

sperry-sun
DRILLING SERVICES

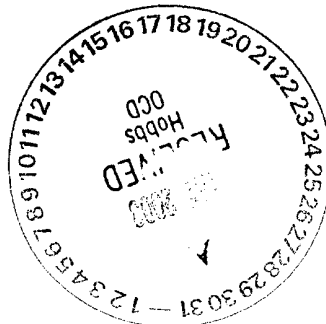
ConocoPhillips

EVGSAU #2801-003

Survey Report

3/5/2003

SUR: I - 28-17s-35e, 1980/S & 660/E
BHL: O - 28-17s-35e, 47/S & 2247/E
API # 30-025-02908





**Phillips Petroleum Company
New Mexico
Lea County
EVGSAU 2801-003 - MWD Surveys**

Sperry-Sun

Survey Report

5 March, 2003

Data Source: Information from Location

Survey Ref: svy6273

HALLIBURTON

Survey Report for EVGSAU 2801-003
Data Source: Information from Location

Measured Depth (ft)	Incl. (Deg)	Azim. (Deg)	Station Coordinates			Vertical Section (ft)	Dogleg Rate (°/100ft)	Comment
			TVD (ft)	Northings (ft)	Eastings (ft)			
Gyro								
0.00	0.000	0.000	0.00	0.00 N	0.00 E	0.00		
100.00	0.260	177.860	100.00	0.23 S	0.01 E	0.17	0.26	1st Gyro Survey @ 100' md
200.00	0.200	195.680	200.00	0.62 S	0.03 W	0.50	0.09	
300.00	0.520	192.380	300.00	1.23 S	0.17 W	1.07	0.32	
400.00	0.550	181.200	399.99	2.16 S	0.28 W	1.85	0.11	
500.00	0.990	183.470	499.98	3.50 S	0.34 W	2.93	0.44	
600.00	1.710	194.160	599.95	5.81 S	0.76 W	4.98	0.76	
700.00	2.950	194.810	699.87	9.74 S	1.78 W	8.68	1.24	
800.00	4.740	198.050	799.64	16.16 S	3.72 W	14.88	1.80	
900.00	6.520	200.980	899.16	25.39 S	7.04 W	24.13	1.80	
1000.00	8.980	202.320	998.23	37.91 S	12.03 W	36.99	2.47	
1100.00	11.730	203.510	1096.60	54.46 S	19.05 W	54.26	2.76	
1200.00	10.890	205.330	1194.65	72.32 S	27.15 W	73.22	0.91	
1300.00	9.330	204.980	1293.10	88.20 S	34.62 W	90.25	1.56	
1400.00	7.560	204.960	1392.01	101.51 S	40.81 W	104.49	1.77	
1500.00	5.640	205.450	1491.34	111.92 S	45.70 W	115.64	1.92	
1600.00	4.230	204.910	1590.97	119.70 S	49.37 W	123.99	1.41	
1700.00	3.520	202.850	1690.74	125.87 S	52.11 W	130.51	0.72	
1800.00	2.930	208.600	1790.58	130.95 S	54.53 W	135.97	0.67	
1900.00	3.230	207.000	1890.44	135.70 S	57.03 W	141.23	0.31	
2000.00	2.800	215.860	1990.30	140.19 S	59.74 W	146.43	0.63	
2100.00	2.950	211.840	2090.17	144.35 S	62.53 W	151.42	0.25	
2200.00	3.140	216.570	2190.03	148.74 S	65.52 W	156.71	0.31	
2300.00	2.590	225.670	2289.91	152.52 S	68.77 W	161.69	0.71	
2400.00	1.990	223.620	2389.83	155.35 S	71.58 W	165.66	0.61	
2500.00	2.040	220.760	2489.76	157.96 S	73.94 W	169.17	0.11	
2600.00	1.180	207.910	2589.72	160.22 S	75.58 W	171.96	0.93	
2700.00	1.110	206.020	2689.70	162.00 S	76.49 W	173.91	0.08	
2800.00	0.780	170.060	2789.69	163.54 S	76.80 W	175.30	0.66	
2900.00	0.950	155.400	2889.68	164.96 S	76.34 W	176.12	0.28	
3000.00	0.850	140.510	2989.67	166.29 S	75.52 W	176.63	0.25	
3100.00	0.890	140.960	3089.66	167.47 S	74.56 W	176.93	0.04	
3200.00	1.140	156.980	3189.64	168.98 S	73.68 W	177.56	0.38	
3300.00	1.120	147.110	3289.62	170.72 S	72.76 W	178.32	0.20	
3400.00	1.410	148.670	3389.60	172.59 S	71.59 W	179.03	0.29	
3500.00	1.190	147.840	3489.57	174.52 S	70.40 W	179.78	0.22	
3600.00	1.060	140.030	3589.55	176.11 S	69.25 W	180.28	0.20	
3700.00	1.030	124.620	3689.54	177.33 S	67.92 W	180.39	0.28	
3800.00	1.170	116.840	3789.52	178.30 S	66.27 W	180.10	0.20	
3900.00	1.270	113.600	3889.49	179.21 S	64.34 W	179.58	0.12	

Survey Report for EVGSAU 2801-003
Data Source: Information from Location

Measured Depth (ft)	Incl. (Deg)	Azim. (Deg)	Station Coordinates TVD (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Comment
4000.00	1.370	96.070	3989.47	179.78 S	62.14 W	178.63	0.41	
4100.00	1.170	86.970	4089.44	179.85 S	59.93 W	177.30	0.28	
4200.00	1.580	105.270	4189.42	180.16 S	57.58 W	176.05	0.60	
4236.00	1.530	103.450	4225.40	180.40 S	56.63 W	175.64	0.20	last Gyro Survey @ 4236' md

MWD Surveys

4259.00	5.400	207.700	4248.37	181.43 S	56.84 W	176.57	25.93	1st MWD Survey @ 4259' md
4291.00	12.000	211.100	4279.98	185.62 S	59.26 W	181.34	20.68	
4323.00	19.300	217.400	4310.78	192.68 S	64.19 W	189.94	23.39	
4355.00	26.700	218.900	4340.21	202.49 S	71.93 W	202.43	23.20	
4387.00	35.900	218.100	4367.53	215.49 S	82.26 W	219.03	28.78	
4418.00	45.700	219.900	4390.97	231.19 S	95.01 W	239.26	31.84	
4450.00	55.600	222.400	4411.23	249.78 S	111.30 W	263.96	31.52	
4481.00	66.100	223.900	4426.31	269.49 S	129.81 W	290.93	34.13	
4512.00	76.900	223.900	4436.13	290.64 S	150.16 W	320.18	34.84	
4544.00	81.300	221.200	4442.18	313.78 S	171.40 W	351.54	16.05	
4575.00	85.100	222.700	4445.85	336.67 S	191.97 W	382.28	13.17	
4590.00	87.100	223.500	4446.87	347.60 S	202.20 W	397.21	14.36	
4653.00	87.300	225.500	4449.95	392.47 S	246.30 W	459.85	3.19	
4716.00	87.800	226.200	4452.65	436.32 S	291.46 W	522.37	1.36	
4779.00	87.700	224.400	4455.12	480.59 S	336.20 W	584.95	2.86	
4811.00	87.200	224.100	4456.54	503.49 S	358.51 W	616.80	1.82	
4843.00	87.200	224.100	4458.11	526.45 S	380.75 W	648.64	0.00	
4874.00	86.700	220.100	4459.76	549.41 S	401.50 W	679.55	12.99	
4906.00	87.100	221.400	4461.49	573.62 S	422.36 W	711.49	4.24	
4937.00	87.700	218.500	4462.89	597.35 S	442.24 W	742.45	9.54	
4969.00	89.100	220.200	4463.79	622.09 S	462.52 W	774.44	6.88	
5000.00	89.700	218.900	4464.11	645.99 S	482.26 W	805.43	4.62	
5032.00	90.200	218.500	4464.14	670.96 S	502.27 W	837.43	2.00	
5063.00	90.300	217.600	4464.00	695.37 S	521.38 W	868.43	2.92	
5094.00	89.700	219.400	4464.00	719.63 S	540.67 W	899.42	6.12	
5126.00	88.000	220.400	4464.65	744.18 S	561.19 W	931.41	6.16	
5157.00	87.400	215.500	4465.89	768.59 S	580.24 W	962.37	15.91	
5189.00	86.600	217.700	4467.57	794.25 S	599.29 W	994.29	7.31	
5220.00	85.100	217.800	4469.81	818.69 S	618.22 W	1025.20	4.85	
5252.00	83.300	216.700	4473.04	844.03 S	637.49 W	1057.02	6.58	
5284.00	82.700	214.700	4476.94	869.82 S	656.02 W	1088.72	6.48	
5315.00	80.800	213.700	4481.39	895.20 S	673.26 W	1119.28	6.91	
5347.00	80.300	213.800	4486.65	921.44 S	690.80 W	1150.71	1.59	
5379.00	80.400	214.900	4492.01	947.49 S	708.60 W	1182.14	3.40	
5410.00	79.500	217.300	4497.42	972.15 S	726.58 W	1212.62	8.16	

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5442.00	79.500	218.700	4503.25	996.94 S	745.95 W	1244.08	4.30	
5473.00	80.200	218.500	4508.72	1020.79 S	764.99 W	1274.59	2.35	
5505.00	80.800	218.900	4514.00	1045.42 S	784.73 W	1306.15	2.24	
5537.00	83.000	220.400	4518.51	1069.81 S	804.94 W	1337.83	8.29	
5569.00	84.600	221.600	4521.96	1093.82 S	825.81 W	1369.62	6.24	
5600.00	85.800	222.800	4524.56	1116.70 S	846.56 W	1400.47	5.46	
5632.00	85.800	222.800	4526.90	1140.12 S	868.24 W	1432.32	0.00	
5664.00	88.000	225.200	4528.63	1163.10 S	890.44 W	1464.15	10.17	
5695.00	89.900	222.000	4529.20	1185.54 S	911.81 W	1495.05	12.00	
5727.00	90.500	222.600	4529.09	1209.21 S	933.34 W	1527.00	2.65	
5759.00	90.600	220.200	4528.78	1233.21 S	954.50 W	1558.97	7.51	
5790.00	89.700	223.400	4528.70	1256.32 S	975.16 W	1589.93	10.72	
5822.00	88.800	225.400	4529.12	1279.18 S	997.55 W	1621.80	6.85	
5854.00	86.400	224.500	4530.46	1301.80 S	1020.14 W	1653.60	8.01	
5917.00	86.800	224.800	4534.19	1346.54 S	1064.33 W	1716.20	0.79	
5949.00	87.100	224.900	4535.90	1369.20 S	1086.87 W	1748.00	0.99	
5980.00	87.400	224.900	4537.38	1391.13 S	1108.73 W	1778.81	0.97	
6011.00	87.900	224.800	4538.65	1413.09 S	1130.57 W	1809.63	1.64	
6042.00	89.000	223.300	4539.49	1435.36 S	1152.11 W	1840.50	6.00	
6074.00	93.200	223.000	4538.88	1458.70 S	1173.99 W	1872.41	13.16	
6106.00	96.200	223.700	4536.26	1481.89 S	1195.88 W	1904.22	9.63	
6137.00	95.500	222.100	4533.10	1504.48 S	1216.87 W	1934.99	5.61	
6169.00	92.200	219.300	4530.95	1528.68 S	1237.69 W	1966.90	13.51	
6201.00	88.300	221.300	4530.81	1553.08 S	1258.38 W	1998.88	13.70	
6232.00	86.700	220.600	4532.16	1576.47 S	1278.68 W	2029.84	5.63	
6264.00	85.800	218.900	4534.25	1601.02 S	1299.09 W	2061.77	6.00	
6295.00	86.700	218.900	4536.28	1625.09 S	1318.52 W	2092.70	2.90	
6327.00	88.400	216.900	4537.65	1650.31 S	1338.16 W	2124.66	8.20	
6358.00	90.000	215.700	4538.08	1675.29 S	1356.50 W	2155.62	6.45	
6390.00	91.500	216.100	4537.66	1701.21 S	1375.27 W	2187.56	4.85	
6421.00	91.600	216.800	4536.82	1726.14 S	1393.68 W	2218.51	2.28	
6452.00	91.400	220.600	4536.01	1750.32 S	1413.05 W	2249.50	12.27	
6484.00	90.700	222.000	4535.43	1774.36 S	1434.17 W	2281.47	4.89	
6515.00	89.900	224.700	4535.26	1796.90 S	1455.44 W	2312.38	9.08	
6547.00	89.700	225.200	4535.38	1819.54 S	1478.05 W	2344.22	1.68	
6579.00	90.000	224.500	4535.46	1842.23 S	1500.62 W	2376.06	2.38	
6611.00	90.000	219.900	4535.46	1865.93 S	1522.11 W	2408.01	14.38	
6641.00	89.100	224.700	4535.70	1888.11 S	1542.29 W	2437.95	16.28	Last MWD Survey @ 6641' md
6704.00	89.100	224.700	4536.68	1932.88 S	1586.60 W	2500.65	0.00	Projeciton to TD @ 6704' 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 219.160° (True).

Magnetic Declination at Surface is 7.748° (05-Mar-03)

Based upon Minimum Curvature type calculations, at a Measured Depth of 6704.00ft.,

Survey Report for EVGSAU 2801-003
Data Source: Information from Location

The Bottom Hole Displacement is 2500.67ft., in the Direction of 219.381° (True).

Comments

Measured Depth (ft)	Station Coordinates			Comment
	TVD (ft)	Northings (ft)	Eastings (ft)	
100.00	100.00	0.23 S	0.01 E	1st Gyro Survey @ 100' md
4236.00	4225.40	180.40 S	56.63 W	last Gyro Survey @ 4236' md
4259.00	4248.37	181.43 S	56.84 W	1st MWD Survey @ 4259' md
6641.00	4535.70	1888.11 S	1542.29 W	Last MWD Survey @ 6641' md
6704.00	4536.68	1932.88 S	1586.60 W	Projeciton to TD @ 6704' md

HALLIBURTON

Phillips Petroleum Company

DrillQuest™

Sperry-Sun

New Mexico
Lea County
Sec. 28, T17S-R35E
EVGSAU 2801-003



Scale: 1 inch = 700ft

Eastings(Well)

-2100 -1400 -700 0

1st Gyro Survey @ 100' md

1st MWD Survey @ 4259' md
last Gyro Survey @ 4236' md

1-13
Circle, Radius: 150.00ft
0.00 TVD, 524.84 S, 1003.08 W

2801-004
Circle, Radius: 150.00ft
0.00 TVD, 669.84 S, 1000.10 W

2801-010
Circle, Radius: 150.00ft
0.00 TVD, 1319.74 S, 1650.21 W

28#2
Circle, Radius: 150.00ft
0.00 TVD, 1458.71 S, 1863.23 W

1-10
Circle, Radius: 150.00ft
0.00 TVD, 1649.74 S, 1650.26 W

Last MWD Survey @ 6641' md

Projection to TD @ 6704' md

Northings(Well)

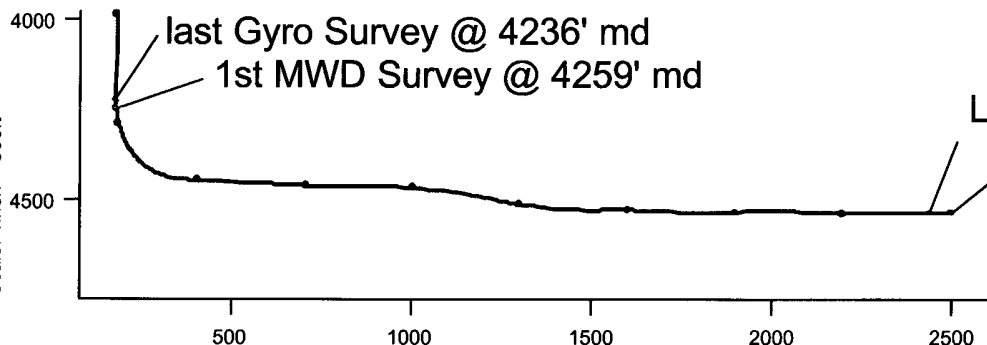
Scale: 1 inch = 700ft

0
-700
-1400
-2100

last Gyro Survey @ 4236' md
1st MWD Survey @ 4259' md

Last MWD Survey @ 6641' md
Projection to TD @ 6704' md

Vertical Depth (Well)
Scale: 1 inch = 500ft



Scale: 1 inch = 500ft

Section Azimuth: 219.155° (True North)
Vertical Section (Well)

Prepared by:
Admin

Date/Time:
5 March, 2003 - 17:20

Checked:

Approved: