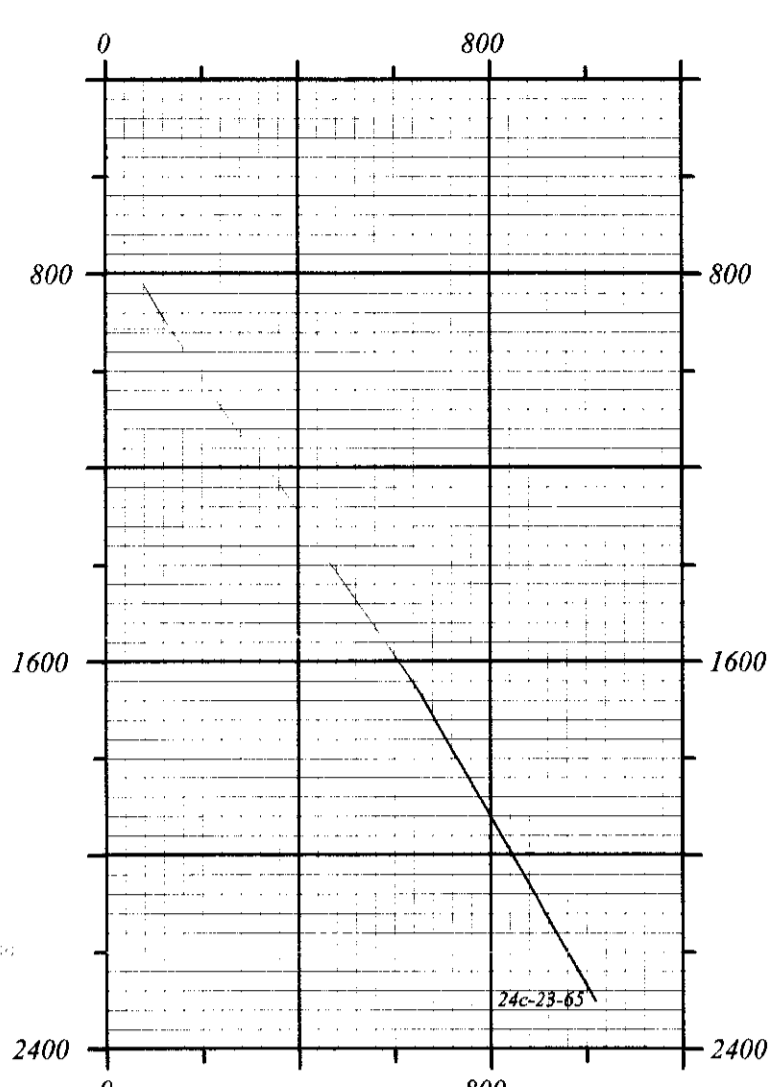
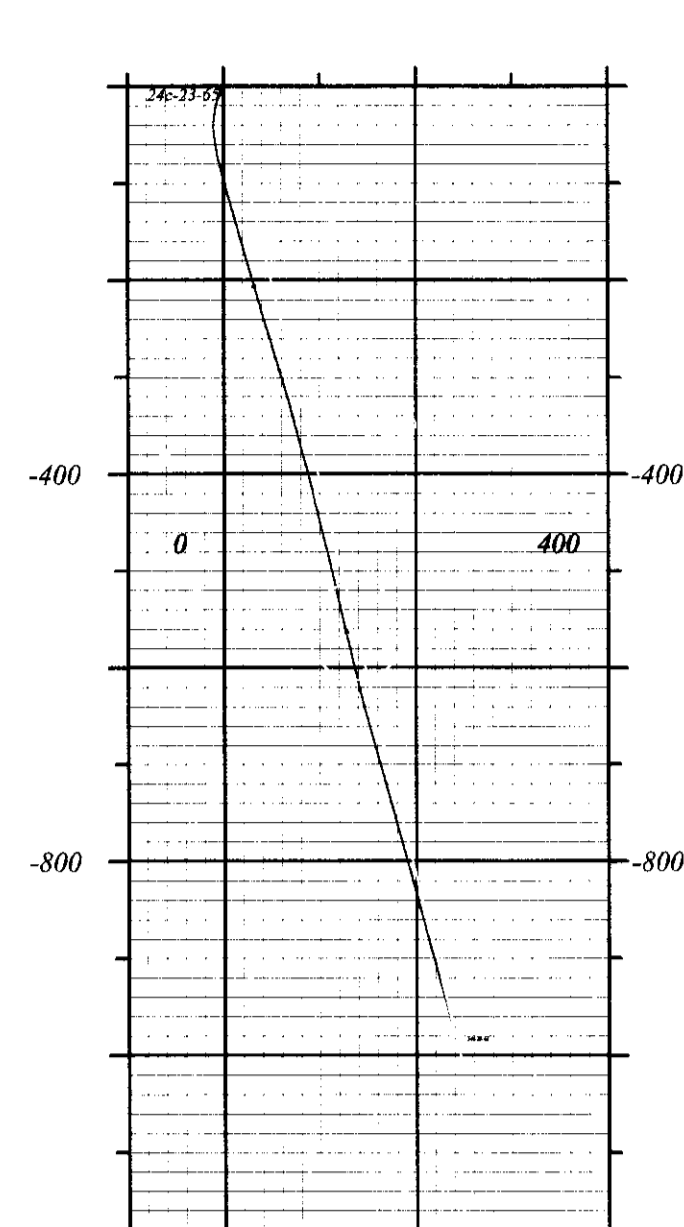


Di-Drill Inc.

Job Number :	USB-00-077
Company :	NW Natural
Lease/Well :	24c-23-65
Location :	Colombia



VERTICAL SECTION
SCALE: 1 inch = 400'
VERTICAL SECTION PLANE= 165.30



PLAN VIEW
SCALE: 1 inch = 200'

Job Number: USB-00-077	State/Country: Oregon
Company: NW Natural	Declination: 18.528 E
Lease/Well: 24c-23-65	Grid:
Location: Colombia	File name: C:\COMPANYS\NWNAT\24C\24C.SVY
Rig Name: Taylor	Date/Time: 12-May-00 / 10:53
RKB: 16'	Curve Name: 24c-23-65
G.L. or M.S.L.: 905	

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 165.30
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Dogleg Severity Deg/100
445.00	.00	.00	445.00	.00	.00	.00	.00
488.00	1.40	235.50	488.00	-.30	-.43	.18	3.26
519.00	3.00	211.60	518.97	-1.20	-1.17	.87	5.84
551.00	5.50	206.30	550.88	-3.29	-2.29	2.60	7.90
582.00	6.80	201.20	581.70	-6.33	-3.61	5.21	4.54
614.00	9.30	197.90	613.39	-10.56	-5.09	8.92	7.94
645.00	12.10	196.30	643.84	-16.07	-6.77	13.82	9.08
702.00	17.50	186.60	698.94	-30.33	-9.44	26.94	10.39
733.00	19.50	181.00	728.34	-40.13	-10.06	36.26	8.62
764.00	21.80	174.50	757.35	-51.04	-9.60	46.93	10.46
795.00	24.50	169.00	785.85	-63.08	-7.82	59.03	11.15
827.00	28.00	166.10	814.55	-76.89	-4.75	73.17	11.65
889.00	32.80	163.90	868.01	-107.17	3.41	104.53	7.95
920.00	33.00	164.30	894.04	-123.36	8.02	121.36	.95
982.00	33.30	164.50	945.95	-156.02	17.14	155.26	.52
1075.00	34.50	163.40	1023.14	-205.86	31.48	207.11	1.45
1137.00	35.20	163.10	1074.02	-239.79	41.70	242.52	1.16
1203.00	35.80	162.20	1127.75	-276.37	53.13	280.80	1.21
1294.00	36.90	164.80	1201.05	-328.08	68.43	334.70	2.08
1357.00	34.80	165.30	1252.11	-363.72	77.95	371.60	3.37
1419.00	33.70	165.00	1303.36	-397.45	86.89	406.49	1.79
1482.00	34.40	165.30	1355.56	-431.55	95.93	441.76	1.14
1594.00	34.90	166.90	1447.69	-493.36	111.22	505.43	.93

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Dogleg Severity Deg/100
1718.00	34.90	166.90	1549.39	-562.46	127.30	576.35	.00
Plug Back Interpolated Point.							
1848.00	33.56	166.32	1656.87	-633.60	144.23	649.46	1.06
2591.00	26.00	162.00	2301.34	-988.61	243.29	1017.98	1.06