00	91.61	357.05	6440.16	1004.10	-869.34	40.396656	-104.364701	1.70	34.37	95.00	1163.13	15.15	4.10	
8122.00	92.45	358.10	6436.79	1098.96	-873.36	40.396917	-104.364716	1.41	51.31	95.00	1256.74	11.79	7.43	
8218.00	91.33	358.54	6433.62	1194.86	-876.17	40.397180	-104.364726	1.25	158.56	96.00	1351.13	8.63	9.54	
8344.00	91.75	359.45	6430.24	1320.80	-878.38	40.397526	-104.364734	0.80	65.21	126.00	1474.76	5.24	10.83	
8407.00	90.84	358.80	6428.81	1383.77	-879.34	40.397698	-104.364737	1.77	215.54	63.00	1536.56	3.82	11.33	
8437.00	90.28	359.53	6428.52	1413.77	-879.78	40.397781	-104.364739	3.07	127.49	30.00	1565.99	3.52	11.55	
8502.00	90.28	359.82	6428.20	1478.77	-880.15	40.397959	-104.364740	0.45	90.00	65.00	1629.64	3.20	11.44	
8598.00	89.86	0.86	6428.09	1574.76	-879.58	40.398223	-104.364738	1.17	111.99	96.00	1723.41	3.09	10.17	
8662.00	90.98	1.53	6427.62	1638.74	-878.25	40.398398	-104.364733	2.04	30.89	64.00	1785.71	2.61	8.37	
8758.00	88.67	0.65	6427.91	1734.72	-876.42	40.398662	-104.364727	2.57	200.85	96.00	1879.20	2.91	5.84	
8822.00	88.18	359.45	6429.67	1798.69	-876.36	40.398837	-104.364727	2.02	247.76	64.00	1941.76	4.67	5.32	
8885.00	89.09	358.63	6431.17	1861.67	-877.42	40.399010	-104.364730	1.94	317.98	63.00	2003.57	6.17	5.91	
8950.00	90.42	358.07	6431.45	1926.64	-879.29	40.399189	-104.364737	2.22	337.16	65.00	2067.51	6.45	7.31	
9013.00	90.42	357.89	6430.99	1989.60	-881.51	40.399361	-104.364745	0.29	270.00	63.00	2129.55	5.99	9.07	
9108.00	90.21	355.86	6430.46	2084.45	-886.69	40.399622	-104.364764	2.15	264.10	95.00	2223.40	5.47	13.53	
9172.00	91.75	357.13	6429.37	2148.32	-890.60	40.399797	-104.364778	3.12	39.50	64.00	2286.68	4.39	16.99	
9204.00	92.45	357.44	6428.20	2180.26	-892.12	40.399885	-104.364783	2.39	23.87	32.00	2318.24	3.22	18.27	
9268.00	93.71	359.60	6424.76	2244.14	-893.77	40.400060	-104.364789	3.90	59.65	64.00	2381.07	-0.24	19.47	
9341.00	92.31	2.61	6420.92	2317.01	-892.36	40.400260	-104.364784	4.54	114.89	73.00	2452.05	-4.11	17.50	
9395.00	88.04	2.67	6420.76	2370.94	-889.87	40.400408	-104.364775	7.91	179.19	54.00	2504.28	-4.21	14.63	
9427.00	88.11	3.03	6421.83	2402.89	-888.28	40.400496	-104.364769	1.15	79.00	32.00	2535.19	-3.14	12.80	
9460.00	89.09	2.86	6422.64	2435.83	-886.59	40.400586	-104.364763	3.01	350.16	33.00	2567.06	-2.35	10.87	
9522.00	90.21	1.06	6423.02	2497.79	-884.47	40.400756	-104.364756	3.42	301.88	62.00	2627.22	-1.98	8.31	
9587.00	88.25	0.43	6423.89	2562.78	-883.62	40.400935	-104.364753	3.17	197.81	65.00	2690.61	-1.11	6.99	
9651.00	88.46	0.62	6425.73	2626.75	-883.04	40.401110	-104.364751	0.44	42.13	64.00	2753.05	0.73	5.94	
9715.00	88.81	0.17	6427.25	2690.73	-882.60	40.401286	-104.364749	0.89	307.88	64.00	2815.54	2.25	5.03	
9778.00	89.86	0.18	6427.98	2753.72	-882.40	40.401459	-104.364748	1.67	0.55	63.00	2877.11	2.98	4.38	
9842.00	90.56	0.71	6427.75	2817.72	-881.91	40.401635	-104.364747	1.37	37.13	64.00	2939.60	2.75	3.41	
9938.00	89.16	0.29	6427.98	2913.71	-881.07	40.401898	-104.364744	1.52	196.70	96.00	3033.32	2.98	1.88	
10034.00	88.46	359.71	6429.98	3009.69	-881.07	40.402162	-104.364744	0.95	219.63	96.00	3127.19	4.98	1.17	
10099.00	89.65	359.00	6431.05	3074.68	-881.80	40.402340	-104.364746	2.13	329.17	65.00	3190.90	6.05	1.43	
10162.00	90.56	358.27	6430.94	3137.66	-883.30	40.402513	-104.364752	1.85	321.26	63.00	3252.82	5.93	2.47	
10226.00	88.88	358.32	6431.25	3201.63	-885.21	40.402688	-104.364758	2.63	178.30	64.00	3315.78	6.24	3.91	
10289.00	89.16	359.24	6432.33	3264.60	-886.55	40.402861	-104.364763	1.53	73.08	63.00	3377.65	7.32	4.79	
10353.00	91.68	0.33	6431.86	3328.59	-886.79	40.403037	-104.364764	4.29	23.39	64.00	3440.29	6.85	4.56	
10418.00	91.61	0.30	6429.99	3393.57	-886.43	40.403215	-104.364763	0.12	203.19	65.00	3503.76	4.99	3.73	
10481.00	89.79	0.49	6429.22	3456.56	-886.00	40.403388	-104.364761	2.90	174.04	63.00	3565.28	4.22	2.83	
10544.00	88.74	0.09	6430.03	3519.55	-885.68	40.403561	-104.364760	1.78	200.85	63.00	3626.83	5.03	2.06	
10608.00	88.60	359.84	6431.51	3583.53	-885.72	40.403737	-104.364760	0.45	240.74	64.00	3689.42	6.51	1.63	

5D Survey Report

Survey Points (Relative to centre, TVD relative to Drill Floor)														
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (°)	Longitude (°)	DLS (°/100 US ft)	T.Face (°)	CL (US ft)	VS (US ft)	High to Plan (US ft)	Right to Plan (US ft)	Comment
10671.00	88.74	0.05	6432.98	3646.52	-885.78	40.403910	-104.364761	0.40	56.31	63.00	3751.03	7.97	1.23	
10703.00	89.72	359.69	6433.41	3678.51	-885.85	40.403998	-104.364761	3.26	339.83	32.00	3782.34	8.41	1.07	
10767.00	90.14	358.59	6433.48	3742.50	-886.81	40.404173	-104.364764	1.84	290.90	64.00	3845.13	8.48	1.56	
10863.00	90.56	357.26	6432.90	3838.44	-890.29	40.404437	-104.364777	1.45	287.53	96.00	3939.68	7.90	4.33	
10956.00	91.47	356.77	6431.25	3931.30	-895.13	40.404691	-104.364794	1.11	331.71	93.00	4031.51	6.26	8.49	
10988.00	91.54	356.59	6430.41	3963.23	-896.98	40.404779	-104.364801	0.60	291.26	32.00	4063.14	5.42	10.10	
11052.00	90.77	357.39	6429.12	4027.13	-900.34	40.404954	-104.364813	1.73	133.90	64.00	4126.33	4.13	13.00	
11137.00	90.35	356.90	6428.29	4112.02	-904.57	40.405188	-104.364828	0.76	229.40	85.00	4210.24	3.29	16.60	LAST SVY
11190.00	90.35	356.90	6427.97	4164.94	-907.44	40.405333	-104.364838	0.00	0.00	53.00	4262.60	2.97	19.08	PROJECTION TO TD
Formation Points (Relative to centre, TVD relative to Drill Floor)														
Name														
TVD (US ft)														