

**5D Plan Report****Anadarko Petroleum**

Field Name: *WATTENBERG_ANADARKO_NAD 83*
Site Name: *NRC 13-9HZ PAD*
Well Name: *NRC 4N-4HZ*
Plan: *WP01 PERMIT*



Plan Data for NRC 4N-4HZ

Field: WATTENBERG_ANADARKO_NAD 83

Map Unit: USFt

Vertical Reference Datum (VRD): Mean Sea Level

Projected Coordinate System: NAD83 / Colorado North (ftUS)

Slot: NRC 4N-4HZ

Position:

Offset is from Site centre

+N/-S: -0.00USft Northing: 1264984.76USft

Latitude: 40.059227°

+E/-W: 29.95USft Easting: 3167179.08USft

Longitude: -104.902736°

Elevation Above VRD: 5064.00USft

Plan Point Information:

DogLeg Severity Unit: °/100.00ft Position offsets from Slot centre

MD	Inc	Az	TVD	+N/-S	+E/-W	VSec	DLS	Toolface
(USft)	(°)	(°)	(USft)	(USft)	(USft)	(USft)	(DLSU)	(°)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0R
1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	0.0R
1333.32	2.67	90.00	1333.28	0.00	3.10	-0.02	2.00	90.0R
6788.72	2.67	90.00	6782.76	0.00	256.90	-1.66	0.00	0.0R
6922.04	0.00	0.00	6916.04	0.00	260.00	-1.68	2.00	180.0R
7821.92	89.99	359.63	7489.00	572.82	256.29	571.16	10.00	0.4L
17114.27	89.99	359.63	7491.00	9864.98	196.13	9863.51	0.00	0.0R

Plan Data for NRC 4N-4HZ

Formation Point Information:

Name	TVD	Elevation	MD
	(USft)	(USft)	(USft)
FOX HILLS BASE	644.00	4437.00	644.00
SUSSEX	4730.00	351.00	4733.73
SHARON SPRINGS	7332.00	-2251.00	7387.55
NIOBRARA A	7367.00	-2286.00	7441.17
NIOBRARA B	7463.00	-2382.00	7648.78

Plan Data for NRC 4N-4HZ

Casing Point Information:

Name	MD	TVD
	(USft)	(USft)
9 5/8 in	694.00	694.00
7 in	7821.92	7489.00

KOP- 6922.04' MD

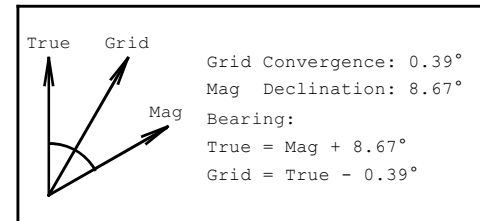
LINER TOP- 6822.04' MD

Plan Data for NRC 4N-4HZ

Target Set Information:

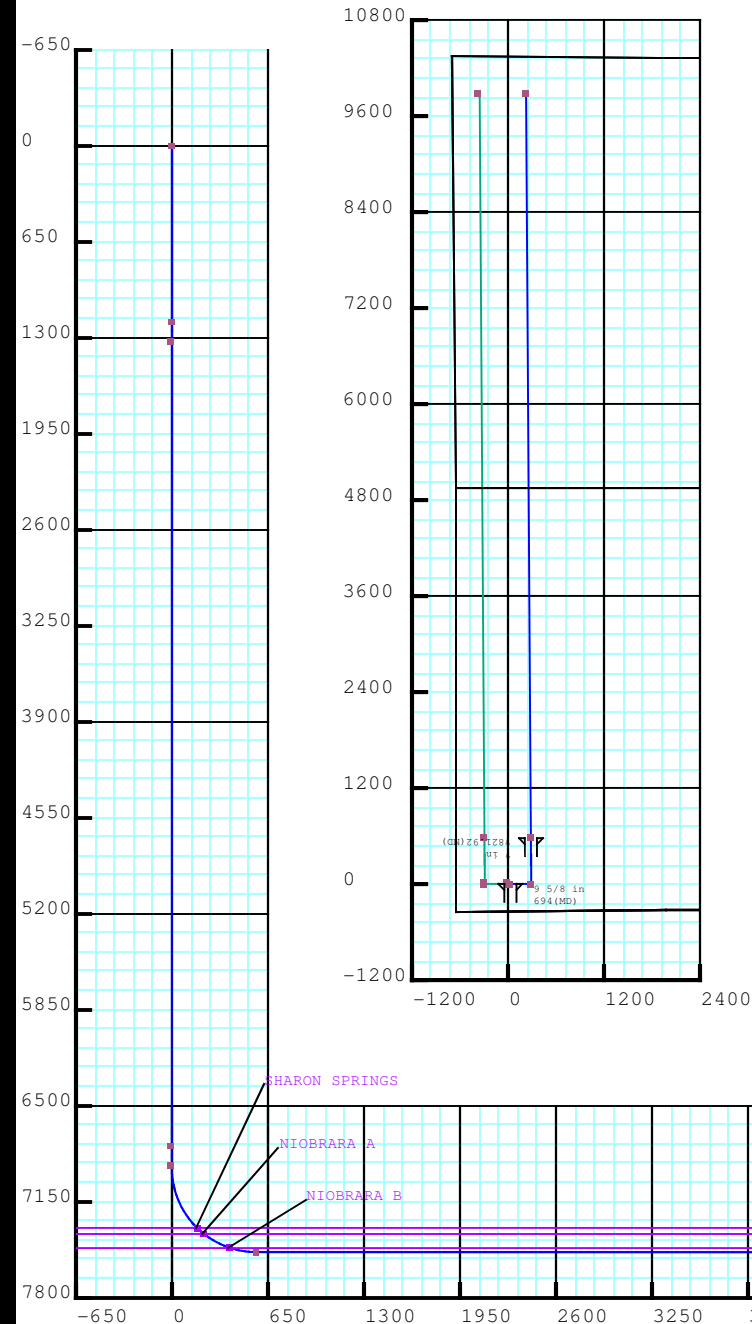
Name: 18

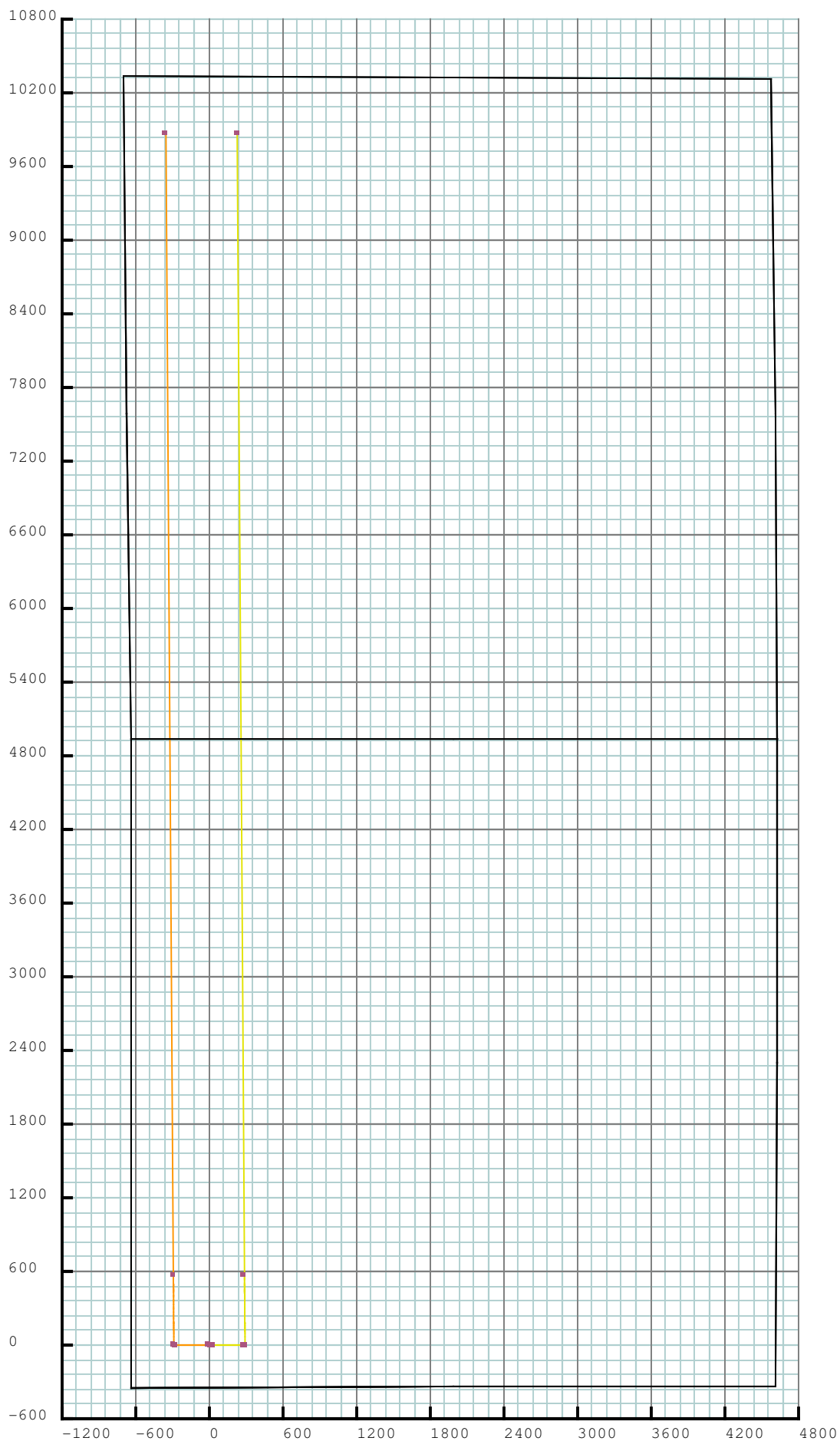
Name	TVD	Lat	Long	Shape
	(USft)	(°)	(°)	
PBHL	7491.00	40.086308	-104.902035	Cuboid

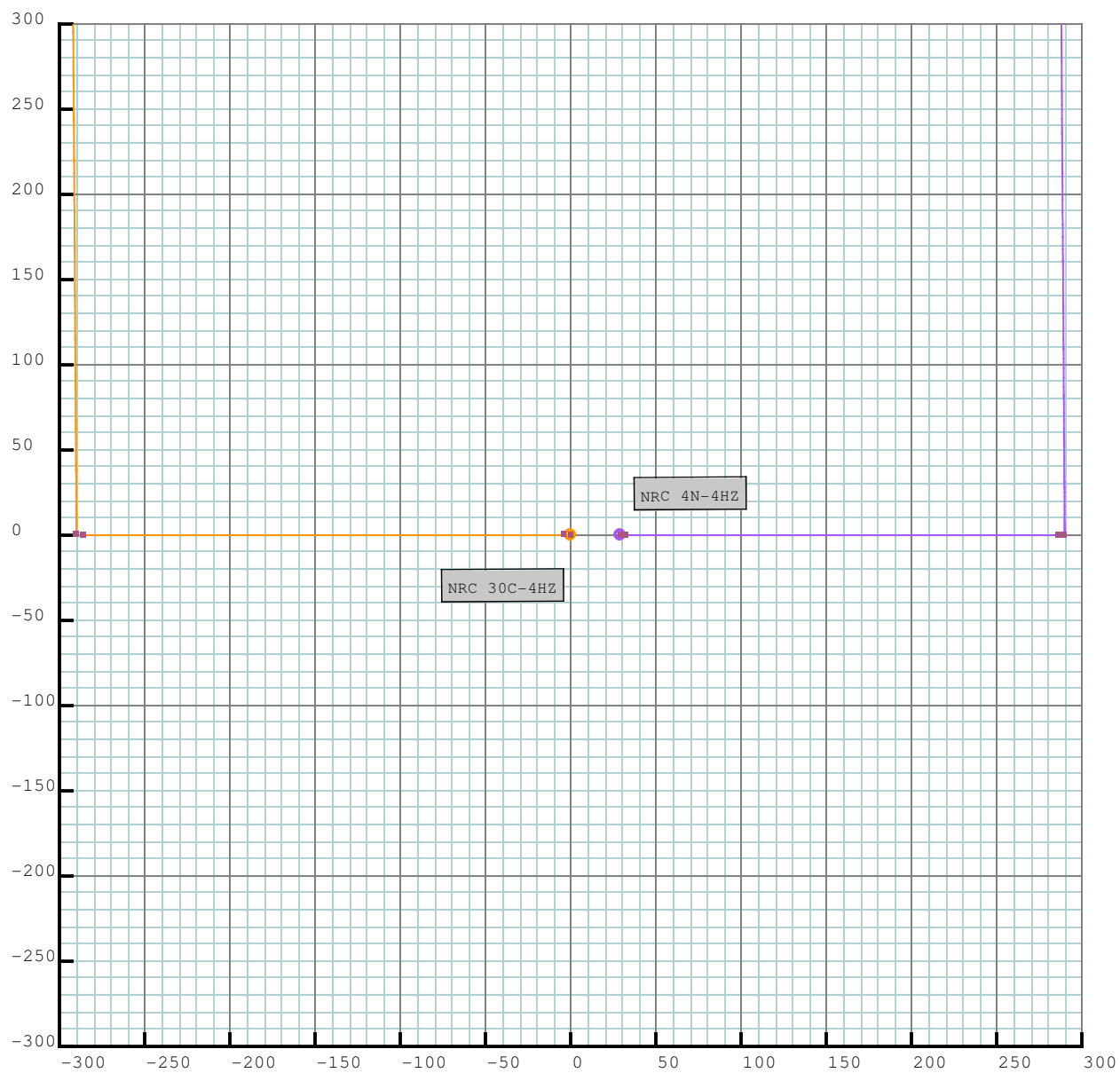


TD-
~460' FNL, ~920' FWL

7 IN. CASING-
~923' FSL, ~917' FWL







Spider Plot - Top Site: NRC 13-9HZ PAD



Weatherford®



Plan Surveys for the NRC 4N-4HZ

Site Name NRC 13-9HZ PAD	Units : US ft	North Reference : True	Convergence Angle : 0.39	
	Position	Northing : 1264984.56 US ft	Latitude : 40.059227	
		Easting : 3167149.13 US ft	Longitude : -104.902843	
	Elevation above:5064.00 US ft			
Comment :				
Slot Name NRC 4N-4HZ	Position (Offsets relative to Site Centre)			
	+N / -S : -0.00 US ft	Northing :1264984.76 US ft	Latitude : 40.059227	
	+E / -W : 29.95 US ft	Easting :3167179.08 US ft	Longitude : -104.902736	
	Slot TVD Reference : Ground Elevation			
	Elevation above : 5064.00 US ft			
	Comment :			
Well Name NRC 4N-4HZ	Type : Main well		UWI :	Plan : WP01 PERMIT
	Rig Height <i>Drill Floor</i> : 17.00 US ft		Comment :	
	Relative to : 5081.00 US ft			
	Closure Distance : 9866.93 US ft		Closure Azimuth : 1.13895°	
	Vertical Section (Position of Origin Relative to Slot)			
	+N / -S : 0.00 US ft		+E / -W : 0.00 US ft	Az :359.63°
	Magnetic Parameters			
	Model : BGGM	Field Strength : 52684.0nT	Dec : 8.67°	Dip : 66.64°

Target Set**Name :** 18**Number of Targets :** 1**Comment :**

TargetName:	Position (Relative to centre)			
PBHL	+N / -S : 9864.98US ft		Northing : 1274850.84 US ft	Latitude : 40°5'10.708800"
Shape:	+E / -W : 196.13 US ft		Easting : 3167308.77US ft	Longitude : -104°54'7.326000"
Cuboid	TVD (Drill Floor) : 7491.00 US ft			
	Orientation	Azimuth : 0.00°	Inclination : 0.00°	
	Dimensions	Length : 1.00 US ft	Breadth : 1.00 US ft	Height : 1.00 US ft

Casing Points (Relative to centre, TVD relative to Drill Floor)

Name	MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (°)	Longitude (°)
9 5/8 in	694.00	0.00	0.00	694.00	0.00	0.00	40.059227	-104.902736
7 in	7821.92	89.99	359.63	7489.00	572.82	256.29	40.060799	-104.901820

Well path created using minimum curvature**Salient 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)	Northing (US ft)	Easting (US ft)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	1264984.76	3167179.08	0.00	0.00	0.00	SURFACE
694.00	0.00	0.00	694.00	0.00	0.00	1264984.76	3167179.08	0.00	0.00	0.00	9 5/8 in
1200.00	0.00	0.00	1200.00	0.00	0.00	1264984.76	3167179.08	0.00	0.00	0.00	BEGIN NUDGE
1333.32	2.67	90.00	1333.28	0.00	3.10	1264984.78	3167182.18	2.00	90.00	-0.02	
6788.72	2.67	90.00	6782.76	0.00	256.90	1264986.49	3167435.97	0.00	0.00	-1.66	
6922.04	0.00	0.00	6916.04	0.00	260.00	1264986.51	3167439.07	2.00	180.00	-1.68	KOP
7821.92	89.99	359.63	7489.00	572.82	256.29	1265559.30	3167431.51	10.00	359.63	571.16	7 in
17114.27	89.99	359.63	7491.00	9864.98	196.13	1274850.84	3167308.77	0.00	0.00	9863.51	TD

Interpolated 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)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SURFACE
100.00	0.00	0.00	100.00	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	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	

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Interpolated 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)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	BEGIN NUDGE
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00	
1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	0.00	
1300.00	2.00	90.00	1299.98	-0.00	1.75	2.00	90.00	-0.01	
1333.32	2.67	90.00	1333.28	0.00	3.10	2.00	0.00	-0.02	
1400.00	2.67	90.00	1399.88	0.00	6.20	0.00	0.00	-0.04	
1500.00	2.67	90.00	1499.77	0.00	10.86	0.00	0.00	-0.07	
1600.00	2.67	90.00	1599.66	0.00	15.51	0.00	0.00	-0.10	
1700.00	2.67	90.00	1699.55	-0.00	20.16	0.00	0.00	-0.13	
1800.00	2.67	90.00	1799.45	-0.00	24.81	0.00	0.00	-0.16	
1900.00	2.67	90.00	1899.34	0.00	29.46	0.00	0.00	-0.19	
2000.00	2.67	90.00	1999.23	0.00	34.12	0.00	0.00	-0.22	
2100.00	2.67	90.00	2099.12	0.00	38.77	0.00	0.00	-0.25	
2200.00	2.67	90.00	2199.01	-0.00	43.42	0.00	0.00	-0.28	
2300.00	2.67	90.00	2298.91	-0.00	48.07	0.00	0.00	-0.31	
2400.00	2.67	90.00	2398.80	0.00	52.73	0.00	0.00	-0.34	
2500.00	2.67	90.00	2498.69	0.00	57.38	0.00	0.00	-0.37	
2600.00	2.67	90.00	2598.58	0.00	62.03	0.00	0.00	-0.40	
2700.00	2.67	90.00	2698.47	-0.00	66.68	0.00	0.00	-0.43	
2800.00	2.67	90.00	2798.36	-0.00	71.33	0.00	0.00	-0.46	
2900.00	2.67	90.00	2898.26	0.00	75.99	0.00	0.00	-0.49	
3000.00	2.67	90.00	2998.15	0.00	80.64	0.00	0.00	-0.52	
3100.00	2.67	90.00	3098.04	0.00	85.29	0.00	0.00	-0.55	
3200.00	2.67	90.00	3197.93	0.00	89.94	0.00	0.00	-0.58	
3300.00	2.67	90.00	3297.82	-0.00	94.60	0.00	0.00	-0.61	
3400.00	2.67	90.00	3397.71	0.00	99.25	0.00	0.00	-0.64	
3500.00	2.67	90.00	3497.61	0.00	103.90	0.00	0.00	-0.67	
3600.00	2.67	90.00	3597.50	0.00	108.55	0.00	0.00	-0.70	
3700.00	2.67	90.00	3697.39	0.00	113.20	0.00	0.00	-0.73	
3800.00	2.67	90.00	3797.28	-0.00	117.86	0.00	0.00	-0.76	
3900.00	2.67	90.00	3897.17	0.00	122.51	0.00	0.00	-0.79	
4000.00	2.67	90.00	3997.06	0.00	127.16	0.00	0.00	-0.82	
4100.00	2.67	90.00	4096.96	0.00	131.81	0.00	0.00	-0.85	
4200.00	2.67	90.00	4196.85	0.00	136.47	0.00	0.00	-0.88	
4300.00	2.67	90.00	4296.74	-0.00	141.12	0.00	0.00	-0.91	

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Interpolated 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)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment
4400.00	2.67	90.00	4396.63	0.00	145.77	0.00	0.00	-0.94	
4500.00	2.67	90.00	4496.52	0.00	150.42	0.00	0.00	-0.97	
4600.00	2.67	90.00	4596.41	0.00	155.07	0.00	0.00	-1.00	
4700.00	2.67	90.00	4696.31	0.00	159.73	0.00	0.00	-1.03	
4800.00	2.67	90.00	4796.20	-0.00	164.38	0.00	0.00	-1.06	
4900.00	2.67	90.00	4896.09	-0.00	169.03	0.00	0.00	-1.09	
5000.00	2.67	90.00	4995.98	0.00	173.68	0.00	0.00	-1.12	
5100.00	2.67	90.00	5095.87	0.00	178.34	0.00	0.00	-1.15	
5200.00	2.67	90.00	5195.77	0.00	182.99	0.00	0.00	-1.18	
5300.00	2.67	90.00	5295.66	0.00	187.64	0.00	0.00	-1.21	
5400.00	2.67	90.00	5395.55	-0.00	192.29	0.00	0.00	-1.24	
5500.00	2.67	90.00	5495.44	0.00	196.94	0.00	0.00	-1.27	
5600.00	2.67	90.00	5595.33	0.00	201.60	0.00	0.00	-1.30	
5700.00	2.67	90.00	5695.22	0.00	206.25	0.00	0.00	-1.33	
5800.00	2.67	90.00	5795.12	0.00	210.90	0.00	0.00	-1.36	
5900.00	2.67	90.00	5895.01	-0.00	215.55	0.00	0.00	-1.39	
6000.00	2.67	90.00	5994.90	0.00	220.21	0.00	0.00	-1.42	
6100.00	2.67	90.00	6094.79	0.00	224.86	0.00	0.00	-1.45	
6200.00	2.67	90.00	6194.68	0.00	229.51	0.00	0.00	-1.48	
6300.00	2.67	90.00	6294.57	0.00	234.16	0.00	0.00	-1.51	
6400.00	2.67	90.00	6394.47	-0.00	238.81	0.00	0.00	-1.54	
6500.00	2.67	90.00	6494.36	0.00	243.47	0.00	0.00	-1.57	
6600.00	2.67	90.00	6594.25	0.00	248.12	0.00	0.00	-1.60	
6700.00	2.67	90.00	6694.14	0.00	252.77	0.00	0.00	-1.63	
6788.72	2.67	90.00	6782.76	0.00	256.90	0.00	0.00	-1.66	
6800.00	2.44	90.00	6794.03	-0.00	257.40	2.00	180.00	-1.66	
6900.00	0.44	90.00	6894.00	0.00	259.92	2.00	180.00	-1.68	
6922.04	0.00	0.00	6916.04	0.00	260.00	2.00	180.00	-1.68	KOP
7000.00	7.80	359.63	6993.76	5.30	259.97	10.00	359.63	3.62	
7100.00	17.80	359.63	7091.15	27.41	259.82	10.00	0.00	25.74	
7200.00	27.80	359.63	7183.22	66.11	259.57	10.00	0.00	64.43	
7300.00	37.80	359.63	7267.18	120.20	259.22	10.00	0.00	118.53	
7400.00	47.80	359.63	7340.46	188.05	258.78	10.00	0.00	186.38	
7500.00	57.80	359.63	7400.85	267.60	258.27	10.00	0.00	265.93	
7600.00	67.80	359.63	7446.51	356.42	257.69	10.00	0.00	354.75	
7700.00	77.80	359.63	7476.05	451.83	257.07	10.00	0.00	450.16	
7800.00	87.80	359.63	7488.57	550.91	256.43	10.00	0.00	549.24	
7821.92	89.99	359.63	7489.00	572.82	256.29	10.00	0.00	571.16	
7900.00	89.99	359.63	7489.01	650.90	255.79	0.00	0.00	649.24	
8000.00	89.99	359.63	7489.04	750.90	255.14	0.00	0.00	749.24	
8100.00	89.99	359.63	7489.06	850.90	254.49	0.00	0.00	849.24	

5D Plan Report

Interpolated 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)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment
8200.00	89.99	359.63	7489.08	950.89	253.84	0.00	0.00	949.24	
8300.00	89.99	359.63	7489.10	1050.89	253.20	0.00	0.00	1049.24	
8400.00	89.99	359.63	7489.12	1150.89	252.55	0.00	0.00	1149.24	
8500.00	89.99	359.63	7489.14	1250.89	251.90	0.00	0.00	1249.24	
8600.00	89.99	359.63	7489.17	1350.89	251.25	0.00	0.00	1349.24	
8700.00	89.99	359.63	7489.19	1450.88	250.61	0.00	0.00	1449.24	
8800.00	89.99	359.63	7489.21	1550.88	249.96	0.00	0.00	1549.24	
8900.00	89.99	359.63	7489.23	1650.88	249.31	0.00	0.00	1649.24	
9000.00	89.99	359.63	7489.25	1750.88	248.66	0.00	0.00	1749.24	
9100.00	89.99	359.63	7489.27	1850.88	248.02	0.00	0.00	1849.24	
9200.00	89.99	359.63	7489.29	1950.87	247.37	0.00	0.00	1949.24	
9300.00	89.99	359.63	7489.32	2050.87	246.72	0.00	0.00	2049.24	
9400.00	89.99	359.63	7489.34	2150.87	246.07	0.00	0.00	2149.24	
9500.00	89.99	359.63	7489.36	2250.87	245.43	0.00	0.00	2249.24	
9600.00	89.99	359.63	7489.38	2350.87	244.78	0.00	0.00	2349.24	
9700.00	89.99	359.63	7489.40	2450.86	244.13	0.00	0.00	2449.24	
9800.00	89.99	359.63	7489.42	2550.86	243.48	0.00	0.00	2549.24	
9900.00	89.99	359.63	7489.45	2650.86	242.84	0.00	0.00	2649.24	
10000.00	89.99	359.63	7489.47	2750.86	242.19	0.00	0.00	2749.24	
10100.00	89.99	359.63	7489.49	2850.85	241.54	0.00	0.00	2849.24	
10200.00	89.99	359.63	7489.51	2950.85	240.89	0.00	0.00	2949.24	
10300.00	89.99	359.63	7489.53	3050.85	240.25	0.00	0.00	3049.24	
10400.00	89.99	359.63	7489.55	3150.85	239.60	0.00	0.00	3149.24	
10500.00	89.99	359.63	7489.57	3250.85	238.95	0.00	0.00	3249.24	
10600.00	89.99	359.63	7489.60	3350.84	238.30	0.00	0.00	3349.24	
10700.00	89.99	359.63	7489.62	3450.84	237.66	0.00	0.00	3449.24	
10800.00	89.99	359.63	7489.64	3550.84	237.01	0.00	0.00	3549.24	
10900.00	89.99	359.63	7489.66	3650.84	236.36	0.00	0.00	3649.24	
11000.00	89.99	359.63	7489.68	3750.84	235.71	0.00	0.00	3749.24	
11100.00	89.99	359.63	7489.70	3850.83	235.07	0.00	0.00	3849.24	
11200.00	89.99	359.63	7489.73	3950.83	234.42	0.00	0.00	3949.24	
11300.00	89.99	359.63	7489.75	4050.83	233.77	0.00	0.00	4049.24	
11400.00	89.99	359.63	7489.77	4150.83	233.12	0.00	0.00	4149.24	
11500.00	89.99	359.63	7489.79	4250.83	232.48	0.00	0.00	4249.24	
11600.00	89.99	359.63	7489.81	4350.82	231.83	0.00	0.00	4349.24	
11700.00	89.99	359.63	7489.83	4450.82	231.18	0.00	0.00	4449.24	
11800.00	89.99	359.63	7489.86	4550.82	230.53	0.00	0.00	4549.24	
11900.00	89.99	359.63	7489.88	4650.82	229.89	0.00	0.00	4649.24	
12000.00	89.99	359.63	7489.90	4750.81	229.24	0.00	0.00	4749.24	
12100.00	89.99	359.63	7489.92	4850.81	228.59	0.00	0.00	4849.24	
12200.00	89.99	359.63	7489.94	4950.81	227.94	0.00	0.00	4949.24	

5D Plan Report

Interpolated 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)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)		
12300.00	89.99	359.63	7489.96	5050.81	227.30	0.00	0.00	5049.24		
12400.00	89.99	359.63	7489.98	5150.81	226.65	0.00	0.00	5149.24		
12500.00	89.99	359.63	7490.01	5250.80	226.00	0.00	0.00	5249.24		
12600.00	89.99	359.63	7490.03	5350.80	225.36	0.00	0.00	5349.24		
12700.00	89.99	359.63	7490.05	5450.80	224.71	0.00	0.00	5449.24		
12800.00	89.99	359.63	7490.07	5550.80	224.06	0.00	0.00	5549.24		
12900.00	89.99	359.63	7490.09	5650.80	223.41	0.00	0.00	5649.24		
13000.00	89.99	359.63	7490.11	5750.79	222.77	0.00	0.00	5749.24		
13100.00	89.99	359.63	7490.14	5850.79	222.12	0.00	0.00	5849.24		
13200.00	89.99	359.63	7490.16	5950.79	221.47	0.00	0.00	5949.24		
13300.00	89.99	359.63	7490.18	6050.79	220.82	0.00	0.00	6049.24		
13400.00	89.99	359.63	7490.20	6150.79	220.18	0.00	0.00	6149.24		
13500.00	89.99	359.63	7490.22	6250.78	219.53	0.00	0.00	6249.24		
13600.00	89.99	359.63	7490.24	6350.78	218.88	0.00	0.00	6349.24		
13700.00	89.99	359.63	7490.26	6450.78	218.23	0.00	0.00	6449.24		
13800.00	89.99	359.63	7490.29	6550.78	217.59	0.00	0.00	6549.24		
13900.00	89.99	359.63	7490.31	6650.78	216.94	0.00	0.00	6649.24		
14000.00	89.99	359.63	7490.33	6750.77	216.29	0.00	0.00	6749.24		
14100.00	89.99	359.63	7490.35	6850.77	215.64	0.00	0.00	6849.24		
14200.00	89.99	359.63	7490.37	6950.77	215.00	0.00	0.00	6949.24		
14300.00	89.99	359.63	7490.39	7050.77	214.35	0.00	0.00	7049.24		
14400.00	89.99	359.63	7490.42	7150.76	213.70	0.00	0.00	7149.24		
14500.00	89.99	359.63	7490.44	7250.76	213.05	0.00	0.00	7249.24		
14600.00	89.99	359.63	7490.46	7350.76	212.41	0.00	0.00	7349.24		
14700.00	89.99	359.63	7490.48	7450.76	211.76	0.00	0.00	7449.24		
14800.00	89.99	359.63	7490.50	7550.76	211.11	0.00	0.00	7549.24		
14900.00	89.99	359.63	7490.52	7650.75	210.46	0.00	0.00	7649.24		
15000.00	89.99	359.63	7490.54	7750.75	209.82	0.00	0.00	7749.24		
15100.00	89.99	359.63	7490.57	7850.75	209.17	0.00	0.00	7849.24		
15200.00	89.99	359.63	7490.59	7950.75	208.52	0.00	0.00	7949.24		
15300.00	89.99	359.63	7490.61	8050.75	207.87	0.00	0.00	8049.24		
15400.00	89.99	359.63	7490.63	8150.74	207.23	0.00	0.00	8149.24		
15500.00	89.99	359.63	7490.65	8250.74	206.58	0.00	0.00	8249.24		
15600.00	89.99	359.63	7490.67	8350.74	205.93	0.00	0.00	8349.24		
15700.00	89.99	359.63	7490.70	8450.74	205.28	0.00	0.00	8449.24		
15800.00	89.99	359.63	7490.72	8550.74	204.64	0.00	0.00	8549.24		
15900.00	89.99	359.63	7490.74	8650.73	203.99	0.00	0.00	8649.24		
16000.00	89.99	359.63	7490.76	8750.73	203.34	0.00	0.00	8749.24		
16100.00	89.99	359.63	7490.78	8850.73	202.69	0.00	0.00	8849.24		
16200.00	89.99	359.63	7490.80	8950.73	202.05	0.00	0.00	8949.24		
16300.00	89.99	359.63	7490.82	9050.72	201.40	0.00	0.00	9049.24		

5D Plan Report

Interpolated 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)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment
16400.00	89.99	359.63	7490.85	9150.72	200.75	0.00	0.00	9149.24	
16500.00	89.99	359.63	7490.87	9250.72	200.10	0.00	0.00	9249.24	
16600.00	89.99	359.63	7490.89	9350.72	199.46	0.00	0.00	9349.24	
16700.00	89.99	359.63	7490.91	9450.72	198.81	0.00	0.00	9449.24	
16800.00	89.99	359.63	7490.93	9550.71	198.16	0.00	0.00	9549.24	
16900.00	89.99	359.63	7490.95	9650.71	197.51	0.00	0.00	9649.24	
17000.00	89.99	359.63	7490.98	9750.71	196.87	0.00	0.00	9749.24	
17100.00	89.99	359.63	7491.00	9850.71	196.22	0.00	0.00	9849.24	
17114.27	89.99	359.63	7491.00	9864.98	196.13	0.00	0.00	9863.51	TD

Formation Points (Relative to centre, TVD relative to Drill Floor)			
Name	MD (US ft)	TVD (US ft)	
FOX HILLS BASE	644.00	644.00	
SUSSEX	4733.73	4730.00	
SHARON SPRINGS	7387.55	7332.00	
NIOBRARA A	7441.17	7367.00	
NIOBRARA B	7648.78	7463.00	