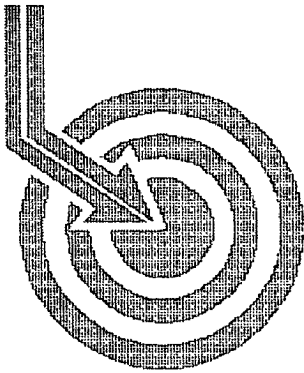


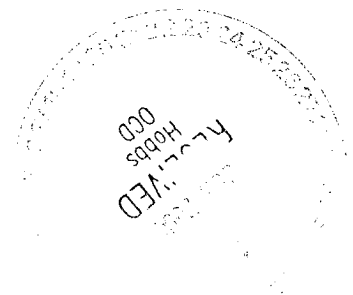


Scientific Drilling

SUR: F-2-18s-34e, 1980/N & 2583/W
BHL: E-2-18s-34e, 1892/N & 685/W
API # 30-025-30754

CHEVRONTEXACO

Field: Vacuum Glorietta San Andres
Site: Lea County, NM
Well: VGSAU #138H
Wellpath: DH - Job #32D0404237
Survey: 04/12/04-04/20/04



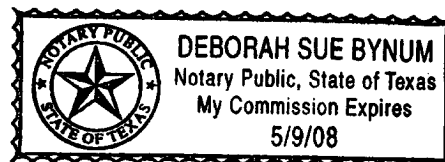
This survey is correct to the best of my knowledge
and is supported by actual field data.

[Signature] Company Representative

Notorized this date 28th of May, 2004.

[Signature: Deborah Sue Bynum]
Notary Signature

County of Midland
State of Texas





Scientific
Drilling

Scientific Drilling Survey Report

Company: CHEVRONTExACO	Date: 5/26/2004	Time: 14:51:47	Page: 1
Field: Vacuum Goriotta San Andres	Co-ordinate(NE) Reference: Site: Lea County, NM, Grid North		
Site: Lea County, NM	Vertical (TVD) Reference: SITE 0.0		
Well: VGSAU #138H	Section (VS) Reference: Well (0.00N,0.00E,272.62Azi)		
Wellpath: VH - Job #32K0404240	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey: 04/13/04	Start Date: 4/13/2004
Company: KSRG 0'-4245'	
Tool: Scientific Drilling	Engineer: Carter/Webb
Tool: Keeper, Keeper Gyro	Tied-to: From Surface

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
0.0	0.00	0.50	0.0	0.0	0.0	0.0	0.00	0.0	0.00
100.0	0.74	155.95	100.0	-0.3	-0.6	0.3	0.74	0.6	155.95
200.0	0.70	161.69	200.0	-0.8	-1.8	0.7	0.08	1.9	157.79
300.0	0.48	166.62	300.0	-1.1	-2.7	1.0	0.23	2.9	159.86
400.0	0.43	183.63	400.0	-1.2	-3.5	1.1	0.14	3.7	162.98
500.0	0.44	164.03	500.0	-1.4	-4.3	1.2	0.15	4.4	164.78
600.0	0.34	160.59	600.0	-1.6	-4.9	1.4	0.10	5.1	164.48
700.0	0.21	176.28	700.0	-1.7	-5.4	1.5	0.15	5.6	164.66
800.0	0.03	166.96	800.0	-1.7	-5.6	1.5	0.18	5.8	165.04
900.0	0.34	340.69	900.0	-1.6	-5.3	1.4	0.37	5.5	165.28
1000.0	0.07	324.37	1000.0	-1.5	-5.0	1.3	0.27	5.2	165.78
1100.0	0.37	9.44	1100.0	-1.5	-4.6	1.3	0.32	4.8	164.51
1200.0	0.37	330.98	1200.0	-1.4	-4.0	1.2	0.24	4.2	163.68
1300.0	0.21	329.91	1300.0	-1.1	-3.6	0.9	0.16	3.7	165.45
1400.0	0.22	314.21	1400.0	-0.9	-3.3	0.7	0.06	3.4	167.97
1500.0	0.41	357.04	1500.0	-0.7	-2.8	0.5	0.29	2.9	168.98
1600.0	0.49	6.96	1600.0	-0.7	-2.0	0.6	0.11	2.1	164.03
1700.0	0.65	16.24	1700.0	-0.8	-1.1	0.8	0.18	1.3	143.33
1800.0	0.71	347.95	1800.0	-0.8	0.1	0.8	0.34	0.8	83.98
1900.0	0.88	1.61	1899.9	-0.6	1.5	0.7	0.25	1.6	26.05
2000.0	1.14	354.15	1999.9	-0.5	3.2	0.6	0.29	3.3	11.15
2100.0	1.17	353.36	2099.9	-0.2	5.2	0.4	0.03	5.2	4.54
2200.0	0.93	21.01	2199.9	-0.3	7.0	0.6	0.55	7.0	4.80
2300.0	0.97	8.76	2299.9	-0.6	8.6	1.0	0.21	8.6	6.69
2400.0	1.26	18.08	2399.9	-1.0	10.5	1.5	0.34	10.6	8.03
2500.0	1.25	26.69	2499.8	-1.7	12.5	2.3	0.19	12.7	10.47
2600.0	1.49	1.70	2599.8	-2.2	14.8	2.8	0.64	15.0	10.88
2700.0	1.37	26.65	2699.8	-2.6	17.1	3.4	0.63	17.5	11.26
2800.0	1.38	31.36	2799.7	-3.7	19.2	4.6	0.11	19.8	13.38
2900.0	1.54	35.87	2899.7	-5.0	21.3	6.0	0.20	22.2	15.67
3000.0	1.47	29.86	2999.7	-6.3	23.5	7.4	0.17	24.7	17.48
3100.0	1.63	34.37	3099.6	-7.7	25.8	8.9	0.20	27.3	18.92
3200.0	1.60	35.18	3199.6	-9.2	28.1	10.5	0.04	30.0	20.39
3300.0	1.78	25.34	3299.6	-10.5	30.7	11.9	0.34	32.9	21.25
3400.0	1.83	33.12	3399.5	-11.9	33.4	13.5	0.25	36.0	21.94
3500.0	2.00	23.13	3499.5	-13.3	36.4	15.0	0.37	39.4	22.45
3600.0	1.86	29.91	3599.4	-14.7	39.4	16.5	0.27	42.7	22.76
3700.0	2.11	30.36	3699.3	-16.3	42.4	18.3	0.25	46.1	23.31
3800.0	2.18	23.00	3799.3	-17.8	45.7	19.9	0.28	49.9	23.56
3900.0	2.30	34.46	3899.2	-19.5	49.1	21.8	0.46	53.8	23.94
4000.0	2.41	21.43	3999.1	-21.3	52.7	23.7	0.55	57.8	24.21
4100.0	2.41	33.04	4099.0	-23.0	56.5	25.6	0.49	62.0	24.42
4200.0	2.45	32.90	4198.9	-25.2	60.0	27.9	0.04	66.2	24.96
4245.0	2.73	33.26	4243.9	-26.2	61.7	29.0	0.62	68.2	25.21



Scientific
Drilling

Scientific Drilling Survey Report

Company: CHEVRONTExACO
Field: Vacuum Goriotta San Andres
Site: Lea County, NM
Well: VGSAU #138H
Wellpath: DH - Job #32D0404237

Date: 5/26/2004 Time: 14:56:33 Page: 1
Co-ordinate(NE) Reference: Site: Lea County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,272.62Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: 04/12/04-04/20/04
MWD 4262'-6328'
Company: Scientific Drilling
Tool: MWD,MWD

Start Date: 4/12/2004
Engineer: Lamb/Melendez/Hendrix
Tied-to: From: Definitive Path

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
4245.0	2.73	33.26	4243.9	-26.2	61.7	29.0	0.00	68.2	25.21
4262.0	2.73	33.26	4260.9	-26.6	62.4	29.5	0.00	69.0	25.30
4336.0	22.30	283.22	4333.1	-13.5	67.1	16.6	31.58	69.2	13.90
4367.0	30.76	275.71	4360.8	0.2	69.3	3.0	29.31	69.3	2.46
4397.0	38.40	272.48	4385.5	17.2	70.5	-14.0	26.18	71.8	348.76
4428.0	44.90	272.72	4408.6	37.8	71.4	-34.6	20.97	79.3	334.16
4460.0	49.49	272.81	4430.4	61.3	72.5	-58.0	14.35	92.9	321.34
4491.0	54.10	272.80	4449.5	85.6	73.7	-82.3	14.87	110.5	311.84
4523.0	58.87	272.79	4467.2	112.3	75.0	-109.0	14.91	132.3	304.54
4555.0	63.86	272.64	4482.5	140.4	76.3	-137.0	15.60	156.9	299.12
4587.0	68.56	272.20	4495.4	169.6	77.6	-166.3	14.74	183.5	295.01
4618.0	73.06	272.21	4505.6	198.9	78.7	-195.5	14.52	210.8	291.93
4650.0	77.79	271.37	4513.7	229.9	79.7	-226.5	15.00	240.1	289.38
4682.0	82.48	270.98	4519.1	261.4	80.3	-258.0	14.71	270.2	287.29
4714.0	87.17	271.83	4522.0	293.2	81.1	-289.8	14.89	301.0	285.63
4746.0	87.38	272.24	4523.5	325.2	82.2	-321.8	1.44	332.1	284.34
4777.0	87.51	272.81	4524.9	356.2	83.6	-352.7	1.88	362.5	283.33
4809.0	87.03	270.12	4526.5	388.1	84.4	-384.7	8.53	393.8	282.38
4846.0	84.56	267.31	4529.2	424.9	83.6	-421.5	10.10	429.7	281.22
4873.0	84.57	267.08	4531.7	451.7	82.3	-448.4	0.85	455.9	280.40
4904.0	84.35	266.87	4534.7	482.4	80.6	-479.2	0.98	485.9	279.55
4936.0	84.40	269.10	4537.9	514.1	79.5	-511.0	6.94	517.2	278.85
4968.0	83.63	273.06	4541.2	545.9	80.1	-542.8	12.54	548.7	278.40
4999.0	83.56	272.65	4544.6	576.7	81.7	-573.6	1.33	579.4	278.10
5031.0	83.38	272.11	4548.3	608.5	83.0	-605.4	1.77	611.0	277.80
5063.0	85.72	272.42	4551.3	640.4	84.2	-637.2	7.38	642.7	277.53
5095.0	85.68	272.30	4553.7	672.3	85.5	-669.1	0.39	674.5	277.29
5126.0	86.02	271.92	4556.0	703.2	86.7	-700.0	1.64	705.3	277.06
5158.0	85.58	271.43	4558.3	735.1	87.6	-731.9	2.05	737.1	276.83
5189.0	85.73	270.89	4560.7	766.0	88.2	-762.8	1.80	767.9	276.60
5221.0	85.78	270.44	4563.0	797.9	88.6	-794.7	1.41	799.6	276.36
5252.0	85.79	270.60	4565.3	828.8	88.9	-825.6	0.52	830.4	276.15
5284.0	85.85	270.54	4567.6	860.7	89.2	-857.5	0.26	862.2	275.94
5316.0	85.99	271.02	4569.9	892.6	89.6	-889.4	1.56	893.9	275.76
5347.0	85.89	270.91	4572.1	923.5	90.2	-920.4	0.48	924.8	275.60
5379.0	85.56	271.18	4574.5	955.4	90.8	-952.3	1.33	956.6	275.44
5411.0	85.55	271.17	4577.0	987.3	91.4	-984.2	0.04	988.4	275.31
5443.0	84.48	268.41	4579.8	1019.1	91.3	-1016.0	9.22	1020.1	275.13
5475.0	84.20	268.83	4582.9	1050.9	90.5	-1047.9	1.57	1051.8	274.94
5507.0	84.06	269.34	4586.2	1082.7	90.0	-1079.7	1.64	1083.4	274.77
5538.0	84.00	269.40	4589.4	1113.5	89.7	-1110.5	0.27	1114.1	274.62
5570.0	83.38	269.21	4592.9	1145.2	89.3	-1142.3	2.03	1145.8	274.47
5602.0	85.18	269.16	4596.1	1177.0	88.8	-1174.2	5.63	1177.5	274.33
5633.0	85.65	269.40	4598.6	1207.8	88.4	-1205.1	1.70	1208.3	274.20
5666.0	86.20	270.71	4600.9	1240.7	88.5	-1238.0	4.30	1241.1	274.09
5696.0	86.32	270.79	4602.9	1270.7	88.9	-1267.9	0.48	1271.0	274.01
5726.0	86.16	271.15	4604.9	1300.6	89.4	-1297.8	1.31	1300.9	273.94
5758.0	85.82	271.21	4607.1	1332.5	90.0	-1329.8	1.08	1332.8	273.87
5790.0	85.42	268.78	4609.5	1364.4	90.0	-1361.7	7.67	1364.6	273.78



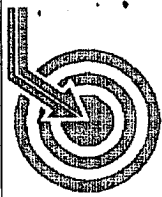
Scientific Drilling Survey Report

Company: CHEVRONTXACO
Field: Vacuum Goriotta San Andres
Site: Lea County, NM
Well: VGSAU #138H
Wellpath: DH - Job #32D0404237

Date: 5/26/2004 Time: 14:56:33 Page: 2
Co-ordinate(NE) Reference: Site: Lea County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,272.62Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

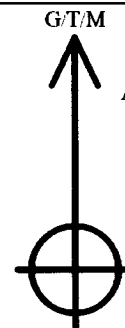
Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
5822.0	85.28	267.64	4612.1	1396.2	89.0	-1393.5	3.58	1396.4	273.66
5854.0	85.09	267.20	4614.8	1427.9	87.6	-1425.4	1.49	1428.1	273.52
5886.0	85.08	269.44	4617.6	1459.7	86.7	-1457.3	6.97	1459.8	273.40
5918.0	84.88	270.13	4620.4	1491.5	86.5	-1489.1	2.24	1491.7	273.33
5949.0	84.41	269.90	4623.3	1522.4	86.6	-1520.0	1.69	1522.5	273.26
5981.0	86.09	271.52	4625.9	1554.2	87.0	-1551.9	7.28	1554.3	273.21
6013.0	85.69	271.86	4628.2	1586.2	87.9	-1583.8	1.64	1586.2	273.18
6044.0	85.38	271.84	4630.6	1617.1	88.9	-1614.7	1.00	1617.1	273.15
6076.0	85.25	272.25	4633.2	1649.0	90.0	-1646.6	1.34	1649.0	273.13
6107.0	86.06	271.05	4635.6	1679.9	90.9	-1677.5	4.66	1679.9	273.10
6139.0	86.03	271.48	4637.8	1711.8	91.6	-1709.4	1.34	1711.8	273.07
6171.0	85.99	271.62	4640.0	1743.7	92.5	-1741.3	0.45	1743.7	273.04
6202.0	85.72	268.07	4642.3	1774.6	92.4	-1772.2	11.45	1774.6	272.98
6234.0	85.92	267.98	4644.6	1806.4	91.3	-1804.1	0.69	1806.4	272.90
6266.0	85.83	268.13	4646.9	1838.2	90.2	-1836.0	0.55	1838.2	272.81
6291.0	86.46	267.69	4648.6	1863.1	89.3	-1860.9	3.07	1863.1	272.75
6328.0	86.46	267.69	4650.9	1899.8	87.8	-1897.8	0.00	1899.8	272.65



**Scientific
Drilling**

Field: Vacuum Glorietta San Andres
Site: Lea County, NM
Well: VGSAU #138H
Wellpath: DH - Job #32D0404237
Survey: 04/12/04-04/20/04



Azimuths to Grid North
True North: 0.00°
Magnetic North: 0.00°

Magnetic Field
Strength: 0nT
Dip Angle: 0.00°
Date: 5/26/2004
Model: igrf2000

