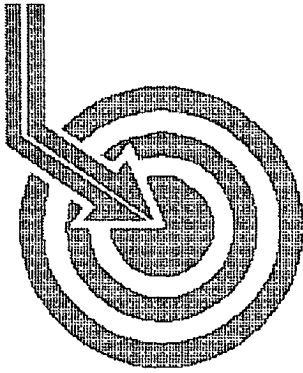




Scientific Drilling

SUR: H-31-17s-35e, 2050/N & 1014/E
BHL: F-31-17s-35e, 2003/N & 2923/E
API # 30-025-36342

CHEVRONTEXACO

Field: Central Vacuum
Site: Lea County, NM
Well: CVU #163H
Wellpath: DH - Job #32D1103573
Survey: 11/06/03-11/14/03

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

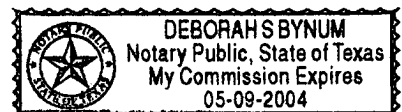
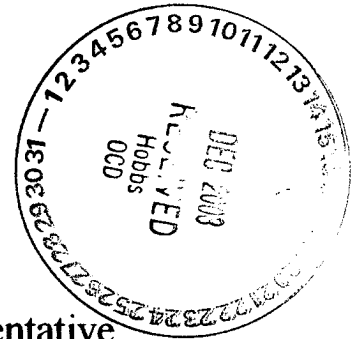
[Signature]

Company Representative

Notorized this date 16th of December, 2003.

[Signature: Deborah S. Bynum]

Notary Signature
County of Midland
State of Texas



Scientific Drilling Survey Report

Company: CHEVRONTExACO Field: Central Vacuum Site: Lea County, NM Well: CVU #163H Wellpath: DH - Job #32D1103573	Date: 12/15/2003 Time: 18:31:44 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,271.33Azi) Survey Calculation Method: Minimum Curvature Db: Sybase
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Survey: 11/06/03-11/14/03 MWD 4392'-6391' Company: Scientific Drilling Tool: MWD,MWD	Start Date: 11/6/2003 Engineer: Lamb/Melendez/Hendrix Tied-to: User Defined
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Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
4392.0	0.23	43.74	4391.8	11.7	11.3	-11.5	0.00	16.1	314.65
4436.0	20.66	264.22	4434.9	19.5	10.6	-19.2	47.35	21.9	298.89
4469.0	37.64	266.51	4463.6	35.4	9.4	-35.2	51.56	36.4	284.95
4498.0	50.91	266.77	4484.3	55.5	8.2	-55.3	45.76	56.0	278.44
4530.0	59.44	267.21	4502.6	81.7	6.8	-81.6	26.68	81.8	274.80
4562.0	66.21	267.30	4517.2	110.1	5.5	-110.0	21.16	110.1	272.85
4593.0	73.95	267.03	4527.7	139.1	4.0	-139.1	24.98	139.1	271.66
4625.0	81.43	267.56	4534.6	170.3	2.6	-170.3	23.43	170.3	270.86
4656.0	88.37	267.82	4537.3	201.1	1.3	-201.1	22.40	201.1	270.38
4688.0	88.20	268.70	4538.3	233.0	0.4	-233.1	2.80	233.1	270.09
4720.0	87.67	267.47	4539.4	264.9	-0.7	-265.0	4.18	265.0	269.85
4751.0	92.07	266.51	4539.5	295.9	-2.3	-296.0	14.53	296.0	269.55
4783.0	91.01	268.53	4538.6	327.8	-3.7	-327.9	7.13	328.0	269.35
4814.0	89.69	268.35	4538.4	358.7	-4.6	-358.9	4.30	359.0	269.27
4846.0	91.36	265.10	4538.2	390.6	-6.4	-390.9	11.42	390.9	269.06
4877.0	91.80	263.87	4537.3	421.4	-9.4	-421.7	4.21	421.8	268.73
4909.0	91.89	264.31	4536.3	453.1	-12.7	-453.5	1.40	453.7	268.40
4941.0	90.40	263.78	4535.6	484.8	-16.0	-485.3	4.94	485.6	268.11
4972.0	82.57	263.96	4537.5	515.5	-19.3	-516.1	25.26	516.4	267.86
5004.0	76.33	265.54	4543.4	546.7	-22.2	-547.4	20.09	547.8	267.68
5035.0	75.80	266.24	4550.8	576.7	-24.3	-577.4	2.78	577.9	267.59
5067.0	71.84	266.15	4559.8	607.3	-26.4	-608.1	12.38	608.6	267.52
5098.0	69.20	266.07	4570.1	636.4	-28.3	-637.2	8.52	637.9	267.45
5130.0	69.56	266.95	4581.4	666.2	-30.2	-667.1	2.81	667.8	267.41
5162.0	69.12	268.70	4592.7	696.1	-31.3	-697.0	5.30	697.7	267.43
5193.0	69.03	268.26	4603.7	725.0	-32.1	-726.0	1.36	726.7	267.47
5225.0	68.85	263.78	4615.2	754.8	-34.1	-755.8	13.08	756.5	267.41
5257.0	69.82	264.22	4626.5	784.5	-37.3	-785.5	3.29	786.4	267.28
5288.0	76.77	264.40	4635.4	813.9	-40.2	-815.1	22.43	816.1	267.18
5320.0	83.71	264.92	4640.9	845.2	-43.2	-846.4	21.75	847.5	267.08
5351.0	89.16	266.51	4642.8	876.0	-45.5	-877.3	18.31	878.5	267.03
5383.0	89.78	266.42	4643.1	907.9	-47.4	-909.2	1.96	910.5	267.01
5415.0	89.69	266.15	4643.2	939.8	-49.5	-941.2	0.89	942.5	266.99
5446.0	88.20	268.35	4643.8	970.7	-51.0	-972.1	8.57	973.5	267.00
5478.0	87.67	268.35	4645.0	1002.6	-51.9	-1004.1	1.66	1005.4	267.04
5509.0	87.76	269.41	4646.2	1033.6	-52.5	-1035.0	3.43	1036.4	267.10
5541.0	89.16	274.86	4647.0	1065.5	-51.3	-1067.0	17.58	1068.2	267.25
5572.0	89.96	276.20	4647.3	1096.4	-48.3	-1097.9	5.03	1098.9	267.48
5604.0	89.43	276.53	4647.5	1128.3	-44.8	-1129.7	1.95	1130.5	267.73
5636.0	89.60	276.17	4647.7	1160.2	-41.3	-1161.5	1.24	1162.2	267.97
5667.0	90.22	276.09	4647.8	1191.1	-37.9	-1192.3	2.02	1192.9	268.18
5699.0	90.22	275.38	4647.7	1223.0	-34.7	-1224.1	2.22	1224.6	268.37
5730.0	88.29	274.68	4648.1	1253.9	-32.0	-1255.0	6.62	1255.4	268.54
5762.0	88.90	273.27	4648.8	1285.9	-29.8	-1286.9	4.80	1287.3	268.67
5793.0	89.60	273.01	4649.2	1316.9	-28.1	-1317.9	2.41	1318.2	268.78
5825.0	90.40	275.56	4649.2	1348.8	-25.7	-1349.8	8.35	1350.0	268.91
5857.0	91.01	275.47	4648.9	1380.7	-22.6	-1381.6	1.93	1381.8	269.06
5888.0	91.01	278.02	4648.3	1411.6	-19.0	-1412.4	8.22	1412.5	269.23
5920.0	91.28	278.90	4647.7	1443.3	-14.3	-1444.0	2.88	1444.1	269.43

Scientific Drilling Survey Report

Company: CHEVRONTEXACO
Field: Central Vacuum
Site: Lea County, NM
Well: CVU #163H
Wellpath: DH - Job #32D1103573

Date: 12/15/2003 **Time:** 18:31:44 **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,271.33Azi)
Survey Calculation Method: Minimum Curvature **Db:** Sybase

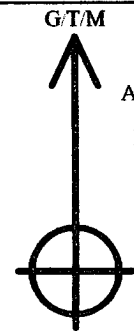
Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
5952.0	91.36	280.31	4646.9	1475.0	-9.0	-1475.6	4.41	1475.6	269.65
5983.0	90.13	281.01	4646.5	1505.6	-3.2	-1506.0	4.57	1506.0	269.88
6015.0	89.16	278.90	4646.7	1537.2	2.3	-1537.6	7.26	1537.6	270.09
6046.0	88.99	278.81	4647.2	1567.9	7.1	-1568.2	0.62	1568.2	270.26
6078.0	85.12	276.70	4648.9	1599.7	11.4	-1599.8	13.77	1599.9	270.41
6110.0	84.33	277.23	4651.8	1631.4	15.2	-1631.5	2.97	1631.5	270.54
6141.0	83.98	276.70	4655.0	1662.1	19.0	-1662.1	2.04	1662.2	270.65
6173.0	84.24	275.03	4658.3	1693.8	22.2	-1693.7	5.25	1693.9	270.75
6204.0	83.89	275.73	4661.5	1724.6	25.1	-1724.4	2.51	1724.6	270.83
6236.0	84.15	276.97	4664.8	1756.3	28.7	-1756.1	3.94	1756.3	270.93
6268.0	84.15	276.79	4668.1	1788.0	32.5	-1787.7	0.56	1788.0	271.04
6299.0	84.50	277.76	4671.1	1818.6	36.4	-1818.3	3.31	1818.6	271.15
6331.0	84.50	277.84	4674.2	1850.3	40.7	-1849.8	0.25	1850.3	271.26
6355.0	84.24	275.56	4676.5	1874.1	43.5	-1873.6	9.52	1874.1	271.33
6391.0	84.50	275.56	4680.1	1909.8	47.0	-1909.2	0.72	1909.8	271.41



**Scientific
Drilling**

Field: Central Vacuum
Site: Lea County, NM
Well: CVU #163H
Wellpath: DH - Job #32D1103573
Survey: 11/06/03-11/14/03



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

Magnetic Field
Strength: 0nT
Dip Angle: 0.00°
Date: 12/15/2003
Model: igrf2000

