

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 Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-101
August 1, 2011

Permit 280076

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address MARSHALL & WINSTON INC P.O. Box 50880 Midland, TX 79710		2. OGRID Number 14187
		3. API Number 30-025-47046
4. Property Code 327368	5. Property Name LOCO DINERO 35 2L STATE COM	6. Well No. 004H

7. Surface Location

UL - Lot D	Section 36	Township 21S	Range 33E	Lot Idn D	Feet From 160	N/S Line N	Feet From 360	E/W Line W	County Lea
---------------	---------------	-----------------	--------------	--------------	------------------	---------------	------------------	---------------	---------------

8. Proposed Bottom Hole Location

UL - Lot M	Section 36	Township 21S	Range 33E	Lot Idn M	Feet From 60	N/S Line S	Feet From 360	E/W Line W	County Lea
---------------	---------------	-----------------	--------------	--------------	-----------------	---------------	------------------	---------------	---------------

9. Pool Information

WC-025 G-06 S213326D;BONE SPRING	97929
----------------------------------	-------

Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3656
16. Multiple N	17. Proposed Depth 15703	18. Formation Bone Spring	19. Contractor	20. Spud Date 5/15/2020
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	1825	1350	0
Int1	12.25	9.625	40	5863	1100	0
Prod	8.75	5.5	20	15703	2490	0

Casing/Cement Program: Additional Comments

--

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	Cameron

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable.	OIL CONSERVATION DIVISION	
Signature:		
Printed Name: Electronically filed by Sherry Roberts	Approved By: Paul F Kautz	
Title: Operations Secretary	Title: Geologist	
Email Address: sroberts@mar-win.com	Approved Date: 4/3/2020	Expiration Date: 4/3/2022
Date: 4/1/2020	Phone: 432-684-6373	Conditions of Approval Attached

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 RD., 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 30-025-	Pool Code 97929	Pool Name WC-25 G-06 S213326D; Bone Spring
Property Code	Property Name LOCO DINERO 36 STATE COM 2L	Well Number 4H
OGRID No. 14187	Operator Name MARSHALL & WINSTON, INC.	Elevation 3656.2'

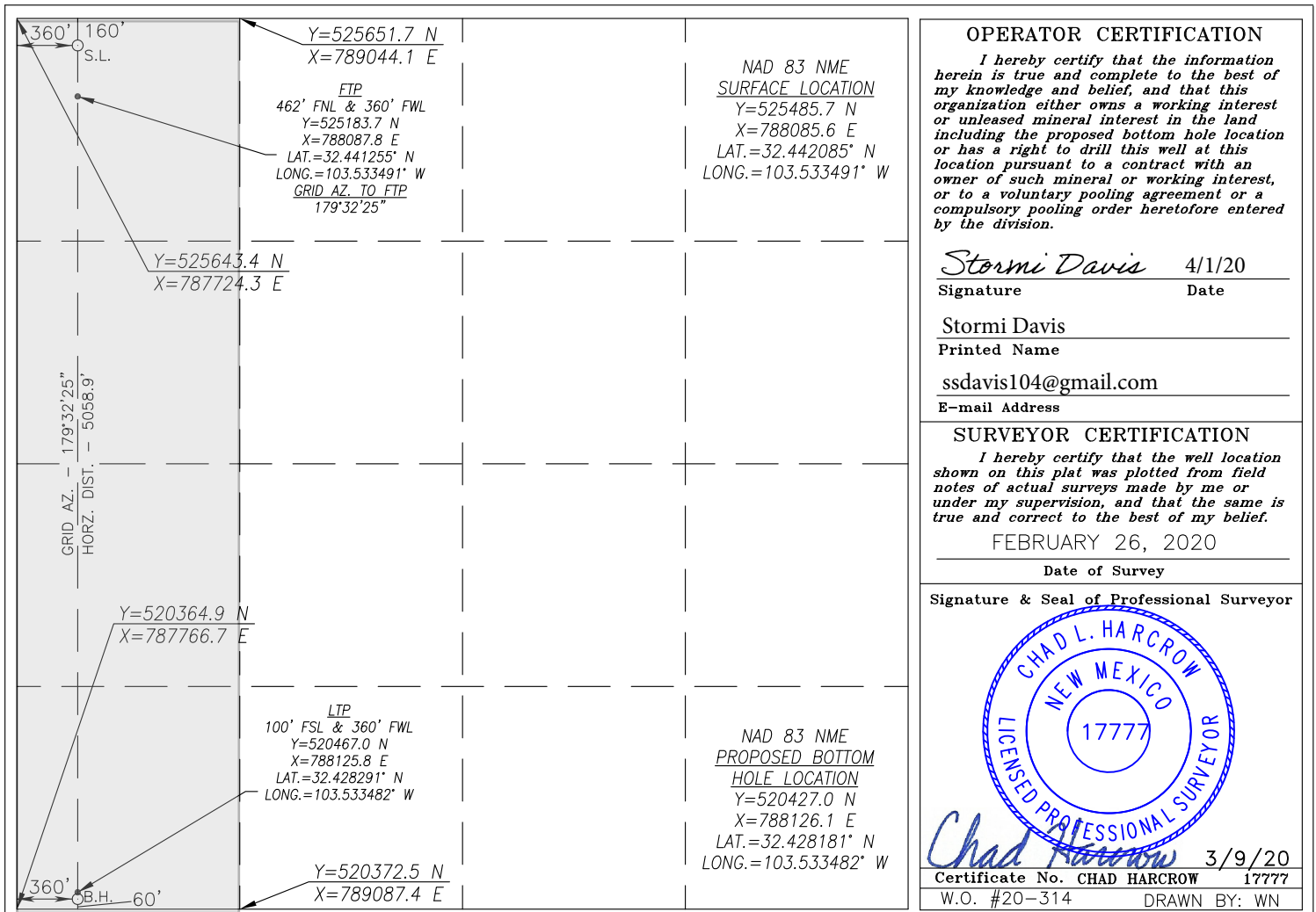
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	36	21-S	33-E		160	NORTH	360	WEST	LEA

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
M	36	21-S	33-E		60	SOUTH	360	WEST	LEA
Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.						

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



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 Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

GAS CAPTURE PLAN

Date: 4/3/2020

☒ Original

Operator & OGRID No.: [14187] MARSHALL & WINSTON INC

☐ Amended - Reason for
Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
LOCO DINERO 35 2L STATE COM #004H	30-025-47046	D-36-21S-33E	0160N 0360W	750	None	

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to TARGA MIDSTREAM SERVICES LLC and will be connected to TARGA MIDSTREAM SERVICES LLC Low Pressure gathering system located in Lea County, New Mexico. It will require 5000' of pipeline to connect the facility to Low Pressure gathering system. MARSHALL & WINSTON INC provides (periodically) to TARGA MIDSTREAM SERVICES LLC a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, MARSHALL & WINSTON INC and TARGA MIDSTREAM SERVICES LLC have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at TARGA MIDSTREAM SERVICES LLC Processing Plant located in Sec. 36, Twn. 19S, Rng. 36E, Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on TARGA MIDSTREAM SERVICES LLC system at that time. Based on current information, it is MARSHALL & WINSTON INC's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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 Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form APD Comments

Permit 280076

PERMIT COMMENTS

Operator Name and Address: MARSHALL & WINSTON INC [14187] P.O. Box 50880 Midland, TX 79710	API Number: 30-025-47046
	Well: LOCO DINERO 35 2L STATE COM #004H

Created By	Comment	Comment Date
pkautz	Well is in R-111-p potash area. E-mail sent to BLM & SLO for their review. 04/02/2020	4/2/2020
pkautz	Received response's from both the SLO & BLM. Form received from BLM & SLO indicates that the well location is not within a LMR or Buffer Zone. 04/03/2020	4/3/2020

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 Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form APD Conditions

Permit 280076

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: MARSHALL & WINSTON INC [14187] P.O. Box 50880 Midland, TX 79710	API Number: 30-025-47046
	Well: LOCO DINERO 35 2L STATE COM #004H

OCD Reviewer	Condition
pkautz	Will require a directional survey with the C-104
pkautz	Potash Area - Three String Casing Program - In accordance with R-111-P all strings shall be cemented to surface.
pkautz	If cement does not circulate to surface, must run temperature survey or other log to determine top of cement
pkautz	Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water
pkautz	1)- The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud 2)- Drilling Sundries Form C-103 (Casing and Cement test are to be submitted within 10 days 3)- Completion Reports & Logs are to be submitted within 45 days 4)- Deviation / Directional Drill Survey are to be filed with or prior to C-104
pkautz	It is the operator's responsibility to monitor cancellation dates of approved APDs. APD's are good for 2 years and may be extended for one year. Only one 1 year extension will be granted if submitted by C-103 before expiration date. After expiration date or after a 1 year extension must submit new APD. If an APD expires and if site construction has occurred, site remediation is required.
pkautz	Stage Tool 1) Must notify OCD Hobbs Office prior to running Stage Tool at 5753703186 2) If using Stage Tool on Surface casing, Stage Tool must be set greater than 350' from surface and a minimum of 200 feet above surface shoe. 3) When using a Stage Tool on Intermediate or Production Casing Stage must be a minimum of 50 feet below previous casing shoe.

Marshall & Winston, Inc.

Loco Dinero 36 State Com 2L #4H
Lea County, New Mexico
Job No: WT-20-***
Rig: N/A



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	
2	10317.04	0.00	0.00	10317.04	0.00	0.00	0.000	0.00	0.00	
3	11217.04	90.00	179.54	10890.00	-572.94	4.59	10.000	179.54	572.96	
4	15702.94	90.00	179.54	10890.00	-5058.70	40.50	0.000	0.00	5058.86	PBHL - Loco Dinero 36 State Com 2L #4H

DESIGN TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude
FTP - Loco Dinero 36 State Com 2L #4H	10890.00	-302.00	2.20	525183.70	788087.80	32° 26' 28.519 N 103° 32' 0.567 W
LTP - Loco Dinero 36 State Com 2L #4H	10890.00	-5018.70	40.20	520467.00	788125.80	32° 25' 41.846 N 103° 32' 0.536 W
PBHL - Loco Dinero 36 State Com 2L #4H	10890.00	-5058.70	40.50	520427.00	788126.10	32° 25' 41.450 N 103° 32' 0.536 W

SITE DETAILS: Loco Dinero 36 State Com 2L #4H	
Site Centre Northing:	525485.70
Easting:	788085.60
Positional Uncertainty:	0.00
Convergence:	0.43
Local North:	Grid

T

G

M

Azimuths to Grid North

True North: -0.43°

Magnetic North: 6.09°

Magnetic Field

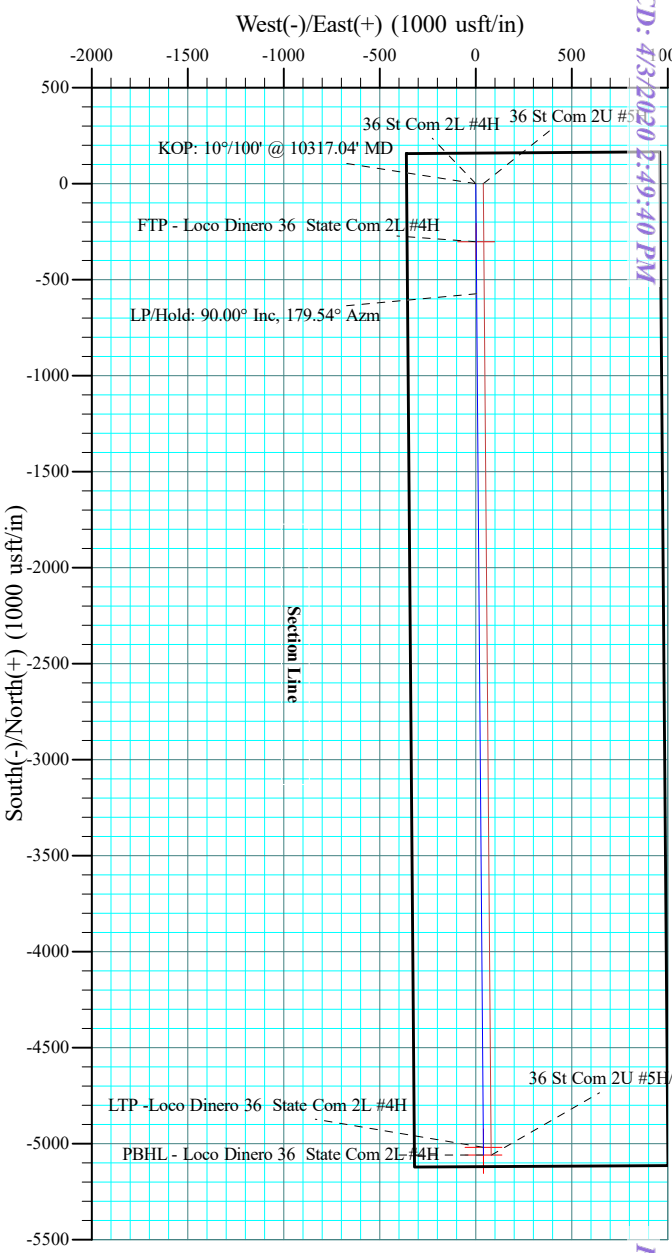
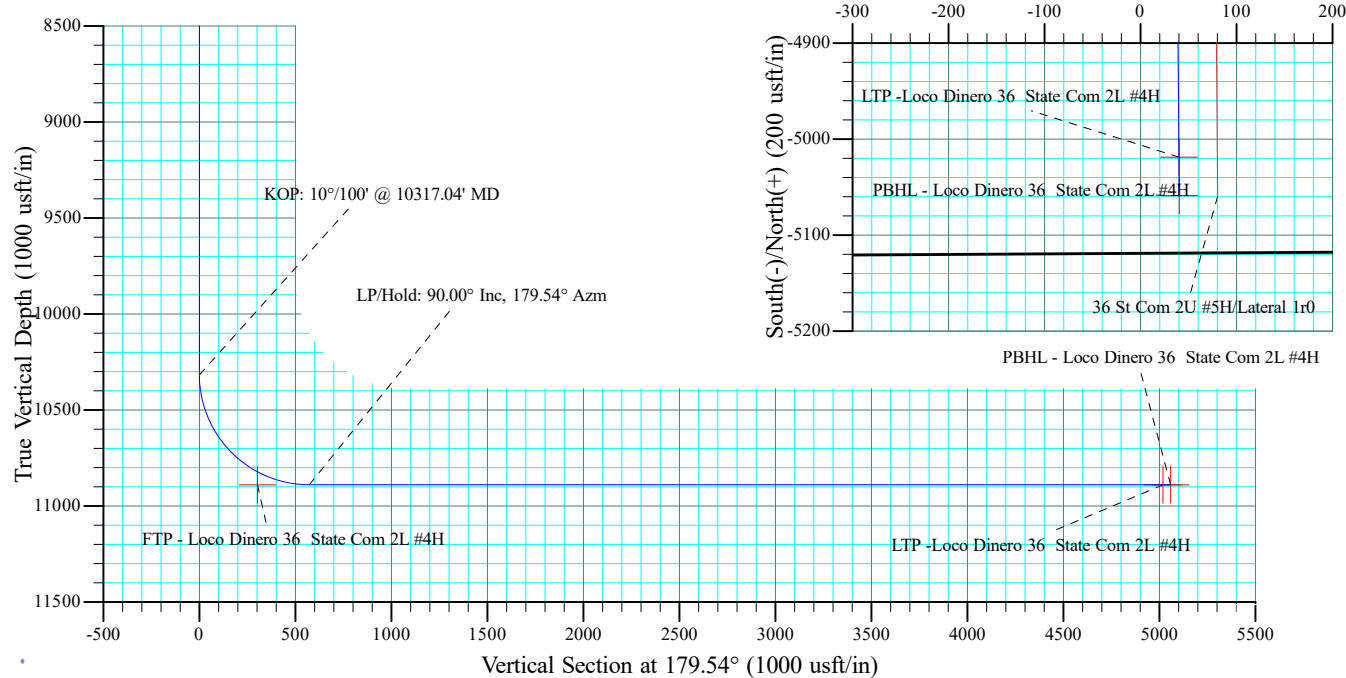
Strength: 47988.2nT

Dip Angle: 60.19°

Date: 6/1/2020

Model: MVHD

PROJECT DETAILS: Lea County, NM (NAD83 NME)	
Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	New Mexico Eastern Zone
System Datum:	Mean Sea Level



Survey Report

Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Well 36 St Com 2L #4H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	Well @ 3676.00usft (Assumed 20' KB)
Site:	Loco Dinero 36 State Com 2L #4H	MD Reference:	Well @ 3676.00usft (Assumed 20' KB)
Well:	36 St Com 2L #4H	North Reference:	Grid
Wellbore:	Planning	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1r0	Database:	EDMRESTORED

Project	Lea County, NM (NAD83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Loco Dinero 36 State Com 2L #4H		
Site Position:		Northing:	525,485.70 usft
From:	Map	Easting:	788,085.60 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 26' 31.508 N
		Longitude:	103° 32' 0.566 W
		Grid Convergence:	0.43 °

Well	36 St Com 2L #4H		
Well Position	+N/-S	0.00 usft	Northing: 525,485.70 usft
	+E/-W	0.00 usft	Easting: 788,085.60 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 26' 31.508 N
		Longitude:	103° 32' 0.566 W
		Ground Level:	3,656.00 usft

Wellbore	Planning		
Magnetics	Model Name	Sample Date	Declination (°)
	MVHD	6/1/2020	6.52
			Dip Angle (°)
			60.19
			Field Strength (nT)
			47,988.164

Design	Lateral 1r0		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			Direction (°)
			179.54

Survey Tool Program	Date	3/31/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	15,702.94	Lateral 1r0 (Planning)	MWD+HDGM	OWSG MWD + HDGM

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.000	0.000	0.000
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.000	0.000	0.000
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.000	0.000	0.000
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.000	0.000	0.000
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.000	0.000	0.000
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.000	0.000	0.000
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.000	0.000	0.000
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.000	0.000	0.000
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.000	0.000	0.000

Survey Report

Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Well 36 St Com 2L #4H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	Well @ 3676.00usft (Assumed 20' KB)
Site:	Loco Dinero 36 State Com 2L #4H	MD Reference:	Well @ 3676.00usft (Assumed 20' KB)
Well:	36 St Com 2L #4H	North Reference:	Grid
Wellbore:	Planning	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1r0	Database:	EDMRESTORED

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.000	0.000	0.000
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.000	0.000	0.000
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.000	0.000	0.000
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.000	0.000	0.000
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.000	0.000	0.000
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.000	0.000	0.000
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.000	0.000	0.000
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.000	0.000	0.000
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.000	0.000	0.000
1,875.00	0.00	0.00	1,875.00	0.00	0.00	0.00	0.000	0.000	0.000
Casing									
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.000	0.000	0.000
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.000	0.000	0.000
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.000	0.000	0.000
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.000	0.000	0.000
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.000	0.000	0.000
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.000	0.000	0.000
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.000	0.000	0.000
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.000	0.000	0.000
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.000	0.000	0.000
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.000	0.000	0.000
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.000	0.000	0.000
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.000	0.000	0.000
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.000	0.000	0.000
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.000	0.000	0.000
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.000	0.000	0.000
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.000	0.000	0.000
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.000	0.000	0.000
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.000	0.000	0.000
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.000	0.000	0.000
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.000	0.000	0.000
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.000	0.000	0.000
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.000	0.000	0.000
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.000	0.000	0.000
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.000	0.000	0.000
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.000	0.000	0.000
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.000	0.000	0.000
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.000	0.000	0.000
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.000	0.000	0.000
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.000	0.000	0.000
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.000	0.000	0.000
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.000	0.000	0.000
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.000	0.000	0.000
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.000	0.000	0.000

Survey Report

Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Well 36 St Com 2L #4H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	Well @ 3676.00usft (Assumed 20' KB)
Site:	Loco Dinero 36 State Com 2L #4H	MD Reference:	Well @ 3676.00usft (Assumed 20' KB)
Well:	36 St Com 2L #4H	North Reference:	Grid
Wellbore:	Planning	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1r0	Database:	EDMRESTORED

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.000	0.000	0.000
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.000	0.000	0.000
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.000	0.000	0.000
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.000	0.000	0.000
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.000	0.000	0.000
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.000	0.000	0.000
5,759.00	0.00	0.00	5,759.00	0.00	0.00	0.00	0.000	0.000	0.000
Casing									
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.000	0.000	0.000
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.000	0.000	0.000
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.000	0.000	0.000
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.000	0.000	0.000
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.000	0.000	0.000
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.000	0.000	0.000
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.000	0.000	0.000
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.000	0.000	0.000
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.000	0.000	0.000
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.000	0.000	0.000
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.000	0.000	0.000
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.000	0.000	0.000
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.000	0.000	0.000
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.000	0.000	0.000
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.000	0.000	0.000
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.000	0.000	0.000
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.000	0.000	0.000
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.000	0.000	0.000
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.000	0.000	0.000
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.000	0.000	0.000
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.000	0.000	0.000
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.000	0.000	0.000
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.000	0.000	0.000
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.000	0.000	0.000
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.000	0.000	0.000
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.000	0.000	0.000
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.000	0.000	0.000
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.000	0.000	0.000
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.000	0.000	0.000
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.000	0.000	0.000
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.000	0.000	0.000
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.000	0.000	0.000
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.000	0.000	0.000
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.000	0.000	0.000
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.000	0.000	0.000

Survey Report

Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Well 36 St Com 2L #4H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	Well @ 3676.00usft (Assumed 20' KB)
Site:	Loco Dinero 36 State Com 2L #4H	MD Reference:	Well @ 3676.00usft (Assumed 20' KB)
Well:	36 St Com 2L #4H	North Reference:	Grid
Wellbore:	Planning	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1r0	Database:	EDMRESTORED

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.000	0.000	0.000
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.000	0.000	0.000
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.000	0.000	0.000
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.000	0.000	0.000
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.000	0.000	0.000
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.000	0.000	0.000
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.000	0.000	0.000
10,000.00	0.00	0.00	10,000.00	0.00	0.00	0.00	0.000	0.000	0.000
10,100.00	0.00	0.00	10,100.00	0.00	0.00	0.00	0.000	0.000	0.000
10,200.00	0.00	0.00	10,200.00	0.00	0.00	0.00	0.000	0.000	0.000
10,300.00	0.00	0.00	10,300.00	0.00	0.00	0.00	0.000	0.000	0.000
10,317.04	0.00	0.00	10,317.04	0.00	0.00	0.00	0.000	0.000	0.000
KOP: 10°/100' @ 10317.04' MD									
10,350.00	3.30	179.54	10,349.98	-0.95	0.01	0.95	10.000	10.000	0.000
10,400.00	8.30	179.54	10,399.71	-6.00	0.05	6.00	10.000	10.000	0.000
10,450.00	13.30	179.54	10,448.81	-15.36	0.12	15.36	10.000	10.000	0.000
10,500.00	18.30	179.54	10,496.91	-28.96	0.23	28.96	10.000	10.000	0.000
10,550.00	23.30	179.54	10,543.63	-46.71	0.37	46.71	10.000	10.000	0.000
10,600.00	28.30	179.54	10,588.64	-68.46	0.55	68.46	10.000	10.000	0.000
10,650.00	33.30	179.54	10,631.57	-94.05	0.75	94.05	10.000	10.000	0.000
10,700.00	38.30	179.54	10,672.12	-123.29	0.99	123.29	10.000	10.000	0.000
10,750.00	43.30	179.54	10,709.96	-155.94	1.25	155.95	10.000	10.000	0.000
10,800.00	48.30	179.54	10,744.81	-191.77	1.54	191.78	10.000	10.000	0.000
10,850.00	53.30	179.54	10,776.40	-230.50	1.85	230.51	10.000	10.000	0.000
10,900.00	58.30	179.54	10,804.50	-271.84	2.18	271.85	10.000	10.000	0.000
10,950.00	63.30	179.54	10,828.89	-315.47	2.53	315.48	10.000	10.000	0.000
11,000.00	68.30	179.54	10,849.38	-361.06	2.89	361.07	10.000	10.000	0.000
11,050.00	73.30	179.54	10,865.82	-408.26	3.27	408.27	10.000	10.000	0.000
11,100.00	78.30	179.54	10,878.08	-456.72	3.66	456.73	10.000	10.000	0.000
11,150.00	83.30	179.54	10,886.08	-506.06	4.05	506.07	10.000	10.000	0.000
11,200.00	88.30	179.54	10,889.74	-555.90	4.45	555.92	10.000	10.000	0.000
11,217.04	90.00	179.54	10,890.00	-572.94	4.59	572.96	9.999	9.999	0.000
LP/Hold: 90.00° Inc, 179.54° Azm									
11,300.00	90.00	179.54	10,890.00	-655.90	5.25	655.92	0.000	0.000	0.000
11,400.00	90.00	179.54	10,890.00	-755.89	6.05	755.92	0.000	0.000	0.000
11,500.00	90.00	179.54	10,890.00	-855.89	6.85	855.92	0.000	0.000	0.000
11,600.00	90.00	179.54	10,890.00	-955.89	7.65	955.92	0.000	0.000	0.000
11,700.00	90.00	179.54	10,890.00	-1,055.88	8.45	1,055.92	0.000	0.000	0.000
11,800.00	90.00	179.54	10,890.00	-1,155.88	9.25	1,155.92	0.000	0.000	0.000
11,900.00	90.00	179.54	10,890.00	-1,255.88	10.05	1,255.92	0.000	0.000	0.000
12,000.00	90.00	179.54	10,890.00	-1,355.88	10.86	1,355.92	0.000	0.000	0.000
12,100.00	90.00	179.54	10,890.00	-1,455.87	11.66	1,455.92	0.000	0.000	0.000
12,200.00	90.00	179.54	10,890.00	-1,555.87	12.46	1,555.92	0.000	0.000	0.000
12,300.00	90.00	179.54	10,890.00	-1,655.87	13.26	1,655.92	0.000	0.000	0.000

Survey Report

Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Well 36 St Com 2L #4H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	Well @ 3676.00usft (Assumed 20' KB)
Site:	Loco Dinero 36 State Com 2L #4H	MD Reference:	Well @ 3676.00usft (Assumed 20' KB)
Well:	36 St Com 2L #4H	North Reference:	Grid
Wellbore:	Planning	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1r0	Database:	EDMRESTORED

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
12,400.00	90.00	179.54	10,890.00	-1,755.86	14.06	1,755.92	0.000	0.000	0.000
12,500.00	90.00	179.54	10,890.00	-1,855.86	14.86	1,855.92	0.000	0.000	0.000
12,600.00	90.00	179.54	10,890.00	-1,955.86	15.66	1,955.92	0.000	0.000	0.000
12,700.00	90.00	179.54	10,890.00	-2,055.85	16.46	2,055.92	0.000	0.000	0.000
12,800.00	90.00	179.54	10,890.00	-2,155.85	17.26	2,155.92	0.000	0.000	0.000
12,900.00	90.00	179.54	10,890.00	-2,255.85	18.06	2,255.92	0.000	0.000	0.000
13,000.00	90.00	179.54	10,890.00	-2,355.84	18.86	2,355.92	0.000	0.000	0.000
13,100.00	90.00	179.54	10,890.00	-2,455.84	19.66	2,455.92	0.000	0.000	0.000
13,200.00	90.00	179.54	10,890.00	-2,555.84	20.46	2,555.92	0.000	0.000	0.000
13,300.00	90.00	179.54	10,890.00	-2,655.83	21.26	2,655.92	0.000	0.000	0.000
13,400.00	90.00	179.54	10,890.00	-2,755.83	22.06	2,755.92	0.000	0.000	0.000
13,500.00	90.00	179.54	10,890.00	-2,855.83	22.86	2,855.92	0.000	0.000	0.000
13,600.00	90.00	179.54	10,890.00	-2,955.82	23.66	2,955.92	0.000	0.000	0.000
13,700.00	90.00	179.54	10,890.00	-3,055.82	24.46	3,055.92	0.000	0.000	0.000
13,800.00	90.00	179.54	10,890.00	-3,155.82	25.27	3,155.92	0.000	0.000	0.000
13,900.00	90.00	179.54	10,890.00	-3,255.81	26.07	3,255.92	0.000	0.000	0.000
14,000.00	90.00	179.54	10,890.00	-3,355.81	26.87	3,355.92	0.000	0.000	0.000
14,100.00	90.00	179.54	10,890.00	-3,455.81	27.67	3,455.92	0.000	0.000	0.000
14,200.00	90.00	179.54	10,890.00	-3,555.80	28.47	3,555.92	0.000	0.000	0.000
14,300.00	90.00	179.54	10,890.00	-3,655.80	29.27	3,655.92	0.000	0.000	0.000
14,400.00	90.00	179.54	10,890.00	-3,755.80	30.07	3,755.92	0.000	0.000	0.000
14,500.00	90.00	179.54	10,890.00	-3,855.79	30.87	3,855.92	0.000	0.000	0.000
14,600.00	90.00	179.54	10,890.00	-3,955.79	31.67	3,955.92	0.000	0.000	0.000
14,700.00	90.00	179.54	10,890.00	-4,055.79	32.47	4,055.92	0.000	0.000	0.000
14,800.00	90.00	179.54	10,890.00	-4,155.79	33.27	4,155.92	0.000	0.000	0.000
14,900.00	90.00	179.54	10,890.00	-4,255.78	34.07	4,255.92	0.000	0.000	0.000
15,000.00	90.00	179.54	10,890.00	-4,355.78	34.87	4,355.92	0.000	0.000	0.000
15,100.00	90.00	179.54	10,890.00	-4,455.78	35.67	4,455.92	0.000	0.000	0.000
15,200.00	90.00	179.54	10,890.00	-4,555.77	36.47	4,555.92	0.000	0.000	0.000
15,300.00	90.00	179.54	10,890.00	-4,655.77	37.27	4,655.92	0.000	0.000	0.000
15,400.00	90.00	179.54	10,890.00	-4,755.77	38.07	4,755.92	0.000	0.000	0.000
15,500.00	90.00	179.54	10,890.00	-4,855.76	38.88	4,855.92	0.000	0.000	0.000
15,600.00	90.00	179.54	10,890.00	-4,955.76	39.68	4,955.92	0.000	0.000	0.000
15,702.94	90.00	179.54	10,890.00	-5,058.70	40.50	5,058.86	0.000	0.000	0.000
TD @ 15702.94' MD/10890.00' TVD									

Survey Report

Company:	Marshall & Winston, Inc.	Local Co-ordinate Reference:	Well 36 St Com 2L #4H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	Well @ 3676.00usft (Assumed 20' KB)
Site:	Loco Dinero 36 State Com 2L #4H	MD Reference:	Well @ 3676.00usft (Assumed 20' KB)
Well:	36 St Com 2L #4H	North Reference:	Grid
Wellbore:	Planning	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1r0	Database:	EDMRESTORED

Design Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP - Loco Dinero 36	0.00	0.01	10,890.0 0	-302.00	2.20	525,183.70	788,087.80	32° 26' 28.519 N	103° 32' 0.567 W
- plan misses target center by 60.85usft at 10962.77usft MD (10834.50 TVD, -326.94 N, 2.62 E)									
- Point									
LTP -Loco Dinero 36	0.00	0.00	10,890.0 0	-5,018.70	40.20	520,467.00	788,125.80	32° 25' 41.846 N	103° 32' 0.536 W
- plan misses target center by 0.02usft at 15662.94usft MD (10890.00 TVD, -5018.70 N, 40.18 E)									
- Point									
PBHL - Loco Dinero 3	0.00	0.00	10,890.0 0	-5,058.70	40.50	520,427.00	788,126.10	32° 25' 41.450 N	103° 32' 0.536 W
- plan hits target center									
- Point									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,875.00	1,875.00	Casing	13-3/8	17-1/2
5,759.00	5,759.00	Casing	9-5/8	12-1/4

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,317	10,317	0	0	KOP: 10°/100' @ 10317.04' MD
11,217	10,890	-573	5	LP/Hold: 90.00° Inc, 179.54° Azm
15,703	10,890	-5059	41	TD @ 15702.94' MD/10890.00' TVD

Checked By: _____ Approved By: _____ Date: _____