

Nadel and Gussman Permian, LLC

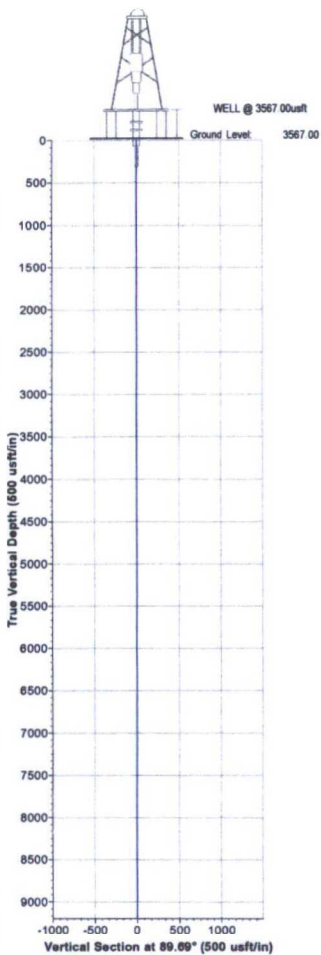
OCT 27 2016

RECEIVED

Project: Lea County, New Mexico (NAD27)
 Site: Tonto Federal Com.
 Well: 2H
 Wellbore: Wellbore #1
 Design: Plan #1 06-11-14
 Rig:



North
 Azimuths to Grid North
 True North: -0.35°
 Magnetic North: 6.95°
 Magnetic Field
 Strength: 48538.8nT
 Dip Angle: 60.45°
 Date: 06/11/2014
 Model: IGRF2010_14



WELL DETAILS									
		Ground Level		3567.00		Latitude		Longitude	
+N/-S	+E/-W	Northing	Easting	32° 36' 52.14912 N	103° 41' 1.22062 W				
0.00	0.00	567872.40	700036.90						

PROJECT DETAILS: Lea County, New Mexico (NAD27)	
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

Map System: US State Plane 1927 (Exact solution)	
Datum:	NAD 1927 (NADCON CONUS)
Ellipsoid:	Clarke 1866
Zone Name:	New Mexico East 3001
Local Origin:	Well 2H, Grid North
Latitude:	32° 36' 52.14612 N
Longitude:	103° 41' 1.22082 W
Grid East:	700038.60
Grid North:	587872.40
Scale Factor:	1.000
Geomagnetic Model:	IGRF2010_14
Sample Date:	11-Jun-14
Magnetic Declination:	7.30°
Dip Angle from Horizontal:	60.45°
Magnetic Field Strength:	48539
To convert a Magnetic Direction to a Grid Direction, Add 6.95°	
To convert a Magnetic Direction to a True Direction, Add 7.30° East	
To convert a True Direction to a Grid Direction, Subtract 0.35°	

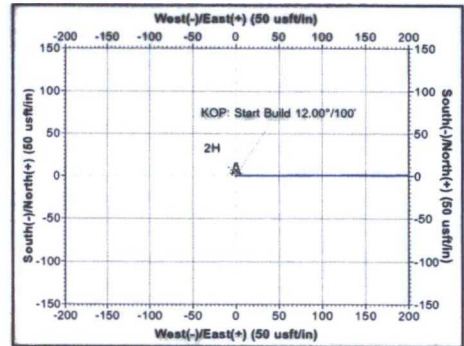
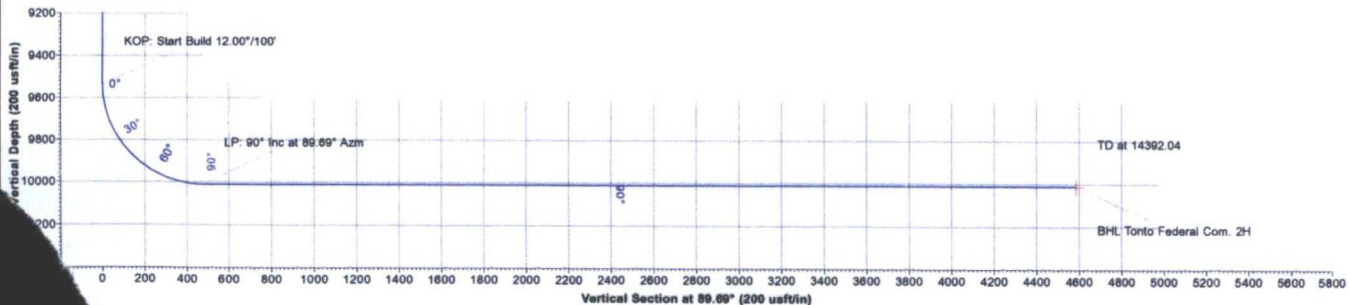
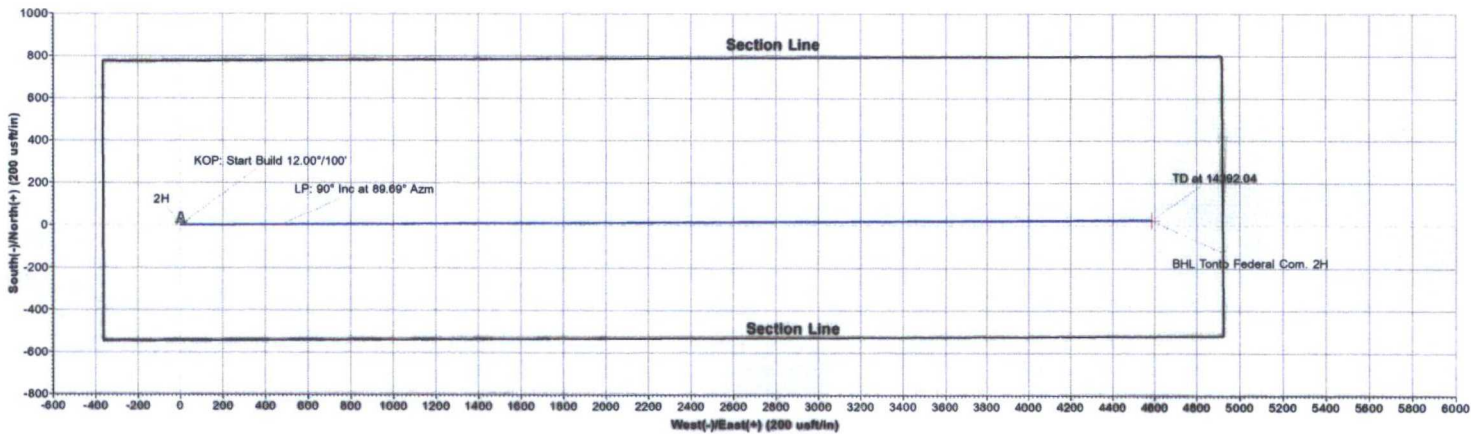
SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Diag	TFace	VSec	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	9534.54	0.00	0.00	9534.54	0.00	0.00	0.00	0.00	0.00		KOP: Start Build 12.00°/100'
3	10284.54	90.00	89.69	10012.00	2.99	477.46	12.00	89.69	477.46		LP: 90° Inc at 89.69° Azm
4	14392.04	90.00	89.69	10012.00	24.90	4584.90	0.00	0.00	4584.97	BHL Tonto Federal Com. 2H	TD at 14392.04

SITE DETAILS: Tonto Federal Com.	
Site Centre Northing:	587872.40
Easting:	700038.60
Positional Uncertainty:	0.00
Convergence:	0.35
Local North:	Grid

DESIGN TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	
BHL Tonto Federal Com. 2H	10012.00	24.90	4584.90	587897.30	704623.50	32° 36' 52.11206 N	103° 40' 7.61708 W	Point	- plan hits target center

FORMATION TOP DETAILS	
No formation data is available	

LEGEND	
---	Plan #1 06-11-14



HOBBS OCD

OCT 27 2016

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Nadel and Gussman Permian, LLC

Lea County, New Mexico (NAD27)

Tonto Federal Com.

2H

Wellbore #1

Plan: Plan #1 06-11-14

Planning Report

11 June, 2014





Company: Nadel and Gussman Permian, LLC	Local Co-ordinate Reference: Well 2H
Project: Lea County, New Mexico (NAD27)	TVD Reference: WELL @ 3567.00usft
Site: Tonto Federal Com.	MD Reference: WELL @ 3567.00usft
Well: 2H	North Reference: Grid
Wellbore: Wellbore #1	Survey Calculation Method: Minimum Curvature
Design: Plan #1 06-11-14	Database: Compass 5000 GCR DB

Project	Lea 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	Tonto Federal Com.		
Site Position:		Northing:	587,872.40 usft
From: Map		Easting:	700,038.60 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 36' 52.14612 N
		Longitude:	103° 41' 1.22082 W
		Grid Convergence:	0.35 °

Well	2H					
Well Position	+N/-S	0.00 usft	Northing:	587,872.40 usft	Latitude:	32° 36' 52.14612 N
	+E/-W	0.00 usft	Easting:	700,038.60 usft	Longitude:	103° 41' 1.22082 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,567.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	06/11/14	7.30	60.45	48,539

Design	Plan #1 06-11-14			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth: 0.00	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	89.69

Survey Tool Program	Date	06/11/14		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	14,392.04	Plan #1 06-11-14 (Wellbore #1)	PHX+MWD+IGRF	PHX+MWD+IGRF v3:standard declination

Phoenix Technology Services
Planning Report



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Well:	2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1 06-11-14	Database:	Compass 5000 GCR DB

Planned Survey												
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	Northing (usft)	Easting (usft)	V. Sec (usft)	DLeg (°/100usft)		
0.00	0.00	0.00	-3,567.00	0.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
100.00	0.00	0.00	-3,467.00	100.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
200.00	0.00	0.00	-3,367.00	200.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
300.00	0.00	0.00	-3,267.00	300.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
400.00	0.00	0.00	-3,167.00	400.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
500.00	0.00	0.00	-3,067.00	500.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
600.00	0.00	0.00	-2,967.00	600.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
700.00	0.00	0.00	-2,867.00	700.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
800.00	0.00	0.00	-2,767.00	800.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
900.00	0.00	0.00	-2,667.00	900.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
1,000.00	0.00	0.00	-2,567.00	1,000.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
1,100.00	0.00	0.00	-2,467.00	1,100.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
1,200.00	0.00	0.00	-2,367.00	1,200.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
1,300.00	0.00	0.00	-2,267.00	1,300.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
1,400.00	0.00	0.00	-2,167.00	1,400.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
1,500.00	0.00	0.00	-2,067.00	1,500.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
1,600.00	0.00	0.00	-1,967.00	1,600.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
1,700.00	0.00	0.00	-1,867.00	1,700.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
1,800.00	0.00	0.00	-1,767.00	1,800.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
1,900.00	0.00	0.00	-1,667.00	1,900.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
2,000.00	0.00	0.00	-1,567.00	2,000.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
2,100.00	0.00	0.00	-1,467.00	2,100.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
2,200.00	0.00	0.00	-1,367.00	2,200.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
2,300.00	0.00	0.00	-1,267.00	2,300.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
2,400.00	0.00	0.00	-1,167.00	2,400.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
2,500.00	0.00	0.00	-1,067.00	2,500.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
2,600.00	0.00	0.00	-967.00	2,600.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		

Phoenix Technology Services

Planning Report



Company:	Nadel and Gussman Permian, LLC	Local Co-ordinate Reference:	Well 2H
Project:	Lea County, New Mexico (NAD27)	TVD Reference:	WELL @ 3567.00usft
Site:	Tonto Federal Com.	MD Reference:	WELL @ 3567.00usft
Well:	2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1 06-11-14	Database:	Compass 5000 GCR DB

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	Northing (usft)	Easting (usft)	V. Sec (usft)	DLeg (°/100usft)	
2,700.00	0.00	0.00	-867.00	2,700.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
2,800.00	0.00	0.00	-767.00	2,800.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
2,900.00	0.00	0.00	-667.00	2,900.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
3,000.00	0.00	0.00	-567.00	3,000.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
3,100.00	0.00	0.00	-467.00	3,100.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
3,200.00	0.00	0.00	-367.00	3,200.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
3,300.00	0.00	0.00	-267.00	3,300.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
3,400.00	0.00	0.00	-167.00	3,400.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
3,500.00	0.00	0.00	-67.00	3,500.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
3,600.00	0.00	0.00	33.00	3,600.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
3,700.00	0.00	0.00	133.00	3,700.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
3,800.00	0.00	0.00	233.00	3,800.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
3,900.00	0.00	0.00	333.00	3,900.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
4,000.00	0.00	0.00	433.00	4,000.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
4,100.00	0.00	0.00	533.00	4,100.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
4,200.00	0.00	0.00	633.00	4,200.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
4,300.00	0.00	0.00	733.00	4,300.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
4,400.00	0.00	0.00	833.00	4,400.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
4,500.00	0.00	0.00	933.00	4,500.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
4,600.00	0.00	0.00	1,033.00	4,600.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
4,700.00	0.00	0.00	1,133.00	4,700.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
4,800.00	0.00	0.00	1,233.00	4,800.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
4,900.00	0.00	0.00	1,333.00	4,900.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
5,000.00	0.00	0.00	1,433.00	5,000.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
5,100.00	0.00	0.00	1,533.00	5,100.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
5,200.00	0.00	0.00	1,633.00	5,200.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	
5,300.00	0.00	0.00	1,733.00	5,300.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00	

Phoenix Technology Services

Planning Report



Company: Nadel and Gussman Permian, LLC	Local Co-ordinate Reference: Well 2H
Project: Lea County, New Mexico (NAD27)	TVD Reference: WELL @ 3567.00usft
Site: Tonto Federal Com.	MD Reference: WELL @ 3567.00usft
Well: 2H	North Reference: Grid
Wellbore: Wellbore #1	Survey Calculation Method: Minimum Curvature
Design: Plan #1 06-11-14	Database: Compass 5000 GCR DB

Planned Survey												
MD (usft)	Inc (°)	Azi (azimuth) (°)	TV DSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	Northing (usft)	Easting (usft)	V. Sec (usft)	DLeg (°/100usft)		
5,400.00	0.00	0.00	1,833.00	5,400.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
5,500.00	0.00	0.00	1,933.00	5,500.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
5,600.00	0.00	0.00	2,033.00	5,600.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
5,700.00	0.00	0.00	2,133.00	5,700.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
5,800.00	0.00	0.00	2,233.00	5,800.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
5,900.00	0.00	0.00	2,333.00	5,900.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
6,000.00	0.00	0.00	2,433.00	6,000.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
6,100.00	0.00	0.00	2,533.00	6,100.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
6,200.00	0.00	0.00	2,633.00	6,200.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
6,300.00	0.00	0.00	2,733.00	6,300.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
6,400.00	0.00	0.00	2,833.00	6,400.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
6,500.00	0.00	0.00	2,933.00	6,500.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
6,600.00	0.00	0.00	3,033.00	6,600.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
6,700.00	0.00	0.00	3,133.00	6,700.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
6,800.00	0.00	0.00	3,233.00	6,800.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
6,900.00	0.00	0.00	3,333.00	6,900.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
7,000.00	0.00	0.00	3,433.00	7,000.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
7,100.00	0.00	0.00	3,533.00	7,100.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
7,200.00	0.00	0.00	3,633.00	7,200.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
7,300.00	0.00	0.00	3,733.00	7,300.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
7,400.00	0.00	0.00	3,833.00	7,400.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
7,500.00	0.00	0.00	3,933.00	7,500.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
7,600.00	0.00	0.00	4,033.00	7,600.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
7,700.00	0.00	0.00	4,133.00	7,700.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
7,800.00	0.00	0.00	4,233.00	7,800.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
7,900.00	0.00	0.00	4,333.00	7,900.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		
8,000.00	0.00	0.00	4,433.00	8,000.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00		

Phoenix Technology Services
Planning Report



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Project:	Lea County, New Mexico (NAD27)	TVD Reference:	WELL @ 3567.00usft
Site:	Tonto Federal Com.	MD Reference:	WELL @ 3567.00usft
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Planned Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	Northing (usft)	Easting (usft)	V. Sec (usft)	DLeg (°/100usft)
8,100.00	0.00	0.00	4,533.00	8,100.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00
8,200.00	0.00	0.00	4,633.00	8,200.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00
8,300.00	0.00	0.00	4,733.00	8,300.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00
8,400.00	0.00	0.00	4,833.00	8,400.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00
8,500.00	0.00	0.00	4,933.00	8,500.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00
8,600.00	0.00	0.00	5,033.00	8,600.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00
8,700.00	0.00	0.00	5,133.00	8,700.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00
8,800.00	0.00	0.00	5,233.00	8,800.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00
8,900.00	0.00	0.00	5,333.00	8,900.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00
9,000.00	0.00	0.00	5,433.00	9,000.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00
9,100.00	0.00	0.00	5,533.00	9,100.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00
9,200.00	0.00	0.00	5,633.00	9,200.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00
9,300.00	0.00	0.00	5,733.00	9,300.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00
9,400.00	0.00	0.00	5,833.00	9,400.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00
9,500.00	0.00	0.00	5,933.00	9,500.00	0.00	0.00	587,872.40	700,038.60	0.00	0.00
9,534.54	0.00	0.00	5,967.54	9,534.54	0.00	0.00	587,872.40	700,038.60	0.00	0.00
KOP: Start Build 12.00°/100'										
9,550.00	1.86	89.69	5,983.00	9,550.00	0.00	0.25	587,872.40	700,038.85	0.25	12.00
9,575.00	4.86	89.69	6,007.95	9,574.95	0.01	1.71	587,872.41	700,040.31	1.71	12.00
9,600.00	7.86	89.69	6,032.80	9,599.80	0.02	4.48	587,872.42	700,043.08	4.48	12.00
9,625.00	10.86	89.69	6,057.46	9,624.46	0.05	8.54	587,872.45	700,047.14	8.54	12.00
9,650.00	13.86	89.69	6,081.88	9,648.88	0.08	13.89	587,872.48	700,052.49	13.89	12.00
9,675.00	16.86	89.69	6,105.98	9,672.98	0.11	20.51	587,872.51	700,059.11	20.51	12.00
9,700.00	19.86	89.69	6,129.71	9,696.71	0.15	28.38	587,872.55	700,066.98	28.39	12.00
9,725.00	22.86	89.69	6,152.99	9,719.99	0.20	37.49	587,872.60	700,076.09	37.49	12.00
9,750.00	25.86	89.69	6,175.76	9,742.76	0.26	47.80	587,872.66	700,086.40	47.80	12.00
9,775.00	28.86	89.69	6,197.96	9,764.96	0.32	59.28	587,872.72	700,097.88	59.28	12.00

Phoenix Technology Services
Planning Report



Company: Nadel and Gussman Permian, LLC
Project: Lea County, New Mexico (NAD27)
Site: Tonto Federal Com.
Well: 2H
Wellbore: Wellbore #1
Design: Plan #1 06-11-14

Local Co-ordinate Reference: Well 2H
TVD Reference: WELL @ 3567.00usft
MD Reference: WELL @ 3567.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass 5000 GCR DB

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	Northing (usft)	Easting (usft)	V. Sec (usft)	DLeg (°/100usft)
9,800.00	31.86	89.69	6,219.53	9,786.53	0.39	71.92	587,872.79	700,110.52	71.92	12.00
9,825.00	34.86	89.69	6,240.41	9,807.41	0.47	85.66	587,872.87	700,124.26	85.66	12.00
9,850.00	37.86	89.69	6,260.54	9,827.54	0.55	100.48	587,872.95	700,139.08	100.48	12.00
9,875.00	40.86	89.69	6,279.87	9,846.87	0.63	116.33	587,873.03	700,154.93	116.33	12.00
9,900.00	43.86	89.69	6,298.34	9,865.34	0.72	133.17	587,873.12	700,171.77	133.17	12.00
9,925.00	46.86	89.69	6,315.91	9,882.91	0.82	150.95	587,873.22	700,189.55	150.96	12.00
9,950.00	49.86	89.69	6,332.52	9,899.52	0.92	169.63	587,873.32	700,208.23	169.64	12.00
9,975.00	52.86	89.69	6,348.13	9,915.13	1.03	189.16	587,873.43	700,227.76	189.16	12.00
10,000.00	55.86	89.69	6,362.70	9,929.70	1.14	209.47	587,873.54	700,248.07	209.47	12.00
10,025.00	58.86	89.69	6,376.18	9,943.18	1.25	230.52	587,873.65	700,269.12	230.52	12.00
10,050.00	61.86	89.69	6,388.55	9,955.55	1.37	252.24	587,873.77	700,290.84	252.25	12.00
10,075.00	64.86	89.69	6,399.76	9,966.76	1.49	274.59	587,873.89	700,313.19	274.59	12.00
10,100.00	67.86	89.69	6,409.78	9,976.78	1.62	297.49	587,874.02	700,336.09	297.49	12.00
10,125.00	70.86	89.69	6,418.59	9,985.59	1.74	320.88	587,874.14	700,359.48	320.88	12.00
10,150.00	73.86	89.69	6,426.17	9,993.17	1.87	344.70	587,874.27	700,383.30	344.70	12.00
10,175.00	76.86	89.69	6,432.49	9,999.49	2.00	368.88	587,874.40	700,407.48	368.89	12.00
10,200.00	79.86	89.69	6,437.54	10,004.54	2.14	393.36	587,874.54	700,431.96	393.37	12.00
10,225.00	82.86	89.69	6,441.29	10,008.29	2.27	418.08	587,874.67	700,456.68	418.08	12.00
10,250.00	85.86	89.69	6,443.75	10,010.75	2.41	442.95	587,874.81	700,481.55	442.96	12.00
10,275.00	88.86	89.69	6,444.90	10,011.90	2.54	467.92	587,874.94	700,506.52	467.93	12.00
10,284.54	90.00	89.69	6,445.00	10,012.00	2.59	477.46	587,874.99	700,516.06	477.46	12.00
LP: 90° Inc at 89.69° Azm										
10,300.00	90.00	89.69	6,445.00	10,012.00	2.68	492.92	587,875.08	700,531.52	492.93	0.00
10,400.00	90.00	89.69	6,445.00	10,012.00	3.22	592.92	587,875.62	700,631.52	592.93	0.00
10,500.00	90.00	89.69	6,445.00	10,012.00	3.76	692.92	587,876.16	700,731.52	692.93	0.00
10,600.00	90.00	89.69	6,445.00	10,012.00	4.31	792.92	587,876.71	700,831.52	792.93	0.00
10,700.00	90.00	89.69	6,445.00	10,012.00	4.85	892.92	587,877.25	700,931.52	892.93	0.00

Phoenix Technology Services

Planning Report



Company: Nadel and Gussman Permian, LLC
Project: Lea County, New Mexico (NAD27)
Site: Tonto Federal Com.
Well: 2H
Wellbore: Wellbore #1
Design: Plan #1 06-11-14

Local Co-ordinate Reference: Well 2H
TVD Reference: WELL @ 3567.00usft
MD Reference: WELL @ 3567.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass 5000 GCR DB

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	Northing (usft)	Easting (usft)	V. Sec (usft)	DLeg (°/100usft)	
10,800.00	90.00	89.69	6,445.00	10,012.00	5.39	992.92	587,877.79	701,031.52	992.93		0.00
10,900.00	90.00	89.69	6,445.00	10,012.00	5.94	1,092.91	587,878.34	701,131.51	1,092.93		0.00
11,000.00	90.00	89.69	6,445.00	10,012.00	6.48	1,192.91	587,878.88	701,231.51	1,192.93		0.00
11,100.00	90.00	89.69	6,445.00	10,012.00	7.02	1,292.91	587,879.42	701,331.51	1,292.93		0.00
11,200.00	90.00	89.69	6,445.00	10,012.00	7.56	1,392.91	587,879.96	701,431.51	1,392.93		0.00
11,300.00	90.00	89.69	6,445.00	10,012.00	8.11	1,492.91	587,880.51	701,531.51	1,492.93		0.00
11,400.00	90.00	89.69	6,445.00	10,012.00	8.65	1,592.91	587,881.05	701,631.51	1,592.93		0.00
11,500.00	90.00	89.69	6,445.00	10,012.00	9.19	1,692.90	587,881.59	701,731.50	1,692.93		0.00
11,600.00	90.00	89.69	6,445.00	10,012.00	9.74	1,792.90	587,882.14	701,831.50	1,792.93		0.00
11,700.00	90.00	89.69	6,445.00	10,012.00	10.28	1,892.90	587,882.68	701,931.50	1,892.93		0.00
11,800.00	90.00	89.69	6,445.00	10,012.00	10.82	1,992.90	587,883.22	702,031.50	1,992.93		0.00
11,900.00	90.00	89.69	6,445.00	10,012.00	11.37	2,092.90	587,883.77	702,131.50	2,092.93		0.00
12,000.00	90.00	89.69	6,445.00	10,012.00	11.91	2,192.90	587,884.31	702,231.50	2,192.93		0.00
12,100.00	90.00	89.69	6,445.00	10,012.00	12.45	2,292.90	587,884.85	702,331.50	2,292.93		0.00
12,200.00	90.00	89.69	6,445.00	10,012.00	13.00	2,392.89	587,885.40	702,431.49	2,392.93		0.00
12,300.00	90.00	89.69	6,445.00	10,012.00	13.54	2,492.89	587,885.94	702,531.49	2,492.93		0.00
12,400.00	90.00	89.69	6,445.00	10,012.00	14.08	2,592.89	587,886.48	702,631.49	2,592.93		0.00
12,500.00	90.00	89.69	6,445.00	10,012.00	14.62	2,692.89	587,887.02	702,731.49	2,692.93		0.00
12,600.00	90.00	89.69	6,445.00	10,012.00	15.17	2,792.89	587,887.57	702,831.49	2,792.93		0.00
12,700.00	90.00	89.69	6,445.00	10,012.00	15.71	2,892.89	587,888.11	702,931.49	2,892.93		0.00
12,800.00	90.00	89.69	6,445.00	10,012.00	16.25	2,992.89	587,888.65	703,031.49	2,992.93		0.00
12,900.00	90.00	89.69	6,445.00	10,012.00	16.80	3,092.88	587,889.20	703,131.48	3,092.93		0.00
13,000.00	90.00	89.69	6,445.00	10,012.00	17.34	3,192.88	587,889.74	703,231.48	3,192.93		0.00
13,100.00	90.00	89.69	6,445.00	10,012.00	17.88	3,292.88	587,890.28	703,331.48	3,292.93		0.00
13,200.00	90.00	89.69	6,445.00	10,012.00	18.43	3,392.88	587,890.83	703,431.48	3,392.93		0.00
13,300.00	90.00	89.69	6,445.00	10,012.00	18.97	3,492.88	587,891.37	703,531.48	3,492.93		0.00
13,400.00	90.00	89.69	6,445.00	10,012.00	19.51	3,592.88	587,891.91	703,631.48	3,592.93		0.00

Company: Nadel and Gussman Permian, LLC
 Project: Lea County, New Mexico (NAD27)
 Site: Tonto Federal Com.
 Well: 2H
 Wellbore: Wellbore #1
 Design: Plan #1 06-11-14

Local Co-ordinate Reference: Well 2H
 TVD Reference: WELL @ 3567.00usft
 MD Reference: WELL @ 3567.00usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: Compass 5000 GCR DB

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	Northing (usft)	Easting (usft)	V. Sec (usft)	DLeg (°/100usft)
13,500.00	90.00	89.69	6,445.00	10,012.00	20.06	3,692.88	587,892.46	703,731.48	3,692.93	0.00
13,600.00	90.00	89.69	6,445.00	10,012.00	20.60	3,792.87	587,893.00	703,831.47	3,792.93	0.00
13,700.00	90.00	89.69	6,445.00	10,012.00	21.14	3,892.87	587,893.54	703,931.47	3,892.93	0.00
13,800.00	90.00	89.69	6,445.00	10,012.00	21.68	3,992.87	587,894.08	704,031.47	3,992.93	0.00
13,900.00	90.00	89.69	6,445.00	10,012.00	22.23	4,092.87	587,894.63	704,131.47	4,092.93	0.00
14,000.00	90.00	89.69	6,445.00	10,012.00	22.77	4,192.87	587,895.17	704,231.47	4,192.93	0.00
14,100.00	90.00	89.69	6,445.00	10,012.00	23.31	4,292.87	587,895.71	704,331.47	4,292.93	0.00
14,200.00	90.00	89.69	6,445.00	10,012.00	23.86	4,392.86	587,896.26	704,431.46	4,392.93	0.00
14,300.00	90.00	89.69	6,445.00	10,012.00	24.40	4,492.86	587,896.80	704,531.46	4,492.93	0.00
14,392.04	90.00	89.69	6,445.00	10,012.00	24.90	4,584.90	587,897.30	704,623.50	4,584.97	0.00
TD at 14392.04										

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,534.54	9,534.54	0.00	0.00	KOP: Start Build 12.00°/100'
10,284.54	10,012.00	2.59	477.46	LP: 90° Inc at 89.69° Azm
14,392.04	10,012.00	24.90	4,584.90	TD at 14392.04