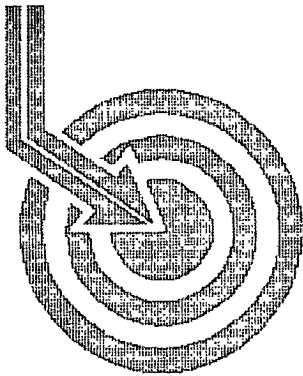




Scientific Drilling

RECEIVED

APR 2 / 2009

HOBBSOCD

SUR: A-1-18s-34e, 10/N & 420/E
BHL: A-1-18s-34e, 30/N & 678/E
API #30-025-38785

CHEVRON

Field: Vacuum Grayburg San Andres
Site: Lea County, NM
Well: Vacuum Grayburg San Andres Unit#438WI
Wellpath: DH - Job #32D0209075
Survey: 02/25/09-03/01/09

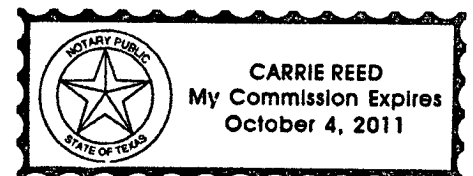
This survey is correct to the best of my knowledge
and is supported by actual field data.

.....*L. W. Aarts*..... Company Representative

Notorized this date 23rd of March, 2009.

Carrie Reed
Notary Signature
County of Midland
State of Texas

KR





Scientific Drilling International Survey Report

Company: CHEVRON	Date: 03/23/2009	Time: 11:20:23	Page: 1
Field: Vacuum Grayburg San Andres	Co-ordinate(NE) Reference:	Site: Lea County, NM, Grid North	
Site: Lea County, NM	Vertical (TVD) Reference:	SITE 0.0	
Well: Vacuum Grayburg San Andres Uni	Section (VS) Reference:	Well (0.00N,0.00E,264.67Azi)	
Wellpath: VH - Job #32K0209077	Survey Calculation Method:	Minimum Curvature Db: Sybase	

Survey: 02/25/09	Start Date: 02/25/2009
Company: Scientific Drilling Internatio	Engineer: Melendez/Rowe
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
0.00	0.00	359.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.22	311.37	100.00	0.13	0.13	-0.14	0.22	0.19	311.37
200.00	0.13	318.63	200.00	0.33	0.34	-0.36	0.09	0.50	313.02
300.00	0.15	15.42	300.00	0.35	0.55	-0.40	0.13	0.68	323.76
400.00	0.26	4.36	400.00	0.27	0.90	-0.35	0.12	0.97	338.74
500.00	0.29	341.44	500.00	0.29	1.37	-0.41	0.11	1.43	343.15
600.00	0.44	340.11	600.00	0.44	1.97	-0.63	0.15	2.07	342.38
700.00	0.43	310.34	699.99	0.80	2.57	-1.04	0.22	2.78	337.95
800.00	0.32	269.22	799.99	1.34	2.81	-1.61	0.28	3.24	330.25
900.00	0.51	201.47	899.99	1.82	2.39	-2.05	0.49	3.15	319.44
1000.00	1.27	192.66	999.98	2.36	0.90	-2.46	0.77	2.62	290.12
1100.00	1.37	204.01	1099.95	3.29	-1.27	-3.18	0.28	3.43	248.20
1200.00	1.61	196.87	1199.92	4.41	-3.71	-4.08	0.30	5.51	227.71
1300.00	1.52	196.35	1299.88	5.43	-6.33	-4.86	0.09	7.98	217.53
1400.00	1.49	200.54	1399.84	6.48	-8.82	-5.69	0.11	10.49	212.83
1500.00	1.20	201.38	1499.82	7.52	-11.01	-6.53	0.29	12.80	210.66
1600.00	1.82	205.08	1599.78	8.80	-13.42	-7.58	0.63	15.42	209.46
1700.00	1.36	193.33	1699.74	9.98	-16.02	-8.53	0.56	18.15	208.04
1800.00	1.06	175.15	1799.72	10.37	-18.09	-8.72	0.48	20.09	205.74
1900.00	1.06	175.68	1899.70	10.39	-19.94	-8.58	0.01	21.70	203.28
2000.00	0.99	156.64	1999.69	10.14	-21.65	-8.16	0.35	23.14	200.66
2100.00	0.77	149.94	2099.68	9.59	-23.03	-7.49	0.24	24.21	198.01
2200.00	0.76	140.63	2199.67	8.94	-24.12	-6.73	0.12	25.04	195.59
2300.00	0.77	148.81	2299.66	8.28	-25.21	-5.96	0.11	25.90	193.30
2400.00	0.71	122.24	2399.65	7.49	-26.11	-5.09	0.35	26.60	191.02
2500.00	0.89	98.23	2499.64	6.24	-26.56	-3.79	0.38	26.83	188.13
2600.00	1.30	91.45	2599.62	4.36	-26.70	-1.89	0.43	26.76	184.05
2700.00	1.37	96.84	2699.59	2.07	-26.87	0.43	0.14	26.87	179.09
2800.00	1.63	91.34	2799.56	-0.51	-27.04	3.04	0.30	27.21	173.59
2900.00	1.06	94.59	2899.53	-2.84	-27.15	5.38	0.57	27.68	168.79
3000.00	0.66	109.32	2999.52	-4.27	-27.41	6.85	0.45	28.26	165.98
3020.00	0.89	119.58	3019.52	-4.50	-27.53	7.09	1.34	28.43	165.56



Scientific Drilling International Survey Report

Company: CHEVRON	Date: 03/23/2009	Time: 11:56:22	Page: 1
Field: Vacuum Grayburg San Andres	Co-ordinate(NE) Reference:	Site: Lea County, NM, Grid North	
Site: Lea County, NM	Vertical (TVD) Reference:	SITE 0.0	
Well: Vacuum Grayburg San Andres Uni	Section (VS) Reference:	Well (0.00N,0.00E,264.67Azi)	
Wellpath: DH - Job #32D0209075	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey: 02/25/09-03/01/09	Start Date: 02/25/2009
MWD 3149'-4955'	
Company: Scientific Drilling Internatio	Engineer: Melendez/Pulattie
Tool: MWD;MWD	Tied-to: From: Definitive Path

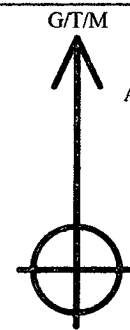
Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
3020.00	0.89	119.58	3019.52	-4.50	-27.53	7.09	0.00	28.43	165.56
3149.00	1.45	213.22	3148.50	-4.31	-29.39	7.07	1.36	30.23	166.48
3244.00	3.52	256.11	3243.41	-0.67	-31.09	3.58	2.79	31.30	173.44
3339.00	5.05	253.18	3338.14	6.31	-33.00	-3.26	1.63	33.17	185.63
3434.00	6.50	254.79	3432.66	15.70	-35.63	-12.45	1.54	37.74	199.26
3529.00	8.09	268.09	3526.89	27.67	-37.26	-24.32	2.43	44.49	213.13
3624.00	8.13	272.08	3620.95	41.01	-37.24	-37.71	0.59	53.00	225.36
3719.00	8.20	272.77	3714.98	54.38	-36.67	-51.19	0.13	62.97	234.39
3814.00	7.97	272.19	3809.04	67.61	-36.09	-64.54	0.26	73.95	240.79
3909.00	9.59	277.22	3902.92	81.87	-34.84	-78.97	1.89	86.32	246.19
4005.00	9.63	276.40	3997.58	97.54	-32.94	-94.89	0.15	100.44	250.85
4100.00	9.61	277.20	4091.24	113.06	-31.06	-110.65	0.14	114.93	254.32
4195.00	9.50	278.29	4184.92	128.42	-28.94	-126.28	0.22	129.55	257.09
4290.00	9.25	271.63	4278.66	143.62	-27.59	-141.67	1.17	144.33	258.98
4385.00	9.44	272.33	4372.40	158.92	-27.06	-157.08	0.23	159.40	260.23
4480.00	9.19	271.56	4466.14	174.17	-26.53	-172.45	0.29	174.48	261.25
4575.00	9.19	273.17	4559.92	189.20	-25.91	-187.61	0.27	189.39	262.14
4670.00	9.12	273.47	4653.71	204.15	-25.03	-202.70	0.09	204.24	262.96
4765.00	9.05	274.40	4747.52	218.95	-24.00	-217.66	0.17	218.98	263.71
4860.00	9.05	275.38	4841.34	233.66	-22.73	-232.55	0.16	233.66	264.42
4955.00	9.00	275.81	4935.16	248.29	-21.28	-247.38	0.09	248.30	265.08



Scientific
Drilling

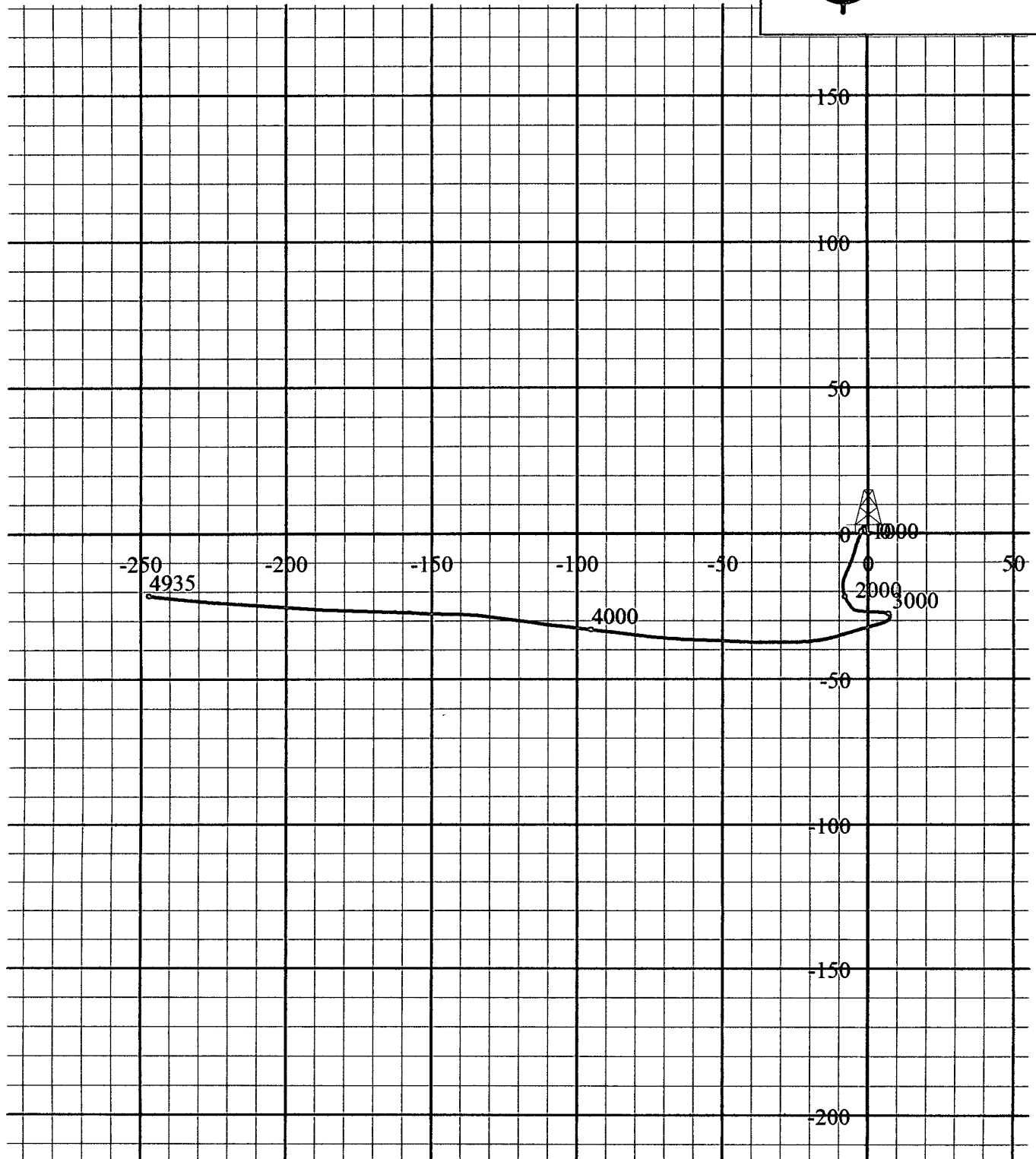
Field: Vacuum Grayburg San Andres
Site: Lea County, NM
Well: Vacuum Grayburg San Andres Unit#438
Path: DH - Job #32D0209075
vey: 02/25/09-03/01/09



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

Magnetic Field
Strength: 0nT
Dip Angle: 0.00°
Date: 03/23/2009
Model: igrf2000

South(-)/North(+) [50ft/in]



West(-)/East(+) [50ft/in]