



OCCIDENTAL PERMIAN LTD.

Artesia
Eddy County, NM
Roo 22 State #13
VH - Job #32K10121271

30.015-40535

Survey: Gyro

SDI Standard Survey Report

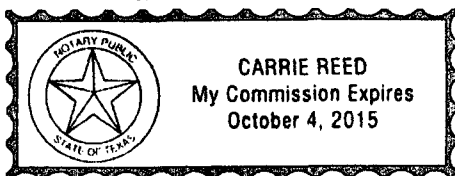
This survey is correct to the best of my knowledge and is supported by actual field data.

K. W. Hart

Notarized this date 5th of November, 2012.

Carrie Reed

Notary Signature
County of Midland
State of Texas



Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	OCCIDENTAL PERMIAN LTD.	Local Co-ordinate Reference:	Well Roo 22 State #13
Project:	Artesia	TVD Reference:	WELL @ 0.00usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0.00usft (Original Well Elev)
Well:	Roo 22 State #13	North Reference:	Grid
Wellbore:	VH - Job #32K10121271	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K10121271	Database:	EDM-Regulatory

Project	Artesia		
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:	660,143.61 usft	Latitude:	32° 48' 53.046 N
From:	Lat/Long	Easting:	545,587.99 usft	Longitude:	104° 11' 5.805 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.08 °

Well		Roo 22 State #13, Vertical				
Well Position	+N/-S	0.00 usft	Northing:	663,841.78 usft	Latitude:	32° 49' 29.550 N
	+E/-W	0.00 usft	Easting:	551,691.18 usft	Longitude:	104° 9' 54.220 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	0.00 usft

Wellbore		VH - Job #32K10121271			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/12/12	7.74	60.61	48,805

Design		VH - Job #32K10121271			
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.00	0.00	0.00	1.21	

Survey Program		Date	11/15/12		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
142.00	382.00	Gyro (VH - Job #32K10121271)	Keeper	Keeper Surface Readout	

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
142.00	1.93	23.16	141.97	2.20	0.94	23.16	2.39
231.00	0.77	299.49	230.95	3.87	1.01	14.61	4.00
322.00	0.27	246.00	321.95	4.08	0.28	3.94	4.09
382.00	0.13	260.17	381.95	4.02	0.09	1.21	4.02

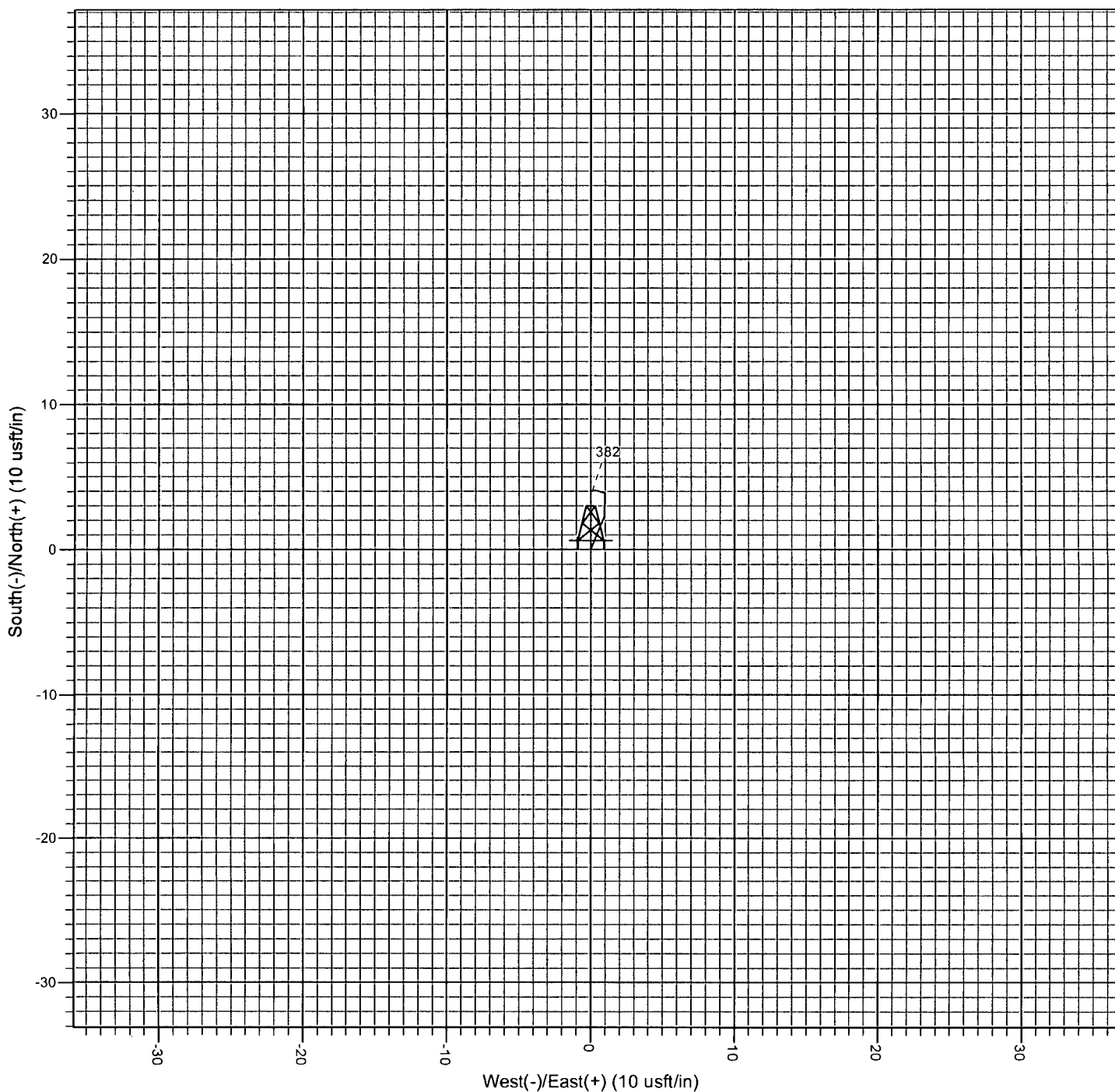


Scientific Drilling

Project: Artesia
Eddy County, NM
Well: Roo 22 State #13
Wellbore: VH - Job #32K10121271
Design: VH - Job #32K10121271

WELL DETAILS: Roo 22 State #13
WELL @ 0.00usft (Original Well Elev)
Ground Level: 0.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	663841.78	551691.18	32° 49' 29.550 N	104° 9' 54.220 W	



PROJECT DETAILS: Artesia	SITE DETAILS: Eddy County, NM
Geodetic System: US State Plane 1927 (Exact solution)	Site Centre Latitude: 32° 48' 53.046 N
Datum: NAD 1927 (NADCON CONUS)	Longitude: 104° 11' 5.805 W
Ellipsoid: Clarke 1866	Positional Uncertainty: 0.00
Zone: New Mexico East 3001	Convergence: 0.08
System Datum: Mean Sea Level	Local North: Grid