

Job Number: 1010xxxx
Company: Black Hills E&P
Lease/Well: Ute #33-44
Location: La Plata County, Colorado
Rig Name: ☐
RKB: 7269'
G.L. or M.S.L.: 7258'

State/Country: CO
Declination: ☐
Grid: ☐
File name: Y:\JOB\DAT~1\BLACKH~1\2010\UTE33#~2\33#44.SVY
Date/Time: 05-Feb-10 / 15:29
Curve Name: Ute #33-44 plan 2-05-10

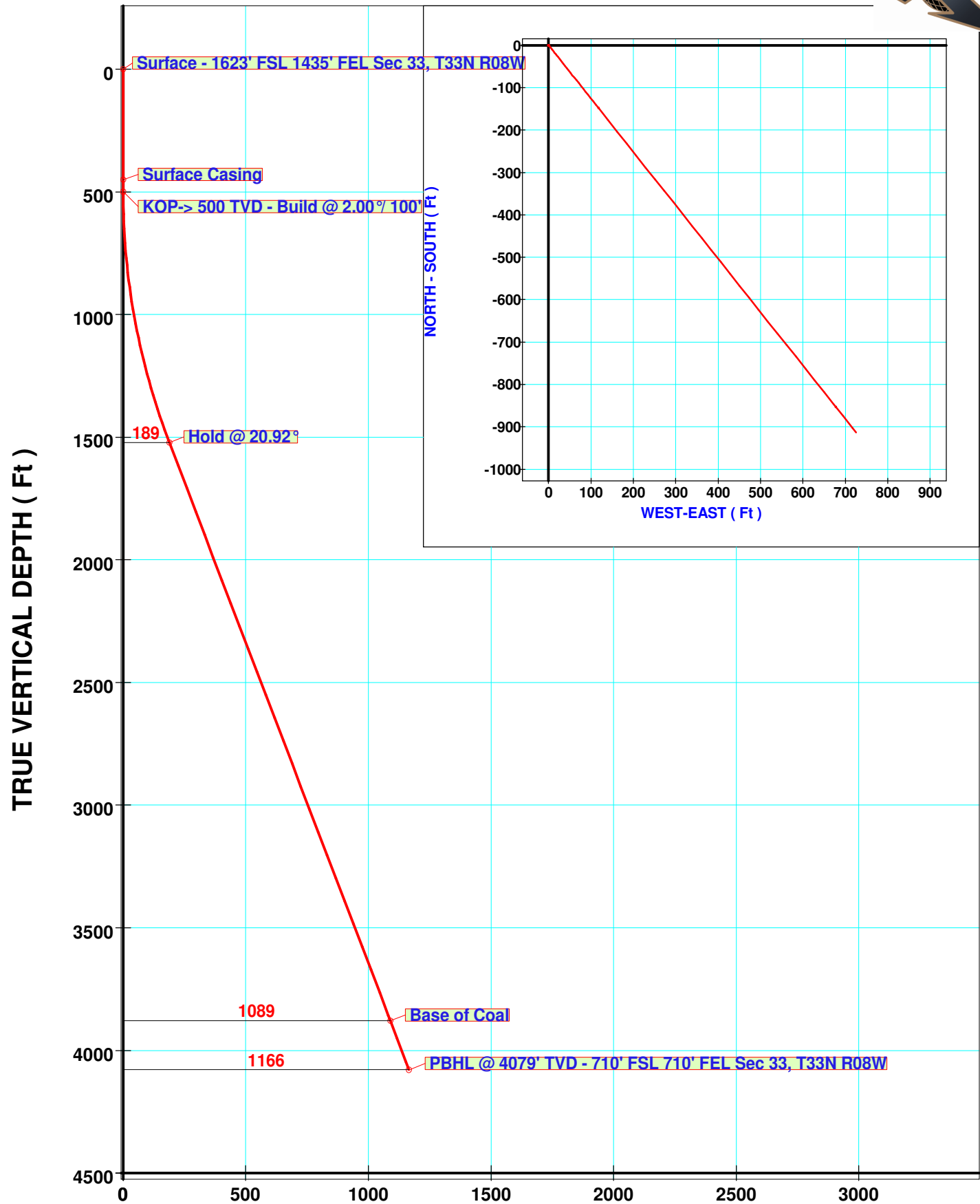
Ute #33-44 plan 2-05-10

WINSERVE PROPOSAL REPORT
Minimum Curvature Method
Vertical Section Plane 141.55
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

<i>Measured Depth FT</i>	<i>Incl Angle Deg</i>	<i>Drift Direction Deg</i>	<i>True Vertical Depth</i>	<i>N-S FT</i>	<i>E-W FT</i>	<i>Vertical Section FT</i>	<i>C L O S U R E Distance FT</i>	<i>Direction Deg</i>	<i>Dogleg Severity Deg/100</i>
Surface - 1623' FSL 1435' FEL Sec 33, T33N R08W									
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Surface Casing									
450.00	.00	.00	450.00	.00	.00	.00	.00	.00	.00
KOP-> 500 TVD Begin Build @ 2.00% 100', 141.55° Azimuth									
500.00	.00	141.55	500.00	.00	.00	.00	.00	.00	.00
530.00	.60	141.55	530.00	-.12	.10	.16	.16	141.54	2.00
560.00	1.20	141.55	560.00	-.49	.39	.63	.63	141.55	2.00
590.00	1.80	141.55	589.99	-1.11	.88	1.41	1.41	141.55	2.00
620.00	2.40	141.55	619.96	-1.97	1.56	2.51	2.51	141.55	2.00
650.00	3.00	141.55	649.93	-3.07	2.44	3.93	3.93	141.55	2.00
680.00	3.60	141.55	679.88	-4.43	3.52	5.65	5.65	141.55	2.00
710.00	4.20	141.55	709.81	-6.02	4.78	7.69	7.69	141.55	2.00
740.00	4.80	141.55	739.72	-7.87	6.25	10.05	10.05	141.55	2.00
770.00	5.40	141.55	769.60	-9.96	7.91	12.71	12.71	141.55	2.00
800.00	6.00	141.55	799.45	-12.29	9.76	15.69	15.69	141.55	2.00
830.00	6.60	141.55	829.27	-14.87	11.81	18.99	18.99	141.55	2.00
860.00	7.20	141.55	859.05	-17.69	14.05	22.59	22.59	141.55	2.00
890.00	7.80	141.55	888.80	-20.76	16.48	26.51	26.51	141.55	2.00
920.00	8.40	141.55	918.50	-24.07	19.11	30.73	30.73	141.55	2.00
950.00	9.00	141.55	948.15	-27.62	21.93	35.27	35.27	141.55	2.00
980.00	9.60	141.55	977.76	-31.42	24.95	40.12	40.12	141.55	2.00
1010.00	10.20	141.55	1007.31	-35.46	28.16	45.28	45.28	141.55	2.00

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
1040.00	10.80	141.55	1036.81	-39.74	31.56	50.74	50.74	141.55	2.00
1070.00	11.40	141.55	1066.25	-44.26	35.15	56.52	56.52	141.55	2.00
1100.00	12.00	141.55	1095.62	-49.03	38.93	62.60	62.60	141.55	2.00
1130.00	12.60	141.55	1124.93	-54.03	42.90	68.99	68.99	141.55	2.00
1160.00	13.20	141.55	1154.18	-59.28	47.07	75.69	75.69	141.55	2.00
1190.00	13.80	141.55	1183.35	-64.76	51.42	82.69	82.69	141.55	2.00
1220.00	14.40	141.55	1212.44	-70.48	55.97	90.00	90.00	141.55	2.00
1250.00	15.00	141.55	1241.46	-76.44	60.70	97.62	97.62	141.55	2.00
1280.00	15.60	141.55	1270.40	-82.64	65.63	105.53	105.53	141.55	2.00
1310.00	16.20	141.55	1299.25	-89.08	70.74	113.75	113.75	141.55	2.00
1340.00	16.80	141.55	1328.02	-95.75	76.04	122.27	122.27	141.55	2.00
1370.00	17.40	141.55	1356.69	-102.66	81.52	131.09	131.09	141.55	2.00
1400.00	18.00	141.55	1385.27	-109.80	87.19	140.21	140.21	141.55	2.00
1430.00	18.60	141.55	1413.75	-117.18	93.05	149.63	149.63	141.55	2.00
1460.00	19.20	141.55	1442.13	-124.79	99.09	159.35	159.35	141.55	2.00
1490.00	19.80	141.55	1470.41	-132.63	105.32	169.36	169.36	141.55	2.00
1520.00	20.40	141.55	1498.59	-140.71	111.73	179.67	179.67	141.55	2.00
Begin Hold @ 20.92°, 141.55° Azm									
1545.90	20.92	141.55	1522.82	-147.86	117.42	188.81	188.81	141.55	2.00
1645.90	20.92	141.55	1616.23	-175.82	139.62	224.52	224.52	141.55	.00
1745.90	20.92	141.55	1709.64	-203.78	161.82	260.22	260.22	141.55	.00
1845.90	20.92	141.55	1803.05	-231.74	184.02	295.92	295.92	141.55	.00
1945.90	20.92	141.55	1896.46	-259.70	206.23	331.63	331.63	141.55	.00
2045.90	20.92	141.55	1989.87	-287.66	228.43	367.33	367.33	141.55	.00
2145.90	20.92	141.55	2083.28	-315.62	250.63	403.03	403.03	141.55	.00
2245.90	20.92	141.55	2176.69	-343.58	272.83	438.74	438.74	141.55	.00
2345.90	20.92	141.55	2270.10	-371.54	295.04	474.44	474.44	141.55	.00
2445.90	20.92	141.55	2363.51	-399.50	317.24	510.14	510.14	141.55	.00
2545.90	20.92	141.55	2456.91	-427.46	339.44	545.84	545.84	141.55	.00
2645.90	20.92	141.55	2550.32	-455.42	361.65	581.55	581.55	141.55	.00
2745.90	20.92	141.55	2643.73	-483.38	383.85	617.25	617.25	141.55	.00
2845.90	20.92	141.55	2737.14	-511.34	406.05	652.95	652.95	141.55	.00
2945.90	20.92	141.55	2830.55	-539.30	428.25	688.66	688.66	141.55	.00
3045.90	20.92	141.55	2923.96	-567.26	450.46	724.36	724.36	141.55	.00
3145.90	20.92	141.55	3017.37	-595.22	472.66	760.06	760.06	141.55	.00
3245.90	20.92	141.55	3110.78	-623.18	494.86	795.77	795.77	141.55	.00
3345.90	20.92	141.55	3204.19	-651.14	517.06	831.47	831.47	141.55	.00
3445.90	20.92	141.55	3297.60	-679.10	539.27	867.17	867.17	141.55	.00
3545.90	20.92	141.55	3391.01	-707.06	561.47	902.88	902.88	141.55	.00
3645.90	20.92	141.55	3484.42	-735.02	583.67	938.58	938.58	141.55	.00
3745.90	20.92	141.55	3577.82	-762.98	605.87	974.28	974.28	141.55	.00
3845.90	20.92	141.55	3671.23	-790.94	628.08	1009.99	1009.99	141.55	.00
3945.90	20.92	141.55	3764.64	-818.90	650.28	1045.69	1045.69	141.55	.00
4045.90	20.92	141.55	3858.05	-846.86	672.48	1081.39	1081.39	141.55	.00

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E Distance FT	Direction Deg	Dogleg Severity Deg/100
Base of Coal									
4068.33	20.92	141.55	3879.00	-853.13	677.46	1089.40	1089.40	141.55	.00
4145.90	20.92	141.55	3951.46	-874.82	694.69	1117.10	1117.10	141.55	.00
4245.90	20.92	141.55	4044.87	-902.78	716.89	1152.80	1152.80	141.55	.00
PBHL @ 4079' TVD - 710' FSL 710' FEL Sec 33, T33N R08W									
4282.44	20.92	141.55	4079.00	-913.00	725.00	1165.84	1165.84	141.55	.00



VERTICAL SECTION (Ft) @ 141.55°