



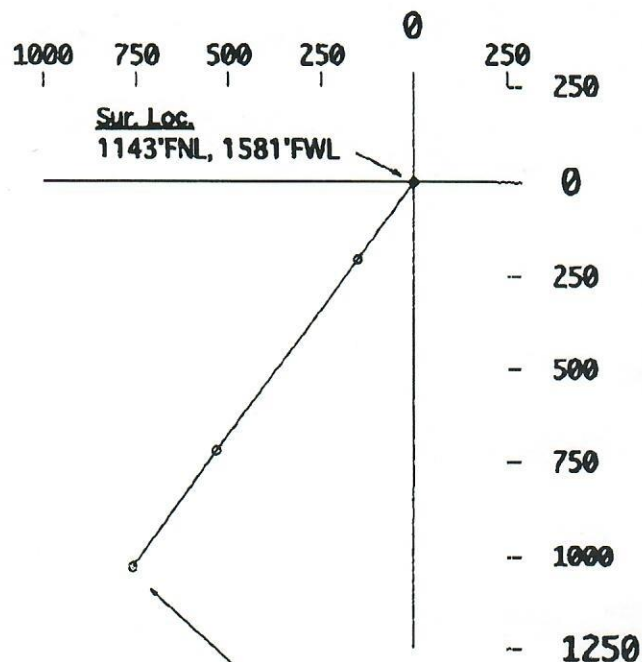
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Vessels Oil & Gas, Inc.
Minerals 30-5
SE Sec 30, T-1-N, R-68-W
Weld County, Colorado

HORIZONTAL PLAN

Scale 1" = 500'

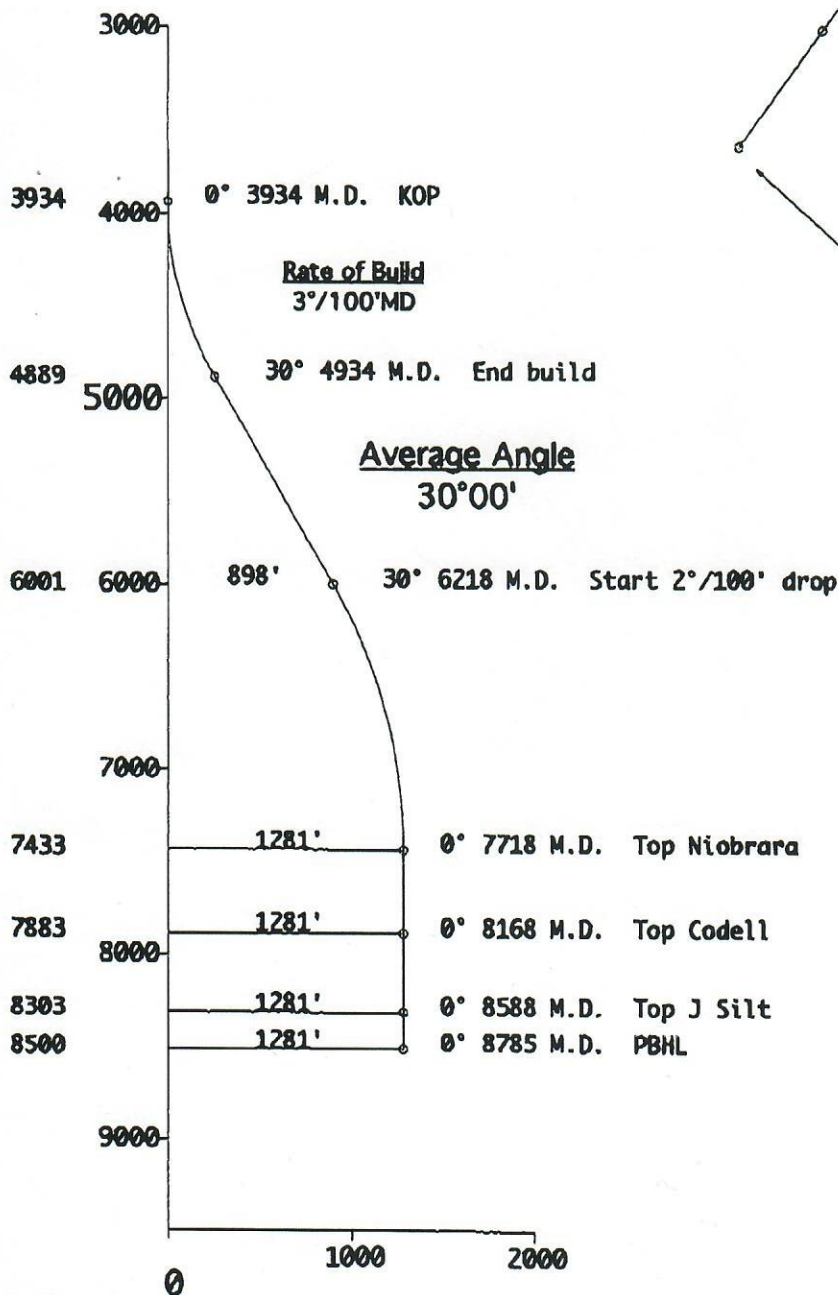
N
North

PLANE OF PROPOSAL

216.21°

VERTICAL SECTION

Scale 1" = 1000'

Proposed Objectives

1281' Displacement
@ 216.21° Azimuth
South-1034' West-757'
2177' FNL, 824' FWL
TOP NIOBRARA-7433'TVD
TOP CODELL-7883'TVD
TOP J SILT-8303'TVD
PBHL-8500'TVD

PDS PERFORMANCE
DRILLING
SPECIALISTS INC.

12-26-1996

DEC 27 '96 12:14

Performance Drilling Specialists, Inc.
1801 Broadway, Suite 1650
Denver, Colorado 80202

Vessels Oil & Gas, Inc.
Minerals 30-5
SW/SE Sec 30, T-1-N, R-68-W
Weld County, Colorado

Slot Elevation: 0.00
Plane of Vertical Section: S 36 12 W

Radius of Curvature Calculations

Measured Depth Feet	B O R E - H O L E Inclination Deg	D I R E C T I O N Direction Deg	T R U E Vertical Depth Feet	R E C T A N G U L A R C O O R D I N A T E S North/South East/West Feet	V E R T I C A L SECTION Feet	C L O S U R E S Distance Feet	D I R E C T I O N Direction Deg	D L S Deg/100'
3934.04	0.00	0.00	3934.04	0.00	0.00	0.00	0.00	0.00
KOP								
4034.04	3.00	216.21	4033.99	2.11S	1.55W	2.62	216.20	3.00
4134.04	6.00	216.21	4133.67	8.44S	6.18W	10.46	216.21	3.00
4234.04	9.00	216.21	4232.80	18.97S	13.89W	23.51	216.21	3.00
4334.04	12.00	216.21	4331.12	33.67S	24.65W	41.74	216.21	3.00
4434.04	15.00	216.21	4428.34	52.51S	38.44W	65.08	216.21	3.00
4534.04	18.00	216.21	4524.21	75.42S	55.22W	93.47	216.21	3.00
4634.04	21.00	216.21	4618.47	102.35S	74.93W	126.85	216.21	3.00
4734.04	24.00	216.21	4710.85	133.23S	97.54W	165.12	216.21	3.00
4834.04	27.00	216.21	4801.09	167.96S	122.96W	208.16	216.21	3.00
4934.03	30.00	216.21	4888.96	206.46S	151.15W	255.87	216.21	3.00
End build								
5434.03	30.00	216.21	5321.98	408.18S	298.83W	505.87	216.21	0.00
5934.03	30.00	216.21	5754.99	609.90S	446.51W	755.87	216.21	0.00
6217.65	30.00	216.21	6000.61	724.32S	530.28W	897.68	216.21	0.00
Start 2°/100' drop								
6317.65	28.00	216.21	6088.06	763.43S	558.91W	946.16	216.21	2.00
6417.65	26.00	216.21	6177.16	800.06S	585.73W	991.55	216.21	2.00

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WELL PLAN

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Vessels Oil & Gas, Inc.
Minerals 30-5
SW/SE Sec 30, T-1-N, R-68-W
Weld County, Colorado

Measured Depth Feet	B O R E - H O L E		TRUE Vertical Depth Feet	R E C T A N G U L A R C O O R D I N A T E S		VERTICAL SECTION Feet	C L O S U R E S		DLS Deg/100'
	Inclination Deg	Direction Deg		North/South Feet	East/West Feet		Distance Feet	Direction Deg	
6517.65	24.00	216.21	6267.79	834.16S	610.69W	1033.81	1033.81	216.21	2.00
6617.65	22.00	216.21	6359.83	865.69S	633.77W	1072.88	1072.88	216.21	2.00
6717.65	20.00	216.21	6453.19	894.60S	654.94W	1108.72	1108.72	216.21	2.00
6817.65	18.00	216.21	6547.73	920.87S	674.17W	1141.28	1141.28	216.21	2.00
6917.65	16.00	216.21	6643.36	944.46S	691.44W	1170.51	1170.51	216.21	2.00
7017.65	14.00	216.21	6739.94	965.34S	706.73W	1196.39	1196.39	216.21	2.00
7117.65	12.00	216.21	6837.38	983.49S	720.02W	1218.89	1218.89	216.21	2.00
7217.65	10.00	216.21	6935.53	998.89S	731.29W	1237.97	1237.97	216.21	2.00
7317.65	8.00	216.21	7034.30	1011.51S	740.53W	1253.61	1253.61	216.21	2.00
7417.65	6.00	216.21	7133.55	1021.34S	747.73W	1265.79	1265.79	216.21	2.00
7517.65	4.00	216.21	7233.16	1028.37S	752.88W	1274.51	1274.51	216.21	2.00
7617.65	2.00	216.21	7333.02	1032.60S	755.97W	1279.74	1279.74	216.21	2.00
7717.64	0.00	0.00	7433.00	1034.00S	757.00W	1281.49	1281.49	216.21	2.00
Top Niobrara									
8167.65	0.00	0.00	7883.00	1034.00S	757.00W	1281.49	1281.49	216.21	0.00
Top Codell									
8587.65	0.00	0.00	8303.00	1034.00S	757.00W	1281.49	1281.49	216.21	0.00
Top J Silt									
8784.65	0.00	0.00	8500.00	1034.00S	757.00W	1281.49	1281.49	216.21	0.00
PBHL									

Final Station Closure Distance: 1281.49 Feet; Direction: 216.21