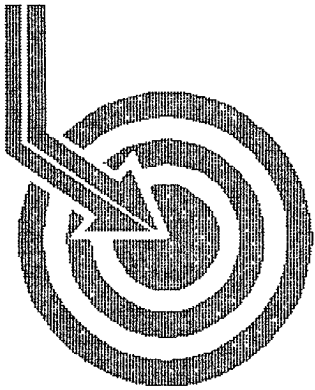




Scientific Drilling

RECEIVED

FEB 23 2010

HOBBSOCD

APACHE CORPORATION

Field: Penrose Skelly
Site: Lea County, NM
Well: State Land 15 #18
Survey: 01/13/10-01/17/10

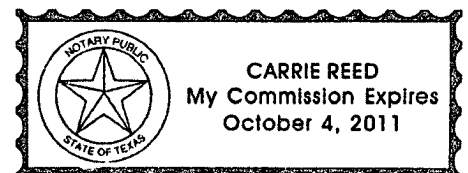
SUR: O-16-21s-37e, 660/S & 1650/E
BHL: O-16-21s-37e, 388/S & 1710/E
API # 30-025-39605

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

Richardson

Notorized this date 15th of February, 2010.

Carrie Reed
Notary Signature
County of Midland
State of Texas





Scientific Drilling International, Inc.

Survey Report

Company: APACHE CORPORATION Date: 1/31/2010 Time: 21:43:19 Page: 1
Field: Penrose Skelly Co-ordinate(NE) Reference: Site: Lea County, NM, Grid North
Site: Lea County, NM Vertical (TVD) Reference: SITE 0.0
Well: State Land 15 #18 Section (VS) Reference: Well (0.00N,0.00E,189.64Azi)
Wellpath: VH - Job #32K0110 Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: 01/15/10 Start Date: 1/15/2010
KSRG 0'-1160'
Company: Scientific Drilling Internatio Engineer: Guebara
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	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.00
100.0	0.48	210.46	100.0	0.4	-0.4	-0.2	0.48	0.4	210.46
200.0	0.56	244.14	200.0	1.1	-0.9	-0.9	0.31	1.3	222.75
300.0	0.67	248.52	300.0	1.7	-1.4	-1.8	0.12	2.3	233.60
400.0	0.44	243.61	400.0	2.2	-1.7	-2.7	0.23	3.2	237.44
500.0	0.41	231.71	500.0	2.7	-2.1	-3.4	0.09	4.0	237.52
600.0	0.31	189.51	600.0	3.2	-2.6	-3.7	0.28	4.5	234.51
700.0	0.35	244.03	700.0	3.7	-3.0	-4.0	0.30	5.0	232.91
800.0	0.47	235.68	800.0	4.1	-3.4	-4.6	0.13	5.7	233.70
900.0	0.65	232.43	900.0	4.8	-4.0	-5.4	0.18	6.7	233.71
1000.0	0.44	186.53	1000.0	5.6	-4.7	-5.9	0.47	7.5	231.47
1100.0	0.43	199.28	1100.0	6.4	-5.4	-6.1	0.10	8.1	228.16
1160.0	0.57	165.58	1160.0	6.9	-5.9	-6.1	0.53	8.5	225.63



Scientific Drilling International, Inc.

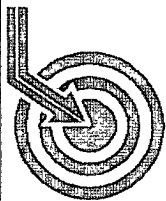
Survey Report

Company: APACHE CORPORATION	Date: 1/31/2010	Time: 21:52:02	Page: 1
Field: Penrose Skelly	Co-ordinate(NE) Reference:	Site: Lea County, NM, Grid North	
Site: Lea County, NM	Vertical (TVD) Reference:	SITE 0.0	
Well: State Land 15 #18	Section (VS) Reference:	Well (0.00N,0.00E,189.64Azi)	
Wellpath: DH - Job #32D0110026	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey: 01/13/10-01/17/10	Start Date: 1/13/2010
MWD 1279'-4349'	
Company: Scientific Drilling Internatio	Engineer: Smith/Becker
Tool: MWD,MWD	Tied-to: From: Definitive Path

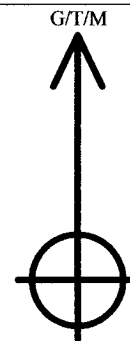
Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
1160.0	0.57	165.58	1160.0	6.9	-5.9	-6.1	0.00	8.5	225.63
1279.0	0.62	175.34	1279.0	8.0	-7.2	-5.9	0.09	9.3	219.38
1374.0	0.38	190.37	1374.0	8.8	-8.0	-5.9	0.29	9.9	216.43
1469.0	0.38	168.19	1468.9	9.5	-8.6	-5.9	0.15	10.4	214.37
1565.0	0.10	75.32	1564.9	9.7	-8.9	-5.7	0.41	10.6	212.83
1660.0	2.05	190.70	1659.9	11.4	-10.5	-6.0	2.21	12.1	209.53
1755.0	3.90	190.33	1754.8	16.3	-15.4	-6.9	1.95	16.8	204.04
1850.0	5.92	187.40	1849.4	24.4	-23.4	-8.1	2.14	24.8	199.02
1944.0	7.13	185.79	1942.8	35.1	-34.0	-9.3	1.30	35.3	195.26
2039.0	9.24	190.65	2036.9	48.6	-47.4	-11.3	2.34	48.7	193.40
2134.0	11.23	186.50	2130.3	65.5	-64.1	-13.7	2.23	65.5	192.11
2230.0	12.33	187.29	2224.3	85.1	-83.5	-16.1	1.16	85.1	190.91
2325.0	11.97	185.56	2317.2	105.0	-103.4	-18.3	0.54	105.0	190.06
2421.0	12.30	190.44	2411.1	125.2	-123.4	-21.2	1.12	125.2	189.73
2516.0	11.39	189.94	2504.0	144.7	-142.6	-24.6	0.96	144.7	189.80
2611.0	10.19	188.78	2597.3	162.5	-160.1	-27.5	1.28	162.5	189.75
2706.0	9.78	192.32	2690.9	178.9	-176.3	-30.5	0.78	178.9	189.82
2802.0	10.52	193.56	2785.4	195.8	-192.8	-34.3	0.80	195.8	190.09
2897.0	9.51	194.41	2879.0	212.3	-208.8	-38.3	1.07	212.3	190.39
2992.0	8.07	193.91	2972.8	226.7	-222.9	-41.9	1.52	226.8	190.64
3088.0	7.17	193.72	3068.0	239.4	-235.2	-44.9	0.94	239.5	190.81
3183.0	6.45	194.09	3162.3	250.7	-246.2	-47.6	0.76	250.7	190.94
3278.0	5.68	193.37	3256.8	260.7	-255.9	-50.0	0.81	260.8	191.05
3374.0	3.81	195.06	3352.5	268.6	-263.6	-51.9	1.95	268.7	191.14
3469.0	1.63	197.76	3447.3	273.1	-268.0	-53.2	2.30	273.2	191.22
3564.0	0.59	235.13	3542.3	274.8	-269.5	-54.0	1.28	274.9	191.32
3659.0	0.66	250.98	3637.3	275.4	-270.0	-54.9	0.20	275.5	191.49
3754.0	0.61	256.10	3732.3	275.8	-270.3	-55.9	0.08	276.0	191.68
3850.0	0.64	234.84	3828.3	276.4	-270.7	-56.8	0.24	276.6	191.85
3945.0	0.64	254.85	3923.3	277.0	-271.2	-57.8	0.23	277.3	192.03
4040.0	0.53	257.83	4018.3	277.4	-271.4	-58.7	0.12	277.7	192.21
4135.0	0.41	244.66	4113.3	277.8	-271.6	-59.5	0.17	278.1	192.35
4231.0	0.33	253.75	4209.3	278.1	-271.9	-60.0	0.10	278.4	192.45
4349.0	0.23	95.05	4327.3	278.2	-272.0	-60.1	0.47	278.5	192.46



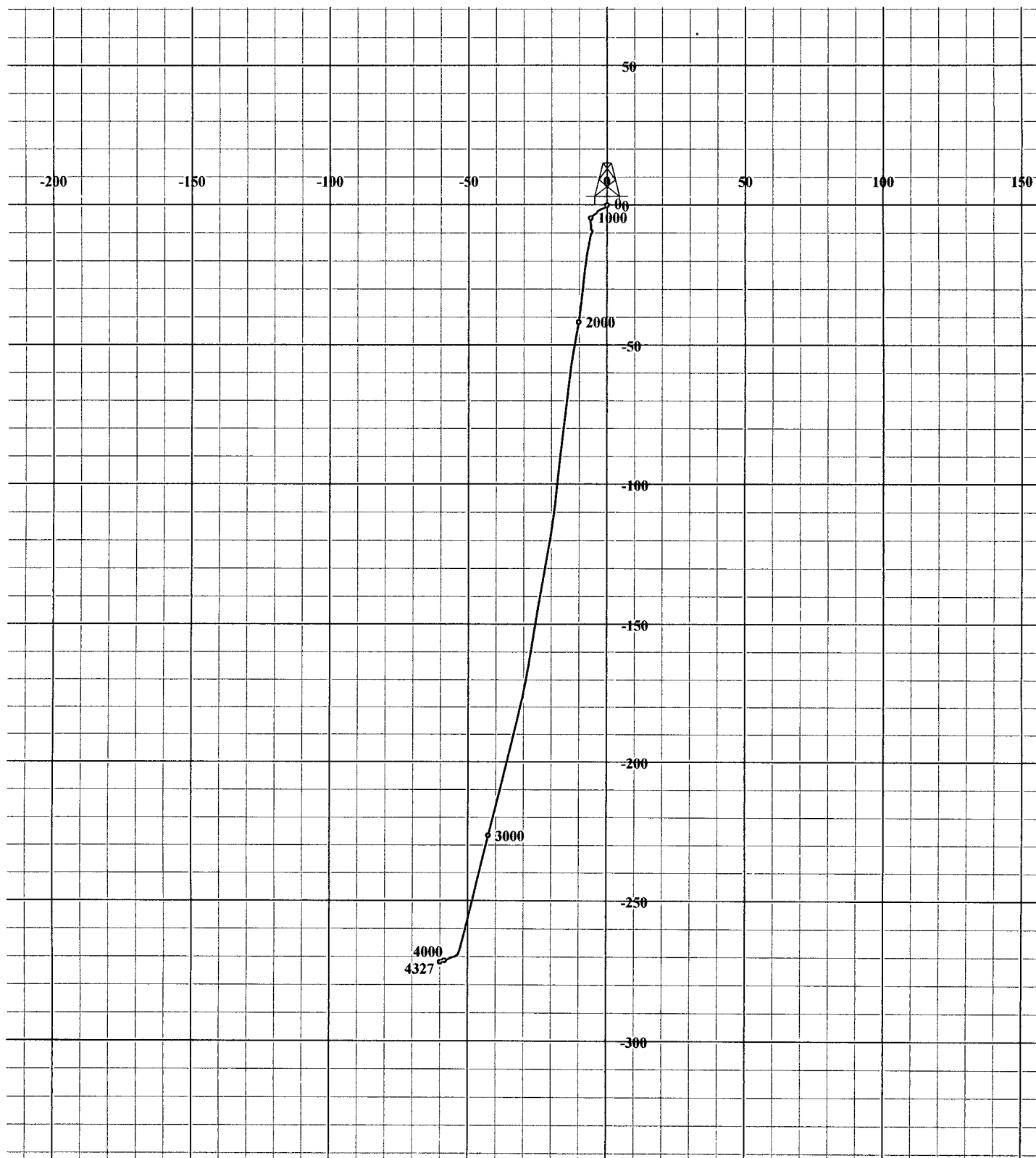
Scientific
Drilling

Field: Penrose Skelly
Site: Lea County, NM
Well: State Land 15 #18
Survey: 01/13/10-01/17/10



Azimuths to Grid North
True North: 0 00°
Magnetic North: 0 00°
Magnetic Field
Dip Angle 0 00°
Date 1/31/2010
Model igrf2000

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



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