



SUR: L-32-17s-35e, 1980/S & 10/W
BHL: K-32-17s-35e, 1683/S & 1480/W
API # 30-025-30021

**Phillips Petroleum Company
New Mexico
Lea County
EVGSAU 3229-010 - MWD Surveys**

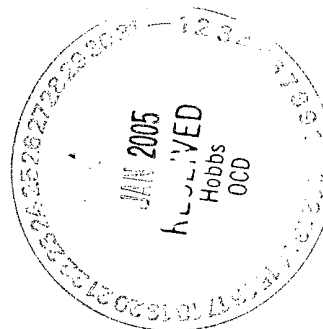
Sperry-Sun

Survey Report

9 June, 2003

Data Source: Information from Location

Survey Ref: svy6609



HALLIBURTON

Survey Report for EVGSAU 3229-010
Data Source: Information from Location

Measured Depth (ft)	Incl. (Deg)	Azim. (Deg)	Station TVD (ft)	Coordinates Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Comment
Gyro								
0.00	0.000	0.000	0.00	0.00 N	0.00 E	0.00		
100.00	0.274	254.144	100.00	0.07 S	0.23 W	-0.21	0.27	
200.00	0.184	261.403	200.00	0.15 S	0.62 W	-0.58	0.10	
300.00	0.300	235.193	300.00	0.33 S	0.99 W	-0.91	0.16	
400.00	0.302	219.944	400.00	0.68 S	1.38 W	-1.21	0.08	
500.00	0.313	218.602	500.00	1.09 S	1.72 W	-1.46	0.01	
600.00	0.316	217.543	599.99	1.53 S	2.05 W	-1.71	0.01	
700.00	0.471	202.701	699.99	2.12 S	2.38 W	-1.91	0.18	
800.00	0.531	195.317	799.99	2.95 S	2.66 W	-2.02	0.09	
900.00	0.547	195.145	899.98	3.86 S	2.91 W	-2.08	0.02	
1000.00	0.574	193.158	999.98	4.81 S	3.15 W	-2.13	0.03	
1100.00	0.619	189.936	1099.97	5.83 S	3.35 W	-2.13	0.06	
1200.00	0.642	193.334	1199.97	6.90 S	3.58 W	-2.13	0.04	
1300.00	0.298	210.739	1299.96	7.67 S	3.84 W	-2.24	0.37	
1400.00	0.257	219.797	1399.96	8.07 S	4.12 W	-2.43	0.06	
1500.00	0.312	233.096	1499.96	8.40 S	4.48 W	-2.71	0.09	
1600.00	0.327	238.347	1599.96	8.72 S	4.94 W	-3.10	0.03	
1700.00	0.342	232.923	1699.96	9.05 S	5.42 W	-3.51	0.04	
1800.00	0.396	245.690	1799.96	9.37 S	5.97 W	-3.99	0.10	
1900.00	0.418	253.415	1899.95	9.61 S	6.64 W	-4.59	0.06	
2000.00	0.511	277.586	1999.95	9.66 S	7.43 W	-5.36	0.21	
2100.00	0.584	298.435	2099.95	9.36 S	8.32 W	-6.29	0.21	
2200.00	0.644	312.304	2199.94	8.74 S	9.18 W	-7.26	0.16	
2300.00	0.590	322.686	2299.93	7.95 S	9.91 W	-8.13	0.12	
2400.00	0.460	331.652	2399.93	7.19 S	10.41 W	-8.77	0.15	
2500.00	0.471	325.478	2499.93	6.49 S	10.84 W	-9.33	0.05	
2600.00	0.620	318.377	2599.92	5.75 S	11.43 W	-10.05	0.16	
2700.00	0.670	334.163	2699.92	4.82 S	12.04 W	-10.84	0.18	
2800.00	0.748	339.100	2799.91	3.68 S	12.53 W	-11.55	0.10	
2900.00	0.780	344.829	2899.90	2.42 S	12.94 W	-12.20	0.08	
3000.00	0.834	341.826	2999.89	1.07 S	13.35 W	-12.87	0.07	
3100.00	0.767	336.711	3099.88	0.24 N	13.84 W	-13.61	0.10	
3200.00	0.579	347.002	3199.87	1.34 N	14.22 W	-14.20	0.22	
3300.00	0.614	12.878	3299.87	2.36 N	14.21 W	-14.40	0.27	
3400.00	0.603	353.300	3399.86	3.40 N	14.15 W	-14.55	0.21	
3500.00	0.730	358.610	3499.85	4.56 N	14.23 W	-14.85	0.14	
3600.00	0.768	13.650	3599.85	5.85 N	14.09 W	-14.97	0.20	
3700.00	0.865	2.158	3699.84	7.26 N	13.90 W	-15.07	0.19	
3800.00	1.098	12.738	3799.82	8.95 N	13.66 W	-15.17	0.29	
3900.00	1.123	24.179	3899.80	10.77 N	13.05 W	-14.93	0.22	

Survey Report for EVGSAU 3229-010
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Measured Depth (ft)	Incl. (Deg)	Azim. (Deg)	Station TVD (ft)	Coordinates Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Comment
4000.00	1.489	20.006	3999.78	12.89 N	12.20 W	-14.52	0.38	
4100.00	1.360	30.093	4099.75	15.14 N	11.16 W	-13.95	0.28	
4200.00	1.685	24.873	4199.71	17.50 N	9.95 W	-13.23	0.35	
4213.00	1.750	27.150	4212.70	17.85 N	9.78 W	-13.13	0.72	
4254.00	2.060	54.450	4253.68	18.83 N	8.89 W	-12.46	2.31	
4270.00	4.740	89.980	4269.65	19.00 N	8.00 W	-11.62	20.55	
4285.00	8.960	95.670	4284.54	18.88 N	6.21 W	-9.85	28.46	Last Gyro Survey @ 4285' md

MWD Surveys

4310.00	14.920	110.710	4309.00	17.55 N	1.26 W	-4.73	26.70	1st MWD Survey @ 4310' md
4340.00	24.280	105.930	4337.23	14.49 N	8.30 E	5.26	31.63	
4371.00	33.590	103.460	4364.33	10.73 N	22.81 E	20.21	30.27	
4403.00	43.000	101.420	4389.42	6.50 N	42.15 E	40.02	29.67	
4434.00	52.470	100.200	4410.25	2.22 N	64.67 E	62.93	30.69	
4466.00	62.530	100.580	4427.42	2.64 S	91.18 E	89.88	31.45	
4496.00	72.300	102.780	4438.93	8.26 S	118.26 E	117.54	33.26	
4528.00	81.930	105.740	4446.05	15.95 S	148.45 E	148.66	31.41	
4560.00	85.130	107.930	4449.66	25.16 S	178.88 E	180.31	12.09	
4592.00	89.470	108.850	4451.17	35.24 S	209.21 E	212.03	13.86	
4624.00	91.410	108.680	4450.92	45.53 S	239.50 E	243.77	6.09	
4655.00	90.870	106.390	4450.30	54.87 S	269.05 E	274.59	7.59	
4687.00	91.580	105.860	4449.62	63.76 S	299.79 E	306.48	2.77	
4718.00	92.200	105.860	4448.60	72.22 S	329.59 E	337.37	2.00	
4749.00	92.200	105.160	4447.41	80.51 S	359.44 E	368.27	2.26	
4781.00	91.490	104.810	4446.38	88.78 S	390.34 E	400.20	2.47	
4813.00	89.470	104.460	4446.11	96.86 S	421.29 E	432.14	6.41	
4843.00	89.740	104.630	4446.32	104.40 S	450.33 E	462.10	1.06	
4874.00	90.610	104.460	4446.22	112.18 S	480.34 E	493.06	2.86	
4905.00	91.490	104.280	4445.65	119.87 S	510.36 E	524.01	2.90	
4937.00	90.700	104.810	4445.04	127.91 S	541.33 E	555.96	2.97	
4968.00	89.380	105.160	4445.02	135.92 S	571.28 E	586.90	4.41	
5000.00	88.940	104.280	4445.49	144.05 S	602.22 E	618.84	3.07	
5032.00	89.120	102.880	4446.03	151.57 S	633.32 E	650.82	4.41	
5063.00	89.120	101.290	4446.51	158.06 S	663.63 E	681.81	5.13	
5094.00	89.820	101.120	4446.79	164.08 S	694.04 E	712.81	2.32	
5126.00	89.560	99.540	4446.97	169.82 S	725.52 E	744.80	5.00	
5157.00	89.380	98.310	4447.25	174.63 S	756.14 E	775.77	4.01	
5189.00	89.740	98.480	4447.50	179.30 S	787.80 E	807.72	1.24	
5220.00	89.910	98.310	4447.60	183.82 S	818.46 E	838.68	0.78	
5251.00	90.790	97.600	4447.41	188.11 S	849.17 E	869.62	3.65	
5282.00	90.790	96.720	4446.98	191.98 S	879.92 E	900.53	2.84	
5314.00	90.090	97.070	4446.73	195.82 S	911.69 E	932.42	2.45	
5346.00	90.530	96.720	4446.56	199.66 S	943.46 E	964.32	1.76	
5378.00	91.050	98.480	4446.12	203.89 S	975.17 E	996.24	5.73	

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5409.00	91.320	97.950	4445.48	208.32 S	1005.85 E	1027.18	1.92	
5440.00	91.330	99.080	4444.76	212.91 S	1036.50 E	1058.13	3.64	
5472.00	92.090	99.220	4443.81	218.00 S	1068.07 E	1090.09	2.41	
5503.00	91.930	100.410	4442.72	223.28 S	1098.60 E	1121.06	3.87	
5535.00	92.370	100.240	4441.52	229.01 S	1130.06 E	1153.03	1.47	
5566.00	91.930	100.940	4440.35	234.70 S	1160.51 E	1184.01	2.67	
5598.00	91.930	100.240	4439.28	240.58 S	1191.95 E	1215.98	2.19	
5630.00	90.790	100.770	4438.52	246.41 S	1223.40 E	1247.97	3.93	
5661.00	92.020	100.770	4437.76	252.20 S	1253.85 E	1278.96	3.97	
5693.00	91.760	101.120	4436.70	258.28 S	1285.25 E	1310.94	1.36	
5725.00	92.460	101.120	4435.52	264.44 S	1316.62 E	1342.91	2.19	
5756.00	92.720	102.700	4434.12	270.83 S	1346.92 E	1373.88	5.16	
5788.00	93.780	102.700	4432.31	277.86 S	1378.09 E	1405.82	3.31	
5819.00	90.790	100.770	4431.07	284.16 S	1408.41 E	1436.79	11.48	
5832.00	94.570	102.350	4430.46	286.76 S	1421.13 E	1449.78	31.51	Last MWD Survey @ 5832' md
5882.00	94.570	102.350	4426.48	297.42 S	1469.82 E	1499.61	0.00	Projection to TD @ 5882' md

All data is in Feet (US) unless otherwise stated. Directions and coordinates are relative to True North.
Vertical depths are relative to Well. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100 feet.

Vertical Section is from Well and calculated along an Azimuth of 101.480° (True).

Magnetic Declination at Surface is 7.724° (09-Jun-03)

Based upon Minimum Curvature type calculations, at a Measured Depth of 5882.00ft.,
The Bottom Hole Displacement is 1499.61ft., in the Direction of 101.439° (True).

Comments

Measured Depth (ft)	TVD (ft)	Station Coordinates Northings (ft)	Eastings (ft)	Comment
4285.00	4284.54	18.88 N	6.21 W	Last Gyro Survey @ 4285' md
4310.00	4309.00	17.55 N	1.26 W	1st MWD Survey @ 4310' md
5832.00	4430.46	286.76 S	1421.13 E	Last MWD Survey @ 5832' md
5882.00	4426.48	297.42 S	1469.82 E	Projection to TD @ 5882' md

New Mexico
Lea County
Sec. 32, T17S-R35E
EVGSAU 3229-010

