

Job Number: State/Country: Eddy County, NM
 Company: Concho Resources, Inc. Declination: 9.11° East
 Lease/Well: Filaree 18 Federal Well #1 Grid: True North
 Location: Surface 660' FSL 1910' FEL File name: C:\WINSERVE\SURVEY~1\CONCHO\FILAR
 Rig Name: Date/Time: 21-Aug-01 / 08:22
 RKB: Curve Name: Original hole
 G.L. or M.S.L.:

WINSERVE SURVEY CALCULATIONS

Minimum Curvature Method

Vertical Section Plane 43.38

Vertical Section Referenced to offset from Wellhead: EW =.00 Ft, NS=.00 Ft

Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	Vertical E-W FT	CLOSURE Section FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
Gyro Tie in									
4958.00	.31	169.99	4957.00	42.97	46.47	63.15	63.29	47.24	.00
5162.00	.10	237.00	5161.00	42.33	46.42	62.65	62.82	47.64	.14
5293.00	1.60	66.10	5291.98	43.01	47.99	64.22	64.44	48.14	1.30
5388.00	1.70	67.70	5386.94	44.08	50.51	66.73	67.04	48.89	.12
5485.00	2.80	59.40	5483.87	45.83	53.88	70.32	70.74	49.61	1.18
5548.00	2.80	60.90	5546.79	47.36	56.55	73.26	73.76	50.05	.12
5611.00	3.40	52.60	5609.70	49.25	59.38	76.58	77.14	50.33	1.19
5675.00	3.50	52.90	5673.58	51.58	62.44	80.38	80.99	50.44	.16
5738.00	4.20	49.10	5736.44	54.25	65.72	84.57	85.22	50.46	1.18
5801.00	4.00	53.20	5799.28	57.08	69.22	89.03	89.72	50.49	.56
5864.00	5.10	44.10	5862.08	60.40	72.93	93.99	94.70	50.37	2.08
5928.00	6.50	42.30	5925.75	65.13	77.35	100.46	101.12	49.90	2.21
5991.00	7.80	40.00	5988.26	71.04	82.50	108.29	108.87	49.27	2.11
6054.00	8.70	42.40	6050.61	77.83	88.46	117.33	117.83	48.66	1.53
6118.00	10.20	42.90	6113.74	85.56	95.58	127.83	128.28	48.17	2.35
6181.00	11.40	43.00	6175.62	94.20	103.62	139.64	140.04	47.73	1.90
6244.00	13.00	41.60	6237.20	104.05	112.58	152.95	153.30	47.25	2.58
6371.00	16.70	39.00	6359.94	128.92	133.55	185.43	185.63	46.01	2.96
6434.00	18.00	41.20	6420.07	143.28	145.66	204.18	204.32	45.47	2.31
6497.00	18.80	43.10	6479.85	158.02	159.01	224.06	224.17	45.18	1.59
6560.00	19.50	42.50	6539.36	173.18	173.05	244.73	244.82	44.98	1.15
6623.00	20.10	42.20	6598.64	188.95	187.42	266.06	266.14	44.77	.97
6750.00	23.00	42.60	6716.75	223.39	218.88	312.70	312.75	44.42	2.29
6876.00	26.50	41.20	6831.16	262.67	254.07	365.42	365.45	44.05	2.82
6940.00	28.40	42.00	6887.95	284.73	273.66	394.91	394.92	43.86	3.02
7003.00	29.30	43.80	6943.13	306.99	294.36	425.30	425.31	43.80	1.99
7129.00	32.70	42.60	7051.12	354.31	338.75	490.18	490.19	43.71	2.74
7193.00	31.80	42.30	7105.24	379.51	361.80	524.33	524.34	43.63	1.43
7256.00	31.70	42.90	7158.82	403.91	384.24	557.48	557.48	43.57	.53
7350.00	31.90	44.20	7238.71	439.81	418.37	607.01	607.01	43.57	.76
7413.00	30.40	42.80	7292.62	463.44	440.80	639.59	639.60	43.57	2.64
7476.00	29.40	42.80	7347.24	486.48	462.14	671.00	671.00	43.53	1.59
7539.00	29.30	43.80	7402.15	508.96	483.32	701.88	701.88	43.52	.79
7603.00	29.70	44.40	7457.85	531.59	505.25	733.39	733.39	43.54	.78