

30-015-38285

HOBBS OCD

AUG 03 2011

RECEIVED

DEVON ENERGY

Dog Canyon
Eddy County, NM
Dickens 29 Federal #4H
VH - Job #32K0511423

Survey: Actual

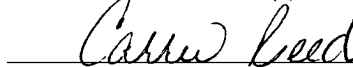
SDI Standard Survey Report

28 May, 2011

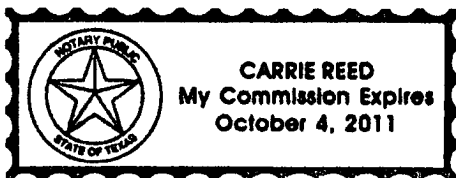
This survey is correct to the best of my knowledge and is supported by actual field data.



Notarized this date 17th of June, 2011.



Notary Signature
County of Midland
State of Texas



Scientific Drilling
Directional Drilling Operations

Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well Dickens 29 Federal #4H
Project:	Dog Canyon	TVD Reference:	WELL @ 0 0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0 0usft (Original Well Elev)
Well:	Dickens 29 Federal #4H	North Reference:	Grid
Wellbore:	VH - Job #32K0511423	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0511423	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		

Site		Eddy County, NM			
Site Position:		Northing:	687,786 11 usft	Latitude:	32° 53' 26 600 N
From:	Lat/Long	Easting:	543,966 16 usft	Longitude:	104° 11' 24 370 W
Position Uncertainty:	0 0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0 08 °

Well	Dickens 29 Federal #4H, Directional (Great White)					
Well Position	+N/-S	0 0 usft	Northing:	690,467 00 usft	Latitude:	32° 53' 53 130 N
	+E/-W	0 0 usft	Easting:	543,826 96 usft	Longitude:	104° 11' 25 960 W
Position Uncertainty		0 0 usft	Wellhead Elevation:	usft	Ground Level:	0 0 usft

Wellbore		VH - Job #32K0511423			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/10/2011	7 94	60 70	48,989

Design	VH - Job #32K0511423			
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	267 68

Survey Program		Date	5/28/2011		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100 0	5,892 0	Actual (VH - Job #32K0511423)	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 53	254 95	100 0	-0 1	-0 4	254 95	0 5
200 0	0 76	229 80	200 0	-0 7	-1 4	244 48	1 6
300 0	1 06	221 44	300 0	-1 8	-2 5	234 60	3 1
400 0	1 14	212 64	400 0	-3 3	-3 7	227 84	4 9
500 0	1 36	216 42	499 9	-5 1	-4 9	223 83	7 1
600 0	1 38	217 64	599 9	-7 0	-6 3	222 12	9 5
700 0	1 27	219 96	699 9	-8 8	-7 8	221 46	11 8
800 0	1 00	230 32	799 9	-10 2	-9 2	221 90	13 7
900 0	0 90	238 91	899 8	-11 2	-10 5	223 23	15 4
1,000 0	0 80	248 24	999 8	-11 9	-11 8	224 96	16 8
1,100 0	0 68	262 86	1,099 8	-12 2	-13 1	227 02	17 9

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Wellbore:	VH - Job #32K0511423	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0511423	Database:	EDM-Regulatory

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
1,200.0	0.26	264.04	1,199.8	-12.3	-13.9	228.51	18.5
1,300.0	0.26	268.50	1,299.8	-12.3	-14.3	229.35	18.9
1,400.0	0.18	304.83	1,399.8	-12.2	-14.7	230.24	19.1
1,500.0	0.11	59.69	1,499.8	-12.1	-14.7	230.65	19.1
1,600.0	0.17	33.45	1,599.8	-11.9	-14.6	230.73	18.8
1,700.0	0.27	64.32	1,699.8	-11.7	-14.3	230.70	18.5
1,800.0	0.04	318.90	1,799.8	-11.6	-14.1	230.63	18.2
1,900.0	0.10	313.99	1,899.8	-11.5	-14.2	231.02	18.3
2,000.0	0.19	249.25	1,999.8	-11.5	-14.4	231.45	18.4
2,100.0	0.22	237.48	2,099.8	-11.6	-14.7	231.66	18.8
2,200.0	0.26	239.95	2,199.8	-11.9	-15.1	231.82	19.2
2,300.0	0.21	244.31	2,299.8	-12.1	-15.4	232.03	19.6
2,400.0	0.34	273.03	2,399.8	-12.1	-15.9	232.70	20.0
2,500.0	0.30	259.90	2,499.8	-12.1	-16.5	233.57	20.5
2,600.0	0.37	262.55	2,599.8	-12.2	-17.0	234.32	21.0
2,700.0	0.23	281.05	2,699.8	-12.2	-17.6	235.12	21.4
2,800.0	0.21	283.39	2,799.8	-12.2	-17.9	235.86	21.7
2,900.0	0.24	277.96	2,899.8	-12.1	-18.3	236.58	21.9
3,000.0	0.25	289.10	2,999.8	-12.0	-18.7	237.38	22.2
3,100.0	0.26	314.13	3,099.8	-11.8	-19.1	238.38	22.4
3,200.0	0.14	331.81	3,199.8	-11.5	-19.3	239.25	22.5
3,300.0	0.19	298.66	3,299.8	-11.3	-19.5	239.93	22.6
3,400.0	0.25	305.03	3,399.8	-11.1	-19.8	240.78	22.7
3,500.0	0.22	313.31	3,499.8	-10.8	-20.2	241.73	22.9
3,600.0	0.27	294.18	3,599.8	-10.6	-20.5	242.65	23.1
3,700.0	0.30	291.94	3,699.8	-10.4	-21.0	243.59	23.4
3,800.0	0.35	291.69	3,799.8	-10.2	-21.5	244.60	23.8
3,900.0	0.40	296.81	3,899.8	-9.9	-22.1	245.79	24.2
4,000.0	0.51	295.57	3,999.8	-9.6	-22.8	247.20	24.7
4,100.0	0.47	292.84	4,099.8	-9.2	-23.6	248.62	25.3
4,200.0	0.36	306.00	4,199.8	-8.9	-24.2	249.84	25.8
4,300.0	0.29	295.47	4,299.8	-8.6	-24.7	250.81	26.2
4,400.0	0.48	273.74	4,399.8	-8.5	-25.4	251.54	26.7
4,500.0	0.43	275.89	4,499.8	-8.4	-26.1	252.19	27.5
4,600.0	0.48	272.64	4,599.8	-8.3	-26.9	252.80	28.2
4,700.0	0.41	269.03	4,699.8	-8.3	-27.7	253.28	28.9
4,800.0	0.33	269.91	4,799.8	-8.3	-28.4	253.62	29.6
4,900.0	0.52	289.64	4,899.8	-8.2	-29.1	254.28	30.2
5,000.0	0.24	298.81	4,999.8	-7.9	-29.7	255.05	30.7
5,100.0	0.39	283.76	5,099.8	-7.7	-30.2	255.61	31.2
5,200.0	0.30	297.14	5,199.8	-7.5	-30.8	256.22	31.7
5,300.0	0.15	330.10	5,299.8	-7.3	-31.1	256.75	31.9
5,400.0	0.11	41.88	5,399.8	-7.1	-31.1	257.08	31.9
5,500.0	0.17	261.20	5,499.8	-7.1	-31.1	257.19	31.9

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Design:	VH - Job #32K0511423	Database:	EDM-Regulatory

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
5,600 0	0 05	228 38	5,599 8	-7 1	-31 3	257 18	32 1
5,700 0	0 23	101 26	5,699 8	-7 2	-31 2	256 99	32 0
5,800 0	0 53	73 61	5,799 8	-7 1	-30 5	256 89	31 3
5,892 0	1 07	75 81	5,891 8	-6 8	-29 3	256 97	30 0



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Directional Drilling Operations

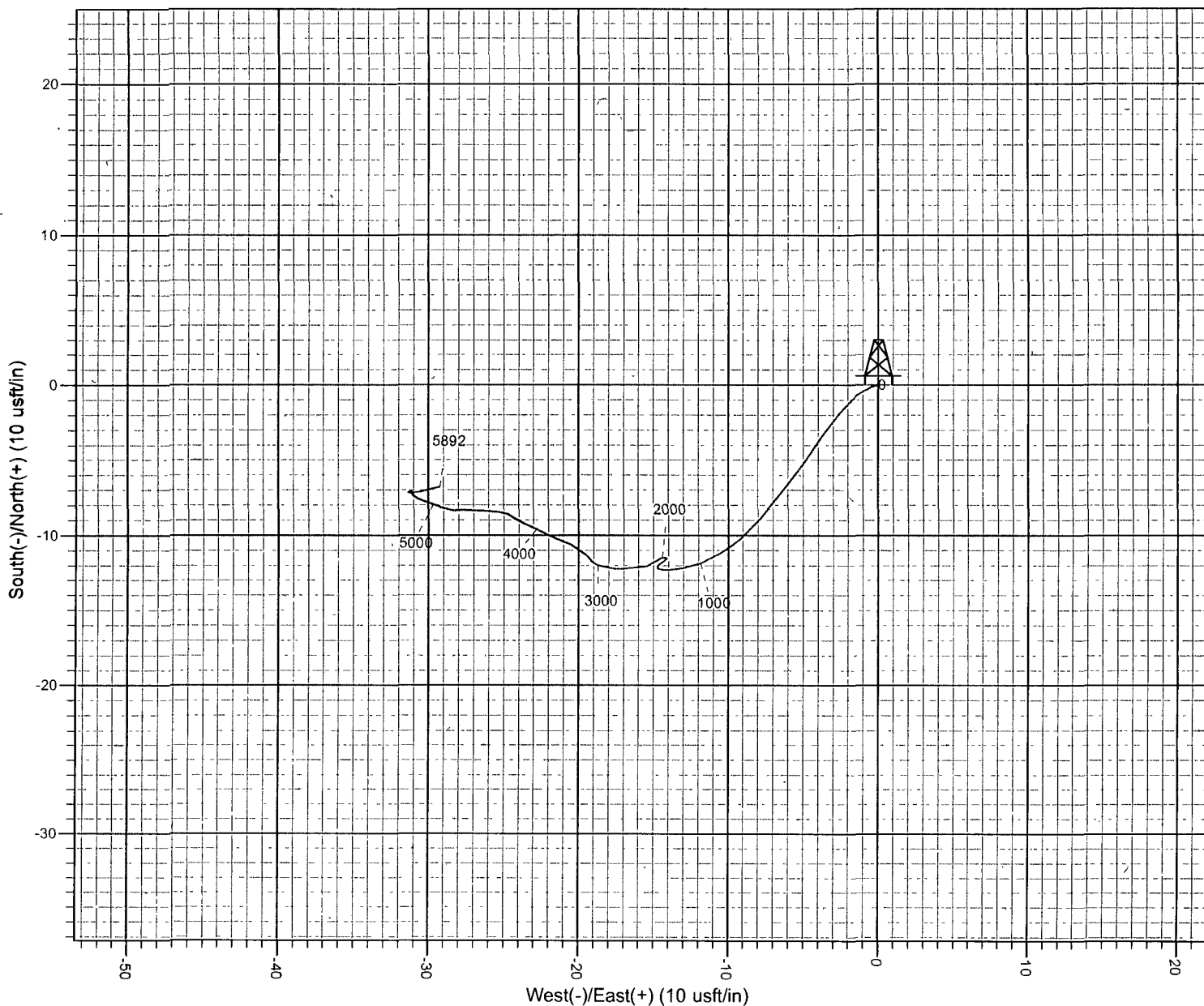
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Azimuths to Grid North
True North -0 08°
Magnetic North 7 86°
Magnetic Field
Strength 48988 6snT
Dip Angle 60 70°
Date 5/10/2011
Model IGRF2010

WELL DETAILS: Dickens 29 Federal #4H
WELL @ 0 0usft (Original Well Elev)
Ground Level: 0.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	690467.00	543826.96	32° 53' 53.130 N	104° 11' 25.960 W	



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

SITE DETAILS: Eddy County, NM
Site Centre Latitude: 32° 53' 26.600 N
Longitude: 104° 11' 24.370 W
Positional Uncertainty: 0.0
Convergence: 0.08
Local North: Grid