

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 273135

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

1. Operator Name and Address MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240		2. OGRID Number 228937
4. Property Code 326212		3. API Number 30-015-46380
5. Property Name JACK SLEEPER COM 9 16 23S 28E		6. Well No. 121H

7. Surface Location

UL - Lot	M	Section	4	Township	23S	Range	28E	Lot Idn		Feet From	197	N/S Line	S	Feet From	236	E/W Line	W	County	Eddy
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8. Proposed Bottom Hole Location

UL - Lot	M	Section	16	Township	23S	Range	28E	Lot Idn	M	Feet From	60	N/S Line	S	Feet From	660	E/W Line	W	County	Eddy
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9. Pool Information

CULEBRA BLUFF;BONE SPRING, SOUTH	15011
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Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3013
16. Multiple N	17. Proposed Depth 18476	18. Formation Bone Spring	19. Contractor	20. Spud Date 3/9/2021
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	400	500	0
Int1	12.25	9.625	40	2500	1035	0
Prod	8.75	5.5	20	18476	3500	1500

Casing/Cement Program: Additional Comments

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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	3000	Cameron
Double Ram	10000	5000	Cameron
Pipe	10000	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. Signature:	OIL CONSERVATION DIVISION
Printed Name: Electronically filed by Ava Monroe	Approved By: Raymond Podany
Title: Sr. Regulatory Analyst	Title: Geologist
Email Address: amonroe@matadorresources.com	Approved Date: 10/17/2019 Expiration Date: 10/17/2021
Date: 10/8/2019 Phone: 972-371-5218	Conditions of Approval Attached

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code 15011	³ Pool Name Culebra Bluff, Bone Spring, South
⁴ Property Code	⁵ Property Name JACK SLEEPER COM 9 & 16-23S-28E	⁶ Well Number 121H
⁷ GRID No. 228937	⁸ Operator Name MATADOR PRODUCTION COMPANY	⁹ Elevation 3013'

¹⁰Surface Location

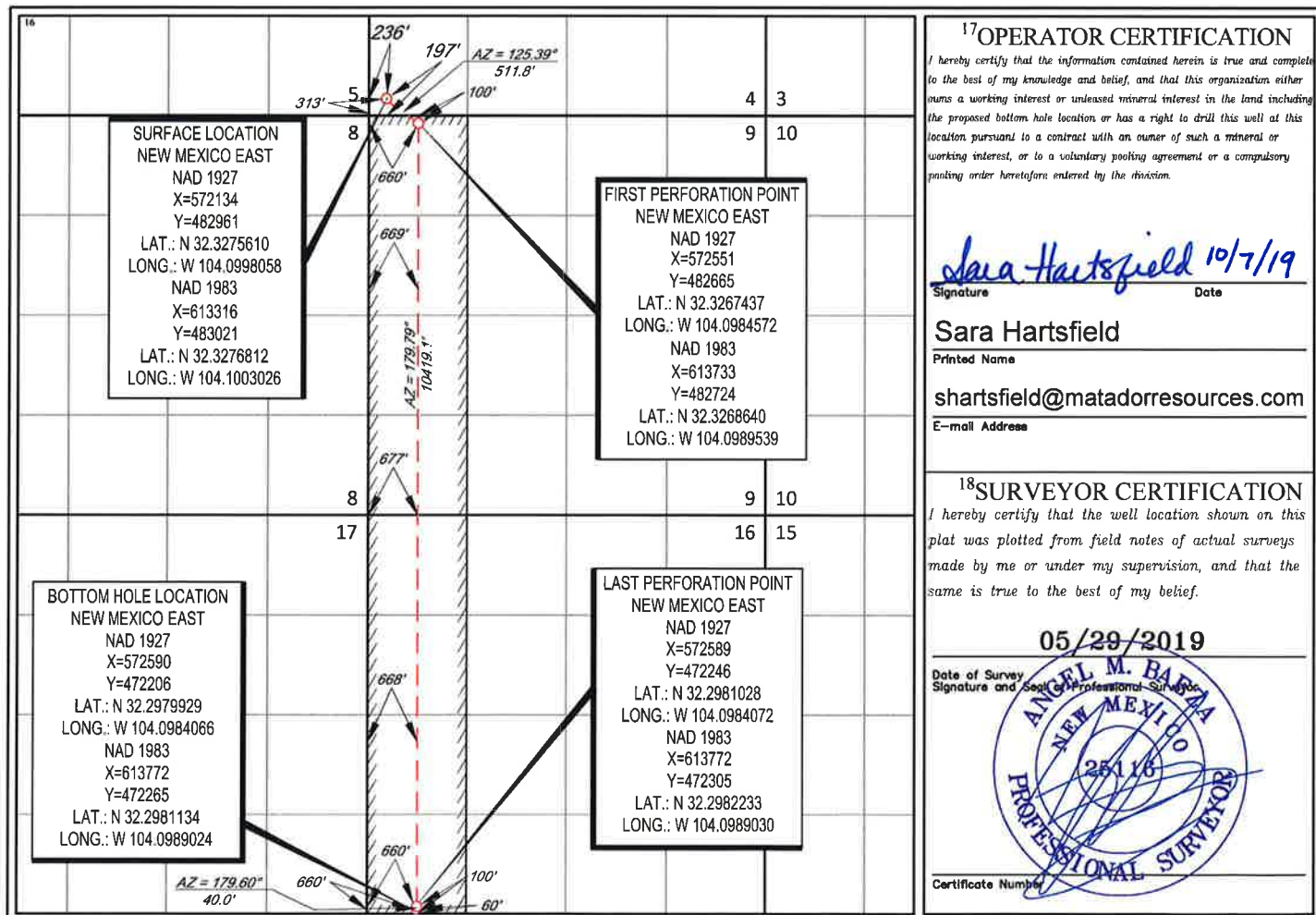
UL or lot no. M	Section 4	Township 23-S	Range 28-E	Lot Idn -	Feet from the 197'	North/South line SOUTH	Feet from the 236'	East/West line WEST	County EDDY
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¹¹Bottom Hole Location If Different From Surface

UL or lot no. M	Section 16	Township 23-S	Range 28-E	Lot Idn -	Feet from the 60'	North/South line SOUTH	Feet from the 660'	East/West line WEST	County EDDY
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¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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.



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

GAS CAPTURE PLAN

Date: 10/17/2019

☒ Original

Operator & OGRID No.: [228937] MATADOR PRODUCTION COMPANY

☐ 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, recomplete 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
JACK SLEEPER COM 9 16 23S 28E #121H	30-015-46380	M-4-23S-28E	0197S 0236W	5	Flared	Flare ~30 days on flowback before turn into TB. Time est. depends on sales connect and well cleanup.

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 LONGWOOD MIDSTREAM DELAWARE, LLC and will be connected to LONGWOOD MIDSTREAM DELAWARE, LLC High Pressure gathering system located in Eddy County, New Mexico. It will require 18480' of pipeline to connect the facility to High Pressure gathering system. MATADOR PRODUCTION COMPANY provides (periodically) to LONGWOOD MIDSTREAM DELAWARE, LLC a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, MATADOR PRODUCTION COMPANY and LONGWOOD MIDSTREAM DELAWARE, LLC have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at LONGWOOD MIDSTREAM DELAWARE, LLC Processing Plant located in Sec. 31, Twn. 23S, Rng. 28E, Eddy 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 LONGWOOD MIDSTREAM DELAWARE, LLC system at that time. Based on current information, it is MATADOR PRODUCTION COMPANY'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

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Form APD Comments

Permit 273135

PERMIT COMMENTS

Operator Name and Address: MATADOR PRODUCTION COMPANY [228937] One Lincoln Centre Dallas, TX 75240		API Number: 30-015-46380
		Well: JACK SLEEPER COM 9 16 23S 28E #121H

Created By	Comment	Comment Date
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Form APD Conditions

Permit 273135

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:		API Number:
MATADOR PRODUCTION COMPANY [228937]		30-015-46380
One Lincoln Centre		Well:
Dallas, TX 75240		JACK SLEEPER COM 9 16 23S 28E #121H
OCD Reviewer	Condition	
rpodany	Will require a directional survey with the C-104	
rpodany	Cement is required to circulate on both surface and intermediate1 strings of casing	

Matador Resources

Eddy County, NM (NAD27)

Jack Sleeper Com 9&16-23-28E

#121H

OH

Plan: Prelim A

Standard Planning Report

03 October, 2019

Pro Directional Planning Report

Database:	WellPlanner1	Local Co-ordinate Reference:	Well #121H
Company:	Matador Resources	TVD Reference:	3013 + 28.5 = KB @ 3041.50usft (Rig)
Project:	Eddy County, NM (NAD27)	MD Reference:	3013 + 28.5 = KB @ 3041.50usft (Rig)
Site:	Jack Sleeper Com 9&16-23-28E	North Reference:	Grid
Well:	#121H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim A		

Project	Eddy County, NM (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	Jack Sleeper Com 9&16-23-28E				
Site Position:		Northing:	482,961.00 usft	Latitude:	32.327560
From:	Map	Easting:	572,054.00 usft	Longitude:	-104.100065
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.12 °

Well	#121H					
Well Position	+N/-S	0.00 usft	Northing:	482,961.00 usft	Latitude:	32.327560
	+E/-W	80.00 usft	Easting:	572,134.00 usft	Longitude:	-104.099806
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	3,013.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	10/31/2019	7.12	60.03	47,865.20

Design	Prelim A			
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	179.79

Plan Survey Tool Program	Date	10/3/2019		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	18,476.01	Prelim A (OH)	MWD+HDGM OWSG MWD + HRGM

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,200.20	7.00	56.06	2,198.46	23.86	35.45	1.00	1.00	0.00	56.06	
4,186.92	7.00	56.06	4,170.36	159.09	236.37	0.00	0.00	0.00	0.00	
4,653.72	0.00	0.00	4,636.00	175.00	260.00	1.50	-1.50	0.00	180.00	
7,307.52	0.00	0.00	7,289.80	175.00	260.00	0.00	0.00	0.00	0.00	
8,432.52	90.00	187.70	8,006.00	-534.74	164.04	8.00	8.00	0.00	187.70	
8,828.14	90.00	179.79	8,006.00	-929.20	138.23	2.00	0.00	-2.00	-90.00	
18,476.01	90.00	179.79	8,006.00	-10,577.00	174.00	0.00	0.00	0.00	0.00	BHL 50' E (Jack S.

Pro Directional Planning Report

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Company:	Matador Resources	TVD Reference:	3013 + 28.5 = KB @ 3041.50usft (Rig)
Project:	Eddy County, NM (NAD27)	MD Reference:	3013 + 28.5 = KB @ 3041.50usft (Rig)
Site:	Jack Sleeper Com 9&16-23-28E	North Reference:	Grid
Well:	#121H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim A		

Planned 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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
93.15	0.00	0.00	93.15	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
337.73	0.00	0.00	337.73	0.00	0.00	0.00	0.00	0.00	0.00
Salado (TOP SALT)									
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
989.12	0.00	0.00	989.12	0.00	0.00	0.00	0.00	0.00	0.00
Castile (T)									
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 1.00									
1,600.00	1.00	56.06	1,599.99	0.49	0.72	-0.48	1.00	1.00	0.00
1,700.00	2.00	56.06	1,699.96	1.95	2.90	-1.94	1.00	1.00	0.00
1,800.00	3.00	56.06	1,799.86	4.38	6.51	-4.36	1.00	1.00	0.00
1,900.00	4.00	56.06	1,899.68	7.79	11.58	-7.75	1.00	1.00	0.00
2,000.00	5.00	56.06	1,999.37	12.17	18.09	-12.11	1.00	1.00	0.00
2,100.00	6.00	56.06	2,098.90	17.53	26.04	-17.43	1.00	1.00	0.00
2,200.20	7.00	56.06	2,198.46	23.86	35.45	-23.73	1.00	1.00	0.00
2,300.00	7.00	56.06	2,297.51	30.65	45.54	-30.49	0.00	0.00	0.00
2,400.00	7.00	56.06	2,396.77	37.46	55.66	-37.26	0.00	0.00	0.00
2,485.77	7.00	56.06	2,481.90	43.30	64.33	-43.06	0.00	0.00	0.00
G30:CS14-CSB (BASE SALT)									
2,500.00	7.00	56.06	2,496.02	44.27	65.77	-44.03	0.00	0.00	0.00
2,533.05	7.00	56.06	2,528.83	46.52	69.11	-46.26	0.00	0.00	0.00
G26: Bell Cyn.									
2,600.00	7.00	56.06	2,595.28	51.07	75.88	-50.80	0.00	0.00	0.00
2,700.00	7.00	56.06	2,694.53	57.88	85.99	-57.57	0.00	0.00	0.00
2,800.00	7.00	56.06	2,793.79	64.69	96.11	-64.34	0.00	0.00	0.00
2,900.00	7.00	56.06	2,893.04	71.49	106.22	-71.10	0.00	0.00	0.00
3,000.00	7.00	56.06	2,992.29	78.30	116.33	-77.87	0.00	0.00	0.00
3,100.00	7.00	56.06	3,091.55	85.11	126.45	-84.64	0.00	0.00	0.00
3,200.00	7.00	56.06	3,190.80	91.92	136.56	-91.41	0.00	0.00	0.00
3,300.00	7.00	56.06	3,290.06	98.72	146.67	-98.18	0.00	0.00	0.00
3,400.00	7.00	56.06	3,389.31	105.53	156.79	-104.95	0.00	0.00	0.00
3,405.20	7.00	56.06	3,394.47	105.88	157.31	-105.31	0.00	0.00	0.00
G13: Cherry Cyn.									
3,500.00	7.00	56.06	3,488.56	112.34	166.90	-111.72	0.00	0.00	0.00
3,600.00	7.00	56.06	3,587.82	119.14	177.01	-118.49	0.00	0.00	0.00
3,700.00	7.00	56.06	3,687.07	125.95	187.12	-125.26	0.00	0.00	0.00
3,800.00	7.00	56.06	3,786.33	132.76	197.24	-132.03	0.00	0.00	0.00
3,900.00	7.00	56.06	3,885.58	139.56	207.35	-138.80	0.00	0.00	0.00

Pro Directional Planning Report

Database:	WellPlanner1	Local Co-ordinate Reference:	Well #121H
Company:	Matador Resources	TVD Reference:	3013 + 28.5 = KB @ 3041.50usft (Rig)
Project:	Eddy County, NM (NAD27)	MD Reference:	3013 + 28.5 = KB @ 3041.50usft (Rig)
Site:	Jack Sleeper Com 9&16-23-28E	North Reference:	Grid
Well:	#121H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim A		

Planned 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)
4,000.00	7.00	56.06	3,984.84	146.37	217.46	-145.57	0.00	0.00	0.00
4,100.00	7.00	56.06	4,084.09	153.18	227.58	-152.34	0.00	0.00	0.00
4,186.92	7.00	56.06	4,170.36	159.09	236.37	-158.23	0.00	0.00	0.00
Start Drop -1.50									
4,200.00	6.81	56.06	4,183.35	159.97	237.67	-159.10	1.50	-1.50	0.00
4,300.00	5.31	56.06	4,282.79	165.86	246.42	-164.96	1.50	-1.50	0.00
4,400.00	3.81	56.06	4,382.47	170.30	253.01	-169.37	1.50	-1.50	0.00
4,500.00	2.31	56.06	4,482.32	173.27	257.43	-172.33	1.50	-1.50	0.00
4,538.89	1.72	56.06	4,521.19	174.04	258.57	-173.09	1.50	-1.50	0.00
G7: Brushy Cyn.									
4,600.00	0.81	56.06	4,582.28	174.79	259.69	-173.84	1.50	-1.50	0.00
4,653.72	0.00	0.00	4,636.00	175.00	260.00	-174.05	1.50	-1.50	0.00
4,700.00	0.00	0.00	4,682.28	175.00	260.00	-174.05	0.00	0.00	0.00
4,800.00	0.00	0.00	4,782.28	175.00	260.00	-174.05	0.00	0.00	0.00
4,900.00	0.00	0.00	4,882.28	175.00	260.00	-174.05	0.00	0.00	0.00
5,000.00	0.00	0.00	4,982.28	175.00	260.00	-174.05	0.00	0.00	0.00
5,100.00	0.00	0.00	5,082.28	175.00	260.00	-174.05	0.00	0.00	0.00
5,200.00	0.00	0.00	5,182.28	175.00	260.00	-174.05	0.00	0.00	0.00
5,300.00	0.00	0.00	5,282.28	175.00	260.00	-174.05	0.00	0.00	0.00
5,400.00	0.00	0.00	5,382.28	175.00	260.00	-174.05	0.00	0.00	0.00
5,500.00	0.00	0.00	5,482.28	175.00	260.00	-174.05	0.00	0.00	0.00
5,600.00	0.00	0.00	5,582.28	175.00	260.00	-174.05	0.00	0.00	0.00
5,700.00	0.00	0.00	5,682.28	175.00	260.00	-174.05	0.00	0.00	0.00
5,800.00	0.00	0.00	5,782.28	175.00	260.00	-174.05	0.00	0.00	0.00
5,900.00	0.00	0.00	5,882.28	175.00	260.00	-174.05	0.00	0.00	0.00
6,000.00	0.00	0.00	5,982.28	175.00	260.00	-174.05	0.00	0.00	0.00
6,090.96	0.00	0.00	6,073.24	175.00	260.00	-174.05	0.00	0.00	0.00
G4: BSGI (CS9)									
6,100.00	0.00	0.00	6,082.28	175.00	260.00	-174.05	0.00	0.00	0.00
6,200.00	0.00	0.00	6,182.28	175.00	260.00	-174.05	0.00	0.00	0.00
6,285.96	0.00	0.00	6,268.24	175.00	260.00	-174.05	0.00	0.00	0.00
L8.2: U. Avalon Shale									
6,300.00	0.00	0.00	6,282.28	175.00	260.00	-174.05	0.00	0.00	0.00
6,400.00	0.00	0.00	6,382.28	175.00	260.00	-174.05	0.00	0.00	0.00
6,450.32	0.00	0.00	6,432.60	175.00	260.00	-174.05	0.00	0.00	0.00
L6.3: Avalon Carb									
6,500.00	0.00	0.00	6,482.28	175.00	260.00	-174.05	0.00	0.00	0.00
6,600.00	0.00	0.00	6,582.28	175.00	260.00	-174.05	0.00	0.00	0.00
6,622.44	0.00	0.00	6,604.72	175.00	260.00	-174.05	0.00	0.00	0.00
L6.2: L. Avalon Shale									
6,700.00	0.00	0.00	6,682.28	175.00	260.00	-174.05	0.00	0.00	0.00
6,768.77	0.00	0.00	6,751.05	175.00	260.00	-174.05	0.00	0.00	0.00
L5.3: FBSC									
6,800.00	0.00	0.00	6,782.28	175.00	260.00	-174.05	0.00	0.00	0.00
6,900.00	0.00	0.00	6,882.28	175.00	260.00	-174.05	0.00	0.00	0.00
7,000.00	0.00	0.00	6,982.28	175.00	260.00	-174.05	0.00	0.00	0.00
7,028.56	0.00	0.00	7,010.84	175.00	260.00	-174.05	0.00	0.00	0.00
L5.1: FBSC									
7,100.00	0.00	0.00	7,082.28	175.00	260.00	-174.05	0.00	0.00	0.00
7,200.00	0.00	0.00	7,182.28	175.00	260.00	-174.05	0.00	0.00	0.00
7,296.63	0.00	0.00	7,278.91	175.00	260.00	-174.05	0.00	0.00	0.00
L4.3: SBSC									
7,307.52	0.00	0.00	7,289.80	175.00	260.00	-174.05	0.00	0.00	0.00

Pro Directional Planning Report

Database:	WellPlanner1	Local Co-ordinate Reference:	Well #121H
Company:	Matador Resources	TVD Reference:	3013 + 28.5 = KB @ 3041.50usft (Rig)
Project:	Eddy County, NM (NAD27)	MD Reference:	3013 + 28.5 = KB @ 3041.50usft (Rig)
Site:	Jack Sleeper Com 9&16-23-28E	North Reference:	Grid
Well:	#121H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim A		

Planned 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)
KOP: Build 8.00									
7,350.00	3.40	187.70	7,332.26	173.75	259.83	-172.80	8.00	8.00	0.00
7,400.00	7.40	187.70	7,382.02	169.09	259.20	-168.14	8.00	8.00	0.00
7,450.00	11.40	187.70	7,431.34	161.00	258.11	-160.05	8.00	8.00	0.00
7,500.00	15.40	187.70	7,479.97	149.52	256.56	-148.58	8.00	8.00	0.00
7,550.00	19.40	187.70	7,527.67	134.71	254.55	-133.78	8.00	8.00	0.00
7,600.00	23.40	187.70	7,574.22	116.64	252.11	-115.71	8.00	8.00	0.00
7,650.00	27.40	187.70	7,619.38	95.39	249.24	-94.47	8.00	8.00	0.00
7,700.00	31.40	187.70	7,662.93	71.07	245.95	-70.17	8.00	8.00	0.00
7,750.00	35.40	187.70	7,704.66	43.80	242.26	-42.91	8.00	8.00	0.00
7,800.00	39.40	187.70	7,744.38	13.71	238.19	-12.84	8.00	8.00	0.00
7,845.64	43.05	187.70	7,778.70	-16.09	234.16	16.95	8.00	8.00	0.00
L4.1: SBSG									
7,850.00	43.40	187.70	7,781.88	-19.05	233.76	19.90	8.00	8.00	0.00
7,900.00	47.40	187.70	7,816.98	-54.32	228.99	55.16	8.00	8.00	0.00
7,950.00	51.40	187.70	7,849.51	-91.93	223.91	92.75	8.00	8.00	0.00
8,000.00	55.40	187.70	7,879.32	-131.70	218.53	132.50	8.00	8.00	0.00
8,050.00	59.40	187.70	7,906.25	-173.44	212.89	174.21	8.00	8.00	0.00
8,100.00	63.40	187.70	7,930.18	-216.93	207.01	217.69	8.00	8.00	0.00
8,150.00	67.40	187.70	7,950.99	-261.97	200.92	262.71	8.00	8.00	0.00
8,200.00	71.40	187.70	7,968.58	-308.34	194.65	309.05	8.00	8.00	0.00
8,250.00	75.40	187.70	7,982.87	-355.82	188.23	356.50	8.00	8.00	0.00
8,300.00	79.40	187.70	7,993.77	-404.16	181.69	404.83	8.00	8.00	0.00
8,350.00	83.40	187.70	8,001.25	-453.14	175.07	453.78	8.00	8.00	0.00
8,400.00	87.40	187.70	8,005.26	-502.52	168.40	503.14	8.00	8.00	0.00
8,432.52	90.00	187.70	8,006.00	-534.74	164.04	535.34	8.00	8.00	0.00
Land: DLS 2.00 TFO -90.00									
8,500.00	90.00	186.35	8,006.00	-601.71	155.79	602.28	2.00	0.00	-2.00
8,600.00	90.00	184.35	8,006.00	-701.27	146.46	701.80	2.00	0.00	-2.00
8,700.00	90.00	182.35	8,006.00	-801.09	140.62	801.60	2.00	0.00	-2.00
8,800.00	90.00	180.35	8,006.00	-901.06	138.26	901.56	2.00	0.00	-2.00
8,828.14	90.00	179.79	8,006.00	-929.20	138.23	929.70	2.00	0.00	-2.00
8,900.00	90.00	179.79	8,006.00	-1,001.06	138.49	1,001.56	0.00	0.00	0.00
9,000.00	90.00	179.79	8,006.00	-1,101.06	138.87	1,101.56	0.00	0.00	0.00
9,100.00	90.00	179.79	8,006.00	-1,201.06	139.24	1,201.56	0.00	0.00	0.00
9,200.00	90.00	179.79	8,006.00	-1,301.06	139.61	1,301.56	0.00	0.00	0.00
9,300.00	90.00	179.79	8,006.00	-1,401.06	139.98	1,401.56	0.00	0.00	0.00
9,400.00	90.00	179.79	8,006.00	-1,501.06	140.35	1,501.56	0.00	0.00	0.00
9,500.00	90.00	179.79	8,006.00	-1,601.06	140.72	1,601.56	0.00	0.00	0.00
9,600.00	90.00	179.79	8,006.00	-1,701.06	141.09	1,701.56	0.00	0.00	0.00
9,700.00	90.00	179.79	8,006.00	-1,801.06	141.46	1,801.56	0.00	0.00	0.00
9,800.00	90.00	179.79	8,006.00	-1,901.06	141.83	1,901.56	0.00	0.00	0.00
9,900.00	90.00	179.79	8,006.00	-2,001.05	142.20	2,001.56	0.00	0.00	0.00
10,000.00	90.00	179.79	8,006.00	-2,101.05	142.57	2,101.56	0.00	0.00	0.00
10,100.00	90.00	179.79	8,006.00	-2,201.05	142.94	2,201.56	0.00	0.00	0.00
10,200.00	90.00	179.79	8,006.00	-2,301.05	143.31	2,301.56	0.00	0.00	0.00
10,300.00	90.00	179.79	8,006.00	-2,401.05	143.69	2,401.56	0.00	0.00	0.00
10,400.00	90.00	179.79	8,006.00	-2,501.05	144.06	2,501.56	0.00	0.00	0.00
10,500.00	90.00	179.79	8,006.00	-2,601.05	144.43	2,601.56	0.00	0.00	0.00
10,600.00	90.00	179.79	8,006.00	-2,701.05	144.80	2,701.56	0.00	0.00	0.00
10,700.00	90.00	179.79	8,006.00	-2,801.05	145.17	2,801.56	0.00	0.00	0.00
10,800.00	90.00	179.79	8,006.00	-2,901.05	145.54	2,901.56	0.00	0.00	0.00
10,900.00	90.00	179.79	8,006.00	-3,001.05	145.91	3,001.56	0.00	0.00	0.00

Pro Directional Planning Report

Database:	WellPlanner1	Local Co-ordinate Reference:	Well #121H
Company:	Matador Resources	TVD Reference:	3013 + 28.5 = KB @ 3041.50usft (Rig)
Project:	Eddy County, NM (NAD27)	MD Reference:	3013 + 28.5 = KB @ 3041.50usft (Rig)
Site:	Jack Sleeper Com 9&16-23-28E	North Reference:	Grid
Well:	#121H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim A		

Planned 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)
11,000.00	90.00	179.79	8,006.00	-3,101.05	146.28	3,101.56	0.00	0.00	0.00
11,100.00	90.00	179.79	8,006.00	-3,201.05	146.65	3,201.56	0.00	0.00	0.00
11,200.00	90.00	179.79	8,006.00	-3,301.05	147.02	3,301.56	0.00	0.00	0.00
11,300.00	90.00	179.79	8,006.00	-3,401.04	147.39	3,401.56	0.00	0.00	0.00
11,400.00	90.00	179.79	8,006.00	-3,501.04	147.76	3,501.56	0.00	0.00	0.00
11,500.00	90.00	179.79	8,006.00	-3,601.04	148.13	3,601.56	0.00	0.00	0.00
11,600.00	90.00	179.79	8,006.00	-3,701.04	148.51	3,701.56	0.00	0.00	0.00
11,700.00	90.00	179.79	8,006.00	-3,801.04	148.88	3,801.56	0.00	0.00	0.00
11,800.00	90.00	179.79	8,006.00	-3,901.04	149.25	3,901.56	0.00	0.00	0.00
11,900.00	90.00	179.79	8,006.00	-4,001.04	149.62	4,001.56	0.00	0.00	0.00
12,000.00	90.00	179.79	8,006.00	-4,101.04	149.99	4,101.56	0.00	0.00	0.00
12,100.00	90.00	179.79	8,006.00	-4,201.04	150.36	4,201.56	0.00	0.00	0.00
12,200.00	90.00	179.79	8,006.00	-4,301.04	150.73	4,301.56	0.00	0.00	0.00
12,300.00	90.00	179.79	8,006.00	-4,401.04	151.10	4,401.56	0.00	0.00	0.00
12,400.00	90.00	179.79	8,006.00	-4,501.04	151.47	4,501.56	0.00	0.00	0.00
12,500.00	90.00	179.79	8,006.00	-4,601.04	151.84	4,601.56	0.00	0.00	0.00
12,600.00	90.00	179.79	8,006.00	-4,701.04	152.21	4,701.56	0.00	0.00	0.00
12,700.00	90.00	179.79	8,006.00	-4,801.04	152.58	4,801.56	0.00	0.00	0.00
12,800.00	90.00	179.79	8,006.00	-4,901.03	152.95	4,901.56	0.00	0.00	0.00
12,900.00	90.00	179.79	8,006.00	-5,001.03	153.33	5,001.56	0.00	0.00	0.00
13,000.00	90.00	179.79	8,006.00	-5,101.03	153.70	5,101.56	0.00	0.00	0.00
13,100.00	90.00	179.79	8,006.00	-5,201.03	154.07	5,201.56	0.00	0.00	0.00
13,200.00	90.00	179.79	8,006.00	-5,301.03	154.44	5,301.56	0.00	0.00	0.00
13,300.00	90.00	179.79	8,006.00	-5,401.03	154.81	5,401.56	0.00	0.00	0.00
13,400.00	90.00	179.79	8,006.00	-5,501.03	155.18	5,501.56	0.00	0.00	0.00
13,500.00	90.00	179.79	8,006.00	-5,601.03	155.55	5,601.56	0.00	0.00	0.00
13,600.00	90.00	179.79	8,006.00	-5,701.03	155.92	5,701.56	0.00	0.00	0.00
13,700.00	90.00	179.79	8,006.00	-5,801.03	156.29	5,801.56	0.00	0.00	0.00
13,800.00	90.00	179.79	8,006.00	-5,901.03	156.66	5,901.56	0.00	0.00	0.00
13,900.00	90.00	179.79	8,006.00	-6,001.03	157.03	6,001.56	0.00	0.00	0.00
14,000.00	90.00	179.79	8,006.00	-6,101.03	157.40	6,101.56	0.00	0.00	0.00
14,100.00	90.00	179.79	8,006.00	-6,201.03	157.77	6,201.56	0.00	0.00	0.00
14,200.00	90.00	179.79	8,006.00	-6,301.02	158.15	6,301.56	0.00	0.00	0.00
14,300.00	90.00	179.79	8,006.00	-6,401.02	158.52	6,401.56	0.00	0.00	0.00
14,400.00	90.00	179.79	8,006.00	-6,501.02	158.89	6,501.56	0.00	0.00	0.00
14,500.00	90.00	179.79	8,006.00	-6,601.02	159.26	6,601.56	0.00	0.00	0.00
14,600.00	90.00	179.79	8,006.00	-6,701.02	159.63	6,701.56	0.00	0.00	0.00
14,700.00	90.00	179.79	8,006.00	-6,801.02	160.00	6,801.56	0.00	0.00	0.00
14,800.00	90.00	179.79	8,006.00	-6,901.02	160.37	6,901.56	0.00	0.00	0.00
14,900.00	90.00	179.79	8,006.00	-7,001.02	160.74	7,001.56	0.00	0.00	0.00
15,000.00	90.00	179.79	8,006.00	-7,101.02	161.11	7,101.56	0.00	0.00	0.00
15,100.00	90.00	179.79	8,006.00	-7,201.02	161.48	7,201.56	0.00	0.00	0.00
15,200.00	90.00	179.79	8,006.00	-7,301.02	161.85	7,301.56	0.00	0.00	0.00
15,300.00	90.00	179.79	8,006.00	-7,401.02	162.22	7,401.56	0.00	0.00	0.00
15,400.00	90.00	179.79	8,006.00	-7,501.02	162.59	7,501.56	0.00	0.00	0.00
15,500.00	90.00	179.79	8,006.00	-7,601.02	162.97	7,601.56	0.00	0.00	0.00
15,600.00	90.00	179.79	8,006.00	-7,701.02	163.34	7,701.56	0.00	0.00	0.00
15,700.00	90.00	179.79	8,006.00	-7,801.01	163.71	7,801.56	0.00	0.00	0.00
15,800.00	90.00	179.79	8,006.00	-7,901.01	164.08	7,901.56	0.00	0.00	0.00
15,900.00	90.00	179.79	8,006.00	-8,001.01	164.45	8,001.56	0.00	0.00	0.00
16,000.00	90.00	179.79	8,006.00	-8,101.01	164.82	8,101.56	0.00	0.00	0.00
16,100.00	90.00	179.79	8,006.00	-8,201.01	165.19	8,201.56	0.00	0.00	0.00
16,200.00	90.00	179.79	8,006.00	-8,301.01	165.56	8,301.56	0.00	0.00	0.00
16,300.00	90.00	179.79	8,006.00	-8,401.01	165.93	8,401.56	0.00	0.00	0.00

Pro Directional Planning Report

Database:	WellPlanner1	Local Co-ordinate Reference:	Well #121H
Company:	Matador Resources	TVD Reference:	3013 + 28.5 = KB @ 3041.50usft (Rig)
Project:	Eddy County, NM (NAD27)	MD Reference:	3013 + 28.5 = KB @ 3041.50usft (Rig)
Site:	Jack Sleeper Com 9&16-23-28E	North Reference:	Grid
Well:	#121H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim A		

Planned 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)
16,400.00	90.00	179.79	8,006.00	-8,501.01	166.30	8,501.56	0.00	0.00	0.00
16,500.00	90.00	179.79	8,006.00	-8,601.01	166.67	8,601.56	0.00	0.00	0.00
16,600.00	90.00	179.79	8,006.00	-8,701.01	167.04	8,701.56	0.00	0.00	0.00
16,700.00	90.00	179.79	8,006.00	-8,801.01	167.41	8,801.56	0.00	0.00	0.00
16,800.00	90.00	179.79	8,006.00	-8,901.01	167.79	8,901.56	0.00	0.00	0.00
16,900.00	90.00	179.79	8,006.00	-9,001.01	168.16	9,001.56	0.00	0.00	0.00
17,000.00	90.00	179.79	8,006.00	-9,101.01	168.53	9,101.56	0.00	0.00	0.00
17,100.00	90.00	179.79	8,006.00	-9,201.01	168.90	9,201.56	0.00	0.00	0.00
17,200.00	90.00	179.79	8,006.00	-9,301.00	169.27	9,301.56	0.00	0.00	0.00
17,300.00	90.00	179.79	8,006.00	-9,401.00	169.64	9,401.56	0.00	0.00	0.00
17,400.00	90.00	179.79	8,006.00	-9,501.00	170.01	9,501.56	0.00	0.00	0.00
17,500.00	90.00	179.79	8,006.00	-9,601.00	170.38	9,601.56	0.00	0.00	0.00
17,600.00	90.00	179.79	8,006.00	-9,701.00	170.75	9,701.56	0.00	0.00	0.00
17,700.00	90.00	179.79	8,006.00	-9,801.00	171.12	9,801.56	0.00	0.00	0.00
17,800.00	90.00	179.79	8,006.00	-9,901.00	171.49	9,901.56	0.00	0.00	0.00
17,900.00	90.00	179.79	8,006.00	-10,001.00	171.86	10,001.56	0.00	0.00	0.00
18,000.00	90.00	179.79	8,006.00	-10,101.00	172.24	10,101.56	0.00	0.00	0.00
18,100.00	90.00	179.79	8,006.00	-10,201.00	172.61	10,201.56	0.00	0.00	0.00
18,200.00	90.00	179.79	8,006.00	-10,301.00	172.98	10,301.56	0.00	0.00	0.00
18,300.00	90.00	179.79	8,006.00	-10,401.00	173.35	10,401.56	0.00	0.00	0.00
18,400.00	90.00	179.79	8,006.00	-10,501.00	173.72	10,501.56	0.00	0.00	0.00
18,476.00	90.00	179.79	8,006.00	-10,577.00	174.00	10,577.56	0.00	0.00	0.00
TD at 18476.00									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
FPP 50' E (Jack S. #1	0.00	0.00	0.00	-526.00	137.00	482,435.00	572,271.00	32.326113	-104.099366
- plan misses target center by 543.55usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									
BHL 50' E (Jack S. #1	0.00	0.00	8,006.00	-10,577.00	174.00	472,384.00	572,308.00	32.298483	-104.099317
- plan hits target center									
- Point									

Pro Directional

Planning Report

Database:	WellPlanner1	Local Co-ordinate Reference:	Well #121H
Company:	Matador Resources	TVD Reference:	3013 + 28.5 = KB @ 3041.50usft (Rig)
Project:	Eddy County, NM (NAD27)	MD Reference:	3013 + 28.5 = KB @ 3041.50usft (Rig)
Site:	Jack Sleeper Com 9&16-23-28E	North Reference:	Grid
Well:	#121H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim A		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
93.15	93.15	Rustler				
337.73	337.73	Salado (TOP SALT)				
989.12	989.12	Castile (T)				
2,485.77	2,481.90	G30:CS14-CSB (BASE SALT)				
2,533.05	2,528.83	G26: Bell Cyn.				
3,405.20	3,394.47	G13: Cherry Cyn.				
4,538.89	4,521.19	G7: Brushy Cyn.				
6,090.96	6,073.24	G4: BSG (CS9)				
6,285.96	6,268.24	L8.2: U. Avalon Shale				
6,450.32	6,432.60	L6.3: Avalon Carb				
6,622.44	6,604.72	L6.2: L. Avalon Shale				
6,768.77	6,751.05	L5.3: FBSC				
7,028.56	7,010.84	L5.1: FBSC				
7,296.63	7,278.91	L4.3: SBSC				
7,845.64	7,778.70	L4.1: SBSC				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,500.00	1,500.00	0.00	0.00	Start Build 1.00	
4,186.92	4,170.36	23.86	35.45	Start Drop -1.50	
7,307.52	7,289.80	159.09	236.37	KOP: Build 8.00	
8,432.52	8,006.00	175.00	260.00	Land: DLS 2.00 TFO -90.00	
18,476.00	8,006.00	175.00	260.00	TD at 18476.00	