

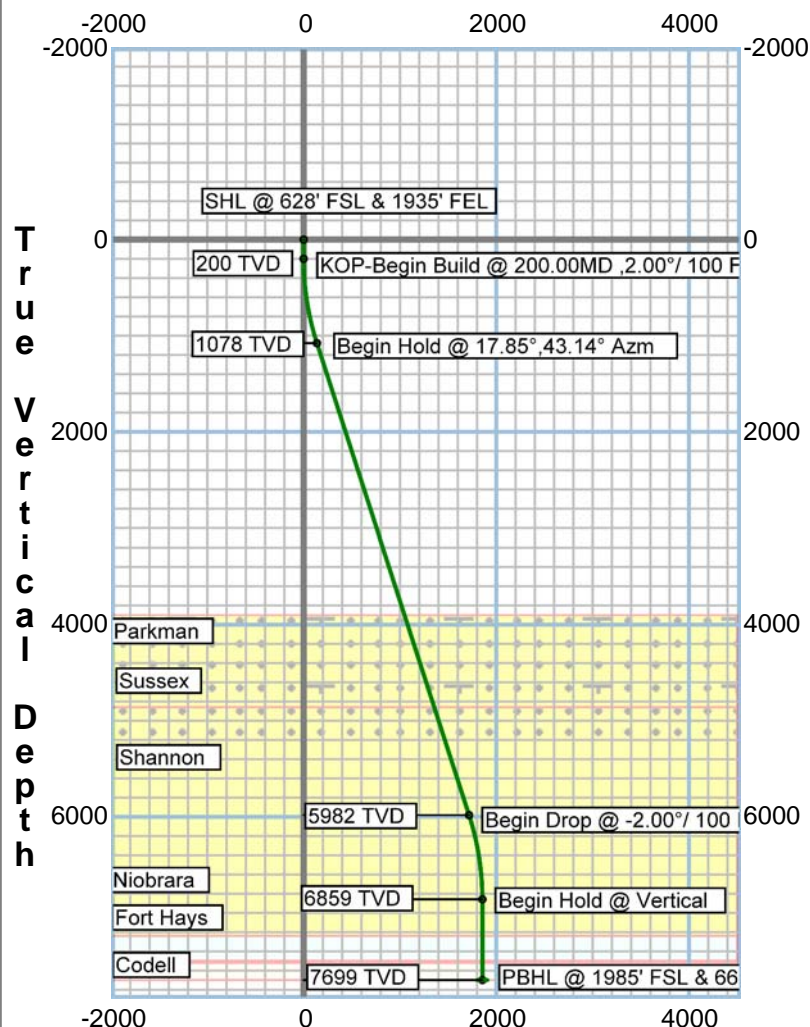


Job ID : Grant Brothers Pad
Company : Sundance Energy, Inc.
Lease/Well : Grant Bros 23-43
Location : Sec 23 T2N R68W
API JOB # : 05-123-xxxx
Rig Name : Cade 25
State/Province : CO
County/Parish : Weld
Country : USA

Latitude : 40°7'7.0824" N
Longitude : -104°58'4.2636" W
Northing : 1286508.93
Easting : 3148820.5
System Zone : US State Plane 1983
Projection Type : LAMBERT
Elevation (To MSL) : 4920 ft
RKB : 14 ft
Comment : Plan 2

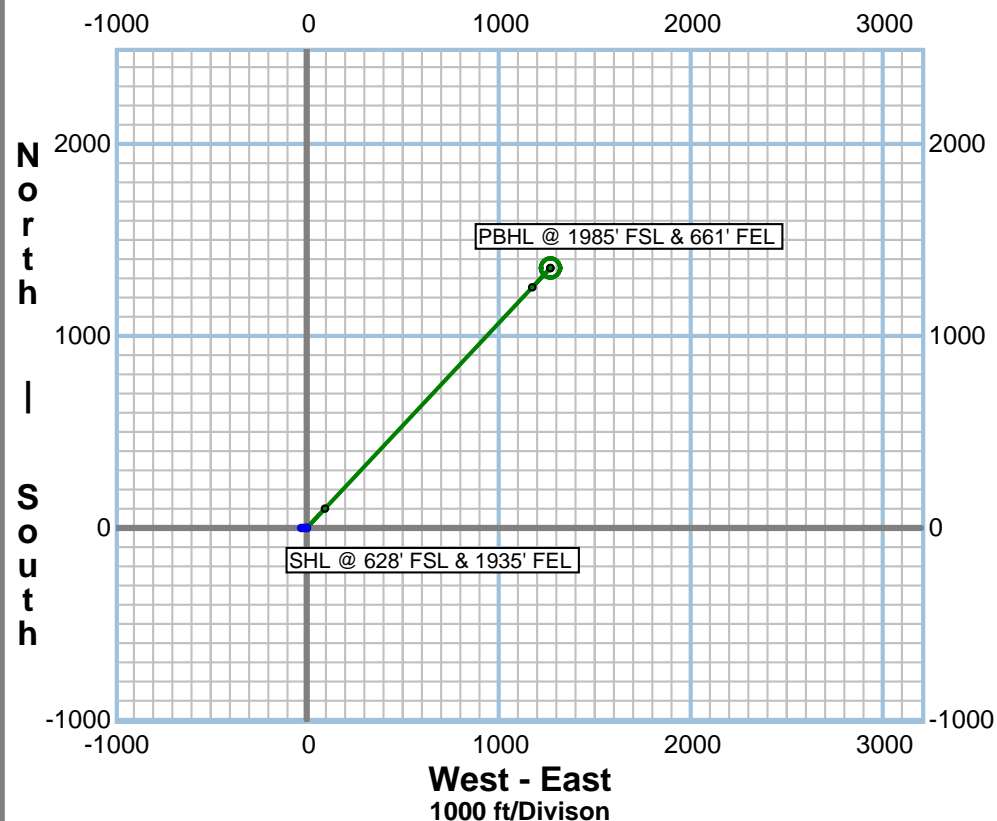


Vertical Section Plot



Vertical Section (43.14°)
2000 ft/Division

Horizontal Plot



CRITICAL POINTS - GRANT BROTHERS 23-43 PROPOSAL

MD	Inc	Azm	TVD	EW	NS	VS	CI	Cldir	WR	BR	DLS
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1092.53	17.85	43.14	1078.16	94.30	100.63	137.91	137.91	43.14	0.00	1.99	1.99
6244.74	17.85	43.14	5982.36	1174.19	1253.02	1717.20	1717.20	43.14	0.00	0.00	0.00
7135.53	0.03	37.96	6858.78	1268.47	1353.66	1855.11	1855.11	43.14	-41.54	-2.00	2.00
7975.76	0.03	37.96	7699.01	1268.78	1354.06	1855.61	1855.61	43.14	0.00	0.00	0.00

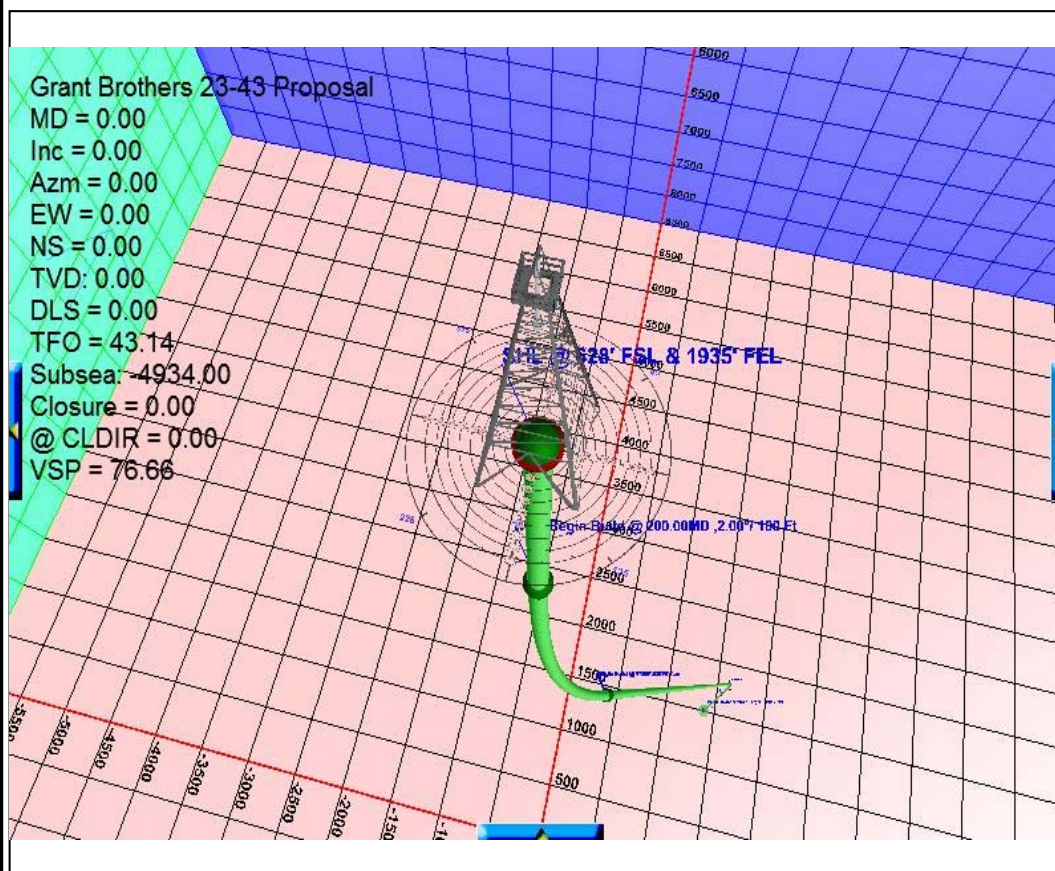


Job ID : Grant Brothers Pad
Company : Sundance Energy, Inc.
Lease/Well : Grant Bros 23-43
Location : Sec 23 T2N R68W
API JOB # : 05-123-xxxx
Rig Name : Cade 25
State/Province : CO
County/Parish : Weld
Country : USA

Latitude : 40°7'7.0824" N
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Northing : 1286508.93
Easting : 3148820.5
System Zone : US State Plane 1983
Projection Type : LAMBERT
Elevation (To MSL) : 4920 ft
RKB : 14 ft
Comment : Plan 2



TARGETS						LITHOLOGY					
SHAPE	NAME	Easting	Northing	Subsea TVD	EW	Name	Subsea Top	Subsea Bottom	Description	Dip_Angle	Dip_Direction
CIRCLE	Grant Brothers 23-54 Target	3149427.10	1287206.54	2745.00	610.78	Parkman	-1025.00	-515.00	Parkman	0.00	0.00
CIRCLE	Grant Brothers 23-4 Ae Target	3148106.00	1287200.80	2750.00	-710.34	Sussex	-515.00	-70.00	Sussex	0.00	0.00
CIRCLE	Grant Brothers 23-2 Ae Target	3149412.97	1288529.54	2759.00	604.59	Shannon	-70.00	2325.00	Shannon	0.00	0.00
CIRCLE	Grant Brothers 23-43 Target	3150081.13	1287870.58	2765.00	1268.78	Niobrara	2325.00	2585.00	Niobrara	0.00	0.00
						Fort Hays	2585.00	2605.00	Fort Hays	0.00	0.00
						Codell	2605.00	2765.00	Codell	0.00	0.00



MAGNETICS INFORMATION :

Magnetic Model: C:\HawkEye\IGRF2005.MIF

Date for Magnetics: 05/30/2013

Latitude: 40°07'7.0824" N

Longitude: -104°58'4.2636" W

Magnetic Declination: 8.63

Total Correction(Mag to Grid): 8.28

Field Strength (nt): 52833

B-X Component (nt): 20634

B-Y Component (nt): 3131

B-Z Component (nt): 48536

B-Horz Component (nt): 20870

Dip Angle: 66.73

METHODS OF CORRECTIONS:

* To correct from Magnetic North to True North use:

8.63°E --> TN = MN + 8.63

* To correct from True North to Grid North use:

0.34°E --> GN = TN - 0.34 : True to Grid

* To Correct from Magnetic North to Grid North use:

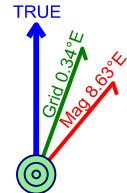
8.28°E --> GN = MN + 8.28 : Magnetic to Grid






Job Number: Grant Brothers Pad
Company: Sundance Energy, Inc.
Lease/Well: Grant Bros 23-43
Location: Sec 23 T2N R68W
Rig Name: Cade 25
State/County: CO/ Weld
Country: USA
API Number: 05-123-xxxx




Elevation : 4920.00 ft
RKB: 14.00 ft
Projection System: US State Plane 1983
Projection Group: Colorado Northern Zone
Projection Datum: GRS80
Mag. Declination: 8.63°
Grid Convergence: 0.34384 E
Date: Monday, June 24, 2013

Calculated by HawkEye Software
Minimum Curvature Method
Vertical Section Plane 43.14°
Northing (US ft): 1286508.93 Easting (US ft): 3148820.50
Latitude: 40°07'7.0824" N Longitude: -104°58'4.2636" W
Well Location: 647.10 FSL, 1936.18 FEL, Section 23, T2N, R68W, Meridian 06, Weld County, CO
Direction Reference: True North



Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	NS (Ft)	EW (Ft)	VS (Ft)	DLS °/100Ft	Build Rate °/100Ft	Walk Rate °/100Ft	Latitude Dec. Deg	Longitude Dec. Deg
SHL @ 628' FSL & 1935' FEL											
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.1186340	-104.9678510
KOP-Begin Build @ 200.00MD ,2.00°/ 100 Ft											
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	40.1186340	-104.9678510
220.00	0.40	43.13	220.00	0.05	0.05	0.07	2.00	2.00	215.65	40.1186341	-104.9678508
240.00	0.80	43.14	240.00	0.20	0.19	0.28	2.00	2.00	0.02	40.1186346	-104.9678503
260.00	1.20	43.14	260.00	0.46	0.43	0.63	2.00	2.00	0.01	40.1186353	-104.9678495
280.00	1.60	43.14	279.99	0.82	0.76	1.12	2.00	2.00	0.00	40.1186362	-104.9678483
300.00	2.00	43.14	299.98	1.27	1.19	1.75	2.00	2.00	0.00	40.1186375	-104.9678467
320.00	2.40	43.14	319.96	1.83	1.72	2.51	2.00	2.00	0.00	40.1186390	-104.9678449
340.00	2.80	43.14	339.94	2.50	2.34	3.42	2.00	2.00	0.00	40.1186408	-104.9678426
360.00	3.20	43.14	359.92	3.26	3.05	4.47	2.00	2.00	0.00	40.1186429	-104.9678401
380.00	3.60	43.14	379.88	4.13	3.87	5.65	2.00	2.00	0.00	40.1186453	-104.9678372
400.00	4.00	43.14	399.84	5.09	4.77	6.98	2.00	2.00	0.00	40.1186480	-104.9678339
420.00	4.40	43.14	419.78	6.16	5.77	8.44	2.00	2.00	0.00	40.1186509	-104.9678304
440.00	4.80	43.14	439.72	7.33	6.87	10.05	2.00	2.00	0.00	40.1186541	-104.9678264
460.00	5.20	43.14	459.64	8.60	8.06	11.79	2.00	2.00	0.00	40.1186576	-104.9678222
480.00	5.60	43.14	479.55	9.98	9.35	13.67	2.00	2.00	0.00	40.1186614	-104.9678176
500.00	6.00	43.14	499.45	11.45	10.73	15.69	2.00	2.00	0.00	40.1186654	-104.9678126
520.00	6.40	43.14	519.33	13.03	12.21	17.85	2.00	2.00	0.00	40.1186698	-104.9678073
540.00	6.80	43.14	539.20	14.71	13.78	20.15	2.00	2.00	0.00	40.1186744	-104.9678017
560.00	7.20	43.14	559.05	16.48	15.45	22.59	2.00	2.00	0.00	40.1186792	-104.9677958
580.00	7.60	43.14	578.89	18.36	17.21	25.17	2.00	2.00	0.00	40.1186844	-104.9677895
600.00	8.00	43.14	598.70	20.34	19.06	27.88	2.00	2.00	0.00	40.1186898	-104.9677828
620.00	8.40	43.14	618.50	22.43	21.01	30.73	2.00	2.00	0.00	40.1186956	-104.9677759
640.00	8.80	43.14	638.27	24.61	23.06	33.72	2.00	2.00	0.00	40.1187016	-104.9677685
660.00	9.20	43.14	658.03	26.89	25.20	36.85	2.00	2.00	0.00	40.1187078	-104.9677609
680.00	9.60	43.14	677.76	29.27	27.43	40.12	2.00	2.00	0.00	40.1187144	-104.9677529

Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	NS (Ft)	EW (Ft)	VS (Ft)	DLS °/100Ft	Build Rate °/100Ft	Walk Rate °/100Ft	Latitude Dec. Deg	Longitude Dec. Deg
700.00	10.00	43.14	697.47	31.76	29.76	43.52	2.00	2.00	0.00	40.1187212	-104.9677446
720.00	10.40	43.14	717.15	34.34	32.18	47.07	2.00	2.00	0.00	40.1187283	-104.9677359
740.00	10.80	43.14	736.81	37.03	34.70	50.74	2.00	2.00	0.00	40.1187356	-104.9677269
760.00	11.20	43.14	756.44	39.81	37.31	54.56	2.00	2.00	0.00	40.1187433	-104.9677176
780.00	11.60	43.14	776.05	42.70	40.01	58.51	2.00	2.00	0.00	40.1187512	-104.9677079
800.00	12.00	43.14	795.62	45.68	42.81	62.60	2.00	2.00	0.00	40.1187594	-104.9676979
820.00	12.40	43.14	815.17	48.77	45.70	66.83	2.00	2.00	0.00	40.1187679	-104.9676876
840.00	12.80	43.14	834.69	51.95	48.68	71.19	2.00	2.00	0.00	40.1187766	-104.9676769
860.00	13.20	43.14	854.18	55.23	51.76	75.69	2.00	2.00	0.00	40.1187856	-104.9676659
880.00	13.60	43.14	873.63	58.61	54.93	80.33	2.00	2.00	0.00	40.1187949	-104.9676546
900.00	14.00	43.14	893.06	62.09	58.19	85.10	2.00	2.00	0.00	40.1188045	-104.9676429
920.00	14.40	43.14	912.44	65.67	61.54	90.00	2.00	2.00	0.00	40.1188143	-104.9676309
940.00	14.80	43.14	931.80	69.35	64.99	95.05	2.00	2.00	0.00	40.1188244	-104.9676186
960.00	15.20	43.14	951.12	73.13	68.53	100.22	2.00	2.00	0.00	40.1188348	-104.9676060
980.00	15.60	43.14	970.40	77.01	72.16	105.53	2.00	2.00	0.00	40.1188454	-104.9675930
1000.00	16.00	43.14	989.64	80.98	75.88	110.98	2.00	2.00	0.00	40.1188563	-104.9675797
1020.00	16.40	43.14	1008.85	85.05	79.70	116.56	2.00	2.00	0.00	40.1188675	-104.9675660
1040.00	16.80	43.14	1028.01	89.22	83.61	122.27	2.00	2.00	0.00	40.1188789	-104.9675520
1060.00	17.20	43.14	1047.14	93.49	87.61	128.12	2.00	2.00	0.00	40.1188906	-104.9675377
1080.00	17.60	43.14	1066.23	97.85	91.69	134.10	2.00	2.00	0.00	40.1189026	-104.9675231
Begin Hold @ 17.85°,43.14° Azm											
1092.53	17.85	43.14	1078.16	100.63	94.30	137.91	1.99	1.99	0.00	40.1189103	-104.9675138
 Parkman											
4066.53	17.85	43.14	3909.00	765.82	717.65	1049.52	0.00	0.00	0.00	40.1207363	-104.9652848
 Sussex											
4602.32	17.85	43.14	4419.00	885.66	829.95	1213.76	0.00	0.00	0.00	40.1210652	-104.9648833
 Shannon											
5069.83	17.85	43.14	4864.00	990.23	927.93	1357.06	0.00	0.00	0.00	40.1213523	-104.9645329
Begin Drop @ -2.00°/ 100 Ft											
6244.74	17.85	43.14	5982.36	1253.02	1174.19	1717.20	0.00	0.00	0.00	40.1220736	-104.9636522
6264.74	17.45	43.14	6001.41	1257.44	1178.34	1723.27	2.00	-2.00	0.00	40.1220858	-104.9636374
6284.74	17.05	43.14	6020.51	1261.77	1182.40	1729.20	2.00	-2.00	0.00	40.1220977	-104.9636229
6304.74	16.65	43.14	6039.66	1266.00	1186.36	1734.99	2.00	-2.00	0.00	40.1221093	-104.9636087
6324.74	16.25	43.14	6058.84	1270.13	1190.23	1740.66	2.00	-2.00	0.00	40.1221206	-104.9635949
6344.74	15.85	43.14	6078.06	1274.17	1194.01	1746.19	2.00	-2.00	0.00	40.1221317	-104.9635814
6364.74	15.45	43.14	6097.32	1278.10	1197.70	1751.58	2.00	-2.00	0.00	40.1221425	-104.9635682
6384.74	15.05	43.14	6116.61	1281.94	1201.30	1756.84	2.00	-2.00	0.00	40.1221530	-104.9635553
6404.74	14.65	43.14	6135.94	1285.68	1204.80	1761.97	2.00	-2.00	0.00	40.1221633	-104.9635428
6424.74	14.25	43.14	6155.31	1289.32	1208.22	1766.96	2.00	-2.00	0.00	40.1221733	-104.9635306
6444.74	13.85	43.14	6174.71	1292.87	1211.54	1771.81	2.00	-2.00	0.00	40.1221830	-104.9635187
6464.74	13.45	43.14	6194.15	1296.31	1214.76	1776.53	2.00	-2.00	0.00	40.1221925	-104.9635072
6484.74	13.05	43.14	6213.61	1299.66	1217.90	1781.12	2.00	-2.00	0.00	40.1222017	-104.9634959

Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	NS (Ft)	EW (Ft)	VS (Ft)	DLS °/100Ft	Build Rate °/100Ft	Walk Rate °/100Ft	Latitude Dec. Deg	Longitude Dec. Deg
6504.74	12.65	43.14	6233.11	1302.90	1220.94	1785.57	2.00	-2.00	0.00	40.1222106	-104.9634851
6524.74	12.25	43.14	6252.64	1306.05	1223.89	1789.88	2.00	-2.00	0.00	40.1222192	-104.9634745
6544.74	11.85	43.13	6272.20	1309.10	1226.74	1794.05	2.00	-2.00	0.00	40.1222276	-104.9634643
6564.74	11.45	43.13	6291.79	1312.04	1229.50	1798.09	2.00	-2.00	0.00	40.1222357	-104.9634544
6584.74	11.05	43.13	6311.41	1314.89	1232.17	1801.99	2.00	-2.00	0.00	40.1222435	-104.9634449
6604.74	10.65	43.13	6331.05	1317.64	1234.74	1805.76	2.00	-2.00	0.00	40.1222510	-104.9634357
6624.74	10.25	43.13	6350.72	1320.29	1237.22	1809.39	2.00	-2.00	0.00	40.1222583	-104.9634268
6644.74	9.85	43.13	6370.41	1322.83	1239.61	1812.88	2.00	-2.00	0.00	40.1222653	-104.9634183
6664.74	9.45	43.13	6390.13	1325.28	1241.90	1816.23	2.00	-2.00	0.00	40.1222720	-104.9634101
6684.74	9.05	43.13	6409.87	1327.63	1244.10	1819.44	2.00	-2.00	0.00	40.1222784	-104.9634022
6704.74	8.65	43.13	6429.63	1329.87	1246.20	1822.52	2.00	-2.00	0.00	40.1222846	-104.9633947
6724.74	8.25	43.13	6449.41	1332.02	1248.21	1825.46	2.00	-2.00	-0.01	40.1222905	-104.9633875
6744.74	7.85	43.13	6469.21	1334.06	1250.13	1828.26	2.00	-2.00	-0.01	40.1222961	-104.9633807
6764.74	7.45	43.13	6489.04	1336.00	1251.95	1830.92	2.00	-2.00	-0.01	40.1223014	-104.9633742
6784.74	7.05	43.12	6508.88	1337.85	1253.67	1833.45	2.00	-2.00	-0.01	40.1223065	-104.9633680
6804.74	6.65	43.12	6528.73	1339.59	1255.30	1835.83	2.00	-2.00	-0.01	40.1223113	-104.9633622
6824.74	6.25	43.12	6548.61	1341.23	1256.84	1838.08	2.00	-2.00	-0.01	40.1223158	-104.9633567
6844.74	5.85	43.12	6568.50	1342.76	1258.28	1840.19	2.00	-2.00	-0.01	40.1223200	-104.9633515
6864.74	5.45	43.12	6588.40	1344.20	1259.63	1842.16	2.00	-2.00	-0.01	40.1223239	-104.9633467
6884.74	5.05	43.11	6608.31	1345.54	1260.88	1843.99	2.00	-2.00	-0.01	40.1223276	-104.9633422
6904.74	4.65	43.11	6628.24	1346.77	1262.03	1845.68	2.00	-2.00	-0.02	40.1223310	-104.9633381
6924.74	4.25	43.11	6648.18	1347.91	1263.09	1847.23	2.00	-2.00	-0.02	40.1223341	-104.9633343
6944.74	3.85	43.10	6668.13	1348.94	1264.06	1848.64	2.00	-2.00	-0.02	40.1223369	-104.9633309
6964.74	3.45	43.10	6688.09	1349.87	1264.93	1849.91	2.00	-2.00	-0.03	40.1223395	-104.9633278
6984.74	3.05	43.09	6708.06	1350.69	1265.70	1851.05	2.00	-2.00	-0.03	40.1223418	-104.9633250
7004.74	2.65	43.08	6728.03	1351.42	1266.38	1852.04	2.00	-2.00	-0.04	40.1223438	-104.9633226
7024.74	2.25	43.07	6748.02	1352.04	1266.97	1852.90	2.00	-2.00	-0.06	40.1223455	-104.9633205
7044.74	1.85	43.05	6768.00	1352.57	1267.45	1853.61	2.00	-2.00	-0.09	40.1223469	-104.9633187
7064.74	1.45	43.03	6788.00	1352.99	1267.85	1854.19	2.00	-2.00	-0.13	40.1223481	-104.9633173
7084.74	1.05	42.98	6807.99	1353.31	1268.15	1854.62	2.00	-2.00	-0.23	40.1223489	-104.9633163
7104.74	0.65	42.88	6827.99	1353.52	1268.35	1854.92	2.00	-2.00	-0.52	40.1223495	-104.9633155
7124.74	0.25	42.44	6847.99	1353.64	1268.45	1855.08	2.00	-2.00	-2.19	40.1223499	-104.9633151
Begin Hold @ Vertical											
7135.53	0.03	37.96	6858.78	1353.66	1268.47	1855.11	2.00	-2.00	-41.54	40.1223499	-104.9633151
 Niobrara											
7535.75	0.03	37.96	7259.00	1353.85	1268.62	1855.34	0.00	0.00	0.00	40.1223504	-104.9633146
 Fort Hays											
7795.75	0.03	37.96	7519.00	1353.97	1268.72	1855.50	0.00	0.00	0.00	40.1223508	-104.9633142
 Codell											
7815.75	0.03	37.96	7539.00	1353.98	1268.72	1855.51	0.00	0.00	0.00	40.1223508	-104.9633142

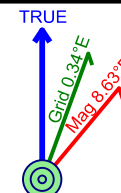
Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	NS (Ft)	EW (Ft)	VS (Ft)	DLS °/100Ft	Build Rate °/100Ft	Walk Rate °/100Ft	Latitude Dec. Deg	Longitude Dec. Deg
● Grant Brothers 23-43 Target											
7975.75	0.03	37.96	7699.00	1354.06	1268.78	1855.61	0.00	0.00	0.00	40.1223510	-104.9633140
PBHL @ 1985' FSL & 661' FEL											
7975.76	0.03	37.96	7699.01	1354.06	1268.78	1855.61	5.16	0.00	0.00	40.1223510	-104.9633140
TARGET DATA											
Name	Shape	Easting (Ft)	Northing (Ft)	Subsea (Ft)	TVD (Ft)	NS (Ft)	EW (Ft)	Side A (Ft)	Side B (Ft)	Dia. (Ft)	
Grant Brothers 23-43 Target	CIRCLE	3150081.1	1287870.6	2765.0	7699.0	1354.1	1268.8	100.0	100.0	100.0	
LITHOLOGY DATA											
Name	Description	Pattern	TVD Top (Ft)	TVD Bottom (Ft)	Dip Angle (deg)	Dip Direction (deg)					
Parkman	Parkman	SANDSTON	3909	4419	0.0	0.0					
Sussex	Sussex	SANDSTON	4419	4864	0.0	0.0					
Shannon	Shannon	SANDSTON	4864	7259	0.0	0.0					
Niobrara	Niobrara	CHALK	7259	7519	0.0	0.0					
Fort Hays	Fort Hays	LIMESTON	7519	7539	0.0	0.0					
Codell	Codell	SANDSTON	7539	7699	0.0	0.0					



Job Number: Grant Brothers Pad
Company: Sundance Energy, Inc.
Lease/Well: Grant Bros 23-43
Location: Sec 23 T2N R68W
Rig Name: Cade 25
State/County: CO/ Weld
Country: USA
API Number: 05-123-xxxx

Elevation : 4920.00 ft
RKB: 14.00 ft
Projection System: US State Plane 1983
Projection Group: Colorado Northern Zone
Projection Datum: GRS80
Mag. Declination: 8.63°
Grid Convergence: 0.34384 E
Date: Monday, June 24, 2013

Calculated by HawkEye Software
Minimum Curvature Method
Vertical Section Plane 43.14°
Northing (US ft): 1286508.93 Easting (US ft): 3148820.50
Latitude: 40°07'7.0824" N Longitude: -104°58'4.2636" W
Well Location: 647.10 FSL, 1936.18 FEL, Section 23, T2N, R68W, Meridian 06, Weld County, CO
Direction Reference: True North



Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	NS (Ft)	EW (Ft)	VS (Ft)	DLS °/100Ft	Build Rate °/100Ft	Walk Rate °/100Ft	Latitude Dec. Deg	Longitude Dec. Deg
SHL @ 628' FSL & 1935' FEL											
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.1186340	-104.9678510
KOP-Begin Build @ 200.00MD ,2.00°/ 100 Ft											
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	40.1186340	-104.9678510
Begin Hold @ 17.85°,43.14° Azm											
1092.53	17.85	43.14	1078.16	100.63	94.30	137.91	1.99	1.99	0.00	40.1189103	-104.9675138
Parkman											
4066.53	17.85	43.14	3909.00	765.82	717.65	1049.52	0.00	0.00	0.00	40.1207363	-104.9652848
Sussex											
4602.32	17.85	43.14	4419.00	885.66	829.95	1213.76	0.00	0.00	0.00	40.1210652	-104.9648833
Shannon											
5069.83	17.85	43.14	4864.00	990.23	927.93	1357.06	0.00	0.00	0.00	40.1213523	-104.9645329
Begin Drop @ -2.00°/ 100 Ft											
6244.74	17.85	43.14	5982.36	1253.02	1174.19	1717.20	0.00	0.00	0.00	40.1220736	-104.9636522
Begin Hold @ Vertical											
7135.53	0.03	37.96	6858.78	1353.66	1268.47	1855.11	2.00	-2.00	-41.54	40.1223499	-104.9633151
Niobrara											
7535.75	0.03	37.96	7259.00	1353.85	1268.62	1855.34	0.00	0.00	0.00	40.1223504	-104.9633146
Fort Hays											
7795.75	0.03	37.96	7519.00	1353.97	1268.72	1855.50	0.00	0.00	0.00	40.1223508	-104.9633142
Codell											
7815.75	0.03	37.96	7539.00	1353.98	1268.72	1855.51	0.00	0.00	0.00	40.1223508	-104.9633142
Grant Brothers 23-43 Target											
7975.75	0.03	37.96	7699.00	1354.06	1268.78	1855.61	0.00	0.00	0.00	40.1223510	-104.9633140
PBHL @ 1985' FSL & 661' FEL											
7975.76	0.03	37.96	7699.01	1354.06	1268.78	1855.61	5.16	0.00	0.00	40.1223510	-104.9633140

TARGET DATA

Name	Shape	Easting (Ft)	Northing (Ft)	Subsea (Ft)	TVD (Ft)	NS (Ft)	EW (Ft)	Side A (Ft)	Side B (Ft)	Dia. (Ft)
Grant Brothers 23-43 Target	CIRCLE	3150081.1	1287870.6	2765.0	7699.0	1354.1	1268.8	100.0	100.0	100.0

LITHOLOGY DATA						
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Niobrara	Niobrara	CHALK	7259	7519	0.0	0.0
Fort Hays	Fort Hays	LIMESTON	7519	7539	0.0	0.0
Codell	Codell	SANDSTON	7539	7699	0.0	0.0