

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 312580

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

1. Operator Name and Address MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241		2. OGRID Number 14744
		3. API Number 30-025-49904
4. Property Code 325114	5. Property Name CHAROLAIS 28 21 W1MD STATE COM	6. Well No. 001H

7. Surface Location

UL - Lot M	Section 28	Township 19S	Range 35E	Lot Idn M	Feet From 205	N/S Line S	Feet From 870	E/W Line W	County Lea
---------------	---------------	-----------------	--------------	--------------	------------------	---------------	------------------	---------------	---------------

8. Proposed Bottom Hole Location

UL - Lot D	Section 21	Township 19S	Range 35E	Lot Idn D	Feet From 100	N/S Line N	Feet From 1310	E/W Line W	County Lea
---------------	---------------	-----------------	--------------	--------------	------------------	---------------	-------------------	---------------	---------------

9. Pool Information

SCHARB;WOLFCAMP, SOUTHEAST	55650
----------------------------	-------

Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3728
16. Multiple N	17. Proposed Depth 21360	18. Formation Wolfcamp	19. Contractor	20. Spud Date 4/21/2022
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	1850	1290	0
Int1	12.25	9.625	40	3500	795	0
Prod	8.75	7.625	39	10541	825	3300
Liner1	6.125	4.5	13.5	21360	440	10341

Casing/Cement Program: Additional Comments

MOC proposed to drill & test the Wolfcamp formation. H2S rule 118 does not apply because MOC has researched the area & no high concentrations were found. Will have on location & working all H2S safety equipment before Yates formation for safety & insurance purposes. Will stimulate as needed for production.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	2500	Schaffer
Double Ram	5000	5000	Schaffer
Annular	5000	2500	Schaffer

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 Monty Whetstone	Approved By:	Paul F Kautz		
Title:	Vice President Operations	Title:	Geologist		
Email Address:	prodmgr@mewbourne.com	Approved Date:	3/22/2022	Expiration Date:	3/22/2024
Date:	3/22/2022	Phone:	903-561-2900	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 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, 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 30-025-494004	² Pool Code 55650	³ Pool Name SCHARB WOLFCAMP SOUTH
⁴ Property Code 325114	⁵ Property Name CHAROLAIS 28/21 W1MD STATE COM	⁶ Well Number 1H
⁷ OGRID NO. 14744	⁸ Operator Name MEWBOURNE OIL COMPANY	⁹ Elevation 3728'

¹⁰ Surface Location

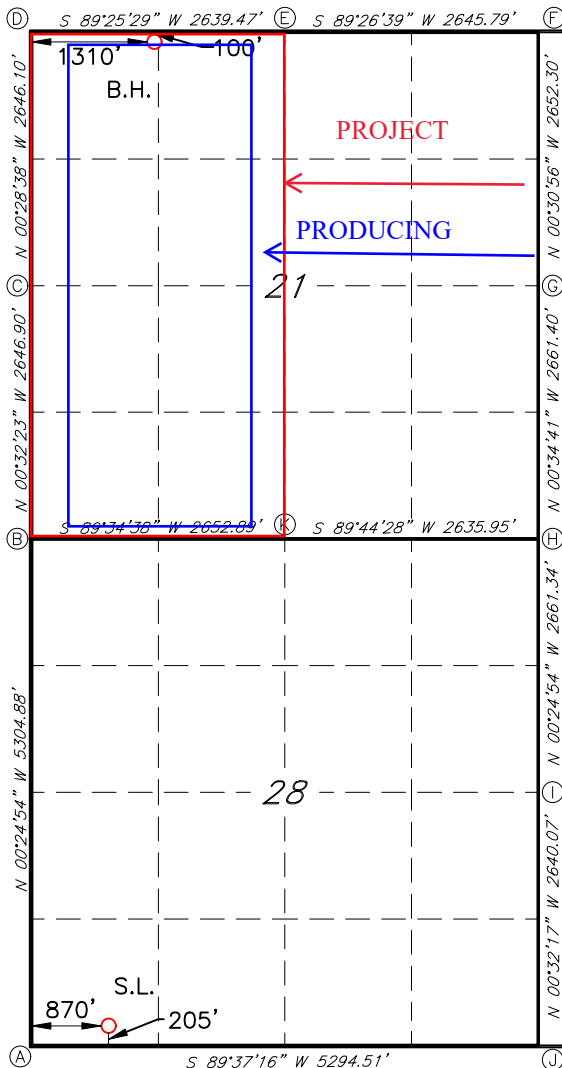
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
M	28	19S	35E		205	SOUTH	870	WEST	LEA

¹¹ 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
D	21	19S	35E		100	NORTH	1310	WEST	LEA

¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
---	-------------------------------	----------------------------------	-------------------------

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.



GEODETIC DATA
NAD 83 GRID - NM EAST

SURFACE LOCATION
N: 592087.6 - E: 807740.0

LAT: 32.6247174° N
LONG: 103.4680327° W

BOTTOM HOLE
N: 602385.6 - E: 808096.8

LAT: 32.6530125° N
LONG: 103.4666010° W

CORNER DATA
NAD 83 GRID - NM EAST

A: FOUND 1" REBAR
N: 591876.9 - E: 806871.7

B: FOUND 1/2" REBAR
N: 597180.6 - E: 806833.3

C: FOUND 6"x4"x4"
LIMESTONE ROCK
N: 599826.9 - E: 806808.3

D: FOUND 5/8" REBAR
N: 602472.4 - E: 806786.3

E: FOUND 8"x4"x6"
LIMESTONE ROCK
N: 602498.9 - E: 809425.1

F: FOUND 1" IRON
N: 602524.6 - E: 812070.3

G: FOUND 1" IRON BENT
N: 599872.9 - E: 812094.2

H: CALCULATED CORNER
N: 597212.1 - E: 812121.0

I: FOUND 1/2" REBAR
N: 594551.3 - E: 812140.3

J: FOUND 5/8" REBAR
N: 591911.9 - E: 812165.1

K: FOUND 6"x4"x4"
LIMESTONE ROCK
N: 597200.2 - E: 809485.6

17 OPERATOR CERTIFICATION

I hereby certify that the information contained 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Bradley C. Bishop

3/21/22

Signature

Date

BRADLEY BISHOP

Printed Name

BBISHOP@MEWBOURNE.COM

E-mail Address

18 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.

11/04/2021

Date of Survey

Signature and Seal of Professional Surveyor

19680

Certificate Number

REV: SL MOVE 01/03/22

Job No.: **LS21111164R**

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, 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 30-025-494004	² Pool Code 96989	³ Pool Name KLEIN RANCH; WOLFCAMP
⁴ Property Code 325114	⁵ Property Name CHAROLAIS 28/21 W1MD STATE COM	⁶ Well Number 1H
⁷ OGRID NO. 14744	⁸ Operator Name MEWBOURNE OIL COMPANY	⁹ Elevation 3728'

¹⁰ Surface Location

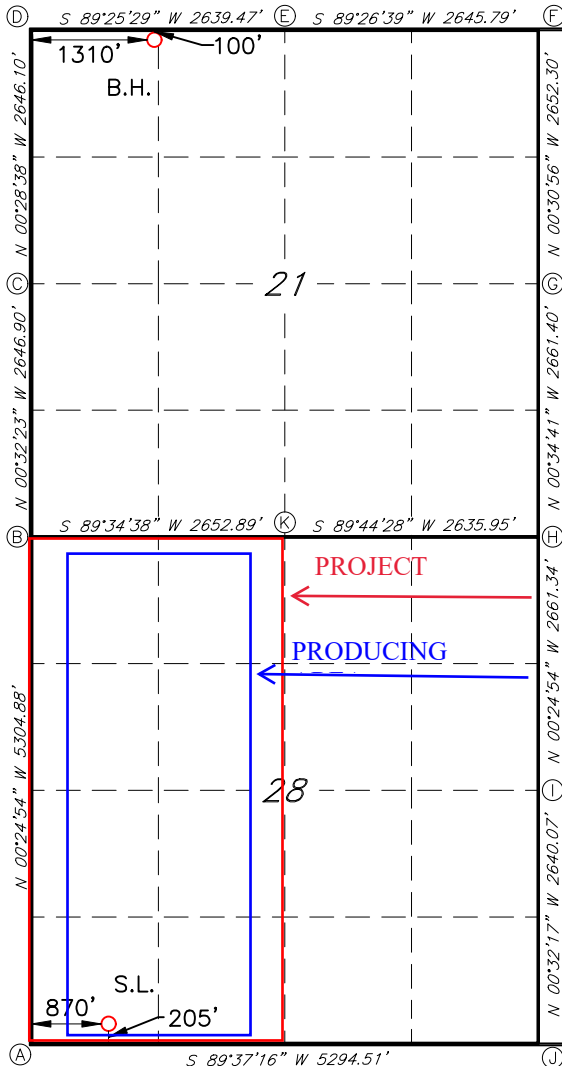
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
M	28	19S	35E		205	SOUTH	870	WEST	LEA

¹¹ 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
D	21	19S	35E		100	NORTH	1310	WEST	LEA

¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
---	-------------------------------	----------------------------------	-------------------------

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.



GEODETIC DATA
NAD 83 GRID - NM EAST

SURFACE LOCATION
N: 592087.6 - E: 807740.0

LAT: 32.6247174° N
LONG: 103.4680327° W

BOTTOM HOLE
N: 602385.6 - E: 808096.8

LAT: 32.6530125° N
LONG: 103.4666010° W

CORNER DATA
NAD 83 GRID - NM EAST

A: FOUND 1" REBAR
N: 591876.9 - E: 806871.7

B: FOUND 1/2" REBAR
N: 597180.6 - E: 806833.3

C: FOUND 6"x4"x4" LIMESTONE ROCK
N: 599826.9 - E: 806808.3

D: FOUND 5/8" REBAR
N: 602472.4 - E: 806786.3

E: FOUND 8"x4"x6" LIMESTONE ROCK
N: 602498.9 - E: 809425.1

F: FOUND 1" IRON
N: 602524.6 - E: 812070.3

G: FOUND 1" IRON BENT
N: 599872.9 - E: 812094.2

H: CALCULATED CORNER
N: 597212.1 - E: 812121.0

I: FOUND 1/2" REBAR
N: 594551.3 - E: 812140.3

J: FOUND 5/8" REBAR
N: 591911.9 - E: 812165.1

K: FOUND 6"x4"x4" LIMESTONE ROCK
N: 597200.2 - E: 809485.6

¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Bradley C. Bishop

3/21/22

Signature

Date

BRADLEY BISHOP

Printed Name

BBISHOP@MEWBOURNE.COM

E-mail Address

¹⁸ 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.

11/04/2021

Date of Survey

Signature and Seal of Professional Surveyor

19680

Certificate Number

REV: SL MOVE 01/03/22

Job No.: **LS21111164R**

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 312580

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: MEWBOURNE OIL CO [14744] P.O. Box 5270 Hobbs, NM 88241	API Number: 30-025-49904
	Well: CHAROLAIS 28 21 W1MD STATE COM #001H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system
pkautz	1) SURFACE & INTERMEDIATE CASING - Cement must circulate to surface -- 2) PRODUCTION CASING - Cement must tie back into intermediate casing --
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	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
pkautz	Must change property name to a common name for all wells in the same com

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

Page 5

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description Effective May 25, 2021

I. Operator: Mewbourne Oil Co. **OGRID:** 14744 **Date:** 3/2/22

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Charolais 28/1 W1MD State Com #1H		M 28 19S 35E	205' FSL x 870' FWL	1500	3000	3000

IV. Central Delivery Point Name: Charolais 28/1 W1MD State Com #1H [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Charolais 28/1 W1MD State Com #1H		5/2/22	6/2/22	7/2/22	7/17/22	7/17/22

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☐ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications**Effective May 25, 2021**

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

If Operator checks this box, Operator will select one of the following:

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

Page 8

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:	<i>Bradley Bishop</i>
Printed Name:	BRADLEY BISHOP
Title:	REGULATORY MANAGER
E-mail Address:	BBISHOP@MEWBOURNE.COM
Date:	3/2/22
Phone:	575-393-5905
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)	
Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

Mewbourne Oil Company

Natural Gas Management Plan – Attachment

- VI. Separation equipment will be sized by construction engineering staff based on stated manufacturer daily throughput capacities and anticipated daily production rates to ensure adequate capacity. Closed vent system piping, compression needs, and VRUs will be sized utilizing ProMax modelling software to ensure adequate capacity for anticipated production volumes and conditions.
- VII. Mewbourne Oil Company (MOC) will take following actions to comply with the regulations listed in 19.15.27.8 :
- A. MOC will maximize the recovery of natural gas by minimizing the waste, as defined by 19.15.2 NMAC, of natural gas through venting and flaring. MOC will ensure that well(s) will be connected to a natural gas gathering system with sufficient capacity to transport natural gas. If there is no adequate takeaway for the gas, well(s) will be shut in until the natural gas gathering system is available.
 - B. All drilling operations will be equipped with a rig flare located at least 100 ft from the nearest surface hole. Rig flare will be utilized to combust any natural gas that is brought to surface during normal drilling operations. In the case of emergency venting or flaring the volumes will be estimated and reported appropriately.
 - C. During completion operations any natural gas brought to surface will be flared. Immediately following the finish of completion operations, all well flow will be directed to permanent separation equipment. Produced natural gas from separation equipment will be sent to sales. It is not anticipated that gas will not meet pipeline standards. However, if natural gas does not meet gathering pipeline quality specifications, MOC will flare the natural gas for 60 days or until the natural gas meets the pipeline quality specifications, whichever is sooner. MOC will ensure that the flare is sized properly and is equipped with automatic igniter or continuous pilot. The gas sample will analyzed twice per week and the gas will be routed into a gathering system as soon as pipeline specifications are met.
 - D. Natural gas will not be flared with the exceptions and provisions listed in the 19.15.27.8 D.(1) through (4). If there is no adequate takeaway for the separator gas, well(s) will be shut in until the natural gas gathering system is available with exception of emergency or malfunction situations. Venting and/or flaring volumes will be estimated and reported appropriately.
 - E. MOC will comply with the performance standards requirements and provisions listed in 19.15.27.8 E.(1) through (8). All equipment will be designed and sized to handle maximum anticipated pressures and throughputs in order to minimize the waste. Production storage tanks constructed after May 25, 2021 will be equipped with automatic gauging system. Flares constructed after May 25, 2021 will be equipped with automatic igniter or continuous pilot. Flares will be located at least 100' from the well and storage tanks unless otherwise approved by the division. MOC will conduct AVO inspections as described in 19.15.27.8 E (5) (a) with frequencies specified in 19.15.27.8 E (5) (b) and (c). All emergencies will be resolved as quickly and safely as feasible to minimize waste.
 - F. The volume of natural gas that is vented or flared as the result of malfunction or emergency during drilling and completions operations will be estimated. The volume of natural gas that is vented, flared or beneficially used during production operations, will be measured or estimated. MOC will install equipment to measure

the volume of natural gas flared from existing process piping or a flowline piped from equipment such as high pressure separators, heater treaters, or vapor recovery units associated with a well or facility associated with a well authorized by an APD issued after May 25, 2021 that has an average daily production greater than 60 Mcf/day. If metering is not practicable due to circumstances such as low flow rate or low pressure venting and flaring, MOC will estimate the volume of vented or flared natural gas. Measuring equipment will conform to industry standards and will not be designed or equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.

- VIII. For maintenance activities involving production equipment and compression, venting will be limited to the depressurization of the subject equipment to ensure safe working conditions. For maintenance of production and compression equipment the associated producing wells will be shut in to eliminate venting. For maintenance of VRUs all gas normally routed to the VRU will be routed to flare to eliminate venting.



Mewbourne Oil Company

Lea Co., NM (NAD 83)
Charolais Hereford Pad
Charolais 28-21 W1MD State Com 1H

OH

Plan: Plan #1

Standard Planning Report

01 March, 2022



Project: Lea Co., NM (NAD 83)
 Site: Charolais Hereford Pad
 Well: Charolais 28-21 W1MD State Com 1H
 Wellbore: OH
 Design: Plan #1
 Lat: 32.624717
 Long: -103.468033
 GL: 3728.00
 KB: KB=28' @ 3756.00usft (Patterson 575)



Received by OCD: 3/22/2022 10:02:40 AM

South(-)/North(+) (2000 usft/in)

Page 13 of 51

WELL DETAILS: Charolais 28-21 W1MD State Com 1H

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	592087.60	807740.00	32.624717	-103.468033

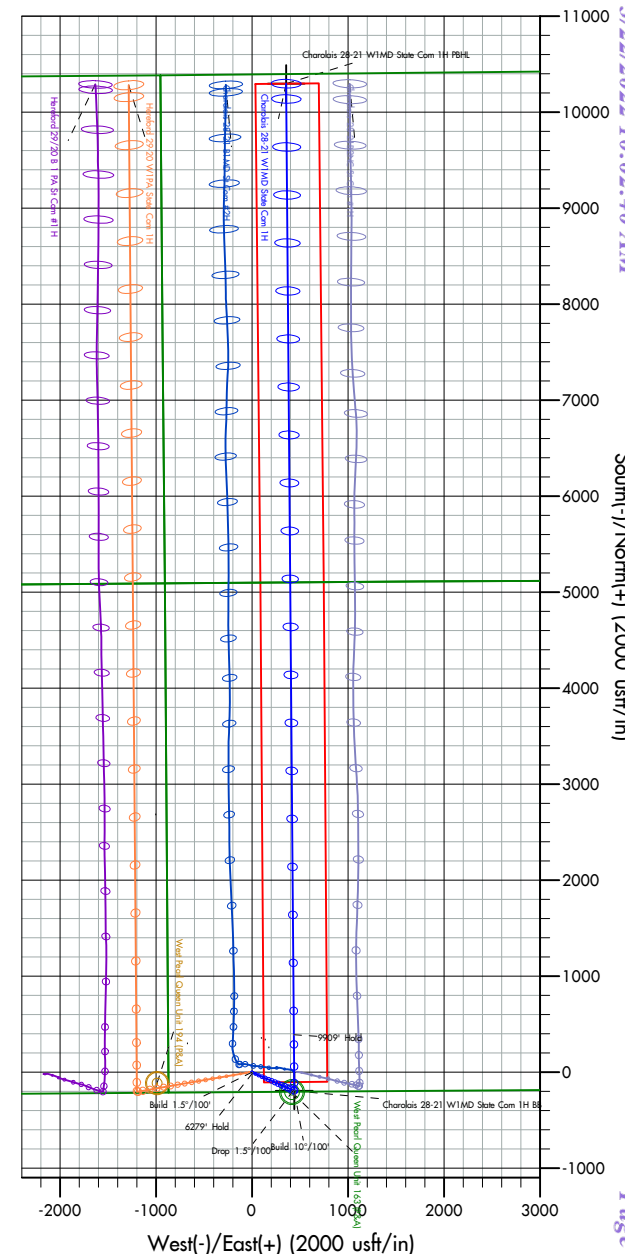
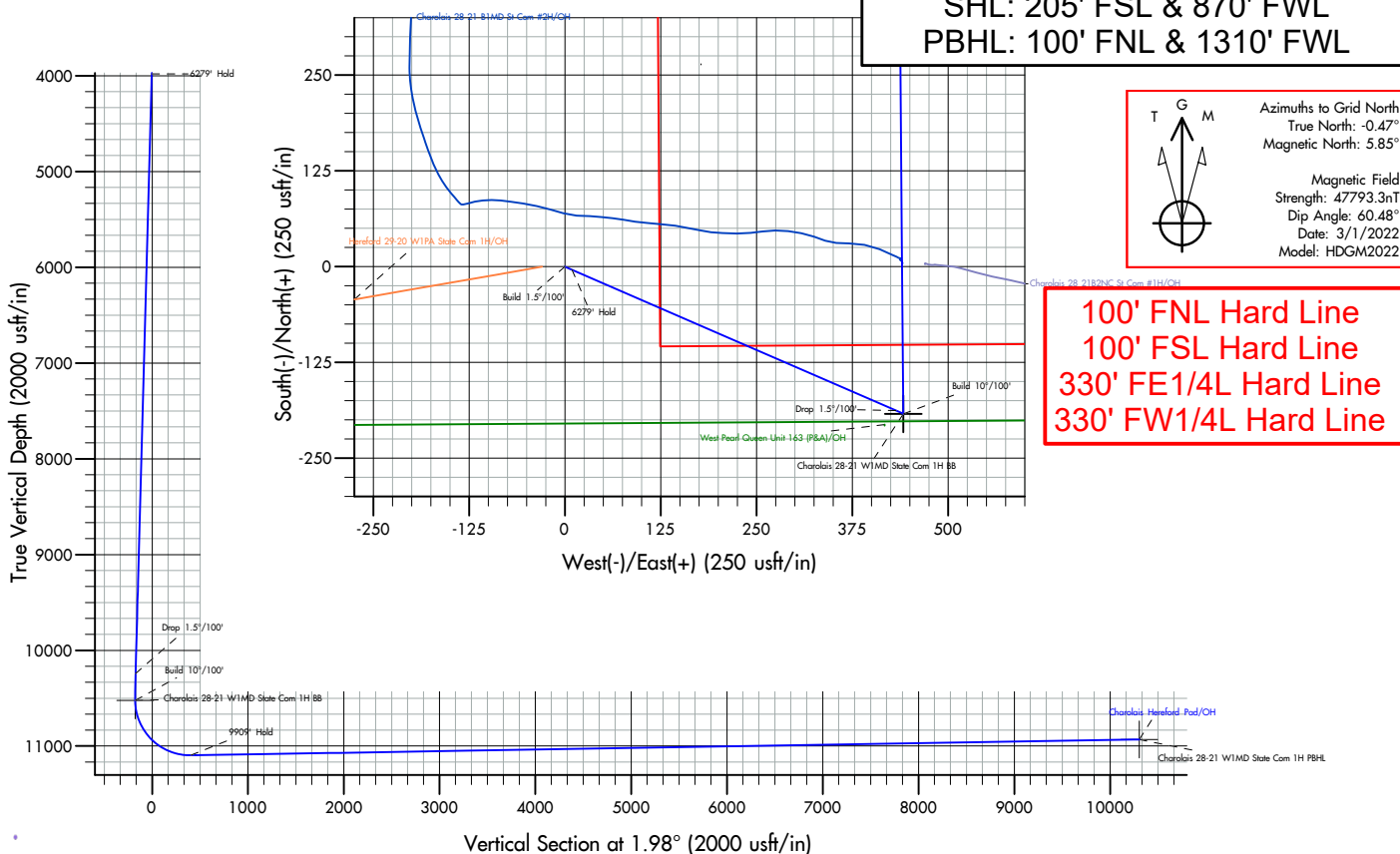
WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Charolais 28-21 W1MD State Com 1H BB	10523.12	-192.04	441.60	591895.56	808181.60	Point
Charolais 28-21 W1MD State Com 1H PBHL	10931.00	10298.00	356.80	602385.60	808096.80	Point

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3700.00	0.00	0.00	3700.00	0.00	0.00	0.00	0.00	0.00	Build 1.5"/100'
3980.64	4.21	113.50	3980.39	-4.11	9.45	1.50	113.50	-3.78	6279' Hold
10259.92	4.21	113.50	10242.73	-187.93	432.15	0.00	0.00	-172.85	Drop 1.5"/100'
10540.57	0.00	0.00	10523.12	-192.04	441.60	1.50	180.00	-176.63	Build 10"/100'
11450.11	90.95	359.54	11096.00	390.44	436.89	10.00	359.54	405.33	9909' Hold
21359.36	90.95	359.54	10931.00	10298.00	356.80	0.00	0.00	10304.18	TD at 21359.36

Charolais 28-21 W1MD State Com 1H
SHL: 205' FSL & 870' FWL
PBHL: 100' FNL & 1310' FWL



Plan: Plan #1 (Charolais 28-21 W1MD State Com 1H/OH)	
Created By: Dusty Moyer	Date: 16:22 March 01 2022



Altitude Energy Partners

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Company:	Mewbourne Oil Company	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Project:	Lea Co., NM (NAD 83)	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site:	Charolais Hereford Pad	North Reference:	Grid
Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project	Lea Co., NM (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Charolais Hereford Pad		
Site Position:		Northing:	592,087.60 usft
From:	Map	Easting:	807,740.00 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.624717
		Longitude:	-103.468033

Well	Charolais 28-21 W1MD State Com 1H		
Well Position	+N/-S	0.00 usft	Northing: 592,087.60 usft
	+E/-W	0.00 usft	Easting: 807,740.00 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
Grid Convergence:	0.47 °	Ground Level:	3,728.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2022	3/1/2022	6.32	60.48	47,793.30000000

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	1.98

Plan Survey Tool Program	Date	3/1/2022		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	21,359.24 Plan #1 (OH)	MWD + HDGM	
			MWD + HDGM - Standard	

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	
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,980.64	4.21	113.50	3,980.39	-4.11	9.45	1.50	1.50	0.00	113.50	
10,259.92	4.21	113.50	10,242.73	-187.93	432.15	0.00	0.00	0.00	0.00	
10,540.57	0.00	0.00	10,523.12	-192.04	441.60	1.50	-1.50	0.00	180.00	Charolais 28-21 W1
11,450.11	90.95	359.54	11,096.00	390.44	436.89	10.00	10.00	-0.05	359.54	
21,359.37	90.95	359.54	10,931.00	10,298.00	356.80	0.00	0.00	0.00	0.00	Charolais 28-21 W1



Altitude Energy Partners

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Company:	Mewbourne Oil Company	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Project:	Lea Co., NM (NAD 83)	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site:	Charolais Hereford Pad	North Reference:	Grid
Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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
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
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
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
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,780.00	0.00	0.00	1,780.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,080.00	0.00	0.00	2,080.00	0.00	0.00	0.00	0.00	0.00	0.00
Salt Top									
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,260.00	0.00	0.00	3,260.00	0.00	0.00	0.00	0.00	0.00	0.00
Salt Base									
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,460.00	0.00	0.00	3,460.00	0.00	0.00	0.00	0.00	0.00	0.00
Yates									
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
Build 1.5°/100'									
3,800.00	1.50	113.50	3,799.99	-0.52	1.20	-0.48	1.50	1.50	0.00
3,900.00	3.00	113.50	3,899.91	-2.09	4.80	-1.92	1.50	1.50	0.00
3,960.20	3.90	113.50	3,960.00	-3.53	8.12	-3.25	1.50	1.50	0.00
Seven Rivers									
3,980.64	4.21	113.50	3,980.39	-4.11	9.45	-3.78	1.50	1.50	0.00
6279' Hold									



Altitude Energy Partners

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Company:	Mewbourne Oil Company	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Project:	Lea Co., NM (NAD 83)	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site:	Charolais Hereford Pad	North Reference:	Grid
Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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	4.21	113.50	3,999.70	-4.68	10.75	-4.30	0.00	0.00	0.00
4,100.00	4.21	113.50	4,099.43	-7.60	17.48	-6.99	0.00	0.00	0.00
4,200.00	4.21	113.50	4,199.16	-10.53	24.22	-9.69	0.00	0.00	0.00
4,300.00	4.21	113.50	4,298.89	-13.46	30.95	-12.38	0.00	0.00	0.00
4,400.00	4.21	113.50	4,398.62	-16.39	37.68	-15.07	0.00	0.00	0.00
4,500.00	4.21	113.50	4,498.35	-19.31	44.41	-17.76	0.00	0.00	0.00
4,600.00	4.21	113.50	4,598.08	-22.24	51.14	-20.46	0.00	0.00	0.00
4,642.04	4.21	113.50	4,640.00	-23.47	53.97	-21.59	0.00	0.00	0.00
Queen									
4,700.00	4.21	113.50	4,697.81	-25.17	57.87	-23.15	0.00	0.00	0.00
4,800.00	4.21	113.50	4,797.54	-28.10	64.61	-25.84	0.00	0.00	0.00
4,900.00	4.21	113.50	4,897.27	-31.02	71.34	-28.53	0.00	0.00	0.00
5,000.00	4.21	113.50	4,997.00	-33.95	78.07	-31.23	0.00	0.00	0.00
5,100.00	4.21	113.50	5,096.73	-36.88	84.80	-33.92	0.00	0.00	0.00
5,200.00	4.21	113.50	5,196.46	-39.81	91.53	-36.61	0.00	0.00	0.00
5,300.00	4.21	113.50	5,296.19	-42.73	98.26	-39.30	0.00	0.00	0.00
5,400.00	4.21	113.50	5,395.92	-45.66	105.00	-42.00	0.00	0.00	0.00
5,500.00	4.21	113.50	5,495.65	-48.59	111.73	-44.69	0.00	0.00	0.00
5,600.00	4.21	113.50	5,595.38	-51.51	118.46	-47.38	0.00	0.00	0.00
5,700.00	4.21	113.50	5,695.11	-54.44	125.19	-50.07	0.00	0.00	0.00
5,800.00	4.21	113.50	5,794.84	-57.37	131.92	-52.77	0.00	0.00	0.00
5,900.00	4.21	113.50	5,894.57	-60.30	138.65	-55.46	0.00	0.00	0.00
5,935.53	4.21	113.50	5,930.00	-61.34	141.05	-56.42	0.00	0.00	0.00
Delaware (Lamar)									
6,000.00	4.21	113.50	5,994.30	-63.22	145.39	-58.15	0.00	0.00	0.00
6,100.00	4.21	113.50	6,094.03	-66.15	152.12	-60.85	0.00	0.00	0.00
6,200.00	4.21	113.50	6,193.76	-69.08	158.85	-63.54	0.00	0.00	0.00
6,300.00	4.21	113.50	6,293.49	-72.01	165.58	-66.23	0.00	0.00	0.00
6,400.00	4.21	113.50	6,393.22	-74.93	172.31	-68.92	0.00	0.00	0.00
6,500.00	4.21	113.50	6,492.95	-77.86	179.04	-71.62	0.00	0.00	0.00
6,600.00	4.21	113.50	6,592.68	-80.79	185.78	-74.31	0.00	0.00	0.00
6,700.00	4.21	113.50	6,692.41	-83.72	192.51	-77.00	0.00	0.00	0.00
6,800.00	4.21	113.50	6,792.14	-86.64	199.24	-79.69	0.00	0.00	0.00
6,900.00	4.21	113.50	6,891.87	-89.57	205.97	-82.39	0.00	0.00	0.00
7,000.00	4.21	113.50	6,991.60	-92.50	212.70	-85.08	0.00	0.00	0.00
7,100.00	4.21	113.50	7,091.33	-95.43	219.43	-87.77	0.00	0.00	0.00
7,200.00	4.21	113.50	7,191.06	-98.35	226.17	-90.46	0.00	0.00	0.00
7,300.00	4.21	113.50	7,290.79	-101.28	232.90	-93.16	0.00	0.00	0.00
7,400.00	4.21	113.50	7,390.52	-104.21	239.63	-95.85	0.00	0.00	0.00
7,500.00	4.21	113.50	7,490.25	-107.14	246.36	-98.54	0.00	0.00	0.00
7,600.00	4.21	113.50	7,589.98	-110.06	253.09	-101.23	0.00	0.00	0.00
7,700.00	4.21	113.50	7,689.71	-112.99	259.82	-103.93	0.00	0.00	0.00
7,800.00	4.21	113.50	7,789.44	-115.92	266.56	-106.62	0.00	0.00	0.00
7,900.00	4.21	113.50	7,889.17	-118.85	273.29	-109.31	0.00	0.00	0.00
7,981.05	4.21	113.50	7,970.00	-121.22	278.74	-111.49	0.00	0.00	0.00
Bone Spring									
8,000.00	4.21	113.50	7,988.90	-121.77	280.02	-112.00	0.00	0.00	0.00
8,100.00	4.21	113.50	8,088.63	-124.70	286.75	-114.70	0.00	0.00	0.00
8,200.00	4.21	113.50	8,188.36	-127.63	293.48	-117.39	0.00	0.00	0.00
8,300.00	4.21	113.50	8,288.09	-130.56	300.21	-120.08	0.00	0.00	0.00
8,400.00	4.21	113.50	8,387.82	-133.48	306.95	-122.77	0.00	0.00	0.00
8,500.00	4.21	113.50	8,487.56	-136.41	313.68	-125.47	0.00	0.00	0.00
8,600.00	4.21	113.50	8,587.29	-139.34	320.41	-128.16	0.00	0.00	0.00



Altitude Energy Partners

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Company:	Mewbourne Oil Company	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Project:	Lea Co., NM (NAD 83)	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site:	Charolais Hereford Pad	North Reference:	Grid
Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
8,700.00	4.21	113.50	8,687.02	-142.26	327.14	-130.85	0.00	0.00	0.00
8,800.00	4.21	113.50	8,786.75	-145.19	333.87	-133.54	0.00	0.00	0.00
8,900.00	4.21	113.50	8,886.48	-148.12	340.60	-136.24	0.00	0.00	0.00
9,000.00	4.21	113.50	8,986.21	-151.05	347.34	-138.93	0.00	0.00	0.00
9,100.00	4.21	113.50	9,085.94	-153.97	354.07	-141.62	0.00	0.00	0.00
9,200.00	4.21	113.50	9,185.67	-156.90	360.80	-144.31	0.00	0.00	0.00
9,300.00	4.21	113.50	9,285.40	-159.83	367.53	-147.01	0.00	0.00	0.00
9,400.00	4.21	113.50	9,385.13	-162.76	374.26	-149.70	0.00	0.00	0.00
9,500.00	4.21	113.50	9,484.86	-165.68	380.99	-152.39	0.00	0.00	0.00
9,505.16	4.21	113.50	9,490.00	-165.84	381.34	-152.53	0.00	0.00	0.00
1st Bone Spring Sand									
9,600.00	4.21	113.50	9,584.59	-168.61	387.73	-155.08	0.00	0.00	0.00
9,700.00	4.21	113.50	9,684.32	-171.54	394.46	-157.78	0.00	0.00	0.00
9,800.00	4.21	113.50	9,784.05	-174.47	401.19	-160.47	0.00	0.00	0.00
9,900.00	4.21	113.50	9,883.78	-177.39	407.92	-163.16	0.00	0.00	0.00
10,000.00	4.21	113.50	9,983.51	-180.32	414.65	-165.86	0.00	0.00	0.00
10,036.59	4.21	113.50	10,020.00	-181.39	417.12	-166.84	0.00	0.00	0.00
2nd Bone Spring Sand									
10,100.00	4.21	113.50	10,083.24	-183.25	421.38	-168.55	0.00	0.00	0.00
10,200.00	4.21	113.50	10,182.97	-186.18	428.12	-171.24	0.00	0.00	0.00
10,259.92	4.21	113.50	10,242.73	-187.93	432.15	-172.85	0.00	0.00	0.00
Drop 1.5°/100'									
10,300.00	3.61	113.50	10,282.71	-189.02	434.66	-173.86	1.50	-1.50	0.00
10,400.00	2.11	113.50	10,382.59	-191.01	439.23	-175.69	1.50	-1.50	0.00
10,500.00	0.61	113.50	10,482.56	-191.95	441.40	-176.55	1.50	-1.50	0.00
10,540.57	0.00	0.00	10,523.12	-192.04	441.60	-176.63	1.50	-1.50	0.00
Build 10°/100'									
10,550.00	0.94	359.54	10,532.55	-191.96	441.60	-176.56	10.00	10.00	0.00
10,600.00	5.94	359.54	10,582.45	-188.96	441.58	-173.56	10.00	10.00	0.00
10,650.00	10.94	359.54	10,631.89	-181.62	441.52	-166.22	10.00	10.00	0.00
10,700.00	15.94	359.54	10,680.50	-170.00	441.42	-154.61	10.00	10.00	0.00
10,750.00	20.94	359.54	10,727.92	-154.19	441.29	-138.82	10.00	10.00	0.00
10,800.00	25.94	359.54	10,773.78	-134.30	441.13	-118.95	10.00	10.00	0.00
10,850.00	30.94	359.54	10,817.73	-110.50	440.94	-95.16	10.00	10.00	0.00
10,900.00	35.94	359.54	10,859.44	-82.95	440.72	-67.64	10.00	10.00	0.00
10,950.00	40.94	359.54	10,898.59	-51.87	440.47	-36.59	10.00	10.00	0.00
11,000.00	45.94	359.54	10,934.88	-17.50	440.19	-2.25	10.00	10.00	0.00
11,050.00	50.94	359.54	10,968.04	19.90	439.89	35.12	10.00	10.00	0.00
11,053.13	51.26	359.54	10,970.00	22.33	439.87	37.55	10.00	10.00	0.00
3rd Bone Spring Sand									
11,100.00	55.94	359.54	10,997.81	60.05	439.56	75.23	10.00	10.00	0.00
11,150.00	60.94	359.54	11,023.97	102.64	439.22	117.79	10.00	10.00	0.00
11,200.00	65.94	359.54	11,046.31	147.35	438.86	162.45	10.00	10.00	0.00
11,222.29	68.17	359.54	11,055.00	167.87	438.69	182.96	10.00	10.00	0.00
Wolfcamp									
11,250.00	70.94	359.54	11,064.68	193.83	438.48	208.90	10.00	10.00	0.00
11,300.00	75.94	359.54	11,078.92	241.74	438.09	256.77	10.00	10.00	0.00
11,350.00	80.94	359.54	11,088.94	290.71	437.70	305.69	10.00	10.00	0.00
11,400.00	85.94	359.54	11,094.64	340.37	437.30	355.31	10.00	10.00	0.00
11,450.11	90.95	359.54	11,096.00	390.44	436.89	405.33	10.00	10.00	0.00
9909' Hold									
11,500.00	90.95	359.54	11,095.17	440.32	436.49	455.17	0.00	0.00	0.00
11,600.00	90.95	359.54	11,093.50	540.31	435.68	555.07	0.00	0.00	0.00



Altitude Energy Partners

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Company:	Mewbourne Oil Company	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Project:	Lea Co., NM (NAD 83)	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site:	Charolais Hereford Pad	North Reference:	Grid
Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
11,700.00	90.95	359.54	11,091.84	640.29	434.87	654.96	0.00	0.00	0.00
11,800.00	90.95	359.54	11,090.17	740.27	434.06	754.86	0.00	0.00	0.00
11,900.00	90.95	359.54	11,088.51	840.26	433.26	854.75	0.00	0.00	0.00
12,000.00	90.95	359.54	11,086.84	940.24	432.45	954.65	0.00	0.00	0.00
12,100.00	90.95	359.54	11,085.18	1,040.22	431.64	1,054.54	0.00	0.00	0.00
12,200.00	90.95	359.54	11,083.51	1,140.20	430.83	1,154.44	0.00	0.00	0.00
12,300.00	90.95	359.54	11,081.85	1,240.19	430.02	1,254.33	0.00	0.00	0.00
12,400.00	90.95	359.54	11,080.18	1,340.17	429.21	1,354.23	0.00	0.00	0.00
12,500.00	90.95	359.54	11,078.52	1,440.15	428.41	1,454.12	0.00	0.00	0.00
12,600.00	90.95	359.54	11,076.85	1,540.14	427.60	1,554.02	0.00	0.00	0.00
12,700.00	90.95	359.54	11,075.19	1,640.12	426.79	1,653.91	0.00	0.00	0.00
12,800.00	90.95	359.54	11,073.52	1,740.10	425.98	1,753.81	0.00	0.00	0.00
12,900.00	90.95	359.54	11,071.86	1,840.08	425.17	1,853.70	0.00	0.00	0.00
13,000.00	90.95	359.54	11,070.19	1,940.07	424.36	1,953.60	0.00	0.00	0.00
13,100.00	90.95	359.54	11,068.53	2,040.05	423.56	2,053.49	0.00	0.00	0.00
13,200.00	90.95	359.54	11,066.86	2,140.03	422.75	2,153.39	0.00	0.00	0.00
13,300.00	90.95	359.54	11,065.20	2,240.02	421.94	2,253.28	0.00	0.00	0.00
13,400.00	90.95	359.54	11,063.53	2,340.00	421.13	2,353.18	0.00	0.00	0.00
13,500.00	90.95	359.54	11,061.87	2,439.98	420.32	2,453.07	0.00	0.00	0.00
13,600.00	90.95	359.54	11,060.20	2,539.96	419.51	2,552.97	0.00	0.00	0.00
13,700.00	90.95	359.54	11,058.54	2,639.95	418.71	2,652.86	0.00	0.00	0.00
13,800.00	90.95	359.54	11,056.87	2,739.93	417.90	2,752.76	0.00	0.00	0.00
13,900.00	90.95	359.54	11,055.21	2,839.91	417.09	2,852.65	0.00	0.00	0.00
14,000.00	90.95	359.54	11,053.54	2,939.90	416.28	2,952.55	0.00	0.00	0.00
14,100.00	90.95	359.54	11,051.88	3,039.88	415.47	3,052.44	0.00	0.00	0.00
14,200.00	90.95	359.54	11,050.21	3,139.86	414.67	3,152.34	0.00	0.00	0.00
14,300.00	90.95	359.54	11,048.55	3,239.84	413.86	3,252.23	0.00	0.00	0.00
14,400.00	90.95	359.54	11,046.88	3,339.83	413.05	3,352.13	0.00	0.00	0.00
14,500.00	90.95	359.54	11,045.22	3,439.81	412.24	3,452.02	0.00	0.00	0.00
14,600.00	90.95	359.54	11,043.55	3,539.79	411.43	3,551.92	0.00	0.00	0.00
14,700.00	90.95	359.54	11,041.88	3,639.78	410.62	3,651.81	0.00	0.00	0.00
14,800.00	90.95	359.54	11,040.22	3,739.76	409.82	3,751.71	0.00	0.00	0.00
14,900.00	90.95	359.54	11,038.55	3,839.74	409.01	3,851.60	0.00	0.00	0.00
15,000.00	90.95	359.54	11,036.89	3,939.72	408.20	3,951.50	0.00	0.00	0.00
15,100.00	90.95	359.54	11,035.22	4,039.71	407.39	4,051.39	0.00	0.00	0.00
15,200.00	90.95	359.54	11,033.56	4,139.69	406.58	4,151.29	0.00	0.00	0.00
15,300.00	90.95	359.54	11,031.89	4,239.67	405.77	4,251.18	0.00	0.00	0.00
15,400.00	90.95	359.54	11,030.23	4,339.66	404.97	4,351.08	0.00	0.00	0.00
15,500.00	90.95	359.54	11,028.56	4,439.64	404.16	4,450.97	0.00	0.00	0.00
15,600.00	90.95	359.54	11,026.90	4,539.62	403.35	4,550.87	0.00	0.00	0.00
15,700.00	90.95	359.54	11,025.23	4,639.60	402.54	4,650.76	0.00	0.00	0.00
15,800.00	90.95	359.54	11,023.57	4,739.59	401.73	4,750.66	0.00	0.00	0.00
15,900.00	90.95	359.54	11,021.90	4,839.57	400.93	4,850.55	0.00	0.00	0.00
16,000.00	90.95	359.54	11,020.24	4,939.55	400.12	4,950.45	0.00	0.00	0.00
16,100.00	90.95	359.54	11,018.57	5,039.54	399.31	5,050.34	0.00	0.00	0.00
16,200.00	90.95	359.54	11,016.91	5,139.52	398.50	5,150.24	0.00	0.00	0.00
16,300.00	90.95	359.54	11,015.24	5,239.50	397.69	5,250.13	0.00	0.00	0.00
16,400.00	90.95	359.54	11,013.58	5,339.48	396.88	5,350.03	0.00	0.00	0.00
16,500.00	90.95	359.54	11,011.91	5,439.47	396.08	5,449.92	0.00	0.00	0.00
16,600.00	90.95	359.54	11,010.25	5,539.45	395.27	5,549.82	0.00	0.00	0.00
16,700.00	90.95	359.54	11,008.58	5,639.43	394.46	5,649.71	0.00	0.00	0.00
16,800.00	90.95	359.54	11,006.92	5,739.42	393.65	5,749.61	0.00	0.00	0.00
16,900.00	90.95	359.54	11,005.25	5,839.40	392.84	5,849.50	0.00	0.00	0.00
17,000.00	90.95	359.54	11,003.59	5,939.38	392.03	5,949.40	0.00	0.00	0.00



Altitude Energy Partners

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Company:	Mewbourne Oil Company	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Project:	Lea Co., NM (NAD 83)	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site:	Charolais Hereford Pad	North Reference:	Grid
Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
17,100.00	90.95	359.54	11,001.92	6,039.36	391.23	6,049.29	0.00	0.00	0.00
17,200.00	90.95	359.54	11,000.26	6,139.35	390.42	6,149.19	0.00	0.00	0.00
17,300.00	90.95	359.54	10,998.59	6,239.33	389.61	6,249.08	0.00	0.00	0.00
17,400.00	90.95	359.54	10,996.93	6,339.31	388.80	6,348.97	0.00	0.00	0.00
17,500.00	90.95	359.54	10,995.26	6,439.30	387.99	6,448.87	0.00	0.00	0.00
17,600.00	90.95	359.54	10,993.60	6,539.28	387.18	6,548.76	0.00	0.00	0.00
17,700.00	90.95	359.54	10,991.93	6,639.26	386.38	6,648.66	0.00	0.00	0.00
17,800.00	90.95	359.54	10,990.27	6,739.25	385.57	6,748.55	0.00	0.00	0.00
17,900.00	90.95	359.54	10,988.60	6,839.23	384.76	6,848.45	0.00	0.00	0.00
18,000.00	90.95	359.54	10,986.94	6,939.21	383.95	6,948.34	0.00	0.00	0.00
18,100.00	90.95	359.54	10,985.27	7,039.19	383.14	7,048.24	0.00	0.00	0.00
18,200.00	90.95	359.54	10,983.61	7,139.18	382.34	7,148.13	0.00	0.00	0.00
18,300.00	90.95	359.54	10,981.94	7,239.16	381.53	7,248.03	0.00	0.00	0.00
18,400.00	90.95	359.54	10,980.28	7,339.14	380.72	7,347.92	0.00	0.00	0.00
18,500.00	90.95	359.54	10,978.61	7,439.13	379.91	7,447.82	0.00	0.00	0.00
18,600.00	90.95	359.54	10,976.95	7,539.11	379.10	7,547.71	0.00	0.00	0.00
18,700.00	90.95	359.54	10,975.28	7,639.09	378.29	7,647.61	0.00	0.00	0.00
18,800.00	90.95	359.54	10,973.62	7,739.07	377.49	7,747.50	0.00	0.00	0.00
18,900.00	90.95	359.54	10,971.95	7,839.06	376.68	7,847.40	0.00	0.00	0.00
19,000.00	90.95	359.54	10,970.29	7,939.04	375.87	7,947.29	0.00	0.00	0.00
19,100.00	90.95	359.54	10,968.62	8,039.02	375.06	8,047.19	0.00	0.00	0.00
19,200.00	90.95	359.54	10,966.96	8,139.01	374.25	8,147.08	0.00	0.00	0.00
19,300.00	90.95	359.54	10,965.29	8,238.99	373.44	8,246.98	0.00	0.00	0.00
19,400.00	90.95	359.54	10,963.63	8,338.97	372.64	8,346.87	0.00	0.00	0.00
19,500.00	90.95	359.54	10,961.96	8,438.95	371.83	8,446.77	0.00	0.00	0.00
19,600.00	90.95	359.54	10,960.30	8,538.94	371.02	8,546.66	0.00	0.00	0.00
19,700.00	90.95	359.54	10,958.63	8,638.92	370.21	8,646.56	0.00	0.00	0.00
19,800.00	90.95	359.54	10,956.97	8,738.90	369.40	8,746.45	0.00	0.00	0.00
19,900.00	90.95	359.54	10,955.30	8,838.89	368.60	8,846.35	0.00	0.00	0.00
20,000.00	90.95	359.54	10,953.63	8,938.87	367.79	8,946.24	0.00	0.00	0.00
20,100.00	90.95	359.54	10,951.97	9,038.85	366.98	9,046.14	0.00	0.00	0.00
20,200.00	90.95	359.54	10,950.30	9,138.83	366.17	9,146.03	0.00	0.00	0.00
20,300.00	90.95	359.54	10,948.64	9,238.82	365.36	9,245.93	0.00	0.00	0.00
20,400.00	90.95	359.54	10,946.97	9,338.80	364.55	9,345.82	0.00	0.00	0.00
20,500.00	90.95	359.54	10,945.31	9,438.78	363.75	9,445.72	0.00	0.00	0.00
20,600.00	90.95	359.54	10,943.64	9,538.77	362.94	9,545.61	0.00	0.00	0.00
20,700.00	90.95	359.54	10,941.98	9,638.75	362.13	9,645.51	0.00	0.00	0.00
20,800.00	90.95	359.54	10,940.31	9,738.73	361.32	9,745.40	0.00	0.00	0.00
20,900.00	90.95	359.54	10,938.65	9,838.71	360.51	9,845.30	0.00	0.00	0.00
21,000.00	90.95	359.54	10,936.98	9,938.70	359.70	9,945.19	0.00	0.00	0.00
21,100.00	90.95	359.54	10,935.32	10,038.68	358.90	10,045.09	0.00	0.00	0.00
21,200.00	90.95	359.54	10,933.66	10,138.66	358.09	10,144.98	0.00	0.00	0.00
21,300.00	90.95	359.54	10,931.99	10,238.65	357.28	10,244.88	0.00	0.00	0.00
21,359.37	90.95	359.54	10,931.00	10,298.00	356.80	10,304.18	0.00	0.00	0.00
TD at 21359.36									



Altitude Energy Partners

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Company:	Mewbourne Oil Company	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Project:	Lea Co., NM (NAD 83)	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site:	Charolais Hereford Pad	North Reference:	Grid
Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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
Charolais 28-21 W1M - plan hits target center - Point	0.00	0.00	10,523.12	-192.04	441.60	591,895.56	808,181.60	32.624180	-103.466604
Charolais 28-21 W1M - plan hits target center - Point	0.00	0.00	10,931.00	10,298.00	356.80	602,385.60	808,096.80	32.653013	-103.466601

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,780.00	1,780.00	Rustler		0.00	
2,080.00	2,080.00	Salt Top		0.00	
3,260.00	3,260.00	Salt Base		0.00	
3,460.00	3,460.00	Yates		0.00	
3,960.20	3,960.00	Seven Rivers		0.00	
4,642.04	4,640.00	Queen		0.00	
5,935.53	5,930.00	Delaware (Lamar)		0.00	
7,981.05	7,970.00	Bone Spring		0.00	
9,505.16	9,490.00	1st Bone Spring Sand		0.00	
10,036.59	10,020.00	2nd Bone Spring Sand		0.00	
11,053.13	10,970.00	3rd Bone Spring Sand		0.00	
11,222.29	11,055.00	Wolfcamp		0.00	

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
3,700.00	3,700.00	0.00	0.00	Build 1.5°/100'
3,980.64	3,980.39	-4.11	9.45	6279' Hold
10,259.92	10,242.73	-187.93	432.15	Drop 1.5°/100'
10,540.57	10,523.12	-192.04	441.60	Build 10°/100'
11,450.11	11,096.00	390.44	436.89	9909' Hold
21,359.37	10,931.00	10,298.00	356.80	TD at 21359.36



MEWBOURNE
OIL COMPANY

Mewbourne Oil Company

Lea Co., NM (NAD 83)

Charolais Hereford Pad

Charolais 28-21 W1MD State Com 1H

OH

Plan #1

Anticollision Report

01 March, 2022





Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	Stations
Depth Range:	Unlimited
Results Limited by:	Max. Cent. Dist. of 1,000.00usft or Max. SF of 10
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Survey Tool Program		Date	3/1/2022		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	21,359.24	Plan #1 (OH)	MWD + HDGM	MWD + HDGM - Standard	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Charolais Hereford Offsets						
Charolais 28 21 B1MD St Com #2H - OH - OH	5,455.11	5,458.24	104.81	65.98	2.699	CC
Charolais 28 21 B1MD St Com #2H - OH - OH	5,500.00	5,502.68	105.05	65.88	2.682	ES, SF
Charolais 28 21B2NC St Com #1H - OH - OH	0.00	0.00	469.98			
Charolais 28 21B2NC St Com #1H - OH - OH	500.00	489.51	470.36	467.29	153.308	ES
Charolais 28 21B2NC St Com #1H - OH - OH	21,359.37	20,510.46	1,033.47	781.33	4.099	SF
Hereford 29/20 B 1 PA St Com #1 H - OH - OH	8,608.87	8,766.82	1,890.77	1,828.94	30.579	CC
Hereford 29/20 B 1 PA St Com #1 H - OH - OH	8,700.00	8,844.29	1,891.10	1,828.66	30.285	ES
Hereford 29/20 B 1 PA St Com #1 H - OH - OH	21,359.37	19,784.60	2,428.17	2,144.90	8.572	SF
West Pearl Queen Unit 163 (P&A) - OH - OH	5,085.41	5,020.00	375.28	227.89	2.546	CC, ES, SF
West Pearl Queen Unit 194 (P&A) - OH - OH	3,433.62	3,424.11	994.23	903.98	11.017	CC
West Pearl Queen Unit 194 (P&A) - OH - OH	3,800.00	3,790.78	995.55	893.60	9.765	ES
West Pearl Queen Unit 194 (P&A) - OH - OH	5,100.00	5,088.04	1,075.52	937.10	7.770	SF
Charolais Hereford Pad						
Hereford 29-20 W1PA State Com 1H - OH - Plan #1	1,916.33	1,917.33	30.00	16.46	2.215	CC
Hereford 29-20 W1PA State Com 1H - OH - Plan #1	2,000.00	2,000.99	30.00	15.86	2.121	ES
Hereford 29-20 W1PA State Com 1H - OH - Plan #1	2,100.00	2,100.00	31.31	16.47	2.110	SF

Offset Design: Charolais Hereford Offsets - Charolais 28 21 B1MD St Com #2H - OH - OH											
										Offset Site Error:	0.00 usft
										Offset Well Error:	0.00 usft
Survey Program:	157-MWD										
Reference	Offset	Semi Major Axis	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre	Distance	Rule Assigned:			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor
0.00	0.00	0.00	0.00	0.00	0.00	89.62	2.90	439.90	439.98		
100.00	100.00	91.23	91.23	0.26	0.14	89.62	2.95	439.98	439.99	0.39	1,118.097
200.00	200.00	190.21	190.21	0.62	0.35	89.58	3.20	440.27	440.28	0.97	454.719
300.00	300.00	290.95	290.95	0.98	0.71	89.48	4.01	440.59	440.61	1.69	261.324
400.00	400.00	392.80	392.79	1.33	1.07	89.33	5.19	440.68	440.71	2.41	183.130
500.00	500.00	496.41	496.39	1.69	1.44	89.15	6.53	440.06	440.13	3.13	140.550
600.00	600.00	595.99	595.96	2.05	1.79	88.97	7.88	438.91	439.00	3.84	114.234
700.00	700.00	693.01	692.96	2.41	2.14	88.81	9.12	438.34	438.44	4.55	96.437
800.00	800.00	792.32	792.27	2.77	2.48	88.69	10.03	438.24	438.36	5.25	83.511
900.00	900.00	892.32	892.27	3.13	2.83	88.69	10.00	438.18	438.30	5.95	73.643
1,000.00	1,000.00	992.94	992.89	3.48	3.17	88.78	9.29	438.08	438.18	6.65	65.876

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Offsets - Charolais 28 21 B1MD St Com #2H - OH - OH													Offset Site Error:	0.00 usft	
Survey Program:		157-MWD		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
1,100.00	1,100.00	1,093.69	1,093.63	3.84	3.51	88.88	8.52	437.80	437.89	430.54	7.35	59.569			
1,200.00	1,200.00	1,192.70	1,192.64	4.20	3.85	88.94	8.11	437.54	437.62	429.57	8.05	54.336			
1,258.37	1,258.37	1,250.43	1,250.37	4.41	4.05	88.92	8.27	437.50	437.58	429.11	8.46	51.697			
1,300.00	1,300.00	1,292.00	1,291.94	4.56	4.20	88.88	8.55	437.52	437.60	428.84	8.76	49.963			
1,400.00	1,400.00	1,391.74	1,391.67	4.92	4.55	88.77	9.42	437.59	437.69	428.22	9.47	46.218			
1,500.00	1,500.00	1,491.85	1,491.78	5.28	4.91	88.65	10.29	437.63	437.75	427.57	10.18	42.991			
1,600.00	1,600.00	1,591.73	1,591.66	5.64	5.25	88.60	10.72	437.68	437.81	426.92	10.89	40.209			
1,700.00	1,700.00	1,692.78	1,692.71	5.99	5.61	88.63	10.46	437.75	437.88	426.28	11.60	37.754			
1,800.00	1,800.00	1,798.90	1,798.82	6.35	5.97	88.55	11.05	436.82	437.02	424.69	12.32	35.460			
1,900.00	1,900.00	1,896.88	1,896.80	6.71	6.32	88.52	11.29	436.11	436.28	423.25	13.02	33.497			
2,000.00	2,000.00	2,008.18	2,008.06	7.07	6.71	88.34	12.54	433.55	434.03	420.26	13.77	31.525			
2,100.00	2,100.00	2,125.45	2,125.07	7.43	7.12	87.89	15.69	426.70	428.27	413.75	14.51	29.507			
2,200.00	2,200.00	2,229.87	2,229.04	7.79	7.50	87.30	19.69	417.90	420.00	404.77	15.23	27.576			
2,300.00	2,300.00	2,333.40	2,332.01	8.14	7.87	86.63	24.05	408.00	410.66	394.71	15.95	25.753			
2,400.00	2,400.00	2,435.04	2,433.06	8.50	8.25	86.07	27.29	397.62	400.67	384.01	16.66	24.052			
2,500.00	2,500.00	2,535.52	2,532.96	8.86	8.62	85.72	28.99	386.96	390.20	372.84	17.37	22.465			
2,600.00	2,600.00	2,634.24	2,631.13	9.22	8.98	85.45	29.97	376.59	379.81	361.73	18.08	21.006			
2,700.00	2,700.00	2,731.15	2,727.53	9.58	9.34	85.25	30.48	366.74	369.71	350.92	18.79	19.674			
2,800.00	2,800.00	2,826.02	2,822.02	9.94	9.69	85.08	30.83	358.17	360.75	341.24	19.50	18.496			
2,900.00	2,900.00	2,922.54	2,918.24	10.30	10.05	84.91	31.24	350.61	352.98	332.76	20.22	17.460			
3,000.00	3,000.00	3,020.84	3,016.25	10.65	10.41	84.55	32.76	343.34	345.75	324.82	20.93	16.519			
3,100.00	3,100.00	3,120.98	3,116.09	11.01	10.78	83.98	35.46	336.10	338.82	317.17	21.65	15.651			
3,200.00	3,200.00	3,222.75	3,217.52	11.37	11.16	83.34	38.30	328.20	331.41	309.05	22.37	14.817			
3,300.00	3,300.00	3,324.52	3,318.89	11.73	11.54	82.70	40.96	319.68	323.41	300.32	23.09	14.009			
3,400.00	3,400.00	3,426.23	3,420.17	12.09	11.92	82.09	43.13	310.53	314.78	290.98	23.80	13.225			
3,500.00	3,500.00	3,525.54	3,519.04	12.45	12.30	81.54	44.82	301.29	305.80	281.28	24.52	12.471			
3,600.00	3,600.00	3,624.31	3,617.40	12.80	12.67	81.02	46.19	292.40	297.11	271.87	25.24	11.771			
3,700.00	3,700.00	3,724.27	3,716.96	13.16	13.05	80.58	47.07	283.58	288.54	262.58	25.96	11.116			
3,800.00	3,799.99	3,824.28	3,816.57	13.51	13.42	-33.46	47.07	274.72	278.71	252.05	26.66	10.454			
3,900.00	3,899.91	3,923.07	3,914.98	13.84	13.79	-34.24	46.56	266.04	266.73	239.38	27.35	9.752			
3,980.64	3,980.39	4,002.52	3,994.14	14.12	14.09	-35.14	46.05	259.20	255.66	227.75	27.91	9.160			
4,000.00	3,999.70	4,021.57	4,013.11	14.18	14.16	-35.37	45.91	257.57	252.86	224.82	28.04	9.017			
4,100.00	4,099.43	4,120.02	4,111.22	14.52	14.53	-36.59	45.08	249.31	238.56	209.82	28.74	8.302			
4,200.00	4,199.16	4,219.00	4,209.86	14.86	14.90	-37.91	44.01	241.19	224.51	195.08	29.43	7.629			
4,300.00	4,298.89	4,320.56	4,311.00	15.20	15.29	-39.61	43.30	231.96	209.84	179.72	30.12	6.967			
4,400.00	4,398.62	4,420.26	4,410.14	15.54	15.67	-41.86	43.30	221.47	194.23	163.41	30.81	6.303			
4,500.00	4,498.35	4,516.52	4,505.92	15.89	16.04	-44.43	43.58	211.83	179.52	147.98	31.54	5.691			
4,600.00	4,598.08	4,613.46	4,602.48	16.23	16.41	-47.33	43.98	203.31	166.41	134.14	32.27	5.156			
4,700.00	4,697.81	4,711.28	4,699.98	16.58	16.77	-50.66	44.52	195.47	154.57	121.57	33.01	4.683			
4,800.00	4,797.54	4,809.59	4,798.01	16.93	17.14	-54.47	45.25	188.16	143.94	110.19	33.75	4.265			
4,900.00	4,897.27	4,908.44	4,896.58	17.28	17.52	-59.07	46.41	180.71	134.21	99.72	34.50	3.890			
5,000.00	4,997.00	5,007.38	4,995.20	17.63	17.89	-64.57	48.02	172.98	125.56	90.30	35.26	3.561			
5,100.00	5,096.73	5,106.48	5,093.96	17.98	18.26	-70.93	49.66	164.94	118.06	82.01	36.04	3.276			
5,200.00	5,196.46	5,205.61	5,192.72	18.33	18.64	-78.15	51.22	156.57	111.96	75.13	36.83	3.040			
5,300.00	5,296.19	5,304.67	5,291.38	18.68	19.02	-86.27	52.71	147.68	107.53	69.90	37.62	2.858			
5,400.00	5,395.92	5,403.68	5,389.93	19.04	19.40	-95.11	54.07	138.30	105.16	66.75	38.41	2.738			
5,455.11	5,450.88	5,458.24	5,444.23	19.23	19.61	-100.12	54.67	133.02	104.81	65.98	38.83	2.699	CC		
5,500.00	5,495.65	5,502.68	5,488.45	19.39	19.78	-104.22	55.08	128.67	105.05	65.88	39.17	2.682	ES, SF		
5,600.00	5,595.38	5,601.27	5,586.57	19.75	20.16	-113.11	55.84	119.04	107.36	67.47	39.89	2.691			
5,700.00	5,695.11	5,699.85	5,684.73	20.10	20.54	-121.18	56.68	109.93	112.19	71.61	40.58	2.765			
5,800.00	5,794.84	5,798.61	5,783.10	20.46	20.92	-128.24	57.61	101.30	119.05	77.80	41.25	2.886			
5,900.00	5,894.57	5,897.48	5,881.62	20.81	21.29	-134.31	58.58	93.02	127.43	85.53	41.91	3.041			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Offsets - Charolais 28 21 B1MD St Com #2H - OH - OH													Offset Site Error:
Survey Program: 157-MWD													Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Rule Assigned: Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,000.00	5,994.30	5,996.30	5,980.12	21.17	21.67	-139.43	59.66	85.12	137.00	94.44	42.56	3.219	
6,100.00	6,094.03	6,095.19	6,078.72	21.53	22.04	-143.69	60.94	77.61	147.50	104.28	43.22	3.412	
6,200.00	6,193.76	6,194.24	6,177.48	21.89	22.41	-147.35	62.20	70.18	158.64	114.75	43.89	3.614	
6,300.00	6,293.49	6,293.24	6,276.17	22.25	22.79	-150.67	63.14	62.44	170.26	125.71	44.56	3.821	
6,400.00	6,393.22	6,392.78	6,375.41	22.61	23.16	-153.59	63.90	54.77	182.18	136.95	45.24	4.027	
6,500.00	6,492.95	6,492.28	6,474.65	22.97	23.54	-156.04	64.63	47.63	194.12	148.20	45.92	4.227	
6,600.00	6,592.68	6,589.53	6,571.61	23.33	23.91	-158.26	65.29	40.17	206.67	160.09	46.58	4.437	
6,700.00	6,692.41	6,686.73	6,668.43	23.69	24.28	-160.45	65.89	31.51	220.36	173.12	47.24	4.665	
6,800.00	6,792.14	6,786.22	6,767.49	24.05	24.66	-162.50	66.40	22.39	234.47	186.54	47.93	4.892	
6,900.00	6,891.87	6,885.15	6,866.04	24.41	25.04	-164.27	66.79	13.65	248.51	199.88	48.62	5.111	
7,000.00	6,991.60	6,981.32	6,961.81	24.77	25.41	-165.70	67.88	5.04	263.29	214.01	49.28	5.343	
7,100.00	7,091.33	7,077.96	7,058.01	25.13	25.78	-166.85	70.06	-3.94	279.15	229.20	49.95	5.589	
7,200.00	7,191.06	7,177.11	7,156.70	25.50	26.16	-167.82	72.71	-13.04	295.26	244.61	50.65	5.829	
7,300.00	7,290.79	7,276.18	7,255.34	25.86	26.54	-168.65	75.42	-21.86	311.26	259.90	51.36	6.061	
7,400.00	7,390.52	7,374.84	7,353.57	26.22	26.92	-169.47	77.79	-30.79	327.25	275.19	52.06	6.286	
7,500.00	7,490.25	7,473.82	7,452.10	26.59	27.30	-170.29	79.70	-40.03	343.27	290.51	52.76	6.506	
7,600.00	7,589.98	7,573.50	7,551.34	26.95	27.69	-171.07	81.40	-49.19	359.12	305.65	53.48	6.715	
7,700.00	7,689.71	7,673.62	7,651.06	27.31	28.07	-171.79	82.92	-58.13	374.72	320.52	54.20	6.914	
7,800.00	7,789.44	7,774.32	7,751.38	27.68	28.46	-172.46	84.20	-66.71	389.89	334.97	54.92	7.099	
7,900.00	7,889.17	7,876.47	7,853.19	28.04	28.85	-173.07	85.23	-74.86	404.52	348.86	55.66	7.268	
8,000.00	7,988.90	7,979.87	7,956.35	28.41	29.23	-173.60	86.07	-82.02	418.18	361.77	56.41	7.414	
8,100.00	8,088.63	8,080.12	8,056.40	28.77	29.61	-174.05	86.66	-88.19	431.09	373.97	57.12	7.547	
8,200.00	8,188.36	8,179.20	8,155.28	29.14	29.97	-174.52	86.90	-94.45	444.01	386.18	57.83	7.678	
8,300.00	8,288.09	8,279.69	8,255.57	29.50	30.35	-175.01	86.82	-100.83	456.83	398.28	58.55	7.803	
8,400.00	8,387.82	8,380.56	8,356.26	29.87	30.72	-175.49	86.48	-106.96	469.31	410.05	59.27	7.919	
8,500.00	8,487.56	8,483.31	8,458.84	30.23	31.10	-175.95	85.81	-112.73	481.28	421.28	60.00	8.022	
8,600.00	8,587.29	8,586.04	8,561.44	30.60	31.47	-176.41	84.71	-117.85	492.53	431.80	60.73	8.110	
8,700.00	8,687.02	8,686.59	8,661.87	30.96	31.83	-176.82	83.49	-122.43	503.36	441.92	61.44	8.192	
8,800.00	8,786.75	8,787.52	8,762.70	31.33	32.20	-177.21	82.29	-126.73	513.96	451.81	62.16	8.269	
8,900.00	8,886.48	8,889.73	8,864.85	31.70	32.56	-177.51	81.45	-130.40	524.15	461.27	62.88	8.336	
9,000.00	8,986.21	8,992.55	8,967.63	32.06	32.93	-177.71	81.11	-133.21	533.79	470.19	63.60	8.392	
9,100.00	9,085.94	9,079.00	9,054.05	32.43	33.23	-177.81	81.42	-135.41	543.66	479.41	64.24	8.462	
9,200.00	9,185.67	9,127.00	9,101.85	32.80	33.41	-177.70	84.17	-138.43	559.55	495.12	64.42	8.685	
9,300.00	9,285.40	9,175.00	9,148.95	33.16	33.60	-177.33	91.11	-144.32	584.35	520.08	64.26	9.093	
9,400.00	9,385.13	9,222.00	9,193.82	33.53	33.80	-176.76	101.95	-153.07	617.86	554.03	63.84	9.679	
9,500.00	9,484.86	9,270.00	9,238.08	33.90	34.00	-175.90	117.33	-163.36	658.35	595.07	63.28	10.404	
9,600.00	9,584.59	9,317.00	9,279.50	34.26	34.19	-174.68	137.37	-172.81	704.34	641.72	62.61	11.249	
9,700.00	9,684.32	9,365.00	9,319.33	34.63	34.37	-173.13	162.45	-182.12	755.93	694.00	61.94	12.205	
9,800.00	9,784.05	9,393.57	9,341.74	35.00	34.48	-172.12	179.27	-187.69	812.73	752.04	60.69	13.391	
9,900.00	9,883.78	9,429.38	9,368.20	35.37	34.61	-170.77	202.41	-194.47	874.51	814.80	59.71	14.645	
10,000.00	9,983.51	9,481.53	9,403.54	35.73	34.78	-168.53	240.02	-201.59	939.99	880.74	59.25	15.865	
10,100.00	10,083.24	9,528.95	9,432.37	36.10	34.92	-166.18	277.63	-202.43	1,007.39	948.76	58.63	17.181	
10,200.00	10,182.97	9,555.00	9,446.79	36.47	34.99	-164.83	299.30	-201.80	1,078.30	1,020.72	57.58	18.727	
10,259.92	10,242.73	9,565.71	9,452.40	36.69	35.02	-164.28	308.41	-201.42	1,122.41	1,065.51	56.90	19.727	
10,300.00	10,282.71	9,580.30	9,459.69	36.84	35.06	-163.71	321.04	-200.84	1,152.51	1,095.89	56.62	20.354	
10,400.00	10,382.59	9,580.30	9,459.69	37.20	35.06	-164.19	321.04	-200.84	1,228.38	1,173.15	55.23	22.241	
10,500.00	10,482.56	9,602.00	9,469.74	37.56	35.11	-163.60	340.24	-199.86	1,305.41	1,251.03	54.38	24.005	
10,540.57	10,523.12	9,602.00	9,469.74	37.70	35.11	-50.31	340.24	-199.86	1,337.01	1,283.13	53.89	24.811	
10,550.00	10,532.55	9,602.00	9,469.74	37.73	35.11	-48.96	340.24	-199.86	1,344.37	1,290.60	53.78	25.000	
10,600.00	10,582.45	9,619.48	9,477.27	37.90	35.16	-43.91	355.99	-198.98	1,382.42	1,328.92	53.50	25.842	
10,650.00	10,631.89	9,629.95	9,481.60	38.06	35.18	-39.94	365.51	-198.43	1,419.05	1,365.99	53.06	26.743	
10,700.00	10,680.50	9,650.00	9,489.49	38.22	35.24	-36.33	383.91	-197.30	1,454.06	1,401.28	52.78	27.549	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Offsets - Charolais 28 21 B1MD St Com #2H - OH - OH													Offset Site Error:
													0.00 usft
Survey Program: 157-MWD													Offset Well Error:
													0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,750.00	10,727.92	9,650.00	9,489.49	38.37	35.24	-33.81	383.91	-197.30	1,487.05	1,434.90	52.14	28.519	
10,800.00	10,773.78	9,667.74	9,496.10	38.51	35.29	-31.31	400.34	-196.30	1,517.97	1,466.18	51.80	29.306	
10,850.00	10,817.73	9,682.49	9,501.36	38.63	35.33	-29.29	414.09	-195.49	1,546.64	1,495.24	51.39	30.093	
10,900.00	10,859.44	9,698.00	9,506.65	38.75	35.38	-27.60	428.65	-194.68	1,572.87	1,521.87	51.00	30.839	
10,950.00	10,898.59	9,716.43	9,512.68	38.85	35.44	-26.16	446.05	-193.77	1,596.50	1,545.85	50.66	31.516	
11,000.00	10,934.88	9,745.00	9,521.49	38.94	35.53	-24.89	473.19	-192.43	1,617.44	1,566.98	50.46	32.054	
11,050.00	10,968.04	9,745.00	9,521.49	39.02	35.53	-24.09	473.19	-192.43	1,635.46	1,585.59	49.87	32.796	
11,100.00	10,997.81	9,769.54	9,528.45	39.08	35.62	-23.28	496.70	-191.37	1,650.55	1,600.92	49.63	33.255	
11,150.00	11,023.97	9,794.00	9,534.71	39.13	35.71	-22.66	520.32	-190.41	1,662.84	1,613.43	49.41	33.654	
11,200.00	11,046.31	9,801.50	9,536.48	39.18	35.74	-22.27	527.61	-190.14	1,672.05	1,623.04	49.00	34.123	
11,250.00	11,064.68	9,820.48	9,540.66	39.24	35.81	-21.97	546.11	-189.47	1,678.32	1,629.55	48.77	34.416	
11,260.33	11,067.96	9,825.43	9,541.70	39.26	35.83	-21.92	550.95	-189.31	1,679.22	1,630.48	48.73	34.458	
11,300.00	11,078.92	9,853.00	9,547.28	39.34	35.95	-21.79	577.93	-188.52	1,681.41	1,632.70	48.71	34.518	
11,350.00	11,088.94	9,862.93	9,549.14	39.45	35.99	-21.78	587.68	-188.26	1,681.19	1,632.74	48.45	34.700	
11,364.33	11,091.01	9,867.33	9,549.92	39.49	36.01	-21.80	592.01	-188.15	1,680.58	1,632.18	48.40	34.723	
11,400.00	11,094.64	9,880.00	9,552.01	39.57	36.07	-21.90	604.50	-187.84	1,677.99	1,629.68	48.31	34.732	
11,415.28	11,095.52	9,888.25	9,553.30	39.61	36.10	-21.96	612.65	-187.64	1,676.39	1,628.08	48.31	34.703	
11,450.11	11,096.00	9,953.79	9,563.95	39.69	36.42	-22.21	677.28	-185.57	1,671.07	1,622.32	48.75	34.279	
11,466.59	11,095.72	9,961.16	9,565.18	39.74	36.46	-22.21	684.54	-185.30	1,667.98	1,619.25	48.74	34.224	
11,500.00	11,095.17	9,975.00	9,567.37	39.82	36.53	-22.23	698.20	-184.76	1,661.99	1,613.29	48.71	34.122	
11,511.66	11,094.97	9,975.00	9,567.37	39.86	36.53	-22.23	698.20	-184.76	1,660.01	1,611.35	48.66	34.116	
11,600.00	11,093.50	10,006.00	9,571.15	40.13	36.69	-22.25	728.95	-183.95	1,647.06	1,598.44	48.61	33.882	
11,632.66	11,092.96	10,006.00	9,571.15	40.24	36.69	-22.25	728.95	-183.95	1,643.03	1,594.49	48.54	33.846	
11,700.00	11,091.84	10,019.23	9,572.18	40.47	36.76	-22.26	742.14	-183.83	1,636.54	1,587.98	48.56	33.700	
11,730.51	11,091.33	10,026.38	9,572.59	40.60	36.80	-22.26	749.28	-183.80	1,634.30	1,585.69	48.61	33.622	
11,800.00	11,090.17	10,039.00	9,573.08	40.87	36.87	-22.27	761.89	-183.81	1,630.83	1,582.07	48.76	33.449	
11,829.99	11,089.67	10,055.05	9,573.36	41.00	36.96	-22.27	777.94	-183.91	1,629.93	1,581.04	48.89	33.341	
11,900.00	11,088.51	10,093.22	9,573.15	41.31	37.19	-22.29	816.10	-184.41	1,629.18	1,579.96	49.22	33.101	
11,929.26	11,088.02	10,119.65	9,572.87	41.46	37.35	-22.29	842.53	-184.81	1,629.09	1,579.69	49.40	32.976	
11,961.44	11,087.48	10,148.72	9,572.51	41.61	37.53	-22.30	871.59	-185.29	1,629.06	1,579.46	49.60	32.841	
12,000.00	11,086.84	10,181.44	9,572.04	41.80	37.74	-22.31	904.30	-185.85	1,629.12	1,579.27	49.85	32.682	
12,022.82	11,086.46	10,199.71	9,571.71	41.92	37.87	-22.32	922.57	-186.17	1,629.24	1,579.24	50.00	32.586	
12,100.00	11,085.18	10,260.00	9,570.22	42.33	38.28	-22.33	982.83	-187.22	1,630.09	1,579.59	50.51	32.274	
12,122.84	11,084.80	10,283.04	9,569.52	42.47	38.45	-22.33	1,005.86	-187.62	1,630.46	1,579.78	50.68	32.170	
12,200.00	11,083.51	10,355.05	9,567.15	42.91	38.98	-22.34	1,077.81	-188.80	1,631.87	1,580.61	51.26	31.837	
12,300.00	11,081.85	10,539.69	9,566.24	43.52	40.48	-22.43	1,262.39	-192.31	1,631.15	1,578.76	52.39	31.135	
12,330.56	11,081.34	10,543.00	9,566.33	43.72	40.51	-22.44	1,265.70	-192.41	1,630.40	1,577.84	52.56	31.022	
12,400.00	11,080.18	10,601.28	9,567.20	44.18	41.03	-22.50	1,323.94	-194.17	1,629.06	1,575.88	53.17	30.636	
12,422.96	11,079.80	10,614.92	9,567.19	44.34	41.15	-22.52	1,337.58	-194.59	1,628.93	1,575.56	53.36	30.526	
12,500.00	11,078.52	10,728.01	9,567.39	44.87	42.20	-22.64	1,450.59	-198.44	1,628.63	1,574.34	54.28	30.002	
12,529.79	11,078.02	10,732.00	9,567.49	45.08	42.24	-22.65	1,454.58	-198.59	1,628.09	1,573.61	54.48	29.884	
12,600.00	11,076.85	10,791.13	9,568.18	45.60	42.82	-22.73	1,513.66	-200.89	1,627.18	1,572.00	55.19	29.485	
12,609.02	11,076.70	10,796.57	9,568.16	45.66	42.87	-22.74	1,519.09	-201.11	1,627.17	1,571.90	55.27	29.440	
12,637.44	11,076.23	10,825.00	9,567.89	45.88	43.15	-22.77	1,547.50	-202.24	1,627.34	1,571.76	55.58	29.280	
12,700.00	11,075.19	10,871.72	9,567.24	46.36	43.62	-22.82	1,594.18	-204.20	1,627.91	1,571.71	56.21	28.964	
12,723.25	11,074.80	10,896.54	9,566.96	46.54	43.88	-22.85	1,618.96	-205.30	1,628.13	1,571.65	56.48	28.829	
12,800.00	11,073.52	10,979.16	9,566.25	47.15	44.74	-22.96	1,701.50	-209.04	1,628.67	1,571.28	57.39	28.380	
12,822.98	11,073.14	11,003.99	9,566.06	47.34	45.00	-22.99	1,726.31	-210.08	1,628.78	1,571.11	57.67	28.244	
12,900.00	11,071.86	11,064.75	9,565.38	47.98	45.66	-23.06	1,787.01	-212.59	1,629.41	1,570.89	58.52	27.844	
12,922.52	11,071.48	11,081.61	9,565.06	48.17	45.84	-23.08	1,803.85	-213.32	1,629.77	1,571.00	58.77	27.731	
13,000.00	11,070.19	11,141.68	9,563.49	48.83	46.51	-23.14	1,863.84	-216.03	1,631.57	1,571.92	59.65	27.352	
13,022.38	11,069.82	11,159.59	9,562.90	49.03	46.71	-23.16	1,881.73	-216.84	1,632.23	1,572.32	59.91	27.243	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Offsets - Charolais 28 21 B1MD St Com #2H - OH - OH														Offset Site Error:	0.00 usft
Survey Program: 157-MWD														Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
13,100.00	11,068.53	11,229.56	9,560.17	49.71	47.51	-23.22	1,951.56	-220.00	1,634.95	1,574.10	60.85	26.867			
13,122.88	11,068.15	11,256.45	9,559.14	49.92	47.82	-23.25	1,978.41	-221.20	1,635.74	1,574.58	61.16	26.744			
13,200.00	11,066.86	11,346.77	9,556.12	50.62	48.88	-23.33	2,068.60	-225.06	1,637.99	1,575.78	62.21	26.331			
13,300.00	11,065.20	11,510.91	9,554.54	51.56	50.84	-23.48	2,232.61	-230.73	1,638.30	1,574.47	63.83	25.667			
13,330.09	11,064.70	11,530.66	9,554.62	51.85	51.09	-23.50	2,252.34	-231.30	1,637.97	1,573.78	64.19	25.518			
13,366.56	11,064.09	11,554.60	9,554.51	52.20	51.38	-23.52	2,276.28	-231.93	1,637.83	1,573.21	64.63	25.343			
13,400.00	11,063.53	11,583.00	9,554.08	52.52	51.73	-23.53	2,304.67	-232.58	1,637.97	1,572.92	65.05	25.180			
13,422.76	11,063.15	11,594.15	9,553.83	52.74	51.87	-23.54	2,315.81	-232.80	1,638.15	1,572.85	65.31	25.083			
13,500.00	11,061.87	11,660.69	9,552.01	53.50	52.69	-23.54	2,382.32	-233.93	1,639.19	1,572.89	66.30	24.725			
13,600.00	11,060.20	11,802.70	9,549.24	54.50	54.48	-23.55	2,524.29	-235.30	1,639.49	1,571.67	67.82	24.174			
13,629.79	11,059.70	11,831.89	9,549.06	54.81	54.86	-23.55	2,553.48	-235.60	1,639.23	1,571.00	68.23	24.024			
13,700.00	11,058.54	11,898.80	9,548.67	55.52	55.72	-23.57	2,620.38	-236.49	1,638.68	1,569.47	69.21	23.679			
13,729.53	11,058.04	11,926.07	9,548.46	55.83	56.07	-23.58	2,647.65	-236.87	1,638.51	1,568.89	69.62	23.536			
13,800.00	11,056.87	11,992.86	9,547.80	56.57	56.94	-23.60	2,714.43	-237.83	1,638.24	1,567.63	70.61	23.202			
13,829.41	11,056.38	12,021.67	9,547.53	56.88	57.32	-23.61	2,743.23	-238.33	1,638.16	1,567.13	71.03	23.062			
13,887.10	11,055.42	12,075.17	9,547.03	57.49	58.03	-23.64	2,796.72	-239.41	1,638.05	1,566.19	71.86	22.794			
13,900.00	11,055.21	12,086.02	9,546.91	57.63	58.18	-23.65	2,807.56	-239.65	1,638.06	1,566.02	72.04	22.737			
13,922.95	11,054.82	12,105.31	9,546.66	57.87	58.44	-23.65	2,826.85	-240.08	1,638.12	1,565.75	72.37	22.636			
14,000.00	11,053.54	12,167.39	9,545.55	58.70	59.27	-23.68	2,888.90	-241.55	1,638.69	1,565.24	73.45	22.311			
14,022.54	11,053.17	12,183.52	9,545.13	58.95	59.49	-23.69	2,905.02	-241.91	1,639.02	1,565.27	73.76	22.222			
14,100.00	11,051.88	12,246.00	9,542.76	59.80	60.33	-23.69	2,967.44	-243.15	1,640.84	1,566.01	74.83	21.927			
14,200.00	11,050.21	12,408.73	9,539.88	60.91	62.55	-23.68	3,130.13	-243.97	1,640.40	1,563.82	76.58	21.421			
14,230.22	11,049.71	12,438.32	9,539.68	61.25	62.96	-23.67	3,159.72	-243.97	1,640.02	1,563.00	77.03	21.292			
14,300.00	11,048.55	12,512.17	9,539.27	62.03	63.98	-23.67	3,233.57	-243.97	1,639.09	1,561.00	78.09	20.990			
14,329.72	11,048.05	12,531.00	9,539.20	62.37	64.24	-23.66	3,252.39	-243.97	1,638.68	1,560.19	78.49	20.877			
14,400.00	11,046.88	12,594.77	9,538.49	63.17	65.13	-23.65	3,316.16	-243.75	1,638.03	1,558.51	79.52	20.600			
14,422.93	11,046.50	12,612.55	9,538.11	63.43	65.38	-23.64	3,333.94	-243.60	1,637.97	1,558.13	79.84	20.517			
14,500.00	11,045.22	12,751.99	9,538.97	64.32	67.33	-23.58	3,473.33	-241.66	1,635.07	1,553.83	81.24	20.126			
14,530.69	11,044.70	12,767.81	9,539.09	64.67	67.55	-23.57	3,489.15	-241.31	1,634.01	1,552.37	81.64	20.014			
14,600.00	11,043.55	12,816.00	9,538.39	65.48	68.23	-23.52	3,537.31	-239.99	1,632.74	1,550.17	82.58	19.773			
14,629.56	11,043.06	12,821.76	9,538.21	65.83	68.31	-23.51	3,543.07	-239.81	1,632.50	1,549.57	82.92	19.687			
14,700.00	11,041.88	12,896.28	9,535.81	66.65	69.37	-23.38	3,617.49	-237.05	1,632.24	1,548.33	83.92	19.451			
14,729.25	11,041.40	13,033.24	9,536.87	67.00	71.32	-23.22	3,754.29	-231.71	1,630.69	1,546.03	84.66	19.262			
14,800.00	11,040.22	13,102.00	9,540.13	67.84	72.30	-23.22	3,822.96	-230.34	1,625.74	1,539.98	85.76	18.956			
14,831.97	11,039.69	13,127.71	9,541.40	68.22	72.68	-23.23	3,848.64	-230.11	1,623.59	1,537.33	86.26	18.823			
14,900.00	11,038.55	13,184.04	9,543.98	69.04	73.50	-23.26	3,904.91	-229.85	1,619.35	1,532.03	87.32	18.545			
14,930.81	11,038.04	13,198.00	9,544.57	69.41	73.70	-23.26	3,918.86	-229.84	1,617.64	1,529.89	87.75	18.434			
15,000.00	11,036.89	13,235.24	9,545.59	70.24	74.25	-23.28	3,956.08	-229.91	1,614.82	1,526.07	88.75	18.195			
15,030.00	11,036.39	13,248.70	9,545.69	70.61	74.44	-23.28	3,969.54	-229.98	1,614.11	1,524.95	89.16	18.103			
15,071.98	11,035.69	13,267.53	9,545.59	71.12	74.72	-23.29	3,988.37	-230.10	1,613.64	1,523.90	89.74	17.982			
15,100.00	11,035.22	13,294.00	9,544.99	71.46	75.11	-23.28	4,014.83	-230.34	1,613.80	1,523.61	90.18	17.895			
15,200.00	11,033.56	13,445.56	9,546.69	72.68	77.35	-23.39	4,166.32	-233.11	1,611.51	1,519.36	92.16	17.486			
15,230.50	11,033.05	13,472.49	9,547.50	73.06	77.75	-23.43	4,193.22	-233.94	1,610.48	1,517.80	92.69	17.376			
15,300.00	11,031.89	13,513.00	9,548.42	73.91	78.36	-23.49	4,233.70	-235.34	1,608.75	1,514.98	93.77	17.157			
15,323.21	11,031.51	13,513.00	9,548.42	74.20	78.36	-23.49	4,233.70	-235.34	1,608.58	1,514.53	94.04	17.105			
15,352.68	11,031.02	13,538.24	9,548.45	74.57	78.74	-23.52	4,258.92	-236.20	1,608.43	1,513.89	94.54	17.013			
15,400.00	11,030.23	13,561.33	9,548.07	75.16	79.08	-23.54	4,282.00	-236.96	1,608.90	1,513.67	95.22	16.896			
15,421.85	11,029.87	13,571.99	9,547.76	75.43	79.24	-23.54	4,292.65	-237.30	1,609.35	1,513.82	95.53	16.846			
15,500.00	11,028.56	13,612.49	9,545.84	76.40	79.85	-23.55	4,333.09	-238.54	1,612.22	1,515.59	96.63	16.684			
15,522.29	11,028.19	13,635.66	9,544.47	76.68	80.20	-23.56	4,356.21	-239.22	1,613.27	1,516.26	97.01	16.630			
15,600.00	11,026.90	13,713.33	9,539.95	77.66	81.37	-23.56	4,433.71	-241.43	1,616.87	1,518.56	98.31	16.447			
15,621.86	11,026.53	13,730.79	9,538.89	77.94	81.64	-23.56	4,451.13	-241.93	1,617.92	1,519.28	98.65	16.401			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Offsets - Charolais 28 21 B1MD St Com #2H - OH - OH													Offset Site Error:
													0.00 usft
													Offset Well Error:
													0.00 usft
Survey Program:	Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance	Rule Assigned:						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Reference	Offset	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
15,700.00	11,025.23	13,799.00	9,534.36	78.92	82.67	-23.57	4,519.16	-244.06	1,622.20	1,522.31	99.89	16.239	
15,800.00	11,023.57	14,020.69	9,529.41	80.19	86.02	-23.54	4,740.72	-245.61	1,621.02	1,518.84	102.19	15.864	
15,831.28	11,023.05	14,050.58	9,529.39	80.59	86.47	-23.54	4,770.61	-245.53	1,620.44	1,517.73	102.70	15.778	
15,900.00	11,021.90	14,148.77	9,529.77	81.47	87.96	-23.53	4,868.80	-245.08	1,618.90	1,514.93	103.97	15.571	
15,930.19	11,021.40	14,195.75	9,530.94	81.86	88.67	-23.53	4,915.76	-244.92	1,617.59	1,513.04	104.55	15.471	
16,000.00	11,020.24	14,276.78	9,533.72	82.75	89.91	-23.57	4,996.74	-244.81	1,614.07	1,508.25	105.82	15.253	
16,030.86	11,019.72	14,274.00	9,533.61	83.15	89.86	-23.57	4,993.96	-244.81	1,612.76	1,506.53	106.23	15.182	
16,100.00	11,018.57	14,322.34	9,534.56	84.04	90.60	-23.58	5,042.30	-244.76	1,610.42	1,503.08	107.34	15.003	
16,129.72	11,018.08	14,336.39	9,534.50	84.43	90.82	-23.58	5,056.34	-244.73	1,609.96	1,502.19	107.77	14.938	
16,142.37	11,017.87	14,342.38	9,534.43	84.59	90.91	-23.57	5,062.33	-244.72	1,609.85	1,501.90	107.96	14.912	
16,200.00	11,016.91	14,370.88	9,533.71	85.34	91.34	-23.56	5,090.82	-244.63	1,610.03	1,501.25	108.78	14.801	
16,300.00	11,015.24	14,524.65	9,530.61	86.63	93.70	-23.47	5,244.54	-243.25	1,609.75	1,499.13	110.62	14.552	
16,330.05	11,014.74	14,576.55	9,531.00	87.03	94.49	-23.46	5,296.44	-242.86	1,608.89	1,497.68	111.21	14.467	
16,400.00	11,013.58	14,647.39	9,532.06	87.94	95.58	-23.46	5,367.27	-242.65	1,606.56	1,494.13	112.42	14.290	
16,430.39	11,013.07	14,670.62	9,532.47	88.34	95.94	-23.47	5,390.50	-242.67	1,605.52	1,492.59	112.93	14.217	
16,500.00	11,011.91	14,719.15	9,532.91	89.25	96.69	-23.48	5,439.03	-242.93	1,603.80	1,489.73	114.07	14.060	
16,529.75	11,011.42	14,748.00	9,532.91	89.64	97.14	-23.49	5,467.88	-243.23	1,603.37	1,488.77	114.59	13.992	
16,600.00	11,010.25	14,795.94	9,532.62	90.56	97.88	-23.51	5,515.81	-243.92	1,602.79	1,487.05	115.74	13.849	
16,629.36	11,009.76	14,819.94	9,532.37	90.95	98.25	-23.52	5,539.81	-244.35	1,602.73	1,486.49	116.23	13.789	
16,632.81	11,009.70	14,822.76	9,532.34	90.99	98.30	-23.52	5,542.63	-244.40	1,602.73	1,486.43	116.29	13.782	
16,700.00	11,008.58	14,890.55	9,531.52	91.88	99.35	-23.56	5,610.39	-245.87	1,602.81	1,485.29	117.52	13.639	
16,760.40	11,007.58	14,950.36	9,531.09	92.68	100.29	-23.60	5,670.18	-247.38	1,602.70	1,484.07	118.63	13.510	
16,800.00	11,006.92	14,979.50	9,530.74	93.20	100.74	-23.62	5,699.31	-248.16	1,602.83	1,483.54	119.30	13.436	
16,822.75	11,006.54	14,996.24	9,530.45	93.50	101.00	-23.63	5,716.04	-248.61	1,603.02	1,483.35	119.68	13.394	
16,900.00	11,005.25	15,060.31	9,528.81	94.53	102.01	-23.66	5,780.06	-250.39	1,604.25	1,483.24	121.01	13.257	
16,923.14	11,004.87	15,083.17	9,528.17	94.84	102.37	-23.67	5,802.91	-251.05	1,604.68	1,483.24	121.43	13.215	
17,000.00	11,003.59	15,177.87	9,525.87	95.86	103.85	-23.73	5,897.53	-253.89	1,605.94	1,482.97	122.97	13.059	
17,100.00	11,001.92	15,314.43	9,526.12	97.19	106.00	-23.90	6,033.99	-259.02	1,605.40	1,480.22	125.18	12.825	
17,129.94	11,001.42	15,352.83	9,526.90	97.59	106.61	-23.97	6,072.33	-260.86	1,604.87	1,479.01	125.86	12.752	
17,200.00	11,000.26	15,410.00	9,528.52	98.53	107.51	-24.08	6,129.42	-263.69	1,603.27	1,476.04	127.23	12.601	
17,229.86	10,999.76	15,444.63	9,529.37	98.93	108.06	-24.15	6,163.99	-265.32	1,602.58	1,474.69	127.89	12.531	
17,293.09	10,998.71	15,484.30	9,529.62	99.78	108.69	-24.20	6,203.63	-266.89	1,602.08	1,473.09	129.00	12.420	
17,300.00	10,998.59	15,505.00	9,529.44	99.87	109.02	-24.22	6,224.32	-267.58	1,602.22	1,473.00	129.22	12.399	
17,400.00	10,996.93	15,607.16	9,529.17	101.22	110.63	-24.33	6,326.41	-271.18	1,602.07	1,470.87	131.20	12.211	
17,407.07	10,996.81	15,616.92	9,529.27	101.31	110.79	-24.35	6,336.17	-271.56	1,601.99	1,470.63	131.36	12.195	
17,437.03	10,996.31	15,621.66	9,529.08	101.72	110.86	-24.35	6,340.91	-271.67	1,602.01	1,470.23	131.78	12.157	
17,500.00	10,995.26	15,654.92	9,528.36	102.56	111.39	-24.37	6,374.14	-272.61	1,602.82	1,470.05	132.77	12.072	
17,521.95	10,994.90	15,666.51	9,527.92	102.86	111.57	-24.37	6,385.72	-272.88	1,603.38	1,470.28	133.10	12.046	
17,600.00	10,993.60	15,717.86	9,524.99	103.91	112.38	-24.35	6,436.98	-273.70	1,606.43	1,472.15	134.29	11.963	
17,622.46	10,993.22	15,739.20	9,523.63	104.22	112.72	-24.34	6,458.28	-274.03	1,607.45	1,472.79	134.66	11.937	
17,700.00	10,991.93	15,831.89	9,517.76	105.27	114.19	-24.29	6,550.77	-275.21	1,610.96	1,474.88	136.08	11.838	
17,800.00	10,990.27	16,073.00	9,515.89	106.62	117.97	-24.02	6,791.60	-267.97	1,606.27	1,468.22	138.06	11.635	
17,832.00	10,989.73	16,073.00	9,515.89	107.06	117.97	-24.02	6,791.60	-267.97	1,604.96	1,466.41	138.55	11.584	
17,900.00	10,988.60	16,129.72	9,516.24	107.98	118.86	-23.97	6,848.29	-266.25	1,602.58	1,462.94	139.64	11.477	
17,929.85	10,988.10	16,147.30	9,516.05	108.39	119.14	-23.95	6,865.86	-265.74	1,601.97	1,461.88	140.09	11.435	
18,000.00	10,986.94	16,207.49	9,514.76	109.35	120.08	-23.88	6,926.01	-264.11	1,601.24	1,460.06	141.18	11.342	
18,029.44	10,986.45	16,240.70	9,514.16	109.75	120.61	-23.84	6,959.21	-263.32	1,600.90	1,459.24	141.66	11.301	
18,100.00	10,985.27	16,319.61	9,513.21	110.71	121.85	-23.78	7,038.10	-261.80	1,599.82	1,456.98	142.85	11.200	
18,129.83	10,984.77	16,352.87	9,513.02	111.12	122.38	-23.76	7,071.36	-261.33	1,599.26	1,455.90	143.36	11.155	
18,200.00	10,983.61	16,404.77	9,512.37	112.08	123.20	-23.72	7,123.24	-260.34	1,598.23	1,453.76	144.47	11.063	
18,229.58	10,983.11	16,426.01	9,511.80	112.48	123.53	-23.69	7,144.46	-259.69	1,598.06	1,453.15	144.91	11.028	
18,242.65	10,982.90	16,435.39	9,511.48	112.66	123.68	-23.67	7,153.83	-259.36	1,598.03	1,452.93	145.10	11.014	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Offsets - Charolais 28 21 B1MD St Com #2H - OH - OH													Offset Site Error:
													0.00 usft
													Offset Well Error:
													0.00 usft
Survey Program:	Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance	Rule Assigned:	Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Reference	Offset	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
18,300.00	10,981.94	16,486.09	9,509.31	113.45	124.48	-23.56	7,204.44	-257.04	1,598.16	1,452.27	145.89	10.954	
18,400.00	10,980.28	16,713.57	9,510.55	114.82	128.06	-23.23	7,431.33	-246.79	1,593.40	1,445.97	147.42	10.808	
18,431.84	10,979.75	16,736.00	9,511.92	115.25	128.42	-23.25	7,453.72	-246.76	1,591.02	1,443.00	148.02	10.748	
18,500.00	10,978.61	16,778.88	9,514.18	116.19	129.10	-23.29	7,496.53	-247.06	1,586.68	1,437.38	149.30	10.627	
18,530.72	10,978.10	16,796.79	9,514.92	116.61	129.39	-23.31	7,514.43	-247.31	1,585.13	1,435.26	149.87	10.577	
18,600.00	10,976.95	16,831.00	9,515.98	117.57	129.94	-23.35	7,548.62	-248.01	1,582.55	1,431.46	151.09	10.474	
18,629.90	10,976.45	16,857.07	9,516.52	117.98	130.35	-23.38	7,574.67	-248.72	1,581.77	1,430.09	151.68	10.429	
18,700.00	10,975.28	16,902.09	9,517.01	118.94	131.08	-23.44	7,619.66	-250.35	1,580.78	1,427.82	152.95	10.335	
18,729.49	10,974.79	16,925.00	9,517.05	119.35	131.45	-23.47	7,642.55	-251.37	1,580.70	1,427.14	153.56	10.294	
18,732.41	10,974.74	16,925.00	9,517.05	119.39	131.45	-23.47	7,642.55	-251.37	1,580.70	1,427.14	153.56	10.294	
18,800.00	10,973.62	16,971.09	9,516.63	120.32	132.19	-23.53	7,688.59	-253.44	1,581.19	1,426.41	154.78	10.216	
18,822.54	10,973.24	16,987.24	9,516.33	120.64	132.45	-23.55	7,704.72	-254.12	1,581.54	1,426.35	155.19	10.191	
18,900.00	10,971.95	17,050.10	9,514.53	121.71	133.46	-23.61	7,767.50	-256.64	1,583.36	1,426.75	156.60	10.111	
18,922.85	10,971.57	17,071.75	9,513.87	122.02	133.81	-23.63	7,789.12	-257.58	1,583.98	1,426.92	157.05	10.086	
19,000.00	10,970.29	17,160.78	9,511.49	123.09	135.25	-23.74	7,878.00	-262.09	1,586.04	1,427.27	158.77	9.990	
19,022.90	10,969.90	17,194.45	9,511.07	123.41	135.80	-23.80	7,911.61	-264.07	1,586.42	1,427.05	159.37	9.954	
19,100.00	10,968.62	17,255.81	9,510.36	124.47	136.79	-23.90	7,972.86	-267.59	1,587.65	1,426.76	160.89	9.868	
19,123.15	10,968.24	17,271.76	9,509.93	124.79	137.05	-23.92	7,988.79	-268.34	1,588.24	1,426.94	161.30	9.846	
19,200.00	10,966.96	17,393.37	9,506.09	125.86	139.01	-23.98	8,110.28	-271.89	1,590.33	1,427.23	163.10	9.750	
19,300.00	10,965.29	17,500.78	9,505.05	127.25	140.74	-24.01	8,217.67	-273.40	1,589.93	1,424.89	165.04	9.634	
19,329.56	10,964.80	17,532.48	9,504.86	127.66	141.25	-24.03	8,249.37	-273.96	1,589.76	1,424.13	165.63	9.598	
19,400.00	10,963.63	17,602.99	9,504.88	128.64	142.38	-24.09	8,319.85	-275.87	1,589.22	1,422.17	167.05	9.513	
19,429.58	10,963.13	17,625.85	9,504.84	129.05	142.75	-24.11	8,342.70	-276.59	1,589.09	1,421.48	167.61	9.481	
19,445.23	10,962.87	17,637.95	9,504.78	129.27	142.95	-24.12	8,354.80	-276.97	1,589.07	1,421.16	167.91	9.464	
19,500.00	10,961.96	17,685.00	9,504.27	130.03	143.71	-24.16	8,401.82	-278.45	1,589.29	1,420.33	168.96	9.406	
19,600.00	10,960.30	17,796.84	9,503.61	131.42	145.52	-24.28	8,513.59	-282.40	1,589.43	1,418.31	171.12	9.288	
19,628.50	10,959.82	17,821.30	9,503.55	131.82	145.91	-24.31	8,538.03	-283.29	1,589.39	1,417.70	171.69	9.257	
19,628.51	10,959.82	17,821.30	9,503.55	131.82	145.91	-24.31	8,538.03	-283.29	1,589.39	1,417.70	171.69	9.257	
19,700.00	10,958.63	17,883.18	9,503.00	132.82	146.92	-24.37	8,599.87	-285.34	1,589.62	1,416.53	173.09	9.184	
19,723.04	10,958.25	17,904.27	9,502.73	133.14	147.26	-24.38	8,620.95	-286.01	1,589.77	1,416.23	173.54	9.161	
19,800.00	10,956.97	17,976.74	9,501.58	134.21	148.43	-24.44	8,693.37	-288.37	1,590.49	1,415.42	175.07	9.085	
19,900.00	10,955.30	18,094.32	9,500.28	135.61	150.33	-24.52	8,810.90	-291.43	1,590.68	1,413.48	177.20	8.977	
19,916.11	10,955.03	18,108.98	9,500.12	135.84	150.57	-24.53	8,825.56	-291.71	1,590.67	1,413.16	177.51	8.961	
20,000.00	10,953.63	18,211.31	9,498.70	137.01	152.22	-24.54	8,927.87	-292.82	1,590.65	1,411.46	179.19	8.877	
20,029.57	10,953.14	18,265.81	9,498.45	137.42	153.10	-24.52	8,982.37	-292.17	1,590.07	1,410.31	179.76	8.846	
20,100.00	10,951.97	18,329.31	9,498.28	138.41	154.12	-24.48	9,045.86	-291.08	1,588.43	1,407.47	180.96	8.778	
20,130.10	10,951.47	18,371.76	9,498.23	138.83	154.80	-24.45	9,088.30	-290.33	1,587.71	1,406.22	181.49	8.748	
20,200.00	10,950.30	18,476.80	9,500.80	139.81	156.49	-24.42	9,193.28	-288.38	1,584.08	1,401.32	182.77	8.667	
20,230.93	10,949.79	18,499.57	9,501.41	140.25	156.86	-24.42	9,216.05	-287.96	1,582.53	1,399.20	183.32	8.632	
20,300.00	10,948.64	18,541.00	9,502.19	141.21	157.52	-24.41	9,257.46	-287.22	1,579.67	1,395.13	184.53	8.560	
20,330.11	10,948.14	18,570.13	9,502.44	141.64	157.99	-24.39	9,286.59	-286.67	1,578.64	1,393.59	185.05	8.531	
20,400.00	10,946.97	18,617.54	9,502.17	142.62	158.75	-24.35	9,333.98	-285.61	1,577.07	1,390.88	186.19	8.470	
20,429.75	10,946.48	18,635.00	9,501.86	143.04	159.03	-24.33	9,351.43	-285.17	1,576.70	1,390.06	186.64	8.448	
20,500.00	10,945.31	18,698.42	9,500.31	144.02	160.05	-24.25	9,414.81	-283.55	1,576.24	1,388.51	187.73	8.396	
20,528.88	10,944.83	18,723.08	9,499.59	144.43	160.45	-24.22	9,439.46	-282.93	1,576.18	1,388.01	188.17	8.377	
20,600.00	10,943.64	18,846.89	9,499.03	145.43	162.45	-24.16	9,563.23	-281.35	1,574.66	1,385.15	189.52	8.309	
20,630.28	10,943.14	18,873.35	9,499.41	145.85	162.88	-24.16	9,589.69	-281.27	1,573.67	1,383.59	190.08	8.279	
20,700.00	10,941.98	18,934.14	9,500.04	146.84	163.86	-24.16	9,650.48	-281.13	1,571.66	1,380.30	191.36	8.213	
20,729.98	10,941.48	18,960.04	9,500.14	147.26	164.28	-24.16	9,676.38	-280.98	1,570.92	1,379.03	191.89	8.186	
20,800.00	10,940.31	19,017.00	9,499.94	148.24	165.20	-24.13	9,733.33	-280.25	1,569.50	1,376.42	193.08	8.129	
20,829.71	10,939.82	19,046.19	9,499.64	148.66	165.67	-24.11	9,762.51	-279.74	1,569.02	1,375.44	193.58	8.105	
20,900.00	10,938.65	19,112.00	9,498.62	149.65	166.73	-24.05	9,828.31	-278.59	1,568.21	1,373.48	194.73	8.053	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Offsets - Charolais 28 21 B1MD St Com #2H - OH - OH

Survey Program:		157-MWD							Rule Assigned:				Offset Site Error:		0.00 usft		
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation		Warning	Offset Well Error:		0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor					
20,929.62	10,938.16	19,138.98	9,498.14	150.07	167.17	-24.03	9,855.28	-278.14	1,567.93	1,372.73	195.21	8.032					
21,000.00	10,936.98	19,216.05	9,497.20	151.06	168.41	-23.98	9,932.34	-277.07	1,567.01	1,370.60	196.41	7.978					
21,029.70	10,936.49	19,241.19	9,496.88	151.48	168.82	-23.96	9,957.47	-276.69	1,566.62	1,369.72	196.90	7.956					
21,100.00	10,935.32	19,302.00	9,495.63	152.47	169.80	-23.90	10,018.25	-275.44	1,566.06	1,368.05	198.01	7.909					
21,129.43	10,934.83	19,324.15	9,495.02	152.89	170.16	-23.87	10,040.39	-274.92	1,565.97	1,367.53	198.45	7.891					
21,135.52	10,934.73	19,328.99	9,494.87	152.97	170.23	-23.87	10,045.23	-274.81	1,565.97	1,367.43	198.54	7.887					
21,200.00	10,933.65	19,380.26	9,493.13	153.89	171.06	-23.81	10,096.45	-273.76	1,566.25	1,366.74	199.50	7.851					
21,222.80	10,933.27	19,397.00	9,492.48	154.21	171.33	-23.79	10,113.18	-273.45	1,566.47	1,366.64	199.83	7.839					
21,300.00	10,931.99	19,465.80	9,489.46	155.30	172.45	-23.70	10,181.90	-272.21	1,567.59	1,366.61	200.98	7.800					
21,347.07	10,931.20	19,552.11	9,486.94	155.96	173.85	-23.63	10,268.16	-271.47	1,567.80	1,365.89	201.91	7.765					
21,359.37	10,931.00	19,564.41	9,486.79	156.14	174.04	-23.63	10,280.45	-271.47	1,567.71	1,365.58	202.13	7.756					



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Offsets - Charolais 28 21B2NC St Com #1H - OH - OH

Survey Program: Reference		167-MWD							Rule Assigned:				Offset Site Error: 0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	89.62	3.10	469.90	469.98					
100.00	100.00	90.85	90.85	0.26	0.14	89.61	3.17	470.01	470.02	469.63	0.39	1,190.916		
200.00	200.00	190.56	190.56	0.62	0.33	89.59	3.37	470.36	470.38	469.43	0.95	495.366		
300.00	300.00	292.50	292.50	0.98	0.69	89.60	3.26	470.41	470.43	468.76	1.66	283.061		
400.00	400.00	392.95	392.94	1.33	1.04	89.51	4.02	470.21	470.22	467.85	2.37	198.490		
431.41	431.41	423.41	423.41	1.45	1.14	89.48	4.24	470.17	470.19	467.60	2.59	181.639		
500.00	500.00	489.51	489.51	1.69	1.38	89.48	4.29	470.34	470.36	467.29	3.07	153.308	ES	
600.00	600.00	586.68	586.67	2.05	1.72	89.50	4.13	471.25	471.29	467.52	3.77	124.972		
700.00	700.00	688.17	688.15	2.41	2.08	89.54	3.76	472.24	472.27	467.78	4.49	105.184		
800.00	800.00	788.34	788.32	2.77	2.44	89.61	3.23	472.96	472.99	467.78	5.20	90.879		
900.00	900.00	886.97	886.94	3.13	2.79	89.65	2.88	473.87	473.91	468.00	5.91	80.129		
1,000.00	1,000.00	986.07	986.04	3.48	3.14	89.67	2.73	475.05	475.10	468.47	6.63	71.696		
1,100.00	1,100.00	1,085.68	1,085.64	3.84	3.50	89.69	2.55	476.34	476.39	469.05	7.34	64.893		
1,200.00	1,200.00	1,185.98	1,185.93	4.20	3.86	89.72	2.30	477.68	477.73	469.67	8.06	59.281		
1,300.00	1,300.00	1,286.81	1,286.76	4.56	4.22	89.75	2.11	478.87	478.91	470.13	8.78	54.557		
1,400.00	1,400.00	1,388.96	1,388.90	4.92	4.59	89.76	1.99	479.81	479.82	470.32	9.50	50.495		
1,500.00	1,500.00	1,491.73	1,491.67	5.28	4.95	89.77	1.95	480.17	480.18	469.95	10.23	46.944		
1,600.00	1,600.00	1,589.68	1,589.62	5.64	5.30	89.76	2.03	480.39	480.40	469.46	10.94	43.925		
1,700.00	1,700.00	1,686.97	1,686.90	5.99	5.65	89.72	2.34	481.15	481.18	469.54	11.64	41.330		
1,800.00	1,800.00	1,787.89	1,787.82	6.35	6.01	89.68	2.65	482.17	482.19	469.83	12.36	39.008		
1,900.00	1,900.00	1,885.51	1,885.44	6.71	6.36	89.69	2.60	483.03	483.08	470.01	13.07	36.965		
2,000.00	2,000.00	1,978.12	1,978.02	7.07	6.69	89.74	2.23	484.99	485.20	471.44	13.76	35.272		
2,100.00	2,100.00	2,063.50	2,063.32	7.43	7.00	89.80	1.70	488.63	489.48	475.07	14.41	33.975		
2,200.00	2,200.00	2,147.53	2,147.11	7.79	7.31	89.87	1.16	494.89	496.93	481.89	15.04	33.043		
2,300.00	2,300.00	2,240.67	2,239.77	8.14	7.65	89.96	0.32	504.26	506.96	491.24	15.72	32.259		
2,400.00	2,400.00	2,339.72	2,338.27	8.50	8.02	90.18	-1.63	514.50	517.30	500.88	16.43	31.491		
2,500.00	2,500.00	2,438.03	2,436.00	8.86	8.38	90.49	-4.46	524.78	527.78	510.65	17.14	30.801		
2,600.00	2,600.00	2,535.98	2,533.35	9.22	8.75	90.79	-7.38	535.28	538.53	520.69	17.84	30.184		
2,700.00	2,700.00	2,636.51	2,633.25	9.58	9.13	91.08	-10.27	546.14	549.39	530.82	18.57	29.592		
2,800.00	2,800.00	2,738.03	2,734.17	9.94	9.51	91.31	-12.73	556.76	559.90	540.60	19.29	29.018		
2,900.00	2,900.00	2,840.94	2,836.55	10.30	9.90	91.50	-14.87	567.04	569.94	549.91	20.03	28.450		
3,000.00	3,000.00	2,944.17	2,939.31	10.65	10.30	91.67	-16.82	576.71	579.35	558.58	20.77	27.890		
3,100.00	3,100.00	3,030.23	3,024.90	11.01	10.63	91.83	-18.70	585.49	589.62	568.21	21.41	27.542		
3,200.00	3,200.00	3,116.18	3,110.15	11.37	10.96	92.04	-21.19	596.14	602.11	580.08	22.03	27.328		
3,300.00	3,300.00	3,216.12	3,209.09	11.73	11.35	92.32	-24.68	609.74	615.84	593.09	22.76	27.062		
3,400.00	3,400.00	3,321.19	3,313.20	12.09	11.77	92.64	-28.69	623.34	628.96	605.44	23.52	26.746		
3,500.00	3,500.00	3,433.99	3,425.21	12.45	12.21	92.92	-32.45	636.12	640.44	616.12	24.32	26.330		
3,600.00	3,600.00	3,545.77	3,536.47	12.80	12.64	93.12	-35.21	646.57	649.91	624.79	25.12	25.877		
3,700.00	3,700.00	3,655.83	3,646.19	13.16	13.06	93.23	-36.95	654.91	657.55	631.66	25.89	25.398		
3,800.00	3,799.99	3,753.33	3,743.44	13.51	13.42	-20.20	-38.23	661.81	663.46	636.88	26.58	24.957		
3,900.00	3,899.91	3,849.88	3,839.71	13.84	13.79	-20.21	-39.60	668.99	667.29	640.03	27.26	24.477		
3,980.64	3,980.39	3,923.99	3,913.56	14.12	14.07	-20.28	-40.67	675.10	669.24	641.45	27.79	24.084		
4,000.00	3,999.70	3,941.77	3,931.27	14.18	14.14	-20.31	-40.92	676.67	669.63	641.72	27.91	23.989		
4,100.00	4,099.43	4,033.91	4,022.98	14.52	14.49	-20.44	-42.21	685.48	672.38	643.82	28.57	23.538		
4,200.00	4,199.16	4,128.01	4,116.54	14.86	14.86	-20.52	-44.16	695.37	676.13	646.90	29.23	23.131		
4,300.00	4,298.89	4,223.53	4,211.39	15.20	15.23	-20.52	-47.22	706.17	680.73	650.82	29.90	22.763		
4,400.00	4,398.62	4,331.46	4,318.62	15.54	15.66	-20.51	-50.69	717.98	684.96	654.30	30.66	22.338		
4,500.00	4,498.35	4,439.17	4,425.78	15.89	16.08	-20.56	-53.42	728.56	688.03	656.62	31.42	21.900		
4,600.00	4,598.08	4,546.36	4,532.53	16.23	16.49	-20.65	-55.65	737.96	690.03	657.87	32.17	21.453		
4,700.00	4,697.81	4,652.31	4,638.14	16.58	16.89	-20.76	-57.46	746.22	691.04	658.14	32.90	21.002		
4,800.00	4,797.54	4,757.36	4,742.91	16.93	17.29	-20.90	-58.87	753.63	691.29	657.65	33.64	20.552		
4,838.64	4,836.07	4,794.79	4,780.26	17.06	17.43	-20.95	-59.29	756.12	691.23	657.32	33.90	20.388		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Offsets - Charolais 28 21B2NC St Com #1H - OH - OH													Offset Site Error:
													0.00 usft
Survey Program: 167-MWD													Offset Well Error:
													0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.00	4,897.27	4,847.25	4,832.57	17.28	17.63	-21.02	-59.96	760.06	691.66	657.37	34.29	20.170	
5,000.00	4,997.00	4,932.71	4,917.66	17.63	17.96	-21.12	-61.35	767.91	694.06	659.14	34.92	19.878	
5,100.00	5,096.73	5,026.03	5,010.39	17.98	18.32	-21.20	-63.26	778.12	698.23	662.65	35.58	19.622	
5,200.00	5,196.46	5,125.80	5,109.51	18.33	18.72	-21.26	-65.72	789.24	702.64	666.34	36.30	19.358	
5,300.00	5,296.19	5,226.68	5,209.73	18.68	19.11	-21.28	-68.57	800.43	707.01	669.99	37.02	19.100	
5,400.00	5,395.92	5,328.18	5,310.58	19.04	19.52	-21.29	-71.59	811.48	711.17	673.43	37.74	18.843	
5,500.00	5,495.65	5,429.36	5,411.14	19.39	19.92	-21.29	-74.65	822.28	715.13	676.66	38.47	18.591	
5,600.00	5,595.38	5,530.45	5,511.63	19.75	20.31	-21.30	-77.60	832.91	718.92	679.73	39.19	18.344	
5,700.00	5,695.11	5,631.44	5,612.03	20.10	20.71	-21.33	-80.37	843.38	722.56	682.65	39.91	18.103	
5,800.00	5,794.84	5,732.44	5,712.46	20.46	21.11	-21.37	-82.92	853.71	726.06	685.42	40.64	17.867	
5,900.00	5,894.57	5,834.23	5,813.72	20.81	21.51	-21.43	-85.29	863.93	729.35	687.99	41.37	17.631	
6,000.00	5,994.30	5,936.95	5,915.92	21.17	21.91	-21.50	-87.50	873.98	732.38	690.28	42.10	17.396	
6,100.00	6,094.03	6,044.56	6,023.07	21.53	22.32	-21.60	-89.48	883.70	734.65	691.79	42.86	17.140	
6,200.00	6,193.76	6,148.80	6,126.95	21.89	22.72	-21.71	-91.08	892.14	735.98	692.37	43.60	16.879	
6,300.00	6,293.49	6,247.79	6,225.60	22.25	23.10	-21.77	-93.29	900.06	737.22	692.90	44.32	16.636	
6,400.00	6,393.22	6,349.60	6,327.03	22.61	23.49	-21.77	-96.34	908.22	738.51	693.47	45.04	16.396	
6,500.00	6,492.95	6,454.69	6,431.80	22.97	23.89	-21.80	-98.98	916.06	739.23	693.44	45.79	16.145	
6,600.00	6,592.68	6,553.62	6,530.47	23.33	24.26	-21.88	-100.84	923.04	739.53	693.03	46.50	15.904	
6,700.00	6,692.41	6,649.15	6,625.71	23.69	24.63	-21.99	-102.26	930.30	740.35	693.16	47.20	15.687	
6,800.00	6,792.14	6,749.18	6,725.41	24.05	25.01	-22.12	-103.52	938.30	741.58	693.67	47.92	15.477	
6,900.00	6,891.87	6,851.58	6,827.50	24.41	25.40	-22.24	-105.03	946.21	742.54	693.90	48.65	15.264	
7,000.00	6,991.60	6,954.65	6,930.27	24.77	25.78	-22.35	-106.66	953.80	743.15	693.76	49.38	15.049	
7,100.00	7,091.33	7,057.88	7,033.25	25.13	26.17	-22.47	-108.06	960.96	743.32	693.20	50.12	14.832	
7,108.15	7,099.46	7,066.30	7,041.64	25.16	26.21	-22.48	-108.16	961.52	743.31	693.14	50.18	14.814	
7,200.00	7,191.06	7,148.46	7,123.58	25.50	26.52	-22.58	-109.27	967.56	743.86	693.06	50.79	14.645	
7,300.00	7,290.79	7,238.22	7,212.99	25.86	26.86	-22.68	-110.71	975.33	745.77	694.31	51.45	14.494	
7,400.00	7,390.52	7,337.32	7,311.62	26.22	27.25	-22.76	-112.61	984.75	748.54	696.37	52.17	14.347	
7,500.00	7,490.25	7,438.59	7,412.42	26.59	27.64	-22.81	-114.91	994.23	751.16	698.26	52.90	14.199	
7,600.00	7,589.98	7,541.58	7,514.96	26.95	28.04	-22.86	-117.33	1,003.58	753.51	699.87	53.64	14.046	
7,700.00	7,689.71	7,644.77	7,617.74	27.31	28.44	-22.93	-119.45	1,012.52	755.44	701.05	54.39	13.890	
7,800.00	7,789.44	7,748.63	7,721.22	27.68	28.83	-23.03	-121.20	1,021.04	756.90	701.77	55.13	13.730	
7,900.00	7,889.17	7,853.44	7,825.72	28.04	29.23	-23.16	-122.57	1,029.08	757.83	701.96	55.88	13.563	
8,000.00	7,988.90	7,960.79	7,932.82	28.41	29.63	-23.31	-123.72	1,036.41	757.92	701.29	56.63	13.383	
8,100.00	8,088.63	8,062.68	8,034.51	28.77	30.01	-23.46	-124.72	1,042.56	757.22	699.86	57.36	13.201	
8,200.00	8,188.36	8,159.21	8,130.84	29.14	30.37	-23.57	-126.01	1,048.66	756.80	698.73	58.07	13.033	
8,300.00	8,288.09	8,263.76	8,235.15	29.50	30.76	-23.67	-127.82	1,055.43	756.56	697.75	58.81	12.865	
8,400.00	8,387.82	8,374.94	8,346.16	29.87	31.17	-23.75	-129.99	1,061.22	755.03	695.46	59.57	12.675	
8,500.00	8,487.56	8,474.60	8,445.71	30.23	31.54	-23.85	-131.63	1,065.57	752.67	692.38	60.29	12.484	
8,600.00	8,587.29	8,571.99	8,543.00	30.60	31.89	-24.04	-132.00	1,070.11	750.62	689.62	61.00	12.305	
8,677.26	8,664.34	8,635.23	8,606.13	30.88	32.12	-24.19	-131.85	1,073.67	749.80	688.30	61.50	12.191	
8,700.00	8,687.02	8,653.24	8,624.10	30.96	32.19	-24.23	-131.86	1,074.93	749.88	688.23	61.65	12.164	
8,800.00	8,786.75	8,746.78	8,717.33	31.33	32.54	-24.42	-132.12	1,082.48	751.24	688.90	62.34	12.051	
8,900.00	8,886.48	8,859.46	8,829.65	31.70	32.97	-24.47	-134.68	1,091.01	752.11	688.99	63.12	11.915	
9,000.00	8,986.21	8,978.48	8,948.31	32.06	33.41	-24.22	-141.57	1,097.05	750.37	686.46	63.91	11.741	
9,100.00	9,085.94	9,070.87	9,040.54	32.43	33.74	-24.16	-144.98	1,101.32	748.24	683.63	64.60	11.582	
9,200.00	9,185.67	9,174.21	9,143.73	32.80	34.12	-24.25	-146.90	1,106.34	746.38	681.04	65.34	11.423	
9,300.00	9,285.40	9,282.75	9,252.18	33.16	34.51	-24.53	-146.54	1,110.62	743.64	677.56	66.08	11.254	
9,400.00	9,385.13	9,389.15	9,358.52	33.53	34.88	-24.91	-144.77	1,113.68	739.87	673.06	66.81	11.074	
9,500.00	9,484.86	9,496.34	9,465.68	33.90	35.25	-25.29	-143.12	1,115.88	735.32	667.78	67.53	10.888	
9,600.00	9,584.59	9,600.84	9,570.16	34.26	35.60	-25.68	-141.49	1,116.97	729.77	661.53	68.25	10.693	
9,700.00	9,684.32	9,702.44	9,671.74	34.63	35.94	-26.04	-140.16	1,117.68	723.91	654.96	68.95	10.499	
9,800.00	9,784.05	9,794.81	9,764.07	35.00	36.24	-26.47	-137.73	1,118.38	718.23	648.58	69.66	10.311	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Offsets - Charolais 28 21B2NC St Com #1H - OH - OH												Offset Site Error:
Survey Program: 167-MWD												0.00 usft
Reference	Offset	Semi Major Axis		Highside		Offset Wellbore Centre		Rule Assigned:		Minimum	Separation	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor
9,900.00	9,883.78	9,874.45	9,842.90	35.37	36.50	-27.51	-127.20	1,119.95	714.56	644.23	70.33	10.160
9,957.66	9,941.28	9,920.88	9,887.30	35.58	36.63	-28.70	-113.76	1,121.40	714.08	643.38	70.70	10.100
10,000.00	9,983.51	9,960.34	9,924.03	35.73	36.74	-29.94	-99.36	1,122.48	714.30	643.32	70.99	10.062
10,100.00	10,083.24	10,078.77	10,028.19	36.10	37.01	-34.71	-43.59	1,120.77	714.74	642.96	71.78	9.957
10,200.00	10,182.97	10,133.44	10,071.94	36.47	37.10	-37.46	-10.96	1,118.04	719.24	647.12	72.12	9.973
10,259.92	10,242.73	10,165.48	10,096.47	36.69	37.15	-39.16	9.62	1,116.75	725.82	653.66	72.16	10.059
10,300.00	10,282.71	10,184.19	10,110.44	36.84	37.18	-40.23	22.05	1,116.10	732.06	659.98	72.08	10.156
10,400.00	10,382.59	10,221.00	10,136.44	37.20	37.24	-42.53	48.06	1,114.97	755.31	683.84	71.47	10.568
10,500.00	10,482.56	10,255.94	10,159.20	37.56	37.28	-44.93	74.55	1,114.18	789.37	718.89	70.48	11.200
10,540.57	10,523.12	10,269.00	10,167.22	37.70	37.30	67.62	84.86	1,113.99	806.11	736.13	69.99	11.518
10,550.00	10,532.55	10,269.00	10,167.22	37.73	37.30	67.66	84.86	1,113.99	810.20	740.39	69.81	11.606
10,600.00	10,582.45	10,287.45	10,178.16	37.90	37.32	64.43	99.71	1,113.83	832.04	762.86	69.18	12.027
10,650.00	10,631.89	10,304.97	10,188.20	38.06	37.34	61.41	114.07	1,113.79	853.94	785.45	68.49	12.468
10,700.00	10,680.50	10,317.00	10,194.88	38.22	37.35	58.80	124.07	1,113.83	875.63	807.98	67.66	12.942
10,750.00	10,727.92	10,349.00	10,211.74	38.37	37.39	55.63	151.26	1,114.09	896.77	829.55	67.22	13.340
10,800.00	10,773.78	10,360.22	10,217.27	38.51	37.40	53.45	161.03	1,114.19	917.11	850.75	66.36	13.820
10,850.00	10,817.73	10,381.00	10,226.79	38.63	37.42	51.17	179.50	1,114.26	936.63	870.95	65.68	14.260
10,900.00	10,859.44	10,394.43	10,232.42	38.75	37.43	49.30	191.69	1,114.24	955.12	890.23	64.88	14.720
10,950.00	10,898.59	10,412.00	10,239.12	38.85	37.45	47.51	207.93	1,114.16	972.51	908.32	64.19	15.150
11,000.00	10,934.88	10,431.93	10,245.97	38.94	37.47	45.88	226.64	1,113.98	988.55	924.97	63.58	15.548
11,050.00	10,968.04	10,459.00	10,254.23	39.02	37.50	44.35	252.42	1,113.58	1,003.04	939.92	63.12	15.891
11,100.00	10,997.81	10,475.26	10,258.58	39.08	37.52	43.20	268.08	1,113.23	1,015.78	953.22	62.56	16.238
11,150.00	11,023.97	10,496.82	10,263.60	39.13	37.55	42.15	289.04	1,112.62	1,026.78	964.64	62.13	16.525
11,200.00	11,046.31	10,507.00	10,265.67	39.18	37.57	41.40	299.00	1,112.27	1,036.08	974.41	61.67	16.801
11,250.00	11,064.68	10,534.88	10,270.17	39.24	37.61	40.64	326.48	1,111.14	1,043.39	981.93	61.46	16.976
11,300.00	11,078.92	10,555.00	10,272.26	39.34	37.65	40.11	346.47	1,110.15	1,049.04	987.78	61.26	17.124
11,309.38	11,081.13	10,555.00	10,272.26	39.36	37.65	40.05	346.47	1,110.15	1,049.90	988.68	61.21	17.151
11,350.00	11,088.94	10,555.00	10,272.26	39.45	37.65	39.84	346.47	1,110.15	1,053.21	992.13	61.08	17.244
11,361.06	11,090.57	10,578.21	10,273.70	39.48	37.70	39.69	369.60	1,108.99	1,053.39	992.24	61.15	17.226
11,400.00	11,094.64	10,594.43	10,274.20	39.57	37.75	39.54	385.80	1,108.22	1,054.64	993.47	61.17	17.241
11,450.11	11,096.00	10,627.00	10,273.96	39.69	37.84	39.48	418.33	1,106.83	1,054.63	993.33	61.31	17.203
11,464.44	11,095.76	10,627.00	10,273.96	39.73	37.84	39.48	418.33	1,106.83	1,054.24	992.89	61.35	17.184
11,500.00	11,095.17	10,652.96	10,273.24	39.82	37.92	39.44	444.27	1,105.87	1,053.84	992.34	61.50	17.135
11,509.50	11,095.01	10,664.23	10,273.01	39.85	37.96	39.42	455.53	1,105.51	1,053.72	992.17	61.55	17.120
11,600.00	11,093.50	10,766.88	10,272.83	40.13	38.36	39.42	558.15	1,103.32	1,051.90	989.80	62.10	16.938
11,630.18	11,093.00	10,799.28	10,272.93	40.23	38.51	39.42	590.54	1,102.52	1,051.13	988.83	62.30	16.872
11,700.00	11,091.84	10,872.55	10,272.97	40.47	38.86	39.39	663.77	1,100.16	1,049.12	986.37	62.76	16.717
11,730.33	11,091.33	10,904.15	10,272.90	40.59	39.02	39.36	695.35	1,098.93	1,048.19	985.23	62.96	16.648
11,800.00	11,090.17	10,979.41	10,273.11	40.87	39.43	39.32	770.55	1,096.08	1,045.83	982.36	63.47	16.476
11,830.51	11,089.66	11,015.29	10,273.62	41.01	39.64	39.32	806.41	1,094.96	1,044.66	980.93	63.73	16.392
11,900.00	11,088.51	11,098.30	10,276.12	41.31	40.15	39.34	889.31	1,091.63	1,040.63	976.27	64.35	16.171
11,931.28	11,087.99	11,134.53	10,277.40	41.47	40.39	39.35	925.48	1,089.94	1,038.57	973.92	64.65	16.065
12,000.00	11,086.84	11,196.00	10,278.60	41.80	40.81	39.34	986.88	1,087.38	1,035.13	969.89	65.24	15.866
12,031.09	11,086.32	11,196.00	10,278.60	41.97	40.81	39.34	986.88	1,087.38	1,033.96	968.48	65.48	15.791
12,100.00	11,085.18	11,246.52	10,278.45	42.33	41.18	39.33	1,037.39	1,086.07	1,032.59	966.48	66.12	15.618
12,112.95	11,084.96	11,254.18	10,278.33	42.41	41.23	39.33	1,045.04	1,085.98	1,032.56	966.32	66.24	15.588
12,122.41	11,084.80	11,259.77	10,278.22	42.46	41.27	39.33	1,050.63	1,085.94	1,032.58	966.25	66.33	15.566
12,200.00	11,083.51	11,313.90	10,276.50	42.91	41.68	39.32	1,104.73	1,086.13	1,033.97	966.85	67.12	15.405
12,222.24	11,083.14	11,334.46	10,275.63	43.04	41.84	39.32	1,125.27	1,086.21	1,034.58	967.23	67.35	15.360
12,300.00	11,081.85	11,406.56	10,271.85	43.52	42.42	39.24	1,197.27	1,086.00	1,036.99	968.83	68.15	15.215
12,322.01	11,081.48	11,427.10	10,270.61	43.67	42.59	39.21	1,217.78	1,085.85	1,037.74	969.36	68.39	15.175
12,400.00	11,080.18	11,498.59	10,265.86	44.18	43.20	39.08	1,289.10	1,085.15	1,040.68	971.49	69.20	15.039

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Offsets - Charolais 28 21B2NC St Com #1H - OH - OH												Offset Site Error:
												0.00 usft
Survey Program:	Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance	Rule Assigned:	Offset Well Error:				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Reference	Offset	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	0.00 usft	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,421.72	11,079.82	11,517.53	10,264.62	44.33	43.37	39.06	1,308.01	1,085.15	1,041.61	972.17	69.44	15.000
12,500.00	11,078.52	11,591.08	10,260.44	44.87	44.02	39.04	1,381.41	1,086.54	1,045.38	975.01	70.37	14.855
12,522.49	11,078.14	11,619.39	10,259.27	45.03	44.28	39.06	1,409.68	1,087.50	1,046.41	975.73	70.67	14.806
12,600.00	11,076.85	11,711.55	10,257.37	45.60	45.14	39.25	1,501.74	1,091.37	1,049.08	977.30	71.78	14.615
12,622.64	11,076.47	11,736.83	10,257.05	45.77	45.38	39.30	1,527.00	1,092.39	1,049.70	977.59	72.12	14.556
12,700.00	11,075.19	11,816.72	10,256.14	46.36	46.16	39.47	1,606.83	1,095.30	1,051.57	978.32	73.25	14.355
12,722.73	11,074.81	11,839.31	10,255.85	46.54	46.38	39.51	1,629.41	1,096.07	1,052.12	978.53	73.59	14.297
12,800.00	11,073.52	11,923.44	10,254.84	47.15	47.23	39.66	1,713.49	1,098.72	1,053.80	979.03	74.76	14.095
12,822.87	11,073.14	11,949.09	10,254.63	47.34	47.50	39.71	1,739.13	1,099.42	1,054.17	979.05	75.12	14.034
12,900.00	11,071.86	12,024.76	10,254.05	47.98	48.29	39.84	1,814.77	1,101.45	1,055.36	979.05	76.31	13.830
12,922.92	11,071.47	12,048.00	10,253.85	48.17	48.54	39.88	1,838.00	1,102.09	1,055.74	979.07	76.67	13.769
13,000.00	11,070.19	12,128.85	10,253.39	48.83	49.41	40.04	1,918.82	1,104.35	1,056.88	978.96	77.92	13.564
13,023.03	11,069.81	12,152.90	10,253.34	49.03	49.67	40.08	1,942.86	1,105.02	1,057.16	978.85	78.30	13.501
13,100.00	11,068.53	12,231.35	10,253.42	49.71	50.54	40.25	2,021.27	1,107.36	1,058.00	978.40	79.60	13.292
13,122.77	11,068.15	12,252.66	10,253.44	49.92	50.79	40.30	2,042.57	1,107.99	1,058.24	978.26	79.98	13.231
13,200.00	11,066.86	12,322.96	10,252.26	50.62	51.59	40.37	2,112.85	1,109.02	1,059.40	978.16	81.23	13.042
13,222.77	11,066.48	12,345.17	10,251.50	50.84	51.84	40.36	2,135.05	1,109.04	1,059.83	978.24	81.59	12.990
13,300.00	11,065.20	12,425.27	10,248.63	51.56	52.78	40.32	2,215.10	1,108.73	1,061.17	978.38	82.79	12.818
13,322.51	11,064.82	12,445.77	10,247.87	51.77	53.03	40.31	2,235.59	1,108.60	1,061.55	978.40	83.14	12.768
13,400.00	11,063.53	12,515.57	10,245.03	52.52	53.86	40.26	2,305.32	1,108.38	1,063.21	978.85	84.36	12.603
13,422.31	11,063.16	12,536.31	10,244.12	52.74	54.11	40.25	2,326.04	1,108.38	1,063.79	979.07	84.72	12.557
13,500.00	11,061.87	12,609.58	10,240.65	53.50	55.00	40.20	2,399.23	1,108.38	1,066.02	980.06	85.96	12.401
13,522.38	11,061.49	12,631.98	10,239.53	53.72	55.28	40.18	2,421.60	1,108.38	1,066.71	980.39	86.32	12.357
13,600.00	11,060.20	12,712.23	10,235.71	54.50	56.27	40.12	2,501.76	1,108.47	1,069.00	981.42	87.59	12.205
13,623.48	11,059.81	12,747.12	10,234.24	54.74	56.71	40.10	2,536.62	1,108.37	1,069.54	981.56	87.98	12.157
13,700.00	11,058.54	12,844.47	10,231.17	55.52	57.94	40.01	2,633.90	1,106.56	1,069.83	980.61	89.23	11.990
13,781.74	11,057.17	12,924.20	10,228.72	56.38	58.96	39.90	2,713.56	1,104.27	1,069.63	979.08	90.55	11.812
13,800.00	11,056.87	12,939.75	10,228.24	56.57	59.16	39.88	2,729.10	1,103.90	1,069.65	978.80	90.86	11.773
13,900.00	11,055.21	13,094.98	10,225.35	57.63	61.18	39.77	2,884.23	1,100.14	1,069.57	977.07	92.50	11.563
13,930.15	11,054.70	13,122.16	10,225.57	57.95	61.54	39.74	2,911.38	1,098.73	1,068.15	975.13	93.02	11.484
14,000.00	11,053.54	13,189.00	10,226.00	58.70	62.42	39.68	2,978.13	1,095.38	1,065.03	970.82	94.21	11.305
14,030.74	11,053.03	13,218.18	10,226.10	59.04	62.81	39.65	3,007.27	1,093.92	1,063.73	968.99	94.74	11.228
14,100.00	11,051.88	13,285.54	10,225.99	59.80	63.71	39.55	3,074.53	1,090.25	1,060.87	964.97	95.90	11.062
14,130.64	11,051.37	13,318.44	10,225.80	60.14	64.15	39.50	3,107.37	1,088.27	1,059.60	963.20	96.40	10.992
14,200.00	11,050.21	13,379.00	10,225.34	60.91	64.97	39.37	3,167.79	1,084.21	1,056.57	959.03	97.55	10.831
14,230.62	11,049.70	13,409.42	10,224.92	61.25	65.38	39.29	3,198.14	1,082.14	1,055.34	957.30	98.04	10.765
14,300.00	11,048.55	13,457.95	10,223.58	62.03	66.05	39.17	3,246.57	1,079.25	1,053.67	954.46	99.21	10.621
14,329.97	11,048.05	13,481.02	10,222.66	62.37	66.36	39.11	3,269.59	1,078.05	1,053.37	953.66	99.71	10.565
14,400.00	11,046.88	13,556.21	10,219.45	63.17	67.40	38.89	3,344.59	1,073.82	1,052.67	951.89	100.78	10.445
14,429.62	11,046.39	13,584.16	10,218.22	63.51	67.79	38.80	3,372.45	1,072.09	1,052.30	951.06	101.24	10.394
14,478.88	11,045.57	13,625.75	10,216.17	64.07	68.37	38.66	3,413.92	1,069.59	1,051.95	949.93	102.02	10.311
14,500.00	11,045.22	13,643.58	10,215.20	64.32	68.62	38.60	3,431.69	1,068.55	1,051.91	949.56	102.35	10.277
14,522.94	11,044.83	13,666.00	10,213.91	64.58	68.93	38.52	3,454.04	1,067.29	1,051.95	949.25	102.70	10.243
14,600.00	11,043.55	13,732.77	10,210.07	65.48	69.87	38.31	3,520.61	1,064.05	1,052.47	948.54	103.93	10.127
14,622.92	11,043.17	13,753.62	10,208.93	65.75	70.17	38.26	3,541.42	1,063.25	1,052.73	948.43	104.30	10.093
14,700.00	11,041.88	13,832.81	10,204.88	66.65	71.29	38.08	3,620.47	1,060.62	1,053.62	948.06	105.57	9.981
14,723.17	11,041.50	13,856.98	10,203.76	66.93	71.63	38.03	3,644.59	1,059.89	1,053.85	947.90	105.95	9.946
14,800.00	11,040.22	13,939.78	10,201.16	67.84	72.81	37.96	3,727.34	1,058.53	1,054.35	947.01	107.34	9.823
14,823.26	11,039.83	13,963.92	10,200.80	68.12	73.15	37.97	3,751.47	1,058.51	1,054.42	946.62	107.79	9.782
14,900.00	11,038.55	14,041.06	10,199.58	69.04	74.26	37.99	3,828.61	1,058.29	1,054.62	945.33	109.29	9.650
15,000.00	11,036.89	14,155.75	10,198.32	70.24	75.91	38.00	3,943.28	1,057.15	1,054.04	942.81	111.23	9.476
15,029.75	11,036.39	14,183.20	10,198.08	70.60	76.31	38.00	3,970.73	1,056.74	1,053.73	941.92	111.81	9.424

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Offsets - Charolais 28 21B2NC St Com #1H - OH - OH													Offset Site Error:
													0.00 usft
Survey Program:	Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance	Rule Assigned:	Offset Well Error:					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,100.00	11,035.22	14,247.03	10,197.14	71.46	77.23	37.99	4,034.55	1,055.68	1,053.26	940.10	113.16	9.308	
15,122.42	11,034.85	14,266.03	10,196.78	71.73	77.51	37.98	4,053.53	1,055.42	1,053.22	939.64	113.59	9.272	
15,122.97	11,034.84	14,266.49	10,196.77	71.74	77.52	37.98	4,054.00	1,055.42	1,053.22	939.63	113.60	9.272	
15,200.00	11,033.56	14,331.00	10,195.35	72.68	78.46	37.97	4,118.49	1,055.04	1,053.66	938.56	115.09	9.155	
15,222.68	11,033.18	14,351.96	10,194.87	72.96	78.76	37.98	4,139.45	1,055.13	1,053.94	938.39	115.55	9.121	
15,300.00	11,031.89	14,420.64	10,193.82	73.91	79.77	38.07	4,208.10	1,056.66	1,055.31	938.13	117.18	9.006	
15,322.46	11,031.52	14,441.24	10,193.63	74.19	80.07	38.12	4,228.69	1,057.45	1,055.82	938.14	117.68	8.972	
15,400.00	11,030.23	14,513.27	10,192.66	75.16	81.12	38.27	4,300.65	1,060.21	1,057.85	938.45	119.40	8.860	
15,422.62	11,029.85	14,536.98	10,192.27	75.44	81.47	38.32	4,324.34	1,061.13	1,058.50	938.59	119.91	8.828	
15,500.00	11,028.56	14,615.00	10,191.70	76.40	82.62	38.50	4,402.29	1,064.36	1,060.32	938.62	121.70	8.713	
15,522.43	11,028.19	14,641.20	10,191.63	76.69	83.01	38.57	4,428.47	1,065.51	1,060.78	938.54	122.25	8.677	
15,600.00	11,026.90	14,710.00	10,190.79	77.66	84.02	38.74	4,497.19	1,068.59	1,063.06	939.06	124.01	8.573	
15,621.92	11,026.53	14,726.48	10,190.45	77.94	84.27	38.77	4,513.65	1,069.32	1,063.85	939.36	124.48	8.546	
15,700.00	11,025.23	14,797.10	10,188.41	78.92	85.32	38.89	4,584.18	1,072.25	1,067.02	940.82	126.20	8.455	
15,800.00	11,023.57	14,955.42	10,187.95	80.19	87.68	39.10	4,742.45	1,074.31	1,066.45	937.86	128.60	8.293	
15,830.38	11,023.06	14,980.10	10,187.93	80.58	88.05	39.12	4,767.12	1,074.28	1,066.22	936.96	129.25	8.249	
15,863.10	11,022.52	15,006.41	10,187.70	81.00	88.45	39.14	4,793.43	1,074.24	1,066.14	936.19	129.95	8.204	
15,900.00	11,021.90	15,035.73	10,187.20	81.47	88.89	39.14	4,822.75	1,074.19	1,066.31	935.59	130.72	8.157	
15,922.61	11,021.53	15,053.70	10,186.76	81.76	89.16	39.14	4,840.71	1,074.16	1,066.53	935.35	131.18	8.130	
16,000.00	11,020.24	15,122.50	10,184.28	82.75	90.20	39.11	4,909.47	1,073.98	1,067.95	935.22	132.73	8.046	
16,022.69	11,019.86	15,145.55	10,183.34	83.05	90.55	39.10	4,932.51	1,073.85	1,068.41	935.23	133.18	8.023	
16,100.00	11,018.57	15,223.22	10,179.96	84.04	91.73	39.02	5,010.09	1,073.07	1,069.93	935.26	134.67	7.945	
16,122.57	11,018.20	15,245.65	10,178.94	84.33	92.07	39.00	5,032.50	1,072.79	1,070.37	935.27	135.10	7.923	
16,200.00	11,016.91	15,318.46	10,175.42	85.34	93.18	38.90	5,105.22	1,071.80	1,072.01	935.45	136.56	7.850	
16,222.64	11,016.53	15,338.87	10,174.32	85.63	93.49	38.87	5,125.60	1,071.51	1,072.58	935.60	136.98	7.830	
16,300.00	11,015.24	15,428.85	10,169.56	86.63	94.86	38.74	5,215.44	1,070.20	1,074.50	936.09	138.41	7.763	
16,323.10	11,014.86	15,461.22	10,168.38	86.94	95.36	38.70	5,247.78	1,069.66	1,074.74	935.88	138.85	7.740	
16,400.00	11,013.58	15,532.67	10,165.98	87.94	96.45	38.64	5,319.18	1,068.41	1,075.31	934.96	140.35	7.662	
16,423.09	11,013.19	15,553.50	10,165.16	88.24	96.77	38.61	5,339.99	1,068.05	1,075.59	934.79	140.79	7.639	
16,500.00	11,011.91	15,639.89	10,162.82	89.25	98.10	38.59	5,426.34	1,067.55	1,076.33	933.95	142.37	7.560	
16,600.00	11,010.25	15,757.85	10,163.20	90.56	99.90	38.76	5,544.29	1,068.78	1,075.93	931.21	144.72	7.435	
16,629.76	11,009.75	15,784.06	10,163.40	90.95	100.31	38.79	5,570.50	1,068.92	1,075.63	930.22	145.41	7.397	
16,700.00	11,008.58	15,848.64	10,163.39	91.88	101.30	38.86	5,635.08	1,069.07	1,075.18	928.18	146.99	7.314	
16,729.50	11,008.09	15,878.71	10,163.22	92.27	101.76	38.88	5,665.15	1,069.03	1,075.06	927.41	147.65	7.281	
16,800.00	11,006.92	15,941.00	10,162.74	93.20	102.72	38.91	5,727.44	1,068.74	1,074.75	925.56	149.19	7.204	
16,824.79	11,006.51	15,969.30	10,162.39	93.53	103.16	38.91	5,755.74	1,068.53	1,074.66	924.94	149.72	7.178	
16,828.36	11,006.45	15,972.25	10,162.33	93.58	103.21	38.91	5,758.69	1,068.51	1,074.66	924.87	149.80	7.174	
16,900.00	11,005.25	16,035.00	10,160.69	94.53	104.18	38.89	5,821.41	1,067.92	1,075.12	923.85	151.28	7.107	
16,922.64	11,004.88	16,051.95	10,160.11	94.83	104.44	38.88	5,838.35	1,067.77	1,075.42	923.68	151.74	7.087	
17,000.00	11,003.59	16,122.90	10,157.84	95.86	105.54	38.86	5,909.26	1,067.78	1,076.74	923.39	153.35	7.021	
17,022.64	11,003.21	16,144.76	10,157.18	96.16	105.88	38.87	5,931.11	1,067.96	1,077.21	923.37	153.84	7.002	
17,100.00	11,001.92	16,221.42	10,154.68	97.19	107.07	38.87	6,007.73	1,068.41	1,078.84	923.35	155.49	6.938	
17,122.30	11,001.55	16,241.24	10,154.01	97.49	107.38	38.87	6,027.53	1,068.53	1,079.34	923.38	155.96	6.920	
17,200.00	11,000.26	16,308.71	10,152.15	98.53	108.43	38.94	6,094.96	1,070.13	1,081.55	923.85	157.70	6.858	
17,221.72	10,999.90	16,320.00	10,151.91	98.82	108.60	38.96	6,106.24	1,070.57	1,082.33	924.17	158.16	6.843	
17,300.00	10,998.59	16,387.96	10,149.75	99.87	109.66	39.06	6,174.10	1,073.46	1,085.78	925.81	159.97	6.787	
17,321.54	10,998.23	16,414.00	10,148.54	100.16	110.07	39.09	6,200.09	1,074.59	1,087.00	926.49	160.51	6.772	
17,400.00	10,996.93	16,486.00	10,145.33	101.22	111.19	39.19	6,271.94	1,077.97	1,091.40	929.07	162.32	6.724	
17,422.63	10,996.55	16,510.95	10,144.42	101.52	111.57	39.23	6,296.84	1,079.25	1,092.60	929.70	162.90	6.707	
17,500.00	10,995.26	16,623.37	10,143.01	102.56	113.32	39.53	6,409.08	1,085.25	1,095.37	930.14	165.23	6.630	
17,523.35	10,994.87	16,646.07	10,142.98	102.88	113.68	39.59	6,431.75	1,086.31	1,095.91	930.07	165.84	6.608	
17,600.00	10,993.60	16,755.21	10,143.62	103.91	115.38	39.86	6,540.82	1,090.05	1,096.79	928.79	168.00	6.529	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Offsets - Charolais 28 21B2NC St Com #1H - OH - OH													Offset Site Error:
													0.00 usft
Survey Program:	Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance	Rule Assigned:	Offset Well Error:					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
17,700.00	10,991.93	16,895.02	10,148.00	105.27	117.57	40.14	6,680.55	1,090.39	1,093.67	923.11	170.56	6.412	
17,730.94	10,991.42	16,925.38	10,149.09	105.69	118.05	40.19	6,710.89	1,089.95	1,092.30	920.98	171.33	6.376	
17,800.00	10,990.27	17,001.63	10,151.10	106.62	119.25	40.23	6,787.09	1,087.74	1,089.12	916.23	172.89	6.300	
17,830.96	10,989.75	17,046.04	10,151.84	107.05	119.95	40.19	6,831.42	1,085.17	1,087.34	913.94	173.40	6.271	
17,900.00	10,988.60	17,119.00	10,152.66	107.98	121.10	40.03	6,904.09	1,078.87	1,082.35	907.78	174.57	6.200	
17,931.73	10,988.07	17,147.79	10,152.89	108.42	121.56	39.96	6,932.77	1,076.32	1,080.12	904.95	175.17	6.166	
18,000.00	10,986.94	17,195.04	10,152.54	109.35	122.31	39.83	6,979.86	1,072.40	1,076.36	899.78	176.58	6.096	
18,030.95	10,986.42	17,218.09	10,152.04	109.77	122.67	39.76	7,002.83	1,070.61	1,075.09	897.92	177.17	6.068	
18,100.00	10,985.27	17,288.04	10,150.38	110.71	123.78	39.55	7,072.55	1,065.25	1,072.44	894.17	178.27	6.016	
18,130.50	10,984.76	17,318.93	10,149.68	111.13	124.27	39.46	7,103.35	1,062.88	1,071.25	892.49	178.76	5.993	
18,200.00	10,983.61	17,389.34	10,148.14	112.08	125.39	39.24	7,173.53	1,057.48	1,068.50	888.64	179.86	5.941	
18,230.60	10,983.10	17,420.12	10,147.50	112.50	125.88	39.15	7,204.22	1,055.12	1,067.28	886.93	180.35	5.918	
18,300.00	10,981.94	17,489.57	10,146.11	113.45	126.98	38.95	7,273.45	1,049.86	1,064.49	883.03	181.46	5.866	
18,330.60	10,981.43	17,517.32	10,145.57	113.87	127.42	38.87	7,301.12	1,047.81	1,063.30	881.31	181.99	5.843	
18,400.00	10,980.28	17,578.24	10,144.35	114.82	128.39	38.71	7,361.89	1,043.81	1,060.98	877.75	183.23	5.790	
18,430.29	10,979.77	17,605.00	10,143.79	115.23	128.82	38.65	7,388.61	1,042.28	1,060.14	876.35	183.79	5.768	
18,500.00	10,978.61	17,667.03	10,142.64	116.19	129.81	38.55	7,450.56	1,039.40	1,058.58	873.46	185.13	5.718	
18,529.95	10,978.11	17,693.98	10,142.21	116.60	130.24	38.52	7,477.49	1,038.45	1,058.06	872.34	185.73	5.697	
18,600.00	10,976.95	17,759.43	10,141.23	117.57	131.28	38.47	7,542.90	1,036.61	1,057.10	869.94	187.16	5.648	
18,629.72	10,976.45	17,787.68	10,140.83	117.98	131.73	38.45	7,571.15	1,035.99	1,056.78	869.00	187.78	5.628	
18,700.00	10,975.28	17,859.50	10,139.99	118.94	132.87	38.43	7,642.95	1,034.60	1,056.01	866.75	189.26	5.580	
18,729.71	10,974.79	17,889.29	10,139.72	119.35	133.35	38.42	7,672.73	1,034.07	1,055.66	865.76	189.90	5.559	
18,800.00	10,973.62	17,957.92	10,139.12	120.32	134.44	38.42	7,741.35	1,032.99	1,054.89	863.46	191.43	5.511	
18,829.70	10,973.12	17,988.01	10,138.87	120.73	134.92	38.42	7,771.43	1,032.57	1,054.59	862.51	192.08	5.490	
18,900.00	10,971.95	18,061.66	10,138.44	121.71	136.10	38.43	7,845.08	1,031.54	1,053.73	860.10	193.63	5.442	
18,929.78	10,971.46	18,087.62	10,138.32	122.12	136.51	38.44	7,871.03	1,031.21	1,053.37	859.06	194.30	5.421	
18,994.41	10,970.38	18,141.60	10,137.86	123.01	137.37	38.45	7,925.01	1,030.88	1,053.04	857.27	195.77	5.379	
19,000.00	10,970.29	18,146.27	10,137.80	123.09	137.45	38.46	7,929.68	1,030.87	1,053.04	857.14	195.90	5.375	
19,023.23	10,969.90	18,166.30	10,137.54	123.41	137.77	38.47	7,949.71	1,030.89	1,053.10	856.67	196.43	5.361	
19,100.00	10,968.62	18,245.47	10,136.55	124.47	139.03	38.51	8,028.87	1,031.02	1,053.32	855.10	198.21	5.314	
19,123.21	10,968.23	18,268.67	10,136.31	124.80	139.40	38.53	8,052.07	1,031.07	1,053.35	854.60	198.75	5.300	
19,200.00	10,966.96	18,342.80	10,135.53	125.86	140.58	38.58	8,126.20	1,031.39	1,053.57	853.01	200.56	5.253	
19,223.15	10,966.57	18,365.41	10,135.30	126.18	140.95	38.60	8,148.80	1,031.55	1,053.68	852.56	201.12	5.239	
19,300.00	10,965.29	18,441.32	10,134.50	127.25	142.16	38.67	8,224.70	1,032.14	1,054.07	851.12	202.96	5.194	
19,323.34	10,964.90	18,465.80	10,134.25	127.57	142.55	38.69	8,249.18	1,032.35	1,054.20	850.67	203.52	5.180	
19,400.00	10,963.63	18,547.75	10,133.66	128.64	143.86	38.77	8,331.13	1,032.89	1,054.34	848.95	205.39	5.133	
19,423.82	10,963.23	18,571.06	10,133.54	128.97	144.23	38.79	8,354.44	1,033.04	1,054.33	848.37	205.97	5.119	
19,500.00	10,961.96	18,646.02	10,133.24	130.03	145.43	38.88	8,429.40	1,033.70	1,054.39	846.54	207.85	5.073	
19,600.00	10,960.30	18,749.10	10,133.11	131.42	147.08	39.01	8,532.47	1,034.77	1,054.36	843.99	210.38	5.012	
19,629.44	10,959.81	18,779.44	10,133.14	131.83	147.57	39.05	8,562.81	1,035.09	1,054.30	843.17	211.13	4.994	
19,700.00	10,958.63	18,852.59	10,133.37	132.82	148.74	39.16	8,635.95	1,035.86	1,054.04	841.10	212.95	4.950	
19,729.54	10,958.14	18,883.57	10,133.57	133.23	149.24	39.21	8,666.93	1,036.21	1,053.88	840.16	213.72	4.931	
19,800.00	10,956.97	18,957.87	10,134.33	134.21	150.43	39.34	8,741.22	1,037.10	1,053.31	837.72	215.59	4.886	
19,829.70	10,956.47	18,989.42	10,134.77	134.63	150.93	39.40	8,772.77	1,037.49	1,052.99	836.59	216.40	4.866	
19,900.00	10,955.30	19,065.99	10,136.16	135.61	152.16	39.56	8,849.32	1,038.39	1,051.99	833.66	218.32	4.818	
19,929.94	10,954.80	19,099.19	10,136.93	136.03	152.69	39.63	8,882.51	1,038.72	1,051.41	832.26	219.15	4.798	
20,000.00	10,953.63	19,181.26	10,139.22	137.01	154.01	39.80	8,964.55	1,039.12	1,049.59	828.52	221.08	4.748	
20,030.39	10,953.13	19,217.37	10,140.39	137.44	154.59	39.87	9,000.64	1,038.99	1,048.54	826.65	221.89	4.726	
20,100.00	10,951.97	19,278.83	10,141.73	138.41	155.58	39.94	9,062.08	1,038.19	1,046.26	822.57	223.68	4.677	
20,130.43	10,951.46	19,306.75	10,141.98	138.84	156.03	39.95	9,089.99	1,037.58	1,045.39	820.99	224.41	4.658	
20,200.00	10,950.30	19,381.23	10,142.48	139.81	157.24	39.95	9,164.44	1,035.60	1,043.32	817.37	225.95	4.617	
20,230.36	10,949.80	19,410.89	10,142.71	140.24	157.71	39.95	9,194.09	1,034.73	1,042.33	815.69	226.64	4.599	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Offsets - Charolais 28 21B2NC St Com #1H - OH - OH

Survey Program:		167-MWD							Rule Assigned:				Offset Well Error:	
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore	Centre	Distance	Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
20,300.00	10,948.64	19,470.09	10,142.70	141.21	158.67	39.93	9,253.26	1,032.97	1,040.49	812.27	228.22	4.559		
20,330.13	10,948.14	19,495.95	10,142.46	141.64	159.09	39.91	9,279.11	1,032.21	1,039.91	811.03	228.88	4.544		
20,400.00	10,946.97	19,575.97	10,141.90	142.62	160.38	39.86	9,359.08	1,029.71	1,038.35	808.08	230.28	4.509		
20,430.13	10,946.47	19,606.28	10,141.87	143.04	160.87	39.85	9,389.38	1,028.72	1,037.51	806.59	230.92	4.493		
20,500.00	10,945.31	19,669.92	10,141.59	144.02	161.90	39.81	9,452.98	1,026.72	1,035.81	803.37	232.44	4.456		
20,530.10	10,944.81	19,696.06	10,141.37	144.45	162.32	39.80	9,479.11	1,025.96	1,035.21	802.12	233.09	4.441		
20,600.00	10,943.64	19,753.17	10,140.79	145.43	163.25	39.79	9,536.21	1,024.93	1,034.42	799.74	234.68	4.408		
20,629.58	10,943.15	19,780.00	10,140.48	145.84	163.68	39.79	9,563.04	1,024.78	1,034.35	798.98	235.37	4.395		
20,700.00	10,941.98	19,853.03	10,139.73	146.84	164.86	39.82	9,636.06	1,024.50	1,034.20	797.16	237.04	4.363		
20,729.44	10,941.49	19,883.53	10,139.50	147.25	165.35	39.84	9,666.56	1,024.30	1,034.02	796.29	237.73	4.350		
20,800.00	10,940.31	19,948.70	10,138.60	148.24	166.41	39.84	9,731.73	1,023.65	1,033.78	794.45	239.34	4.319		
20,811.25	10,940.13	19,959.10	10,138.39	148.40	166.57	39.83	9,742.12	1,023.51	1,033.78	794.19	239.58	4.315		
20,823.28	10,939.93	19,970.22	10,138.15	148.57	166.75	39.83	9,753.23	1,023.36	1,033.78	793.94	239.84	4.310		
20,900.00	10,938.65	20,047.32	10,136.51	149.65	168.00	39.80	9,830.31	1,022.40	1,033.84	792.33	241.51	4.281		
20,923.30	10,938.26	20,070.70	10,136.06	149.98	168.38	39.80	9,853.69	1,022.15	1,033.85	791.83	242.02	4.272		
21,000.00	10,936.98	20,147.40	10,134.58	151.06	169.62	39.78	9,930.37	1,021.34	1,033.88	790.16	243.72	4.242		
21,023.31	10,936.60	20,170.77	10,134.14	151.39	170.00	39.78	9,953.73	1,021.10	1,033.89	789.66	244.23	4.233		
21,100.00	10,935.32	20,247.83	10,132.80	152.47	171.25	39.77	10,030.78	1,020.43	1,033.90	787.95	245.96	4.204		
21,200.00	10,933.65	20,348.56	10,131.45	153.89	172.88	39.80	10,131.50	1,019.97	1,033.87	785.58	248.29	4.164		
21,229.39	10,933.16	20,378.81	10,131.15	154.30	173.37	39.82	10,161.75	1,019.92	1,033.84	784.84	249.00	4.152		
21,300.00	10,931.99	20,451.26	10,130.57	155.30	174.54	39.86	10,234.20	1,019.79	1,033.66	782.95	250.71	4.123		
21,329.48	10,931.50	20,480.58	10,130.32	155.71	175.02	39.87	10,263.51	1,019.70	1,033.57	782.14	251.42	4.111		
21,346.88	10,931.21	20,497.98	10,130.17	155.96	175.30	39.88	10,280.91	1,019.63	1,033.51	781.67	251.84	4.104		
21,359.37	10,931.00	20,510.46	10,130.06	156.14	175.50	39.89	10,293.39	1,019.59	1,033.47	781.33	252.14	4.099	SF	



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Offsets - Hereford 29/20 B 1 PA St Com #1 H - OH - OH													Offset Site Error:
													0.00 usft
Survey Program:	Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance	Rule Assigned:	Offset Well Error:					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
3,700.00	3,700.00	3,882.44	3,874.11	13.16	13.85	-91.86	-64.70	-1,991.56	1,998.88	1,972.15	26.72	74.803	
3,800.00	3,799.99	3,979.00	3,970.34	13.51	14.21	154.61	-67.34	-1,984.06	1,992.37	1,964.95	27.42	72.660	
3,900.00	3,899.91	4,075.50	4,066.53	13.84	14.58	154.61	-69.79	-1,976.72	1,988.39	1,960.28	28.11	70.744	
3,980.64	3,980.39	4,158.24	4,149.00	14.12	14.89	154.62	-71.61	-1,970.35	1,986.82	1,958.14	28.68	69.285	
4,000.00	3,999.70	4,179.86	4,170.56	14.18	14.97	154.63	-72.05	-1,968.66	1,986.61	1,957.79	28.82	68.936	
4,100.00	4,099.43	4,300.43	4,290.67	14.52	15.43	154.65	-74.74	-1,958.55	1,984.92	1,955.34	29.58	67.106	
4,200.00	4,199.16	4,413.22	4,402.93	14.86	15.86	154.66	-77.58	-1,948.03	1,982.30	1,951.99	30.32	65.386	
4,300.00	4,298.89	4,519.15	4,508.33	15.20	16.27	154.68	-79.94	-1,937.76	1,979.31	1,948.27	31.04	63.772	
4,400.00	4,398.62	4,620.05	4,608.72	15.54	16.66	154.70	-82.15	-1,927.77	1,976.10	1,944.36	31.75	62.249	
4,500.00	4,498.35	4,719.43	4,707.56	15.89	17.05	154.70	-85.03	-1,917.92	1,972.92	1,940.47	32.45	60.798	
4,600.00	4,598.08	4,819.62	4,807.21	16.23	17.44	154.68	-88.25	-1,908.00	1,969.75	1,936.59	33.16	59.401	
4,700.00	4,697.81	4,919.92	4,906.97	16.58	17.83	154.68	-91.14	-1,898.06	1,966.56	1,932.69	33.87	58.061	
4,800.00	4,797.54	5,019.78	5,006.30	16.93	18.21	154.68	-94.00	-1,888.15	1,963.36	1,928.78	34.58	56.775	
4,900.00	4,897.27	5,119.21	5,105.19	17.28	18.60	154.67	-97.14	-1,878.29	1,960.17	1,924.88	35.29	55.542	
5,000.00	4,997.00	5,215.04	5,200.50	17.63	18.97	154.66	-100.32	-1,868.90	1,957.10	1,921.11	35.99	54.374	
5,100.00	5,096.73	5,311.78	5,296.74	17.98	19.35	154.64	-103.59	-1,859.62	1,954.25	1,917.55	36.70	53.252	
5,200.00	5,196.46	5,414.36	5,398.80	18.33	19.75	154.63	-106.84	-1,849.78	1,951.39	1,913.97	37.42	52.148	
5,300.00	5,296.19	5,514.70	5,498.63	18.68	20.14	154.63	-109.64	-1,840.05	1,948.41	1,910.28	38.14	51.091	
5,400.00	5,395.92	5,609.65	5,593.11	19.04	20.51	154.64	-112.17	-1,831.00	1,945.59	1,906.76	38.84	50.096	
5,500.00	5,495.65	5,704.58	5,687.60	19.39	20.88	154.64	-114.66	-1,822.19	1,943.03	1,903.49	39.54	49.142	
5,600.00	5,595.38	5,799.43	5,782.03	19.75	21.24	154.65	-117.11	-1,813.65	1,940.74	1,900.49	40.24	48.229	
5,700.00	5,695.11	5,894.89	5,877.09	20.10	21.61	154.66	-119.53	-1,805.29	1,938.70	1,897.75	40.94	47.351	
5,800.00	5,794.84	5,991.70	5,973.53	20.46	21.98	154.68	-121.68	-1,797.00	1,936.84	1,895.19	41.65	46.503	
5,900.00	5,894.57	6,085.54	6,067.02	20.81	22.34	154.71	-123.41	-1,789.16	1,935.18	1,892.84	42.35	45.697	
6,000.00	5,994.30	6,174.26	6,155.45	21.17	22.68	154.74	-124.95	-1,782.19	1,934.02	1,890.99	43.03	44.946	
6,100.00	6,094.03	6,268.53	6,249.46	21.53	23.04	154.77	-126.58	-1,775.31	1,933.41	1,889.68	43.73	44.215	
6,200.00	6,193.76	6,360.76	6,361.34	21.89	23.46	154.81	-128.55	-1,766.80	1,932.52	1,888.04	44.48	43.446	
6,300.00	6,293.49	6,466.12	6,466.33	22.25	23.86	154.84	-130.58	-1,758.25	1,931.10	1,885.89	45.22	42.709	
6,400.00	6,393.22	6,566.31	6,566.16	22.61	24.25	154.85	-133.26	-1,750.03	1,929.62	1,883.68	45.93	42.008	
6,500.00	6,492.95	6,668.15	6,667.59	22.97	24.64	154.83	-136.67	-1,741.61	1,928.09	1,881.43	46.66	41.321	
6,600.00	6,592.68	6,790.71	6,769.73	23.33	25.03	154.81	-140.29	-1,732.99	1,926.43	1,879.04	47.39	40.650	
6,700.00	6,692.41	6,883.07	6,861.69	23.69	25.39	154.79	-143.73	-1,725.31	1,924.87	1,876.78	48.09	40.026	
6,800.00	6,792.14	6,973.64	6,951.92	24.05	25.74	154.76	-147.30	-1,718.21	1,923.79	1,875.00	48.78	39.435	
6,900.00	6,891.87	7,083.35	7,061.21	24.41	26.16	154.73	-151.56	-1,709.72	1,922.82	1,873.28	49.54	38.816	
7,000.00	6,991.60	7,198.94	7,176.33	24.77	26.60	154.72	-155.21	-1,699.91	1,921.07	1,870.76	50.30	38.189	
7,100.00	7,091.33	7,295.05	7,272.04	25.13	26.97	154.72	-157.79	-1,691.54	1,919.08	1,868.06	51.02	37.617	
7,200.00	7,191.06	7,394.99	7,371.58	25.50	27.36	154.74	-160.20	-1,682.92	1,917.16	1,865.42	51.74	37.055	
7,300.00	7,290.79	7,501.58	7,477.69	25.86	27.77	154.73	-163.57	-1,673.48	1,915.04	1,862.56	52.48	36.490	
7,400.00	7,390.52	7,604.52	7,580.10	26.22	28.17	154.68	-167.94	-1,664.03	1,912.62	1,859.40	53.22	35.941	
7,500.00	7,490.25	7,702.53	7,677.61	26.59	28.56	154.64	-172.31	-1,655.04	1,910.22	1,856.28	53.94	35.415	
7,600.00	7,589.98	7,802.15	7,776.72	26.95	28.94	154.59	-176.65	-1,645.99	1,907.90	1,853.24	54.66	34.902	
7,700.00	7,689.71	7,903.40	7,877.48	27.31	29.34	154.57	-180.31	-1,636.77	1,905.54	1,850.15	55.39	34.400	
7,800.00	7,789.44	7,999.31	7,972.95	27.68	29.71	154.57	-183.07	-1,628.08	1,903.21	1,847.10	56.11	33.920	
7,900.00	7,889.17	8,092.32	8,065.58	28.04	30.07	154.57	-185.48	-1,619.97	1,901.21	1,844.40	56.81	33.465	
8,000.00	7,988.90	8,186.66	8,159.57	28.41	30.43	154.59	-187.64	-1,612.09	1,899.56	1,842.04	57.52	33.025	
8,100.00	8,088.63	8,281.74	8,254.32	28.77	30.80	154.62	-189.47	-1,604.40	1,898.17	1,839.94	58.23	32.599	
8,200.00	8,188.36	8,391.01	8,363.22	29.14	31.21	154.66	-191.37	-1,595.57	1,896.79	1,837.82	58.98	32.161	
8,300.00	8,288.09	8,507.22	8,478.93	29.50	31.66	154.68	-193.95	-1,585.25	1,894.62	1,834.87	59.75	31.711	
8,400.00	8,387.82	8,589.94	8,561.31	29.87	31.98	154.69	-195.87	-1,577.98	1,892.52	1,832.10	60.42	31.322	
8,500.00	8,487.56	8,674.38	8,645.46	30.23	32.30	154.71	-197.65	-1,571.24	1,891.24	1,830.14	61.10	30.953	
8,600.00	8,587.29	8,759.28	8,730.13	30.60	32.62	154.74	-199.21	-1,565.15	1,890.77	1,829.00	61.77	30.608	
8,608.87	8,596.13	8,766.82	8,737.66	30.63	32.65	154.74	-199.33	-1,564.65	1,890.77	1,828.94	61.83	30.579 CC	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Offsets - Hereford 29/20 B 1 PA St Com #1 H - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 117-MWD												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
8,700.00	8,687.02	8,844.29	8,814.96	30.96	32.94	154.78	-200.46	-1,559.74	1,891.10	1,828.66	62.44	30.285 ES	
8,800.00	8,786.75	8,921.46	8,892.01	31.33	33.22	154.82	-201.27	-1,555.53	1,892.34	1,829.26	63.08	30.000	
8,900.00	8,886.48	8,993.44	8,963.94	31.70	33.48	154.88	-201.49	-1,552.66	1,895.01	1,831.33	63.68	29.757	
9,000.00	8,986.21	9,066.00	9,036.47	32.06	33.74	154.96	-201.16	-1,550.85	1,899.16	1,834.88	64.28	29.545	
9,100.00	9,085.94	9,201.20	9,170.77	32.43	34.18	155.44	-189.16	-1,547.82	1,903.46	1,838.37	65.09	29.242	
9,200.00	9,185.67	9,385.76	9,335.70	32.80	34.64	157.98	-109.77	-1,537.36	1,903.47	1,837.56	65.91	28.878	
9,206.95	9,192.60	9,388.83	9,338.19	32.82	34.64	158.03	-107.97	-1,537.14	1,903.46	1,837.51	65.95	28.863	
9,300.00	9,285.40	9,421.00	9,363.68	33.16	34.71	158.64	-88.47	-1,535.11	1,905.00	1,838.65	66.35	28.712	
9,400.00	9,385.13	9,468.00	9,399.20	33.53	34.78	159.60	-57.77	-1,533.08	1,910.23	1,843.47	66.75	28.617	
9,500.00	9,484.86	9,515.00	9,432.69	33.90	34.85	160.61	-24.83	-1,531.70	1,919.08	1,851.98	67.10	28.601	
9,600.00	9,584.59	9,561.00	9,463.32	34.26	34.91	161.66	9.46	-1,530.50	1,931.36	1,863.98	67.38	28.665	
9,700.00	9,684.32	9,592.36	9,482.75	34.63	34.95	162.41	34.05	-1,529.85	1,947.45	1,879.93	67.52	28.844	
9,800.00	9,784.05	9,608.00	9,491.99	35.00	34.96	162.79	46.67	-1,529.60	1,967.68	1,900.19	67.49	29.157	
9,900.00	9,883.78	9,656.00	9,518.37	35.37	35.01	163.99	86.76	-1,529.30	1,992.00	1,924.43	67.57	29.482	
19,800.00	10,956.97	18,376.92	9,555.52	134.21	151.02	-54.24	8,788.67	-1,597.37	2,424.84	2,181.12	243.72	9.949	
19,830.97	10,956.45	18,410.08	9,556.78	134.65	151.55	-54.27	8,821.80	-1,597.43	2,423.68	2,179.06	244.62	9.908	
19,900.00	10,955.30	18,471.00	9,559.95	135.61	152.53	-54.35	8,882.64	-1,598.04	2,421.05	2,174.57	246.48	9.823	
19,931.04	10,954.78	18,501.06	9,561.57	136.05	153.02	-54.40	8,912.66	-1,598.45	2,419.91	2,172.55	247.36	9.783	
20,000.00	10,953.63	18,549.30	9,563.31	137.01	153.80	-54.44	8,960.85	-1,598.90	2,417.87	2,168.90	248.97	9.712	
20,030.67	10,953.12	18,574.55	9,563.80	137.44	154.21	-54.46	8,986.11	-1,599.02	2,417.14	2,167.42	249.72	9.679	
20,100.00	10,951.97	18,654.88	9,564.69	138.41	155.50	-54.49	9,066.42	-1,598.76	2,415.38	2,163.63	251.75	9.594	
20,130.54	10,951.46	18,680.56	9,564.79	138.84	155.92	-54.50	9,092.10	-1,598.49	2,414.56	2,162.07	252.49	9.563	
20,200.00	10,950.30	18,735.23	9,564.63	139.81	156.80	-54.50	9,146.78	-1,597.95	2,412.99	2,158.91	254.08	9.497	
20,230.32	10,949.80	18,753.00	9,564.47	140.24	157.09	-54.49	9,164.54	-1,597.79	2,412.45	2,157.78	254.67	9.473	
20,300.00	10,948.64	18,810.78	9,563.81	141.21	158.02	-54.49	9,222.32	-1,597.51	2,411.53	2,155.24	256.29	9.409	
20,329.87	10,948.14	18,833.07	9,563.52	141.63	158.38	-54.49	9,244.61	-1,597.53	2,411.29	2,154.35	256.94	9.384	
20,400.00	10,946.97	18,890.63	9,563.14	142.62	159.31	-54.50	9,302.16	-1,598.18	2,411.06	2,152.46	258.60	9.324	
20,416.55	10,946.70	18,904.65	9,563.27	142.85	159.54	-54.51	9,316.17	-1,598.54	2,411.05	2,152.04	259.01	9.309	
20,423.04	10,946.59	18,910.14	9,563.34	142.94	159.63	-54.52	9,321.66	-1,598.70	2,411.05	2,151.88	259.17	9.303	
20,500.00	10,945.31	18,965.91	9,564.47	144.02	160.53	-54.58	9,377.38	-1,600.86	2,411.35	2,150.40	260.95	9.241	
20,522.32	10,944.94	18,979.80	9,564.54	144.34	160.76	-54.59	9,391.26	-1,601.38	2,411.60	2,150.19	261.41	9.225	
20,600.00	10,943.64	19,034.00	9,563.56	145.43	161.64	-54.61	9,445.42	-1,603.06	2,413.07	2,150.03	263.04	9.174	
20,622.60	10,943.27	19,054.76	9,562.80	145.75	161.98	-54.61	9,466.16	-1,603.56	2,413.63	2,150.04	263.59	9.157	
20,700.00	10,941.98	19,153.05	9,559.05	146.84	163.57	-54.57	9,564.37	-1,604.86	2,414.87	2,148.93	265.94	9.080	
20,722.46	10,941.61	19,171.78	9,558.28	147.15	163.88	-54.56	9,583.08	-1,605.04	2,415.21	2,148.77	266.44	9.065	
20,800.00	10,940.31	19,248.02	9,555.11	148.24	165.11	-54.53	9,659.24	-1,606.01	2,416.63	2,148.25	268.38	9.004	
20,822.83	10,939.93	19,281.36	9,554.37	148.57	165.65	-54.53	9,692.57	-1,606.74	2,416.96	2,147.77	269.18	8.979	
20,900.00	10,938.65	19,354.21	9,553.86	149.65	166.84	-54.57	9,765.38	-1,608.79	2,417.80	2,146.59	271.21	8.915	
20,922.31	10,938.28	19,370.78	9,553.43	149.97	167.11	-54.57	9,781.95	-1,609.13	2,418.14	2,146.45	271.69	8.901	
21,000.00	10,936.98	19,436.13	9,550.78	151.06	168.17	-54.54	9,847.23	-1,610.16	2,419.69	2,146.26	273.44	8.849	
21,022.34	10,936.61	19,458.93	9,550.40	151.38	168.54	-54.55	9,870.02	-1,610.95	2,420.17	2,146.12	274.05	8.831	
21,100.00	10,935.32	19,533.98	9,551.72	152.47	169.76	-54.65	9,944.92	-1,615.35	2,421.84	2,145.56	276.28	8.766	
21,122.17	10,934.95	19,554.07	9,551.83	152.79	170.09	-54.68	9,964.98	-1,616.39	2,422.35	2,145.48	276.87	8.749	
21,200.00	10,933.65	19,628.98	9,550.35	153.89	171.31	-54.70	10,039.83	-1,619.08	2,424.26	2,145.33	278.93	8.691	
21,222.21	10,933.28	19,652.14	9,549.78	154.20	171.69	-54.70	10,062.97	-1,619.83	2,424.80	2,145.26	279.54	8.674	
21,300.00	10,931.99	19,728.81	9,548.42	155.30	172.94	-54.73	10,139.57	-1,622.64	2,426.66	2,145.02	281.64	8.616	
21,313.16	10,931.77	19,741.11	9,548.38	155.48	173.14	-54.74	10,151.86	-1,623.23	2,426.99	2,145.00	281.99	8.607	
21,359.37	10,931.00	19,784.60	9,548.70	156.14	173.85	-54.79	10,195.28	-1,625.68	2,428.17	2,144.90	283.27	8.572 SF	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Offsets - West Pearl Queen Unit 163 (P&A) - OH - OH

Survey Program: Reference		380-INC-ONLY						Rule Assigned:						Offset Well Error:	
Offset		Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Separation		Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
0.00	0.00	0.00	0.00	0.00	0.00	116.27	-206.05	417.46	467.01						
100.00	100.00	63.00	63.00	0.26	1.85	116.27	-206.05	417.46	465.54	463.43	2.11	220.668			
200.00	200.00	163.00	163.00	0.62	4.79	116.27	-206.05	417.46	465.54	460.13	5.41	86.102			
300.00	300.00	263.00	263.00	0.98	7.73	116.27	-206.05	417.46	465.54	456.84	8.70	53.485			
400.00	400.00	363.00	363.00	1.33	10.67	116.27	-206.05	417.46	465.54	453.54	12.00	38.791			
500.00	500.00	463.00	463.00	1.69	12.39	116.27	-206.05	417.46	465.54	451.46	14.08	33.071			
600.00	600.00	563.01	563.00	2.05	13.86	116.27	-206.05	417.46	465.54	449.63	15.91	29.252			
700.00	700.00	663.01	663.00	2.41	15.42	116.27	-206.05	417.46	465.54	447.71	17.83	26.106			
727.01	727.01	689.91	689.90	2.51	15.84	116.24	-205.78	417.46	465.42	447.07	18.35	25.365			
800.00	800.00	762.39	762.37	2.77	16.97	116.25	-205.91	417.46	465.48	445.74	19.74	23.579			
900.00	900.00	863.02	863.00	3.13	18.59	116.27	-206.05	417.46	465.54	443.82	21.72	21.434			
937.49	937.49	900.50	900.48	3.26	19.21	116.26	-205.94	417.46	465.49	443.02	22.47	20.717			
1,000.00	1,000.00	962.74	962.72	3.48	20.23	116.26	-205.98	417.46	465.51	441.80	23.71	19.630			
1,100.00	1,100.00	1,063.02	1,063.00	3.84	22.16	116.27	-206.05	417.46	465.54	439.53	26.01	17.901			
1,200.00	1,200.00	1,163.02	1,163.00	4.20	24.26	116.27	-206.05	417.46	465.54	437.08	28.46	16.356			
1,286.97	1,286.97	1,249.99	1,249.97	4.51	26.08	116.21	-205.50	417.46	465.30	434.70	30.60	15.207			
1,300.00	1,300.00	1,262.98	1,262.95	4.56	26.36	116.21	-205.50	417.46	465.30	434.38	30.92	15.050			
1,400.00	1,400.00	1,362.62	1,362.60	4.92	28.45	116.22	-205.61	417.46	465.35	431.98	33.37	13.947			
1,500.00	1,500.00	1,462.27	1,462.24	5.28	30.54	116.25	-205.90	417.46	465.47	429.66	35.81	12.997			
1,600.00	1,600.00	1,563.05	1,563.00	5.64	32.61	116.27	-206.05	417.46	465.54	427.29	38.25	12.172			
1,700.00	1,700.00	1,663.05	1,663.00	5.99	34.65	116.27	-206.05	417.46	465.54	424.90	40.64	11.455			
1,732.20	1,732.20	1,695.00	1,694.94	6.11	35.30	116.21	-205.53	417.46	465.31	423.91	41.41	11.237			
1,800.00	1,800.00	1,762.25	1,762.19	6.35	36.67	116.23	-205.71	417.46	465.39	422.37	43.02	10.818			
1,900.00	1,900.00	1,863.08	1,863.00	6.71	38.79	116.27	-206.05	417.46	465.54	420.04	45.50	10.232			
2,000.00	2,000.00	1,963.08	1,963.00	7.07	41.02	116.27	-206.05	417.46	465.54	417.45	48.09	9.681			
2,100.00	2,100.00	2,063.08	2,063.00	7.43	43.25	116.27	-206.05	417.46	465.54	414.87	50.68	9.187			
2,139.83	2,139.83	2,102.77	2,102.68	7.57	44.13	116.18	-205.25	417.46	465.19	413.48	51.70	8.997			
2,200.00	2,200.00	2,162.62	2,162.53	7.79	45.47	116.19	-205.34	417.46	465.23	411.97	53.25	8.736			
2,300.00	2,300.00	2,262.09	2,262.00	8.14	47.68	116.23	-205.69	417.46	465.38	409.56	55.83	8.336			
2,400.00	2,400.00	2,363.16	2,363.00	8.50	50.04	116.27	-206.05	417.46	465.54	406.99	58.55	7.952			
2,500.00	2,500.00	2,463.16	2,463.00	8.86	52.54	116.27	-206.05	417.46	465.54	404.14	61.41	7.581			
2,600.00	2,600.00	2,563.16	2,563.00	9.22	55.04	116.27	-206.05	417.46	465.54	401.28	64.26	7.244			
2,639.77	2,639.77	2,602.67	2,602.50	9.36	56.03	116.12	-204.71	417.46	464.95	399.55	65.40	7.110			
2,700.00	2,700.00	2,662.38	2,662.20	9.58	57.53	116.14	-204.86	417.46	465.02	397.91	67.10	6.930			
2,800.00	2,800.00	2,761.53	2,761.34	9.94	60.01	116.21	-205.46	417.46	465.28	395.34	69.94	6.652			
2,900.00	2,900.00	2,863.30	2,863.00	10.30	62.54	116.27	-206.05	417.46	465.54	392.70	72.84	6.392			
2,998.64	2,998.64	2,961.94	2,961.63	10.65	64.98	116.17	-205.14	417.46	465.14	389.51	75.63	6.150			
3,000.00	3,000.00	2,963.28	2,962.96	10.65	65.02	116.17	-205.14	417.46	465.14	389.47	75.67	6.147			
3,100.00	3,100.00	3,061.42	3,061.10	11.01	67.44	116.22	-205.61	417.46	465.35	386.89	78.46	5.931			
3,200.00	3,200.00	3,163.43	3,163.00	11.37	70.09	116.27	-206.05	417.46	465.54	384.08	81.46	5.715			
3,300.00	3,300.00	3,263.43	3,263.00	11.73	72.75	116.27	-206.05	417.46	465.54	381.06	84.48	5.511			
3,332.82	3,332.82	3,295.61	3,295.15	11.85	73.61	116.12	-204.66	417.46	464.93	379.47	85.45	5.441			
3,400.00	3,400.00	3,361.42	3,360.94	12.09	75.36	116.17	-205.10	417.46	465.13	377.68	87.45	5.319			
3,500.00	3,500.00	3,463.63	3,463.00	12.45	78.18	116.27	-206.05	417.46	465.54	374.91	90.63	5.137			
3,585.78	3,585.78	3,549.42	3,548.77	12.75	80.72	116.15	-205.01	417.46	465.08	371.61	93.47	4.976			
3,600.00	3,600.00	3,563.22	3,562.57	12.80	81.13	116.16	-205.02	417.46	465.09	371.15	93.93	4.951			
3,700.00	3,700.00	3,660.40	3,659.72	13.16	84.00	116.25	-205.91	417.46	465.49	368.32	97.16	4.791			
3,800.00	3,799.99	3,763.83	3,762.99	13.51	87.32	2.78	-206.05	417.46	464.23	363.40	100.83	4.604			
3,900.00	3,899.91	3,862.60	3,861.70	13.84	90.51	2.61	-204.30	417.46	459.54	355.19	104.35	4.404			
3,980.64	3,980.39	3,940.81	3,939.88	14.12	93.04	2.74	-205.23	417.46	454.90	347.76	107.14	4.246			
4,000.00	3,999.70	3,959.58	3,958.64	14.18	93.64	2.79	-205.60	417.46	453.65	345.83	107.81	4.208			
4,100.00	4,099.43	4,063.59	4,062.43	14.52	97.07	2.89	-206.05	417.46	446.50	334.92	111.58	4.002			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Offsets - West Pearl Queen Unit 163 (P&A) - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 380-INC-ONLY												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Rule Assigned: Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,200.00	4,199.16	4,161.89	4,160.68	14.86	100.32	2.79	-204.76	417.46	438.59	323.43	115.16	3.808	
4,300.00	4,298.89	4,263.33	4,261.89	15.20	103.69	2.99	-206.05	417.46	431.83	312.96	118.87	3.633	
4,400.00	4,398.62	4,361.86	4,360.38	15.54	107.07	2.92	-205.07	417.46	424.07	301.48	122.59	3.459	
4,500.00	4,498.35	4,463.00	4,461.35	15.89	110.55	3.10	-206.05	417.46	417.17	290.76	126.42	3.300	
4,600.00	4,598.08	4,561.05	4,559.36	16.23	113.96	3.03	-205.07	417.46	409.41	279.25	130.16	3.145	
4,700.00	4,697.81	4,662.68	4,660.81	16.58	117.49	3.21	-206.05	417.46	402.52	268.48	134.03	3.003	
4,800.00	4,797.54	4,762.53	4,760.54	16.93	120.98	3.27	-206.05	417.46	395.19	257.32	137.87	2.866	
4,900.00	4,897.27	4,858.56	4,856.51	17.28	124.35	3.31	-205.90	417.46	387.81	246.23	141.58	2.739	
5,000.00	4,997.00	4,962.15	4,960.00	17.63	127.91	3.39	-206.05	417.46	380.53	235.05	145.48	2.616	
5,085.41	5,082.18	5,020.00	5,017.68	17.93	129.89	3.43	-206.05	417.46	375.28	227.89	147.39	2.546 CC, ES, SF	
5,100.00	5,096.73	5,020.00	5,017.68	17.98	129.89	3.43	-206.05	417.46	375.56	228.63	146.93	2.556	
5,200.00	5,196.46	5,020.00	5,017.68	18.33	129.89	3.43	-206.05	417.46	392.38	253.81	138.58	2.831	
5,300.00	5,296.19	5,020.00	5,017.68	18.68	129.89	3.43	-206.05	417.46	432.30	308.05	124.25	3.479	
5,400.00	5,395.92	5,020.00	5,017.68	19.04	129.89	3.43	-206.05	417.46	489.69	381.05	108.64	4.507	
5,500.00	5,495.65	5,020.00	5,017.68	19.39	129.89	3.43	-206.05	417.46	559.21	464.71	94.50	5.917	
5,600.00	5,595.38	5,020.00	5,017.68	19.75	129.89	3.43	-206.05	417.46	636.90	554.23	82.67	7.704	
5,700.00	5,695.11	5,020.00	5,017.68	20.10	129.89	3.43	-206.05	417.46	720.11	647.05	73.06	9.856	
5,800.00	5,794.84	5,020.00	5,017.68	20.46	129.89	3.43	-206.05	417.46	807.14	741.81	65.33	12.356	
5,900.00	5,894.57	5,020.00	5,017.68	20.81	129.89	3.43	-206.05	417.46	896.88	837.79	59.09	15.178	
6,000.00	5,994.30	5,020.00	5,017.68	21.17	129.89	3.43	-206.05	417.46	988.59	934.55	54.03	18.295	
6,100.00	6,094.03	5,020.00	5,017.68	21.53	129.89	3.43	-206.05	417.46	1,081.77	1,031.86	49.91	21.676	
6,200.00	6,193.76	5,020.00	5,017.68	21.89	129.89	3.43	-206.05	417.46	1,176.07	1,129.56	46.52	25.283	
6,300.00	6,293.49	5,020.00	5,017.68	22.25	129.89	3.43	-206.05	417.46	1,271.24	1,227.53	43.71	29.083	
6,400.00	6,393.22	5,020.00	5,017.68	22.61	129.89	3.43	-206.05	417.46	1,367.11	1,325.72	41.38	33.036	
6,500.00	6,492.95	5,020.00	5,017.68	22.97	129.89	3.43	-206.05	417.46	1,463.52	1,424.08	39.44	37.107	
6,600.00	6,592.68	5,020.00	5,017.68	23.33	129.89	3.43	-206.05	417.46	1,560.39	1,522.57	37.82	41.261	
6,700.00	6,692.41	5,020.00	5,017.68	23.69	129.89	3.43	-206.05	417.46	1,657.63	1,621.17	36.46	45.465	
6,800.00	6,792.14	5,020.00	5,017.68	24.05	129.89	3.43	-206.05	417.46	1,755.18	1,719.85	35.32	49.687	
6,900.00	6,891.87	5,020.00	5,017.68	24.41	129.89	3.43	-206.05	417.46	1,852.99	1,818.61	34.38	53.903	
7,000.00	6,991.60	5,020.00	5,017.68	24.77	129.89	3.43	-206.05	417.46	1,951.02	1,917.43	33.59	58.087	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Offsets - West Pearl Queen Unit 194 (P&A) - OH - OH

Survey Program: Reference		410-INC-ONLY							Rule Assigned:				Offset Well Error:	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	-96.47	-112.00	-988.09	994.47					
100.00	100.00	90.00	90.00	0.26	2.73	-96.47	-112.00	-988.09	994.42	991.43	2.99	332.550		
200.00	200.00	190.00	190.00	0.62	5.77	-96.47	-112.00	-988.09	994.42	988.03	6.38	155.760		
300.00	300.00	290.00	290.00	0.98	8.80	-96.47	-112.00	-988.09	994.42	984.64	9.78	101.696		
400.00	400.00	390.00	390.00	1.33	11.84	-96.47	-112.00	-988.09	994.42	981.24	13.17	75.493		
500.00	500.00	490.00	490.00	1.69	14.15	-96.47	-112.00	-988.09	994.42	978.57	15.84	62.765		
600.00	600.00	590.00	590.00	2.05	16.28	-96.47	-112.00	-988.09	994.42	976.08	18.33	54.239		
655.88	655.88	645.88	645.88	2.25	17.48	-96.45	-111.75	-988.09	994.39	974.66	19.73	50.410		
700.00	700.00	689.96	689.95	2.41	18.41	-96.45	-111.75	-988.09	994.39	973.57	20.82	47.753		
800.00	800.00	789.85	789.85	2.77	20.54	-96.46	-111.84	-988.09	994.40	971.09	23.31	42.656		
900.00	900.00	890.01	890.00	3.13	22.68	-96.47	-112.00	-988.09	994.42	968.61	25.80	38.539		
1,000.00	1,000.00	990.01	990.00	3.48	24.77	-96.47	-112.00	-988.09	994.42	966.16	28.26	35.190		
1,100.00	1,100.00	1,090.01	1,090.00	3.84	26.87	-96.47	-112.00	-988.09	994.42	963.70	30.71	32.377		
1,142.99	1,142.99	1,133.00	1,132.98	4.00	27.77	-96.44	-111.45	-988.09	994.36	962.59	31.77	31.299		
1,200.00	1,200.00	1,189.90	1,189.89	4.20	28.97	-96.44	-111.48	-988.09	994.36	961.19	33.17	29.980		
1,300.00	1,300.00	1,289.72	1,289.70	4.56	31.06	-96.45	-111.67	-988.09	994.38	958.76	35.62	27.917		
1,400.00	1,400.00	1,390.02	1,390.00	4.92	33.15	-96.47	-112.00	-988.09	994.42	956.35	38.07	26.120		
1,500.00	1,500.00	1,490.02	1,490.00	5.28	35.06	-96.47	-112.00	-988.09	994.42	954.08	40.34	24.654		
1,600.00	1,600.00	1,590.02	1,590.00	5.64	36.96	-96.47	-112.00	-988.09	994.42	951.82	42.60	23.343		
1,639.74	1,639.74	1,629.74	1,629.72	5.78	37.72	-96.45	-111.75	-988.09	994.39	950.89	43.50	22.860		
1,700.00	1,700.00	1,689.94	1,689.92	5.99	38.87	-96.45	-111.78	-988.09	994.39	949.53	44.86	22.166		
1,800.00	1,800.00	1,789.84	1,789.81	6.35	40.77	-96.46	-111.90	-988.09	994.41	947.28	47.12	21.102		
1,900.00	1,900.00	1,890.03	1,890.00	6.71	42.73	-96.47	-112.00	-988.09	994.42	944.98	49.44	20.115		
2,000.00	2,000.00	1,990.03	1,990.00	7.07	44.72	-96.47	-112.00	-988.09	994.42	942.62	51.79	19.200		
2,100.00	2,100.00	2,090.03	2,090.00	7.43	46.72	-96.47	-112.00	-988.09	994.42	940.27	54.15	18.364		
2,139.17	2,139.17	2,129.13	2,129.09	7.57	47.50	-96.44	-111.47	-988.09	994.36	939.29	55.07	18.056		
2,200.00	2,200.00	2,189.84	2,189.81	7.79	48.72	-96.44	-111.54	-988.09	994.37	937.86	56.50	17.598		
2,300.00	2,300.00	2,289.65	2,289.62	8.14	50.71	-96.46	-111.81	-988.09	994.39	935.54	58.86	16.895		
2,400.00	2,400.00	2,390.08	2,390.00	8.50	52.80	-96.47	-112.00	-988.09	994.42	933.11	61.30	16.221		
2,500.00	2,500.00	2,490.08	2,490.00	8.86	54.96	-96.47	-112.00	-988.09	994.42	930.60	63.82	15.581		
2,600.00	2,600.00	2,590.08	2,590.00	9.22	57.12	-96.47	-112.00	-988.09	994.42	928.08	66.34	14.990		
2,639.37	2,639.37	2,629.31	2,629.22	9.36	57.97	-96.41	-110.93	-988.09	994.30	926.97	67.33	14.768		
2,700.00	2,700.00	2,689.72	2,689.63	9.58	59.27	-96.41	-111.07	-988.09	994.31	925.46	68.85	14.442		
2,800.00	2,800.00	2,789.36	2,789.26	9.94	61.42	-96.44	-111.58	-988.09	994.37	923.01	71.36	13.935		
2,900.00	2,900.00	2,890.17	2,890.00	10.30	63.80	-96.47	-112.00	-988.09	994.42	920.32	74.09	13.421		
3,000.00	3,000.00	2,990.17	2,990.00	10.65	66.39	-96.47	-112.00	-988.09	994.42	917.38	77.04	12.907		
3,083.12	3,083.12	3,073.29	3,073.10	10.95	68.54	-96.40	-110.77	-988.09	994.28	914.79	79.49	12.508		
3,100.00	3,100.00	3,090.08	3,089.89	11.01	68.98	-96.40	-110.77	-988.09	994.28	914.29	79.99	12.430		
3,200.00	3,200.00	3,189.57	3,189.38	11.37	71.55	-96.42	-111.10	-988.09	994.32	911.39	82.92	11.991		
3,300.00	3,300.00	3,289.09	3,288.88	11.73	74.13	-96.46	-111.91	-988.09	994.41	908.55	85.86	11.582		
3,400.00	3,400.00	3,390.50	3,390.00	12.09	77.06	-96.47	-112.00	-988.09	994.42	905.27	89.15	11.155		
3,433.62	3,433.62	3,424.11	3,423.57	12.21	78.04	-96.37	-110.36	-988.09	994.23	903.98	90.25	11.017	CC	
3,500.00	3,500.00	3,489.11	3,488.53	12.45	79.94	-96.40	-110.80	-988.09	994.28	901.90	92.38	10.762		
3,600.00	3,600.00	3,590.80	3,590.00	12.80	82.86	-96.47	-112.00	-988.09	994.42	898.76	95.66	10.395		
3,700.00	3,700.00	3,690.80	3,690.00	13.16	85.65	-96.47	-112.00	-988.09	994.42	895.61	98.81	10.064		
3,800.00	3,799.99	3,790.78	3,789.99	13.51	88.44	150.06	-112.00	-988.09	995.55	893.60	101.95	9.765	ES	
3,900.00	3,899.91	3,889.99	3,889.11	13.84	91.21	150.28	-109.56	-988.09	998.69	893.64	105.05	9.506		
3,980.64	3,980.39	3,969.88	3,968.97	14.12	93.44	150.34	-110.43	-988.09	1,003.19	895.64	107.56	9.327		
4,000.00	3,999.70	3,989.05	3,988.13	14.18	93.98	150.37	-110.72	-988.09	1,004.46	896.30	108.16	9.287		
4,100.00	4,099.43	4,090.57	4,089.43	14.52	96.71	150.50	-112.00	-988.09	1,010.98	899.75	111.23	9.089		
4,200.00	4,199.16	4,190.30	4,189.16	14.86	99.20	150.71	-112.00	-988.09	1,017.38	903.33	114.05	8.921		
4,300.00	4,298.89	4,290.03	4,288.89	15.20	101.68	150.91	-112.00	-988.09	1,023.79	906.92	116.87	8.760		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Offsets - West Pearl Queen Unit 194 (P&A) - OH - OH

Survey Program: 410-INC-ONLY											Offset Site Error: 0.00 usft		
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Rule Assigned: Distance			Offset Well Error: 0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,400.00	4,398.62	4,389.50	4,388.32	15.54	104.16	151.22	-109.97	-988.09	1,030.03	910.34	119.69	8.606	
4,500.00	4,498.35	4,488.81	4,487.61	15.89	106.64	151.38	-110.54	-988.09	1,036.52	914.02	122.50	8.461	
4,600.00	4,598.08	4,588.16	4,586.94	16.23	109.11	151.51	-111.66	-988.09	1,043.07	917.76	125.32	8.323	
4,700.00	4,697.81	4,689.12	4,687.81	16.58	111.45	151.69	-112.00	-988.09	1,049.56	921.56	128.00	8.200	
4,800.00	4,797.54	4,788.85	4,787.54	16.93	113.71	151.88	-112.00	-988.09	1,056.03	925.43	130.61	8.086	
4,900.00	4,897.27	4,888.58	4,887.27	17.28	115.97	152.06	-112.00	-988.09	1,062.52	929.31	133.21	7.976	
5,000.00	4,997.00	4,988.31	4,987.00	17.63	118.23	152.25	-112.00	-988.09	1,069.01	933.20	135.82	7.871	
5,100.00	5,096.73	5,088.04	5,086.73	17.98	120.50	152.43	-112.00	-988.09	1,075.52	937.10	138.42	7.770	SF
5,200.00	5,196.46	5,100.00	5,098.59	18.33	120.77	152.45	-112.00	-988.09	1,085.60	947.01	138.58	7.834	
5,300.00	5,296.19	5,100.00	5,098.59	18.68	120.77	152.45	-112.00	-988.09	1,104.61	967.21	137.40	8.040	
5,400.00	5,395.92	5,100.00	5,098.59	19.04	120.77	152.45	-112.00	-988.09	1,132.16	996.89	135.27	8.370	
5,500.00	5,495.65	5,100.00	5,098.59	19.39	120.77	152.45	-112.00	-988.09	1,167.66	1,035.28	132.38	8.820	
5,600.00	5,595.38	5,100.00	5,098.59	19.75	120.77	152.45	-112.00	-988.09	1,210.40	1,081.46	128.94	9.387	
5,700.00	5,695.11	5,100.00	5,098.59	20.10	120.77	152.45	-112.00	-988.09	1,259.65	1,134.52	125.12	10.067	
5,800.00	5,794.84	5,100.00	5,098.59	20.46	120.77	152.45	-112.00	-988.09	1,314.67	1,193.56	121.11	10.855	
5,900.00	5,894.57	5,100.00	5,098.59	20.81	120.77	152.45	-112.00	-988.09	1,374.77	1,257.74	117.02	11.748	
6,000.00	5,994.30	5,100.00	5,098.59	21.17	120.77	152.45	-112.00	-988.09	1,439.31	1,326.34	112.97	12.740	
6,100.00	6,094.03	5,100.00	5,098.59	21.53	120.77	152.45	-112.00	-988.09	1,507.73	1,398.70	109.03	13.828	
6,200.00	6,193.76	5,100.00	5,098.59	21.89	120.77	152.45	-112.00	-988.09	1,579.52	1,474.28	105.25	15.008	
6,300.00	6,293.49	5,100.00	5,098.59	22.25	120.77	152.45	-112.00	-988.09	1,654.25	1,552.60	101.65	16.274	
6,400.00	6,393.22	5,100.00	5,098.59	22.61	120.77	152.45	-112.00	-988.09	1,731.52	1,633.27	98.25	17.623	
6,500.00	6,492.95	5,100.00	5,098.59	22.97	120.77	152.45	-112.00	-988.09	1,811.03	1,715.96	95.07	19.049	
6,600.00	6,592.68	5,100.00	5,098.59	23.33	120.77	152.45	-112.00	-988.09	1,892.47	1,800.38	92.09	20.549	
6,700.00	6,692.41	5,100.00	5,098.59	23.69	120.77	152.45	-112.00	-988.09	1,975.62	1,886.30	89.32	22.119	



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Pad - Hereford 29-20 W1PA State Com 1H - OH - Plan #1

Survey Program: Reference		0-MWD + HDGM Offset							Rule Assigned:				Offset Site Error: 0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	1.00	1.00	0.00	0.00	-90.38	-0.20	-30.00	30.00					
100.00	100.00	101.00	101.00	0.26	0.26	-90.38	-0.20	-30.00	30.00	29.48	0.52	57.718		
200.00	200.00	201.00	201.00	0.62	0.62	-90.38	-0.20	-30.00	30.00	28.76	1.24	24.258		
300.00	300.00	301.00	301.00	0.98	0.98	-90.38	-0.20	-30.00	30.00	28.05	1.95	15.356		
400.00	400.00	401.00	401.00	1.33	1.34	-90.38	-0.20	-30.00	30.00	27.33	2.67	11.234		
500.00	500.00	501.00	501.00	1.69	1.70	-90.38	-0.20	-30.00	30.00	26.61	3.39	8.856		
600.00	600.00	601.00	601.00	2.05	2.05	-90.38	-0.20	-30.00	30.00	25.90	4.10	7.309		
700.00	700.00	701.00	701.00	2.41	2.41	-90.38	-0.20	-30.00	30.00	25.18	4.82	6.222		
800.00	800.00	801.00	801.00	2.77	2.77	-90.38	-0.20	-30.00	30.00	24.46	5.54	5.417		
900.00	900.00	901.00	901.00	3.13	3.13	-90.38	-0.20	-30.00	30.00	23.75	6.26	4.796		
1,000.00	1,000.00	1,001.00	1,001.00	3.48	3.49	-90.38	-0.20	-30.00	30.00	23.03	6.97	4.303		
1,100.00	1,100.00	1,101.00	1,101.00	3.84	3.85	-90.38	-0.20	-30.00	30.00	22.31	7.69	3.902		
1,200.00	1,200.00	1,201.00	1,201.00	4.20	4.20	-90.38	-0.20	-30.00	30.00	21.59	8.41	3.569		
1,300.00	1,300.00	1,301.00	1,301.00	4.56	4.56	-90.38	-0.20	-30.00	30.00	20.88	9.12	3.288		
1,400.00	1,400.00	1,401.00	1,401.00	4.92	4.92	-90.38	-0.20	-30.00	30.00	20.16	9.84	3.049		
1,500.00	1,500.00	1,501.00	1,501.00	5.28	5.28	-90.38	-0.20	-30.00	30.00	19.44	10.56	2.842		
1,600.00	1,600.00	1,601.00	1,601.00	5.64	5.64	-90.38	-0.20	-30.00	30.00	18.73	11.27	2.661		
1,700.00	1,700.00	1,701.00	1,701.00	5.99	6.00	-90.38	-0.20	-30.00	30.00	18.01	11.99	2.502		
1,800.00	1,800.00	1,801.00	1,801.00	6.35	6.36	-90.38	-0.20	-30.00	30.00	17.29	12.71	2.361		
1,900.00	1,900.00	1,901.00	1,901.00	6.71	6.71	-90.38	-0.20	-30.00	30.00	16.58	13.42	2.235		
1,916.33	1,916.33	1,917.33	1,917.33	6.77	6.77	-90.38	-0.20	-30.00	30.00	16.46	13.54	2.215 CC		
2,000.00	2,000.00	2,000.99	2,000.99	7.07	7.07	-90.38	-0.20	-30.00	30.00	15.86	14.14	2.121 ES		
2,100.00	2,100.00	2,100.00	2,099.99	7.43	7.42	-90.78	-0.42	-31.29	31.31	16.47	14.84	2.110 SF		
2,200.00	2,200.00	2,199.27	2,199.18	7.79	7.75	-91.78	-1.09	-35.12	35.18	19.66	15.52	2.267		
2,300.00	2,300.00	2,298.08	2,297.78	8.14	8.09	-93.02	-2.19	-41.45	41.64	25.44	16.19	2.571		
2,400.00	2,400.00	2,396.49	2,395.78	8.50	8.43	-94.23	-3.72	-50.26	50.66	33.81	16.86	3.006		
2,500.00	2,500.00	2,494.37	2,492.99	8.86	8.78	-95.27	-5.67	-61.48	62.25	44.75	17.51	3.556		
2,600.00	2,600.00	2,592.13	2,589.78	9.22	9.13	-96.11	-8.03	-75.03	76.29	58.13	18.16	4.201		
2,700.00	2,700.00	2,691.04	2,687.61	9.58	9.48	-96.71	-10.52	-89.40	91.01	72.15	18.86	4.826		
2,800.00	2,800.00	2,789.95	2,785.43	9.94	9.84	-97.15	-13.02	-103.76	105.73	86.17	19.56	5.406		
2,900.00	2,900.00	2,888.86	2,883.26	10.30	10.21	-97.48	-15.51	-118.12	120.45	100.19	20.26	5.946		
3,000.00	3,000.00	2,987.76	2,981.09	10.65	10.58	-97.74	-18.01	-132.48	135.18	114.22	20.96	6.449		
3,100.00	3,100.00	3,086.67	3,078.92	11.01	10.95	-97.95	-20.51	-146.85	149.91	128.24	21.66	6.919		
3,200.00	3,200.00	3,185.58	3,176.75	11.37	11.33	-98.12	-23.00	-161.21	164.64	142.27	22.37	7.360		
3,300.00	3,300.00	3,284.49	3,274.57	11.73	11.70	-98.26	-25.50	-175.57	179.37	156.30	23.08	7.773		
3,400.00	3,400.00	3,383.40	3,372.40	12.09	12.08	-98.38	-28.00	-189.94	194.11	170.32	23.78	8.161		
3,500.00	3,500.00	3,482.30	3,470.23	12.45	12.46	-98.49	-30.49	-204.30	208.84	184.35	24.49	8.526		
3,600.00	3,600.00	3,581.21	3,568.06	12.80	12.85	-98.58	-32.99	-218.66	223.58	198.37	25.20	8.871		
3,700.00	3,700.00	3,680.12	3,665.88	13.16	13.23	-98.66	-35.48	-233.02	238.31	212.40	25.91	9.196		
3,800.00	3,799.99	3,778.86	3,763.54	13.51	13.62	147.80	-37.98	-247.36	254.14	227.53	26.61	9.550		
3,900.00	3,899.91	3,877.20	3,860.81	13.84	14.00	148.03	-40.46	-261.64	272.16	244.86	27.30	9.970		
3,980.64	3,980.39	3,956.18	3,938.93	14.12	14.31	148.37	-42.45	-273.11	288.29	260.44	27.85	10.351		
4,000.00	3,999.70	3,975.10	3,957.64	14.18	14.39	148.50	-42.93	-275.86	292.34	264.36	27.98	10.447		
4,100.00	4,099.43	4,072.84	4,054.31	14.52	14.77	149.10	-45.39	-290.05	313.26	284.59	28.67	10.927		
4,200.00	4,199.16	4,170.57	4,150.98	14.86	15.16	149.63	-47.86	-304.24	334.21	304.86	29.35	11.385		
4,300.00	4,298.89	4,268.31	4,247.65	15.20	15.55	150.09	-50.33	-318.44	355.19	325.14	30.04	11.823		
4,400.00	4,398.62	4,366.05	4,344.32	15.54	15.94	150.51	-52.79	-332.63	376.18	345.45	30.73	12.240		
4,500.00	4,498.35	4,463.79	4,440.99	15.89	16.33	150.88	-55.26	-346.82	397.19	365.77	31.42	12.639		
4,600.00	4,598.08	4,561.52	4,537.66	16.23	16.72	151.21	-57.73	-361.01	418.22	386.10	32.12	13.021		
4,700.00	4,697.81	4,659.26	4,634.33	16.58	17.11	151.51	-60.19	-375.21	439.25	406.44	32.81	13.387		
4,800.00	4,797.54	4,757.00	4,731.00	16.93	17.50	151.78	-62.66	-389.40	460.30	426.79	33.51	13.737		
4,900.00	4,897.27	4,854.74	4,827.67	17.28	17.89	152.03	-65.13	-403.59	481.36	447.15	34.21	14.072		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Pad - Hereford 29-20 W1PA State Com 1H - OH - Plan #1

Offset Site Error: 0.00 usft

Offset Well Error: 0.00 usft

Survey Program: 0-MWD + HDGM		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,000.00	4,997.00	4,952.47	4,924.34	17.63	18.29	152.26	-67.59	-417.78	502.42	467.52	34.90	14.394	
5,100.00	5,096.73	5,050.21	5,021.01	17.98	18.68	152.47	-70.06	-431.98	523.49	487.89	35.60	14.703	
5,200.00	5,196.46	5,147.95	5,117.68	18.33	19.08	152.67	-72.53	-446.17	544.57	508.27	36.31	15.000	
5,300.00	5,296.19	5,245.68	5,214.35	18.68	19.47	152.84	-74.99	-460.36	565.66	528.65	37.01	15.285	
5,400.00	5,395.92	5,343.42	5,311.02	19.04	19.87	153.01	-77.46	-474.55	586.74	549.03	37.71	15.560	
5,500.00	5,495.65	5,441.16	5,407.69	19.39	20.26	153.17	-79.93	-488.75	607.84	569.42	38.41	15.824	
5,600.00	5,595.38	5,538.90	5,504.36	19.75	20.66	153.31	-82.39	-502.94	628.93	589.82	39.12	16.078	
5,700.00	5,695.11	5,636.63	5,601.03	20.10	21.05	153.45	-84.86	-517.13	650.03	610.21	39.82	16.323	
5,800.00	5,794.84	5,734.37	5,697.70	20.46	21.45	153.57	-87.33	-531.32	671.14	630.61	40.53	16.559	
5,900.00	5,894.57	5,832.11	5,794.37	20.81	21.85	153.69	-89.79	-545.52	692.24	651.01	41.24	16.787	
6,000.00	5,994.30	5,929.85	5,891.04	21.17	22.25	153.80	-92.26	-559.71	713.35	671.41	41.94	17.008	
6,100.00	6,094.03	6,027.58	5,987.71	21.53	22.64	153.91	-94.73	-573.90	734.47	691.81	42.65	17.220	
6,200.00	6,193.76	6,125.32	6,084.38	21.89	23.04	154.01	-97.19	-588.10	755.58	712.22	43.36	17.426	
6,300.00	6,293.49	6,223.06	6,181.05	22.25	23.44	154.10	-99.66	-602.29	776.70	732.63	44.07	17.624	
6,400.00	6,393.22	6,320.80	6,277.72	22.61	23.84	154.19	-102.12	-616.48	797.81	753.03	44.78	17.816	
6,500.00	6,492.95	6,418.53	6,374.39	22.97	24.24	154.28	-104.59	-630.67	818.93	773.44	45.49	18.002	
6,600.00	6,592.68	6,516.27	6,471.06	23.33	24.64	154.36	-107.06	-644.87	840.06	793.85	46.20	18.182	
6,700.00	6,692.41	6,614.01	6,567.73	23.69	25.04	154.43	-109.52	-659.06	861.18	814.26	46.91	18.357	
6,800.00	6,792.14	6,711.75	6,664.40	24.05	25.44	154.51	-111.99	-673.25	882.30	834.68	47.63	18.526	
6,900.00	6,891.87	6,809.48	6,761.07	24.41	25.84	154.58	-114.46	-687.44	903.43	855.09	48.34	18.690	
7,000.00	6,991.60	6,907.22	6,857.74	24.77	26.24	154.64	-116.92	-701.64	924.55	875.50	49.05	18.849	
7,100.00	7,091.33	7,004.96	6,954.41	25.13	26.64	154.70	-119.39	-715.83	945.68	895.92	49.76	19.003	
7,200.00	7,191.06	7,102.70	7,051.08	25.50	27.04	154.76	-121.86	-730.02	966.81	916.33	50.48	19.153	
7,300.00	7,290.79	7,200.43	7,147.75	25.86	27.44	154.82	-124.32	-744.21	987.94	936.75	51.19	19.298	
7,400.00	7,390.52	7,298.17	7,244.42	26.22	27.84	154.88	-126.79	-758.41	1,009.07	957.16	51.91	19.440	
7,500.00	7,490.25	7,395.91	7,341.09	26.59	28.24	154.93	-129.26	-772.60	1,030.20	977.58	52.62	19.577	
7,600.00	7,589.98	7,493.64	7,437.76	26.95	28.64	154.98	-131.72	-786.79	1,051.34	998.00	53.34	19.710	
7,700.00	7,689.71	7,591.38	7,534.43	27.31	29.05	155.03	-134.19	-800.98	1,072.47	1,018.41	54.06	19.840	
7,800.00	7,789.44	7,689.12	7,631.10	27.68	29.45	155.08	-136.66	-815.18	1,093.60	1,038.83	54.77	19.967	
7,900.00	7,889.17	7,786.86	7,727.77	28.04	29.85	155.12	-139.12	-829.37	1,114.74	1,059.25	55.49	20.090	
8,000.00	7,988.90	7,884.59	7,824.44	28.41	30.25	155.17	-141.59	-843.56	1,135.87	1,079.67	56.21	20.209	
8,100.00	8,088.63	7,982.33	7,921.11	28.77	30.65	155.21	-144.06	-857.76	1,157.01	1,100.09	56.92	20.326	
8,200.00	8,188.36	8,080.07	8,017.78	29.14	31.06	155.25	-146.52	-871.95	1,178.15	1,120.51	57.64	20.440	
8,300.00	8,288.09	8,177.81	8,114.45	29.50	31.46	155.29	-148.99	-886.14	1,199.28	1,140.92	58.36	20.550	
8,400.00	8,387.82	8,275.54	8,211.12	29.87	31.86	155.33	-151.46	-900.33	1,220.42	1,161.34	59.08	20.658	
8,500.00	8,487.56	8,373.28	8,307.79	30.23	32.26	155.36	-153.92	-914.53	1,241.56	1,181.76	59.80	20.763	
8,600.00	8,587.29	8,471.02	8,404.46	30.60	32.67	155.40	-156.39	-928.72	1,262.70	1,202.18	60.51	20.866	
8,700.00	8,687.02	8,568.76	8,501.13	30.96	33.07	155.43	-158.86	-942.91	1,283.84	1,222.60	61.23	20.966	
8,800.00	8,786.75	8,666.49	8,597.80	31.33	33.47	155.47	-161.32	-957.10	1,304.98	1,243.02	61.95	21.064	
8,900.00	8,886.48	8,764.23	8,694.47	31.70	33.87	155.50	-163.79	-971.30	1,326.11	1,263.44	62.67	21.159	
9,000.00	8,986.21	8,861.97	8,791.14	32.06	34.28	155.53	-166.26	-985.49	1,347.26	1,283.86	63.39	21.252	
9,100.00	9,085.94	8,959.71	8,887.81	32.43	34.68	155.56	-168.72	-999.68	1,368.40	1,304.28	64.11	21.343	
9,200.00	9,185.67	9,057.44	8,984.48	32.80	35.08	155.59	-171.19	-1,013.87	1,389.54	1,324.70	64.83	21.432	
9,300.00	9,285.40	9,155.18	9,081.15	33.16	35.49	155.62	-173.65	-1,028.07	1,410.68	1,345.12	65.55	21.519	
9,400.00	9,385.13	9,252.92	9,177.82	33.53	35.89	155.64	-176.12	-1,042.26	1,431.82	1,365.54	66.28	21.604	
9,500.00	9,484.86	9,350.66	9,274.49	33.90	36.29	155.67	-178.59	-1,056.45	1,452.96	1,385.96	67.00	21.687	
9,600.00	9,584.59	9,448.39	9,371.16	34.26	36.70	155.70	-181.05	-1,070.64	1,474.10	1,406.38	67.72	21.768	
9,700.00	9,684.32	9,546.13	9,467.83	34.63	37.10	155.72	-183.52	-1,084.84	1,495.25	1,426.81	68.44	21.847	
9,800.00	9,784.05	9,643.87	9,564.50	35.00	37.50	155.75	-185.99	-1,099.03	1,516.39	1,447.23	69.16	21.925	
9,900.00	9,883.78	9,741.60	9,661.17	35.37	37.91	155.77	-188.45	-1,113.22	1,537.53	1,467.65	69.88	22.001	
10,000.00	9,983.51	9,839.34	9,757.84	35.73	38.31	155.79	-190.92	-1,127.42	1,558.67	1,488.07	70.61	22.075	
10,100.00	10,083.24	9,937.08	9,854.51	36.10	38.72	155.81	-193.39	-1,141.61	1,579.82	1,508.49	71.33	22.148	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Pad - Hereford 29-20 W1PA State Com 1H - OH - Plan #1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD + HDGM												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,200.00	10,182.97	10,034.82	9,951.18	36.47	39.12	155.84	-195.85	-1,155.80	1,600.96	1,528.91	72.05	22.219	
10,259.92	10,242.73	10,128.04	10,043.51	36.69	39.50	155.86	-198.05	-1,168.45	1,613.11	1,540.39	72.72	22.182	
10,300.00	10,282.71	10,195.75	10,110.76	36.84	39.77	155.93	-199.41	-1,176.26	1,620.21	1,547.02	73.19	22.138	
10,400.00	10,382.59	10,366.74	10,281.09	37.20	40.41	156.05	-201.93	-1,190.74	1,633.22	1,558.95	74.27	21.990	
10,500.00	10,482.56	10,539.59	10,453.79	37.56	41.00	156.10	-203.14	-1,197.72	1,639.43	1,564.19	75.24	21.789	
10,540.57	10,523.12	10,609.94	10,524.13	37.70	41.23	-90.39	-203.25	-1,198.36	1,640.00	1,564.40	75.60	21.694	
10,550.00	10,532.55	10,626.31	10,540.50	37.73	41.29	-89.93	-203.24	-1,198.33	1,639.98	1,564.30	75.68	21.671	
10,564.02	10,546.57	10,633.30	10,547.49	37.78	41.31	-89.93	-202.77	-1,198.36	1,640.00	1,564.24	75.75	21.649	
10,600.00	10,582.45	10,669.15	10,583.24	37.90	41.42	-89.93	-200.19	-1,198.38	1,640.00	1,564.01	75.99	21.581	
10,650.00	10,631.89	10,718.98	10,632.52	38.06	41.57	-89.93	-192.90	-1,198.44	1,640.00	1,563.68	76.32	21.490	
10,700.00	10,680.50	10,768.81	10,680.98	38.22	41.71	-89.93	-181.36	-1,198.54	1,640.00	1,563.37	76.63	21.402	
10,722.31	10,701.83	10,791.05	10,702.24	38.29	41.77	-89.93	-174.85	-1,198.59	1,640.00	1,563.23	76.76	21.364	
10,750.00	10,727.92	10,818.65	10,728.25	38.37	41.84	-89.93	-165.65	-1,198.66	1,640.00	1,563.07	76.93	21.318	
10,768.69	10,745.26	10,837.28	10,745.55	38.42	41.89	-89.93	-158.73	-1,198.72	1,640.00	1,562.96	77.04	21.288	
10,800.00	10,773.78	10,868.49	10,773.99	38.51	41.97	-89.94	-145.89	-1,198.82	1,640.00	1,562.78	77.22	21.239	
10,817.04	10,788.99	10,885.47	10,789.16	38.55	42.01	-89.94	-138.25	-1,198.88	1,640.00	1,562.68	77.31	21.213	
10,850.00	10,817.73	10,918.33	10,817.85	38.63	42.08	-89.94	-122.22	-1,199.01	1,640.00	1,562.50	77.49	21.163	
10,866.20	10,831.50	10,934.48	10,831.59	38.67	42.11	-89.94	-113.75	-1,199.08	1,640.00	1,562.41	77.58	21.139	
10,900.00	10,859.44	10,968.19	10,859.48	38.75	42.18	-89.94	-94.84	-1,199.23	1,639.99	1,562.23	77.76	21.090	
10,915.75	10,872.06	10,983.90	10,872.09	38.78	42.21	-89.94	-85.47	-1,199.31	1,639.99	1,562.15	77.84	21.068	
10,950.00	10,898.59	11,018.05	10,898.59	38.85	42.27	-89.95	-63.93	-1,199.48	1,639.99	1,561.98	78.02	21.021	
10,965.53	10,910.18	11,033.54	10,910.18	38.88	42.29	-89.95	-53.65	-1,199.56	1,639.99	1,561.90	78.09	21.000	
11,000.00	10,934.88	11,067.92	10,934.87	38.94	42.34	-89.95	-29.73	-1,199.76	1,639.99	1,561.73	78.26	20.955	
11,015.43	10,945.46	11,083.32	10,945.46	38.96	42.36	-89.95	-18.55	-1,199.85	1,639.99	1,561.65	78.34	20.935	
11,050.00	10,968.04	11,117.81	10,968.05	39.02	42.40	-89.95	7.50	-1,200.06	1,639.99	1,561.49	78.50	20.891	
11,065.43	10,977.60	11,133.20	10,977.62	39.04	42.42	-89.96	19.56	-1,200.15	1,639.99	1,561.42	78.57	20.872	
11,100.00	10,997.81	11,167.70	10,997.87	39.08	42.45	-89.96	47.48	-1,200.38	1,639.99	1,561.25	78.74	20.829	
11,115.50	11,006.31	11,183.17	11,006.39	39.10	42.47	-89.96	60.39	-1,200.48	1,639.99	1,561.18	78.81	20.810	
11,150.00	11,023.97	11,217.61	11,024.10	39.13	42.49	-89.96	89.92	-1,200.72	1,639.99	1,561.02	78.96	20.769	
11,165.64	11,031.37	11,233.22	11,031.54	39.15	42.51	-89.97	103.64	-1,200.83	1,639.99	1,560.95	79.03	20.750	
11,200.00	11,046.31	11,267.53	11,046.55	39.18	42.53	-89.97	134.48	-1,201.08	1,639.99	1,560.80	79.19	20.710	
11,215.86	11,052.58	11,283.37	11,052.85	39.20	42.54	-89.97	149.01	-1,201.20	1,639.99	1,560.73	79.26	20.691	
11,250.00	11,064.68	11,317.46	11,065.04	39.24	42.55	-89.98	180.85	-1,201.45	1,639.99	1,560.57	79.41	20.651	
11,266.20	11,069.75	11,333.65	11,070.16	39.27	42.56	-89.98	196.20	-1,201.58	1,639.98	1,560.50	79.48	20.633	
11,300.00	11,078.92	11,367.41	11,079.43	39.34	42.58	-89.98	228.66	-1,201.84	1,639.98	1,560.35	79.63	20.594	
11,316.75	11,082.75	11,384.15	11,083.31	39.38	42.58	-89.98	244.94	-1,201.97	1,639.98	1,560.28	79.71	20.575	
11,350.00	11,088.94	11,417.37	11,089.60	39.45	42.60	-89.99	277.56	-1,202.23	1,639.98	1,560.13	79.85	20.537	
11,367.75	11,091.46	11,435.12	11,092.18	39.49	42.61	-89.99	295.12	-1,202.37	1,639.98	1,560.05	79.93	20.517	
11,400.00	11,094.64	11,467.35	11,095.48	39.57	42.63	-89.99	327.17	-1,202.63	1,639.98	1,559.91	80.07	20.481	
11,420.15	11,095.71	11,487.49	11,096.62	39.62	42.64	-90.00	347.28	-1,202.79	1,639.98	1,559.82	80.16	20.458	
11,450.11	11,096.00	11,517.45	11,097.01	39.69	42.66	-90.00	377.23	-1,203.03	1,639.98	1,559.68	80.30	20.424	
11,500.00	11,095.17	11,567.34	11,096.28	39.82	42.71	-90.00	427.12	-1,203.44	1,639.98	1,559.44	80.54	20.363	
11,600.00	11,093.50	11,667.34	11,094.81	40.13	42.85	-90.01	527.11	-1,204.24	1,639.97	1,558.88	81.09	20.223	
11,700.00	11,091.84	11,767.34	11,093.35	40.47	43.06	-90.02	627.09	-1,205.05	1,639.97	1,558.22	81.75	20.061	
11,720.65	11,091.49	11,787.99	11,093.05	40.56	43.11	-90.02	647.74	-1,205.21	1,639.97	1,558.07	81.90	20.024	
11,800.00	11,090.17	11,867.34	11,091.89	40.87	43.34	-90.03	727.08	-1,205.85	1,639.97	1,557.46	82.50	19.877	
11,820.76	11,089.83	11,888.10	11,091.58	40.96	43.40	-90.03	747.83	-1,206.02	1,639.97	1,557.29	82.67	19.836	
11,900.00	11,088.51	11,967.34	11,090.42	41.31	43.68	-90.03	827.06	-1,206.66	1,639.97	1,556.61	83.35	19.675	
11,920.83	11,088.16	11,988.17	11,090.12	41.42	43.76	-90.03	847.89	-1,206.82	1,639.96	1,556.42	83.54	19.630	
12,000.00	11,086.84	12,067.34	11,088.96	41.80	44.08	-90.04	927.05	-1,207.46	1,639.96	1,555.67	84.30	19.455	
12,020.87	11,086.49	12,088.21	11,088.65	41.91	44.17	-90.04	947.92	-1,207.63	1,639.96	1,555.46	84.51	19.407	
12,100.00	11,085.18	12,167.34	11,087.50	42.33	44.54	-90.05	1,027.03	-1,208.27	1,639.96	1,554.63	85.33	19.219	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Pad - Hereford 29-20 W1PA State Com 1H - OH - Plan #1

Survey Program: Reference		0-MWD + HDGM Offset						Rule Assigned:					Offset Site Error:		0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning			
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)						
12,120.90	11,084.83	12,188.24	11,087.19	42.45	44.65	-90.05	1,047.93	-1,208.44	1,639.96	1,554.40	85.56	19.168				
12,200.00	11,083.51	12,267.34	11,086.03	42.91	45.06	-90.05	1,127.02	-1,209.07	1,639.96	1,553.51	86.45	18.971				
12,220.92	11,083.16	12,288.27	11,085.73	43.04	45.17	-90.05	1,147.94	-1,209.24	1,639.96	1,553.26	86.69	18.917				
12,300.00	11,081.85	12,367.34	11,084.57	43.52	45.62	-90.06	1,227.01	-1,209.88	1,639.95	1,552.31	87.65	18.711				
12,320.94	11,081.50	12,388.28	11,084.26	43.66	45.74	-90.06	1,247.94	-1,210.05	1,639.95	1,552.04	87.91	18.655				
12,400.00	11,080.18	12,467.34	11,083.10	44.18	46.23	-90.07	1,326.99	-1,210.68	1,639.95	1,551.02	88.93	18.441				
12,420.95	11,079.83	12,488.30	11,082.80	44.32	46.36	-90.07	1,347.94	-1,210.85	1,639.95	1,550.74	89.21	18.383				
12,500.00	11,078.52	12,567.34	11,081.64	44.87	46.88	-90.07	1,426.98	-1,211.49	1,639.95	1,549.66	90.29	18.164				
12,520.97	11,078.17	12,588.31	11,081.33	45.02	47.01	-90.08	1,447.94	-1,211.66	1,639.95	1,549.36	90.58	18.104				
12,600.00	11,076.85	12,667.34	11,080.18	45.60	47.56	-90.08	1,526.96	-1,212.29	1,639.95	1,548.23	91.72	17.880				
12,620.97	11,076.50	12,688.32	11,079.87	45.75	47.71	-90.08	1,547.93	-1,212.46	1,639.94	1,547.92	92.03	17.820				
12,700.00	11,075.19	12,767.34	11,078.71	46.36	48.28	-90.09	1,626.95	-1,213.10	1,639.94	1,546.72	93.22	17.592				
12,720.98	11,074.84	12,788.32	11,078.41	46.52	48.44	-90.09	1,647.93	-1,213.27	1,639.94	1,546.40	93.54	17.531				
12,800.00	11,073.52	12,867.34	11,077.25	47.15	49.04	-90.10	1,726.94	-1,213.90	1,639.94	1,545.15	94.79	17.302				
12,820.99	11,073.17	12,888.33	11,076.94	47.32	49.20	-90.10	1,747.92	-1,214.07	1,639.94	1,544.82	95.12	17.240				
12,900.00	11,071.86	12,967.34	11,075.79	47.98	49.83	-90.10	1,826.92	-1,214.71	1,639.94	1,543.52	96.41	17.009				
12,921.00	11,071.51	12,988.34	11,075.48	48.16	50.00	-90.10	1,847.91	-1,214.88	1,639.94	1,543.17	96.77	16.948				
13,000.00	11,070.19	13,067.34	11,074.32	48.83	50.65	-90.11	1,926.91	-1,215.51	1,639.93	1,541.83	98.10	16.716				
13,021.00	11,069.84	13,088.34	11,074.01	49.02	50.82	-90.11	1,947.90	-1,215.68	1,639.93	1,541.47	98.47	16.655				
13,100.00	11,068.53	13,167.34	11,072.86	49.71	51.49	-90.12	2,026.89	-1,216.32	1,639.93	1,540.08	99.85	16.424				
13,121.00	11,068.18	13,188.35	11,072.55	49.91	51.67	-90.12	2,047.89	-1,216.49	1,639.93	1,539.71	100.23	16.362				
13,200.00	11,066.86	13,267.34	11,071.39	50.62	52.37	-90.12	2,126.88	-1,217.12	1,639.93	1,538.28	101.65	16.133				
13,221.01	11,066.51	13,288.35	11,071.09	50.82	52.55	-90.12	2,147.88	-1,217.29	1,639.93	1,537.89	102.04	16.072				
13,300.00	11,065.20	13,367.34	11,069.93	51.56	53.27	-90.13	2,226.86	-1,217.93	1,639.93	1,536.42	103.50	15.844				
13,321.01	11,064.85	13,388.35	11,069.62	51.76	53.46	-90.13	2,247.87	-1,218.10	1,639.93	1,536.03	103.90	15.784				
13,400.00	11,063.53	13,467.34	11,068.47	52.52	54.19	-90.14	2,326.85	-1,218.73	1,639.92	1,534.52	105.40	15.559				
13,421.02	11,063.18	13,488.36	11,068.16	52.72	54.39	-90.14	2,347.86	-1,218.90	1,639.92	1,534.11	105.81	15.499				
13,500.00	11,061.87	13,567.34	11,067.00	53.50	55.14	-90.14	2,426.84	-1,219.54	1,639.92	1,532.57	107.35	15.277				
13,521.02	11,061.52	13,588.36	11,066.70	53.71	55.34	-90.15	2,447.85	-1,219.71	1,639.92	1,532.16	107.76	15.218				
13,600.00	11,060.20	13,667.34	11,065.54	54.50	56.11	-90.15	2,526.82	-1,220.35	1,639.92	1,530.58	109.34	14.999				
13,621.02	11,059.85	13,688.36	11,065.23	54.72	56.31	-90.15	2,547.84	-1,220.51	1,639.92	1,530.16	109.76	14.941				
13,700.00	11,058.54	13,767.34	11,064.08	55.52	57.10	-90.16	2,626.81	-1,221.15	1,639.92	1,528.55	111.37	14.725				
13,721.02	11,058.19	13,788.36	11,063.77	55.74	57.31	-90.16	2,647.83	-1,221.32	1,639.92	1,528.11	111.80	14.668				
13,800.00	11,056.87	13,867.34	11,062.61	56.57	58.11	-90.17	2,726.79	-1,221.96	1,639.91	1,526.48	113.44	14.457				
13,821.03	11,056.52	13,888.37	11,062.30	56.79	58.32	-90.17	2,747.82	-1,222.12	1,639.91	1,526.04	113.88	14.401				
13,900.00	11,055.21	13,967.34	11,061.15	57.63	59.14	-90.17	2,826.78	-1,222.76	1,639.91	1,524.37	115.54	14.193				
13,921.03	11,054.86	13,988.37	11,060.84	57.85	59.36	-90.17	2,847.80	-1,222.93	1,639.91	1,523.92	115.99	14.138				
14,000.00	11,053.54	14,067.34	11,059.68	58.70	60.19	-90.18	2,926.77	-1,223.57	1,639.91	1,522.22	117.68	13.935				
14,021.03	11,053.19	14,088.37	11,059.38	58.93	60.41	-90.18	2,947.79	-1,223.74	1,639.91	1,521.77	118.14	13.881				
14,100.00	11,051.88	14,167.34	11,058.22	59.80	61.25	-90.19	3,026.75	-1,224.37	1,639.91	1,520.05	119.86	13.682				
14,121.03	11,051.53	14,188.37	11,057.91	60.03	61.47	-90.19	3,047.78	-1,224.54	1,639.91	1,519.59	120.32	13.630				
14,200.00	11,050.21	14,267.34	11,056.76	60.91	62.33	-90.19	3,126.74	-1,225.18	1,639.90	1,517.84	122.06	13.435				
14,221.03	11,049.86	14,288.37	11,056.45	61.14	62.56	-90.20	3,147.77	-1,225.35	1,639.90	1,517.37	122.53	13.384				
14,300.00	11,048.55	14,367.34	11,055.29	62.03	63.42	-90.20	3,226.72	-1,225.98	1,639.90	1,515.60	124.30	13.193				
14,321.03	11,048.19	14,388.37	11,054.98	62.27	63.66	-90.20	3,247.75	-1,226.15	1,639.90	1,515.13	124.77	13.143				
14,400.00	11,046.88	14,467.34	11,053.83	63.17	64.53	-90.21	3,326.71	-1,226.79	1,639.90	1,513.34	126.56	12.957				
14,421.04	11,046.53	14,488.37	11,053.52	63.41	64.77	-90.21	3,347.74	-1,226.96	1,639.90	1,512.86	127.04	12.909				
14,500.00	11,045.22	14,567.34	11,052.37	64.32	65.66	-90.21	3,426.69	-1,227.59	1,639.90	1,511.05	128.85	12.727				
14,521.04	11,044.86	14,588.38	11,052.06	64.56	65.89	-90.22	3,447.73	-1,227.76	1,639.90	1,510.56	129.33	12.680				
14,600.00	11,043.55	14,667.34	11,050.90	65.48	66.79	-90.22	3,526.68	-1,228.40	1,639.89	1,508.73	131.16	12.503				
14,621.04	11,043.20	14,688.38	11,050.59	65.73	67.03	-90.22	3,547.72	-1,228.57	1,639.89	1,508.24	131.65	12.456				
14,700.00	11,041.88	14,767.34	11,049.44	66.65	67.94	-90.23	3,626.67	-1,229.20	1,639.89	1,506.39	133.50	12.284				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Pad - Hereford 29-20 W1PA State Com 1H - OH - Plan #1													Offset Site Error:
													0.00 usft
													Offset Well Error:
													0.00 usft
Survey Program:	Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance	Rule Assigned:	Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,721.04	11,041.53	14,788.38	11,049.13	66.90	68.18	-90.23	3,647.70	-1,229.37	1,639.89	1,505.89	134.00	12.238	
14,800.00	11,040.22	14,867.34	11,047.97	67.84	69.10	-90.24	3,726.65	-1,230.01	1,639.89	1,504.03	135.86	12.070	
14,821.04	11,039.87	14,888.38	11,047.67	68.09	69.34	-90.24	3,747.69	-1,230.18	1,639.89	1,503.53	136.36	12.026	
14,900.00	11,038.55	14,967.34	11,046.51	69.04	70.27	-90.24	3,826.64	-1,230.81	1,639.89	1,501.64	138.24	11.862	
14,921.04	11,038.20	14,988.38	11,046.20	69.29	70.52	-90.24	3,847.68	-1,230.98	1,639.89	1,501.14	138.75	11.819	
15,000.00	11,036.89	15,067.34	11,045.05	70.24	71.45	-90.25	3,926.62	-1,231.62	1,639.89	1,499.24	140.65	11.660	
15,021.04	11,036.54	15,088.38	11,044.74	70.50	71.70	-90.25	3,947.66	-1,231.79	1,639.88	1,498.73	141.15	11.618	
15,100.00	11,035.22	15,167.34	11,043.58	71.46	72.64	-90.26	4,026.61	-1,232.42	1,639.88	1,496.82	143.07	11.462	
15,121.04	11,034.87	15,188.38	11,043.27	71.71	72.90	-90.26	4,047.65	-1,232.59	1,639.88	1,496.30	143.58	11.421	
15,200.00	11,033.56	15,267.34	11,042.12	72.68	73.85	-90.26	4,126.60	-1,233.23	1,639.88	1,494.37	145.51	11.270	
15,221.04	11,033.21	15,288.38	11,041.81	72.94	74.10	-90.27	4,147.64	-1,233.40	1,639.88	1,493.86	146.02	11.230	
15,300.00	11,031.89	15,367.34	11,040.66	73.91	75.06	-90.27	4,226.58	-1,234.03	1,639.88	1,491.91	147.96	11.083	
15,321.04	11,031.54	15,388.38	11,040.35	74.18	75.31	-90.27	4,247.62	-1,234.20	1,639.88	1,491.39	148.48	11.044	
15,400.00	11,030.23	15,467.34	11,039.19	75.16	76.28	-90.28	4,326.57	-1,234.84	1,639.88	1,489.44	150.44	10.901	
15,421.05	11,029.88	15,488.38	11,038.88	75.42	76.53	-90.28	4,347.61	-1,235.01	1,639.88	1,488.91	150.96	10.863	
15,500.00	11,028.56	15,567.34	11,037.73	76.40	77.50	-90.29	4,426.55	-1,235.64	1,639.87	1,486.95	152.93	10.723	
15,521.05	11,028.21	15,588.38	11,037.42	76.67	77.76	-90.29	4,447.60	-1,235.81	1,639.87	1,486.42	153.45	10.686	
15,600.00	11,026.90	15,667.34	11,036.26	77.66	78.74	-90.29	4,526.54	-1,236.45	1,639.87	1,484.44	155.43	10.550	
15,621.05	11,026.55	15,688.38	11,035.96	77.93	79.00	-90.29	4,547.58	-1,236.62	1,639.87	1,483.91	155.96	10.515	
15,700.00	11,025.23	15,767.34	11,034.80	78.92	79.98	-90.30	4,626.52	-1,237.25	1,639.87	1,481.92	157.95	10.382	
15,721.05	11,024.88	15,788.38	11,034.49	79.19	80.24	-90.30	4,647.57	-1,237.42	1,639.87	1,481.39	158.48	10.347	
15,800.00	11,023.57	15,867.34	11,033.34	80.19	81.23	-90.31	4,726.51	-1,238.06	1,639.87	1,479.38	160.48	10.218	
15,821.05	11,023.22	15,888.38	11,033.03	80.46	81.50	-90.31	4,747.56	-1,238.23	1,639.87	1,478.85	161.02	10.184	
15,900.00	11,021.90	15,967.34	11,031.87	81.47	82.49	-90.31	4,826.50	-1,238.86	1,639.87	1,476.84	163.03	10.059	
15,921.05	11,021.55	15,988.38	11,031.56	81.74	82.75	-90.31	4,847.54	-1,239.03	1,639.87	1,476.30	163.57	10.026	
16,000.00	11,020.24	16,067.34	11,030.41	82.75	83.75	-90.32	4,926.48	-1,239.67	1,639.86	1,474.28	165.59	9.903	
16,021.05	11,019.89	16,088.38	11,030.10	83.02	84.02	-90.32	4,947.53	-1,239.84	1,639.86	1,473.74	166.13	9.871	
16,100.00	11,018.57	16,167.34	11,028.94	84.04	85.02	-90.33	5,026.47	-1,240.47	1,639.86	1,471.70	168.16	9.752	
16,121.05	11,018.22	16,188.39	11,028.64	84.31	85.29	-90.33	5,047.52	-1,240.64	1,639.86	1,471.16	168.70	9.721	
16,200.00	11,016.91	16,267.34	11,027.48	85.34	86.30	-90.33	5,126.45	-1,241.28	1,639.86	1,469.12	170.74	9.604	
16,221.05	11,016.56	16,288.39	11,027.17	85.61	86.57	-90.34	5,147.50	-1,241.45	1,639.86	1,468.58	171.28	9.574	
16,300.00	11,015.24	16,367.33	11,026.02	86.63	87.58	-90.34	5,226.44	-1,242.09	1,639.86	1,466.53	173.33	9.461	
16,321.05	11,014.89	16,388.39	11,025.71	86.91	87.85	-90.34	5,247.49	-1,242.25	1,639.86	1,465.98	173.88	9.431	
16,400.00	11,013.58	16,467.33	11,024.55	87.94	88.87	-90.35	5,326.43	-1,242.89	1,639.86	1,463.92	175.93	9.321	
16,421.05	11,013.23	16,488.39	11,024.25	88.21	89.14	-90.35	5,347.47	-1,243.06	1,639.86	1,463.37	176.48	9.292	
16,500.00	11,011.91	16,567.33	11,023.09	89.25	90.16	-90.36	5,426.41	-1,243.70	1,639.85	1,461.31	178.55	9.185	
16,521.05	11,011.56	16,588.39	11,022.78	89.52	90.43	-90.36	5,447.46	-1,243.87	1,639.85	1,460.76	179.10	9.156	
16,600.00	11,010.25	16,667.33	11,021.63	90.56	91.46	-90.36	5,526.40	-1,244.50	1,639.85	1,458.69	181.17	9.052	
16,621.05	11,009.90	16,688.39	11,021.32	90.84	91.73	-90.36	5,547.45	-1,244.67	1,639.85	1,458.13	181.72	9.024	
16,700.00	11,008.58	16,767.33	11,020.16	91.88	92.76	-90.37	5,626.38	-1,245.31	1,639.85	1,456.05	183.80	8.922	
16,721.05	11,008.23	16,788.39	11,019.85	92.16	93.03	-90.37	5,647.43	-1,245.48	1,639.85	1,455.50	184.35	8.895	
16,800.00	11,006.92	16,867.33	11,018.70	93.20	94.07	-90.38	5,726.37	-1,246.11	1,639.85	1,453.41	186.44	8.796	
16,821.05	11,006.57	16,888.39	11,018.39	93.48	94.34	-90.38	5,747.42	-1,246.28	1,639.85	1,452.86	186.99	8.770	
16,900.00	11,005.25	16,967.33	11,017.23	94.53	95.38	-90.38	5,826.35	-1,246.92	1,639.85	1,450.76	189.08	8.673	
16,921.05	11,004.90	16,988.39	11,016.93	94.81	95.65	-90.39	5,847.41	-1,247.09	1,639.85	1,450.20	189.64	8.647	
17,000.00	11,003.59	17,067.33	11,015.77	95.86	96.69	-90.39	5,926.34	-1,247.72	1,639.85	1,448.11	191.74	8.552	
17,021.05	11,003.24	17,088.39	11,015.46	96.14	96.97	-90.39	5,947.39	-1,247.89	1,639.85	1,447.55	192.30	8.528	
17,100.00	11,001.92	17,167.33	11,014.31	97.19	98.01	-90.40	6,026.33	-1,248.53	1,639.84	1,445.44	194.40	8.435	
17,121.05	11,001.57	17,188.39	11,014.00	97.47	98.29	-90.40	6,047.38	-1,248.70	1,639.84	1,444.88	194.96	8.411	
17,200.00	11,000.26	17,267.33	11,012.84	98.53	99.34	-90.40	6,126.31	-1,249.33	1,639.84	1,442.77	197.07	8.321	
17,221.06	10,999.91	17,288.39	11,012.54	98.81	99.62	-90.41	6,147.36	-1,249.50	1,639.84	1,442.21	197.64	8.297	
17,300.00	10,998.59	17,367.33	11,011.38	99.87	100.66	-90.41	6,226.30	-1,250.14	1,639.84	1,440.09	199.75	8.209	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Pad - Hereford 29-20 W1PA State Com 1H - OH - Plan #1

Survey Program: 0-MWD + HDGM										Offset Site Error: 0.00 usft			
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Rule Assigned:			Offset Well Error: 0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
17,321.06	10,998.24	17,388.39	11,011.07	100.15	100.94	-90.41	6,247.35	-1,250.31	1,639.84	1,439.53	200.32	8.186	
17,400.00	10,996.93	17,467.33	11,009.92	101.22	102.00	-90.42	6,326.28	-1,250.94	1,639.84	1,437.40	202.43	8.101	
17,421.06	10,996.58	17,488.39	11,009.61	101.50	102.28	-90.42	6,347.34	-1,251.11	1,639.84	1,436.84	203.00	8.078	
17,500.00	10,995.26	17,567.33	11,008.45	102.56	103.33	-90.43	6,426.27	-1,251.75	1,639.84	1,434.71	205.13	7.994	
17,521.06	10,994.91	17,588.39	11,008.14	102.85	103.61	-90.43	6,447.32	-1,251.92	1,639.84	1,434.14	205.69	7.972	
17,600.00	10,993.60	17,667.33	11,006.99	103.91	104.67	-90.43	6,526.26	-1,252.55	1,639.84	1,432.01	207.82	7.891	
17,621.06	10,993.25	17,688.39	11,006.68	104.20	104.95	-90.43	6,547.31	-1,252.72	1,639.84	1,431.44	208.39	7.869	
17,700.00	10,991.93	17,767.33	11,005.52	105.27	106.01	-90.44	6,626.24	-1,253.36	1,639.83	1,429.31	210.53	7.789	
17,721.06	10,991.58	17,788.39	11,005.22	105.55	106.29	-90.44	6,647.30	-1,253.53	1,639.83	1,428.74	211.10	7.768	
17,800.00	10,990.27	17,867.33	11,004.06	106.62	107.35	-90.45	6,726.23	-1,254.16	1,639.83	1,426.60	213.23	7.690	
17,821.06	10,989.92	17,888.39	11,003.75	106.91	107.64	-90.45	6,747.28	-1,254.33	1,639.83	1,426.03	213.80	7.670	
17,900.00	10,988.60	17,967.33	11,002.60	107.98	108.70	-90.45	6,826.21	-1,254.97	1,639.83	1,423.88	215.95	7.594	
17,921.06	10,988.25	17,988.39	11,002.29	108.27	108.98	-90.46	6,847.27	-1,255.14	1,639.83	1,423.31	216.52	7.574	
18,000.00	10,986.94	18,067.33	11,001.13	109.35	110.05	-90.46	6,926.20	-1,255.77	1,639.83	1,421.16	218.67	7.499	
18,021.06	10,986.59	18,088.39	11,000.82	109.63	110.33	-90.46	6,947.25	-1,255.94	1,639.83	1,420.59	219.24	7.480	
18,100.00	10,985.27	18,167.33	10,999.67	110.71	111.40	-90.47	7,026.19	-1,256.58	1,639.83	1,418.44	221.39	7.407	
18,121.06	10,984.92	18,188.39	10,999.36	111.00	111.69	-90.47	7,047.24	-1,256.75	1,639.83	1,417.86	221.97	7.388	
18,200.00	10,983.61	18,267.33	10,998.21	112.08	112.76	-90.48	7,126.17	-1,257.38	1,639.83	1,415.71	224.12	7.317	
18,221.06	10,983.26	18,288.39	10,997.90	112.37	113.04	-90.48	7,147.23	-1,257.55	1,639.83	1,415.13	224.70	7.298	
18,300.00	10,981.94	18,367.33	10,996.74	113.45	114.12	-90.48	7,226.16	-1,258.19	1,639.83	1,412.97	226.86	7.229	
18,321.06	10,981.59	18,388.39	10,996.43	113.73	114.40	-90.48	7,247.21	-1,258.36	1,639.83	1,412.39	227.43	7.210	
18,400.00	10,980.28	18,467.33	10,995.28	114.82	115.48	-90.49	7,326.14	-1,258.99	1,639.82	1,410.23	229.59	7.142	
18,421.06	10,979.93	18,488.39	10,994.97	115.11	115.76	-90.49	7,347.20	-1,259.16	1,639.82	1,409.65	230.17	7.124	
18,500.00	10,978.61	18,567.33	10,993.81	116.19	116.84	-90.50	7,426.13	-1,259.80	1,639.82	1,407.49	232.34	7.058	
18,521.06	10,978.26	18,588.39	10,993.51	116.48	117.13	-90.50	7,447.18	-1,259.97	1,639.82	1,406.91	232.92	7.040	
18,600.00	10,976.95	18,667.33	10,992.35	117.57	118.21	-90.50	7,526.11	-1,260.60	1,639.82	1,404.74	235.08	6.975	
18,621.06	10,976.60	18,688.39	10,992.04	117.86	118.49	-90.50	7,547.17	-1,260.77	1,639.82	1,404.16	235.66	6.958	
18,700.00	10,975.28	18,767.33	10,990.89	118.94	119.57	-90.51	7,626.10	-1,261.41	1,639.82	1,401.98	237.84	6.895	
18,721.06	10,974.93	18,788.39	10,990.58	119.23	119.86	-90.51	7,647.16	-1,261.58	1,639.82	1,401.40	238.42	6.878	
18,800.00	10,973.62	18,867.33	10,989.42	120.32	120.94	-90.52	7,726.09	-1,262.21	1,639.82	1,399.23	240.59	6.816	
18,821.06	10,973.27	18,888.39	10,989.11	120.61	121.23	-90.52	7,747.14	-1,262.38	1,639.82	1,398.65	241.17	6.799	
18,900.00	10,971.95	18,967.33	10,987.96	121.71	122.32	-90.52	7,826.07	-1,263.02	1,639.82	1,396.47	243.35	6.738	
18,921.06	10,971.60	18,988.39	10,987.65	122.00	122.60	-90.53	7,847.13	-1,263.19	1,639.82	1,395.88	243.93	6.722	
19,000.00	10,970.29	19,067.33	10,986.50	123.09	123.69	-90.53	7,926.06	-1,263.83	1,639.82	1,393.70	246.11	6.663	
19,021.06	10,969.94	19,088.39	10,986.19	123.38	123.98	-90.53	7,947.11	-1,263.99	1,639.82	1,393.12	246.70	6.647	
19,100.00	10,968.62	19,167.33	10,985.03	124.47	125.07	-90.54	8,026.04	-1,264.63	1,639.82	1,390.93	248.88	6.589	
19,121.06	10,968.27	19,188.39	10,984.72	124.77	125.36	-90.54	8,047.10	-1,264.80	1,639.82	1,390.35	249.46	6.573	
19,200.00	10,966.96	19,267.33	10,983.57	125.86	126.44	-90.55	8,126.03	-1,265.44	1,639.81	1,388.16	251.65	6.516	
19,221.06	10,966.61	19,288.39	10,983.26	126.15	126.73	-90.55	8,147.09	-1,265.61	1,639.81	1,387.58	252.24	6.501	
19,300.00	10,965.29	19,367.33	10,982.10	127.25	127.82	-90.55	8,226.02	-1,266.24	1,639.81	1,385.39	254.43	6.445	
19,321.06	10,964.94	19,388.39	10,981.80	127.54	128.11	-90.55	8,247.07	-1,266.41	1,639.81	1,384.80	255.01	6.430	
19,400.00	10,963.63	19,467.33	10,980.64	128.64	129.20	-90.56	8,326.00	-1,267.05	1,639.81	1,382.61	257.20	6.376	
19,421.06	10,963.27	19,488.39	10,980.33	128.93	129.50	-90.56	8,347.06	-1,267.22	1,639.81	1,382.02	257.79	6.361	
19,500.00	10,961.96	19,567.33	10,979.18	130.03	130.59	-90.57	8,425.99	-1,267.85	1,639.81	1,379.83	259.98	6.307	
19,521.06	10,961.61	19,588.39	10,978.87	130.32	130.88	-90.57	8,447.04	-1,268.02	1,639.81	1,379.24	260.57	6.293	
19,600.00	10,960.30	19,667.33	10,977.71	131.42	131.97	-90.57	8,525.97	-1,268.66	1,639.81	1,377.04	262.77	6.241	
19,621.06	10,959.94	19,688.39	10,977.40	131.72	132.26	-90.58	8,547.03	-1,268.83	1,639.81	1,376.46	263.35	6.227	
19,700.00	10,958.63	19,767.33	10,976.25	132.82	133.36	-90.58	8,625.96	-1,269.46	1,639.81	1,374.26	265.55	6.175	
19,721.06	10,958.28	19,788.39	10,975.94	133.11	133.65	-90.58	8,647.02	-1,269.63	1,639.81	1,373.67	266.14	6.161	
19,800.00	10,956.97	19,867.33	10,974.79	134.21	134.75	-90.59	8,725.94	-1,270.27	1,639.81	1,371.47	268.34	6.111	
19,821.06	10,956.61	19,888.39	10,974.48	134.51	135.04	-90.59	8,747.00	-1,270.44	1,639.81	1,370.88	268.93	6.098	
19,900.00	10,955.30	19,967.33	10,973.32	135.61	136.14	-90.59	8,825.93	-1,271.07	1,639.81	1,368.67	271.13	6.048	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Altitude Energy Partners

Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Charolais Hereford Pad - Hereford 29-20 W1PA State Com 1H - OH - Plan #1

Survey Program: 0-MWD + HDGM										Onset Site Error:		0.00 usft					
Reference				Offset		Semi Major Axis				Offset Wellbore Centre		Rule Assigned:		Offset Well Error:		0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning				
19,921.06	10,954.95	19,988.39	10,973.01	135.91	136.43	-90.60	8,846.99	-1,271.24	1,639.81	1,368.09	271.72	6.035					
20,000.00	10,953.63	20,067.33	10,971.86	137.01	137.53	-90.60	8,925.92	-1,271.88	1,639.81	1,365.88	273.93	5.986					
20,021.06	10,953.28	20,088.39	10,971.55	137.31	137.82	-90.60	8,946.97	-1,272.05	1,639.81	1,365.29	274.52	5.973					
20,100.00	10,951.97	20,167.33	10,970.39	138.41	138.92	-90.61	9,025.90	-1,272.68	1,639.80	1,363.08	276.72	5.926					
20,121.06	10,951.62	20,188.39	10,970.09	138.71	139.21	-90.61	9,046.96	-1,272.85	1,639.80	1,362.49	277.31	5.913					
20,200.00	10,950.30	20,267.33	10,968.93	139.81	140.31	-90.62	9,125.89	-1,273.49	1,639.80	1,360.28	279.52	5.866					
20,221.06	10,949.95	20,288.39	10,968.62	140.11	140.61	-90.62	9,146.95	-1,273.66	1,639.80	1,359.69	280.11	5.854					
20,300.00	10,948.64	20,367.33	10,967.47	141.21	141.71	-90.62	9,225.87	-1,274.29	1,639.80	1,357.48	282.33	5.808					
20,321.06	10,948.29	20,388.39	10,967.16	141.51	142.00	-90.62	9,246.93	-1,274.46	1,639.80	1,356.89	282.92	5.796					
20,400.00	10,946.97	20,467.33	10,966.00	142.62	143.10	-90.63	9,325.86	-1,275.10	1,639.80	1,354.67	285.13	5.751					
20,421.06	10,946.62	20,488.39	10,965.69	142.91	143.40	-90.63	9,346.92	-1,275.27	1,639.80	1,354.08	285.72	5.739					
20,500.00	10,945.31	20,567.33	10,964.54	144.02	144.50	-90.64	9,425.85	-1,275.90	1,639.80	1,351.87	287.94	5.695					
20,521.06	10,944.96	20,588.39	10,964.23	144.32	144.80	-90.64	9,446.90	-1,276.07	1,639.80	1,351.27	288.53	5.683					
20,600.00	10,943.64	20,667.33	10,963.07	145.43	145.90	-90.64	9,525.83	-1,276.71	1,639.80	1,349.06	290.75	5.640					
20,621.06	10,943.29	20,688.39	10,962.77	145.72	146.20	-90.65	9,546.89	-1,276.88	1,639.80	1,348.46	291.34	5.629					
20,700.00	10,941.98	20,767.33	10,961.61	146.84	147.30	-90.65	9,625.82	-1,277.51	1,639.80	1,346.24	293.56	5.586					
20,721.06	10,941.63	20,788.39	10,961.30	147.13	147.60	-90.65	9,646.88	-1,277.68	1,639.80	1,345.65	294.15	5.575					
20,800.00	10,940.31	20,867.33	10,960.15	148.24	148.70	-90.66	9,725.80	-1,278.32	1,639.80	1,343.43	296.37	5.533					
20,821.06	10,939.96	20,888.39	10,959.84	148.54	149.00	-90.66	9,746.86	-1,278.49	1,639.80	1,342.84	296.96	5.522					
20,900.00	10,938.65	20,967.33	10,958.68	149.65	150.10	-90.67	9,825.79	-1,279.12	1,639.80	1,340.61	299.18	5.481					
20,921.06	10,938.30	20,988.39	10,958.38	149.95	150.40	-90.67	9,846.85	-1,279.29	1,639.80	1,340.02	299.78	5.470					
21,000.00	10,936.98	21,067.33	10,957.22	151.06	151.51	-90.67	9,925.77	-1,279.93	1,639.80	1,337.80	302.00	5.430					
21,021.06	10,936.63	21,088.39	10,956.91	151.36	151.80	-90.67	9,946.83	-1,280.10	1,639.80	1,337.20	302.60	5.419					
21,100.00	10,935.32	21,167.33	10,955.76	152.47	152.91	-90.68	10,025.76	-1,280.73	1,639.80	1,334.98	304.82	5.380					
21,121.06	10,934.97	21,188.39	10,955.45	152.77	153.21	-90.68	10,046.82	-1,280.90	1,639.80	1,334.38	305.41	5.369					
21,200.00	10,933.65	21,267.33	10,954.29	153.89	154.32	-90.69	10,125.75	-1,281.54	1,639.80	1,332.15	307.64	5.330					
21,221.06	10,933.30	21,288.39	10,953.98	154.18	154.61	-90.69	10,146.81	-1,281.71	1,639.80	1,331.56	308.24	5.320					
21,300.00	10,931.99	21,367.32	10,952.83	155.30	155.72	-90.69	10,225.73	-1,282.34	1,639.80	1,329.33	310.46	5.282					
21,336.91	10,931.37	21,404.24	10,952.29	155.82	156.24	-90.70	10,262.64	-1,282.64	1,639.79	1,328.29	311.51	5.264					
21,359.37	10,931.00	21,423.90	10,952.00	156.14	156.52	-90.70	10,282.30	-1,282.80	1,639.80	1,327.68	312.11	5.254					



Altitude Energy Partners

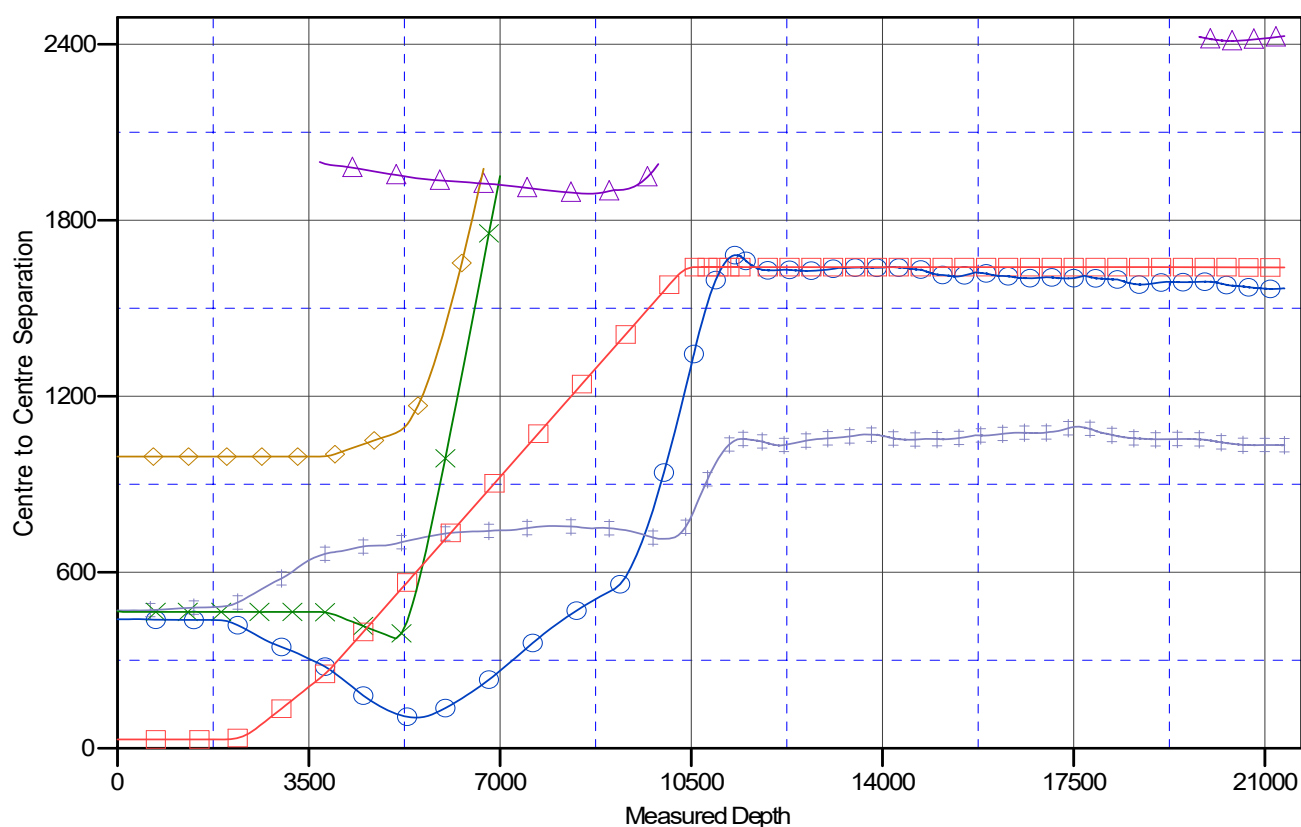
Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB=28' @ 3756.00usft (Patterson 575) Coordinates are relative to: Charolais 28-21 W1MD State Com 1H
 Offset Depths are relative to Offset Datum
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Central Meridian is -104.333334
 Grid Convergence at Surface is: 0.47°

Ladder Plot



LEGEND

Charolais 28-21 B1 MD SCOM#2 HCH OH V0	West Pearl Queen Unit 194 (P&A) OH OH V0	Hereford 28-20 B1 PASCOM#1 HCH OH V0
Charolais 28-21 B2 NC SCOM#1 HCH OH V0	West Pearl Queen Unit 163 (P&A) OH OH V0	Hereford 28-20 W1 PASCOM#1 HCH OH V0



Altitude Energy Partners

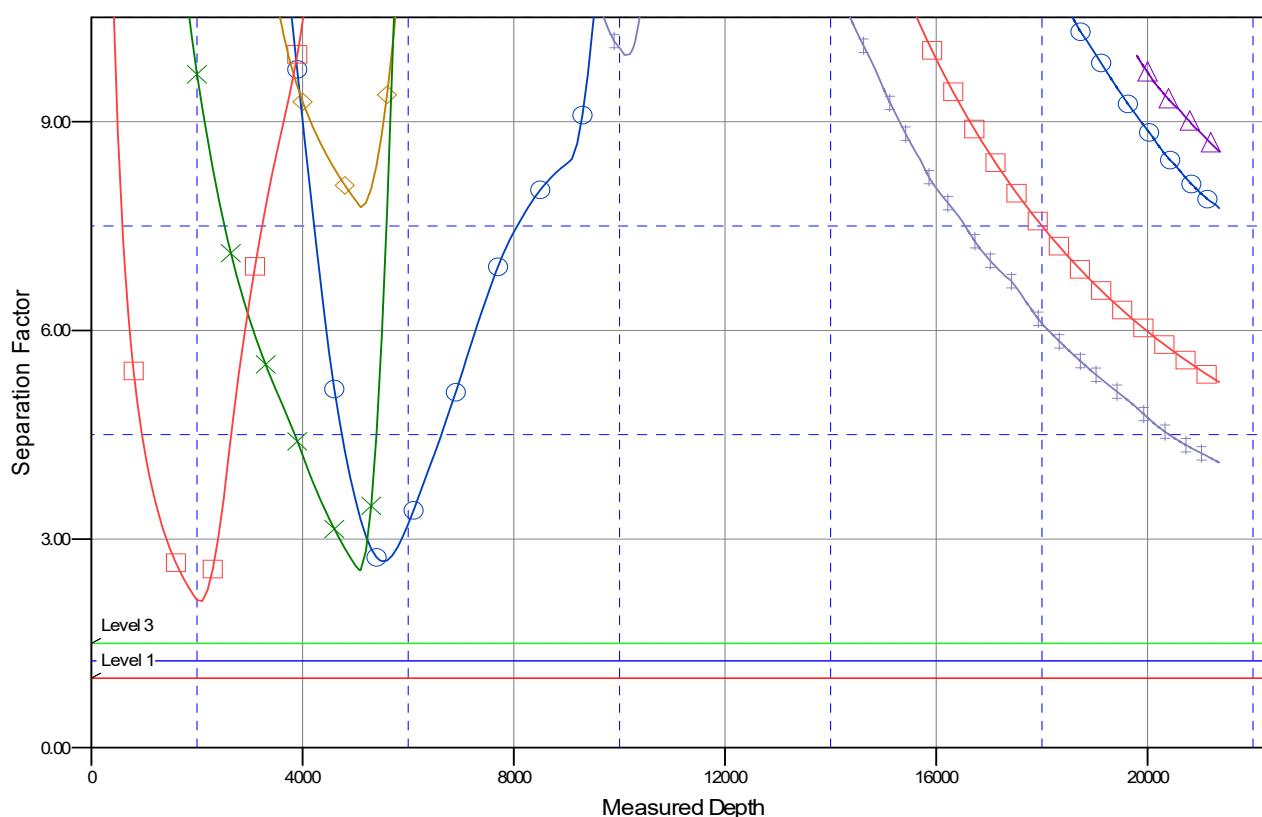
Anticollision Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Charolais 28-21 W1MD State Com 1H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Reference Site:	Charolais Hereford Pad	MD Reference:	KB=28' @ 3756.00usft (Patterson 575)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Charolais 28-21 W1MD State Com 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB=28' @ 3756.00usft (Patterson 575) Coordinates are relative to: Charolais 28-21 W1MD State Com 1H
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Central Meridian is -104.333334 Grid Convergence at Surface is: 0.47°

Separation Factor Plot



LEGEND

Charolais 28-21 W1MD State Com 1H (OH, OH V0)	West Pearl Queen Unit 194 (R&A, OH, OH V0)	Hereford 28-20 W1PAS State Com 1H (OH, OH V0)
Charolais 28-21 W1MD State Com 1H (OH, OH V0)	West Pearl Queen Unit 163 (R&A, OH, OH V0)	Hereford 28-20 W1PAS State Com 1H (OH, OH V0)