



PHOENIX

TECHNOLOGY SERVICES USA INC.

Celebrating 20 Years of Focused Solutions

3610 Elkins Road, Midland, Texas 79705 T. 432.684.0057 F. 432.686.7964 www.phxtech.com

March 28, 2018

Oil Conservation Division
State of New Mexico
1625 N. French Drive
Hobbs, New Mexico 88240

HOBBS OCD
APR 16 2018
RECEIVED

Dear District 1 - Hobbs

Attention: Regulatory Department

Re: Santo Operating
Ocotillo Sunrise 15 WA AP Fee No. 2H
Lea County, New Mexico
API #30-025-44294
Job No. 62519

Enclosed please find the Survey Data Certification, and the original Plat and one copy of the Survey Report performed on the above referenced Well by Phoenix Technology Services, Inc. (P-5 No. 664171). Other information required by your office is as follows:

Name & Title of Surveyor	Drain Hole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Oscar Velasquez	2H	0	959	3/26/18	3/26/18	Gyro

A certified plat on which the bottom hole location is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Best Regards,

Brittany Carley

Brittany Carley
Operations Administrator

Provide survey 959- TD

SURVEY CERTIFICATION FORM

3610 Elkins Road Midland, TX 79705 t:432-684-0057 f: 432-686-7964



Company: Santo Operating LLC

Job #: 62519

Well Name: Ocotillo Sunrise 15 WA AP FEE No.2H

County/State: Lea Co., New Mexico

Survey Instrument Type: North Seek Rate Gyro

API # 30-025-44294

TIE-IN DATA

Measure Depth (ft)	Vertical Depth (ft)	Inclination (°)	Azimuth (°)	N-S Coordinates	E-W Coordinates	Data Source
0	0	0	0	0	0	Surface

First Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
2018-03-26	0	0	0

Last Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
2018-03-26	959	1.58	304.34

Projected TD Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
0	0	0	0

Grid Correction
-0.47

Gyro Operator: Phoenix Technology Services USA Ltd.

Gyro Supervisor: Angel Guebara

To the best of my knowledge I certify this survey data to be correct and true

Date: 2018-03-26

Print Name: Oscar Velasquez

Signature: Oscar Velasquez



Company: Santo Operating
 Well: icotillo Sunrise 15 WA AP FEE No.2
 Location: Lea Co., New Mexico
 Rig: Precision Drilling #590

Job Number: 62519
 Grid Corr.: -0.47
 Lat: 32.14
 Long: -103.45

Date: 03-26-18
 Calculation Method: Minimum Curvature
 Proposed Azimuth:
 RKB - MSL in feet: 25.8
 Tie Into: Surface

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
							N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
Enter Tie-In Survey on Line 10													
FIELD COPY, NON-DEFINITIVE													
TIE IN	0			0	0	0	0	0					
Gyro	100.00	0.21	13.28	100	100.00	0.18	0.18 N	0.04 E	0.18	13.28	0.21	0.21	13.28
	200.00	0.23	346.54	100	200.00	0.55	0.55 N	0.04 E	0.55	3.88	0.10	0.02	333.26
	300.00	0.35	337.59	100	300.00	1.03	1.03 N	0.13 W	1.04	353.04	0.13	0.12	-8.95
	400.00	0.57	341.38	100	399.99	1.78	1.78 N	0.40 W	1.83	347.33	0.22	0.22	3.79
	500.00	0.77	345.22	100	499.99	2.90	2.90 N	0.73 W	2.99	345.87	0.20	0.20	3.84
	600.00	1.03	343.54	100	599.97	4.42	4.42 N	1.16 W	4.57	345.32	0.26	0.26	-1.68
	700.00	1.17	327.37	100	699.96	6.14	6.14 N	1.96 W	6.44	342.27	0.34	0.14	-16.17
	800.00	1.06	327.22	100	799.94	7.78	7.78 N	3.01 W	8.34	338.81	0.11	-0.11	-0.15
	900.00	1.19	313.47	100	899.92	9.27	9.27 N	4.27 W	10.20	335.27	0.30	0.13	-13.75
	959.00	1.58	304.34	59	958.90	10.15	10.15 N	5.38 W	11.49	332.05	0.76	0.66	-15.47