

Scientific Drilling International

Survey Report

Company: PHILLIPS PETROLEUM Field: Vacuum Glorietta East Site: Lea County, NM Well: EVGSAU #3229-013 Wellpath: HH - Job #32D0501267	Date: 6/5/2001 Co-ordinate(NE) Reference: Site: Lea County, NM, True North Vertical (TVD) Reference: SITE 0.0 above Mean Sea Level Section (VS) Reference: Well (0.0E,0.0N,85.4Azi) Survey Calculation Method: Minimum Curvature
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Survey: 5/7/01-5/17/01 MWE 4250'-7033'	Start Date: 6/5/2001 Engineer: Leonard/Brussard
Company: SDI w/Ryan Tool: MWD	

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	ClsD ft	ClsA deg
4228.0	0.69	312.88	4227.8	-0.3	-2.4	-0.1	2.4	181.65
4250.0	5.20	35.80	4249.8	0.3	-1.5	0.4	1.6	164.91
4292.0	15.30	41.60	4291.0	5.5	4.2	5.2	6.7	51.45
4324.0	23.20	38.10	4321.2	12.9	12.3	11.9	17.1	44.13
4356.0	29.80	35.70	4349.9	22.3	23.7	20.5	31.3	40.78
4387.0	36.60	35.70	4375.8	33.3	37.5	30.4	48.2	39.00
4419.0	44.30	35.30	4400.1	46.6	54.4	42.4	69.0	37.94
4451.0	52.20	35.30	4421.4	61.9	73.9	56.2	92.8	37.26
4483.0	60.30	34.60	4439.2	78.9	95.7	71.4	119.4	36.74
4514.0	64.00	42.30	4453.7	97.6	117.1	88.5	146.7	37.07
4546.0	66.00	50.40	4467.2	120.1	137.1	109.4	175.4	38.61
4558.0	66.20	53.20	4472.1	129.2	143.8	118.1	186.1	39.38
4578.0	67.00	58.90	4480.0	145.2	154.1	133.3	203.7	40.86
4610.0	66.80	62.00	4492.6	171.9	168.6	158.9	231.7	43.30
4641.0	67.50	63.10	4504.6	198.2	181.8	184.2	258.8	45.38
4673.0	69.70	68.30	4516.3	226.2	194.0	211.4	286.9	47.45
4705.0	72.60	73.60	4526.6	255.6	203.9	240.0	314.9	49.65
4737.0	75.90	80.30	4535.3	286.0	210.8	270.0	342.5	52.01
4769.0	76.30	84.50	4543.0	317.0	214.9	300.7	369.6	54.45
4800.0	76.20	87.70	4550.4	347.1	217.0	330.8	395.6	56.74
4832.0	79.00	88.00	4557.3	378.3	218.1	362.0	422.7	58.93
4864.0	81.50	89.10	4562.7	409.8	218.9	393.5	450.3	60.91
4896.0	82.50	89.10	4567.1	441.5	219.4	425.2	478.5	62.70
4928.0	83.00	89.60	4571.2	473.1	219.8	457.0	507.1	64.31
4959.0	83.40	88.70	4574.8	503.8	220.2	487.7	535.2	65.70
4991.0	81.90	90.80	4578.9	535.5	220.4	519.5	564.3	67.01
5023.0	82.20	90.80	4583.4	567.0	219.9	551.2	593.4	68.25
5055.0	82.20	90.50	4587.7	598.6	219.6	582.9	622.9	69.36
5086.0	82.40	90.20	4591.9	629.2	219.4	613.6	651.6	70.32
5118.0	82.80	89.80	4596.0	660.8	219.4	645.3	681.6	71.22
5150.0	83.20	89.80	4599.9	692.5	219.5	677.1	711.8	72.04
5182.0	83.80	89.80	4603.5	724.2	219.6	708.9	742.1	72.79
5213.0	84.40	90.20	4606.7	754.9	219.6	739.7	771.6	73.46
5245.0	83.00	90.80	4610.2	786.6	219.3	771.5	802.1	74.13
5277.0	83.60	90.80	4613.9	818.3	218.9	803.3	832.6	74.76
5309.0	84.40	91.20	4617.3	849.9	218.3	835.1	863.2	75.35
5341.0	82.80	91.90	4620.9	881.6	217.5	866.9	893.8	75.92
5372.0	82.90	91.90	4624.7	912.1	216.5	897.6	923.4	76.44
5404.0	83.00	92.30	4628.6	943.7	215.3	929.4	954.0	76.96
5436.0	83.00	92.30	4632.5	975.2	214.0	961.1	984.7	77.45
5468.0	82.70	91.60	4636.5	1006.7	212.9	992.8	1015.4	77.89
5499.0	83.10	91.90	4640.4	1037.3	212.0	1023.6	1045.3	78.30
5531.0	83.50	91.90	4644.1	1068.9	211.0	1055.4	1076.2	78.70
5563.0	82.10	89.80	4648.1	1100.5	210.5	1087.1	1107.3	79.04
5595.0	82.50	89.80	4652.4	1132.1	210.6	1118.8	1138.5	79.34
5626.0	84.80	89.80	4655.8	1162.8	210.7	1149.6	1168.8	79.61
5658.0	87.30	89.80	4658.0	1194.6	210.8	1181.5	1200.2	79.88
5690.0	88.70	90.20	4659.1	1226.5	210.8	1213.5	1231.7	80.15