



Job Number:
Company: TEXACO E & P, INC.
Lease/Well: NVAWU #31
Location: LEA CO., NEW MEXICO
Rig Name:
RKB:
G.L. or M.S.L.:

State/Country:
Declination:
Grid:
File name: C:\WINSERVE\NVAWU31.SVY
Date/Time: 16-Apr-97 / 08:19
Curve Name: PRELIMINARY WELL PLAN

PHOENIX DRILLING SERVICES, INC.

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 225.00

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Subsea TVD FT	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
8575.00	.00	225.00	8575.00	8575.00	.00	.00	.00	.00	.00	.00
8585.00	5.73	225.00	8584.98	8584.98	-.35	-.35	.50	.50	225.00	57.30
8595.00	11.46	225.00	8594.87	8594.87	-1.41	-1.41	1.99	1.99	225.00	57.30
8605.00	17.19	225.00	8604.55	8604.55	-3.16	-3.16	4.47	4.47	225.00	57.30
8615.00	22.92	225.00	8613.94	8613.94	-5.58	-5.58	7.89	7.89	225.00	57.30
8625.00	28.65	225.00	8622.94	8622.94	-8.66	-8.66	12.24	12.24	225.00	57.30
8635.00	34.38	225.00	8631.46	8631.46	-12.35	-12.35	17.47	17.47	225.00	57.30
8645.00	40.11	225.00	8639.42	8639.42	-16.63	-16.63	23.52	23.52	225.00	57.30
8655.00	45.84	225.00	8646.73	8646.73	-21.45	-21.45	30.33	30.33	225.00	57.30
8665.00	51.57	225.00	8653.33	8653.33	-26.76	-26.76	37.84	37.84	225.00	57.30
8675.00	57.30	225.00	8659.14	8659.14	-32.51	-32.51	45.97	45.97	225.00	57.30
8685.00	63.03	225.00	8664.12	8664.12	-38.64	-38.64	54.64	54.64	225.00	57.30

KOP: 8575' MD, 57.3°/100'