



Scientific Drilling International, Inc.

2034 Trade Drive • Midland, Texas 79706

P. O. Box 9699 • Midland, Texas 79708

Tel: 432-563-1339 • Fax: 432-697-0324

23 July 2009

Pam Johns  
Railroad Commission of Texas  
Oil & Gas Division  
P.O. Box 12967  
Austin, Texas 78711

COPY

Terrill - 07/29  
PLS check this. If accurate,  
forward to Regulatory  
(Roy or Shirley)

Subject: Company: COG Resources (Henry Petroleum)  
Lease Name: Univ6 Kelly16, Well #14  
RRC Lease ID No.: Not Assigned  
Field Name: Sheep Mountain  
Survey Co.: UL  
County: Reagan  
API No: 42-383-36448

Thx-Larry  
Sent to UL  
08/05/09  
RRJ

Enclosed, please find the original and one copy of the survey performed on the above referenced well by Scientific Drilling International (P-5 No. 758300). Other information required by your office is as follows:

<u>Name &amp; Title of Surveyor</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Leo Garza Field Technician	0'-5340'	06/03/09	Keeper Gyro
Keith Noack Field Technician	5421'-9116'	06/04/09-06/12/09	MWD

A Certified plat on which the bottom hole location is oriented to the surface location is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Regards,

*Becky Wharton*  
Becky Wharton


Enclosures

cc:



State of Texas  
County of Midland

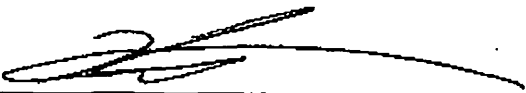
I, Leo Garza, certify that; I am employed by Scientific Drilling International; that I did on the day(s) of 06/03/09 through 06/03/09 conduct or supervise the taking of a Keeper Gyro survey from a depth of 0 feet to a depth of 5340 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Scientific Drilling International; that I am authorized and qualified to make this report; that this survey was conducted at the request of COG Resources (Henry Petro.) for the Univ6 Kelly16 #14 Well, API# 42-383-36448 in Reagan County, Texas; and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Scientific Drilling International.

  
\_\_\_\_\_  
Field Technician



State of Texas  
County of Midland

I, Keith Noack, certify that; I am employed by Scientific Drilling International; that I did on the day(s) of 06-04-09 through 06-12-09 conduct or supervise the taking of a MWD survey from a depth of 5,421 feet to a depth of 9,116 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Scientific Drilling International; that I am authorized and qualified to make this report; that this survey was conducted at the request of COG Operating LLC for the Univ6 Kelly16 #14 Well, API# 42-383-36448 in Reagan County, Texas; and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Scientific Drilling International.

  
\_\_\_\_\_  
Field Technician



# Scientific Drilling International Survey Report

<b>Company:</b> COG RESOURCES	<b>Date:</b> 08/04/2009	<b>Time:</b> 15:54:43	<b>Page:</b> 1
<b>Field:</b> Sheep Mountain	<b>Co-ordinate(NE) Reference:</b>	<b>Site:</b> Reagan County, Texas, Grid North	
<b>Site:</b> Reagan County, Texas	<b>Vertical (TVD) Reference:</b>	SITE 0.0	
<b>Well:</b> Univ 6 Kelly 16 #14	<b>Section (VS) Reference:</b>	Well (0.00N,0.00E,265.91Azi)	
<b>Wellpath:</b> VH - Job #32K0609200	<b>Survey Calculation Method:</b>	Minimum Curvature	<b>Db:</b> Sybase

<b>Survey:</b> 06/03/09	<b>Start Date:</b> 06/03/2009
<b>Company:</b> Scientific Drilling Internatio	<b>Engineer:</b> Garza/Williams
<b>Tool:</b> Keeper, Keeper Gyro	<b>Tied-to:</b> From Surface

**Survey**

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ChD ft	ClA deg
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.56	89.37	100.00	-0.49	0.01	0.49	0.56	0.49	89.37
200.00	0.49	70.87	199.99	-1.39	0.15	1.38	0.18	1.39	83.77
300.00	0.10	96.24	299.99	-1.89	0.28	1.87	0.40	1.89	81.45
400.00	0.54	74.32	399.99	-2.43	0.40	2.41	0.45	2.45	80.60
500.00	0.58	72.34	499.99	-3.39	0.68	3.35	0.04	3.42	78.52
600.00	0.55	90.99	599.98	-4.36	0.83	4.31	0.19	4.39	79.16
700.00	0.50	99.20	699.98	-5.26	0.75	5.22	0.09	5.27	81.85
800.00	0.37	137.07	799.97	-5.89	0.44	5.87	0.31	5.89	85.70
900.00	0.31	98.94	899.97	-6.35	0.16	6.36	0.23	6.36	88.53
1000.00	0.67	100.34	999.97	-7.18	0.02	7.20	0.36	7.20	89.87
1100.00	0.69	96.90	1099.96	-8.34	-0.16	8.37	0.05	8.38	91.10
1200.00	0.56	122.56	1199.96	-9.32	-0.50	9.38	0.31	9.40	93.03
1300.00	0.33	153.52	1299.95	-9.83	-1.02	9.92	0.32	9.98	95.85
1400.00	0.68	135.29	1399.95	-10.32	-1.70	10.47	0.38	10.61	99.21
1500.00	0.66	143.13	1499.94	-11.02	-2.58	11.23	0.09	11.53	102.93
1600.00	0.72	130.07	1599.94	-11.78	-3.44	12.06	0.17	12.54	105.94
1700.00	0.88	153.06	1699.93	-12.53	-4.53	12.89	0.36	13.66	109.38
1800.00	0.78	147.76	1799.92	-13.15	-5.79	13.60	0.13	14.78	113.08
1900.00	0.94	136.24	1899.90	-14.00	-6.96	14.53	0.23	16.11	115.60
2000.00	1.28	138.43	1999.89	-15.20	-8.39	15.84	0.34	17.92	117.91
2100.00	1.10	148.88	2099.86	-16.35	-10.03	17.10	0.25	19.83	120.39
2200.00	1.29	135.55	2199.84	-17.54	-11.64	18.42	0.30	21.79	122.29
2300.00	1.06	144.37	2299.82	-18.75	-13.19	19.74	0.29	23.75	123.75
2400.00	1.31	145.84	2399.80	-19.81	-14.89	20.92	0.25	25.68	125.44
2500.00	1.30	144.50	2499.77	-20.97	-16.76	22.23	0.03	27.84	127.02
2600.00	1.34	138.12	2599.75	-22.28	-18.55	23.66	0.15	30.07	128.10
2700.00	1.29	147.37	2699.72	-23.54	-20.37	25.05	0.22	32.29	129.12
2800.00	1.21	153.67	2799.70	-24.47	-22.27	26.13	0.16	34.33	130.44
2900.00	1.39	145.55	2899.67	-25.49	-24.21	27.28	0.26	36.48	131.59
3000.00	1.32	145.44	2999.64	-26.68	-26.16	28.62	0.07	38.78	132.43
3100.00	1.06	139.09	3099.62	-27.82	-27.81	29.88	0.29	40.82	132.94
3200.00	1.05	139.05	3199.60	-28.93	-29.20	31.09	0.01	42.65	133.21
3300.00	0.77	159.98	3299.59	-29.66	-30.52	31.92	0.43	44.16	133.72
3400.00	1.00	149.71	3399.58	-30.23	-31.91	32.59	0.28	45.61	134.40
3500.00	0.83	145.53	3499.57	-30.98	-33.26	33.44	0.18	47.16	134.85
3600.00	0.79	149.92	3599.56	-31.65	-34.45	34.19	0.07	48.54	135.22
3700.00	0.91	154.40	3699.55	-32.24	-35.77	34.88	0.14	49.96	135.72
3800.00	0.81	143.08	3799.54	-32.92	-37.05	35.65	0.20	51.41	136.10
3900.00	0.90	127.48	3899.52	-33.89	-38.09	36.70	0.25	52.89	136.07
4000.00	0.75	133.63	3999.51	-34.92	-39.02	37.79	0.17	54.32	135.91
4100.00	0.84	143.92	4099.50	-35.74	-40.06	38.70	0.17	55.70	135.99
4200.00	0.83	153.34	4199.49	-36.41	-41.30	39.46	0.14	57.12	136.31
4300.00	0.64	157.80	4299.49	-36.86	-42.47	39.99	0.20	58.33	136.72
4400.00	0.55	147.03	4399.48	-37.27	-43.39	40.46	0.14	59.33	137.00
4500.00	0.48	131.38	4499.48	-37.79	-44.07	41.04	0.16	60.22	137.04
4600.00	0.46	164.97	4599.47	-38.16	-44.73	41.46	0.27	60.99	137.17
4700.00	0.61	157.09	4699.47	-38.41	-45.61	41.77	0.17	61.85	137.52
4800.00	0.53	144.61	4799.46	-38.82	-46.48	42.24	0.15	62.81	137.73



# Scientific Drilling International Survey Report

<b>Company:</b> COG RESOURCES	<b>Date:</b> 06/04/2009	<b>Time:</b> 15:54:43	<b>Page:</b> 2
<b>Field:</b> Sheep Mountain	<b>Co-ordinate(NE) Reference:</b>	<b>Site:</b> Reagan County, Texas, Grid North	
<b>Site:</b> Reagan County, Texas	<b>Vertical (TVD) Reference:</b>	<b>SITE</b> 0.0	
<b>Well:</b> Univ 6 Kelly 16 #14	<b>Section (VS) Reference:</b>	<b>Well</b> (0.00N,0.00E,265.91Azi)	
<b>Wellpath:</b> VH - Job #32K0609200	<b>Survey Calculation Method:</b>	<b>Minimum Curvature</b>	<b>Db:</b> Sybase

**Survey**

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	CisD ft	CisA deg
4900.00	0.30	187.73	4899.46	-39.01	-47.11	42.48	0.37	63.43	137.96
5000.00	0.40	187.37	4999.46	-38.83	-47.71	42.34	0.12	63.78	138.41
5100.00	0.39	179.46	5099.48	-38.68	-48.38	42.24	0.12	64.22	138.88
5200.00	0.59	170.88	5199.45	-38.70	-49.23	42.32	0.21	64.92	139.31
5300.00	0.61	190.88	5299.45	-38.61	-50.26	42.30	0.21	65.69	139.91
5340.00	0.38	165.06	5339.45	-38.58	-50.60	42.30	0.79	65.95	140.10



# Scientific Drilling International Survey Report

<b>Company:</b> COG RESOURCES	<b>Date:</b> 07/23/2009	<b>Time:</b> 13:29:52	<b>Page:</b> 1
<b>Field:</b> Sheep Mountain	<b>Co-ordinate(NE) Reference:</b>	<b>Site:</b> Reagan County, Texas, Grid North	
<b>Site:</b> Reagan County, Texas	<b>Vertical (TVD) Reference:</b>	SITE 0.0	
<b>Well:</b> Univ 6 Kelly 16 #14	<b>Section (VS) Reference:</b>	Well (0.00N,0.00E,265.91Azi)	
<b>Wellpath:</b> DH - Job #32D0609197	<b>Survey Calculation Method:</b>	Minimum Curvature	<b>Db:</b> Sybase

<b>Survey:</b> 06/02/09-06/12/09	<b>Start Date:</b> 06/02/2009	
<b>Company:</b> Scientific Drilling Internatio	<b>Engineer:</b> Calvert/Noack	
<b>Tool:</b> MWD:MWD	<b>Tied-to:</b> 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
5340.00	0.38	165.06	5339.45	-38.58	-50.60	42.30	0.00	65.95	140.10
5421.00	0.28	158.53	5420.45	-38.69	-51.04	42.44	0.13	66.38	140.26
5514.00	1.08	69.94	5513.44	-39.80	-50.95	43.35	1.19	66.89	139.61
5607.00	1.08	309.23	5606.43	-39.81	-50.10	43.49	2.02	66.34	139.04
5700.00	2.35	290.28	5699.39	-37.43	-48.88	41.02	1.48	63.81	140.00
5793.00	2.73	291.41	5792.30	-33.70	-47.41	37.17	0.41	60.25	141.90
5887.00	3.66	277.57	5886.15	-28.74	-46.20	32.11	1.28	56.26	145.20
5979.00	7.26	271.61	5977.72	-20.07	-45.85	23.39	3.86	51.29	152.87
6074.00	9.08	268.02	6071.75	-8.61	-45.74	9.90	1.99	46.80	167.79
6164.00	9.13	264.33	6160.62	7.63	-46.69	-4.31	0.65	46.89	185.27
6288.00	13.95	260.95	6282.08	32.37	-50.01	-28.87	3.92	57.75	210.00
6381.00	14.37	268.53	6372.26	55.06	-52.07	-51.48	2.04	73.23	224.67
6475.00	16.16	267.84	6462.94	79.79	-52.87	-76.22	1.91	92.76	235.25
6599.00	14.95	274.60	6582.41	112.85	-52.23	-109.41	1.76	121.24	244.48
6723.00	12.23	273.39	6702.92	141.69	-50.17	-138.47	2.21	147.28	250.08
6815.00	12.53	274.13	6792.78	161.23	-48.88	-158.15	0.37	165.53	252.83
6909.00	13.15	265.99	6884.44	182.02	-48.89	-178.99	2.03	185.54	254.72
7002.00	14.39	270.90	6974.77	204.11	-49.45	-201.10	1.83	207.09	256.18
7095.00	15.62	271.07	7064.60	228.09	-49.04	-225.17	1.32	230.45	257.71
7187.00	14.17	273.31	7153.50	251.60	-48.15	-248.80	1.70	253.41	259.05
7281.00	15.26	275.61	7244.42	275.20	-46.28	-272.59	1.32	276.50	260.36
7374.00	14.64	273.36	7334.27	298.92	-44.39	-296.51	0.91	299.81	261.48
7467.00	15.37	270.99	7424.10	322.85	-43.49	-320.56	1.03	323.50	262.27
7561.00	15.43	269.91	7514.73	347.73	-43.30	-345.52	0.31	348.23	262.86
7654.00	15.15	273.08	7604.44	372.13	-42.66	-370.03	0.95	372.48	263.42
7746.00	14.52	274.53	7693.37	395.46	-41.11	-393.53	0.79	395.67	264.04
7841.00	11.81	275.02	7785.86	416.84	-39.32	-415.09	2.86	416.95	264.59
7936.00	10.33	278.91	7879.09	434.74	-37.15	-433.19	1.74	434.78	265.10
8027.00	8.27	281.58	7968.89	448.99	-34.57	-447.67	2.31	449.00	265.58
8120.00	6.99	281.80	8061.07	460.88	-32.07	-459.76	1.38	460.88	266.01
8214.00	6.02	268.23	8154.47	471.30	-31.05	-470.29	1.93	471.31	266.22
8307.00	4.09	269.77	8247.10	479.49	-31.21	-478.48	2.08	479.50	266.27
8401.00	2.58	265.52	8340.94	484.95	-31.39	-483.94	1.63	484.96	266.29
8463.00	2.45	274.91	8402.88	487.65	-31.39	-486.65	0.70	487.66	266.31
8587.00	1.68	290.13	8526.80	491.93	-30.54	-491.00	0.76	491.95	266.44
8712.00	0.67	273.29	8651.77	494.32	-29.86	-493.45	0.85	494.35	266.54
8836.00	0.46	244.21	8775.77	495.50	-30.04	-494.62	0.28	495.53	266.52
8960.00	0.64	325.27	8899.76	496.32	-29.69	-495.46	0.59	496.35	266.57
9116.00	0.57	311.85	9055.75	497.30	-28.45	-496.54	0.10	497.35	266.72

# Block 6, University Land

(190) (189)  
10 9

S 88°45'09" E 5387.60'

(188)  
8  
End Concrete Monument

15  
(195)

HENRY PETROLEUM LP

16 17  
(196) (197)

N 1°10'40" E 5275.11'

1304'

2298'

#14  
EL  
2715

S.D.I  
Bottom Hole Closure:  
497.35' @ S86.72W  
9116.'MD, 9055.75'TVD  
From Surface:  
28.45'S, 496.54'W

S 1°10'05" W 5271.66'

Plat is not to scale.

652.3 Acres

Univ6 Kelly16

22 21  
(202) (201)

N 88°47'21" W 5388.50'

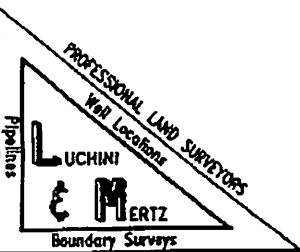
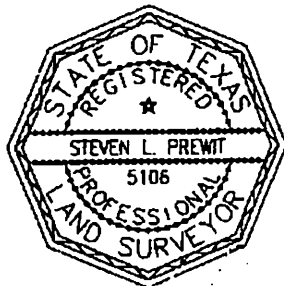
20  
(200)

Note: Survey Reconstruction filed in the Office of Luchini and Mertz Land Surveying Company.  
Note: All bearings and coordinates shown are based on the Texas Coordinate System of 1927, Central Zone.  
A combined grid factor of 0.9997563 must be divided into Section Line distances to obtain a true horizontal distance.  
Note: Example. (S-99995) indicates General Land Office file number.  
Note: NAD '27 Coordinates & Latitude/Longitude on well location in Section 16.  
Note: Well location is approximately 16.4 miles southwest of Big Lake.

#14

X: 1566491.97  
Y: 521453.27

Latitude - 31°05'34.993" N  
Longitude - 101°43'06.183" W



November 25, 2008  
0811258

Railroad Commission Permit Plat

HENRY PETROLEUM LP  
"Univ6 Kelly16" Lease  
all of  
Section 16, Block 6,  
University Land,  
Reagan County, Texas

Scale: 1" = 1000'