

30-015-38988

HOBBS OCD

SEP 20 2011

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MARSHALL & WINSTON

N. Seven Rivers

Eddy County, NM

Peacemaker Federal 25 Com #2H

VH - Job #32K0511486

Survey: Actual

SDI Standard Survey Report

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

[Signature]

Notarized this date 3rd of June, 2011.

[Signature]

Notary Signature
County of Midland
State of Texas

CONFIDENTIAL



Scientific Drilling
Directional Drilling Operations

Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	MARSHALL & WINSTON	Local Co-ordinate Reference:	Well Peacemaker Federal 25 Com #2H
Project:	N Seven Rivers	TVD Reference:	WELL @ 0 0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0 0usft (Original Well Elev)
Well:	Peacemaker Federal 25 Com #2H	North Reference:	Grid
Wellbore:	VH - Job #32K0511486	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0511486	Database:	EDM-Regulatory

Project	N Seven Rivers		
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:	593,691 23 usft
From:	Lat/Long	Easting:	465,423 08 usft
Position Uncertainty:	0 0 usft	Slot Radius:	13-3/16"
		Latitude:	32° 37' 55 596 N
		Longitude:	104° 26' 44 344 W
		Grid Convergence:	-0 06 °

Well	Peacemaker Federal 25 Com #2H, Directional (DDC)		
Well Position	+N/-S	0 0 usft	Northing: 590,386 45 usft
	+E/-W	0 0 usft	Easting: 466,907 58 usft
Position Uncertainty	0 0 usft	Wellhead Elevation:	usft
		Latitude:	32° 37' 22 908 N
		Longitude:	104° 26' 26 945 W
		Ground Level:	0 0 usft

Wellbore	VH - Job #32K0511486				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/25/2011	8 02	60 41	48,790

Design	VH - Job #32K0511486			
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	180 08

Survey Program	Date	7/6/2011		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100 0	1,970 0	Actual (VH - Job #32K0511486)	KSRG	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 48	99 01	100 0	-0 1	0 4	99 01	0 4	
200 0	0 70	82 05	200 0	0 0	1 4	91 87	1 4	
300 0	0 72	63 47	300 0	0 3	2 6	83 02	2 6	
400 0	0 56	66 92	400 0	0 8	3 6	77 65	3 7	
500 0	0 60	67 84	500 0	1 2	4 5	75 45	4 7	
600 0	0 56	57 07	600 0	1 6	5 4	73 20	5 7	
700 0	0 46	56 54	700 0	2 1	6 2	71 00	6 5	
800 0	0 20	22 57	800 0	2 5	6 6	69 13	7 1	
900 0	0 11	199 51	900 0	2 6	6 6	68 69	7 1	
1,000 0	0 12	208 44	1,000 0	2 4	6 5	69 85	7 0	
1,100 0	0 19	144 62	1,100 0	2 2	6 6	71 74	6 9	

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Site:	Eddy County, NM	MD Reference:	WELL @ 0 0usft (Original Well Elev)
Well:	Peacemaker Federal 25 Com #2H	North Reference:	Grid
Wellbore:	VH - Job #32K0511486	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0511486	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 13	191 21	1,200 0	1 9	6 7	73 87	6 9
1,300 0	0 10	216 40	1,300 0	1 7	6 6	75 16	6 8
1,400 0	0 01	270 13	1,400 0	1 7	6 5	75 61	6 7
1,500 0	0 20	216 27	1,500 0	1 5	6 4	76 55	6 6
1,600 0	0 19	231 26	1,600 0	1 3	6 2	78 21	6 3
1,700 0	0 25	233 51	1,700 0	1 1	5 9	79 81	6 0
1,800 0	0 29	251 79	1,800 0	0 8	5 5	81 18	5 5
1,900 0	0 57	264 96	1,900 0	0 7	4 7	81 28	4 8
1,970 0	0 28	261 09	1,970 0	0 7	4 2	80 99	4 3



Scientific Drilling
Directional Drilling Operations

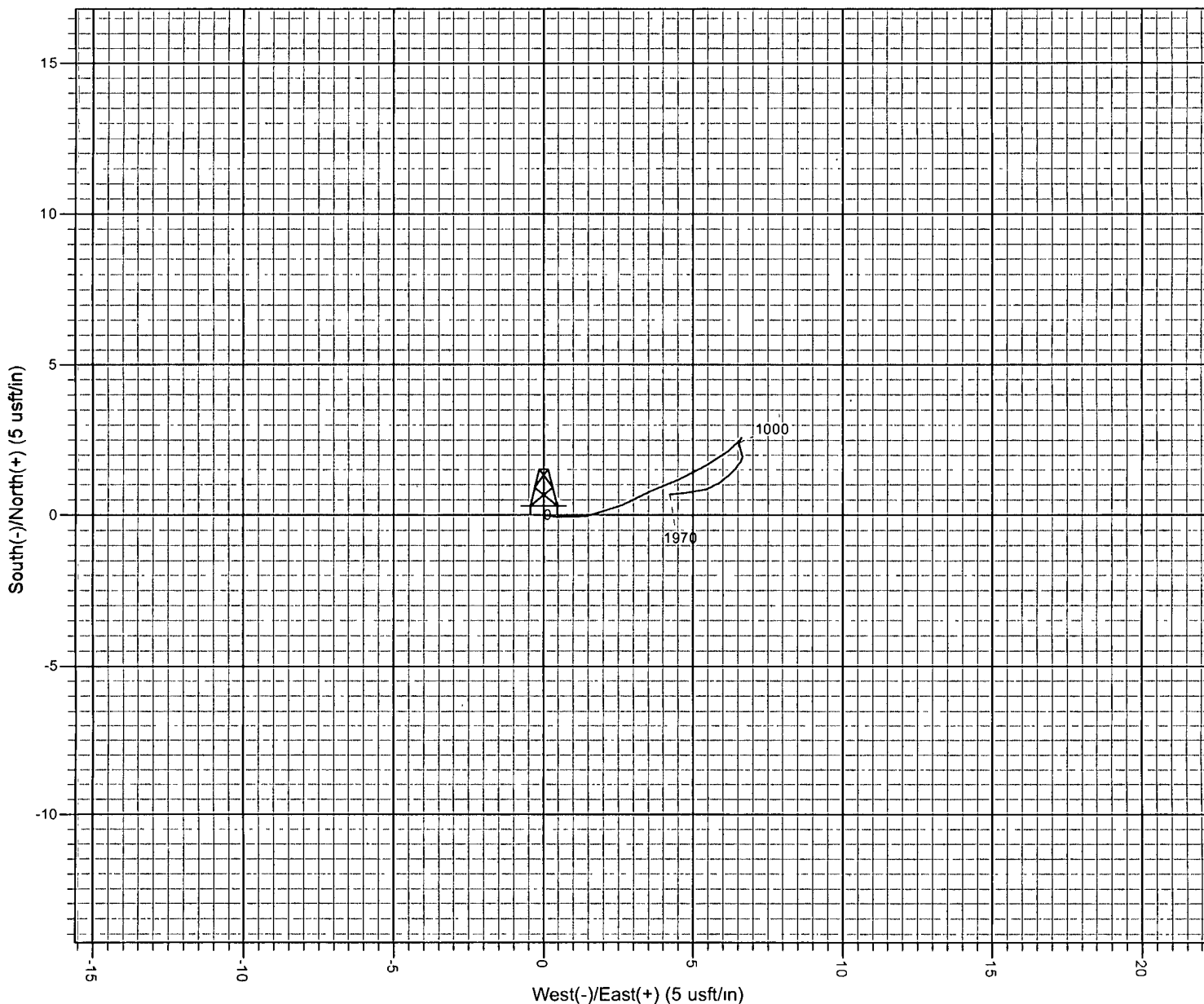
Project: N. Seven Rivers
Eddy County, NM
Well: Peacemaker Federal 25 Com #2H
Wellbore: VH - Job #32K0511486
Design: VH - Job #32K0511486



Azimuths to Grid North
True North: 0.06°
Magnetic North: 8.08°
Magnetic Field
Strength: 48789.6snT
Dip Angle: 60.41°
Date: 5/25/2011
Model: IGRF2010

WELL DETAILS: Peacemaker Federal 25 Com #2H
WELL @ 0.0usft (Original Well Elev)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	590386.45	466907.58	32° 37' 22.908 N	104° 26' 26.945 W	



PROJECT DETAILS: N. Seven Rivers
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° 37' 55.596 N
Longitude: 104° 26' 44.344 W
Positional Uncertainty: 0.0
Convergence: -0.06
Local North: Grid