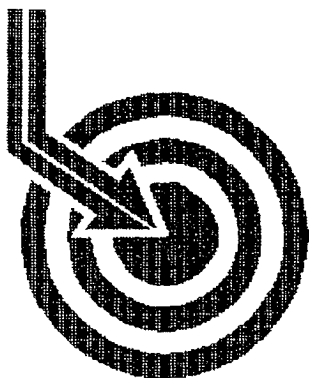


VLT

30.015.37062



Scientific Drilling

BOPCO

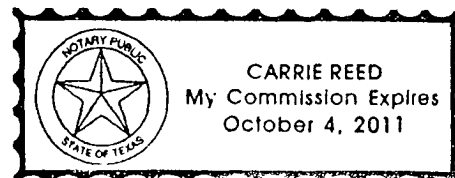
Field: Quahada Ridge
Site: Eddy County, NM
Well: James Ranch Unit #107H
Wellpath: VH - Job #32K0509192
Survey: 05/26/09

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

.....*Robert*..... Company Representative

Notorized this date 7th of July, 2009.

Carrie Reed
Notary Signature
County of Midland
State of Texas



WLT



Scientific Drilling International Survey Report

Company: BOPCO	Date: 07/02/2009	Time: 15:41:31	Page: 1
Field: Quahada Ridge	Co-ordinate(NE) Reference:	Site: Eddy County, NM, Grid North	
Site: Eddy County, NM	Vertical (TVD) Reference:	SITE 0.0	
Well: James Ranch Unit #107H	Section (VS) Reference:	Well (0.00N,0.00E,267.75Azi)	
Wellpath: VH - Job #32K0509192	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey: 05/26/09	Start Date: 05/26/2009
Company: Scientific Drilling Internatio	Engineer: Guebara/Madrid
Tool: KSRG;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	Ckd ft	Cks deg
0.00	0.00	259.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.07	160.77	100.00	-0.02	-0.06	0.02	0.07	0.06	160.77
200.00	0.24	132.08	200.00	-0.19	-0.26	0.20	0.18	0.32	142.57
300.00	0.21	144.04	300.00	-0.44	-0.54	0.46	0.06	0.71	139.88
400.00	0.23	129.14	400.00	-0.69	-0.82	0.72	0.06	1.09	138.62
500.00	0.35	140.28	500.00	-1.03	-1.18	1.07	0.13	1.60	137.75
600.00	0.34	138.95	599.99	-1.40	-1.64	1.46	0.01	2.20	138.26
700.00	0.43	139.43	699.99	-1.82	-2.15	1.90	0.09	2.87	138.49
800.00	0.43	149.69	799.99	-2.23	-2.76	2.34	0.08	3.61	139.74
900.00	0.43	157.15	899.99	-2.53	-3.43	2.67	0.06	4.34	142.08
1000.00	0.54	162.50	999.98	-2.79	-4.22	2.96	0.12	5.16	144.99
1100.00	0.59	173.15	1099.98	-2.95	-5.18	3.16	0.12	6.07	148.62
1200.00	0.89	170.04	1199.97	-3.10	-6.46	3.36	0.30	7.28	152.54
1300.00	1.00	165.05	1299.96	-3.40	-8.07	3.72	0.14	8.88	155.27
1400.00	1.15	163.94	1399.94	-3.83	-9.87	4.22	0.15	10.74	156.87
1500.00	1.15	163.22	1499.92	-4.32	-11.80	4.79	0.01	12.73	157.92
1600.00	1.08	160.48	1599.90	-4.85	-13.65	5.39	0.09	14.67	158.45
1700.00	1.06	156.13	1699.88	-5.47	-15.38	6.08	0.08	16.54	158.43
1800.00	1.09	160.88	1799.86	-6.09	-17.13	6.77	0.09	18.42	158.44
1900.00	1.19	153.83	1899.85	-6.79	-18.96	7.54	0.17	20.40	158.32
2000.00	1.28	153.40	1999.82	-7.67	-20.89	8.49	0.09	22.55	157.87
2100.00	0.98	147.06	2099.80	-8.56	-22.61	9.46	0.32	24.50	157.29
2200.00	0.97	145.47	2199.79	-9.45	-24.02	10.40	0.03	26.18	156.58
2300.00	1.08	144.96	2299.77	-10.41	-25.49	11.42	0.11	27.93	155.86
2400.00	0.81	153.70	2399.76	-11.14	-26.74	12.20	0.49	29.39	155.47
2500.00	0.42	113.13	2499.76	-11.69	-27.36	12.77	0.40	30.19	154.97
2600.00	0.77	67.52	2599.75	-12.65	-27.25	13.73	0.56	30.51	153.25
2700.00	0.98	62.59	2699.74	-14.06	-26.60	15.11	0.22	30.59	150.39
2800.00	1.46	40.92	2799.72	-15.70	-25.24	16.71	0.66	30.27	146.50
2900.00	2.04	39.38	2899.67	-17.76	-22.90	18.67	0.58	29.55	140.81
3000.00	1.52	59.96	2999.62	-20.11	-20.86	20.95	0.82	29.56	134.88
3100.00	1.58	167.77	3099.60	-21.52	-21.54	22.39	2.51	31.07	133.90
3200.00	2.62	207.52	3199.54	-20.63	-24.92	21.62	1.73	32.99	139.05
3300.00	3.06	221.09	3299.42	-17.66	-28.96	18.81	0.80	34.53	146.99
3400.00	2.78	218.31	3399.29	-14.25	-32.87	15.56	0.31	36.37	154.68
3500.00	0.86	185.02	3499.23	-12.58	-35.52	13.99	2.11	38.18	158.51
3600.00	0.65	170.51	3599.23	-12.56	-36.83	14.01	0.28	39.41	159.17
3700.00	0.60	167.28	3699.22	-12.72	-37.90	14.22	0.06	40.48	159.43
3800.00	0.68	153.59	3799.21	-13.06	-38.94	14.60	0.17	41.59	159.45
3900.00	0.75	155.48	3899.21	-13.55	-40.07	15.14	0.07	42.83	159.30
4000.00	0.66	155.35	3999.20	-14.02	-41.19	15.65	0.09	44.06	159.20
4100.00	0.70	138.30	4099.19	-14.63	-42.17	16.30	0.21	45.21	158.87
4200.00	0.53	136.09	4199.18	-15.32	-42.96	17.02	0.17	46.21	158.38
4300.00	0.56	131.21	4299.18	-15.99	-43.61	17.71	0.06	47.07	157.90
4400.00	0.52	130.46	4399.18	-16.67	-44.23	18.42	0.04	47.91	157.39
4500.00	0.61	137.09	4499.17	-17.35	-44.91	19.13	0.11	48.82	156.93
4600.00	0.49	150.13	4599.17	-17.90	-45.67	19.71	0.17	49.74	156.66
4700.00	0.51	186.51	4699.16	-18.03	-46.49	19.87	0.31	50.56	156.86
4800.00	0.50	192.70	4799.16	-17.85	-47.35	19.72	0.06	51.30	157.39



Scientific Drilling International Survey Report

Company: BOPCO	Date: 07/02/2009	Time: 15:41:31	Page: 2
Field: Quahada Ridge	Co-ordinate(NE) Reference:	Site: Eddy County, NM, Grid North	
Site: Eddy County, NM	Vertical (TVD) Reference:	SITE 0.0	
Well: James Ranch Unit #107H	Section (VS) Reference:	Well (0.00N,0.00E,267.75Azi)	
Wellpath: VH - Job #32K0509192	Survey Calculation Method:	Minimum Curvature	Db: Sybase

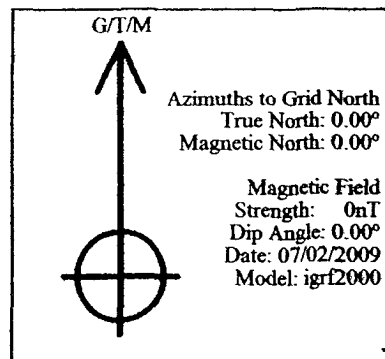
Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
4900.00	0.43	225.39	4899.16	-17.46	-48.04	19.36	0.27	51.80	158.05
5000.00	0.61	229.64	4999.15	-16.76	-48.65	18.69	0.18	52.12	158.99
5100.00	0.47	229.97	5099.15	-16.02	-49.26	17.97	0.14	52.44	159.96
5200.00	0.48	241.02	5199.14	-15.32	-49.73	17.29	0.09	52.65	160.83
5300.00	0.46	253.01	5299.14	-14.56	-50.05	16.54	0.10	52.71	161.71
5400.00	0.46	220.78	5399.14	-13.90	-50.47	15.89	0.26	52.91	162.52
5500.00	0.46	206.71	5499.13	-13.43	-51.13	15.45	0.11	53.41	163.19
5600.00	0.47	199.60	5599.13	-13.08	-51.88	15.13	0.06	54.04	163.74
5700.00	0.48	196.08	5699.13	-12.80	-52.67	14.88	0.03	54.73	164.23
5800.00	0.61	197.31	5799.12	-12.49	-53.58	14.60	0.13	55.53	164.75
5900.00	0.58	195.38	5899.12	-12.16	-54.57	14.31	0.04	56.42	165.31
6000.00	0.74	184.11	5999.11	-11.93	-55.70	14.13	0.21	57.47	165.77
6100.00	0.59	185.87	6099.10	-11.79	-56.86	14.03	0.15	58.57	166.14
6200.00	0.41	203.63	6199.10	-11.56	-57.70	13.83	0.24	59.34	166.52
6300.00	0.35	223.36	6299.10	-11.18	-58.25	13.48	0.14	59.79	166.97
6400.00	0.45	215.06	6399.10	-10.73	-58.79	13.05	0.12	60.22	167.49
6500.00	0.37	203.86	6499.09	-10.35	-59.41	12.69	0.11	60.75	167.94
6600.00	0.53	209.15	6599.09	-9.96	-60.11	12.33	0.17	61.36	168.40
6700.00	0.62	210.18	6699.09	-9.43	-60.98	11.84	0.09	62.12	169.02
6717.00	0.61	209.33	6716.08	-9.34	-61.14	11.75	0.08	62.26	169.13



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Field: Quahada Ridge
Site: Eddy County, NM
Well: James Ranch Unit #107H
Wellpath: VH - Job #32K0509192
Survey: 05/26/09



West(-)/East(+) [10ft/in]

South(-)/North(+) [10ft/in]

