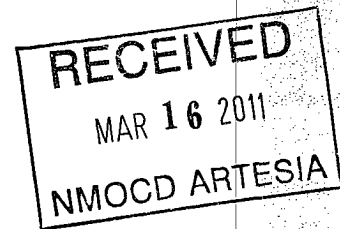


30-015-37002

MURCHISON OIL & GAS

Dog Canyon
Eddy County, NM
Carbon Valley 25 Federal Com #5H
VH - Job #32K0910725



Survey: Actual

SDI Standard Survey Report

13 October, 2010

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

Reharto

Notorized this date 13th of October, 2010.

Carrie Reed

Notary Signature
County of Midland
State of Texas



Scientific Drilling International, Inc.
SDI Standard Survey Report

Company: MURCHISON OIL & GAS	Local Co-ordinate Reference: Well Carbon Valley 25 Federal Com #5H
Project: Dog Canyon	TVD Reference: WELL @ 0.0usft (Original Well Elev)
Site: Eddy County, NM	MD Reference: WELL @ 0.0usft (Original Well Elev)
Well: Carbon Valley 25 Federal Com #5H	North Reference: Grid
Wellbore: VH - Job #32K0910725	Survey Calculation Method: Minimum Curvature
Design: VH - Job #32K0910725	Database: EDM-Regulatory

Project: Dog Canyon
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: Carbon Valley 25 Federal Com #5H, Directional (Pathfinder)			
Well Position	+N/-S 0.0 usft	Northing: 0.00 usft	Latitude: 30° 59' 24.512 N
	+E/-W 0.0 usft	Easting: 0.00 usft	Longitude: 105° 55' 44.137 W
Position Uncertainty	0.0 usft	Wellhead Elevation: usft	Ground Level: 0.0 usft

Wellbore: VH - Job #32K0910725					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	BGGM2010	9/28/2010	(°) 8.64	(°) 58.58	(nT) 47,672

Design: VH - Job #32K0910725				
Audit Notes:				
Version: 1.0	Phase: ACTUAL	Tie On Depth: 0.0		
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	272.17

Survey Program:	Date: 10/13/2010			
From	To	Survey (Wellbore)	Tool Name	Description
(usft) 100.0	(usft) 5,675.1	Actual (VH - Job #32K0910725)	Keeper	Keeper Gyro

Survey							
Measured Depth	Inclination	Azimuth	True Vertical	North/South	East/West	Closure Azimuth	Closure Distance
(usft)	(°)	(°)	Depth	(usft)	(usft)	(°)	(usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.0
100.0	0.23	341.37	100.0	0.2	-0.1	341.37	0.2
200.0	0.19	352.62	200.0	0.5	-0.1	344.65	0.6
300.0	0.20	25.70	300.0	0.9	-0.1	353.73	0.9
400.0	0.18	9.41	400.0	1.2	0.0	0.30	1.2
500.0	0.20	341.87	500.0	1.5	0.0	359.14	1.5
600.0	0.15	277.42	600.0	1.7	-0.2	353.00	1.7
700.0	0.14	245.10	700.0	1.6	-0.4	344.82	1.7
800.0	0.24	271.45	800.0	1.6	-0.8	334.40	1.8
900.0	0.22	228.15	900.0	1.5	-1.1	322.87	1.9
1,000.0	0.23	238.20	1,000.0	1.2	-1.4	310.98	1.9
1,100.0	0.27	271.37	1,100.0	1.1	-1.8	301.90	2.2
1,200.0	0.29	279.65	1,200.0	1.2	-2.3	297.17	2.6
1,300.0	0.25	248.38	1,300.0	1.2	-2.8	292.58	3.0
1,400.0	0.35	299.07	1,400.0	1.2	-3.2	290.64	3.5
1,500.0	0.41	327.27	1,500.0	1.7	-3.7	294.28	4.1
1,600.0	0.38	329.87	1,600.0	2.3	-4.1	299.06	4.7

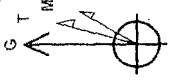
Scientific Drilling International, Inc.
SDI Standard Survey Report

Company:	MURCHISON OIL & GAS	Local Co-ordinate Reference:	Well Carbon Valley 25 Federal Com #5H
Project:	Dog Canyon	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Well:	Carbon Valley 25 Federal Com #5H	North Reference:	Grid
Wellbore:	VH - Job #32K0910725	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0910725	Database:	EDM-Regulatory

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
1,700.0	0.35	326.47	1,700.0	2.8	-4.4	302.47	5.2
1,800.0	0.37	324.98	1,800.0	3.3	-4.8	304.92	5.8
1,900.0	0.40	335.09	1,900.0	3.9	-5.1	307.48	6.4
2,000.0	0.33	320.69	2,000.0	4.4	-5.4	309.34	7.0
2,100.0	0.34	307.37	2,100.0	4.8	-5.8	309.69	7.6
2,200.0	0.32	319.27	2,200.0	5.2	-6.3	309.93	8.2
2,300.0	0.32	324.75	2,300.0	5.7	-6.6	310.70	8.7
2,400.0	0.41	308.79	2,400.0	6.1	-7.0	311.05	9.3
2,500.0	0.51	307.78	2,500.0	6.6	-7.7	310.82	10.1
2,600.0	0.52	314.77	2,600.0	7.2	-8.3	310.86	11.0
2,700.0	0.41	297.50	2,700.0	7.7	-9.0	310.61	11.8
2,800.0	0.47	291.34	2,800.0	8.0	-9.7	309.62	12.6
2,900.0	0.31	288.30	2,900.0	8.3	-10.3	308.64	13.2
3,000.0	0.21	279.59	3,000.0	8.4	-10.8	307.87	13.6
3,100.0	0.28	250.66	3,100.0	8.3	-11.2	306.67	13.9
3,200.0	0.27	271.22	3,200.0	8.2	-11.6	305.30	14.3
3,300.0	0.38	290.05	3,300.0	8.4	-12.2	304.45	14.8
3,400.0	0.38	279.64	3,399.9	8.5	-12.8	303.63	15.4
3,500.0	0.45	273.59	3,499.9	8.6	-13.5	302.45	16.0
3,600.0	0.39	247.05	3,599.9	8.5	-14.2	300.82	16.6
3,700.0	0.52	229.24	3,699.9	8.1	-14.9	298.44	16.9
3,800.0	0.50	232.71	3,799.9	7.5	-15.6	295.72	17.3
3,900.0	0.58	233.46	3,899.9	6.9	-16.3	293.02	17.8
4,000.0	0.71	245.21	3,999.9	6.4	-17.3	290.23	18.5
4,100.0	0.48	247.31	4,099.9	6.0	-18.3	288.08	19.2
4,200.0	0.50	259.82	4,199.9	5.7	-19.1	286.70	19.9
4,300.0	0.40	234.66	4,299.9	5.4	-19.8	285.38	20.5
4,400.0	0.30	254.04	4,399.9	5.2	-20.3	284.27	21.0
4,500.0	0.28	272.65	4,499.9	5.1	-20.8	283.78	21.4
4,600.0	0.24	293.39	4,599.9	5.2	-21.3	283.75	21.9
4,700.0	0.24	255.02	4,699.9	5.2	-21.7	283.58	22.3
4,800.0	0.08	302.52	4,799.9	5.2	-21.9	283.39	22.5
4,900.0	0.13	228.38	4,899.9	5.2	-22.1	283.21	22.7
5,000.0	0.04	135.37	4,999.9	5.1	-22.1	282.93	22.7
5,100.0	0.70	99.33	5,099.9	5.0	-21.5	282.98	22.1
5,200.0	0.75	101.98	5,199.9	4.7	-20.3	283.12	20.8
5,300.0	-0.88	106.45	5,299.9	4.4	-18.9	283.02	19.4
5,400.0	0.77	112.95	5,399.9	3.9	-17.5	282.51	17.9
5,500.0	0.70	105.21	5,499.9	3.5	-16.3	281.99	16.7
5,600.0	1.24	108.48	5,599.9	3.0	-14.7	281.39	15.0
5,675.1	1.37	103.68	5,674.9	2.5	-13.1	280.80	13.3

Azimuths to Grid North
 True North: 0.82°
 Magnetic North: 3.46°
 Magnetic Field
 Strength: 47672.1usT
 Dip Angle: 58.58°
 Date: 9/28/2010
 Model: 6GGM2010

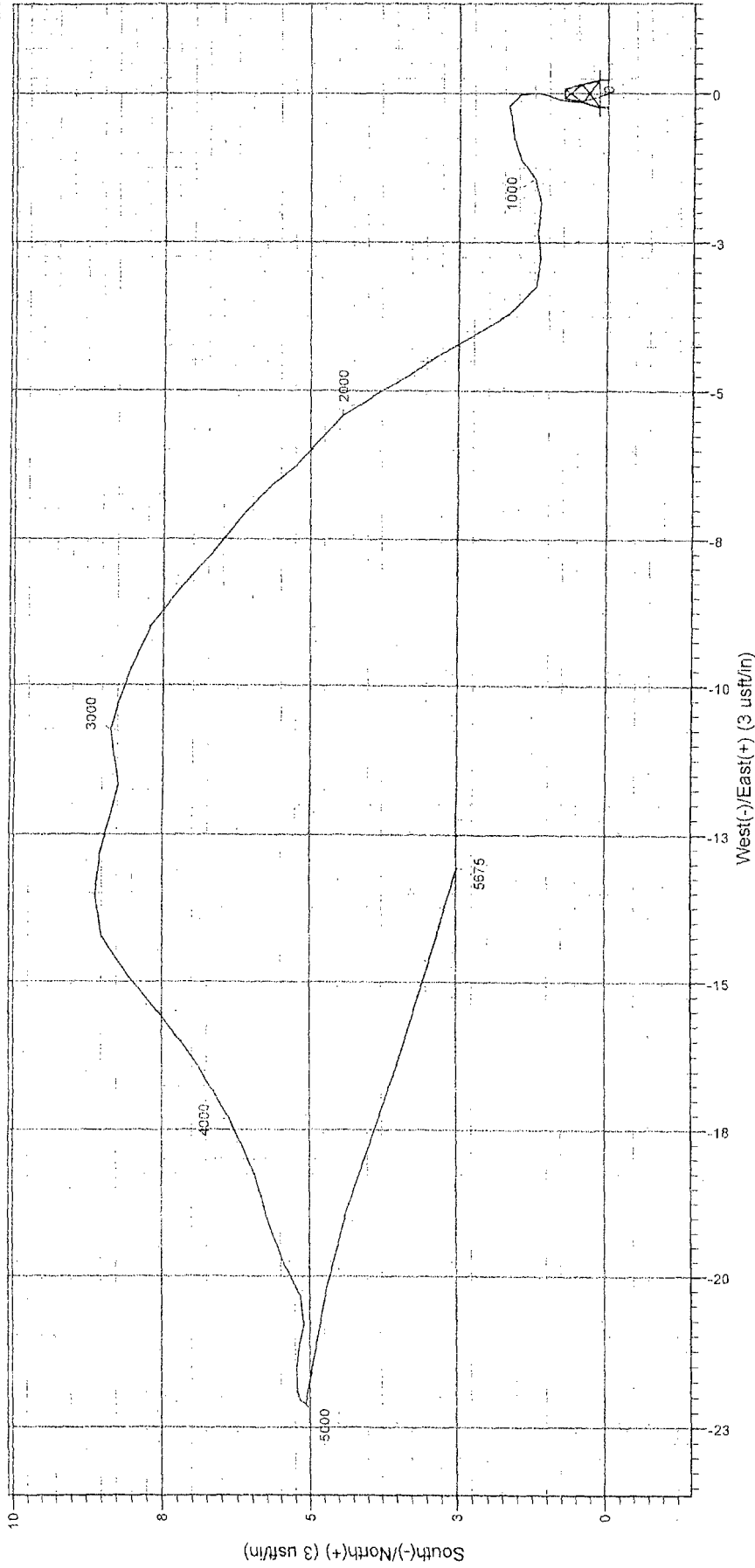


Project: Dog Canyon
 Eddy County, NM
 Well: Carbon Valley 25 Federal Com #5H
 Wellbore: VH - Job #32K0910725
 Design: VH - Job #32K0910725



WELL DETAILS: Carbon Valley 25 Federal Com #5H
 WELL @ 0.0usft (Original Well Elev)
 Ground Level: 0.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	0.00	0.00	30° 59' 24.512 N	105° 55' 44.137 W	



SITE DETAILS: Eddy County, NM
 Site Centre Latitude: 32° 53' 26.509 N
 Longitude: 104° 13' 26.476 W
 Positional Uncertainty: 0.0
 Convergence: 0.06
 Local North: Grid

PROJECT DETAILS: Dog Canyon
 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