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OCT 25 2010

HOBBSOCD

CONOCOPHILLIPS

Maljamar

Lea County, NM

MCA #467

VH - Job #32K0910689

SUR: F-33-17s-32e, 1330/N & 1855/W
BHL: F-33-17s-32e, 1191/N & 1880/W
API # 30-025-39764

Survey: Actual

SDI Standard Survey Report

17 September, 2010

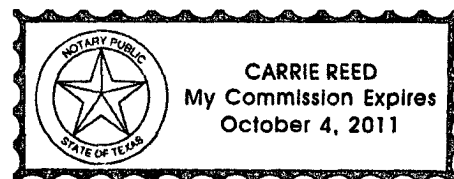
This survey is correct to the best of my knowledge and is supported by actual field data.

LL Sharts

Notorized this date 5th of October, 2010.

Carrie Reed

Notary Signature
County of Midland
State of Texas



Scientific Drilling International, Inc.
SDI Standard Survey Report

Company:	CONOCOPHILLIPS	Local Co-ordinate Reference:	Well MCA #467
Project:	Maljamar	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Lea County, NM	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Well:	MCA #467	North Reference:	Grid
Wellbore:	VH - Job #32K0910689	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0910689	Database:	EDM-Regulatory

Project	Maljamar		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Well	MCA #467, Vertical				
Well Position	+N/-S	0.0 usft	Northing:	653,242.30 usft	Latitude: 32° 47' 40.565 N
	+E/-W	0.0 usft	Easting:	672,042.60 usft	Longitude: 103° 46' 24.490 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level: 0.0 usft

Wellbore	VH - Job #32K0910689				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2010	9/17/2010	7.88	60.71	49,079

Design	VH - Job #32K0910689				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	10.51	

Survey Program	Date	9/17/2010			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.0	4,222.0	Actual (VH - Job #32K0910689)	Keeper	Keeper Gyro	

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.0	
100.0	0.46	291.03	100.0	0.1	-0.4	291.03	0.4	
150.0	0.52	241.55	150.0	0.1	-0.8	278.07	0.8	
200.0	0.36	193.15	200.0	-0.2	-1.0	261.27	1.0	
250.0	0.33	169.35	250.0	-0.4	-1.0	246.02	1.1	
300.0	0.23	91.85	300.0	-0.6	-0.9	236.03	1.1	
350.0	0.23	92.17	350.0	-0.6	-0.7	228.54	0.9	
400.0	0.36	7.00	400.0	-0.4	-0.6	231.34	0.7	
450.0	0.47	341.36	450.0	-0.1	-0.6	260.90	0.6	
500.0	0.54	307.70	500.0	0.2	-0.9	285.73	0.9	
550.0	0.55	257.18	550.0	0.3	-1.3	284.58	1.3	
600.0	0.47	237.09	600.0	0.2	-1.7	275.68	1.7	
650.0	0.37	233.29	650.0	0.0	-2.0	268.84	2.0	
700.0	0.09	233.04	700.0	-0.2	-2.1	265.72	2.2	
750.0	0.35	15.10	750.0	0.0	-2.1	269.02	2.1	
800.0	0.64	331.69	800.0	0.4	-2.2	279.08	2.3	
850.0	0.79	331.24	850.0	0.9	-2.5	289.68	2.7	

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Site:	Lea County, NM	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Well:	MCA #467	North Reference:	Grid
Wellbore:	VH - Job #32K0910689	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0910689	Database:	EDM-Regulatory

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
900.0	0.75	302.03	900.0	1.4	-3.0	294.91	3.3
950.0	0.72	294.38	950.0	1.7	-3.5	295.46	3.9
1,000.0	0.55	297.77	1,000.0	1.9	-4.0	295.51	4.5
1,050.0	0.79	339.33	1,050.0	2.4	-4.4	298.38	5.0
1,100.0	0.88	347.42	1,100.0	3.1	-4.6	303.76	5.5
1,150.0	1.06	323.00	1,150.0	3.8	-4.9	307.60	6.2
1,200.0	0.81	315.28	1,199.9	4.4	-5.5	308.99	7.0
1,250.0	0.71	317.73	1,249.9	4.9	-5.9	309.63	7.7
1,300.0	0.74	347.62	1,299.9	5.4	-6.2	311.31	8.3
1,350.0	0.83	0.39	1,349.9	6.1	-6.3	314.35	8.8
1,400.0	0.91	332.39	1,399.9	6.8	-6.4	316.69	9.4
1,450.0	0.77	338.32	1,449.9	7.5	-6.8	318.00	10.1
1,500.0	0.63	349.39	1,499.9	8.1	-6.9	319.40	10.6
1,550.0	0.74	24.00	1,549.9	8.6	-6.8	321.63	11.0
1,600.0	0.80	30.98	1,599.9	9.2	-6.5	324.73	11.3
1,650.0	0.87	356.61	1,649.9	9.9	-6.4	327.26	11.8
1,700.0	0.63	348.88	1,699.9	10.6	-6.5	328.59	12.4
1,750.0	0.55	8.70	1,749.9	11.1	-6.5	329.71	12.8
1,800.0	0.72	33.09	1,799.9	11.6	-6.3	331.59	13.2
1,850.0	1.04	36.35	1,849.9	12.2	-5.8	334.50	13.5
1,900.0	0.95	10.77	1,899.9	13.0	-5.5	337.12	14.1
1,950.0	1.24	39.35	1,949.9	13.8	-5.1	339.88	14.7
2,000.0	1.87	45.30	1,999.9	14.8	-4.1	344.39	15.4
2,050.0	1.82	41.76	2,049.8	16.0	-3.0	349.27	16.2
2,100.0	2.14	36.99	2,099.8	17.3	-1.9	353.62	17.4
2,150.0	2.47	36.76	2,149.8	18.9	-0.7	357.80	18.9
2,200.0	2.62	36.53	2,199.7	20.7	0.6	1.65	20.7
2,250.0	2.67	30.97	2,249.7	22.6	1.9	4.75	22.7
2,300.0	2.52	28.42	2,299.6	24.6	3.0	6.96	24.8
2,350.0	2.57	32.14	2,349.6	26.5	4.1	8.84	26.8
2,400.0	2.51	22.77	2,399.5	28.4	5.1	10.24	28.9
2,450.0	2.49	19.70	2,449.5	30.5	5.9	11.01	31.1
2,500.0	2.26	23.88	2,499.4	32.4	6.7	11.67	33.1
2,550.0	2.55	19.95	2,549.4	34.4	7.5	12.27	35.2
2,600.0	2.54	18.95	2,599.3	36.4	8.2	12.70	37.4
2,650.0	2.48	14.77	2,649.3	38.5	8.8	12.93	39.5
2,700.0	2.43	15.66	2,699.2	40.6	9.4	13.05	41.7
2,750.0	2.44	18.44	2,749.2	42.6	10.0	13.24	43.8
2,800.0	2.27	17.19	2,799.1	44.6	10.7	13.45	45.8
2,850.0	2.33	14.38	2,849.1	46.5	11.2	13.54	47.9
2,900.0	2.52	17.43	2,899.1	48.6	11.8	13.65	50.0
2,950.0	2.67	12.90	2,949.0	50.7	12.4	13.71	52.2
3,000.0	2.77	15.87	2,998.9	53.0	13.0	13.74	54.6
3,050.0	2.96	14.00	3,048.9	55.5	13.6	13.79	57.1

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Project:	Maijamar	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Lea County, NM	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Well:	MCA #467	North Reference:	Grid
Wellbore:	VH - Job #32K0910689	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0910689	Database:	EDM-Regulatory

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
3,100.0	3.09	7.51	3,098.8	58.0	14.1	13.65	59.7	
3,150.0	3.28	7.10	3,148.7	60.8	14.5	13.37	62.5	
3,200.0	3.48	6.79	3,198.7	63.7	14.8	13.08	65.4	
3,250.0	3.66	7.17	3,248.6	66.8	15.2	12.81	68.5	
3,300.0	3.79	5.81	3,298.4	70.0	15.6	12.52	71.7	
3,350.0	3.71	6.39	3,348.3	73.3	15.9	12.24	75.0	
3,400.0	3.76	7.83	3,398.2	76.5	16.3	12.03	78.2	
3,450.0	3.77	12.10	3,448.1	79.8	16.9	11.94	81.5	
3,500.0	3.88	8.52	3,498.0	83.0	17.5	11.88	84.9	
3,550.0	3.91	8.64	3,547.9	86.4	18.0	11.75	88.2	
3,600.0	3.95	9.05	3,597.8	89.8	18.5	11.64	91.7	
3,650.0	3.96	9.40	3,647.7	93.2	19.1	11.56	95.1	
3,700.0	4.05	5.90	3,697.5	96.6	19.5	11.42	98.6	
3,750.0	4.11	6.93	3,747.4	100.2	19.9	11.24	102.1	
3,800.0	3.97	2.43	3,797.3	103.7	20.2	11.03	105.6	
3,850.0	3.82	6.91	3,847.2	107.1	20.5	10.83	109.0	
3,900.0	3.51	6.52	3,897.1	110.2	20.9	10.71	112.2	
3,950.0	3.91	5.32	3,947.0	113.5	21.2	10.58	115.4	
4,000.0	3.70	12.45	3,996.9	116.7	21.7	10.53	118.7	
4,050.0	3.82	11.67	4,046.8	119.9	22.4	10.57	122.0	
4,100.0	3.78	12.37	4,096.6	123.2	23.1	10.61	125.3	
4,150.0	3.56	8.64	4,146.5	126.3	23.7	10.60	128.5	
4,200.0	3.36	7.93	4,196.4	129.3	24.1	10.55	131.5	
4,222.0	3.62	5.46	4,218.4	130.6	24.2	10.51	132.9	



Project: Maljamar
Lea County, NM
Well: MCA #467
Wellbore: VH - Job #32K0910689
Design: VH - Job #32K0910689

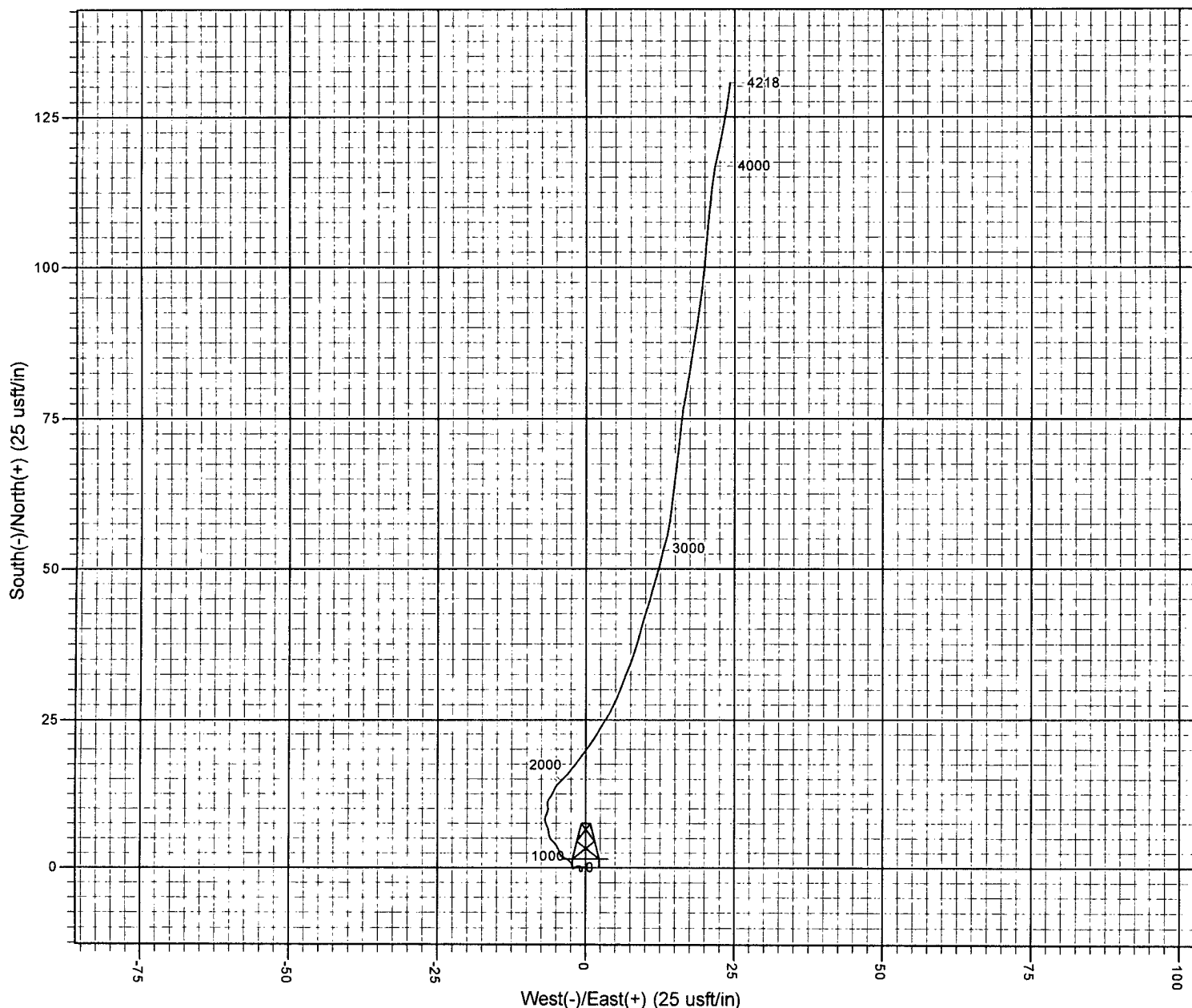


Azimuths to Grid North
True North: -0.30°
Magnetic North: 7.57°

Magnetic Field
Strength: 49078.7snT
Dip Angle: 60.71°
Date: 9/17/2010
Model: BGGM2010

WELL DETAILS: MCA #467
WELL @ 0.0usft (Original Well Elev)
Ground Level: 0.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	653242.30	672042.60	32° 47' 40.565 N	103° 46' 24.490 W	



PROJECT DETAILS: Maljamar
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

SITE DETAILS: Lea County, NM
Site Centre Latitude: 32° 47' 35.550 N
Longitude: 103° 45' 59.640 W
Positional Uncertainty: 0.0
Convergence: 0.31
Local North: Grid