



**PHOENIX
TECHNOLOGY SERVICES**

October 27, 2014

Oil Conservation Division
State of New Mexico
1625 N. French Drive
District 1 - Hobbs
Hobbs, New Mexico 88240

Attention: Regulatory Department

Re: Nadel & Gussman Permian, L.L.C.
Parkway 19 Federal #1H
Eddy County, NM
API #30-015-42545
Job No. 1411119

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	
Dean Young	1H	7,591	14,135	09/24/14	10/07/14	MWD

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,

Dana Robinson

Dana Robinson
Operations Administrator

Certified mail receipt number: 7011 1570 0001 4365 2544

Phoenix Technology Services SURVEY DATA CERTIFICATION



PHOENIX JOB NUMBER

1411119

OPERATOR

Nadel & Gussman

WELL NAME

Parkway 19 Federal #1H

COUNTY & STATE

Eddy County, NM

API WELL NUMBER

30-015-42545

PROPOSED DIRECTION

0.24°

TIE-IN DATA						
MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
7,480. ft	7,475.73 ft	0.81°	344.04°	63.82 ft	59.58 ft	GYRO

FIRST	FIRST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
24-Sep-14	7,591.00 ft	0.5°	299.5°

SURVEY INSTRUMENT

TYPE

Phoenix MWD

LAST	LAST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
7-Oct-14	14,135.00 ft	87.70	0.50

TO THE BEST OF MY KNOWLEDGE I
CERTIFY THIS SURVEY DATA TO BE
TRUE AND CORRECT.

PROJECTED	PROJECTED		
TD SURVEY	TD SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
8-Oct-14	14,191.00 ft	87.70	0.50

Dean Young

PRINT YOUR NAME ABOVE

Dean Young

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED

7.25

DECLINATION OR GRID

GRID

10/10/2014

TODAY'S DATE

MWD SUPERVISOR 1

Dean Young

DIRECTIONAL DRILLER 1

Zack Johnson

MWD SUPERVISOR 2

Will Fenley

DIRECTIONAL DRILLER 2

Nick Berwick

12329 Cutten Rd.,

Houston, Texas 777066

(713)337-0600 (Voice), (713)337-0599 (Fax)

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name PARKWAY 19 FEDERAL	Well Number 1H
OGRID No.	Operator Name NADEL AND GUSSMAN PERMIAN, LLC	Elevation 3361'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	19	19-S	30-E		150	SOUTH	330	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	18	19-S	30-E		2310	SOUTH	330	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	BOTTOM HOLE LOCATION Y=603757.7 N X=596991.7 E CORNER COORDINATES TABLE A - Y=604086.8' N, X=596662.7' E B - Y=604089.9' N, X=597940.6' E C - Y=596174.3' N, X=597961.5' E D - Y=596172.2' N, X=596667.4' E GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y=596322.8 N X=596996.8 E LAT.=32.32.638998" N LONG.=104.018231" W	OPERATOR CERTIFICATION I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature _____ Date _____ Printed Name _____ E-mail Address _____ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. JANUARY 6, 2013 Date of Survey _____ Signature of Professional Surveyor: _____ Certification Number: 3239 Professional Surveyor: Ronald J. Eidson L.S.L. JWSC W.O.: 14.13.0639
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Nadel and Gussman Permian, LLC

Eddy County, New Mexico (NAD27)

Parkway 19 Federal

1H

Wellbore #1 Job #1411119

Survey: Phoenix MWD Surveys

Standard Survey Report

09 October, 2014



Phoenix Technology Services

Survey Report



Company:	Nadel and Gussman Permian, LLC	Local Co-ordinate Reference:	Well 1H
Project:	Eddy County, New Mexico (NAD27)	TVD Reference:	WELL @ 3384.50usft (Patriot 5)
Site:	Parkway 19 Federal	MD Reference:	WELL @ 3384.50usft (Patriot 5)
Well:	1H	North Reference:	Grid
Wellbore:	Wellbore #1 Job #1411119	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Patriot 5)	Database:	Compass 5000 GCR DB

Project	Eddy County, New Mexico (NAD27)		
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	Parkway 19 Federal		
Site Position:		Northing:	596,322.80 usft
From:	Map	Easting:	596,996.80 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 38' 20.39455 N
		Longitude:	104° 1' 5.63137 W
		Grid Convergence:	0.17 °

Well	1H		
Well Position	+N/-S	0.00 usft	Northing: 596,322.80 usft
	+E/-W	0.00 usft	Easting: 596,996.80 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32° 38' 20.39455 N
		Longitude:	104° 1' 5.63137 W
		Ground Level:	3,361.00 usft

Wellbore	Wellbore #1 Job #1411119		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2010_14	9/19/14	7.42
			Dip Angle (°)
			60.41
			Field Strength (nT)
			48,491

Design	Surveys (Patriot 5)		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			Direction (°)
			0.24

Survey Program	Date	10/09/14		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.00	7,480.00	VES Gyro Surveys (Wellbore #1 Job #141	NS-GYRO-MS	North sensing gyrocompassing m/s
7,480.00	14,191.00	Phoenix MWD Surveys (Wellbore #1 Job #	PHX+MWD+IGRF	PHX+MWD+IGRF v3:standard declination

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,480.00	0.81	344.04	7,475.73	63.82	59.58	64.07	0.00	0.00	0.00
Tie-in to VES Gyro Surveys									
7,591.00	0.50	299.50	7,586.73	64.81	58.94	65.06	0.52	-0.28	-40.13
First Phoenix Survey									
7,681.00	2.80	343.80	7,676.69	67.12	57.99	67.36	2.74	2.56	49.22
7,712.00	6.20	350.80	7,707.59	69.50	57.51	69.74	11.09	10.97	22.58
7,742.00	10.60	351.40	7,737.26	73.83	56.84	74.06	14.67	14.67	2.00
7,773.00	15.20	350.00	7,767.47	80.65	55.70	80.88	14.87	14.84	-4.52
7,805.00	19.30	349.10	7,798.02	89.98	53.97	90.21	12.84	12.81	-2.81

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Site:	Parkway 19 Federal	MD Reference:	WELL @ 3384.50usft (Patriot 5)
Well:	1H	North Reference:	Grid
Wellbore:	Wellbore #1 Job #1411119	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Patriot 5)	Database:	Compass 5000 GCR DB

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,836.00	22.20	350.90	7,827.01	100.80	52.08	101.01	9.58	9.35	5.81
7,868.00	25.20	352.50	7,856.30	113.52	50.23	113.73	9.59	9.38	5.00
7,900.00	27.70	353.70	7,884.95	127.67	48.53	127.87	7.99	7.81	3.75
7,932.00	30.60	355.90	7,912.90	143.19	47.13	143.39	9.66	9.06	6.88
7,963.00	33.40	356.60	7,939.19	159.58	46.06	159.77	9.11	9.03	2.26
7,995.00	36.30	356.90	7,965.44	177.84	45.02	178.02	9.08	9.06	0.94
8,027.00	38.60	358.70	7,990.85	197.28	44.29	197.46	7.96	7.19	5.63
8,058.00	39.20	359.30	8,014.97	216.74	43.95	216.92	2.29	1.94	1.94
8,090.00	38.90	359.30	8,039.82	236.90	43.70	237.08	0.94	-0.94	0.00
8,122.00	39.50	359.30	8,064.62	257.12	43.45	257.30	1.88	1.88	0.00
8,153.00	41.00	0.00	8,088.28	277.15	43.33	277.33	5.05	4.84	2.26
8,185.00	45.30	0.60	8,111.62	299.03	43.45	299.21	13.50	13.44	1.88
8,217.00	48.70	0.60	8,133.44	322.43	43.70	322.61	10.63	10.63	0.00
8,248.00	51.30	0.80	8,153.37	346.17	43.99	346.35	8.40	8.39	0.65
8,280.00	54.00	1.20	8,172.78	371.61	44.43	371.79	8.50	8.44	1.25
8,311.00	56.20	0.50	8,190.51	397.03	44.81	397.21	7.33	7.10	-2.26
8,343.00	58.20	359.30	8,207.85	423.92	44.76	424.11	7.00	6.25	-3.75
8,375.00	61.00	358.00	8,224.04	451.51	44.10	451.69	9.43	8.75	-4.06
8,410.00	64.00	358.10	8,240.20	482.53	43.05	482.71	8.58	8.57	0.29
8,442.00	65.80	357.70	8,253.77	511.49	41.98	511.66	5.74	5.63	-1.25
8,474.00	69.30	358.50	8,265.99	541.05	41.01	541.21	11.18	10.94	2.50
8,505.00	73.20	359.20	8,275.96	570.39	40.42	570.55	12.76	12.58	2.26
8,537.00	77.40	359.60	8,284.07	601.33	40.10	601.50	13.18	13.13	1.25
8,632.00	89.70	3.20	8,294.73	695.51	42.43	695.68	13.48	12.95	3.79
8,728.00	89.30	3.00	8,295.57	791.36	47.63	791.55	0.47	-0.42	-0.21
8,823.00	88.30	2.50	8,297.56	886.23	52.18	886.44	1.18	-1.05	-0.53
8,918.00	92.00	2.10	8,297.31	981.14	55.99	981.36	3.92	3.89	-0.42
9,015.00	92.20	2.00	8,293.75	1,078.01	59.46	1,078.25	0.23	0.21	-0.10
9,110.00	90.80	1.80	8,291.27	1,172.92	62.61	1,173.17	1.49	-1.47	-0.21
9,205.00	90.70	1.50	8,290.02	1,267.87	65.35	1,268.14	0.33	-0.11	-0.32
9,300.00	90.90	1.20	8,288.70	1,362.84	67.58	1,363.11	0.38	0.21	-0.32
9,395.00	91.00	0.00	8,287.12	1,457.82	68.58	1,458.09	1.27	0.11	-1.26
9,490.00	89.30	359.10	8,286.87	1,552.81	67.83	1,553.08	2.02	-1.79	-0.95
9,586.00	89.20	359.10	8,288.13	1,648.79	66.32	1,649.05	0.10	-0.10	0.00
9,681.00	89.40	359.10	8,289.29	1,743.77	64.83	1,744.03	0.21	0.21	0.00
9,776.00	89.80	359.00	8,289.95	1,838.76	63.26	1,839.00	0.43	0.42	-0.11
9,871.00	90.10	359.00	8,290.04	1,933.74	61.60	1,933.98	0.32	0.32	0.00
9,966.00	90.30	358.80	8,289.70	2,028.72	59.78	2,028.96	0.30	0.21	-0.21
10,061.00	90.50	358.50	8,289.04	2,123.69	57.54	2,123.92	0.38	0.21	-0.32
10,156.00	90.90	358.40	8,287.88	2,218.65	54.97	2,218.86	0.43	0.42	-0.11
10,251.00	91.20	358.40	8,286.14	2,313.60	52.32	2,313.80	0.32	0.32	0.00
10,346.00	91.00	1.00	8,284.32	2,408.57	51.82	2,408.77	2.74	-0.21	2.74
10,441.00	91.40	1.30	8,282.33	2,503.53	53.72	2,503.73	0.53	0.42	0.32

Phoenix Technology Services

Survey Report



Company:	Nadel and Gussman Permian, LLC	Local Co-ordinate Reference:	Well 1H
Project:	Eddy County, New Mexico (NAD27)	TVD Reference:	WELL @ 3384.50usft (Patriot 5)
Site:	Parkway 19 Federal	MD Reference:	WELL @ 3384.50usft (Patriot 5)
Well:	1H	North Reference:	Grid
Wellbore:	Wellbore #1 Job #1411119	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Patriot 5)	Database:	Compass 5000 GCR DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,536.00	90.10	1.60	8,281.08	2,598.49	56.13	2,598.70	1.40	-1.37	0.32
10,631.00	88.30	1.60	8,282.41	2,693.44	58.78	2,693.66	1.89	-1.89	0.00
10,727.00	89.40	1.20	8,284.34	2,789.39	61.13	2,789.62	1.22	1.15	-0.42
10,822.00	90.40	1.30	8,284.50	2,884.37	63.20	2,884.61	1.06	1.05	0.11
10,918.00	91.20	1.00	8,283.16	2,980.34	65.12	2,980.58	0.89	0.83	-0.31
11,013.00	91.70	0.80	8,280.76	3,075.30	66.62	3,075.55	0.57	0.53	-0.21
11,108.00	90.30	0.80	8,279.10	3,170.27	67.94	3,170.53	1.47	-1.47	0.00
11,203.00	90.40	0.40	8,278.52	3,265.26	68.94	3,265.52	0.43	0.11	-0.42
11,298.00	90.80	0.10	8,277.52	3,360.26	69.35	3,360.52	0.53	0.42	-0.32
11,393.00	90.60	0.00	8,276.36	3,455.25	69.43	3,455.51	0.24	-0.21	-0.11
11,489.00	91.30	359.50	8,274.77	3,551.23	69.02	3,551.49	0.90	0.73	-0.52
11,584.00	89.70	0.20	8,273.94	3,646.23	68.77	3,646.48	1.84	-1.68	0.74
11,679.00	89.90	0.00	8,274.27	3,741.22	68.93	3,741.48	0.30	0.21	-0.21
11,774.00	90.10	359.70	8,274.27	3,836.22	68.68	3,836.48	0.38	0.21	-0.32
11,870.00	90.30	359.50	8,273.94	3,932.22	68.01	3,932.47	0.29	0.21	-0.21
11,965.00	89.40	0.80	8,274.19	4,027.22	68.26	4,027.47	1.66	-0.95	1.37
12,060.00	89.60	0.50	8,275.02	4,122.21	69.34	4,122.46	0.38	0.21	-0.32
12,155.00	89.60	0.40	8,275.68	4,217.20	70.09	4,217.46	0.11	0.00	-0.11
12,250.00	89.70	359.90	8,276.26	4,312.20	70.34	4,312.46	0.54	0.11	-0.53
12,345.00	89.90	0.20	8,276.59	4,407.20	70.42	4,407.46	0.38	0.21	0.32
12,439.00	90.00	0.80	8,276.67	4,501.20	71.24	4,501.45	0.65	0.11	0.64
12,535.00	90.10	1.10	8,276.59	4,597.18	72.83	4,597.45	0.33	0.10	0.31
12,630.00	90.20	1.50	8,276.34	4,692.16	74.99	4,692.43	0.43	0.11	0.42
12,725.00	90.40	0.80	8,275.84	4,787.14	76.89	4,787.42	0.77	0.21	-0.74
12,820.00	90.80	0.80	8,274.85	4,882.12	78.22	4,882.41	0.42	0.42	0.00
12,916.00	91.10	0.80	8,273.26	4,978.10	79.56	4,978.39	0.31	0.31	0.00
13,011.00	91.30	0.80	8,271.27	5,073.07	80.88	5,073.36	0.21	0.21	0.00
13,106.00	91.70	0.40	8,268.78	5,168.03	81.88	5,168.33	0.60	0.42	-0.42
13,201.00	91.60	0.20	8,266.05	5,262.99	82.38	5,263.29	0.24	-0.11	-0.21
13,279.00	91.70	0.70	8,263.80	5,340.95	82.99	5,341.26	0.65	0.13	0.64
13,374.00	91.20	1.20	8,261.40	5,435.91	84.56	5,436.22	0.74	-0.53	0.53
13,469.00	91.30	1.00	8,259.32	5,530.87	86.39	5,531.18	0.24	0.11	-0.21
13,564.00	90.80	0.80	8,257.58	5,625.84	87.88	5,626.16	0.57	-0.53	-0.21
13,659.00	90.30	0.90	8,256.67	5,720.83	89.29	5,721.15	0.54	-0.53	0.11
13,755.00	89.70	0.50	8,256.67	5,816.82	90.46	5,817.15	0.75	-0.63	-0.42
13,850.00	89.40	0.70	8,257.42	5,911.81	91.46	5,912.14	0.38	-0.32	0.21
13,945.00	89.00	1.00	8,258.74	6,006.79	92.86	6,007.13	0.53	-0.42	0.32
14,040.00	88.30	1.00	8,260.98	6,101.75	94.52	6,102.09	0.74	-0.74	0.00
14,135.00	87.70	0.50	8,264.30	6,196.68	95.77	6,197.03	0.82	-0.63	-0.53
Final Phoenix Survey									
14,191.00	87.70	0.50	8,266.54	6,252.64	96.25	6,252.98	0.00	0.00	0.00
Projection to TD									

Phoenix Technology Services

Survey Report



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Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,480.00	7,475.73	63.82	59.58	Tie-in to VES Gyro Surveys
7,591.00	7,586.73	64.81	58.94	First Phoenix Survey
14,135.00	8,264.30	6,196.68	95.77	Final Phoenix Survey
14,191.00	8,266.54	6,252.64	96.25	Projection to TD

Checked By: _____ Approved By: _____ Date: _____