

Carlsbad Field Office OCD Artesia

*Pool
Loc.
Ermita*

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

*Purple Sage
W&AP
area.
AR*

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. SHL: NMNM-121941 BHL: fee	
6. If Indian, Allottee or Tribe Name N/A	
7. If Unit or CA Agreement, Name and No. will comm. w/ fee lease	
8. Lease Name and Well No. Charlie Sweeney Fed Com #223H <i>316071</i>	
9. API Well No. 30-015- <i>44031</i>	
10. Field and Pool, or Exploratory WILDCAT; WOLFCAMP B <i>Black River East 911994</i>	11. Sec., T. R. M. or Blk. and Survey or Area <i>97442</i> SWSE 31-23S-28E NMPM
12. County or Parish EDDY	13. State NM
14. Distance in miles and direction from nearest town or post office* 2 AIR MILES SW OF LOVING, NM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) SHL: 190' BHL: 240'	16. No. of acres in lease BLM lease = 280 acres comm. area = 320 acres
17. Spacing Unit dedicated to this well E2 31-23S-28E	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. SHL: 30' (Sweeney 203) BHL: 120' (Sween. 207)
19. Proposed Depth TVD: 10300' MD: 15059'	20. BLM/BIA Bond No. on file BLM NMB-001079
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3107' UNGRADED	22. Approximate date work will start* 01/01/2017
23. Estimated duration 3 MONTHS	

off 2-1-17

(228937)

3b. Phone No. (include area code)
972-371-5241

4. Location of Well (Report location clearly and in accordance with any State requirements.)*

At surface 190' FSL & 2280' FEL

At proposed prod. zone 240' FNL & 2310' FEL

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the BLM.

25. Signature <i>Sam Pryor</i>	Name (Printed/Typed) Sam Pryor (PHONE: 972-371-5241)	Date 09/02/2016
Title SENIOR STAFF LANDMAN	(FAX: 972-371-5201)	
Approved by (Signature) <i>Cody R. Layton</i>	Name (Printed/Typed) Cody R. Layton	Date 12/22/16
Title FCR FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

APPROVAL FOR TWO YEARS

*(Instructions on page 2)

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

NM OIL CONSERVATION
ARTESIA DISTRICT

JAN 03 2017

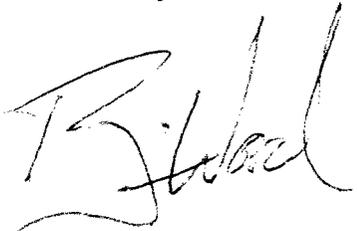
RECEIVED

Matador Production Company
Charlie Sweeney Fed Com 31-23S-28E 223H
SHL 190' FSL & 2280' FEL Sec. 31, T. 23 S., R. 28 E.
BHL 240' FNL & 2310' FEL Sec. 31, T. 23 S., R. 28 E.
Eddy County, NM

SURFACE PLAN PAGE 5

CERTIFICATION

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U. S. C. 1001 for the filing of false statements. Executed this 28th day of June, 2016.



Brian Wood, Consultant
Permits West, Inc.

37 Verano Loop, Santa Fe, NM 87508

(505) 466-8120

FAX: (505) 466-9682

Cellular: (505) 699-2276

Field representative will be:

Sam Pryor, Senior Staff Landman
Matador Production Company
5400 LBJ Freeway, Suite 1500
Dallas TX 75240
Phone: (972) 371-5241
FAX: (214) 866-4841

June 28, 2016

To Who it May Concern:

Matador Resources Company has a private surface owner agreement with Vickie Connally (R211 Ash Road, Loving NM 88256) for the well site, pipelines, power line, and road in NWSW, S2S2, NWSE, & SWSE Section 31, T. 23 S., R. 28 E. and pipelines in Lot 2 Section 6, T. 24 S., R. 28 E.; all Eddy County, NM.

Matador Resources Company has a private surface owner agreement with Jacob & Merrellee Moore (1011 Bounds Road, Loving NM 88256) for their portion (NWNE 31-23s-28e) of the power line.

Matador Resources Company has a private surface owner agreement with Longwood Midstream Delaware LLC (5400 LBJ Freeway, Suite 1500, Dallas TX 75240) for their portion (Lot 2 31-23s-28e) of the water (Fast Line) pipeline.

A handwritten signature in black ink, appearing to read "B. Wood". The signature is stylized and cursive.

Brian Wood

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., Sante 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.
 Sante 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 30-015- 44031	² Pool Code 96794	³ Pool Name WILDCAT; WOLFCAMP B
⁴ Property Code 316071	⁵ Property Name CHARLIE SWEENEY FED COM	
⁷ OGRID No. 228937	⁸ Operator Name MATADOR PRODUCTION COMPANY	⁶ Well Number #223H
⁹ Elevation 3107'		

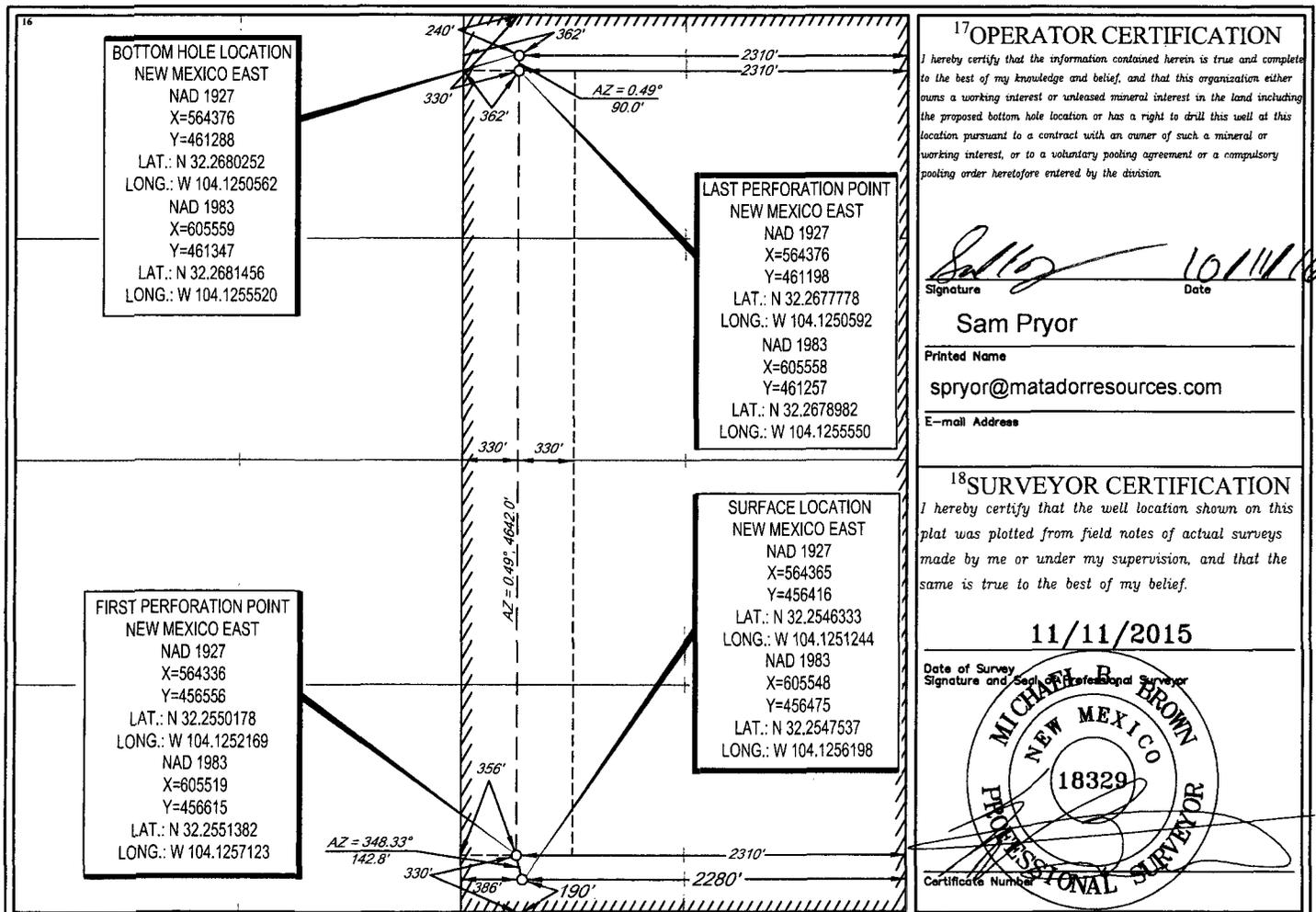
¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	31	23-S	28-E	-	190'	SOUTH	2280'	EAST	EDDY

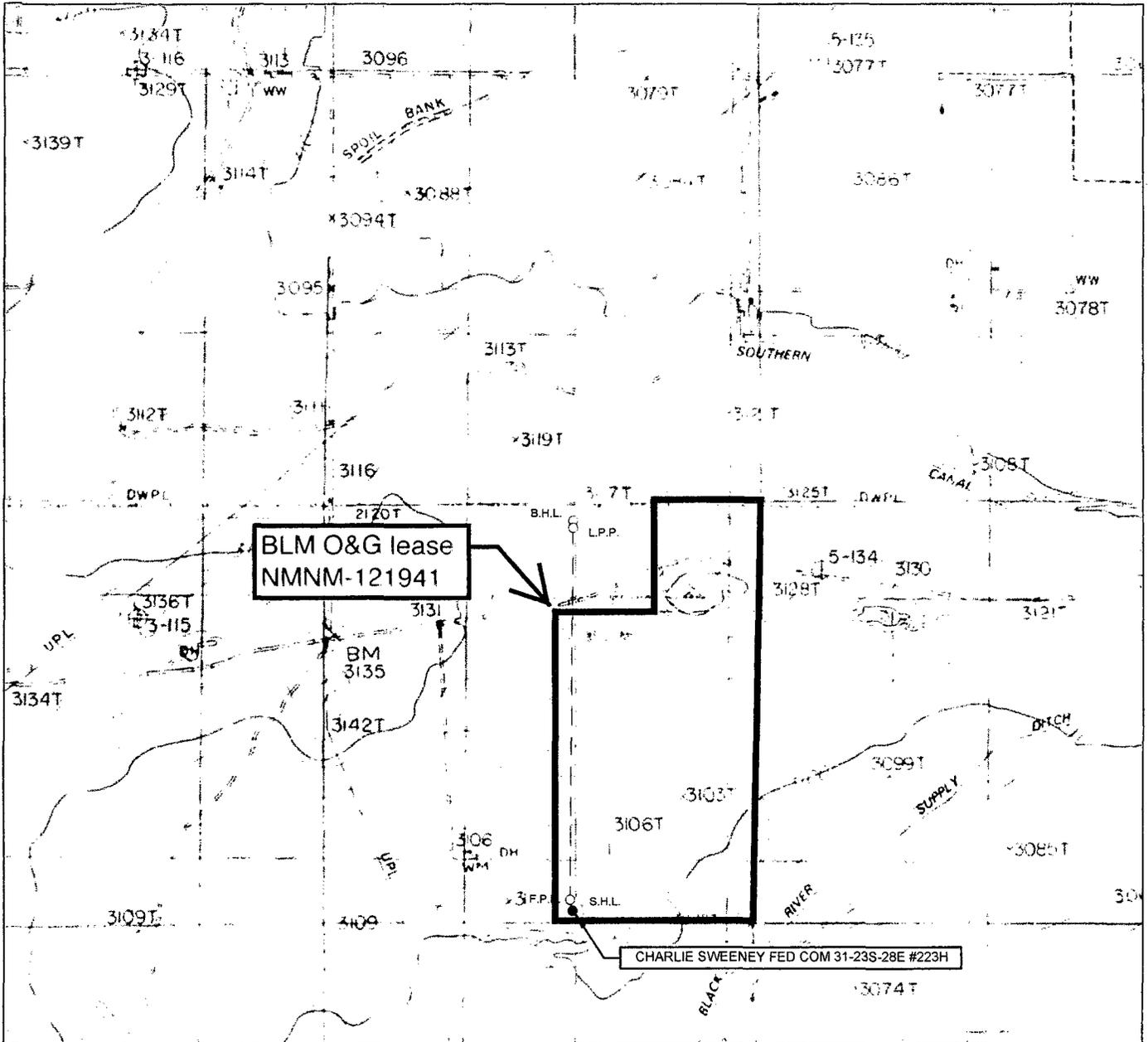
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	31	23-S	28-E	-	240'	NORTH	2310'	EAST	EDDY

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

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



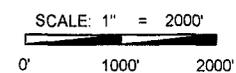
LOCATION & ELEVATION VERIFICATION MAP



LEASE NAME & WELL NO.: CHARLIE SWEENEY FED COM 31-23S-28E #223H

SECTION 31 TWP 23-S RGE 28-E SURVEY N.M.P.M.
 COUNTY EDDY STATE NM ELEVATION 3107'
 DESCRIPTION 190' FSL & 2280' FEL

LATITUDE N 32.2546333 LONGITUDE W 104.1251244



THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY MATADOR PRODUCTION COMPANY. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE OF THE NORTH AMERICAN DATUM 1927, U.S. SURVEY FEET.

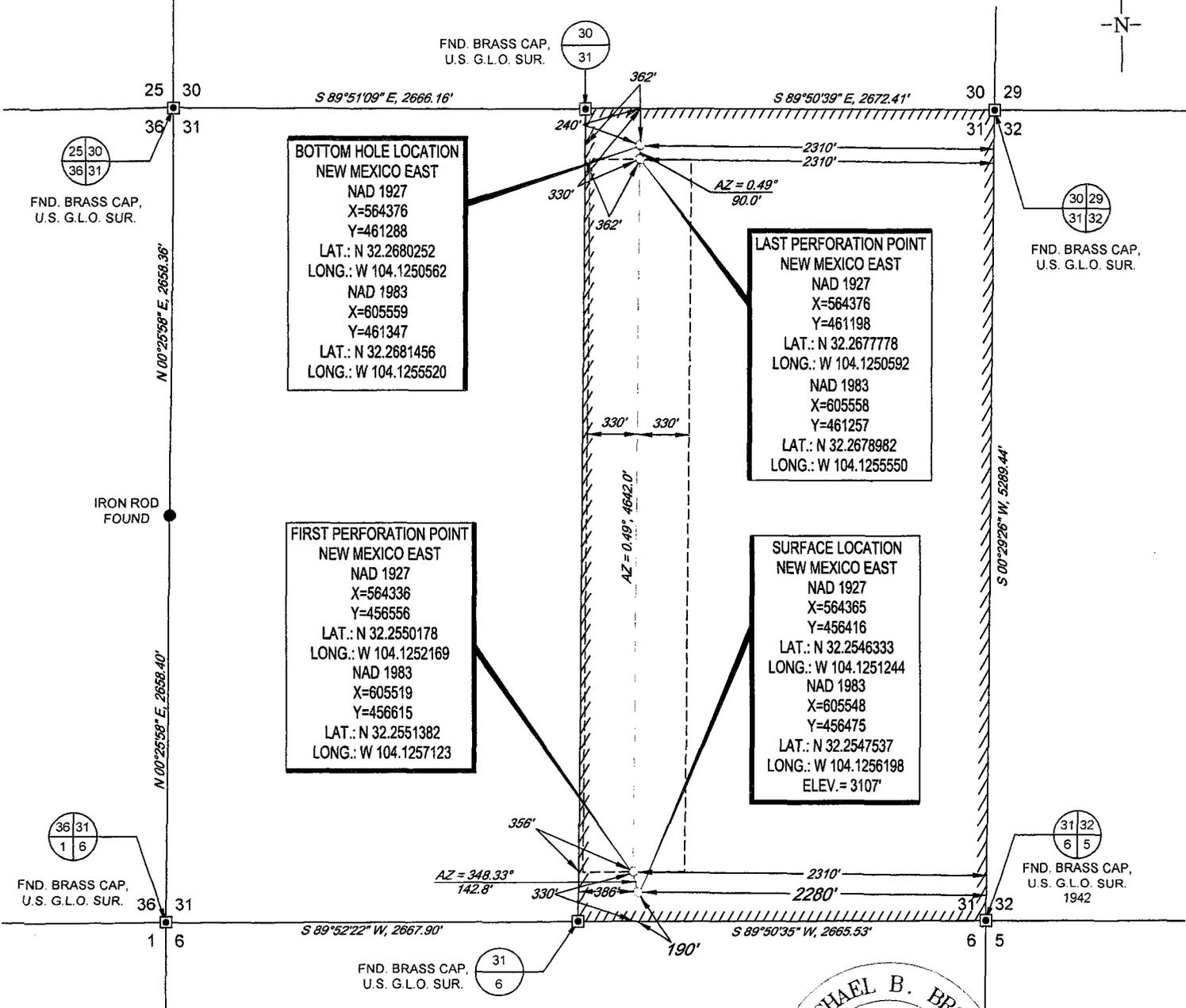
TOPOGRAPHIC
 LOYALTY INNOVATION LEGACY

1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
 TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
 2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
 TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
 WWW.TOPOGRAPHIC.COM

SCALE: 1" = 1000'
 0' 500' 1000'

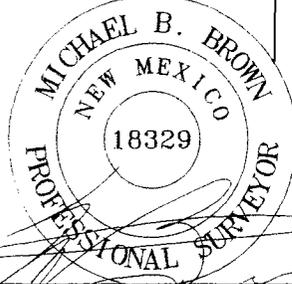


SECTION 31, TOWNSHIP 23-S, RANGE 28-E, N.M.P.M.
 EDDY COUNTY, NEW MEXICO



LEASE NAME & WELL NO.: CHARLIE SWEENEY FED COM 31-23S-28E #223H
 SECTION 31 TWP 23-S RGE 28-E SURVEY N.M.P.M.
 COUNTY EDDY STATE NM
 DESCRIPTION 190' FSL & 2280' FEL

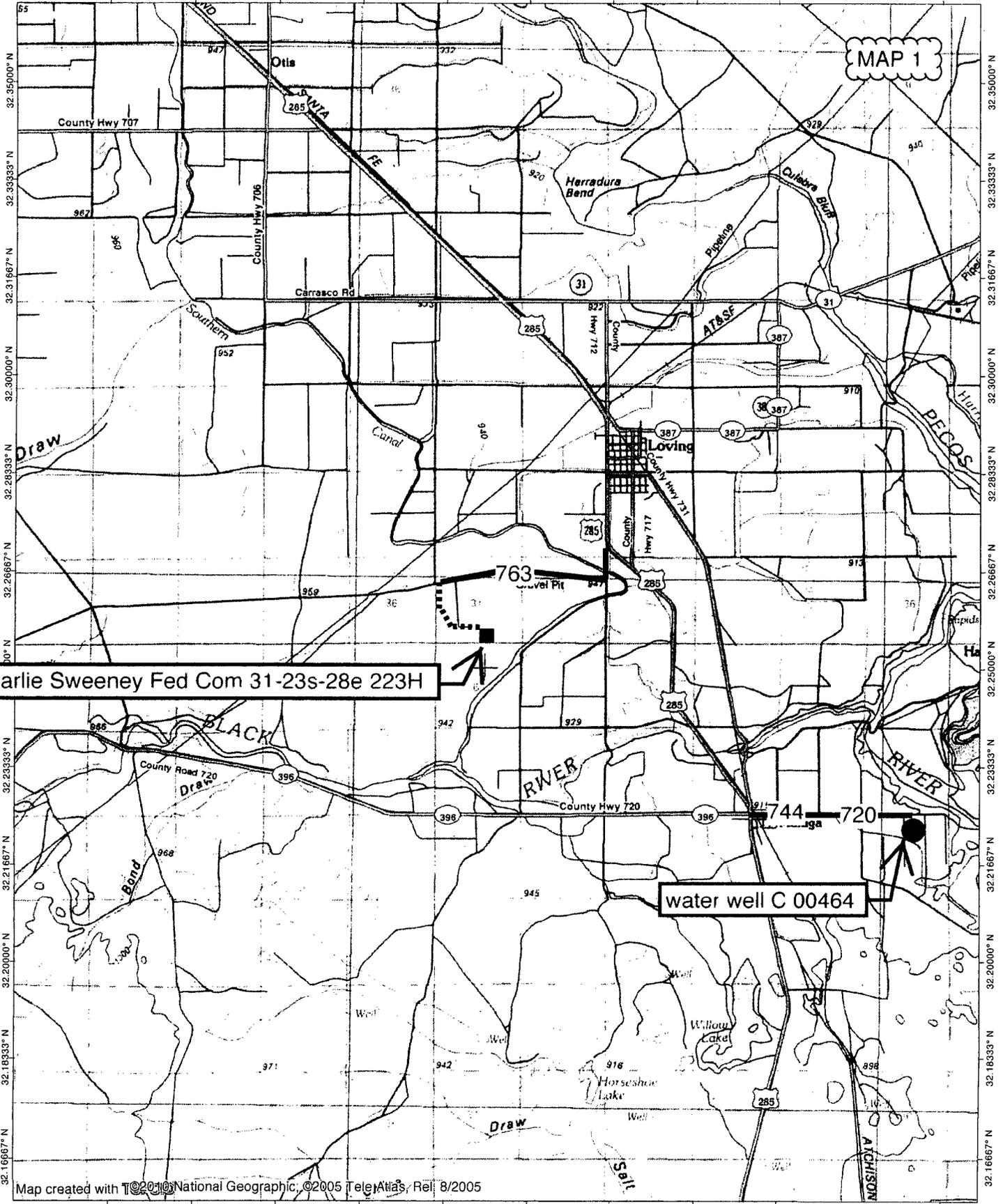
DISTANCE & DIRECTION
 FROM INT. OF US-285 & W CEDAR ST., GO SOUTH ON US-285.
 ±1.0 MILE, THENCE WEST (RIGHT) ON HIGBY HOLE RD. ±0.4
 MILES, THENCE WEST (RIGHT) ON BOUNDS RD. ±1.8 MILES,
 THENCE SOUTH (LEFT) ON LEASE RD. ±0.7 MILES TO A POINT
 ±615 FEET NORTH OF THE LOCATION.



Michael Blake Brown, P.S. No. 18329
 DECEMBER 29, 2015

TOPOGRAPHIC
 LOYALTY INNOVATION LEGACY
 1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
 TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
 2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
 TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
 WWW.TOPOGRAPHIC.COM

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE OF THE NORTH AMERICAN DATUM 1927, U.S. SURVEY FEET
 THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY MATADOR PRODUCTION COMPANY. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.



MAP 1

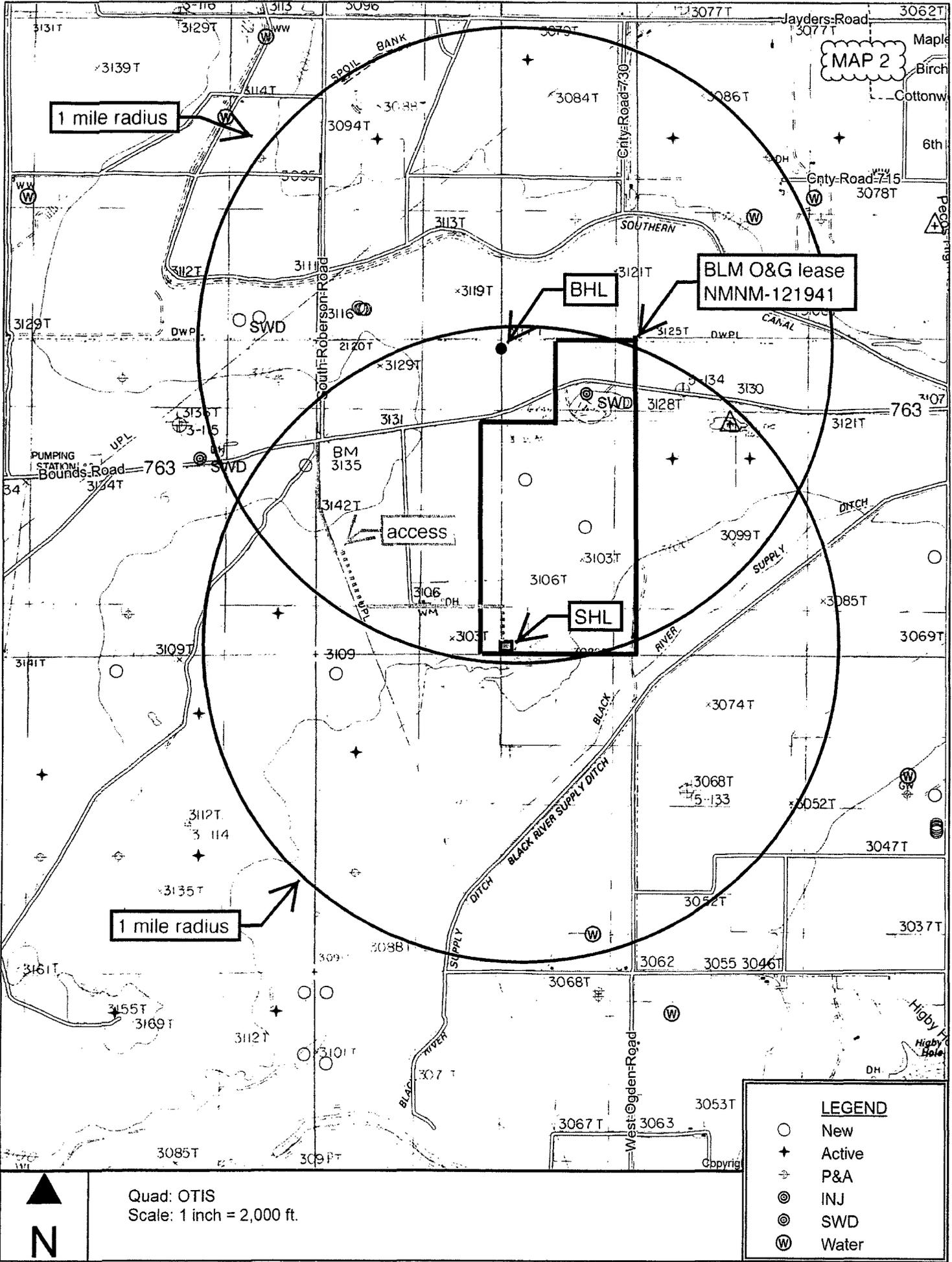
Charlie Sweeney Fed Com 31-23s-28e 223H

water well C 00464

Map created with ©2010 National Geographic, ©2005 TeleAtlas, Rel. 8/2005

NATIONAL GEOGRAPHIC





MAP 2

1 mile radius

BLM O&G lease
NMNM-121941

BHL

access

SHL

1 mile radius

LEGEND

- New
- + Active
- ⊕ P&A
- ⊙ INJ
- ⊙ SWD
- ⊙ Water



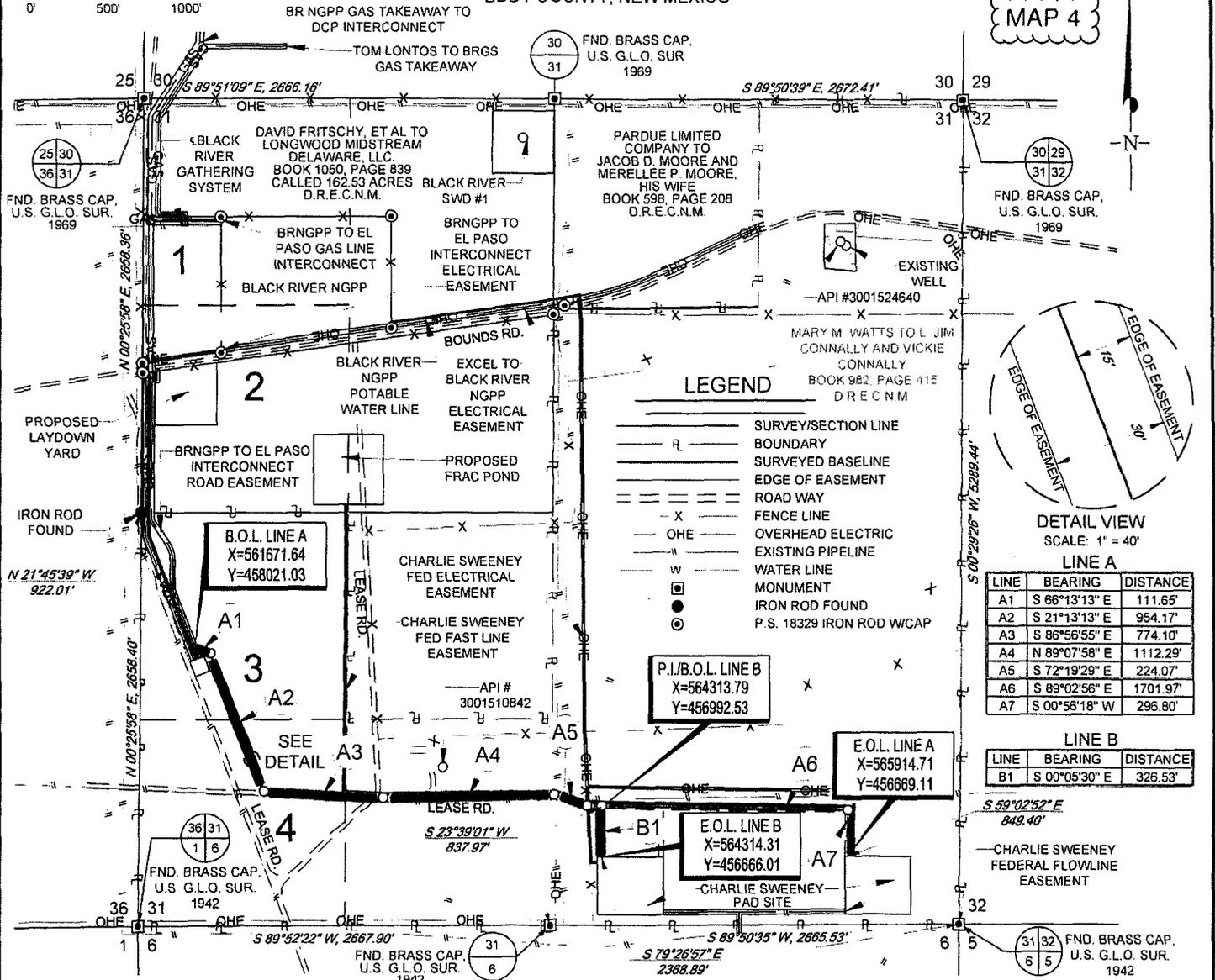
Quad: OTIS
Scale: 1 inch = 2,000 ft.

Copyright

SCALE: 1" = 1000'

SECTION 31, TOWNSHIP 23-S, RANGE 28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

MAP 4

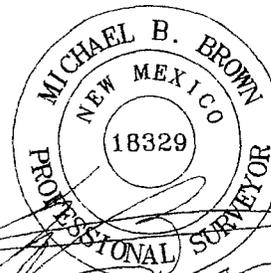


CHARLIE SWEENEY FED ROAD EASEMENT

Being a proposed road easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 5501.58 feet or 333.43 rods, containing 3.79 acres more or less.



1400 EVERMAN PARKWAY, Ste. 197 - FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM



Michael Blake Brown, P.S. No. 18329

SEPTEMBER 1, 2016

CHARLIE SWEENEY FED ROAD EASEMENT	REVISION:	
	MML	06/30/16
DATE: 06/20/16	R.M.	08/24/16
FILE: EP CHARLIE_SWEENEY_FED_ROAD_EASEMENT_REV3	GJU	09/01/16
DRAWN BY: MML		
SHEET: 1 OF 1		

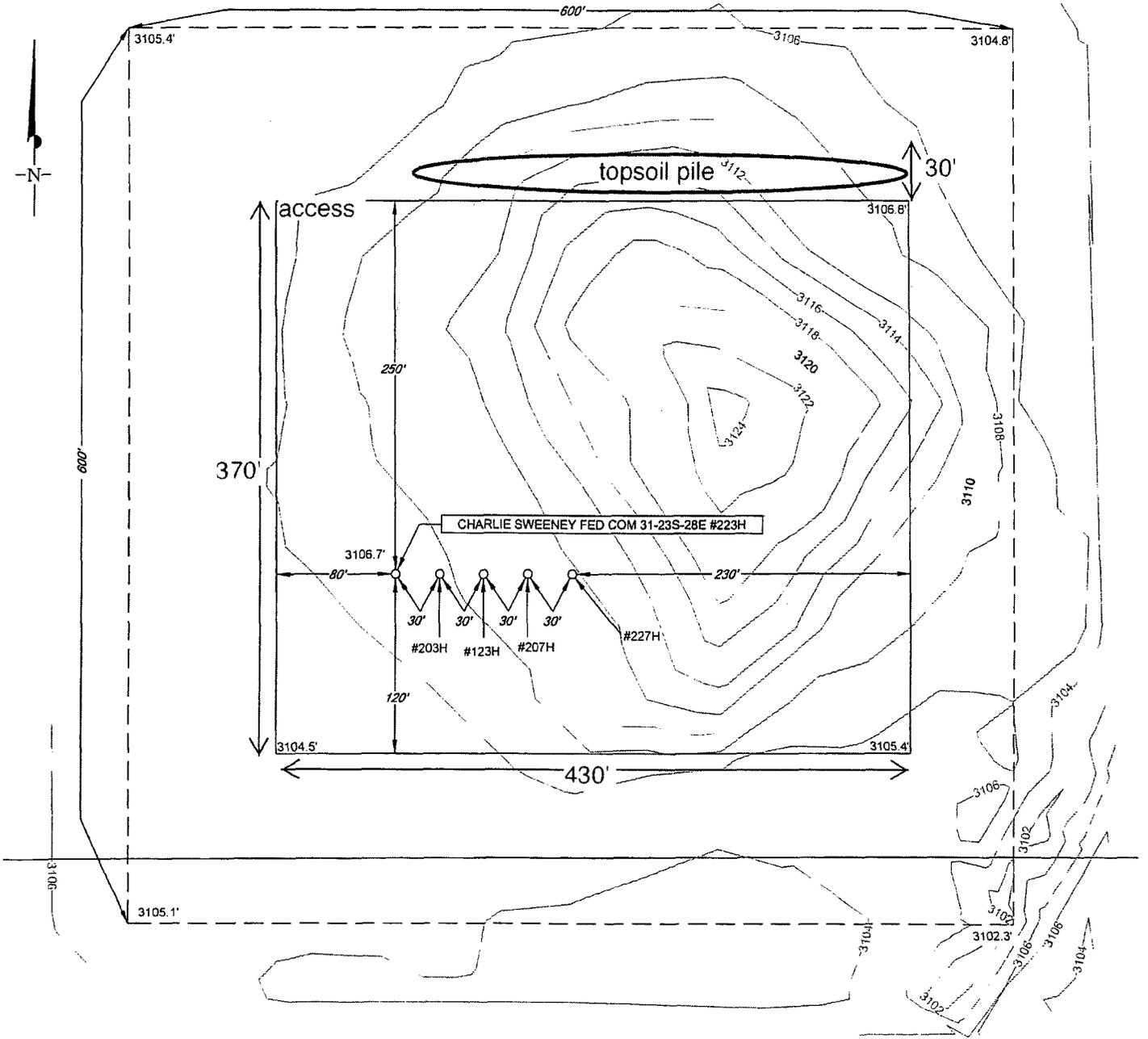
NOTES:

1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY. MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY MATADOR PRODUCTION CO. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
4. B.O.L./P.O.B. = BEGINNING OF LINE/POINT OF BEGINNING
5. E.O.L. = END OF LINE
6. P.I. = POINT OF INTERSECTION
7. D.R.E.C.N.M. = DEED RECORDS EDDY COUNTY NEW MEXICO



MAP 5

SECTION 31, TOWNSHIP 23-S, RANGE 28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



LEGEND

SECTION LINE

LEASE NAME & WELL NO.: CHARLIE SWEENEY FED COM 31-23S-28E #223H

#223H LATITUDE N 32.2546333 #223H LONGITUDE W 104.1251244

SCALE: 1" = 100'



1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 882-1653 OR (800) 767-1653 • FAX (432) 882-1743
WWW.TOPOGRAPHIC.COM

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE OF THE NORTH AMERICAN DATUM 1927, U.S. SURVEY FEET

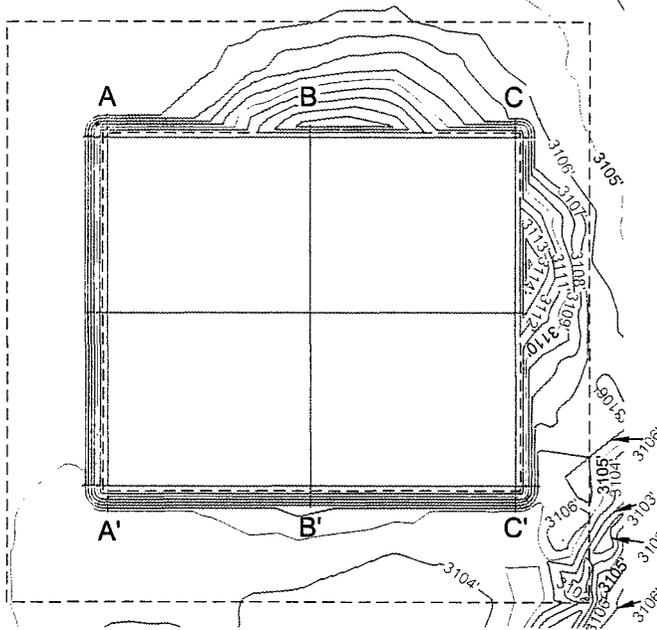
THIS PROPOSED PAD SITE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY MATADOR PRODUCTION COMPANY. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ORIGINAL DOCUMENT SIZE: 8.5" X 11"

SCALE: 1" = 200'
 0' 100' 200'

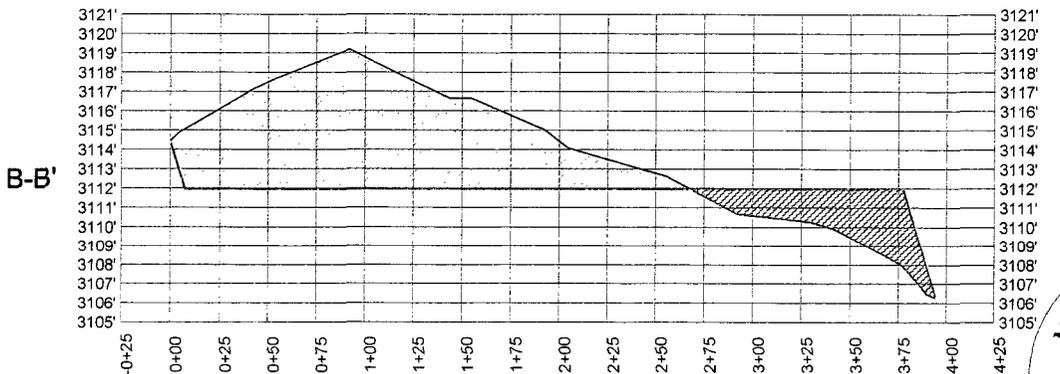
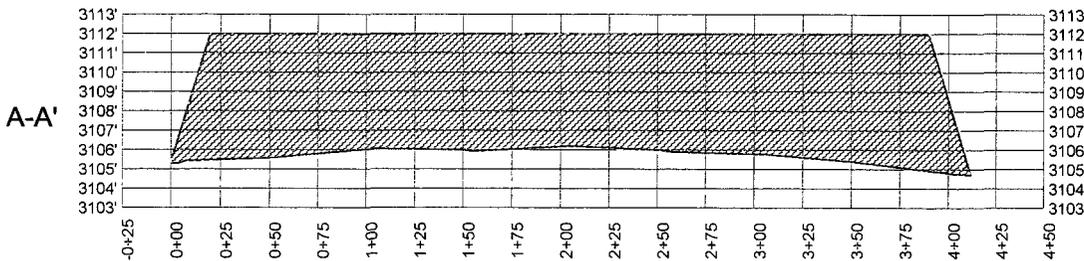
SECTION 31, TOWNSHIP 23-S, RANGE 28-E, N.M.P.M.
 EDDY COUNTY, NEW MEXICO

MAP 6



TOP OF PAD ELEVATION: 3111.9429
 CUT SLOPE: 33.33% 3.00:1 18.43°
 FILL SLOPE: 33.33% 3.00:1 18.43°
 BALANCE TOLERANCE (C.Y.): 0.00
 CUT SWELL FACTOR: 1.00
 FILL SHRINK FACTOR: 1.00

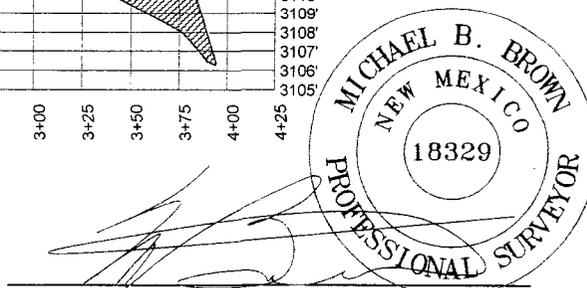
PAD EARTHWORK VOLUMES
 CUT 384,007.9 C.F., 14,222.51 C.Y.
 FILL: 384,008.1 C.F., 14,222.52 C.Y.
 BALANCE IMPORT: 0.2 C.F., 0.01 C.Y.
 AREA: 183694.3 SQ.FT., 4.217 ACRES



Horizontal Scale = 1:50
 Vertical Scale = 1:5



TOPOGRAPHIC
 LOYALTY INNOVATION LEGACY
 1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
 TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
 TEXAS FIRM REGISTRATION NO. 10042504
 WWW.TOPOGRAPHIC.COM



Michael Blake Brown, P.S. No. 18329
 JANUARY 25, 2016
 Field note description of even date accompanies this plat.

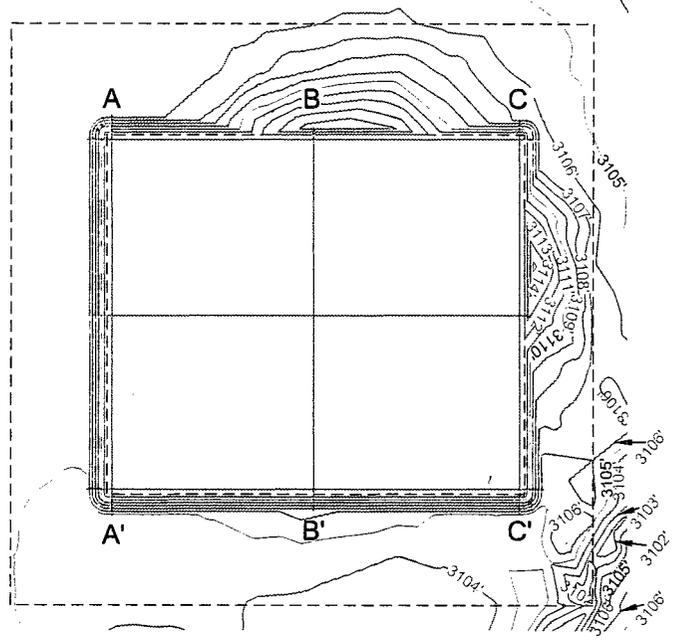
CHARLIE SWEENEY FED COM 31-23S-28E SURFACE PAD SITE PRO	REVISION:	
	INT	DATE
DATE: 01/25/16		
FILE: \\matador\resources\charlie_sweeney_fed_com_31-23s-28e_223h_surface_pad_site\final_products\icd_charlie_sweeney_fed_com_31-23s-28e_223h_surface_pad_site_pro_rev1.dwg		
DRAWN BY: GLH		
SHEET: 1 OF 2		

NOTES:
 1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
 2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
 3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY MATADOR RESOURCE COMPANY. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.

SCALE: 1" = 200'
 0' 100' 200'

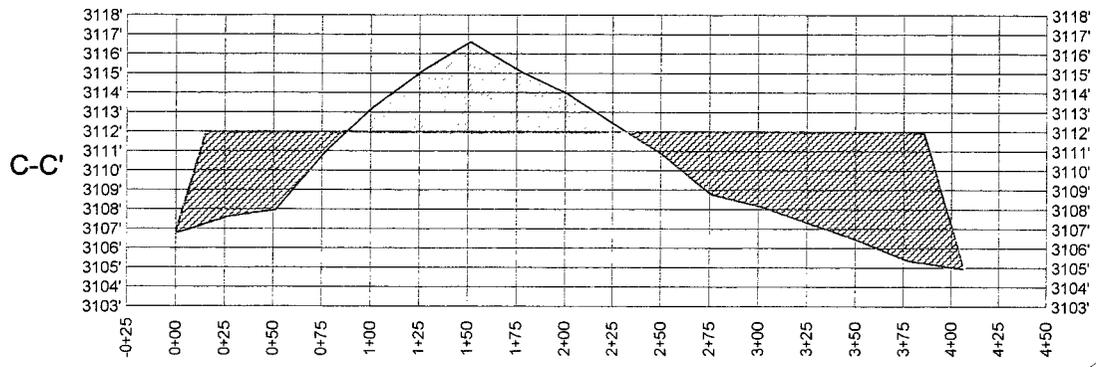
SECTION 31, TOWNSHIP 23-S, RANGE 28-E, N.M.P.M.
 EDDY COUNTY, NEW MEXICO

MAP 7



TOP OF PAD ELEVATION: 3111.9429
 CUT SLOPE: 33.33% 3.00:1 18.43°
 FILL SLOPE: 33.33% 3.00:1 18.43°
 BALANCE TOLERANCE (C.Y.): 0.00
 CUT SWELL FACTOR: 1.00
 FILL SHRINK FACTOR: 1.00

PAD EARTHWORK VOLUMES
 CUT: 384,007.9 C.F., 14,222.51 C.Y.
 FILL: 384,008.1 C.F., 14,222.52 C.Y.
 BALANCE IMPORT: 0.2 C.F., 0.01 C.Y.
 AREA: 183694.3 SQ.FT., 4.217 ACRES

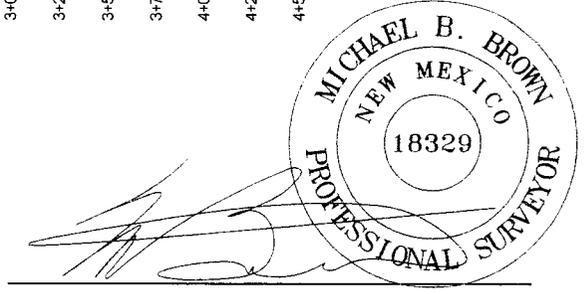


Horizontal Scale = 1:50
 Vertical Scale = 1:5



TOPOGRAPHIC
 LOYALTY INNOVATION LEGACY

1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
 TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
 TEXAS FIRM REGISTRATION NO. 10042504
 WWW.TOPOGRAPHIC.COM



Michael Blake Brown, P.S. No. 18329

JANUARY 25, 2016

Field note description of even date accompanies this plat.

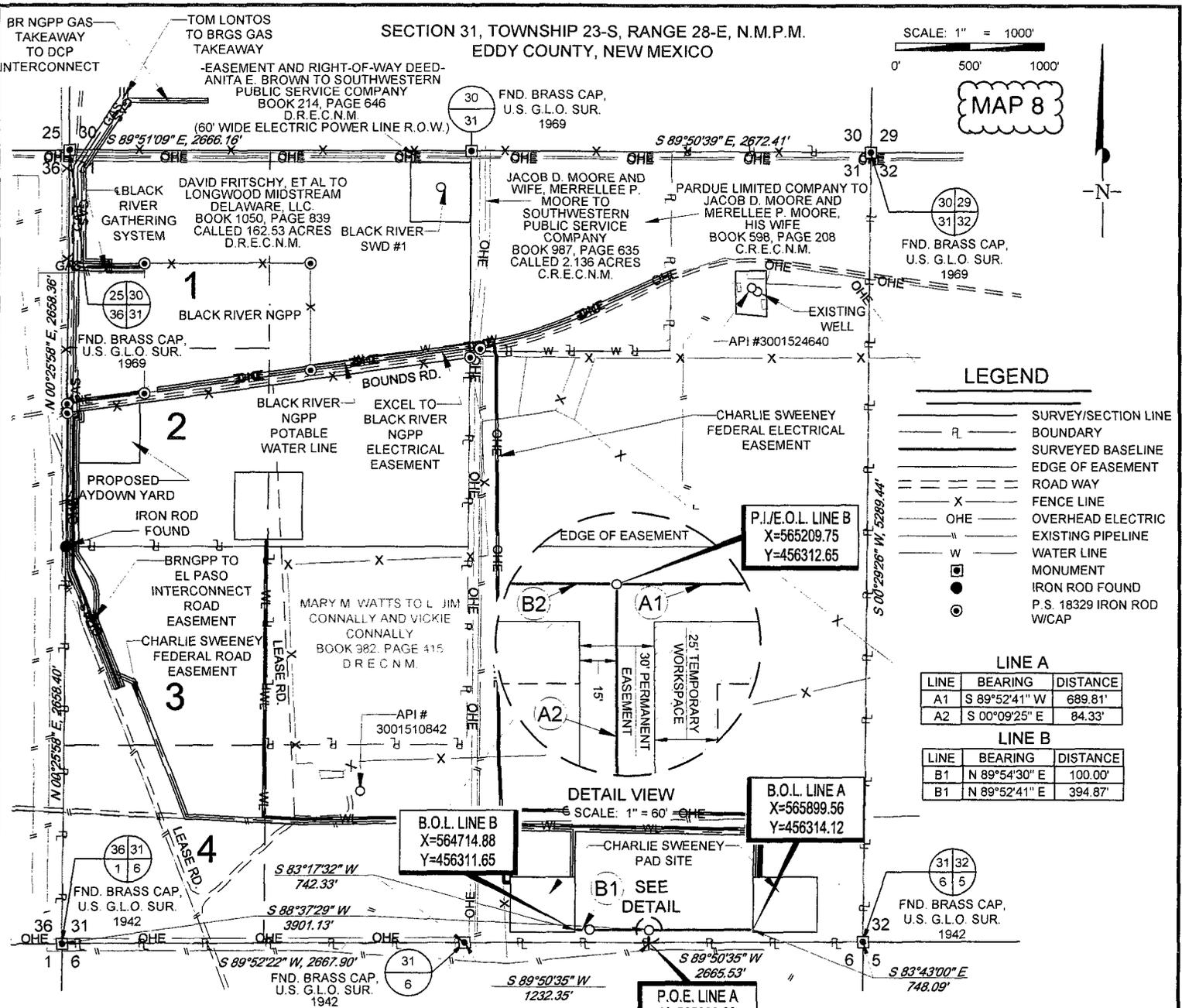
CHARLIE SWEENEY FED COM 31-23S-28E SURFACE PAD SITE PRO	REVISION:	
	INT	DATE
DATE: 01/25/16		
FILE: \\S:\SURVEY\MATADOR_RESOURCES\CHARLIE_SWEENEY_FED_COM_31-23S-28E_223H_SURFACE_PAD_SITE_FINAL_PRODUCT\SCD_CHARLIE_SWEENEY_FED_COM_31-23S-28E_223H_SURFACE_PAD_SITE_PRO_REV1.DWG 4/27/2016 6:29:52 PM jstovall		
DRAWN BY: GLH		
SHEET: 2 OF 2		

NOTES:
 1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
 2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
 3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY MATADOR RESOURCE COMPANY. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.

SECTION 31, TOWNSHIP 23-S, RANGE 28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SCALE: 1" = 1000'

MAP 8



LEGEND

- SURVEY/SECTION LINE
- BOUNDARY
- SURVEYED BASELINE
- EDGE OF EASEMENT
- ROAD WAY
- FENCE LINE
- OVERHEAD ELECTRIC
- EXISTING PIPELINE
- WATER LINE
- MONUMENT
- IRON ROD FOUND
- P.S. 18329 IRON ROD
- WCAP

LINE A

LINE	BEARING	DISTANCE
A1	S 89°52'41" W	689.81'
A2	S 00°09'25" E	84.33'

LINE B

LINE	BEARING	DISTANCE
B1	N 89°54'30" E	100.00'
B1	N 89°52'41" E	394.87'

CHARLIE SWEENEY FEDERAL FLOWLINE EASEMENT

Being a proposed flowline easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 1259.01 feet or 76.91 rods, containing 0.87 acres more or less.



Michael Blake Brown, P.S. No. 18329

JUNE 20, 2016



1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM

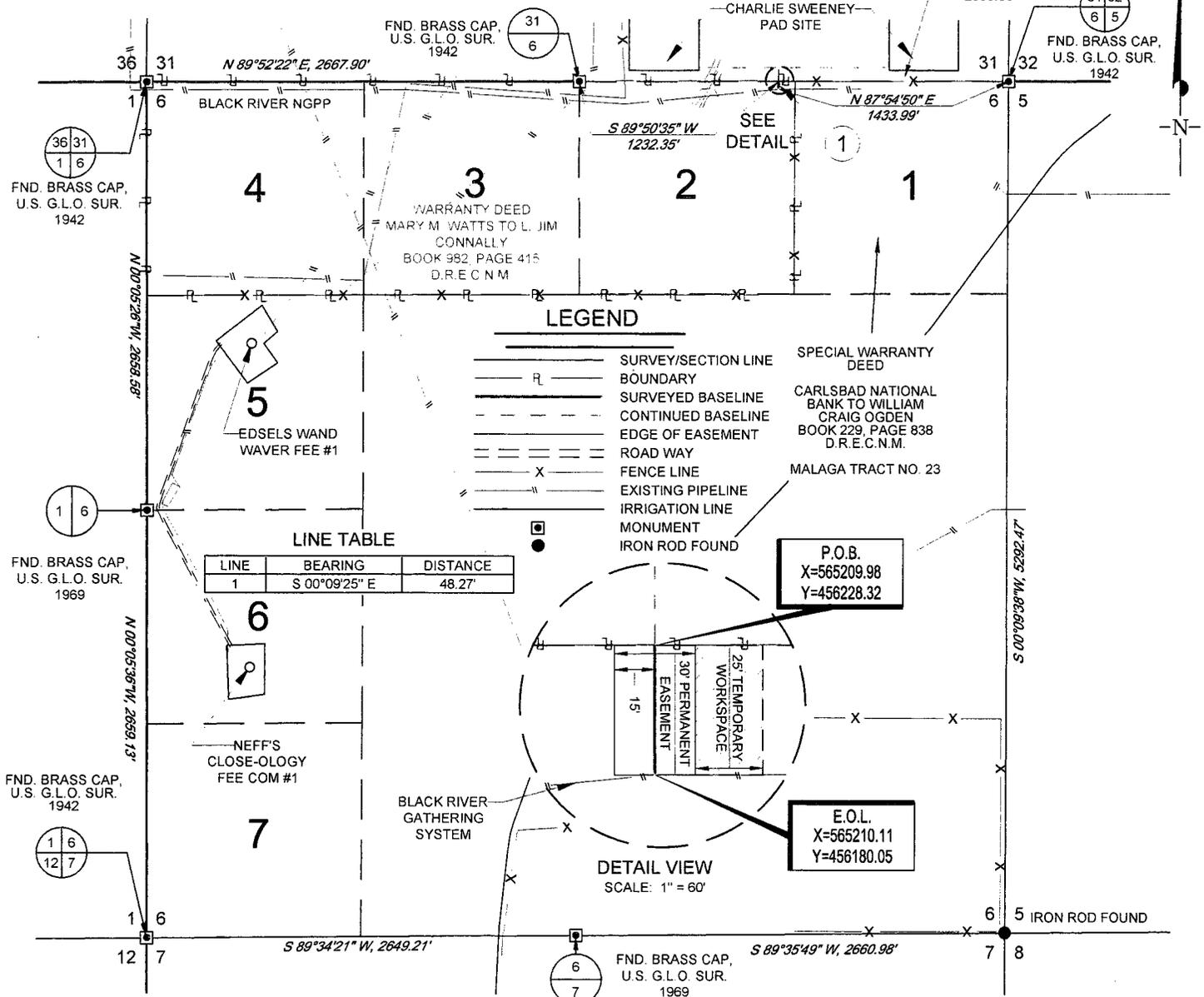
CHARLIE SWEENEY FEDERAL FLOWLINE EASEMENT	REVISION:	
	GJU	06/20/16
DATE:	12/15/15	
FILE:	EP CHARLIE SWEENEY FEDERAL FLOWLINE EASEMENT SEC 31 REV1	
DRAWN BY:	GLH	
SHEET:	1 OF 1	

- NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
 2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
 3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY MATADOR PRODUCTION CO. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
 4. B.O.L. = BEGINNING OF LINE
 5. E.O.L./P.O.E. = END OF LINE/ POINT OF EXIT
 6. D.R.E.C.N.M. = DEED RECORDS EDDY COUNTY NEW MEXICO
 7. C.R.E.C.N.M. = COUNTY RECORDS EDDY COUNTY NEW MEXICO

SCALE: 1" = 1000'
 0' 500' 1000'

SECTION 6, TOWNSHIP 24-S, RANGE 28-E, N.M.P.M.
 EDDY COUNTY, NEW MEXICO

MAP 9

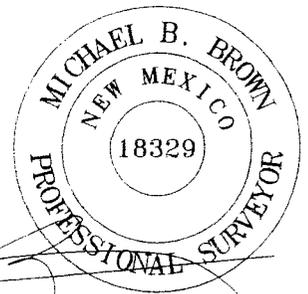


CHARLIE SWEENEY FEDERAL FLOWLINE EASEMENT

Being a proposed flowline easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 48.27 feet or 2.93 rods, containing 0.03 acres more or less.



TOPOGRAPHIC
 LOYALTY INNOVATION LEGACY
 1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
 TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
 2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
 TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
 WWW.TOPOGRAPHIC.COM



Michael Blake Brown
 Michael Blake Brown, P.S. No. 18329
 JUNE 20, 2016

CHARLIE SWEENEY FEDERAL FLOWLINE EASEMENT	
DATE:	06/20/16
FILE:	EP_CHARLIE_SWEENEY_FEDERAL_FLOWLINE_EASEMENT_SEC_6
DRAWN BY:	GJU
SHEET:	1 OF 1

REVISION:

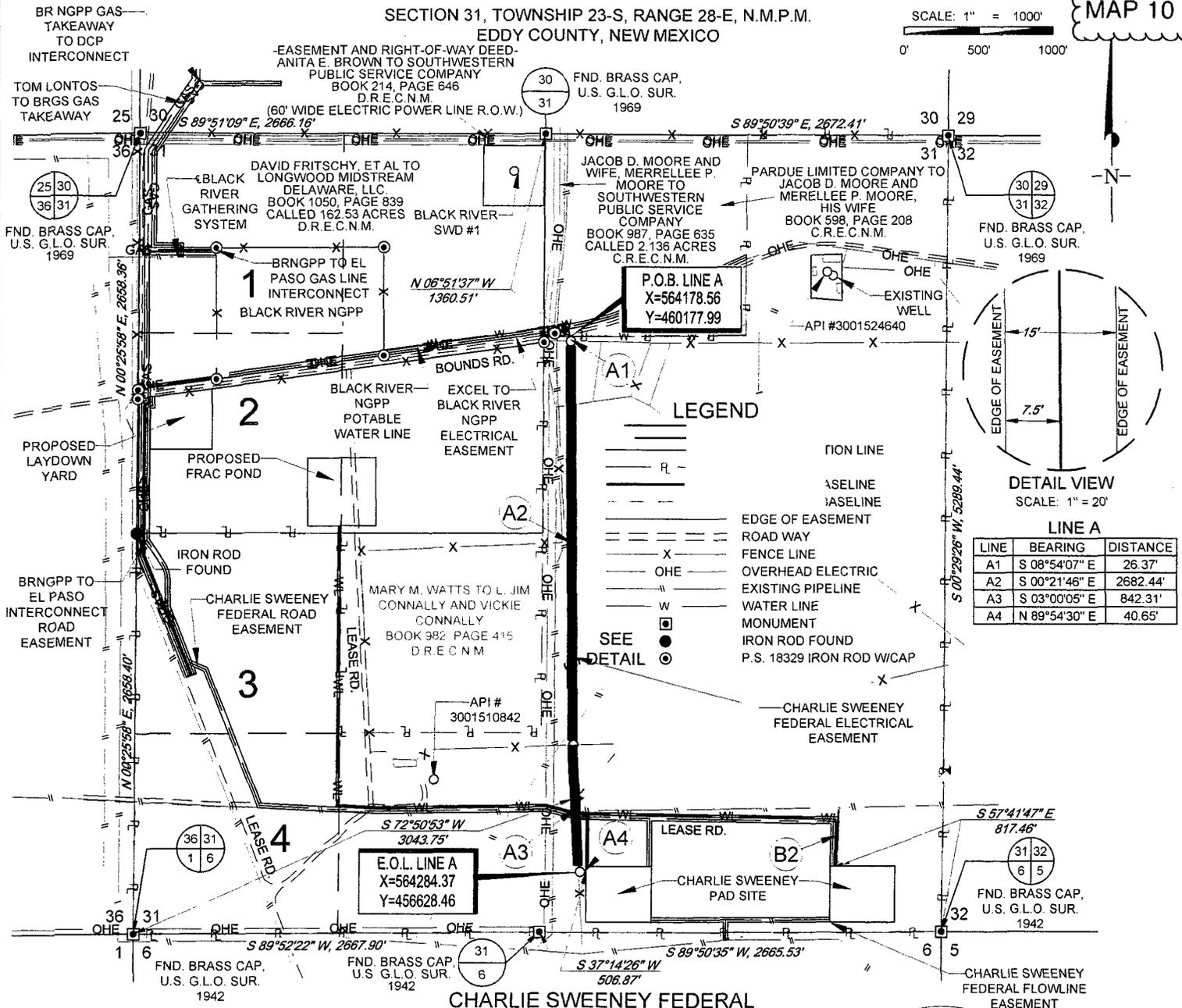
NOTES:

1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY MATADOR PRODUCTION CO. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
4. P.O.B. = POINT OF BEGINNING
5. E.O.L. = END OF LINE
6. D.R.E.C.N.M. = DEED RECORDS EDDY COUNTY NEW MEXICO

SECTION 31, TOWNSHIP 23-S, RANGE 28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SCALE: 1" = 1000'

MAP 10

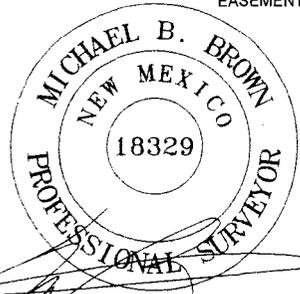


LINE A

LINE	BEARING	DISTANCE
A1	S 08°54'07" E	26.37'
A2	S 00°21'46" E	2682.44'
A3	S 03°00'05" E	842.31'
A4	N 89°54'30" E	40.65'

**CHARLIE SWEENEY FEDERAL
ELECTRIC EASEMENT**

Being a proposed electric line easement being 15 feet in width, 7.5 feet left, and 7.5 feet right of the above platted centerline



Michael Blake Brown, P.S. No. 18329
JUNE 20, 2016



TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 882-1653 OR (800) 767-1653 • FAX (432) 882-1743
WWW.TOPOGRAPHIC.COM

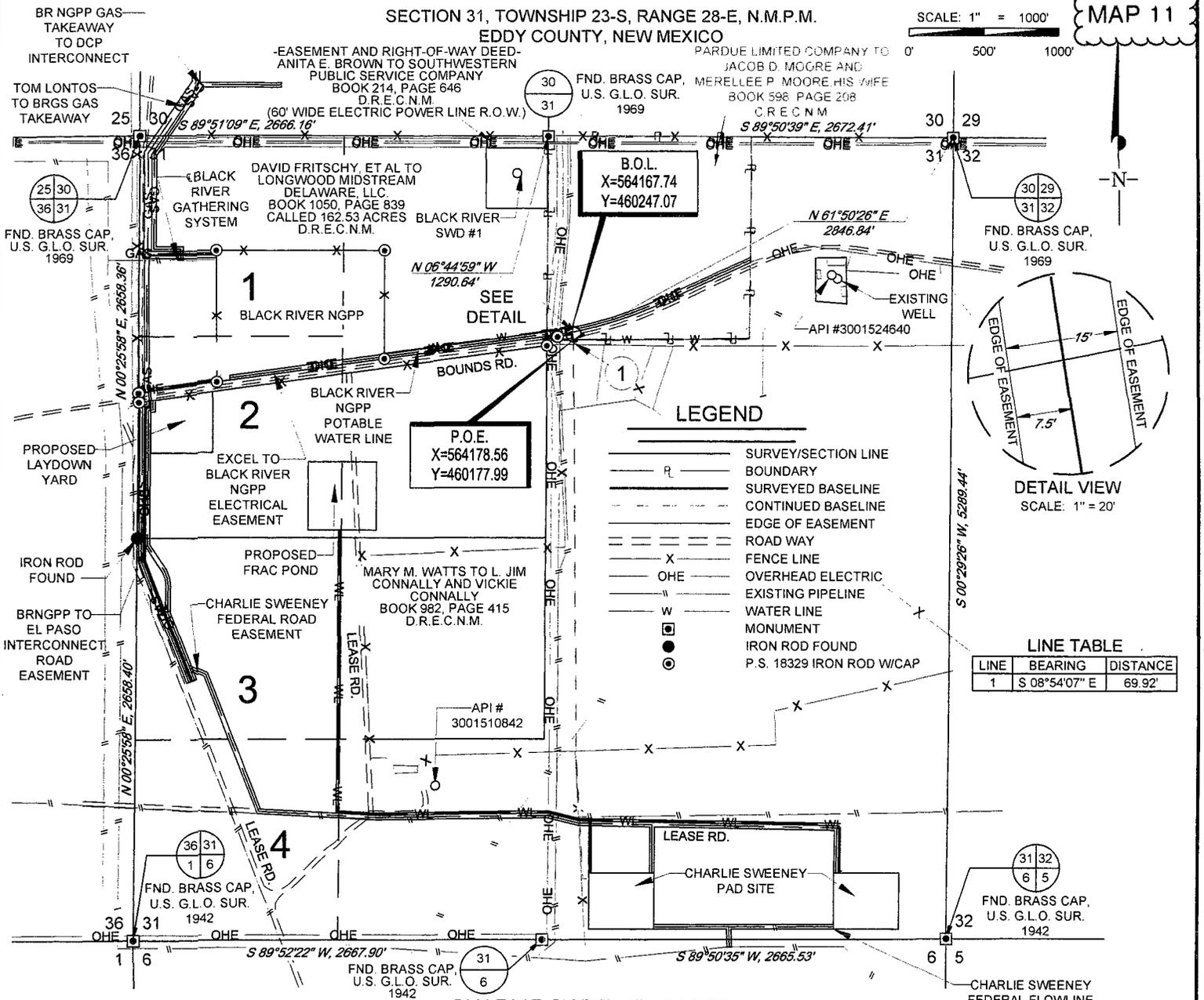
CHARLIE SWEENEY FEDERAL ELECTRIC EASEMENT	
DATE:	06/20/16
FILE:	EP CHARLIE SWEENEY FEDERAL ELECTRICAL LINE EASEMENT CONNALLY
DRAWN BY:	GJU
SHEET:	1 OF 1

- NOTES:**
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
 2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927
 3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY MATADOR PRODUCTION CO. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
 4. B.O.L./P.O.B. = BEGINNING OF LINE/POINT OF BEGINNING
 5. E.O.L. = END OF LINE
 6. P.I. = POINT OF INTERSECTION
 7. D.R.E.C.N.M. = DEED RECORDS EDDY COUNTY NEW MEXICO
 8. C.R.E.C.N.M. = COUNTY RECORDS EDDY COUNTY NEW MEXICO

SECTION 31, TOWNSHIP 23-S, RANGE 28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SCALE: 1" = 1000'

MAP 11



LEGEND

- SURVEY/SECTION LINE
- BOUNDARY
- SURVEYED BASELINE
- - - CONTINUED BASELINE
- - - EDGE OF EASEMENT
- - - ROAD WAY
- X FENCE LINE
- OHE OVERHEAD ELECTRIC
- EXISTING PIPELINE
- W WATER LINE
- MONUMENT
- IRON ROD FOUND
- P. S. 18329 IRON ROD W/CAP

LINE TABLE

LINE	BEARING	DISTANCE
1	S 08°54'07" E	69.92'

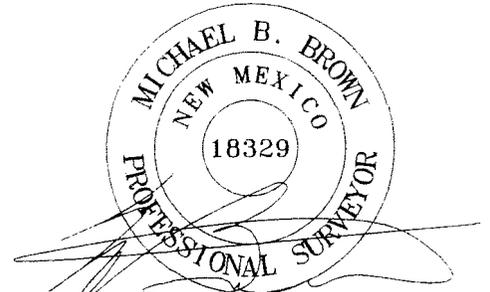
CHARLIE SWEENEY FEDERAL
ELECTRIC EASEMENT

Being a proposed electric line easement being 15 feet in width, 7.5 feet left, and 7.5 feet right of the above platted centerline total line footage containing 69.92 feet or 4.24 rods, containing 0.02 acres more or less.



TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM

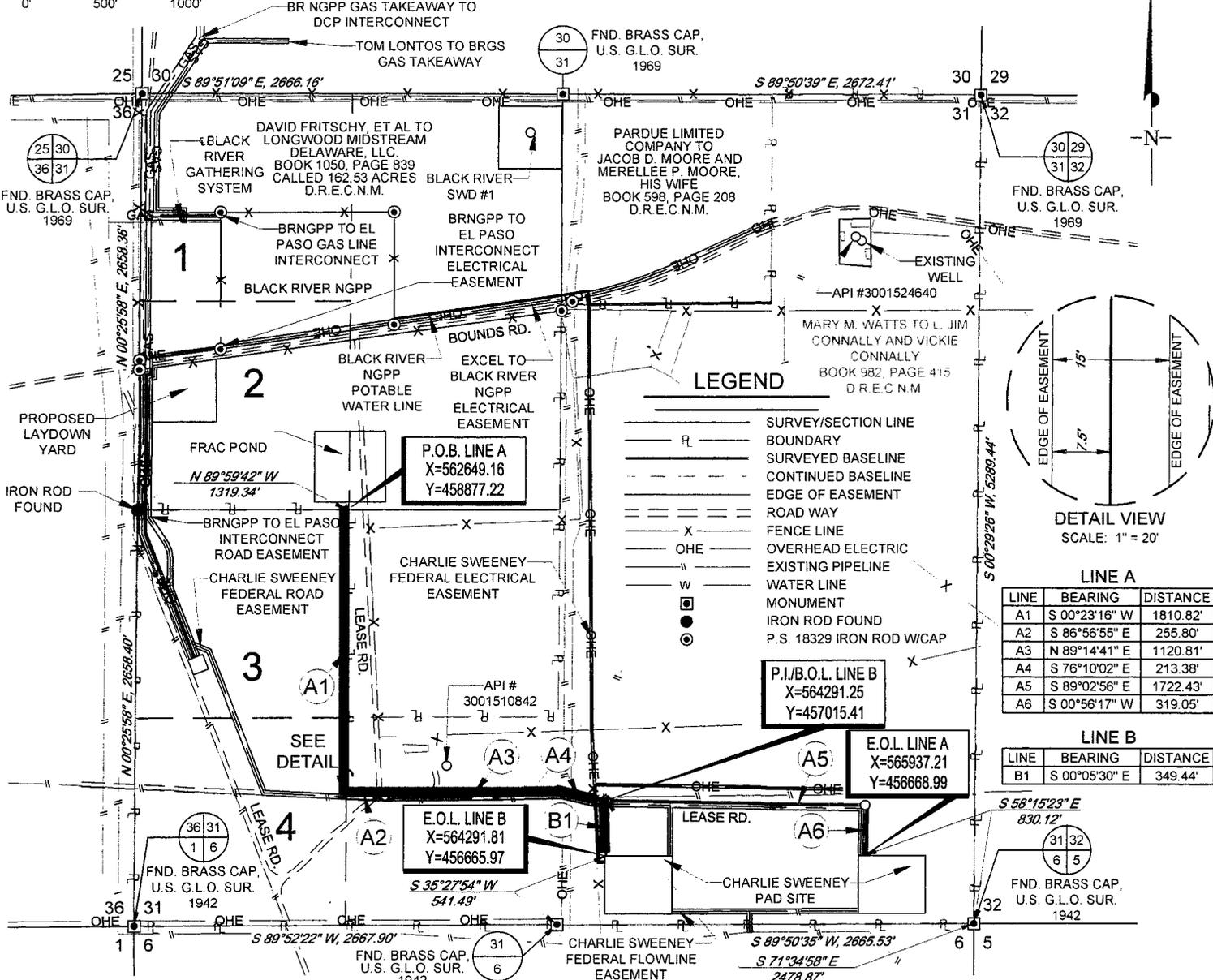


Michael Blake Brown, P.S. No. 18329
JUNE 20, 2016

CHARLIE SWEENEY FEDERAL ELECTRIC EASEMENT		REVISION:	NOTES:
DATE:	06/20/16		1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
FILE:	EP CHARLIE SWEENEY FEDERAL ELECTRICAL LINE EASEMENT MOORE		2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
DRAWN BY:	GJU		3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY MATADOR PRODUCTION CO. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
SHEET:	1 OF 1		4. B.O.L./P.O.B. = BEGINNING OF LINE/POINT OF BEGINNING
			5. E.O.L. = END OF LINE
			6. P.I. = POINT OF INTERSECTION
			7. D.R.E.C.N.M. = DEED RECORDS EDDY COUNTY NEW MEXICO
			8. C.R.E.C.N.M. = COUNTY RECORDS EDDY COUNTY NEW MEXICO

SECTION 31, TOWNSHIP 23-S, RANGE 28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SCALE: 1" = 1000'



CHARLIE SWEENEY FEDERAL FAST LINE EASEMENT

Being a proposed fast line easement being 15 feet in width, 7.5 feet left, and 7.5 feet right of the above platted centerline total line footage containing 5791.73 feet or 351.01 rods, containing 1.99 acres more or less.



Michael Blake Brown, P.S. No. 18329
JUNE 20, 2016

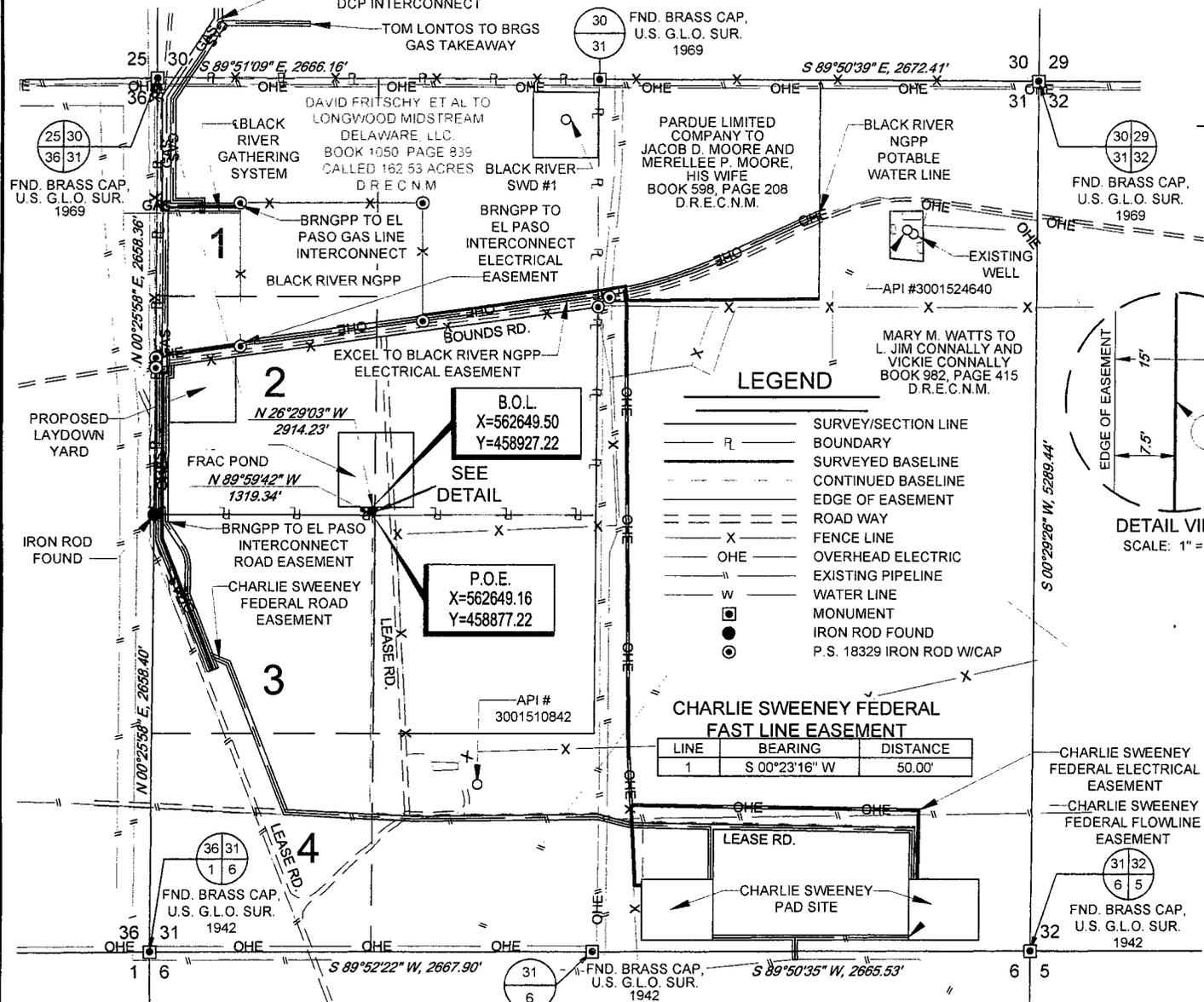
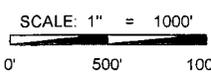


1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM

CHARLIE SWEENEY FEDERAL FAST LINE EASEMENT	
DATE:	06/20/16
FILE:	EP CHARLIE SWEENEY FEDERAL FAST LINE EASEMENT_CONNALLY
DRAWN BY:	MML
SHEET:	1 OF 1

REVISION:	
NOTES:	<ol style="list-style-type: none"> ORIGINAL DOCUMENT SIZE: 8.5" X 11" ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY MATADOR PRODUCTION CO. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY. B.O.L./P.O.B. = BEGINNING OF LINE/POINT OF BEGINNING E.O.L. = END OF LINE P.I. = POINT OF INTERSECTION D.R.E.C.N.M. = DEED RECORDS EDDY COUNTY NEW MEXICO

SECTION 31, TOWNSHIP 23-S, RANGE 28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



LEGEND

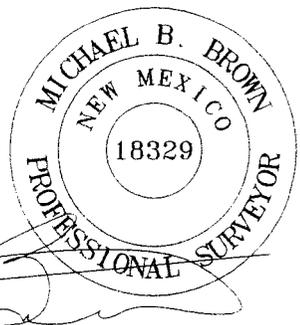
- SURVEY/SECTION LINE
- BOUNDARY
- SURVEYED BASELINE
- CONTINUED BASELINE
- EDGE OF EASEMENT
- ROAD WAY
- FENCE LINE
- OVERHEAD ELECTRIC
- EXISTING PIPELINE
- WATER LINE
- MONUMENT
- IRON ROD FOUND
- P. S. 18329 IRON ROD W/CAP

CHARLIE SWEENEY FEDERAL FAST LINE EASEMENT

LINE	BEARING	DISTANCE
1	S 00°23'16" W	50.00'

CHARLIE SWEENEY FEDERAL FAST LINE EASEMENT

Being a proposed fast line easement being 15 feet in width, 7.5 feet left, and 7.5 feet right of the above platted centerline total line footage containing 50.00 feet or 3.03 rods, containing 0.02 acres more or less.



Michael Blake Brown
Michael Blake Brown, P.S. No. 18329

JUNE 20, 2016



TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX: (817) 744-7548
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX: (432) 682-1743
WWW.TOPOGRAPHIC.COM

CHARLIE SWEENEY FEDERAL FAST LINE EASEMENT		REVISION:	<p>NOTES:</p> <ol style="list-style-type: none"> 1. ORIGINAL DOCUMENT SIZE: 8.5" X 11" 2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927. 3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY MATADOR PRODUCTION CO. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY. 4. B.O.L. = BEGINNING OF LINE 5. P.O.E. = POINT OF EXIT 6. D.R.E.C.N.M. = DEED RECORDS EDDY COUNTY NEW MEXICO
DATE:	06/20/16		
FILE:	EP CHARLIE SWEENEY FEDERAL FAST LINE EASEMENT LONGWOOD		
DRAWN BY:	MML		
SHEET:	1 OF 1		

Matador Production Company
Charlie Sweeney Fed Com 223H
SHL 190' FSL & 2280' FEL Sec. 31, T. 23 S., R. 28 E.
BHL 240' FNL & 2310' FEL Sec. 31, T. 23 S., R. 28 E.
Eddy County, NM

DRILL PLAN PAGE 1

Drilling Program

1. ESTIMATED TOPS

Formation Name	TVD	Bearing
Quaternary	GL	Water
Eroded Salado/Rustler	460	Water/Salt
Castille	780	Salt
Base of Salt/Top of Anhydrite	2347	Barren
Lamar	2500	Barren
Bell Canyon	2533	Hydrocarbon
Cherry Canyon	3330	Hydrocarbon
Brushy Canyon	4524	Hydrocarbon
Bone Spring Lime	6067	Hydrocarbon
1st Bone Spring Sand	7012	Hydrocarbon
2nd Bone Spring Carbonate	7277	Hydrocarbon
2nd Bone Spring Sand	7657	Hydrocarbon
3 rd Bone Spring Carbonate	7947	Hydrocarbon
3 rd Bone Spring Sand	9032	Hydrocarbon
Wolfcamp	9487	Hydrocarbon
Wolfcamp B	10007	Hydrocarbon (& Target Formation)
TVD (Wolfcamp B)	10300	Hydrocarbon
MD (Wolfcamp B)	15059	Hydrocarbon

2. NOTABLE ZONES

Closest water well (C 02022/02955/03218) is 1,590' to the northwest. Depth of well and depth to water have not been reported to the State. Proposed depth was 190'. Closest (≈5,000' south) well (C 01244) with reported depths found water at 70'.

3. PRESSURE CONTROL

A BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram and 1 annular preventer will be installed. The BOP will be used below surface casing to TD. See attached BOP and choke manifold diagrams.

Matador Production Company
Charlie Sweeney Fed Com 223H
SHL 190' FSL & 2280' FEL Sec. 31, T. 23 S., R. 28 E.
BHL 240' FNL & 2310' FEL Sec. 31, T. 23 S., R. 28 E.
Eddy County, NM

DRILL PLAN PAGE 2

An accumulator that meets the requirements of Onshore Order 2 for the pressure rating of the BOP stack will be present. A rotating head will be installed as needed.

Pressure tests will be conducted before drilling out from under all casing strings. BOP will be inspected and operated as recommended in Onshore Order 2. A Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position.

A third party company will test the BOPs. Test pressures will be as follows. After surface casing is set and the BOP is nipped up, the BOP pressure tests will be made to 250 psi low and 2000 psi high. On the intermediate #1, pressure tests will be made to 250 psi low and 3000 psi high. On the intermediate #2, pressure tests will be made to 250 psi low and 5000 psi high. The annular preventer will be tested to 250 psi low and 1000 psi high on the surface casing, and 250 psi low and 2500 psi high on the intermediate #1 and #2 casing. In the case of running a speed head with landing mandrel for 9-5/8" and 7" casing the initial, after surface casing is set, BOP test pressures will be 250 psi low and 3000 psi high with wellhead seals tested to 5000 psi once the 9-5/8" casing has been landed and cemented. The BOP will then be lifted to install the 'C-section' of the wellhead. Matador will nipple the BOP back up and the pressure tests will be made to 250 psi low and 5000 psi high and the annular will be tested to 250 psi low and 2500 psi high.

Matador requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used.

4. CASING & CEMENT

Hole will extend north of the drilling window to allow for pump installation. All perforations will be $\geq 330'$ from the dedication perimeter.

Hole O. D.	Set @ (MD)	Casing O. D.	Age	Weight (lb/ft)	Grade	Thread Collar	Collapse	Burst	Tension
17.5"	550'	13.375"	New	54.5	J-55	BTC	1.125	1.125	1.8
12.25"	2600'	9.625"	New	40	J-55	BTC	1.125	1.125	1.8
8.75"	10470'	7"	New	29	P-110	BTC	1.125	1.125	1.8

Matador Production Company
Charlie Sweeney Fed Com 223H
SHL 190' FSL & 2280' FEL Sec. 31, T. 23 S., R. 28 E.
BHL 240' FNL & 2310' FEL Sec. 31, T. 23 S., R. 28 E.
Eddy County, NM

DRILL PLAN PAGE 3

6.125"	15059'	4.5"	New	13.5	P-110	BTC/TXP	1.125	1.125	1.8
--------	--------	------	-----	------	-------	---------	-------	-------	-----

Name	Type	Sacks	Yield	Cu. Ft.	Weight	Blend
Surface	Lead	240	1.82	436.8	12.8	Class C + Bentonite + 2% CaCl ₂ + 3% NaCl + LCM
	Tail	350	1.38	483	14.8	Class C + 5% NaCl + LCM
TOC = GL		100% Excess			Centralizers per Onshore Order 2.III.B.1f	
Intermediate	Lead	550	2.13	1171.5	12.6	Class C + Bentonite + 1% CaCl ₂ + 8% NaCl + LCM
	Tail	270	1.38	372.6	14.8	Class C + 5% NaCl + LCM
TOC = GL		100% Excess			2 on btm jt, 1 on 2nd jt, 1 every 4th jt to surface	
Intermediate 2	Lead	600	2.13	1278	12.6	TXI + Fluid Loss + Dispersant + Retarder + LCM
	Tail	310	1.38	427.8	14.8	TXI + Fluid Loss + Dispersant + Retarder + LCM
TOC = 1500'		35% Excess			2 on btm jt, 1 on 2nd jt, 1 every other jt to top of tail cement (500' above TOC)	
Production	Tail	510	1.17	585	15.8	Class H + Fluid Loss + Dispersant + Retarder + LCM
TOC = 9970'		25% Excess			2 on btm jt, 1 on 2nd jt, 1 every other jt to top of curve	

5. MUD PROGRAM

Mud monitoring system will be an electronic Pason system satisfying the requirements of Onshore Order 1. All necessary mud products for weight addition and fluid loss control will be on location at all times. Mud program is subject to change due to the hole condition.

Name	Hole Size	Mud Weight	Visc	Fluid Loss	Type Mud
Surface	17.5"	8.30	28	NC	FW Spud Mud
Intermediate	12.25"	10.00	30-32	NC	Brine Water
Intermediate 2	8.75"	8.00	30-31	NC	FW/Cut Brine
Production	6.125"	12.50	50-60	<10	OBM

**Matador Production Company
Charlie Sweeney Fed Com 223H
SHL 190' FSL & 2280' FEL Sec. 31, T. 23 S., R. 28 E.
BHL 240' FNL & 2310' FEL Sec. 31, T. 23 S., R. 28 E.
Eddy County, NM**

DRILL PLAN PAGE 4

6. CORES, TESTS, & LOGS

No core or drill stem test is planned.

A 2-person mud-logging program will be used from 10400' to TD.

No electric logs are planned. GR will be collected through the MWD tools from intermediate casing to TD. CBL with CCL will be run as far as gravity will let it fall to TOC.

7. DOWN HOLE CONDITIONS

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is ≈ 7150 psi. Expected bottom hole temperature is $\approx 170^{\circ}$ F.

In accordance with Onshore Order 6, Matador does not anticipate that there will be enough H₂S from the surface to the Bone Spring to meet the BLM's minimum requirements for the submission of an "H₂S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since Matador has an H₂S safety package on all wells, attached is an "H₂S Drilling Operations Plan". Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

8. OTHER INFORMATION

The anticipated spud date is upon approval. It is expected it will take ≈ 3 months to drill and complete the well.



Matador Resources

Eddy County, NM (NAD27 NME)

Charlie Sweeney Federal 31-23S-28E

223H

OH

Plan: Preliminary Plan 1

Standard Planning Report

05 January, 2016





Phoenix Technology Services
Planning Report



Database:	Compass 5000 GCR	Local Co-ordinate Reference:	Well 223H
Company:	Matador Resources	TVD Reference:	RKB @ 3138.50usft (Patterson 297)
Project:	Eddy County, NM (NAD27 NME)	MD Reference:	RKB @ 3138.50usft (Patterson 297)
Site:	Charlie Sweeney Federal 31-23S-28E	North Reference:	Grid
Well:	223H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Preliminary Plan 1		

Project	Eddy County, NM (NAD27 NME)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Charlie Sweeney Federal 31-23S-28E

Site Position:		Northing:	456,416.00 usft	Latitude:	32° 15' 16.67754 N
From:	Map	Easting:	564,425.00 usft	Longitude:	104° 7' 29.74586 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.11 °

Well 223H

Well Position	+N/-S	0.00 usft	Northing:	456,416.00 usft	Latitude:	32° 15' 16.67869 N
	+E/-W	-60.00 usft	Easting:	564,365.00 usft	Longitude:	104° 7' 30.44458 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,111.00 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	HDGM	1/20/2016	(°)	(°)	(nT)
			7.50	60.10	48,250

Design Preliminary Plan 1

Audit Notes:

Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
-----------------	---------------	-----------	----------------------	------

Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	0.48

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,266.42	4.00	192.49	1,266.20	-9.07	-2.01	1.50	1.50	0.00	192.49	
3,057.40	4.00	192.49	3,052.83	-130.93	-28.99	0.00	0.00	0.00	0.00	
3,323.82	0.00	0.00	3,319.03	-140.00	-31.00	1.50	-1.50	0.00	180.00	
9,718.82	0.00	0.00	9,714.03	-140.00	-31.00	0.00	0.00	0.00	0.00	
10,468.82	75.00	0.48	10,267.46	284.65	-27.44	10.00	10.00	0.00	0.48	
10,718.82	90.00	0.48	10,300.00	531.80	-25.37	6.00	6.00	0.00	0.00	
15,059.17	90.00	0.48	10,300.00	4,872.00	11.00	0.00	0.00	0.00	0.00	BHL Sweeney 223H



Phoenix Technology Services
Planning Report



Database: Compass 5000 GCR
Company: Matador Resources
Project: Eddy County, NM (NAD27 NME)
Site: Charlie Sweeney Federal 31-23S-28E
Well: 223H
Wellbore: OH
Design: Preliminary Plan 1

Local Co-ordinate Reference: Well 223H
TVD Reference: RKB @ 3138.50usft (Patterson 297)
MD Reference: RKB @ 3138.50usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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
13 3/8"									
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
Start Build 1.50°/100'									
1,100.00	1.50	192.49	1,099.99	-1.28	-0.28	-1.28	1.50	1.50	0.00
1,200.00	3.00	192.49	1,199.91	-5.11	-1.13	-5.12	1.50	1.50	0.00
1,266.42	4.00	192.49	1,266.20	-9.07	-2.01	-9.08	1.50	1.50	0.00
Hold 4° Inc									
1,300.00	4.00	192.49	1,299.70	-11.35	-2.51	-11.37	0.00	0.00	0.00
1,400.00	4.00	192.49	1,399.46	-18.16	-4.02	-18.19	0.00	0.00	0.00
1,500.00	4.00	192.49	1,499.22	-24.96	-5.53	-25.01	0.00	0.00	0.00
1,600.00	4.00	192.49	1,598.97	-31.77	-7.03	-31.82	0.00	0.00	0.00
1,700.00	4.00	192.49	1,698.73	-38.57	-8.54	-38.64	0.00	0.00	0.00
1,800.00	4.00	192.49	1,798.49	-45.37	-10.05	-45.46	0.00	0.00	0.00
1,900.00	4.00	192.49	1,898.24	-52.18	-11.55	-52.27	0.00	0.00	0.00
2,000.00	4.00	192.49	1,998.00	-58.98	-13.06	-59.09	0.00	0.00	0.00
2,100.00	4.00	192.49	2,097.76	-65.79	-14.57	-65.91	0.00	0.00	0.00
2,200.00	4.00	192.49	2,197.51	-72.59	-16.07	-72.72	0.00	0.00	0.00
2,300.00	4.00	192.49	2,297.27	-79.40	-17.58	-79.54	0.00	0.00	0.00
2,400.00	4.00	192.49	2,397.03	-86.20	-19.09	-86.36	0.00	0.00	0.00
2,500.00	4.00	192.49	2,496.78	-93.00	-20.59	-93.17	0.00	0.00	0.00
2,600.00	4.00	192.49	2,596.54	-99.81	-22.10	-99.99	0.00	0.00	0.00
9 5/8"									
2,700.00	4.00	192.49	2,696.30	-106.61	-23.61	-106.81	0.00	0.00	0.00
2,800.00	4.00	192.49	2,796.06	-113.42	-25.11	-113.62	0.00	0.00	0.00
2,900.00	4.00	192.49	2,895.81	-120.22	-26.62	-120.44	0.00	0.00	0.00
3,000.00	4.00	192.49	2,995.57	-127.03	-28.13	-127.26	0.00	0.00	0.00
3,057.40	4.00	192.49	3,052.83	-130.93	-28.99	-131.17	0.00	0.00	0.00
Start Drop 1.50°/100'									
3,100.00	3.36	192.49	3,095.34	-133.60	-29.58	-133.84	1.50	-1.50	0.00
3,200.00	1.86	192.49	3,195.24	-138.04	-30.57	-138.29	1.50	-1.50	0.00
3,300.00	0.36	192.49	3,295.21	-139.93	-30.98	-140.18	1.50	-1.50	0.00
3,323.82	0.00	0.00	3,319.03	-140.00	-31.00	-140.25	1.50	-1.50	0.00
Hold Vertical									
3,400.00	0.00	0.00	3,395.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
3,500.00	0.00	0.00	3,495.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
3,600.00	0.00	0.00	3,595.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
3,700.00	0.00	0.00	3,695.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
3,800.00	0.00	0.00	3,795.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
3,900.00	0.00	0.00	3,895.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
4,000.00	0.00	0.00	3,995.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
4,100.00	0.00	0.00	4,095.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
4,200.00	0.00	0.00	4,195.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
4,300.00	0.00	0.00	4,295.21	-140.00	-31.00	-140.25	0.00	0.00	0.00



Phoenix Technology Services

Planning Report



Database: Compass 5000 GCR
Company: Matador Resources
Project: Eddy County, NM (NAD27 NME)
Site: Charlie Sweeney Federal 31-23S-28E
Well: 223H
Wellbore: OH
Design: Preliminary Plan 1

Local Co-ordinate Reference: Well 223H
TVD Reference: RKB @ 3138.50usft (Patterson 297)
MD Reference: RKB @ 3138.50usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
4,400.00	0.00	0.00	4,395.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
4,500.00	0.00	0.00	4,495.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
4,600.00	0.00	0.00	4,595.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
4,700.00	0.00	0.00	4,695.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
4,800.00	0.00	0.00	4,795.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
4,900.00	0.00	0.00	4,895.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
5,000.00	0.00	0.00	4,995.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
5,100.00	0.00	0.00	5,095.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
5,200.00	0.00	0.00	5,195.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
5,300.00	0.00	0.00	5,295.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
5,400.00	0.00	0.00	5,395.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
5,500.00	0.00	0.00	5,495.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
5,600.00	0.00	0.00	5,595.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
5,700.00	0.00	0.00	5,695.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
5,800.00	0.00	0.00	5,795.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
5,900.00	0.00	0.00	5,895.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
6,000.00	0.00	0.00	5,995.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
6,100.00	0.00	0.00	6,095.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
6,200.00	0.00	0.00	6,195.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
6,300.00	0.00	0.00	6,295.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
6,400.00	0.00	0.00	6,395.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
6,500.00	0.00	0.00	6,495.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
6,600.00	0.00	0.00	6,595.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
6,700.00	0.00	0.00	6,695.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
6,800.00	0.00	0.00	6,795.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
6,900.00	0.00	0.00	6,895.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
7,000.00	0.00	0.00	6,995.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
7,100.00	0.00	0.00	7,095.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
7,200.00	0.00	0.00	7,195.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
7,300.00	0.00	0.00	7,295.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
7,400.00	0.00	0.00	7,395.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
7,500.00	0.00	0.00	7,495.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
7,600.00	0.00	0.00	7,595.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
7,700.00	0.00	0.00	7,695.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
7,800.00	0.00	0.00	7,795.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
7,900.00	0.00	0.00	7,895.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
8,000.00	0.00	0.00	7,995.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
8,100.00	0.00	0.00	8,095.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
8,200.00	0.00	0.00	8,195.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
8,300.00	0.00	0.00	8,295.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
8,400.00	0.00	0.00	8,395.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
8,500.00	0.00	0.00	8,495.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
8,600.00	0.00	0.00	8,595.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
8,700.00	0.00	0.00	8,695.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
8,800.00	0.00	0.00	8,795.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
8,900.00	0.00	0.00	8,895.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
9,000.00	0.00	0.00	8,995.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
9,100.00	0.00	0.00	9,095.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
9,200.00	0.00	0.00	9,195.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
9,300.00	0.00	0.00	9,295.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
9,400.00	0.00	0.00	9,395.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
9,500.00	0.00	0.00	9,495.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
9,600.00	0.00	0.00	9,595.21	-140.00	-31.00	-140.25	0.00	0.00	0.00
9,700.00	0.00	0.00	9,695.21	-140.00	-31.00	-140.25	0.00	0.00	0.00



Phoenix Technology Services

Planning Report



Database: Compass 5000 GCR
Company: Matador Resources
Project: Eddy County, NM (NAD27 NME)
Site: Charlie Sweeney Federal 31-23S-28E
Well: 223H
Wellbore: OH
Design: Preliminary Plan 1

Local Co-ordinate Reference: Well 223H
TVD Reference: RKB @ 3138.50usft (Patterson 297)
MD Reference: RKB @ 3138.50usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
9,718.82	0.00	0.00	9,714.03	-140.00	-31.00	-140.25	0.00	0.00	0.00
KOP: Start Build 10°/100' to 75° Inc									
9,750.00	3.12	0.48	9,745.20	-139.15	-30.99	-139.41	10.00	10.00	0.00
9,800.00	8.12	0.48	9,794.94	-134.26	-30.95	-134.51	10.00	10.00	0.00
9,850.00	13.12	0.48	9,844.07	-125.05	-30.87	-125.30	10.00	10.00	0.00
9,900.00	18.12	0.48	9,892.21	-111.59	-30.76	-111.85	10.00	10.00	0.00
9,950.00	23.12	0.48	9,938.99	-93.99	-30.61	-94.24	10.00	10.00	0.00
10,000.00	28.12	0.48	9,984.06	-72.38	-30.43	-72.63	10.00	10.00	0.00
10,050.00	33.12	0.48	10,027.08	-46.92	-30.22	-47.17	10.00	10.00	0.00
10,100.00	38.12	0.48	10,067.71	-17.81	-29.98	-18.06	10.00	10.00	0.00
10,150.00	43.12	0.48	10,105.65	14.73	-29.70	14.48	10.00	10.00	0.00
10,200.00	48.12	0.48	10,140.61	50.45	-29.40	50.20	10.00	10.00	0.00
10,250.00	53.12	0.48	10,172.33	89.08	-29.08	88.83	10.00	10.00	0.00
10,300.00	58.12	0.48	10,200.55	130.33	-28.74	130.09	10.00	10.00	0.00
10,350.00	63.12	0.48	10,225.08	173.88	-28.37	173.64	10.00	10.00	0.00
10,400.00	68.12	0.48	10,245.71	219.41	-27.99	219.17	10.00	10.00	0.00
10,450.00	73.12	0.48	10,262.30	266.56	-27.59	266.32	10.00	10.00	0.00
10,468.82	75.00	0.48	10,267.47	284.65	-27.44	284.41	10.00	10.00	0.00
Start Build 6°/100' - 7"									
10,500.00	76.87	0.48	10,275.04	314.90	-27.19	314.66	6.00	6.00	0.00
10,550.00	79.87	0.48	10,285.12	363.86	-26.78	363.63	6.00	6.00	0.00
10,600.00	82.87	0.48	10,292.62	413.29	-26.36	413.05	6.00	6.00	0.00
10,650.00	85.87	0.48	10,297.52	463.04	-25.95	462.81	6.00	6.00	0.00
10,700.00	88.87	0.48	10,299.82	512.98	-25.53	512.75	6.00	6.00	0.00
10,718.82	90.00	0.48	10,300.00	531.80	-25.37	531.57	6.00	6.00	0.00
LP: 90° Inc at 0.48° Azm									
10,800.00	90.00	0.48	10,300.00	612.98	-24.69	612.75	0.00	0.00	0.00
10,900.00	90.00	0.48	10,300.00	712.97	-23.85	712.75	0.00	0.00	0.00
11,000.00	90.00	0.48	10,300.00	812.97	-23.02	812.75	0.00	0.00	0.00
11,100.00	90.00	0.48	10,300.00	912.97	-22.18	912.75	0.00	0.00	0.00
11,200.00	90.00	0.48	10,300.00	1,012.96	-21.34	1,012.75	0.00	0.00	0.00
11,300.00	90.00	0.48	10,300.00	1,112.96	-20.50	1,112.75	0.00	0.00	0.00
11,400.00	90.00	0.48	10,300.00	1,212.96	-19.66	1,212.75	0.00	0.00	0.00
11,500.00	90.00	0.48	10,300.00	1,312.95	-18.83	1,312.75	0.00	0.00	0.00
11,600.00	90.00	0.48	10,300.00	1,412.95	-17.99	1,412.75	0.00	0.00	0.00
11,700.00	90.00	0.48	10,300.00	1,512.94	-17.15	1,512.75	0.00	0.00	0.00
11,800.00	90.00	0.48	10,300.00	1,612.94	-16.31	1,612.75	0.00	0.00	0.00
11,900.00	90.00	0.48	10,300.00	1,712.94	-15.47	1,712.75	0.00	0.00	0.00
12,000.00	90.00	0.48	10,300.00	1,812.93	-14.64	1,812.75	0.00	0.00	0.00
12,100.00	90.00	0.48	10,300.00	1,912.93	-13.80	1,912.75	0.00	0.00	0.00
12,200.00	90.00	0.48	10,300.00	2,012.93	-12.96	2,012.75	0.00	0.00	0.00
12,300.00	90.00	0.48	10,300.00	2,112.92	-12.12	2,112.75	0.00	0.00	0.00
12,400.00	90.00	0.48	10,300.00	2,212.92	-11.28	2,212.75	0.00	0.00	0.00
12,500.00	90.00	0.48	10,300.00	2,312.92	-10.45	2,312.75	0.00	0.00	0.00
12,600.00	90.00	0.48	10,300.00	2,412.91	-9.61	2,412.75	0.00	0.00	0.00
12,700.00	90.00	0.48	10,300.00	2,512.91	-8.77	2,512.75	0.00	0.00	0.00
12,800.00	90.00	0.48	10,300.00	2,612.91	-7.93	2,612.75	0.00	0.00	0.00
12,900.00	90.00	0.48	10,300.00	2,712.90	-7.09	2,712.75	0.00	0.00	0.00
13,000.00	90.00	0.48	10,300.00	2,812.90	-6.26	2,812.75	0.00	0.00	0.00
13,100.00	90.00	0.48	10,300.00	2,912.90	-5.42	2,912.75	0.00	0.00	0.00
13,200.00	90.00	0.48	10,300.00	3,012.89	-4.58	3,012.75	0.00	0.00	0.00
13,300.00	90.00	0.48	10,300.00	3,112.89	-3.74	3,112.75	0.00	0.00	0.00
13,400.00	90.00	0.48	10,300.00	3,212.89	-2.90	3,212.75	0.00	0.00	0.00



Phoenix Technology Services

Planning Report



Database: Compass 5000 GCR
Company: Matador Resources
Project: Eddy County, NM (NAD27 NME)
Site: Charlie Sweeney Federal 31-23S-28E
Well: 223H
Wellbore: OH
Design: Preliminary Plan 1

Local Co-ordinate Reference: Well 223H
TVD Reference: RKB @ 3138.50usft (Patterson 297)
MD Reference: RKB @ 3138.50usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
13,500.00	90.00	0.48	10,300.00	3,312.88	-2.07	3,312.75	0.00	0.00	0.00
13,600.00	90.00	0.48	10,300.00	3,412.88	-1.23	3,412.75	0.00	0.00	0.00
13,700.00	90.00	0.48	10,300.00	3,512.87	-0.39	3,512.75	0.00	0.00	0.00
13,800.00	90.00	0.48	10,300.00	3,612.87	0.45	3,612.75	0.00	0.00	0.00
13,900.00	90.00	0.48	10,300.00	3,712.87	1.29	3,712.75	0.00	0.00	0.00
14,000.00	90.00	0.48	10,300.00	3,812.86	2.12	3,812.75	0.00	0.00	0.00
14,100.00	90.00	0.48	10,300.00	3,912.86	2.96	3,912.75	0.00	0.00	0.00
14,200.00	90.00	0.48	10,300.00	4,012.86	3.80	4,012.75	0.00	0.00	0.00
14,300.00	90.00	0.48	10,300.00	4,112.85	4.64	4,112.75	0.00	0.00	0.00
14,400.00	90.00	0.48	10,300.00	4,212.85	5.48	4,212.75	0.00	0.00	0.00
14,500.00	90.00	0.48	10,300.00	4,312.85	6.31	4,312.75	0.00	0.00	0.00
14,600.00	90.00	0.48	10,300.00	4,412.84	7.15	4,412.75	0.00	0.00	0.00
14,700.00	90.00	0.48	10,300.00	4,512.84	7.99	4,512.75	0.00	0.00	0.00
14,800.00	90.00	0.48	10,300.00	4,612.84	8.83	4,612.75	0.00	0.00	0.00
14,900.00	90.00	0.48	10,300.00	4,712.83	9.67	4,712.75	0.00	0.00	0.00
15,000.00	90.00	0.48	10,300.00	4,812.83	10.50	4,812.75	0.00	0.00	0.00
15,059.17	90.00	0.48	10,300.00	4,872.00	11.00	4,871.92	0.00	0.00	0.00

TD at 15059.17

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BHL Sweeney 223H - hit/miss target - Shape - Point	0.00	0.00	10,300.00	4,872.00	11.00	461,288.00	564,376.00	32° 16' 4.89305 N	104° 7' 30.20639 W
LPP Sweeney 223H - plan misses target center by 0.75usft at 14969.18usft MD (10300.00 TVD, 4782.01 N, 10.25 E) - Point	0.00	0.00	10,300.00	4,782.00	11.00	461,198.00	564,376.00	32° 16' 4.00239 N	104° 7' 30.20842 W
FPP Sweeney 223H - plan misses target center by 82.23usft at 10350.06usft MD (10225.10 TVD, 173.94 N, -28.37 E) - Point	0.00	0.00	10,300.00	140.00	-29.00	456,556.00	564,336.00	32° 15' 18.06473 N	104° 7' 30.77913 W

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
600.00	600.00	13 3/8"	13-3/8	17-1/2
2,600.00	2,596.54	9 5/8"	9-5/8	12-1/4
10,468.82	10,267.47	7"	7	7-1/2



Phoenix Technology Services
Planning Report



Database: Compass 5000 GCR
Company: Matador Resources
Project: Eddy County, NM (NAD27 NME)
Site: Charlie Sweeney Federal 31-23S-28E
Well: 223H
Wellbore: OH
Design: Preliminary Plan 1

Local Co-ordinate Reference: Well 223H
TVD Reference: RKB @ 3138.50usft (Patterson 297)
MD Reference: RKB @ 3138.50usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Plan Annotations

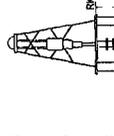
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,000.00	1,000.00	0.00	0.00	Start Build 1.50°/100'
1,266.42	1,266.20	-9.07	-2.01	Hold 4° Inc
3,057.40	3,052.83	-130.93	-28.99	Start Drop 1.50°/100'
3,323.82	3,319.03	-140.00	-31.00	Hold Vertical
9,718.82	9,714.03	-140.00	-31.00	KOP: Start Build 10°/100' to 75° Inc
10,468.82	10,267.46	284.65	-27.44	Start Build 6°/100'
10,718.82	10,300.00	531.80	-25.37	LP: 90° Inc at 0.48° Azm
15,059.17	10,300.00	4,872.00	11.00	TD at 15059.17



Site: Charlie Sweeney Federal 31-23S-28E
 Well: 223H
 Wellbore: OH
 Design: Preliminary Plan 1
 Rig: Patterson 297



True North: 0.11°
 Magnetic North: 3.31°
 Magnetic Field
 Strength: 48256.4eMT
 Dip Angle: 60.10°
 Date: 1/28/2016
 Model: HD3H



RIG @ 3138.5usft (Patterson 297)
 Ground Level: 3111.00

WELL DETAILS

Coord/Land	East	North	Labels	Longitude	Latitude
3111.00	594385.00	3117.15	16.67989 N	104° 7' 30.44833 W	16.67989 N

SECTION DETAILS

Sec	MD	Inc	Adj	TVD	+N-S	-E-W	Dip	T-ace	V-act	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 1.507100'
2	1698.20	0.00	0.00	1698.20	-0.07	1.50	132.49	-5.08			Hold 4" Inc
3	1295.42	0.00	0.00	1295.42	-0.07	1.50	132.49	-5.08			Start Drop 1.507100'
4	3052.40	0.00	0.00	3052.40	-0.00	0.00	0.00	-131.17			Hold 4" Inc
5	3325.82	0.00	0.00	3325.82	-0.00	0.00	0.00	-140.25			KOP Start Build 107100' to 75' Inc
6	1648.82	75.00	0.00	1648.82	-0.00	0.00	0.00	-140.25			LP 30" Inc at 0.48° Azm
7	1648.82	75.00	0.00	1648.82	-0.00	0.00	0.00	-140.25			TD at 16059.17
8	1071.82	90.00	0.00	1071.82	-0.00	0.00	0.00	-131.57			
9	15953.17	90.00	0.00	15953.17	-0.00	0.00	0.00	-131.57			BHL Sweeney 223H

DESIGN TARGET DETAILS

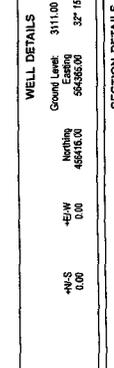
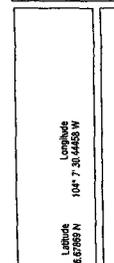
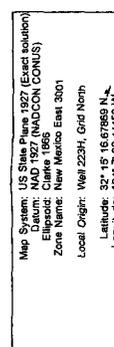
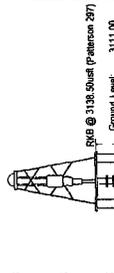
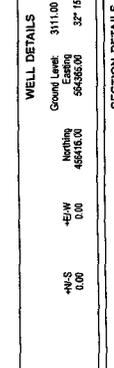
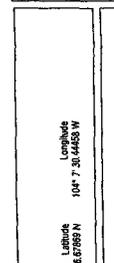
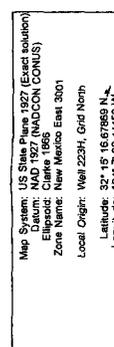
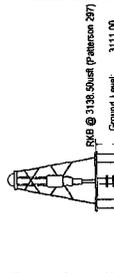
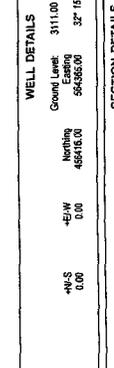
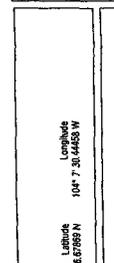
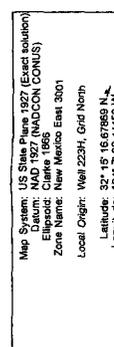
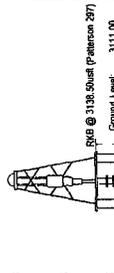
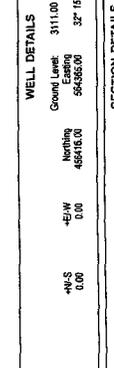
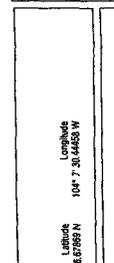
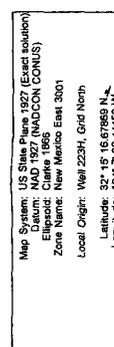
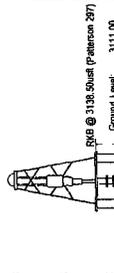
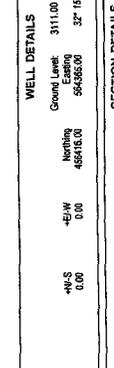
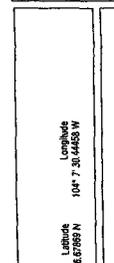
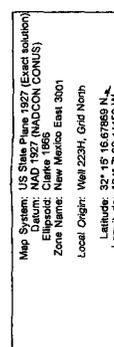
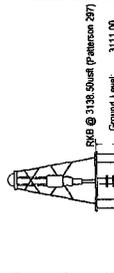
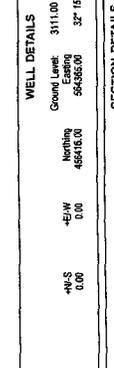
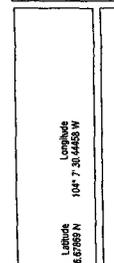
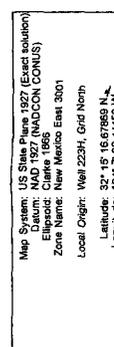
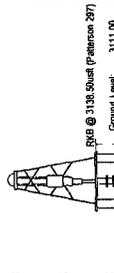
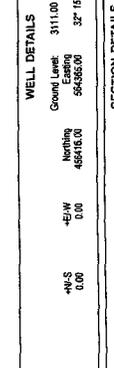
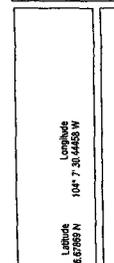
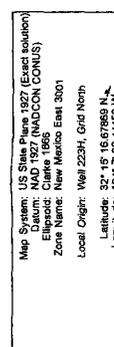
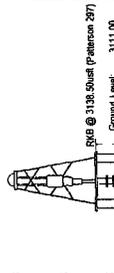
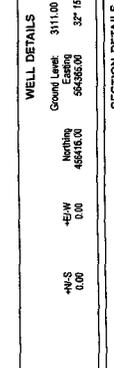
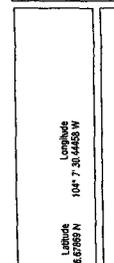
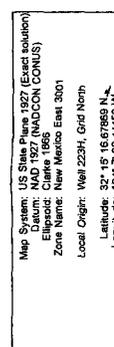
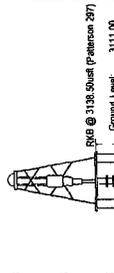
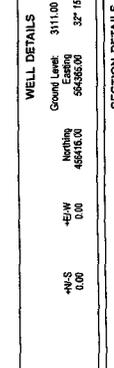
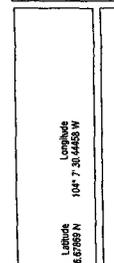
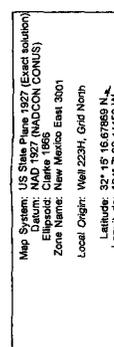
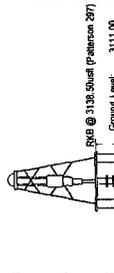
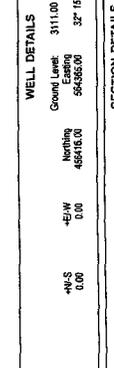
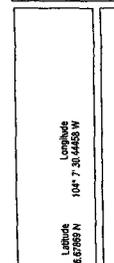
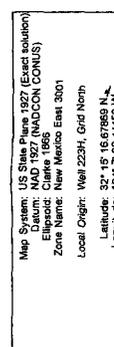
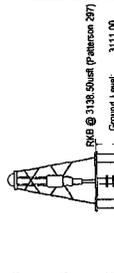
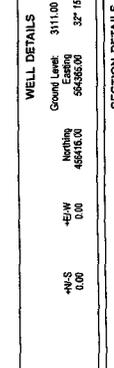
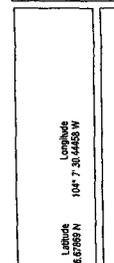
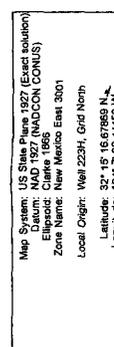
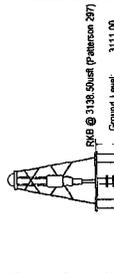
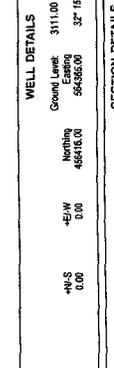
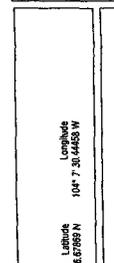
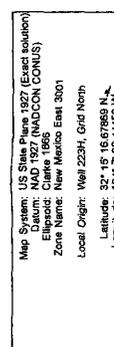
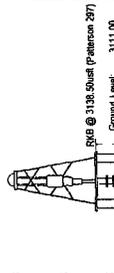
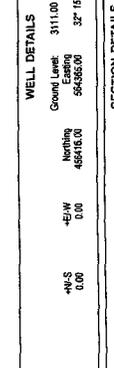
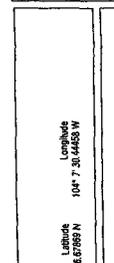
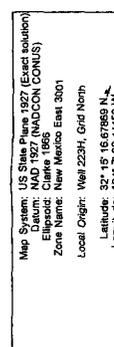
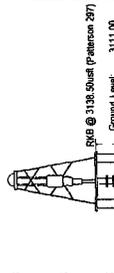
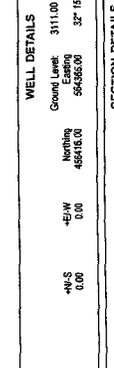
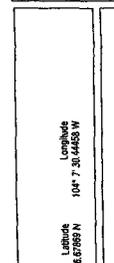
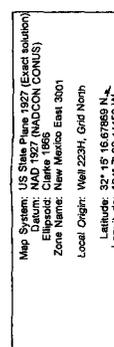
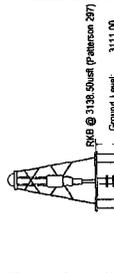
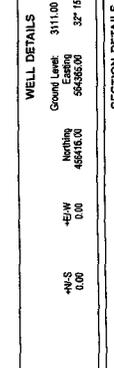
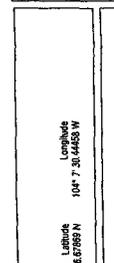
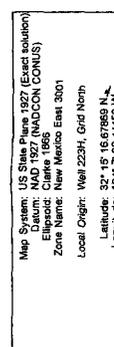
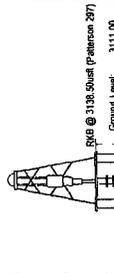
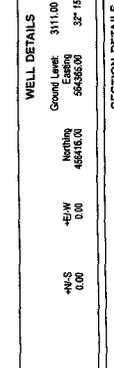
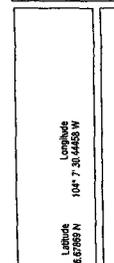
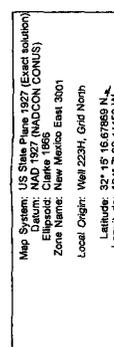
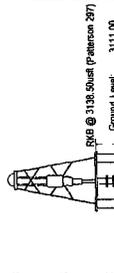
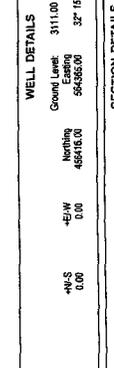
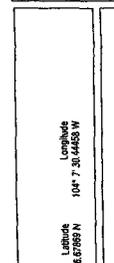
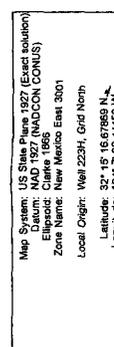
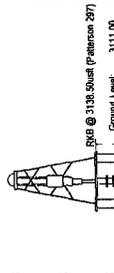
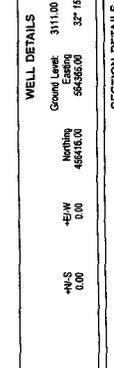
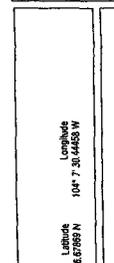
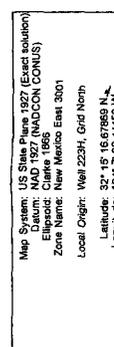
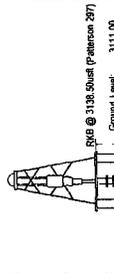
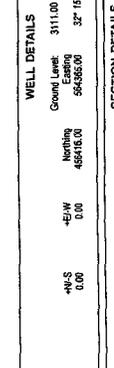
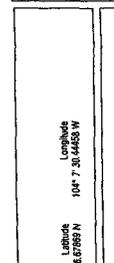
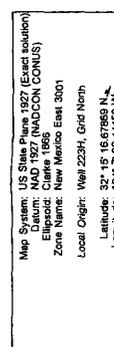
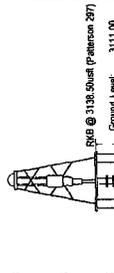
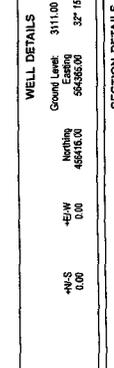
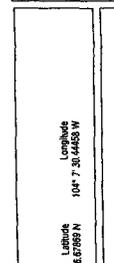
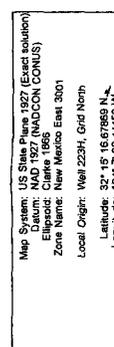
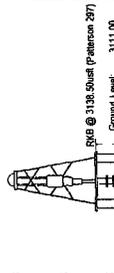
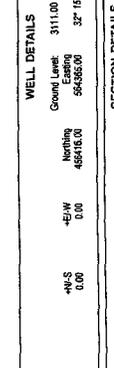
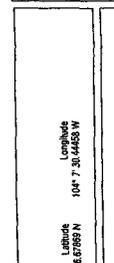
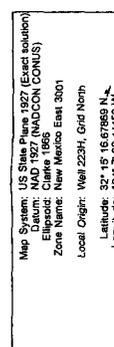
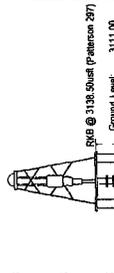
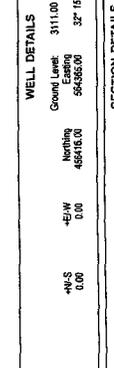
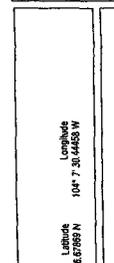
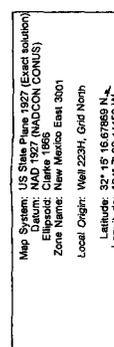
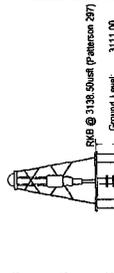
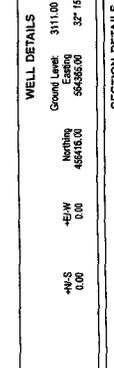
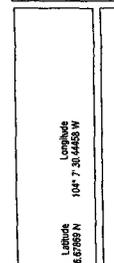
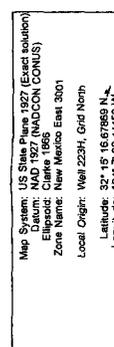
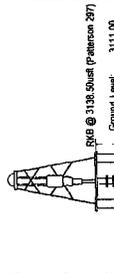
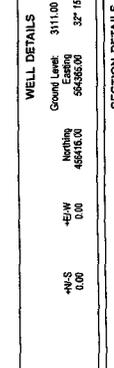
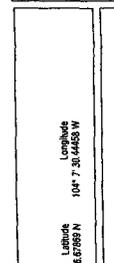
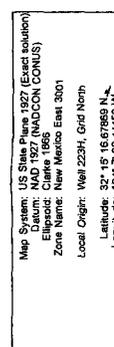
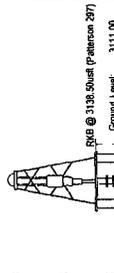
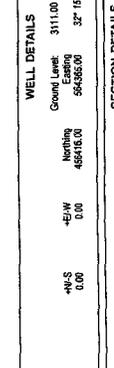
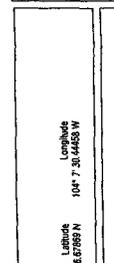
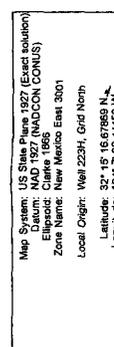
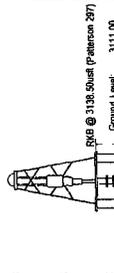
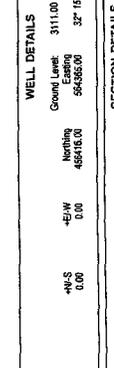
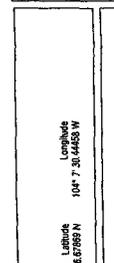
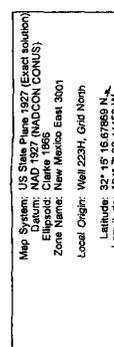
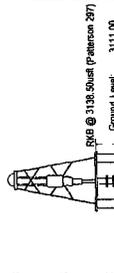
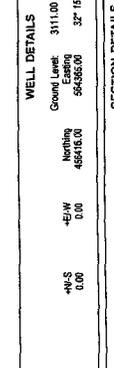
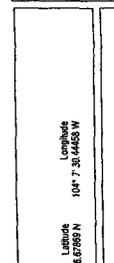
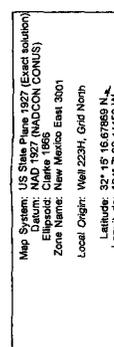
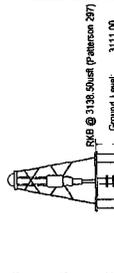
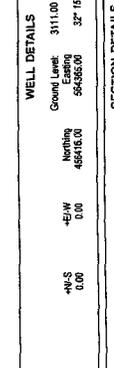
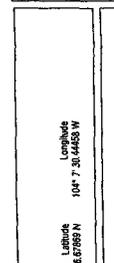
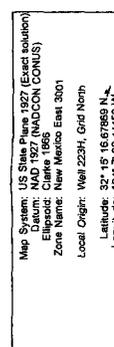
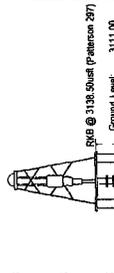
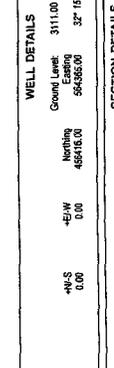
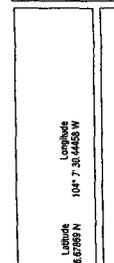
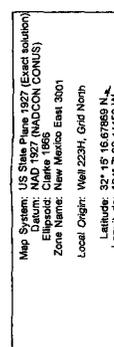
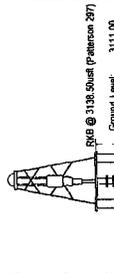
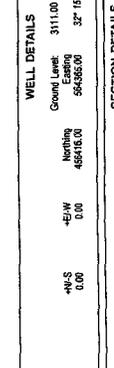
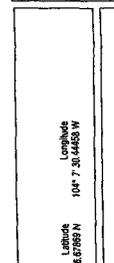
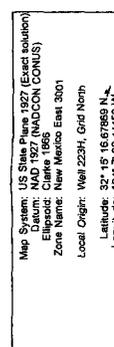
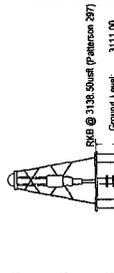
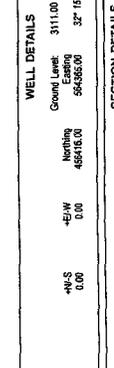
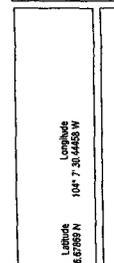
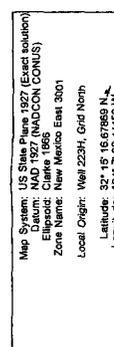
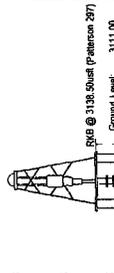
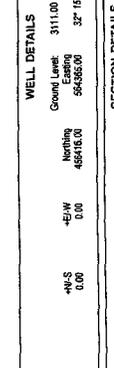
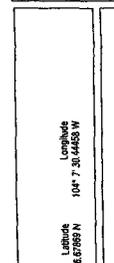
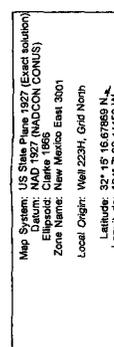
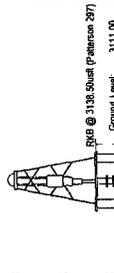
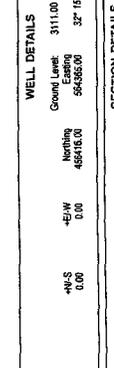
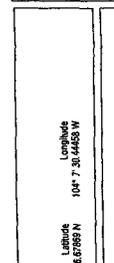
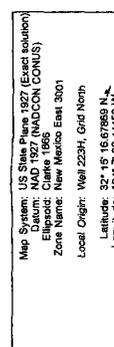
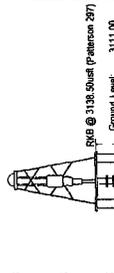
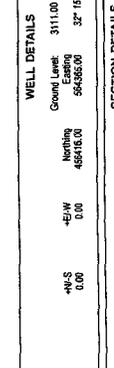
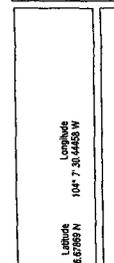
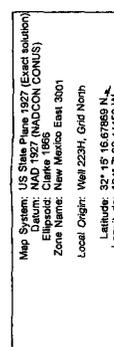
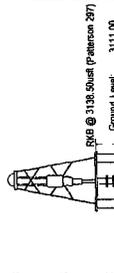
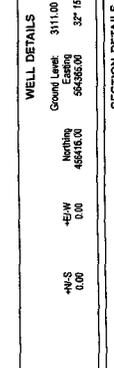
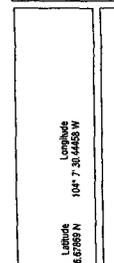
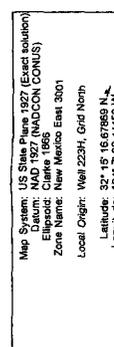
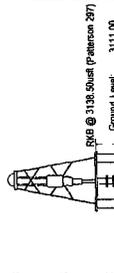
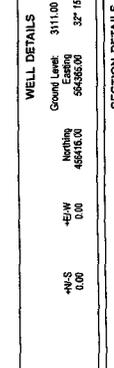
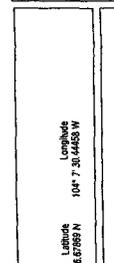
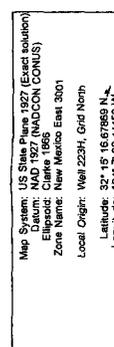
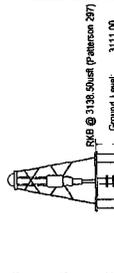
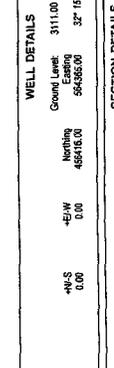
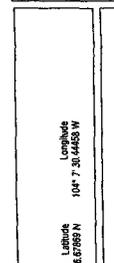
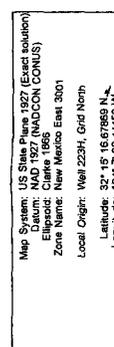
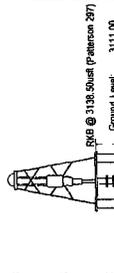
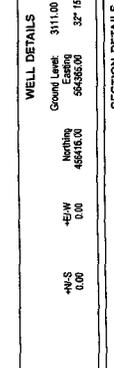
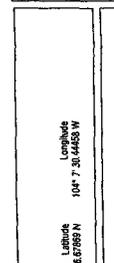
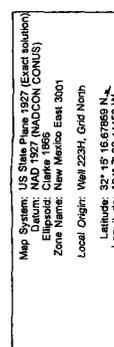
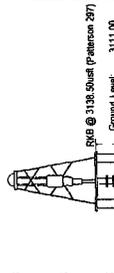
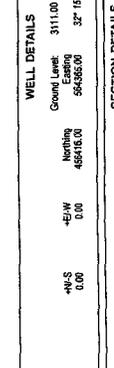
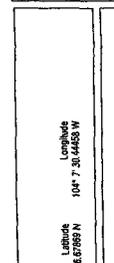
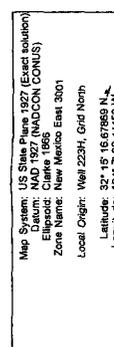
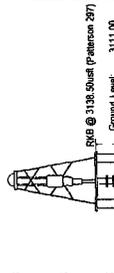
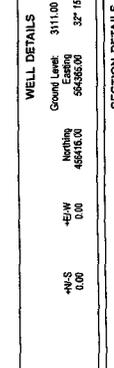
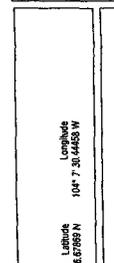
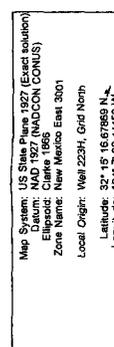
Name	TVD	+N-S	-E-W	Northing	Easting	Latitude	Longitude
BHL Sweeney 223H	10300.00	4872.00	11.00	461398.00	594378.00	32° 16' 4.6935 N	104° 7' 30.7013 W
LPP Sweeney 223H	10300.00	4872.00	11.00	461398.00	594378.00	32° 16' 4.6935 N	104° 7' 30.7013 W
LPP Sweeney 223H	10300.00	4872.00	11.00	461398.00	594378.00	32° 16' 4.6935 N	104° 7' 30.7013 W

Map System: US State Plane, 1927 (Exact solution)
 NAD 1927 (FONC CONUS)
 Ellipsoid: Clarke 1866
 Zone Name: New Mexico East 3001
 Local Origin: Well 223H, Grid North
 Latitude: 32° 15' 16.67989 N
 Longitude: 104° 7' 30.44833 W
 GRS East: 594385.00
 GRS North: 3117.15
 Scale Factor: 1.000
 Geometric Nodal HDGM
 Magnetic Declination: 3.31°
 Dip Angle from Horizontal: 60.10°
 Magnetic Field Strength: 48256

To convert a Magnetic Direction to a True Direction, Add 7.50° East
 To convert a True Direction to a Grid Direction, Subtract 0.11°

LEGEND

- 227H, OH, Preliminary Plan 1 VO
- 207H, OH, Preliminary Plan 1 VO
- 123H, OH, Preliminary Plan 1 VO
- 203H, OH, Preliminary Plan 1 VO
- Preliminary Plan 1





Matador Resources

**Eddy County, NM (NAD27 NME)
Charlie Sweeney Federal 31-23S-28E
223H**

**OH
Preliminary Plan 1**

Anticollision Report

05 January, 2016





Phoenix Technology Services
Anticollision Report



Company: Matador Resources
Project: Eddy County, NM (NAD27 NME)
Reference Site: Charlie Sweeney Federal 31-23S-28E
Site Error: 0.00 usft
Reference Well: 223H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Preliminary Plan 1

Local Co-ordinate Reference: Well 223H
TVD Reference: RKB @ 3138.50usft (Patterson 297)
MD Reference: RKB @ 3138.50usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: Compass 5000 GCR
Offset TVD Reference: Reference Datum

Reference	Preliminary Plan 1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 100.00usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 5,000.00 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	1/5/2016		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	15,059.17	Preliminary Plan 1 (OH)	PHX+MWD+HDGM	PHX+OWSG MWD + HDGM

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance		Separation Factor	Warning
			Between Centres (usft)	Between Ellipses (usft)		
Offset Well - Wellbore - Design						
Charlie Sweeney Federal 31-23S-28E						
123H - OH - Preliminary Plan 1	1,000.00	997.00	60.00	53.30	8.953	CC, ES
123H - OH - Preliminary Plan 1	7,500.00	7,500.00	330.67	278.35	6.320	SF
203H - OH - Preliminary Plan 1	1,000.00	997.00	30.00	23.30	4.477	CC, ES
203H - OH - Preliminary Plan 1	9,101.22	9,100.34	129.57	66.00	2.038	SF
207H - OH - Preliminary Plan 1	1,000.00	997.00	90.00	83.30	13.430	CC, ES
207H - OH - Preliminary Plan 1	9,100.00	9,094.01	524.07	460.40	8.230	SF
227H - OH - Preliminary Plan 1	1,000.00	996.00	120.00	113.30	17.916	CC, ES
227H - OH - Preliminary Plan 1	15,059.17	15,084.11	660.01	500.92	4.149	SF

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-PHX+MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	3.00	0.00	0.00	90.00	0.00	60.00	60.07					
100.00	100.00	97.00	100.00	0.13	0.13	90.00	0.00	60.00	60.00	59.74	0.26	234.381		
200.00	200.00	197.00	200.00	0.49	0.48	90.00	0.00	60.00	60.00	59.03	0.97	62.107		
300.00	300.00	297.00	300.00	0.85	0.84	90.00	0.00	60.00	60.00	58.32	1.68	35.650		
400.00	400.00	397.00	400.00	1.21	1.19	90.00	0.00	60.00	60.00	57.60	2.40	25.000		
500.00	500.00	497.00	500.00	1.56	1.55	90.00	0.00	60.00	60.00	56.88	3.12	19.250		
600.00	600.00	597.00	600.00	1.92	1.91	90.00	0.00	60.00	60.00	56.17	3.83	15.650		
700.00	700.00	697.00	700.00	2.28	2.27	90.00	0.00	60.00	60.00	55.45	4.55	13.185		
800.00	800.00	797.00	800.00	2.64	2.63	90.00	0.00	60.00	60.00	54.73	5.27	11.390		
900.00	900.00	897.00	900.00	3.00	2.99	90.00	0.00	60.00	60.00	54.02	5.98	10.026		
1,000.00	1,000.00	997.00	1,000.00	3.36	3.35	90.00	0.00	60.00	60.00	53.30	6.70	8.953	CC, ES	
1,100.00	1,099.99	1,095.68	1,098.67	3.70	3.69	-103.08	-0.60	61.04	61.34	53.95	7.38	8.307		
1,200.00	1,199.91	1,194.18	1,197.10	4.03	4.02	-104.64	-2.48	64.26	65.51	57.47	8.04	8.146		
1,266.42	1,266.20	1,259.47	1,262.27	4.25	4.24	-106.04	-4.43	67.61	69.88	61.40	8.48	8.237		
1,300.00	1,299.70	1,292.83	1,295.55	4.36	4.36	-106.79	-5.60	69.62	72.48	63.77	8.71	8.321		
1,400.00	1,399.46	1,392.49	1,394.97	4.70	4.70	-108.72	-9.10	75.62	80.28	70.89	9.39	8.550		
1,500.00	1,499.22	1,492.15	1,494.38	5.04	5.05	-110.31	-12.60	81.63	88.16	78.09	10.08	8.748		
1,600.00	1,598.97	1,591.81	1,593.80	5.39	5.40	-111.63	-16.10	87.64	96.10	85.33	10.77	8.921		
1,700.00	1,698.73	1,691.47	1,693.22	5.74	5.75	-112.76	-19.60	93.65	104.08	92.61	11.47	9.073		
1,800.00	1,798.49	1,791.14	1,792.64	6.09	6.11	-113.72	-23.10	99.65	112.09	99.92	12.17	9.207		

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



Phoenix Technology Services

Anticollision Report



Company: Matador Resources
Project: Eddy County, NM (NAD27 NME)
Reference Site: Charlie Sweeney Federal 31-23S-28E
Site Error: 0.00 usft
Reference Well: 223H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Preliminary Plan 1

Local Co-ordinate Reference: Well 223H
TVD Reference: RKB @ 3138.50usft (Patterson 297)
MD Reference: RKB @ 3138.50usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: Compass 5000 GCR
Offset TVD Reference: Reference Datum

Offset Design Charlie Sweeney Federal 31-23S-28E - 123H - OH - Preliminary Plan 1													Offset Site Error:	0.00 usft
Survey Program: 0-PHX+MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
1,900.00	1,898.24	1,890.80	1,892.06	6.45	6.47	-114.56	-26.60	105.66	120.13	107.25	12.88	9.326		
2,000.00	1,998.00	1,990.46	1,991.48	6.81	6.83	-115.29	-30.10	111.67	128.20	114.60	13.59	9.432		
2,100.00	2,097.76	2,090.12	2,090.90	7.17	7.19	-115.93	-33.59	117.68	136.28	121.97	14.31	9.526		
2,200.00	2,197.51	2,189.78	2,190.32	7.53	7.55	-116.50	-37.09	123.68	144.37	129.35	15.02	9.612		
2,300.00	2,297.27	2,289.45	2,289.74	7.89	7.91	-117.01	-40.59	129.69	152.48	136.75	15.74	9.689		
2,400.00	2,397.03	2,389.11	2,389.16	8.25	8.27	-117.47	-44.09	135.70	160.60	144.15	16.46	9.759		
2,500.00	2,496.78	2,488.77	2,488.58	8.61	8.64	-117.89	-47.59	141.70	168.73	151.56	17.18	9.823		
2,600.00	2,596.54	2,588.43	2,588.00	8.98	9.00	-118.26	-51.09	147.71	176.87	158.97	17.90	9.882		
2,700.00	2,696.30	2,688.09	2,687.41	9.34	9.36	-118.61	-54.59	153.72	185.01	166.39	18.62	9.936		
2,800.00	2,796.06	2,786.49	2,785.56	9.71	9.72	-118.88	-58.13	159.80	193.29	173.85	19.34	9.994		
2,900.00	2,895.81	2,882.60	2,881.26	10.08	10.08	-118.72	-62.57	167.43	202.95	182.89	20.06	10.119		
3,000.00	2,995.57	2,978.32	2,976.32	10.44	10.44	-118.11	-68.20	177.08	214.34	193.57	20.77	10.318		
3,057.40	3,052.83	3,033.70	3,031.19	10.65	10.66	-117.58	-71.98	183.58	221.65	200.46	21.19	10.460		
3,100.00	3,095.34	3,075.92	3,073.00	10.81	10.82	-117.20	-74.94	188.65	227.09	205.58	21.51	10.559		
3,200.00	3,195.24	3,175.04	3,171.15	11.17	11.20	-115.96	-81.88	200.57	239.08	216.83	22.24	10.749		
3,300.00	3,295.21	3,274.12	3,269.28	11.53	11.59	-114.31	-88.81	212.48	250.12	227.15	22.97	10.889		
3,323.82	3,319.03	3,297.71	3,292.64	11.61	11.68	78.63	-90.46	215.31	252.63	229.49	23.14	10.918		
3,400.00	3,395.21	3,373.16	3,367.35	11.86	11.97	80.17	-95.74	224.38	260.88	237.01	23.67	11.012		
3,500.00	3,495.21	3,472.18	3,465.41	12.20	12.36	82.05	-102.68	236.28	271.52	247.14	24.37	11.140		
3,600.00	3,595.21	3,571.21	3,563.48	12.53	12.75	83.79	-109.61	248.18	282.62	257.55	25.08	11.271		
3,700.00	3,695.21	3,670.24	3,661.54	12.87	13.14	85.39	-116.54	260.09	293.97	268.19	25.78	11.404		
3,800.00	3,795.21	3,772.52	3,762.87	13.21	13.54	86.89	-123.55	272.12	305.28	278.79	26.49	11.524		
3,900.00	3,895.21	3,879.18	3,868.85	13.55	13.95	88.10	-129.59	282.50	314.78	287.56	27.22	11.565		
4,000.00	3,995.21	3,986.44	3,975.72	13.89	14.35	88.96	-134.17	290.35	322.00	294.05	27.94	11.523		
4,100.00	4,095.21	4,094.13	4,083.23	14.23	14.75	89.52	-137.24	295.63	326.86	298.19	28.67	11.400		
4,200.00	4,195.21	4,202.08	4,191.13	14.57	15.13	89.79	-138.79	298.29	329.32	299.92	29.40	11.203		
4,300.00	4,295.21	4,306.16	4,295.21	14.92	15.48	89.82	-138.99	298.63	329.63	299.54	30.09	10.954		
4,400.00	4,395.21	4,406.16	4,395.21	15.26	15.81	89.82	-138.99	298.63	329.63	298.86	30.77	10.711		
4,500.00	4,495.21	4,506.16	4,495.21	15.61	16.15	89.82	-138.99	298.63	329.63	298.18	31.46	10.479		
4,600.00	4,595.21	4,606.16	4,595.21	15.95	16.48	89.82	-138.99	298.63	329.63	297.49	32.14	10.256		
4,700.00	4,695.21	4,706.16	4,695.21	16.30	16.82	89.82	-138.99	298.63	329.63	296.81	32.82	10.042		
4,800.00	4,795.21	4,806.16	4,795.21	16.64	17.15	89.82	-138.99	298.63	329.63	296.12	33.51	9.837		
4,900.00	4,895.21	4,906.16	4,895.21	16.99	17.49	89.82	-138.99	298.63	329.63	295.43	34.20	9.639		
5,000.00	4,995.21	5,006.16	4,995.21	17.34	17.83	89.82	-138.99	298.63	329.63	294.75	34.89	9.449		
5,100.00	5,095.21	5,106.16	5,095.21	17.68	18.17	89.82	-138.99	298.63	329.63	294.06	35.58	9.265		
5,200.00	5,195.21	5,206.16	5,195.21	18.03	18.51	89.82	-138.99	298.63	329.63	293.36	36.27	9.089		
5,300.00	5,295.21	5,306.16	5,295.21	18.38	18.85	89.82	-138.99	298.63	329.63	292.67	36.96	8.919		
5,400.00	5,395.21	5,406.16	5,395.21	18.73	19.19	89.82	-138.99	298.63	329.63	291.98	37.65	8.755		
5,500.00	5,495.21	5,506.16	5,495.21	19.08	19.53	89.82	-138.99	298.63	329.63	291.29	38.35	8.596		
5,600.00	5,595.21	5,606.16	5,595.21	19.43	19.87	89.82	-138.99	298.63	329.63	290.59	39.04	8.443		
5,700.00	5,695.21	5,706.16	5,695.21	19.78	20.22	89.82	-138.99	298.63	329.63	289.90	39.74	8.296		
5,800.00	5,795.21	5,806.16	5,795.21	20.13	20.56	89.82	-138.99	298.63	329.63	289.20	40.43	8.153		
5,900.00	5,895.21	5,906.16	5,895.21	20.48	20.90	89.82	-138.99	298.63	329.63	288.50	41.13	8.015		
6,000.00	5,995.21	6,006.16	5,995.21	20.83	21.25	89.82	-138.99	298.63	329.63	287.81	41.83	7.881		
6,100.00	6,095.21	6,106.16	6,095.21	21.18	21.59	89.82	-138.99	298.63	329.63	287.11	42.52	7.752		
6,200.00	6,195.21	6,206.16	6,195.21	21.53	21.94	89.82	-138.99	298.63	329.63	286.41	43.22	7.626		
6,300.00	6,295.21	6,306.16	6,295.21	21.88	22.28	89.82	-138.99	298.63	329.63	285.71	43.92	7.505		
6,400.00	6,395.21	6,406.16	6,395.21	22.24	22.63	89.82	-138.99	298.63	329.63	285.01	44.62	7.387		
6,500.00	6,495.21	6,506.16	6,495.21	22.59	22.97	89.82	-138.99	298.63	329.63	284.31	45.32	7.273		
6,600.00	6,595.21	6,606.16	6,595.21	22.94	23.32	89.82	-138.99	298.63	329.63	283.61	46.02	7.162		
6,700.00	6,695.21	6,706.16	6,695.21	23.29	23.67	89.82	-138.99	298.63	329.63	282.91	46.72	7.055		
6,800.00	6,795.21	6,806.16	6,795.21	23.65	24.02	89.82	-138.99	298.63	329.63	282.21	47.43	6.951		

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



Phoenix Technology Services

Anticollision Report



Company: Matador Resources
Project: Eddy County, NM (NAD27 NME)
Reference Site: Charlie Sweeney Federal 31-23S-28E
Site Error: 0.00 usft
Reference Well: 223H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Preliminary Plan 1

Local Co-ordinate Reference: Well 223H
TVD Reference: RKB @ 3138.50usft (Patterson 297)
MD Reference: RKB @ 3138.50usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: Compass 5000 GCR
Offset TVD Reference: Reference Datum

Offset Design Charlie Sweeney Federal 31-23S-28E - 123H - OH - Preliminary Plan 1														Offset Site Error:	0.00 usft
Survey Program: Q-PHX+MWD+HDGM														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		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)					
6,900.00	6,895.21	6,906.16	6,895.21	24.00	24.36	89.82	-138.99	298.63	329.63	281.50	48.13	6.849			
7,000.00	6,995.21	7,006.16	6,995.21	24.35	24.71	89.82	-138.99	298.63	329.63	280.80	48.83	6.751			
7,100.00	7,095.21	7,106.16	7,095.21	24.70	25.06	89.82	-138.99	298.63	329.63	280.10	49.53	6.655			
7,200.00	7,195.21	7,206.16	7,195.21	25.06	25.41	89.82	-138.99	298.63	329.63	279.39	50.24	6.562			
7,300.00	7,295.21	7,306.16	7,295.21	25.41	25.76	89.82	-138.99	298.63	329.63	278.69	50.94	6.471			
7,330.54	7,325.76	7,325.76	7,325.76	25.52	25.86	89.82	-138.99	298.63	329.63	278.48	51.16	6.444			
7,400.00	7,395.21	7,405.50	7,394.42	25.76	26.10	89.23	-135.58	298.66	329.69	278.05	51.64	6.384			
7,500.00	7,495.21	7,500.00	7,487.09	26.12	26.41	86.12	-117.61	298.81	330.67	278.35	52.32	6.320 SF			
7,600.00	7,595.21	7,588.26	7,569.89	26.47	26.68	80.93	-87.29	299.07	335.21	282.24	52.96	6.329			
7,700.00	7,695.21	7,664.97	7,637.34	26.83	26.89	74.90	-50.88	299.38	347.04	293.48	53.56	6.479			
7,800.00	7,795.21	7,730.66	7,690.80	27.18	27.04	68.96	-12.77	299.70	369.39	315.28	54.11	6.827			
7,900.00	7,895.21	7,786.16	7,732.33	27.53	27.16	63.64	24.02	300.01	403.73	349.12	54.62	7.392			
8,000.00	7,995.21	7,832.86	7,764.37	27.89	27.25	59.14	57.97	300.30	449.71	394.62	55.09	8.164			
8,100.00	8,095.21	7,872.19	7,789.15	28.24	27.32	55.43	88.51	300.55	505.79	450.26	55.53	9.109			
8,200.00	8,195.21	7,900.00	7,805.37	28.60	27.37	52.88	111.09	300.74	570.16	514.22	55.94	10.193			
8,300.00	8,295.21	7,933.85	7,823.61	28.95	27.45	49.90	139.60	300.99	640.94	584.59	56.35	11.374			
8,400.00	8,395.21	7,950.00	7,831.70	29.31	27.49	48.52	153.57	301.10	716.95	660.22	56.73	12.637			
8,500.00	8,495.21	7,979.25	7,845.36	29.66	27.57	46.13	179.43	301.32	796.73	739.61	57.13	13.947			
8,600.00	8,595.21	8,000.00	7,854.24	30.01	27.63	44.51	198.19	301.48	879.75	822.24	57.51	15.298			
8,700.00	8,695.21	8,000.00	7,854.24	30.37	27.63	44.51	198.19	301.48	965.48	907.61	57.86	16.685			
8,800.00	8,795.21	8,027.85	7,865.08	30.72	27.72	42.44	223.84	301.70	1,052.72	994.46	58.25	18.071			
8,900.00	8,895.21	8,050.00	7,872.80	31.08	27.78	40.88	244.59	301.87	1,141.95	1,083.32	58.62	19.479			
9,000.00	8,995.21	8,050.00	7,872.80	31.44	27.78	40.88	244.59	301.87	1,232.28	1,173.31	58.98	20.893			
9,100.00	9,095.21	8,050.00	7,872.80	31.79	27.78	40.88	244.59	301.87	1,324.01	1,264.68	59.34	22.314			
9,200.00	9,195.21	8,070.99	7,879.37	32.15	27.85	39.46	264.52	302.04	1,416.33	1,356.62	59.71	23.721			
9,300.00	9,295.21	8,079.27	7,881.77	32.50	27.87	38.93	272.45	302.11	1,509.61	1,449.54	60.07	25.132			
9,400.00	9,395.21	8,100.00	7,887.25	32.86	27.94	37.62	292.44	302.28	1,603.76	1,543.32	60.44	26.537			
9,500.00	9,495.21	8,100.00	7,887.25	33.21	27.94	37.62	292.44	302.28	1,698.13	1,637.34	60.79	27.934			
9,600.00	9,595.21	8,100.00	7,887.25	33.57	27.94	37.62	292.44	302.28	1,793.11	1,731.96	61.15	29.324			
9,700.00	9,695.21	8,100.00	7,887.25	33.92	27.94	37.62	292.44	302.28	1,888.60	1,827.10	61.50	30.707			
9,718.82	9,714.03	8,100.00	7,887.25	33.99	27.94	37.62	292.44	302.28	1,906.62	1,845.05	61.57	30.967			
9,750.00	9,745.20	8,100.00	7,887.25	34.10	27.94	31.65	292.44	302.28	1,936.32	1,874.71	61.61	31.431			
9,800.00	9,794.94	8,100.00	7,887.25	34.27	27.94	25.39	292.44	302.28	1,983.03	1,921.65	61.38	32.309			
9,850.00	9,844.07	8,100.00	7,887.25	34.44	27.94	21.12	292.44	302.28	2,028.41	1,967.66	60.75	33.388			
9,900.00	9,892.21	8,122.10	7,892.29	34.61	28.01	17.76	313.96	302.46	2,071.67	2,011.94	59.72	34.687			
9,950.00	9,938.99	8,127.91	7,893.48	34.76	28.03	15.53	319.65	302.51	2,113.33	2,055.04	58.29	36.253			
10,000.00	9,984.06	8,150.00	7,897.47	34.92	28.10	13.71	341.37	302.69	2,153.14	2,096.65	56.49	38.115			
10,050.00	10,027.08	8,150.00	7,897.47	35.06	28.10	12.47	341.37	302.69	2,190.17	2,135.84	54.33	40.315			
10,100.00	10,067.71	8,150.00	7,897.47	35.20	28.10	11.47	341.37	302.69	2,224.78	2,172.94	51.84	42.920			
10,150.00	10,105.65	8,150.00	7,897.47	35.34	28.10	10.67	341.37	302.69	2,256.82	2,207.77	49.06	46.003			
10,200.00	10,140.61	8,150.00	7,897.47	35.48	28.10	10.02	341.37	302.69	2,286.18	2,240.14	46.04	49.657			
10,250.00	10,172.33	8,173.20	7,900.75	35.61	28.18	9.43	364.34	302.89	2,312.14	2,269.28	42.86	53.943			
10,300.00	10,200.55	8,200.00	7,903.39	35.74	28.27	8.96	391.00	303.11	2,335.60	2,296.02	39.59	58.998			
10,350.00	10,225.08	8,200.00	7,903.39	35.87	28.27	8.64	391.00	303.11	2,355.26	2,319.00	36.26	64.952			
10,400.00	10,245.71	8,200.00	7,903.39	36.00	28.27	8.38	391.00	303.11	2,371.82	2,338.79	33.03	71.806			
10,450.00	10,262.30	8,200.00	7,903.39	36.13	28.27	8.18	391.00	303.11	2,385.23	2,355.18	30.05	79.379			
10,468.82	10,267.46	8,200.00	7,903.39	36.17	28.27	8.12	391.00	303.11	2,389.44	2,360.42	29.03	82.313			
10,500.00	10,275.04	8,219.28	7,904.51	36.26	28.33	8.05	410.25	303.27	2,395.36	2,367.20	28.16	85.063			
10,550.00	10,285.12	8,242.99	7,905.00	36.39	28.41	7.97	433.95	303.48	2,403.95	2,377.00	26.94	89.217			
10,600.00	10,292.62	8,242.99	7,905.00	36.53	28.41	7.91	433.95	303.48	2,410.39	2,384.44	25.95	92.896			
10,650.00	10,297.52	8,269.30	7,905.00	36.68	28.51	7.87	460.25	303.70	2,415.13	2,389.77	25.36	95.238			
10,700.00	10,299.82	8,319.24	7,905.00	36.83	28.70	7.84	510.19	304.12	2,417.40	2,392.17	25.23	95.811			

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



Phoenix Technology Services

Anticollision Report



Company: Matador Resources
Project: Eddy County, NM (NAD27 NME)
Reference Site: Charlie Sweeney Federal 31-23S-28E
Site Error: 0.00 usft
Reference Well: 223H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Preliminary Plan 1

Local Co-ordinate Reference: Well 223H
TVD Reference: RKB @ 3138.50usft (Patterson 297)
MD Reference: RKB @ 3138.50usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: Compass 5000 GCR
Offset TVD Reference: Reference Datum

Offset Design Charlie Sweeney Federal 31-23S-28E - 123H - OH - Preliminary Plan 1													Offset Site Error:	0.00 usft
Survey Program: D-PHX+MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,718.82	10,300.00	8,338.05	7,905.00	36.89	28.77	7.84	529.01	304.28	2,417.59	2,392.30	25.29	95.597		
10,800.00	10,300.00	8,419.24	7,905.00	37.16	29.12	7.84	610.19	304.97	2,417.59	2,391.77	25.82	93.649		
10,900.00	10,300.00	8,519.24	7,905.00	37.54	29.61	7.84	710.19	305.81	2,417.59	2,391.05	26.54	91.093		
11,000.00	10,300.00	8,619.24	7,905.00	37.98	30.16	7.84	810.18	306.66	2,417.59	2,390.25	27.34	88.429		
11,100.00	10,300.00	8,719.24	7,905.00	38.46	30.77	7.84	910.18	307.50	2,417.59	2,389.38	28.21	85.709		
11,200.00	10,300.00	8,819.24	7,905.00	38.99	31.44	7.84	1,010.18	308.35	2,417.59	2,388.46	29.14	82.976		
11,300.00	10,300.00	8,919.24	7,905.00	39.57	32.16	7.84	1,110.17	309.19	2,417.59	2,387.47	30.12	80.262		
11,400.00	10,300.00	9,019.24	7,905.00	40.19	32.92	7.84	1,210.17	310.04	2,417.59	2,386.44	31.16	77.595		
11,500.00	10,300.00	9,119.24	7,905.00	40.86	33.73	7.84	1,310.16	310.89	2,417.59	2,385.36	32.24	74.993		
11,600.00	10,300.00	9,219.24	7,905.00	41.56	34.58	7.84	1,410.16	311.73	2,417.60	2,384.24	33.36	72.471		
11,700.00	10,300.00	9,319.24	7,905.00	42.31	35.47	7.84	1,510.16	312.58	2,417.60	2,383.08	34.52	70.037		
11,800.00	10,300.00	9,419.24	7,905.00	43.09	36.40	7.84	1,610.15	313.42	2,417.60	2,381.89	35.71	67.699		
11,900.00	10,300.00	9,519.24	7,905.00	43.90	37.36	7.84	1,710.15	314.27	2,417.60	2,380.66	36.93	65.457		
12,000.00	10,300.00	9,619.24	7,905.00	44.75	38.35	7.84	1,810.15	315.11	2,417.60	2,379.41	38.18	63.314		
12,100.00	10,300.00	9,719.24	7,905.00	45.62	39.37	7.84	1,910.14	315.96	2,417.60	2,378.14	39.46	61.268		
12,200.00	10,300.00	9,819.24	7,905.00	46.53	40.41	7.84	2,010.14	316.81	2,417.60	2,376.84	40.76	59.317		
12,300.00	10,300.00	9,919.24	7,905.00	47.46	41.48	7.84	2,110.14	317.65	2,417.60	2,375.53	42.08	57.458		
12,400.00	10,300.00	10,019.24	7,905.00	48.42	42.58	7.84	2,210.13	318.50	2,417.60	2,374.19	43.41	55.688		
12,500.00	10,300.00	10,119.24	7,905.00	49.40	43.69	7.84	2,310.13	319.34	2,417.60	2,372.84	44.77	54.003		
12,600.00	10,300.00	10,219.24	7,905.00	50.41	44.82	7.84	2,410.13	320.19	2,417.60	2,371.47	46.14	52.400		
12,700.00	10,300.00	10,319.24	7,905.00	51.43	45.97	7.84	2,510.12	321.03	2,417.61	2,370.08	47.52	50.873		
12,800.00	10,300.00	10,419.24	7,905.00	52.48	47.14	7.84	2,610.12	321.88	2,417.61	2,368.69	48.92	49.420		
12,900.00	10,300.00	10,519.24	7,905.00	53.55	48.33	7.84	2,710.11	322.73	2,417.61	2,367.28	50.33	48.036		
13,000.00	10,300.00	10,619.24	7,905.00	54.63	49.52	7.84	2,810.11	323.57	2,417.61	2,365.86	51.75	46.717		
13,100.00	10,300.00	10,719.24	7,905.00	55.73	50.73	7.84	2,910.11	324.42	2,417.61	2,364.43	53.18	45.460		
13,200.00	10,300.00	10,819.24	7,905.00	56.85	51.96	7.84	3,010.10	325.26	2,417.61	2,362.99	54.62	44.261		
13,300.00	10,300.00	10,919.24	7,905.00	57.98	53.19	7.84	3,110.10	326.11	2,417.61	2,361.54	56.07	43.117		
13,400.00	10,300.00	11,019.24	7,905.00	59.12	54.44	7.84	3,210.10	326.95	2,417.61	2,360.08	57.53	42.025		
13,500.00	10,300.00	11,119.24	7,905.00	60.28	55.69	7.84	3,310.09	327.80	2,417.61	2,358.62	58.99	40.981		
13,600.00	10,300.00	11,219.24	7,905.00	61.45	56.96	7.84	3,410.09	328.64	2,417.61	2,357.15	60.47	39.984		
13,700.00	10,300.00	11,319.24	7,905.00	62.63	58.23	7.84	3,510.09	329.49	2,417.61	2,355.67	61.94	39.029		
13,800.00	10,300.00	11,419.24	7,905.00	63.83	59.52	7.84	3,610.08	330.34	2,417.62	2,354.19	63.43	38.116		
13,900.00	10,300.00	11,519.24	7,905.00	65.03	60.80	7.84	3,710.08	331.18	2,417.62	2,352.70	64.92	37.241		
14,000.00	10,300.00	11,619.24	7,905.00	66.25	62.10	7.84	3,810.08	332.03	2,417.62	2,351.20	66.41	36.402		
14,100.00	10,300.00	11,719.24	7,905.00	67.47	63.41	7.84	3,910.07	332.87	2,417.62	2,349.70	67.91	35.598		
14,200.00	10,300.00	11,819.24	7,905.00	68.70	64.72	7.84	4,010.07	333.72	2,417.62	2,348.20	69.42	34.826		
14,300.00	10,300.00	11,919.24	7,905.00	69.95	66.03	7.84	4,110.06	334.56	2,417.62	2,346.69	70.93	34.085		
14,400.00	10,300.00	12,019.24	7,905.00	71.19	67.35	7.84	4,210.06	335.41	2,417.62	2,345.18	72.44	33.373		
14,500.00	10,300.00	12,119.24	7,905.00	72.45	68.68	7.84	4,310.06	336.26	2,417.62	2,343.66	73.96	32.688		
14,600.00	10,300.00	12,219.24	7,905.00	73.72	70.01	7.84	4,410.05	337.10	2,417.62	2,342.14	75.48	32.030		
14,700.00	10,300.00	12,319.24	7,905.00	74.99	71.35	7.84	4,510.05	337.95	2,417.62	2,340.62	77.00	31.396		
14,800.00	10,300.00	12,419.24	7,905.00	76.26	72.69	7.84	4,610.05	338.79	2,417.63	2,339.09	78.53	30.785		
14,900.00	10,300.00	12,519.24	7,905.00	77.55	74.03	7.84	4,710.04	339.64	2,417.63	2,337.56	80.06	30.197		
15,000.00	10,300.00	12,619.24	7,905.00	78.84	75.38	7.85	4,810.04	340.48	2,417.63	2,336.03	81.60	29.629		
15,059.17	10,300.00	12,678.41	7,905.00	79.60	76.18	7.85	4,869.21	340.98	2,417.63	2,335.12	82.50	29.303		



Phoenix Technology Services

Anticollision Report



Company: Matador Resources
Project: Eddy County, NM (NAD27 NME)
Reference Site: Charlie Sweeney Federal 31-23S-28E
Site Error: 0.00 usft
Reference Well: 223H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Preliminary Plan 1

Local Co-ordinate Reference: Well 223H
TVD Reference: RKB @ 3138.50usft (Patterson 297)
MD Reference: RKB @ 3138.50usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: Compass 5000 GCR
Offset TVD Reference: Reference Datum

Offset Design													Offset Site Error:	0.00 usft
Charlie Sweeney Federal 31-23S-28E - 203H - OH - Preliminary Plan 1													Offset Well Error:	0.00 usft
Survey Program: 0-PHX+MWD+HDGM														
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	0.00	3.00	0.00	0.00	90.00	0.00	30.00	30.15					
100.00	100.00	97.00	100.00	0.13	0.13	90.00	0.00	30.00	30.00	29.74	0.26	117.190		
200.00	200.00	197.00	200.00	0.49	0.48	90.00	0.00	30.00	30.00	29.03	0.97	31.053		
300.00	300.00	297.00	300.00	0.85	0.84	90.00	0.00	30.00	30.00	28.32	1.68	17.825		
400.00	400.00	397.00	400.00	1.21	1.19	90.00	0.00	30.00	30.00	27.60	2.40	12.500		
500.00	500.00	497.00	500.00	1.56	1.55	90.00	0.00	30.00	30.00	26.88	3.12	9.625		
600.00	600.00	597.00	600.00	1.92	1.91	90.00	0.00	30.00	30.00	26.17	3.83	7.825		
700.00	700.00	697.00	700.00	2.28	2.27	90.00	0.00	30.00	30.00	25.45	4.55	6.592		
800.00	800.00	797.00	800.00	2.64	2.63	90.00	0.00	30.00	30.00	24.73	5.27	5.695		
900.00	900.00	897.00	900.00	3.00	2.99	90.00	0.00	30.00	30.00	24.02	5.98	5.013		
1,000.00	1,000.00	997.00	1,000.00	3.36	3.35	90.00	0.00	30.00	30.00	23.30	6.70	4.477 CC, ES		
1,100.00	1,099.99	1,096.65	1,099.64	3.70	3.69	-102.81	-1.09	30.55	30.83	23.45	7.38	4.176		
1,200.00	1,199.91	1,196.25	1,199.17	4.03	4.02	-103.44	-4.51	32.26	33.41	25.37	8.04	4.156		
1,266.42	1,266.20	1,262.36	1,265.15	4.25	4.24	-103.96	-8.05	34.04	36.08	27.60	8.48	4.255		
1,300.00	1,299.70	1,295.89	1,298.60	4.36	4.35	-104.19	-10.14	35.09	37.64	28.93	8.70	4.324		
1,400.00	1,399.46	1,395.78	1,398.25	4.70	4.69	-104.76	-16.37	38.21	42.29	32.91	9.38	4.507		
1,500.00	1,499.22	1,495.67	1,497.89	5.04	5.03	-105.22	-22.60	41.34	46.95	36.88	10.07	4.662		
1,600.00	1,598.97	1,595.56	1,597.54	5.39	5.38	-105.60	-28.83	44.47	51.60	40.84	10.76	4.794		
1,700.00	1,698.73	1,695.45	1,697.19	5.74	5.73	-105.92	-35.06	47.59	56.26	44.80	11.46	4.907		
1,800.00	1,798.49	1,795.34	1,798.84	6.09	6.09	-106.19	-41.29	50.72	60.93	48.76	12.17	5.006		
1,900.00	1,898.24	1,895.23	1,896.48	6.45	6.44	-106.42	-47.52	53.85	65.59	52.71	12.88	5.092		
2,000.00	1,998.00	1,995.12	1,996.13	6.81	6.80	-106.61	-53.75	56.97	70.25	56.66	13.59	5.168		
2,100.00	2,097.76	2,095.01	2,095.78	7.17	7.16	-106.79	-59.99	60.10	74.92	60.61	14.31	5.235		
2,200.00	2,197.51	2,194.90	2,195.42	7.53	7.52	-106.94	-66.22	63.22	79.58	64.55	15.03	5.295		
2,300.00	2,297.27	2,294.80	2,295.07	7.89	7.88	-107.08	-72.45	66.35	84.25	68.50	15.75	5.349		
2,400.00	2,397.03	2,394.69	2,394.72	8.25	8.24	-107.20	-78.68	69.48	88.91	72.44	16.47	5.398		
2,500.00	2,496.78	2,494.58	2,494.37	8.61	8.61	-107.31	-84.91	72.60	93.58	76.38	17.20	5.441		
2,600.00	2,596.54	2,594.47	2,594.01	8.98	8.97	-107.41	-91.14	75.73	98.25	80.32	17.92	5.481		
2,700.00	2,696.30	2,694.36	2,693.66	9.34	9.34	-107.50	-97.37	78.86	102.91	84.26	18.65	5.518		
2,800.00	2,796.06	2,794.25	2,793.31	9.71	9.70	-107.59	-103.60	81.98	107.58	88.20	19.38	5.551		
2,900.00	2,895.81	2,894.14	2,892.96	10.08	10.07	-107.66	-109.83	85.11	112.25	92.14	20.11	5.582		
3,000.00	2,995.57	2,994.03	2,992.60	10.44	10.43	-107.73	-116.06	88.24	116.92	96.08	20.84	5.610		
3,057.40	3,052.83	3,051.37	3,049.80	10.65	10.64	-107.77	-119.64	90.03	119.59	98.33	21.26	5.625		
3,100.00	3,095.34	3,093.93	3,092.25	10.81	10.80	-107.72	-122.29	91.36	121.51	99.94	21.57	5.633		
3,200.00	3,195.24	3,193.82	3,191.91	11.17	11.17	-106.78	-128.52	94.49	125.46	103.16	22.30	5.626		
3,300.00	3,295.21	3,294.46	3,292.33	11.53	11.54	-104.94	-134.41	97.44	128.58	105.55	23.02	5.584		
3,323.82	3,319.03	3,318.59	3,316.42	11.61	11.62	88.01	-135.52	98.00	129.10	105.91	23.19	5.566		
3,400.00	3,395.21	3,395.84	3,393.62	11.86	11.90	89.19	-138.16	99.32	130.35	106.62	23.73	5.494		
3,500.00	3,495.21	3,497.36	3,495.12	12.20	12.25	89.78	-139.50	100.00	131.00	106.59	24.41	5.366		
3,600.00	3,595.21	3,597.45	3,595.21	12.53	12.59	89.79	-139.51	100.00	131.00	105.92	25.08	5.222		
3,700.00	3,695.21	3,697.45	3,695.21	12.87	12.93	89.79	-139.51	100.00	131.00	105.24	25.76	5.086		
3,800.00	3,795.21	3,797.45	3,795.21	13.21	13.26	89.79	-139.51	100.00	131.00	104.57	26.44	4.956		
3,900.00	3,895.21	3,897.45	3,895.21	13.55	13.60	89.79	-139.51	100.00	131.00	103.89	27.11	4.832		
4,000.00	3,995.21	3,997.45	3,995.21	13.89	13.94	89.79	-139.51	100.00	131.00	103.21	27.79	4.713		
4,100.00	4,095.21	4,097.45	4,095.21	14.23	14.28	89.79	-139.51	100.00	131.00	102.52	28.48	4.600		
4,200.00	4,195.21	4,197.45	4,195.21	14.57	14.62	89.79	-139.51	100.00	131.00	101.84	29.16	4.492		
4,300.00	4,295.21	4,297.45	4,295.21	14.92	14.96	89.79	-139.51	100.00	131.00	101.15	29.85	4.389		
4,400.00	4,395.21	4,397.45	4,395.21	15.26	15.31	89.79	-139.51	100.00	131.00	100.47	30.53	4.290		
4,500.00	4,495.21	4,497.45	4,495.21	15.61	15.65	89.79	-139.51	100.00	131.00	99.78	31.22	4.196		
4,600.00	4,595.21	4,597.45	4,595.21	15.95	15.99	89.79	-139.51	100.00	131.00	99.09	31.91	4.105		
4,700.00	4,695.21	4,697.45	4,695.21	16.30	16.34	89.79	-139.51	100.00	131.00	98.40	32.60	4.018		
4,800.00	4,795.21	4,797.45	4,795.21	16.64	16.68	89.79	-139.51	100.00	131.00	97.71	33.29	3.935		

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



Phoenix Technology Services
Anticollision Report



Company: Matador Resources
Project: Eddy County, NM (NAD27 NME)
Reference Site: Charlie Sweeney Federal 31-23S-28E
Site Error: 0.00 usft
Reference Well: 223H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Preliminary Plan 1

Local Co-ordinate Reference: Well 223H
TVD Reference: RKB @ 3138.50usft (Patterson 297)
MD Reference: RKB @ 3138.50usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: Compass 5000 GCR
Offset TVD Reference: Reference Datum

Offset Design Charlie Sweeney Federal 31-23S-28E - 203H - OH - Preliminary Plan 1													Offset Site Error:	0.00 usft
Survey Program: 0-PHX+MWD+HDGM													Offset Well Error:	0.00 usft
Reference				Offset		Semi Major Axis			Distance				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.00	4,895.21	4,897.45	4,895.21	16.99	17.03	89.79	-139.51	100.00	131.00	97.01	33.99	3.854		
5,000.00	4,995.21	4,997.45	4,995.21	17.34	17.38	89.79	-139.51	100.00	131.00	96.32	34.68	3.777		
5,100.00	5,095.21	5,097.45	5,095.21	17.68	17.72	89.79	-139.51	100.00	131.00	95.63	35.38	3.703		
5,200.00	5,195.21	5,197.45	5,195.21	18.03	18.07	89.79	-139.51	100.00	131.00	94.93	36.07	3.632		
5,300.00	5,295.21	5,297.45	5,295.21	18.38	18.42	89.79	-139.51	100.00	131.00	94.23	36.77	3.563		
5,400.00	5,395.21	5,397.45	5,395.21	18.73	18.77	89.79	-139.51	100.00	131.00	93.54	37.46	3.497		
5,500.00	5,495.21	5,497.45	5,495.21	19.08	19.11	89.79	-139.51	100.00	131.00	92.84	38.16	3.433		
5,600.00	5,595.21	5,597.45	5,595.21	19.43	19.46	89.79	-139.51	100.00	131.00	92.14	38.86	3.371		
5,700.00	5,695.21	5,697.45	5,695.21	19.78	19.81	89.79	-139.51	100.00	131.00	91.44	39.56	3.311		
5,800.00	5,795.21	5,797.45	5,795.21	20.13	20.16	89.79	-139.51	100.00	131.00	90.74	40.26	3.254		
5,900.00	5,895.21	5,897.45	5,895.21	20.48	20.51	89.79	-139.51	100.00	131.00	90.04	40.96	3.198		
6,000.00	5,995.21	5,997.45	5,995.21	20.83	20.86	89.79	-139.51	100.00	131.00	89.34	41.66	3.144		
6,100.00	6,095.21	6,097.45	6,095.21	21.18	21.21	89.79	-139.51	100.00	131.00	88.64	42.36	3.092		
6,200.00	6,195.21	6,197.45	6,195.21	21.53	21.56	89.79	-139.51	100.00	131.00	87.93	43.07	3.042		
6,300.00	6,295.21	6,297.45	6,295.21	21.88	21.91	89.79	-139.51	100.00	131.00	87.23	43.77	2.993		
6,400.00	6,395.21	6,397.45	6,395.21	22.24	22.27	89.79	-139.51	100.00	131.00	86.53	44.47	2.946		
6,500.00	6,495.21	6,497.45	6,495.21	22.59	22.62	89.79	-139.51	100.00	131.00	85.83	45.18	2.900		
6,600.00	6,595.21	6,597.45	6,595.21	22.94	22.97	89.79	-139.51	100.00	131.00	85.12	45.88	2.855		
6,700.00	6,695.21	6,697.45	6,695.21	23.29	23.32	89.79	-139.51	100.00	131.00	84.42	46.58	2.812		
6,800.00	6,795.21	6,797.45	6,795.21	23.65	23.67	89.79	-139.51	100.00	131.00	83.71	47.29	2.770		
6,900.00	6,895.21	6,897.45	6,895.21	24.00	24.03	89.79	-139.51	100.00	131.00	83.01	47.99	2.730		
7,000.00	6,995.21	6,997.45	6,995.21	24.35	24.38	89.79	-139.51	100.00	131.00	82.30	48.70	2.690		
7,100.00	7,095.21	7,097.45	7,095.21	24.70	24.73	89.79	-139.51	100.00	131.00	81.60	49.40	2.652		
7,200.00	7,195.21	7,197.45	7,195.21	25.06	25.08	89.79	-139.51	100.00	131.00	80.89	50.11	2.614		
7,300.00	7,295.21	7,297.45	7,295.21	25.41	25.44	89.79	-139.51	100.00	131.00	80.18	50.82	2.578		
7,400.00	7,395.21	7,397.45	7,395.21	25.76	25.79	89.79	-139.51	100.00	131.00	79.48	51.52	2.543		
7,500.00	7,495.21	7,497.45	7,495.21	26.12	26.14	89.79	-139.51	100.00	131.00	78.77	52.23	2.508		
7,600.00	7,595.21	7,597.45	7,595.21	26.47	26.50	89.79	-139.51	100.00	131.00	78.06	52.94	2.475		
7,700.00	7,695.21	7,697.45	7,695.21	26.83	26.85	89.79	-139.51	100.00	131.00	77.36	53.65	2.442		
7,800.00	7,795.21	7,797.45	7,795.21	27.18	27.20	89.79	-139.51	100.00	131.00	76.65	54.35	2.410		
7,900.00	7,895.21	7,897.45	7,895.21	27.53	27.56	89.79	-139.51	100.00	131.00	75.94	55.06	2.379		
8,000.00	7,995.21	7,997.45	7,995.21	27.89	27.91	89.79	-139.51	100.00	131.00	75.23	55.77	2.349		
8,100.00	8,095.21	8,097.45	8,095.21	28.24	28.26	89.79	-139.51	100.00	131.00	74.52	56.48	2.320		
8,200.00	8,195.21	8,197.45	8,195.21	28.60	28.62	89.79	-139.51	100.00	131.00	73.81	57.19	2.291		
8,300.00	8,295.21	8,297.45	8,295.21	28.95	28.97	89.79	-139.51	100.00	131.00	73.11	57.89	2.263		
8,400.00	8,395.21	8,397.45	8,395.21	29.31	29.33	89.79	-139.51	100.00	131.00	72.40	58.60	2.235		
8,500.00	8,495.21	8,497.45	8,495.21	29.66	29.68	89.79	-139.51	100.00	131.00	71.69	59.31	2.209		
8,600.00	8,595.21	8,597.45	8,595.21	30.01	30.04	89.79	-139.51	100.00	131.00	70.98	60.02	2.183		
8,700.00	8,695.21	8,697.45	8,695.21	30.37	30.39	89.79	-139.51	100.00	131.00	70.27	60.73	2.157		
8,800.00	8,795.21	8,797.45	8,795.21	30.72	30.75	89.79	-139.51	100.00	131.00	69.56	61.44	2.132		
8,900.00	8,895.21	8,897.45	8,895.21	31.08	31.10	89.79	-139.51	100.00	131.00	68.85	62.15	2.108		
9,000.00	8,995.21	8,998.95	8,996.66	31.44	31.46	88.93	-137.55	99.70	130.73	67.87	62.87	2.080		
9,100.00	9,095.21	9,099.17	9,095.29	31.79	31.80	81.45	-120.74	97.14	129.57	66.01	63.56	2.039		
9,101.22	9,096.43	9,100.34	9,096.43	31.79	31.80	81.32	-120.45	97.09	129.57	66.00	63.57	2.038 SF		
9,200.00	9,195.21	9,190.98	9,181.81	32.15	32.09	68.23	-90.66	92.54	133.70	69.49	64.21	2.082		
9,300.00	9,295.21	9,271.42	9,252.78	32.50	32.33	53.68	-53.36	86.85	152.30	87.50	64.80	2.350		
9,400.00	9,395.21	9,339.91	9,308.55	32.86	32.52	41.63	-14.13	80.86	189.39	124.05	65.33	2.899		
9,500.00	9,495.21	9,400.00	9,353.28	33.21	32.69	32.59	25.50	74.81	242.35	176.53	65.82	3.682		
9,600.00	9,595.21	9,450.00	9,387.13	33.57	32.82	26.41	61.86	69.26	308.75	240.49	66.27	4.629		
9,700.00	9,695.21	9,485.51	9,409.16	33.92	32.92	22.72	89.38	65.06	379.04	312.36	66.68	5.685		
9,718.82	9,714.03	9,500.00	9,417.64	33.99	32.96	21.37	100.99	63.28	393.46	326.70	66.77	5.893		
9,750.00	9,745.20	9,500.00	9,417.64	34.10	32.96	19.65	100.99	63.28	416.95	350.18	66.78	6.244		

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



Phoenix Technology Services

Anticollision Report



Company: Matador Resources
Project: Eddy County, NM (NAD27 NME)
Reference Site: Charlie Sweeney Federal 31-23S-28E
Site Error: 0.00 usft
Reference Well: 223H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Preliminary Plan 1

Local Co-ordinate Reference: Well 223H
TVD Reference: RKB @ 3138.50usft (Patterson 297)
MD Reference: RKB @ 3138.50usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: Compass 5000 GCR
Offset TVD Reference: Reference Datum

Offset Design Charlie Sweeney Federal 31-23S-28E - 203H - OH - Preliminary Plan 1													Offset Site Error:	0.00 usft
Survey Program: 0-PHX+MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,800.00	9,794.94	9,521.90	9,429.90	34.27	33.02	16.44	118.93	60.54	453.58	387.10	66.48	6.823		
9,850.00	9,844.07	9,550.00	9,444.59	34.44	33.10	13.66	142.61	56.93	488.81	423.04	65.76	7.433		
9,900.00	9,892.21	9,550.00	9,444.59	34.61	33.10	12.64	142.61	56.93	522.18	457.59	64.59	8.084		
9,950.00	9,938.99	9,579.51	9,458.74	34.76	33.19	10.72	168.20	53.02	553.52	490.51	63.01	8.785		
10,000.00	9,984.06	9,600.00	9,467.77	34.92	33.24	9.44	186.38	50.25	583.12	522.09	61.02	9.556		
10,050.00	10,027.08	9,619.39	9,475.70	35.06	33.30	8.41	203.87	47.58	610.71	552.05	58.66	10.412		
10,100.00	10,067.71	9,650.00	9,487.00	35.20	33.39	7.30	231.99	43.29	636.39	580.45	55.95	11.375		
10,150.00	10,105.65	9,650.00	9,487.00	35.34	33.39	6.97	231.99	43.29	659.74	606.81	52.93	12.465		
10,200.00	10,140.61	9,680.68	9,496.78	35.48	33.48	6.12	260.73	38.90	680.74	631.08	49.65	13.709		
10,250.00	10,172.33	9,701.27	9,502.46	35.61	33.55	5.56	280.29	35.91	699.64	653.45	46.19	15.147		
10,300.00	10,200.55	9,728.16	9,509.06	35.74	33.63	4.98	306.07	31.98	716.05	673.45	42.61	16.806		
10,350.00	10,225.08	9,750.00	9,513.87	35.87	33.70	4.54	327.12	28.76	729.77	690.75	39.01	18.707		
10,400.00	10,245.71	9,782.38	9,520.11	36.00	33.81	4.01	358.53	23.97	740.64	705.12	35.53	20.847		
10,450.00	10,262.30	9,800.00	9,523.05	36.13	33.87	3.72	375.71	21.34	748.86	716.54	32.32	23.168		
10,468.82	10,267.46	9,820.08	9,526.01	36.17	33.94	3.45	395.34	18.35	751.07	719.84	31.24	24.044		
10,500.00	10,275.04	9,837.21	9,528.20	36.26	34.00	3.22	412.13	15.78	754.37	724.11	30.26	24.928		
10,550.00	10,285.12	9,864.65	9,531.08	36.39	34.10	2.86	439.11	11.67	758.76	729.85	28.91	26.245		
10,600.00	10,292.62	9,900.00	9,533.63	36.53	34.23	2.42	473.96	6.35	762.12	734.24	27.88	27.336		
10,650.00	10,297.52	9,919.49	9,534.47	36.68	34.30	2.18	493.21	3.41	764.21	737.01	27.20	28.100		
10,700.00	10,299.82	9,951.27	9,535.00	36.83	34.43	1.80	524.62	-1.39	765.28	738.35	26.93	28.417		
10,718.82	10,300.00	9,961.86	9,535.00	36.89	34.47	1.68	535.09	-2.96	765.34	738.40	26.94	28.409		
10,800.00	10,300.00	10,041.60	9,535.00	37.16	34.81	0.88	614.21	-12.90	765.09	737.76	27.33	27.989		
10,900.00	10,300.00	10,140.85	9,535.00	37.54	35.27	0.24	713.14	-20.66	765.01	737.07	27.93	27.386		
10,975.13	10,300.00	10,215.85	9,535.00	37.87	35.64	0.01	788.10	-23.10	765.00	736.55	28.45	26.893		
11,000.00	10,300.00	10,240.72	9,535.00	37.98	35.76	-0.02	812.97	-23.26	765.00	736.38	28.62	26.728		
11,100.00	10,300.00	10,340.73	9,535.00	38.46	36.30	-0.02	912.97	-22.48	765.00	735.61	29.39	26.032		
11,200.00	10,300.00	10,440.73	9,535.00	38.99	36.89	-0.02	1,012.96	-21.64	765.00	734.79	30.21	25.323		
11,300.00	10,300.00	10,540.73	9,535.00	39.57	37.52	-0.02	1,112.96	-20.79	765.00	733.91	31.09	24.605		
11,400.00	10,300.00	10,640.73	9,535.00	40.19	38.19	-0.02	1,212.96	-19.95	765.00	732.97	32.03	23.887		
11,500.00	10,300.00	10,740.73	9,535.00	40.86	38.91	-0.02	1,312.95	-19.10	765.00	731.99	33.01	23.177		
11,600.00	10,300.00	10,840.73	9,535.00	41.56	39.67	-0.02	1,412.95	-18.26	765.00	730.97	34.03	22.478		
11,700.00	10,300.00	10,940.73	9,535.00	42.31	40.47	-0.02	1,512.95	-17.41	765.00	729.90	35.10	21.795		
11,800.00	10,300.00	11,040.73	9,535.00	43.09	41.30	-0.02	1,612.94	-16.56	765.00	728.80	36.20	21.131		
11,858.84	10,300.00	11,099.57	9,535.00	43.57	41.80	-0.02	1,671.78	-16.07	765.00	728.13	36.87	20.750		
11,900.00	10,300.00	11,140.73	9,535.00	43.90	42.17	-0.02	1,712.94	-15.72	765.00	727.66	37.34	20.488		
12,000.00	10,300.00	11,240.73	9,535.00	44.75	43.06	-0.02	1,812.94	-14.87	765.00	726.50	38.50	19.868		
12,100.00	10,300.00	11,340.73	9,535.00	45.62	43.99	-0.02	1,912.93	-14.03	765.00	725.30	39.70	19.270		
12,200.00	10,300.00	11,440.73	9,535.00	46.53	44.95	-0.02	2,012.93	-13.18	765.00	724.08	40.92	18.696		
12,300.00	10,300.00	11,540.73	9,535.00	47.46	45.93	-0.02	2,112.93	-12.34	765.00	722.84	42.16	18.145		
12,400.00	10,300.00	11,640.73	9,535.00	48.42	46.94	-0.02	2,212.92	-11.49	765.00	721.58	43.42	17.617		
12,500.00	10,300.00	11,740.73	9,535.00	49.40	47.96	-0.01	2,312.92	-10.64	765.00	720.29	44.71	17.112		
12,600.00	10,300.00	11,840.73	9,535.00	50.41	49.02	-0.01	2,412.91	-9.80	765.00	718.99	46.01	16.628		
12,700.00	10,300.00	11,940.73	9,535.00	51.43	50.09	-0.01	2,512.91	-8.95	765.00	717.68	47.32	16.165		
12,800.00	10,300.00	12,040.73	9,535.00	52.48	51.18	-0.01	2,612.91	-8.11	765.00	716.34	48.66	15.723		
12,900.00	10,300.00	12,140.73	9,535.00	53.55	52.28	-0.01	2,712.90	-7.26	765.00	715.00	50.00	15.300		
13,000.00	10,300.00	12,240.73	9,535.00	54.63	53.41	-0.01	2,812.90	-6.42	765.00	713.64	51.36	14.895		
13,100.00	10,300.00	12,340.73	9,535.00	55.73	54.55	-0.01	2,912.90	-5.57	765.00	712.27	52.73	14.508		
13,200.00	10,300.00	12,440.73	9,535.00	56.85	55.70	-0.01	3,012.89	-4.72	765.00	710.89	54.11	14.138		
13,300.00	10,300.00	12,540.73	9,535.00	57.98	56.87	-0.01	3,112.89	-3.88	765.00	709.50	55.50	13.783		
13,400.00	10,300.00	12,640.73	9,535.00	59.12	58.05	-0.01	3,212.89	-3.03	765.00	708.10	56.90	13.444		
13,500.00	10,300.00	12,740.73	9,535.00	60.28	59.24	-0.01	3,312.88	-2.19	765.00	706.69	58.31	13.120		
13,600.00	10,300.00	12,840.73	9,535.00	61.45	60.45	-0.01	3,412.88	-1.34	765.00	705.27	59.73	12.808		

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



Phoenix Technology Services
Anticollision Report



Company: Matador Resources
Project: Eddy County, NM (NAD27 NME)
Reference Site: Charlie Sweeney Federal 31-23S-28E
Site Error: 0.00 usft
Reference Well: 223H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Preliminary Plan 1

Local Co-ordinate Reference: Well 223H
TVD Reference: RKB @ 3138.50usft (Patterson 297)
MD Reference: RKB @ 3138.50usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: Compass 5000 GCR
Offset TVD Reference: Reference Datum

Offset Design													Offset Site Error:	0.00 usft
Charlie Sweeney Federal 31-23S-28E - 203H - OH - Preliminary Plan 1													Offset Well Error:	0.00 usft
Survey Program: 0-PHX+MWD+HDGM														
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,700.00	10,300.00	12,940.73	9,535.00	62.63	61.66	-0.01	3,512.87	-0.49	765.00	703.85	61.15	12.510		
13,800.00	10,300.00	13,040.73	9,535.00	63.83	62.89	-0.01	3,612.87	0.35	765.00	702.42	62.58	12.224		
13,900.00	10,300.00	13,140.73	9,535.00	65.03	64.12	-0.01	3,712.87	1.20	765.00	700.98	64.02	11.949		
14,000.00	10,300.00	13,240.73	9,535.00	66.25	65.36	-0.01	3,812.86	2.04	765.00	699.54	65.46	11.686		
14,100.00	10,300.00	13,340.73	9,535.00	67.47	66.62	-0.01	3,912.86	2.89	765.00	698.09	66.91	11.433		
14,200.00	10,300.00	13,440.73	9,535.00	68.70	67.88	0.00	4,012.86	3.73	765.00	696.63	68.37	11.190		
14,300.00	10,300.00	13,540.73	9,535.00	69.95	69.14	0.00	4,112.85	4.58	765.00	695.17	69.83	10.956		
14,400.00	10,300.00	13,640.73	9,535.00	71.19	70.42	0.00	4,212.85	5.43	765.00	693.71	71.29	10.731		
14,500.00	10,300.00	13,740.73	9,535.00	72.45	71.70	0.00	4,312.85	6.27	765.00	692.24	72.76	10.514		
14,600.00	10,300.00	13,840.73	9,535.00	73.72	72.99	0.00	4,412.84	7.12	765.00	690.77	74.23	10.306		
14,700.00	10,300.00	13,940.73	9,535.00	74.99	74.28	0.00	4,512.84	7.96	765.00	689.29	75.71	10.105		
14,800.00	10,300.00	14,040.73	9,535.00	76.26	75.58	0.00	4,612.84	8.81	765.00	687.81	77.19	9.911		
14,900.00	10,300.00	14,140.73	9,535.00	77.55	76.89	0.00	4,712.83	9.65	765.00	686.33	78.67	9.724		
15,000.00	10,300.00	14,240.73	9,535.00	78.84	78.20	0.00	4,812.83	10.50	765.00	684.84	80.16	9.543		
15,059.17	10,300.00	14,299.90	9,535.00	79.60	78.97	0.00	4,872.00	11.00	765.00	683.96	81.04	9.440		



Phoenix Technology Services

Anticollision Report



Company: Matador Resources
Project: Eddy County, NM (NAD27 NME)
Reference Site: Charlie Sweeney Federal 31-23S-28E
Site Error: 0.00 usft
Reference Well: 223H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Preliminary Plan 1

Local Co-ordinate Reference: Well 223H
TVD Reference: RKB @ 3138.50usft (Patterson 297)
MD Reference: RKB @ 3138.50usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: Compass 5000 GCR
Offset TVD Reference: Reference Datum

Offset Design Charlie Sweeney Federal 31-23S-28E - 207H - OH - Preliminary Plan 1											Offset Site Error: 0.00 usft		
Survey Program: 0-PHX+MWD+HDGM											Offset Well Error: 0.00 usft		
Reference		Offset		Semi Major Axis			Distance				Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	3.00	0.00	0.00	90.00	0.00	90.00	90.05				
100.00	100.00	97.00	100.00	0.13	0.13	90.00	0.00	90.00	90.00	89.74	0.26	351.571	
200.00	200.00	197.00	200.00	0.49	0.48	90.00	0.00	90.00	90.00	89.03	0.97	93.160	
300.00	300.00	297.00	300.00	0.85	0.84	90.00	0.00	90.00	90.00	88.32	1.68	53.475	
400.00	400.00	397.00	400.00	1.21	1.19	90.00	0.00	90.00	90.00	87.60	2.40	37.501	
500.00	500.00	497.00	500.00	1.56	1.55	90.00	0.00	90.00	90.00	86.88	3.12	28.875	
600.00	600.00	597.00	600.00	1.92	1.91	90.00	0.00	90.00	90.00	86.17	3.83	23.475	
700.00	700.00	697.00	700.00	2.28	2.27	90.00	0.00	90.00	90.00	85.45	4.55	19.777	
800.00	800.00	797.00	800.00	2.64	2.63	90.00	0.00	90.00	90.00	84.73	5.27	17.085	
900.00	900.00	897.00	900.00	3.00	2.99	90.00	0.00	90.00	90.00	84.02	5.98	15.038	
1,000.00	1,000.00	997.00	1,000.00	3.36	3.35	90.00	0.00	90.00	90.00	83.30	6.70	13.430	CC, ES
1,100.00	1,099.99	1,094.86	1,097.85	3.70	3.69	-103.01	-0.38	91.11	91.43	84.04	7.38	12.365	
1,200.00	1,199.91	1,192.48	1,195.40	4.03	4.02	-104.44	-1.58	94.58	95.89	87.85	8.04	11.925	
1,266.42	1,266.20	1,257.15	1,259.95	4.25	4.24	-105.78	-2.82	98.18	100.58	92.09	8.48	11.857	
1,300.00	1,299.70	1,290.35	1,293.08	4.36	4.35	-106.53	-3.57	100.36	103.38	94.67	8.71	11.870	
1,400.00	1,399.46	1,389.92	1,392.41	4.70	4.70	-108.54	-5.84	106.92	111.85	102.46	9.39	11.912	
1,500.00	1,499.22	1,489.49	1,491.73	5.04	5.05	-110.27	-8.10	113.49	120.44	110.36	10.08	11.951	
1,600.00	1,598.97	1,589.06	1,591.06	5.39	5.40	-111.77	-10.37	120.06	129.12	118.35	10.77	11.967	
1,700.00	1,698.73	1,688.63	1,690.39	5.74	5.76	-113.07	-12.63	126.62	137.88	126.41	11.47	12.021	
1,800.00	1,798.49	1,788.20	1,789.71	6.09	6.11	-114.23	-14.90	133.19	146.70	134.53	12.17	12.051	
1,900.00	1,898.24	1,887.77	1,889.04	6.45	6.47	-115.25	-17.17	139.75	155.58	142.70	12.88	12.079	
2,000.00	1,998.00	1,987.34	1,988.37	6.81	6.83	-116.16	-19.43	146.32	164.50	150.91	13.59	12.105	
2,100.00	2,097.76	2,086.91	2,087.69	7.17	7.19	-116.97	-21.70	152.88	173.45	159.15	14.30	12.129	
2,200.00	2,197.51	2,186.48	2,187.02	7.53	7.55	-117.71	-23.96	159.45	182.44	167.42	15.01	12.151	
2,300.00	2,297.27	2,286.05	2,286.35	7.89	7.92	-118.38	-26.23	166.02	191.45	175.72	15.73	12.171	
2,400.00	2,397.03	2,385.62	2,385.67	8.25	8.28	-118.98	-28.49	172.58	200.49	184.04	16.45	12.190	
2,500.00	2,496.78	2,485.19	2,485.00	8.61	8.64	-119.54	-30.76	179.15	209.55	192.38	17.17	12.207	
2,600.00	2,596.54	2,584.75	2,584.33	8.98	9.01	-120.05	-33.02	185.71	218.62	200.74	17.89	12.223	
2,700.00	2,696.30	2,684.32	2,683.65	9.34	9.37	-120.52	-35.29	192.28	227.72	209.11	18.61	12.238	
2,800.00	2,796.06	2,782.31	2,781.39	9.71	9.73	-120.92	-37.56	198.87	236.93	217.61	19.32	12.262	
2,900.00	2,895.81	2,876.98	2,875.67	10.08	10.08	-121.02	-40.36	206.97	247.69	227.66	20.03	12.365	
3,000.00	2,995.57	2,971.20	2,969.26	10.44	10.44	-120.79	-43.89	217.23	260.39	239.65	20.74	12.554	
3,057.40	3,052.83	3,025.50	3,023.07	10.65	10.65	-120.53	-46.27	224.12	268.55	247.40	21.15	12.697	
3,100.00	3,095.34	3,067.65	3,064.81	10.81	10.81	-120.35	-48.19	229.66	274.66	253.19	21.47	12.795	
3,200.00	3,195.24	3,166.64	3,162.84	11.17	11.19	-119.64	-52.68	242.69	288.11	265.91	22.20	12.978	
3,300.00	3,295.21	3,265.68	3,260.91	11.53	11.58	-118.55	-57.18	255.72	300.38	277.45	22.93	13.103	
3,323.82	3,319.03	3,289.26	3,284.26	11.61	11.67	74.25	-58.25	258.83	303.14	280.04	23.10	13.125	
3,400.00	3,395.21	3,364.70	3,358.97	11.86	11.96	75.36	-61.67	268.75	311.93	288.30	23.63	13.201	
3,500.00	3,495.21	3,463.73	3,457.03	12.20	12.35	76.72	-66.17	281.79	323.64	299.31	24.33	13.303	
3,600.00	3,595.21	3,562.76	3,555.09	12.53	12.74	77.99	-70.66	294.82	335.52	310.49	25.03	13.404	
3,700.00	3,695.21	3,661.78	3,653.16	12.87	13.13	79.17	-75.16	307.85	347.55	321.82	25.73	13.506	
3,800.00	3,795.21	3,760.81	3,751.22	13.21	13.52	80.27	-79.65	320.88	359.72	333.28	26.44	13.607	
3,900.00	3,895.21	3,859.84	3,849.28	13.55	13.91	81.30	-84.15	333.91	372.01	344.87	27.14	13.708	
4,000.00	3,995.21	3,958.86	3,947.34	13.89	14.30	82.26	-88.65	346.94	384.41	356.57	27.84	13.806	
4,100.00	4,095.21	4,057.89	4,045.41	14.23	14.69	83.17	-93.14	359.97	396.91	368.36	28.55	13.904	
4,200.00	4,195.21	4,156.91	4,143.47	14.57	15.09	84.01	-97.64	373.01	409.50	380.25	29.25	13.999	
4,300.00	4,295.21	4,255.94	4,241.53	14.92	15.48	84.81	-102.13	386.04	422.18	392.22	29.96	14.092	
4,400.00	4,395.21	4,354.97	4,339.59	15.26	15.87	85.56	-106.63	399.07	434.93	404.27	30.67	14.183	
4,500.00	4,495.21	4,453.99	4,437.65	15.61	16.27	86.27	-111.12	412.10	447.75	416.38	31.37	14.272	
4,600.00	4,595.21	4,553.02	4,535.72	15.95	16.66	86.94	-115.62	425.13	460.64	428.56	32.08	14.359	
4,700.00	4,695.21	4,652.05	4,633.78	16.30	17.06	87.57	-120.12	438.16	473.58	440.80	32.79	14.444	
4,800.00	4,795.21	4,751.07	4,731.84	16.64	17.46	88.17	-124.61	451.19	486.58	453.09	33.50	14.526	

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



Phoenix Technology Services

Anticollision Report



Company: Matador Resources
Project: Eddy County, NM (NAD27 NME)
Reference Site: Charlie Sweeney Federal 31-23S-28E
Site Error: 0.00 usft
Reference Well: 223H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Preliminary Plan 1

Local Co-ordinate Reference: Well 223H
TVD Reference: RKB @ 3138.50usft (Patterson 297)
MD Reference: RKB @ 3138.50usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: Compass 5000 GCR
Offset TVD Reference: Reference Datum

Offset Design Charlie Sweeney Federal 31-23S-28E - 207H - OH - Preliminary Plan 1													Offset Site Error:	0.00 usft
Survey Program: 0-PHX+MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		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)				
4,900.00	4,895.21	4,960.07	4,839.89	16.99	17.89	88.76	-129.28	464.73	498.92	464.68	34.24	14.571		
5,000.00	4,995.21	4,973.62	4,952.83	17.34	18.32	89.22	-133.11	475.82	508.63	473.64	35.00	14.533		
5,100.00	5,095.21	5,087.76	5,066.66	17.68	18.75	89.54	-135.85	483.77	515.57	479.82	35.76	14.419		
5,200.00	5,195.21	5,202.32	5,181.10	18.03	19.16	89.72	-137.48	488.50	519.70	483.19	36.51	14.233		
5,300.00	5,295.21	5,316.45	5,295.21	18.38	19.55	89.78	-138.00	490.00	521.00	483.74	37.26	13.982		
5,400.00	5,395.21	5,416.45	5,395.21	18.73	19.88	89.78	-138.00	490.00	521.00	483.06	37.95	13.730		
5,500.00	5,495.21	5,516.45	5,495.21	19.08	20.21	89.78	-138.00	490.00	521.00	482.37	38.63	13.487		
5,600.00	5,595.21	5,616.45	5,595.21	19.43	20.54	89.78	-138.00	490.00	521.00	481.69	39.32	13.251		
5,700.00	5,695.21	5,716.45	5,695.21	19.78	20.87	89.78	-138.00	490.00	521.00	481.00	40.00	13.024		
5,800.00	5,795.21	5,816.45	5,795.21	20.13	21.20	89.78	-138.00	490.00	521.00	480.31	40.69	12.803		
5,900.00	5,895.21	5,916.45	5,895.21	20.48	21.53	89.78	-138.00	490.00	521.00	479.62	41.38	12.590		
6,000.00	5,995.21	6,016.45	5,995.21	20.83	21.86	89.78	-138.00	490.00	521.00	478.93	42.07	12.384		
6,100.00	6,095.21	6,116.45	6,095.21	21.18	22.20	89.78	-138.00	490.00	521.00	478.24	42.76	12.183		
6,200.00	6,195.21	6,216.45	6,195.21	21.53	22.53	89.78	-138.00	490.00	521.00	477.55	43.46	11.989		
6,300.00	6,295.21	6,316.45	6,295.21	21.88	22.87	89.78	-138.00	490.00	521.00	476.86	44.15	11.801		
6,400.00	6,395.21	6,416.45	6,395.21	22.24	23.20	89.78	-138.00	490.00	521.00	476.16	44.84	11.619		
6,500.00	6,495.21	6,516.45	6,495.21	22.59	23.54	89.78	-138.00	490.00	521.00	475.47	45.54	11.442		
6,600.00	6,595.21	6,616.45	6,595.21	22.94	23.88	89.78	-138.00	490.00	521.00	474.77	46.23	11.270		
6,700.00	6,695.21	6,716.45	6,695.21	23.29	24.21	89.78	-138.00	490.00	521.00	474.08	46.93	11.103		
6,800.00	6,795.21	6,816.45	6,795.21	23.65	24.55	89.78	-138.00	490.00	521.00	473.38	47.62	10.941		
6,900.00	6,895.21	6,916.45	6,895.21	24.00	24.89	89.78	-138.00	490.00	521.00	472.69	48.32	10.783		
7,000.00	6,995.21	7,016.45	6,995.21	24.35	25.23	89.78	-138.00	490.00	521.00	471.99	49.02	10.629		
7,100.00	7,095.21	7,116.45	7,095.21	24.70	25.57	89.78	-138.00	490.00	521.00	471.29	49.71	10.480		
7,200.00	7,195.21	7,216.45	7,195.21	25.06	25.91	89.78	-138.00	490.00	521.00	470.59	50.41	10.335		
7,300.00	7,295.21	7,316.45	7,295.21	25.41	26.25	89.78	-138.00	490.00	521.00	469.89	51.11	10.194		
7,400.00	7,395.21	7,416.45	7,395.21	25.76	26.59	89.78	-138.00	490.00	521.00	469.19	51.81	10.056		
7,500.00	7,495.21	7,516.45	7,495.21	26.12	26.93	89.78	-138.00	490.00	521.00	468.49	52.51	9.922		
7,600.00	7,595.21	7,616.45	7,595.21	26.47	27.28	89.78	-138.00	490.00	521.00	467.79	53.21	9.791		
7,700.00	7,695.21	7,716.45	7,695.21	26.83	27.62	89.78	-138.00	490.00	521.00	467.09	53.91	9.664		
7,800.00	7,795.21	7,816.45	7,795.21	27.18	27.96	89.78	-138.00	490.00	521.00	466.39	54.61	9.540		
7,900.00	7,895.21	7,916.45	7,895.21	27.53	28.31	89.78	-138.00	490.00	521.00	465.69	55.31	9.419		
8,000.00	7,995.21	8,016.45	7,995.21	27.89	28.65	89.78	-138.00	490.00	521.00	464.99	56.02	9.301		
8,100.00	8,095.21	8,116.45	8,095.21	28.24	28.99	89.78	-138.00	490.00	521.00	464.29	56.72	9.186		
8,200.00	8,195.21	8,216.45	8,195.21	28.60	29.34	89.78	-138.00	490.00	521.00	463.58	57.42	9.073		
8,300.00	8,295.21	8,316.45	8,295.21	28.95	29.68	89.78	-138.00	490.00	521.00	462.88	58.12	8.964		
8,400.00	8,395.21	8,416.45	8,395.21	29.31	30.03	89.78	-138.00	490.00	521.00	462.18	58.83	8.857		
8,500.00	8,495.21	8,516.45	8,495.21	29.66	30.37	89.78	-138.00	490.00	521.00	461.47	59.53	8.752		
8,600.00	8,595.21	8,616.45	8,595.21	30.01	30.72	89.78	-138.00	490.00	521.00	460.77	60.23	8.650		
8,700.00	8,695.21	8,716.45	8,695.21	30.37	31.07	89.78	-138.00	490.00	521.00	460.07	60.94	8.550		
8,800.00	8,795.21	8,816.45	8,795.21	30.72	31.41	89.78	-138.00	490.00	521.00	459.36	61.64	8.452		
8,900.00	8,895.21	8,916.45	8,895.21	31.08	31.76	89.78	-138.00	490.00	521.00	458.66	62.35	8.356		
8,938.43	8,933.64	8,954.88	8,933.64	31.22	31.89	89.78	-138.00	490.00	521.00	458.38	62.62	8.320		
9,000.00	8,995.21	9,009.92	8,988.65	31.44	32.06	89.63	-136.65	490.24	521.29	458.26	63.03	8.270		
9,100.00	9,095.21	9,094.01	9,071.82	31.79	32.37	88.35	-124.90	492.33	524.07	460.40	63.68	8.230 SF		
9,200.00	9,195.21	9,173.05	9,147.61	32.15	32.62	85.99	-103.04	496.23	530.66	466.36	64.30	8.253		
9,300.00	9,295.21	9,250.00	9,217.78	32.50	32.85	82.74	-72.10	501.74	542.60	477.69	64.91	8.359		
9,400.00	9,395.21	9,308.35	9,267.83	32.86	33.00	79.74	-42.62	506.99	561.38	495.93	65.45	8.577		
9,500.00	9,495.21	9,363.69	9,312.26	33.21	33.13	76.57	-10.16	512.77	588.23	522.26	65.97	8.917		
9,600.00	9,595.21	9,411.49	9,347.92	33.57	33.24	73.65	21.15	518.35	623.63	557.17	66.46	9.384		
9,700.00	9,695.21	9,450.00	9,374.64	33.92	33.31	71.22	48.44	523.21	667.40	600.49	66.91	9.974		
9,718.82	9,714.03	9,450.00	9,374.64	33.99	33.31	71.22	48.44	523.21	676.64	609.66	66.98	10.102		
9,750.00	9,745.20	9,471.37	9,388.65	34.10	33.35	67.75	64.33	526.04	691.97	624.81	67.15	10.304		

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



Phoenix Technology Services

Anticollision Report



Company: Matador Resources
Project: Eddy County, NM (NAD27 NME)
Reference Site: Charlie Sweeney Federal 31-23S-28E
Site Error: 0.00 usft
Reference Well: 223H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Preliminary Plan 1

Local Co-ordinate Reference: Well 223H
TVD Reference: RKB @ 3138.50usft (Patterson 297)
MD Reference: RKB @ 3138.50usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: Compass 5000 GCR
Offset TVD Reference: Reference Datum

Offset Design Charlie Sweeney Federal 31-23S-28E - 207H - OH - Preliminary Plan 1													Offset Site Error:	0.00 usft
Survey Program: 0-PHX+MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance				Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
9,800.00	9,794.94	9,500.00	9,406.46	34.27	33.40	63.56	86.40	529.97	717.11	649.77	67.34	10.648		
9,850.00	9,844.07	9,500.00	9,406.46	34.44	33.40	61.01	86.40	529.97	742.14	674.81	67.33	11.022		
9,900.00	9,892.21	9,529.39	9,423.54	34.61	33.45	57.35	109.94	534.16	766.72	699.58	67.14	11.420		
9,950.00	9,938.99	9,550.00	9,434.79	34.76	33.48	54.38	126.94	537.19	790.85	724.18	66.67	11.862		
10,000.00	9,984.06	9,569.42	9,444.80	34.92	33.51	51.73	143.32	540.11	814.15	748.23	65.92	12.351		
10,050.00	10,027.08	9,600.00	9,459.42	35.06	33.57	49.15	169.76	544.82	836.58	771.71	64.86	12.898		
10,100.00	10,067.71	9,600.00	9,459.42	35.20	33.57	47.41	169.76	544.82	857.67	794.09	63.58	13.489		
10,150.00	10,105.65	9,630.77	9,472.66	35.34	33.62	45.43	197.10	549.69	877.29	815.27	62.02	14.146		
10,200.00	10,140.61	9,650.00	9,480.17	35.48	33.67	43.85	214.53	552.80	895.58	835.29	60.29	14.855		
10,250.00	10,172.33	9,672.26	9,488.11	35.61	33.71	42.49	235.00	556.44	912.29	853.85	58.44	15.610		
10,300.00	10,200.55	9,700.00	9,496.88	35.74	33.78	41.34	260.91	561.06	927.40	870.84	56.56	16.397		
10,350.00	10,225.08	9,714.04	9,500.82	35.87	33.82	40.43	274.18	563.42	940.65	885.93	54.72	17.191		
10,400.00	10,245.71	9,739.36	9,507.22	36.00	33.89	39.71	298.29	567.72	952.08	899.03	53.04	17.949		
10,450.00	10,262.30	9,766.61	9,513.37	36.13	33.96	39.20	324.43	572.37	961.35	909.71	51.65	18.614		
10,468.82	10,267.46	9,776.88	9,515.49	36.17	33.99	39.07	334.32	574.13	964.28	913.06	51.21	18.829		
10,500.00	10,275.04	9,800.00	9,519.86	36.26	34.06	39.04	356.67	578.11	968.73	917.78	50.94	19.016		
10,550.00	10,285.12	9,821.19	9,523.39	36.39	34.13	38.93	377.24	581.78	975.06	924.53	50.54	19.295		
10,600.00	10,292.62	9,850.00	9,527.44	36.53	34.22	38.94	405.32	586.78	980.57	930.22	50.35	19.475		
10,650.00	10,297.52	9,875.73	9,530.33	36.68	34.30	38.97	430.49	591.26	985.19	934.87	50.32	19.580		
10,700.00	10,299.82	9,900.00	9,532.42	36.83	34.39	39.05	454.30	595.50	988.95	938.50	50.45	19.602		
10,718.82	10,300.00	9,913.27	9,533.30	36.89	34.43	39.13	467.33	597.83	990.13	939.54	50.59	19.572		
10,800.00	10,300.00	9,957.64	9,534.92	37.16	34.58	39.52	510.98	605.60	998.51	945.27	51.23	19.450		
10,900.00	10,300.00	10,085.58	9,535.00	37.54	35.07	40.31	637.48	624.60	1,005.69	953.14	52.55	19.137		
11,000.00	10,300.00	10,237.62	9,535.00	37.98	35.73	40.76	789.04	636.15	1,010.10	956.27	53.83	18.766		
11,100.00	10,300.00	10,356.05	9,535.00	38.46	36.31	40.79	907.45	637.89	1,010.42	955.64	54.78	18.446		
11,200.00	10,300.00	10,456.05	9,535.00	38.99	36.84	40.79	1,007.45	638.72	1,010.42	954.71	55.70	18.140		
11,300.00	10,300.00	10,556.05	9,535.00	39.57	37.43	40.79	1,107.44	639.56	1,010.41	953.71	56.70	17.821		
11,400.00	10,300.00	10,656.05	9,535.00	40.19	38.05	40.79	1,207.44	640.40	1,010.41	952.65	57.77	17.491		
11,500.00	10,300.00	10,756.05	9,535.00	40.86	38.73	40.79	1,307.44	641.23	1,010.41	951.51	58.90	17.155		
11,600.00	10,300.00	10,856.05	9,535.00	41.56	39.44	40.79	1,407.43	642.07	1,010.41	950.31	60.10	16.813		
11,700.00	10,300.00	10,956.05	9,535.00	42.31	40.20	40.79	1,507.43	642.90	1,010.41	949.06	61.35	16.469		
11,800.00	10,300.00	11,056.05	9,535.00	43.09	40.99	40.79	1,607.43	643.74	1,010.41	947.75	62.66	16.125		
11,900.00	10,300.00	11,156.05	9,535.00	43.90	41.82	40.79	1,707.42	644.57	1,010.40	946.38	64.02	15.782		
12,000.00	10,300.00	11,256.05	9,535.00	44.75	42.68	40.79	1,807.42	645.41	1,010.40	944.97	65.43	15.442		
12,100.00	10,300.00	11,356.05	9,535.00	45.62	43.57	40.79	1,907.41	646.24	1,010.40	943.52	66.88	15.107		
12,200.00	10,300.00	11,456.05	9,535.00	46.53	44.49	40.79	2,007.41	647.08	1,010.40	942.02	68.38	14.776		
12,300.00	10,300.00	11,556.05	9,535.00	47.46	45.44	40.79	2,107.41	647.92	1,010.40	940.48	69.92	14.451		
12,400.00	10,300.00	11,656.05	9,535.00	48.42	46.42	40.79	2,207.40	648.75	1,010.40	938.90	71.49	14.133		
12,500.00	10,300.00	11,756.05	9,535.00	49.40	47.42	40.79	2,307.40	649.59	1,010.39	937.29	73.10	13.822		
12,600.00	10,300.00	11,856.05	9,535.00	50.41	48.44	40.79	2,407.40	650.42	1,010.39	935.65	74.74	13.518		
12,700.00	10,300.00	11,956.05	9,535.00	51.43	49.48	40.79	2,507.39	651.26	1,010.39	933.98	76.42	13.222		
12,800.00	10,300.00	12,056.05	9,535.00	52.48	50.55	40.79	2,607.39	652.09	1,010.39	932.27	78.12	12.934		
12,900.00	10,300.00	12,156.05	9,535.00	53.55	51.63	40.79	2,707.39	652.93	1,010.39	930.55	79.84	12.655		
13,000.00	10,300.00	12,256.05	9,535.00	54.63	52.73	40.79	2,807.38	653.76	1,010.39	928.79	81.60	12.383		
13,100.00	10,300.00	12,356.05	9,535.00	55.73	53.85	40.79	2,907.38	654.60	1,010.39	927.02	83.37	12.119		
13,200.00	10,300.00	12,456.05	9,535.00	56.85	54.98	40.79	3,007.38	655.44	1,010.38	925.22	85.17	11.863		
13,300.00	10,300.00	12,556.05	9,535.00	57.98	56.13	40.79	3,107.37	656.27	1,010.38	923.40	86.99	11.615		
13,400.00	10,300.00	12,656.05	9,535.00	59.12	57.29	40.79	3,207.37	657.11	1,010.38	921.56	88.82	11.375		
13,500.00	10,300.00	12,756.05	9,535.00	60.28	58.47	40.79	3,307.37	657.94	1,010.38	919.70	90.68	11.142		
13,600.00	10,300.00	12,856.05	9,535.00	61.45	59.66	40.79	3,407.36	658.78	1,010.38	917.83	92.55	10.917		
13,700.00	10,300.00	12,956.05	9,535.00	62.63	60.85	40.79	3,507.36	659.61	1,010.38	915.94	94.44	10.699		
13,800.00	10,300.00	13,056.05	9,535.00	63.83	62.06	40.79	3,607.36	660.45	1,010.37	914.03	96.34	10.487		

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



Phoenix Technology Services
Anticollision Report



Company: Matador Resources
Project: Eddy County, NM (NAD27 NME)
Reference Site: Charlie Sweeney Federal 31-23S-28E
Site Error: 0.00 usft
Reference Well: 223H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Preliminary Plan 1

Local Co-ordinate Reference: Well 223H
TVD Reference: RKB @ 3138.50usft (Patterson 297)
MD Reference: RKB @ 3138.50usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: Compass 5000 GCR
Offset TVD Reference: Reference Datum

Offset Design Charlie Sweeney Federal 31-23S-28E - 207H - OH - Preliminary Plan 1												Offset Site Error:	0.00 usft
Survey Program: 0-PHX+MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		Separation Factor
13,900.00	10,300.00	13,156.05	9,535.00	65.03	63.28	40.79	3,707.35	661.28	1,010.37	912.11	98.26	10.283	
14,000.00	10,300.00	13,256.05	9,535.00	66.25	64.51	40.79	3,807.35	662.12	1,010.37	910.18	100.19	10.084	
14,100.00	10,300.00	13,356.05	9,535.00	67.47	65.75	40.79	3,907.35	662.96	1,010.37	908.23	102.14	9.892	
14,200.00	10,300.00	13,456.05	9,535.00	68.70	67.00	40.79	4,007.34	663.79	1,010.37	906.28	104.09	9.707	
14,300.00	10,300.00	13,556.05	9,535.00	69.95	68.26	40.79	4,107.34	664.63	1,010.37	904.31	106.06	9.526	
14,400.00	10,300.00	13,656.05	9,535.00	71.19	69.52	40.79	4,207.33	665.46	1,010.37	902.33	108.04	9.352	
14,500.00	10,300.00	13,756.05	9,535.00	72.45	70.79	40.79	4,307.33	666.30	1,010.36	900.34	110.02	9.183	
14,600.00	10,300.00	13,856.05	9,535.00	73.72	72.07	40.79	4,407.33	667.13	1,010.36	898.34	112.02	9.019	
14,700.00	10,300.00	13,956.05	9,535.00	74.99	73.35	40.79	4,507.32	667.97	1,010.36	896.33	114.03	8.861	
14,800.00	10,300.00	14,056.05	9,535.00	76.26	74.64	40.79	4,607.32	668.81	1,010.36	894.32	116.04	8.707	
14,900.00	10,300.00	14,156.05	9,535.00	77.55	75.94	40.79	4,707.32	669.64	1,010.36	892.29	118.07	8.558	
15,000.00	10,300.00	14,256.05	9,535.00	78.84	77.24	40.79	4,807.31	670.48	1,010.36	890.26	120.10	8.413	
15,059.17	10,300.00	14,315.22	9,535.00	79.60	78.01	40.79	4,866.48	670.97	1,010.35	889.05	121.30	8.329	



Phoenix Technology Services

Anticollision Report



Company: Matador Resources
Project: Eddy County, NM (NAD27 NME)
Reference Site: Charlie Sweeney Federal 31-23S-28E
Site Error: 0.00 usft
Reference Well: 223H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Preliminary Plan 1

Local Co-ordinate Reference: Well 223H
TVD Reference: RKB @ 3138.50usft (Patterson 297)
MD Reference: RKB @ 3138.50usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: Compass 5000 GCR
Offset TVD Reference: Reference Datum

Offset Design Charlie Sweeney Federal 31-23S-28E - 227H - OH - Preliminary Plan 1												Offset Site Error:	0.00 usft
Survey Program: 0-PHX+MWD+HDGM												Offset Well Error:	0.00 usft
Reference				Offset			Semi Major Axis		Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	4.00	0.00	0.00	90.00	0.00	120.00	120.07				
100.00	100.00	96.00	100.00	0.13	0.12	90.00	0.00	120.00	120.00	119.75	0.25	471.153	
200.00	200.00	196.00	200.00	0.49	0.47	90.00	0.00	120.00	120.00	119.04	0.96	124.676	
300.00	300.00	296.00	300.00	0.85	0.83	90.00	0.00	120.00	120.00	118.32	1.68	71.452	
400.00	400.00	396.00	400.00	1.21	1.19	90.00	0.00	120.00	120.00	117.60	2.40	50.075	
500.00	500.00	496.00	500.00	1.56	1.55	90.00	0.00	120.00	120.00	116.89	3.11	38.544	
600.00	600.00	596.00	600.00	1.92	1.91	90.00	0.00	120.00	120.00	116.17	3.83	31.329	
700.00	700.00	696.00	700.00	2.28	2.27	90.00	0.00	120.00	120.00	115.45	4.55	26.390	
800.00	800.00	796.00	800.00	2.64	2.62	90.00	0.00	120.00	120.00	114.74	5.26	22.796	
900.00	900.00	896.00	900.00	3.00	2.98	90.00	0.00	120.00	120.00	114.02	5.98	20.063	
1,000.00	1,000.00	996.00	1,000.00	3.36	3.34	90.00	0.00	120.00	120.00	113.30	6.70	17.916	CC, ES
1,100.00	1,099.99	1,093.15	1,097.14	3.70	3.68	-102.91	-0.30	121.10	121.42	114.04	7.38	16.460	
1,200.00	1,199.91	1,190.00	1,193.92	4.03	4.01	-104.09	-1.24	124.56	125.89	117.86	8.03	15.671	
1,266.42	1,266.20	1,254.14	1,257.95	4.25	4.23	-105.22	-2.21	128.16	130.61	122.13	8.47	15.412	
1,300.00	1,299.70	1,286.50	1,290.23	4.36	4.34	-105.85	-2.81	130.37	133.49	124.79	8.70	15.347	
1,400.00	1,399.46	1,385.53	1,388.96	4.70	4.69	-107.53	-4.84	137.84	142.87	133.49	9.38	15.234	
1,500.00	1,499.22	1,485.00	1,488.13	5.04	5.04	-109.00	-6.88	145.37	152.38	142.32	10.07	15.138	
1,600.00	1,598.97	1,584.48	1,587.29	5.39	5.39	-110.30	-8.92	152.91	161.99	151.23	10.76	15.054	
1,700.00	1,698.73	1,683.95	1,686.46	5.74	5.75	-111.45	-10.96	160.44	171.66	160.20	11.46	14.981	
1,800.00	1,798.49	1,783.43	1,785.63	6.09	6.11	-112.48	-13.01	167.97	181.39	169.23	12.16	14.915	
1,900.00	1,898.24	1,882.90	1,884.80	6.45	6.47	-113.40	-15.05	175.51	191.18	178.31	12.87	14.857	
2,000.00	1,998.00	1,982.38	1,983.97	6.81	6.83	-114.24	-17.09	183.04	201.01	187.44	13.58	14.805	
2,100.00	2,097.76	2,081.85	2,083.14	7.17	7.19	-114.99	-19.13	190.57	210.88	196.59	14.29	14.758	
2,200.00	2,197.51	2,181.33	2,182.30	7.53	7.56	-115.68	-21.18	198.10	220.79	205.78	15.00	14.716	
2,300.00	2,297.27	2,280.80	2,281.47	7.89	7.92	-116.31	-23.22	205.64	230.72	215.00	15.72	14.677	
2,400.00	2,397.03	2,380.28	2,380.64	8.25	8.29	-116.89	-25.26	213.17	240.68	224.24	16.44	14.643	
2,500.00	2,496.78	2,479.75	2,479.81	8.61	8.65	-117.42	-27.30	220.70	250.66	233.50	17.16	14.611	
2,600.00	2,596.54	2,579.23	2,578.98	8.98	9.02	-117.91	-29.35	228.23	260.66	242.78	17.88	14.581	
2,700.00	2,696.30	2,678.70	2,678.15	9.34	9.38	-118.36	-31.39	235.77	270.67	252.08	18.60	14.554	
2,800.00	2,796.06	2,776.52	2,775.65	9.71	9.75	-118.77	-33.42	243.26	280.79	261.47	19.31	14.538	
2,900.00	2,895.81	2,869.88	2,868.57	10.08	10.10	-118.95	-35.80	252.05	292.45	272.43	20.02	14.610	
3,000.00	2,995.57	2,962.75	2,960.75	10.44	10.45	-118.89	-38.76	262.97	306.17	285.45	20.72	14.775	
3,057.40	3,052.83	3,015.80	3,013.26	10.65	10.66	-118.76	-40.72	270.17	314.97	293.84	21.13	14.908	
3,100.00	3,095.34	3,055.05	3,052.05	10.81	10.81	-118.68	-42.28	275.96	321.82	300.39	21.43	15.016	
3,200.00	3,195.24	3,149.05	3,144.71	11.17	11.18	-118.12	-46.43	291.24	338.38	316.23	22.15	15.277	
3,300.00	3,295.21	3,247.53	3,241.69	11.53	11.58	-117.16	-50.90	307.74	354.29	331.42	22.88	15.488	
3,323.82	3,319.03	3,270.98	3,264.79	11.61	11.67	75.59	-51.97	311.67	357.93	334.88	23.05	15.531	
3,400.00	3,395.21	3,346.01	3,338.88	11.86	11.98	76.60	-55.37	324.24	369.53	345.95	23.58	15.672	
3,500.00	3,495.21	3,444.49	3,435.66	12.20	12.38	77.83	-59.85	340.74	384.92	360.64	24.28	15.854	
3,600.00	3,595.21	3,542.97	3,532.65	12.53	12.78	78.97	-64.32	357.24	400.46	375.48	24.98	16.031	
3,700.00	3,695.21	3,641.45	3,629.64	12.87	13.18	80.02	-68.80	373.74	416.16	390.47	25.68	16.204	
3,800.00	3,795.21	3,739.94	3,726.62	13.21	13.59	81.00	-73.27	390.24	431.98	405.59	26.38	16.372	
3,900.00	3,895.21	3,838.42	3,823.61	13.55	14.00	81.91	-77.74	406.74	447.91	420.82	27.09	16.535	
4,000.00	3,995.21	3,936.90	3,920.59	13.89	14.40	82.75	-82.22	423.24	463.94	436.15	27.79	16.693	
4,100.00	4,095.21	4,035.38	4,017.58	14.23	14.81	83.54	-86.69	439.75	480.07	451.57	28.50	16.846	
4,200.00	4,195.21	4,133.86	4,114.57	14.57	15.22	84.28	-91.16	456.25	496.28	467.08	29.20	16.994	
4,300.00	4,295.21	4,232.34	4,211.55	14.92	15.63	84.97	-95.64	472.75	512.57	482.66	29.91	17.137	
4,400.00	4,395.21	4,330.82	4,308.54	15.26	16.05	85.62	-100.11	489.25	528.93	498.31	30.62	17.275	
4,500.00	4,495.21	4,429.31	4,405.52	15.61	16.46	86.23	-104.58	505.75	545.34	514.02	31.33	17.408	
4,600.00	4,595.21	4,527.79	4,502.51	15.95	16.88	86.80	-109.06	522.25	561.82	529.78	32.04	17.538	
4,700.00	4,695.21	4,626.27	4,599.50	16.30	17.29	87.34	-113.53	538.75	578.34	545.60	32.74	17.662	
4,800.00	4,795.21	4,724.75	4,696.48	16.64	17.71	87.85	-118.01	555.25	594.92	561.46	33.45	17.783	

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



Phoenix Technology Services

Anticollision Report



Company: Matador Resources
Project: Eddy County, NM (NAD27 NME)
Reference Site: Charlie Sweeney Federal 31-23S-28E
Site Error: 0.00 usft
Reference Well: 223H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Preliminary Plan 1

Local Co-ordinate Reference: Well 223H
TVD Reference: RKB @ 3138.50usft (Patterson 297)
MD Reference: RKB @ 3138.50usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: Compass 5000 GCR
Offset TVD Reference: Reference Datum

Offset Design Charlie Sweeney Federal 31-23S-28E - 227H - OH - Preliminary Plan 1													Offset Site Error:	0.00 usft
Survey Program: 0-PHX+MWD+HDGM													Offset Well Error:	0.00 usft
Reference				Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.00	4,895.21	4,823.23	4,793.47	16.99	18.12	88.34	-122.48	571.75	611.53	577.37	34.17	17.899		
5,000.00	4,995.21	4,938.74	4,907.48	17.34	18.60	88.83	-127.33	589.66	626.96	592.02	34.94	17.945		
5,100.00	5,095.21	5,056.69	5,024.41	17.68	19.07	89.22	-131.36	604.50	639.49	603.78	35.72	17.905		
5,200.00	5,195.21	5,175.48	5,142.61	18.03	19.53	89.51	-134.46	615.92	649.08	612.59	36.49	17.787		
5,300.00	5,295.21	5,294.90	5,261.74	18.38	19.97	89.70	-136.60	623.83	655.69	618.42	37.27	17.593		
5,400.00	5,395.21	5,414.72	5,381.47	18.73	20.39	89.81	-137.77	628.14	659.29	621.25	38.04	17.331		
5,500.00	5,495.21	5,528.47	5,495.21	19.08	20.76	89.83	-138.00	629.00	660.00	621.23	38.78	17.021		
5,600.00	5,595.21	5,628.47	5,595.21	19.43	21.08	89.83	-138.00	629.00	660.00	620.54	39.46	16.726		
5,700.00	5,695.21	5,728.47	5,695.21	19.78	21.41	89.83	-138.00	629.00	660.00	619.86	40.14	16.441		
5,800.00	5,795.21	5,828.47	5,795.21	20.13	21.73	89.83	-138.00	629.00	660.00	619.17	40.83	16.165		
5,900.00	5,895.21	5,928.47	5,895.21	20.48	22.05	89.83	-138.00	629.00	660.00	618.49	41.52	15.897		
6,000.00	5,995.21	6,028.47	5,995.21	20.83	22.38	89.83	-138.00	629.00	660.00	617.80	42.20	15.638		
6,100.00	6,095.21	6,128.47	6,095.21	21.18	22.71	89.83	-138.00	629.00	660.00	617.11	42.89	15.387		
6,200.00	6,195.21	6,228.47	6,195.21	21.53	23.03	89.83	-138.00	629.00	660.00	616.42	43.58	15.144		
6,300.00	6,295.21	6,328.47	6,295.21	21.88	23.36	89.83	-138.00	629.00	660.00	615.73	44.27	14.908		
6,400.00	6,395.21	6,428.47	6,395.21	22.24	23.69	89.83	-138.00	629.00	660.00	615.04	44.96	14.679		
6,500.00	6,495.21	6,528.47	6,495.21	22.59	24.02	89.83	-138.00	629.00	660.00	614.35	45.66	14.456		
6,600.00	6,595.21	6,628.47	6,595.21	22.94	24.35	89.83	-138.00	629.00	660.00	613.65	46.35	14.240		
6,700.00	6,695.21	6,728.47	6,695.21	23.29	24.69	89.83	-138.00	629.00	660.00	612.96	47.04	14.030		
6,800.00	6,795.21	6,828.47	6,795.21	23.65	25.02	89.83	-138.00	629.00	660.00	612.27	47.74	13.826		
6,900.00	6,895.21	6,928.47	6,895.21	24.00	25.35	89.83	-138.00	629.00	660.00	611.57	48.43	13.628		
7,000.00	6,995.21	7,028.47	6,995.21	24.35	25.69	89.83	-138.00	629.00	660.00	610.88	49.13	13.435		
7,100.00	7,095.21	7,128.47	7,095.21	24.70	26.02	89.83	-138.00	629.00	660.00	610.18	49.82	13.247		
7,200.00	7,195.21	7,228.47	7,195.21	25.06	26.36	89.83	-138.00	629.00	660.00	609.48	50.52	13.065		
7,300.00	7,295.21	7,328.47	7,295.21	25.41	26.69	89.83	-138.00	629.00	660.00	608.79	51.22	12.887		
7,400.00	7,395.21	7,428.47	7,395.21	25.76	27.03	89.83	-138.00	629.00	660.00	608.09	51.91	12.714		
7,500.00	7,495.21	7,528.47	7,495.21	26.12	27.37	89.83	-138.00	629.00	660.00	607.39	52.61	12.545		
7,600.00	7,595.21	7,628.47	7,595.21	26.47	27.70	89.83	-138.00	629.00	660.00	606.69	53.31	12.381		
7,700.00	7,695.21	7,728.47	7,695.21	26.83	28.04	89.83	-138.00	629.00	660.00	605.99	54.01	12.220		
7,800.00	7,795.21	7,828.47	7,795.21	27.18	28.38	89.83	-138.00	629.00	660.00	605.29	54.71	12.064		
7,900.00	7,895.21	7,928.47	7,895.21	27.53	28.72	89.83	-138.00	629.00	660.00	604.59	55.41	11.912		
8,000.00	7,995.21	8,028.47	7,995.21	27.89	29.06	89.83	-138.00	629.00	660.00	603.89	56.11	11.763		
8,100.00	8,095.21	8,128.47	8,095.21	28.24	29.40	89.83	-138.00	629.00	660.00	603.19	56.81	11.618		
8,200.00	8,195.21	8,228.47	8,195.21	28.60	29.74	89.83	-138.00	629.00	660.00	602.49	57.51	11.476		
8,300.00	8,295.21	8,328.47	8,295.21	28.95	30.08	89.83	-138.00	629.00	660.00	601.79	58.21	11.338		
8,400.00	8,395.21	8,428.47	8,395.21	29.31	30.42	89.83	-138.00	629.00	660.00	601.09	58.91	11.203		
8,500.00	8,495.21	8,528.47	8,495.21	29.66	30.76	89.83	-138.00	629.00	660.00	600.39	59.62	11.071		
8,600.00	8,595.21	8,628.47	8,595.21	30.01	31.11	89.83	-138.00	629.00	660.00	599.68	60.32	10.942		
8,700.00	8,695.21	8,728.47	8,695.21	30.37	31.45	89.83	-138.00	629.00	660.00	598.98	61.02	10.816		
8,800.00	8,795.21	8,828.47	8,795.21	30.72	31.79	89.83	-138.00	629.00	660.00	598.28	61.73	10.692		
8,900.00	8,895.21	8,928.47	8,895.21	31.08	32.13	89.83	-138.00	629.00	660.00	597.57	62.43	10.572		
9,000.00	8,995.21	9,028.47	8,995.21	31.44	32.48	89.83	-138.00	629.00	660.00	596.87	63.13	10.454		
9,100.00	9,095.21	9,128.47	9,095.21	31.79	32.82	89.83	-138.00	629.00	660.00	596.16	63.84	10.339		
9,200.00	9,195.21	9,228.47	9,195.21	32.15	33.17	89.83	-138.00	629.00	660.00	595.46	64.54	10.226		
9,300.00	9,295.21	9,328.47	9,295.21	32.50	33.51	89.83	-138.00	629.00	660.00	594.76	65.25	10.115		
9,400.00	9,395.21	9,428.47	9,395.21	32.86	33.85	89.83	-138.00	629.00	660.00	594.05	65.95	10.007		
9,500.00	9,495.21	9,528.47	9,495.21	33.21	34.20	89.83	-138.00	629.00	660.00	593.35	66.66	9.901		
9,600.00	9,595.21	9,628.47	9,595.21	33.57	34.55	89.83	-138.00	629.00	660.00	592.64	67.36	9.798		
9,700.00	9,695.21	9,728.47	9,695.21	33.92	34.89	89.83	-138.00	629.00	660.00	591.93	68.07	9.696		
9,718.82	9,714.03	9,747.28	9,714.03	33.99	34.96	89.83	-138.00	629.00	660.00	591.80	68.20	9.677		
9,750.00	9,745.20	9,778.12	9,744.86	34.10	35.06	89.36	-137.37	629.01	660.00	591.58	68.42	9.647		
9,800.00	9,794.94	9,827.50	9,794.03	34.27	35.23	89.40	-132.94	629.04	660.00	591.24	68.76	9.599		

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



Phoenix Technology Services

Anticollision Report



Company: Matador Resources
Project: Eddy County, NM (NAD27 NME)
Reference Site: Charlie Sweeney Federal 31-23S-28E
Site Error: 0.00 usft
Reference Well: 223H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Preliminary Plan 1

Local Co-ordinate Reference: Well 223H
TVD Reference: RKB @ 3138.50usft (Patterson 297)
MD Reference: RKB @ 3138.50usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: Compass 5000 GCR
Offset TVD Reference: Reference Datum

Offset Design Charlie Sweeney Federal 31-23S-28E - 227H - OH - Preliminary Plan 1													Offset Site Error:	0.00 usft
Survey Program: 0-PHX+MWD+HDGM													Offset Well Error:	0.00 usft
Reference				Offset		Semi Major Axis			Distance				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,850.00	9,844.07	9,876.93	9,842.67	34.44	35.39	89.44	-124.28	629.11	659.99	590.90	69.09	9.552		
9,900.00	9,892.21	9,926.39	9,890.42	34.61	35.55	89.48	-111.45	629.22	659.99	590.57	69.42	9.507		
9,950.00	9,938.99	9,975.89	9,936.93	34.76	35.70	89.53	-94.54	629.36	659.98	590.25	69.73	9.465		
10,000.00	9,984.06	10,025.45	9,981.85	34.92	35.83	89.58	-73.65	629.54	659.98	589.94	70.03	9.424		
10,050.00	10,027.08	10,075.06	10,024.84	35.06	35.96	89.64	-48.93	629.75	659.97	589.65	70.33	9.385		
10,100.00	10,067.71	10,124.72	10,065.58	35.20	36.08	89.70	-20.55	629.98	659.97	589.36	70.61	9.347		
10,150.00	10,105.65	10,174.44	10,103.75	35.34	36.18	89.76	11.28	630.25	659.97	589.09	70.88	9.311		
10,200.00	10,140.61	10,224.22	10,139.06	35.48	36.27	89.82	46.35	630.54	659.96	588.82	71.15	9.276		
10,250.00	10,172.33	10,274.07	10,171.23	35.61	36.34	89.88	84.40	630.86	659.96	588.55	71.41	9.242		
10,300.00	10,200.55	10,323.97	10,200.01	35.74	36.40	89.94	125.15	631.20	659.96	588.29	71.67	9.209		
10,343.27	10,222.00	10,367.22	10,222.00	35.85	36.45	90.00	162.38	631.52	659.96	588.07	71.89	9.181		
10,350.00	10,225.08	10,373.94	10,225.16	35.87	36.45	90.01	168.31	631.57	659.96	588.04	71.92	9.176		
10,400.00	10,245.71	10,423.98	10,246.49	36.00	36.49	90.07	213.55	631.95	659.96	587.79	72.17	9.144		
10,450.00	10,262.30	10,474.08	10,263.80	36.13	36.54	90.14	260.55	632.34	659.96	587.53	72.43	9.112		
10,468.82	10,267.46	10,492.95	10,269.25	36.17	36.55	90.16	278.62	632.49	659.96	587.44	72.52	9.100		
10,500.00	10,275.04	10,524.21	10,277.13	36.26	36.59	90.19	308.86	632.74	659.96	587.28	72.69	9.080		
10,550.00	10,285.12	10,574.33	10,287.65	36.39	36.69	90.22	357.86	633.15	659.97	587.01	72.95	9.047		
10,600.00	10,292.62	10,624.47	10,295.60	36.53	36.82	90.26	407.36	633.57	659.97	586.74	73.23	9.012		
10,650.00	10,297.52	10,674.64	10,300.93	36.68	36.97	90.30	457.23	633.99	659.97	586.45	73.52	8.977		
10,700.00	10,299.82	10,724.83	10,303.64	36.83	37.12	90.33	507.34	634.41	659.97	586.16	73.82	8.941		
10,718.82	10,300.00	10,743.72	10,303.97	36.89	37.18	90.34	526.23	634.57	659.97	586.04	73.93	8.927		
10,800.00	10,300.00	10,824.93	10,304.00	37.16	37.46	90.35	607.44	635.25	659.97	585.51	74.47	8.863		
10,900.00	10,300.00	10,924.93	10,304.00	37.54	37.84	90.35	707.44	636.09	659.97	584.75	75.22	8.774		
11,000.00	10,300.00	11,024.93	10,304.00	37.98	38.28	90.35	807.43	636.92	659.98	583.90	76.08	8.675		
11,100.00	10,300.00	11,124.93	10,304.00	38.46	38.76	90.35	907.43	637.76	659.98	582.94	77.04	8.567		
11,200.00	10,300.00	11,224.93	10,304.00	38.99	39.29	90.35	1,007.43	638.60	659.98	581.89	78.09	8.452		
11,300.00	10,300.00	11,324.93	10,304.00	39.57	39.86	90.35	1,107.42	639.44	659.98	580.74	79.24	8.329		
11,400.00	10,300.00	11,424.93	10,304.00	40.19	40.48	90.35	1,207.42	640.28	659.98	579.51	80.47	8.201		
11,500.00	10,300.00	11,524.93	10,304.00	40.86	41.14	90.35	1,307.42	641.12	659.98	578.19	81.79	8.069		
11,600.00	10,300.00	11,624.93	10,304.00	41.56	41.83	90.35	1,407.41	641.96	659.98	576.79	83.19	7.933		
11,700.00	10,300.00	11,724.93	10,304.00	42.31	42.57	90.35	1,507.41	642.80	659.98	575.31	84.67	7.795		
11,800.00	10,300.00	11,824.93	10,304.00	43.09	43.34	90.35	1,607.41	643.63	659.98	573.76	86.22	7.655		
11,900.00	10,300.00	11,924.93	10,304.00	43.90	44.14	90.35	1,707.40	644.47	659.98	572.15	87.84	7.514		
12,000.00	10,300.00	12,024.93	10,304.00	44.75	44.98	90.35	1,807.40	645.31	659.98	570.46	89.52	7.373		
12,100.00	10,300.00	12,124.93	10,304.00	45.62	45.85	90.35	1,907.40	646.15	659.98	568.72	91.26	7.232		
12,200.00	10,300.00	12,224.93	10,304.00	46.53	46.74	90.35	2,007.39	646.99	659.98	566.92	93.07	7.092		
12,300.00	10,300.00	12,324.93	10,304.00	47.46	47.67	90.35	2,107.39	647.83	659.98	565.06	94.92	6.953		
12,400.00	10,300.00	12,424.93	10,304.00	48.42	48.62	90.35	2,207.38	648.67	659.99	563.15	96.83	6.816		
12,500.00	10,300.00	12,524.93	10,304.00	49.40	49.59	90.35	2,307.38	649.51	659.99	561.20	98.79	6.681		
12,600.00	10,300.00	12,624.93	10,304.00	50.41	50.59	90.35	2,407.38	650.34	659.99	559.19	100.79	6.548		
12,700.00	10,300.00	12,724.93	10,304.00	51.43	51.60	90.35	2,507.37	651.18	659.99	557.15	102.84	6.418		
12,800.00	10,300.00	12,824.93	10,304.00	52.48	52.64	90.35	2,607.37	652.02	659.99	555.06	104.93	6.290		
12,900.00	10,300.00	12,924.93	10,304.00	53.55	53.70	90.35	2,707.37	652.86	659.99	552.94	107.05	6.165		
13,000.00	10,300.00	13,024.93	10,304.00	54.63	54.78	90.35	2,807.36	653.70	659.99	550.78	109.21	6.043		
13,100.00	10,300.00	13,124.93	10,304.00	55.73	55.87	90.35	2,907.36	654.54	659.99	548.58	111.41	5.924		
13,200.00	10,300.00	13,224.93	10,304.00	56.85	56.98	90.35	3,007.36	655.38	659.99	546.35	113.64	5.808		
13,300.00	10,300.00	13,324.93	10,304.00	57.98	58.10	90.35	3,107.35	656.22	659.99	544.10	115.89	5.695		
13,400.00	10,300.00	13,424.93	10,304.00	59.12	59.24	90.35	3,207.35	657.05	659.99	541.81	118.18	5.585		
13,500.00	10,300.00	13,524.93	10,304.00	60.28	60.39	90.35	3,307.35	657.89	659.99	539.50	120.49	5.477		
13,600.00	10,300.00	13,624.93	10,304.00	61.45	61.55	90.35	3,407.34	658.73	659.99	537.17	122.83	5.373		
13,700.00	10,300.00	13,724.93	10,304.00	62.63	62.73	90.35	3,507.34	659.57	660.00	534.80	125.19	5.272		
13,800.00	10,300.00	13,824.93	10,304.00	63.83	63.92	90.35	3,607.34	660.41	660.00	532.42	127.57	5.173		

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



Phoenix Technology Services
Anticollision Report



Company: Matador Resources
Project: Eddy County, NM (NAD27 NME)
Reference Site: Charlie Sweeney Federal 31-23S-28E
Site Error: 0.00 usft
Reference Well: 223H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Preliminary Plan 1

Local Co-ordinate Reference: Well 223H
TVD Reference: RKB @ 3138.50usft (Patterson 297)
MD Reference: RKB @ 3138.50usft (Patterson 297)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: Compass 5000 GCR
Offset TVD Reference: Reference Datum

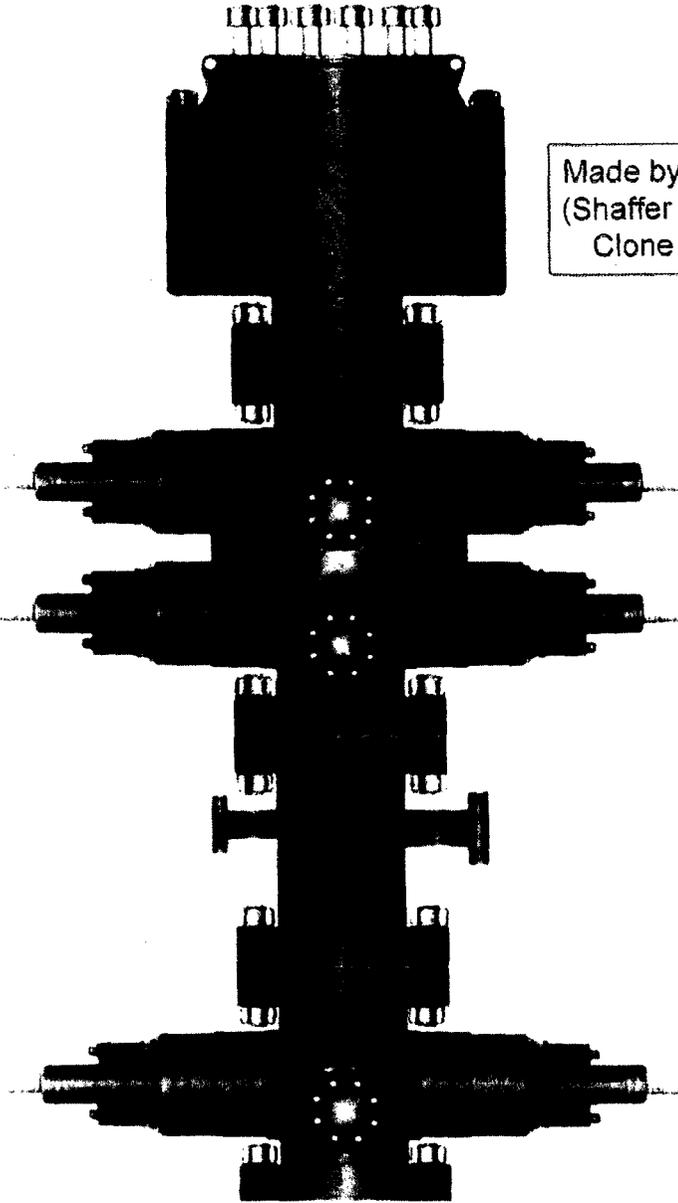
Offset Design Charlie Sweeney Federal 31-23S-28E - 227H - OH - Preliminary Plan 1														Offset Site Error:	0.00 usft
Survey Program: 0-PHX+MWD+HDGM														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Tooface (")	Offset Wellbore Centre		Distance		Minimum Separation (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)					
13,900.00	10,300.00	13,924.93	10,304.00	65.03	65.12	90.35	3,707.33	661.25	660.00	530.02	129.98	5.078			
14,000.00	10,300.00	14,024.93	10,304.00	66.25	66.32	90.35	3,807.33	662.09	660.00	527.59	132.40	4.985			
14,100.00	10,300.00	14,124.93	10,304.00	67.47	67.54	90.35	3,907.33	662.93	660.00	525.15	134.85	4.894			
14,200.00	10,300.00	14,224.93	10,304.00	68.70	68.77	90.35	4,007.32	663.76	660.00	522.69	137.31	4.807			
14,300.00	10,300.00	14,324.93	10,304.00	69.95	70.00	90.35	4,107.32	664.60	660.00	520.21	139.79	4.721			
14,400.00	10,300.00	14,424.93	10,304.00	71.19	71.25	90.35	4,207.31	665.44	660.00	517.72	142.28	4.639			
14,500.00	10,300.00	14,524.93	10,304.00	72.45	72.50	90.35	4,307.31	666.28	660.00	515.21	144.80	4.558			
14,600.00	10,300.00	14,624.93	10,304.00	73.72	73.76	90.35	4,407.31	667.12	660.00	512.68	147.32	4.480			
14,700.00	10,300.00	14,724.93	10,304.00	74.99	75.03	90.35	4,507.30	667.96	660.00	510.14	149.86	4.404			
14,800.00	10,300.00	14,824.93	10,304.00	76.26	76.30	90.35	4,607.30	668.80	660.00	507.59	152.41	4.330			
14,900.00	10,300.00	14,924.93	10,304.00	77.55	77.58	90.35	4,707.30	669.64	660.00	505.03	154.98	4.259			
15,000.00	10,300.00	15,024.93	10,304.00	78.84	78.86	90.35	4,807.29	670.47	660.01	502.45	157.55	4.189			
15,059.17	10,300.00	15,084.11	10,304.00	79.60	79.62	90.35	4,866.46	670.97	660.01	500.92	159.08	4.149 SF			



PATTERSON-UTI

Well Control

297



Made by Cameron
(Shaffer Spherical)
Clone Annular

PATTERSON-UTI # PS2-628
STYLE: New Shaffer Spherical
BORE 13 5/8" PRESSURE 5,000
HEIGHT: 48 1/2" WEIGHT: 13,800 lbs

PATTERSON-UTI # PC2-128
STYLE: New Cameron Type U
BORE 13 5/8" PRESSURE 10,000
RAMS: TOP 5" Pipe BTM Blinds
HEIGHT: 66 5/8" WEIGHT: 24,000 lbs

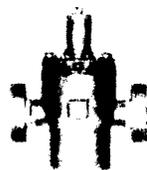
Length 40" Outlets 4" 10M
DSA 4" 10M x 2" 10M

PATTERSON-UTI # PC2-228
STYLE: New Cameron Type U
BORE 13 5/8" PRESSURE 10,000
RAMS: 5" Pipe
HEIGHT: 41 5/8" WEIGHT: 13,000 lbs

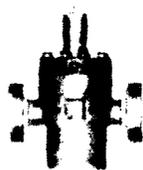
WING VALVES



2" Check Valve



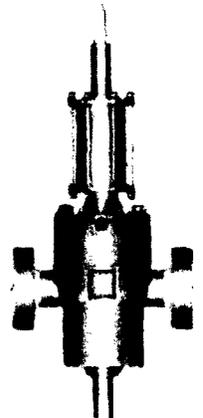
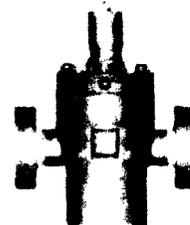
2" Manual Valve



2" Manual Valve

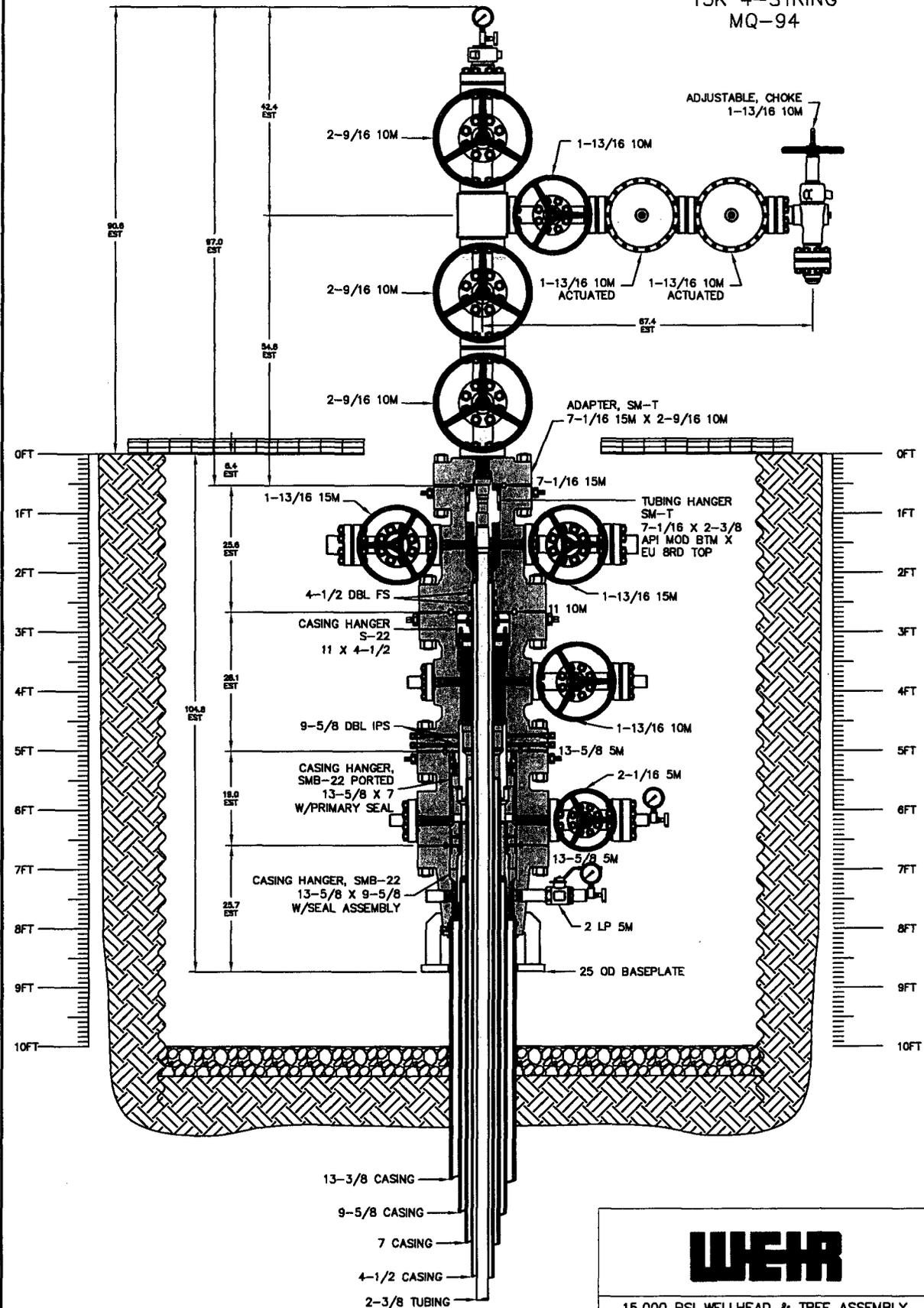


4" Manual Valve



4" Hydraulic Valve

MATADOR
15K 4-STRING
MQ-94



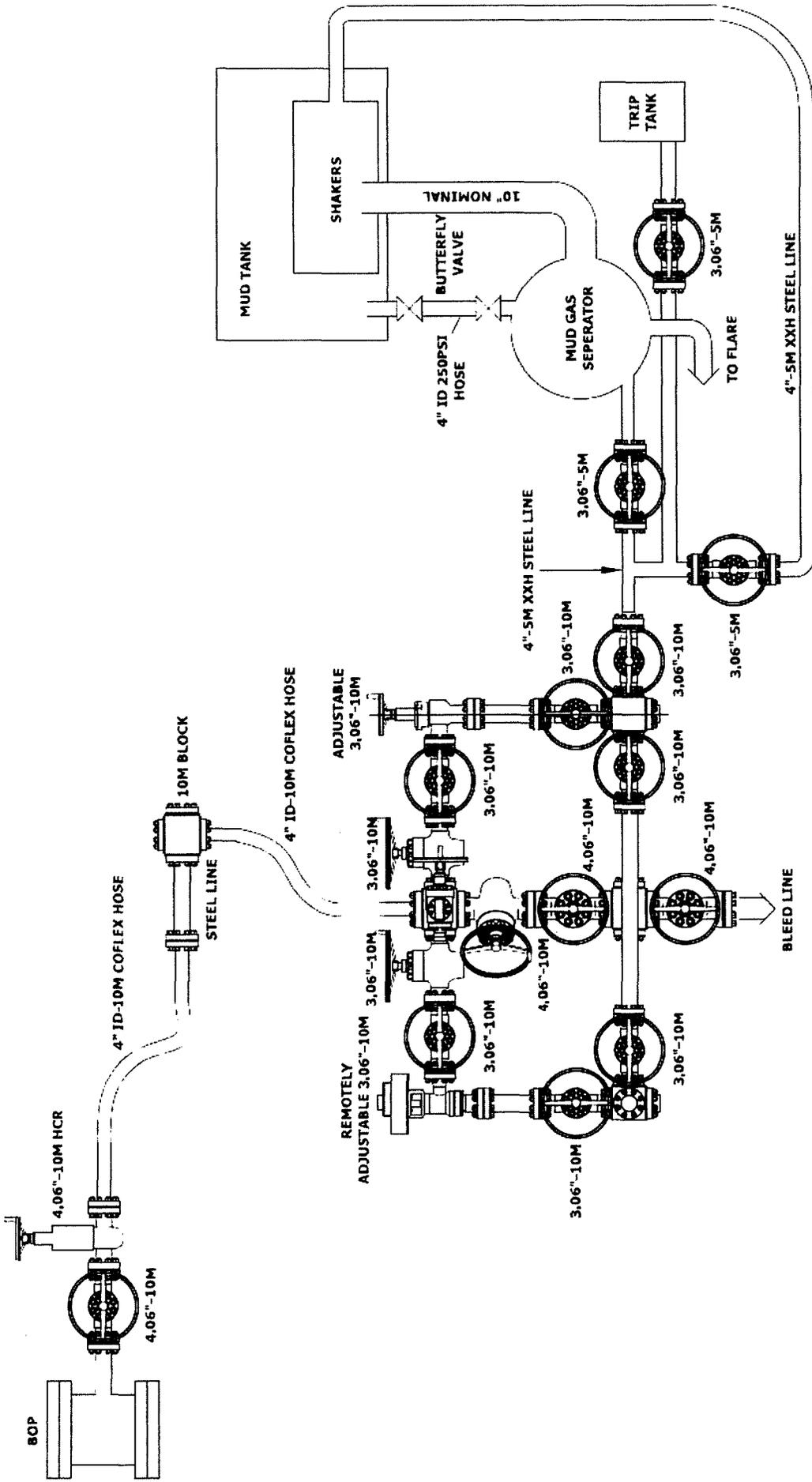
NOTE:
DIMENSIONS SHOWN ON THIS DRAWING ARE ESTIMATES ONLY AND CAN VARY SIGNIFICANTLY DEPENDING ON RAW MATERIAL LENGTHS. NO GUARANTEE OF STACKUP HEIGHT IS IMPLIED. DIMENSIONS SHOWN SHOULD BE CONSIDERED FOR REFERENCE PURPOSES ONLY.

RESTRICTED CONFIDENTIAL DOCUMENT
THIS DRAWING AND ALL INFORMATION SHOWN HEREON ARE THE EXCLUSIVE PROPERTY OF SEABOARD INTERNATIONAL INC AND ARE SUBMITTED ON A CONFIDENTIAL BASIS ONLY. THE RECIPIENT AGREES NOT TO REPRODUCE THE DRAWING, TO RETURN IT UPON REQUEST, AND THAT NO DISCLOSURE OF THE DRAWING OR THE INFORMATION SHOWN HEREON WILL BE MADE TO A THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF SEABOARD INTERNATIONAL INC.

WEIR

15,000 PSI WELLHEAD & TREE ASSEMBLY
13-3/8 X 9-5/8 X 7 X 4-1/2 X 2-3/8

DRAWN BY: RPL	SCALE: 1:10	DATE: 18JAN16	REV
CHECKED BY:	DRAWING NO. P-20986		
APPROVED BY:			



COPYRIGHT 2014
 PATTERSON-UTI
 DRILLING COMPANY LLC
 CONFIDENTIAL AND PROPRIETARY
 NOT TO BE DISTRIBUTED

CHOKE MANIFOLD
 10M CHOKE ARRANGEMENT
 RIG 237
 R0297-D.001.LAY.09

NO.	REV.	DATE	BY	CHKD.	APP'D.	DESCRIPTION
1	1	01/15/14	...	...	...	...
2	1	02/10/14	...	...	...	...
3	1	03/10/14	...	...	...	...
4	1	04/10/14	...	...	...	...
5	1	05/10/14	...	...	...	...
6	1	06/10/14	...	...	...	...
7	1	07/10/14	...	...	...	...
8	1	08/10/14	...	...	...	...
9	1	09/10/14	...	...	...	...
10	1	10/10/14	...	...	...	...
11	1	11/10/14	...	...	...	...
12	1	12/10/14	...	...	...	...

ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED,
 SHALL BE IN INCHES AND DECIMALS THEREOF.
 DIMENSIONS IN PARENTHESES ARE FOR INFORMATION ONLY.
 ALL DIMENSIONS SHALL BE TO UNLESS OTHERWISE SPECIFIED.
 ALL DIMENSIONS SHALL BE TO UNLESS OTHERWISE SPECIFIED.
 ALL DIMENSIONS SHALL BE TO UNLESS OTHERWISE SPECIFIED.
 ALL DIMENSIONS SHALL BE TO UNLESS OTHERWISE SPECIFIED.

December 31 2015



Connection: TenarisXP® BTC
 Casing/Tubing: CAS
 Coupling Option: REGULAR

Size: 4.500 in.
 Wall: 0.290 in.
 Weight: 13.50 lbs/ft
 Grade: P110-ICY
 Min. Wall Thickness: 87.5 %

Nominal OD	4.500 in.	Nominal Weight	13.50 lbs/ft	Standard Drift Diameter	3.795 in.
Nominal ID	3.920 in.	Wall Thickness	0.290 in.	Special Drift Diameter	N/A
Plain End Weight	13.05 lbs/ft				
Body Yield Strength	479 x 1000 lbs	Internal Yield	14100 psi	SMYS	125000 psi
Collapse	11620 psi				
Connection OD	5.000 in.	Coupling Length	9.075 in.	Connection ID	3.908 in.
Critical Section Area	3.836 sq. in.	Threads per in.	5.00	Make-Up Loss	4.016 in.
Tension Efficiency	100 %	Joint Yield Strength	479 x 1000 lbs	Internal Pressure Capacity ⁽¹⁾	14100 psi
Structural Compression Efficiency	100 %	Structural Compression Strength	479 x 1000 lbs	Structural Bending ⁽²⁾	127 °/100 ft
External Pressure Capacity	11620 psi				
Minimum	6950 ft-lbs	Optimum	7720 ft-lbs	Maximum	8490 ft-lbs
Operating Torque	10500 ft-lbs	Yield Torque	12200 ft-lbs		
<i>Blanking Dimensions</i>					

Internal Hydrostatic Test Graph

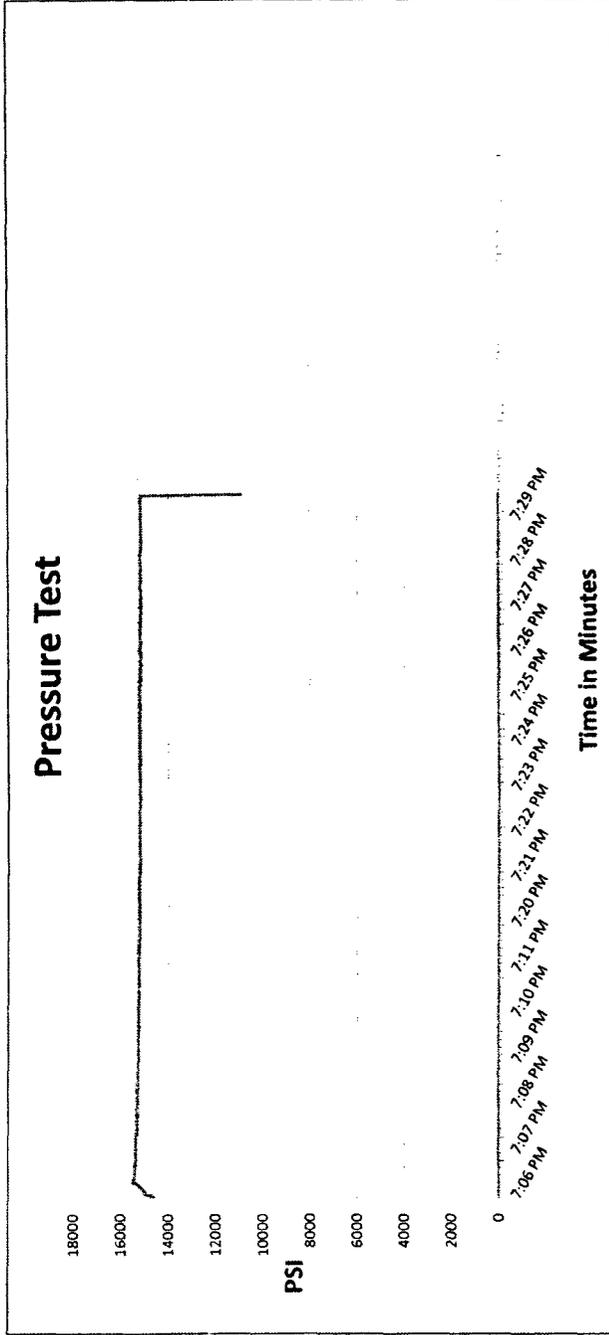


Midwest Hose & Specialty, Inc.

Customer: Patterson

Pick Ticket #: 284918

Hose Specifications		Verification	
Hose Type	CK	Type of Fitting	4-1/16 10K
Length	10'	Coupling Method	Swage
I.D.	3"	Die Size	5.37"
O.D.	4.79"	Final O.D.	5.37"
Working Pressure	10000 PSI	Hose Serial #	10490
	Standard Safety Multiplier Applies	Hose Assembly Serial #	284918-2





Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Certificate

General Information		Hose Specifications	
Customer	PATTERSON B&E	Hose Assembly Type	Choke & Kill
MWH Sales Representative	AMY WHITE	Certification	API 7K
Date Assembled	12/8/2014	Hose Grade	MUD
Location Assembled	OKC	Hose Working Pressure	10000
Sales Order #	236404	Hose Lot # and Date Code	10490-01/13
Customer Purchase Order #	260471	Hose I.D. (Inches)	3"
Assembly Serial # (Pick Ticket #)	287918-2	Hose O.D. (Inches)	5.30"
Hose Assembly Length	10'	Armor (yes/no)	YES
Fittings			
End A		End B	
Stem (Part and Revision #)	R3.0X64WB	Stem (Part and Revision #)	R3.0X64WB
Stem (Heat #)	91996	Stem (Heat #)	91996
Ferrule (Part and Revision #)	RF3.0	Ferrule (Part and Revision #)	RF3.0
Ferrule (Heat #)	37DA5631	Ferrule (Heat #)	37DA5631
Connection (Part #)	4 1/16 10K	Connection (Part #)	4 1/16 10K
Connection (Heat #)		Connection (Heat #)	
Dies Used	5.37	Dies Used	5.37
Hydrostatic Test Requirements			
Test Pressure (psi)	15,000	Hose assembly was tested with ambient water temperature.	
Test Pressure Hold Time (minutes)	15 1/2		
Date Tested	12/8/2014	Tested By	Approved By



Midwest Hose
& Specialty, Inc.

Certificate of Conformity

Customer: PATTERSON B&E

Customer P.O.# 260471

Sales Order # 236404

Date Assembled: 12/8/2014

Specifications

Hose Assembly Type: Choke & Kill

Assembly Serial # 287918-2

Hose Lot # and Date Code 10490-01/13

Hose Working Pressure (psi) 10000

Test Pressure (psi) 15000

We hereby certify that the above material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards.

Supplier:

Midwest Hose & Specialty, Inc.
3312 S I-35 Service Rd
Oklahoma City, OK 73129

Comments:

Approved By

Date

12/9/2014



Midwest Hose & Specialty, Inc.

Internal Hydrostatic Test Graph

December 9, 2014

Customer: Patterson

Pick Ticket #: 284918

Handwritten signature

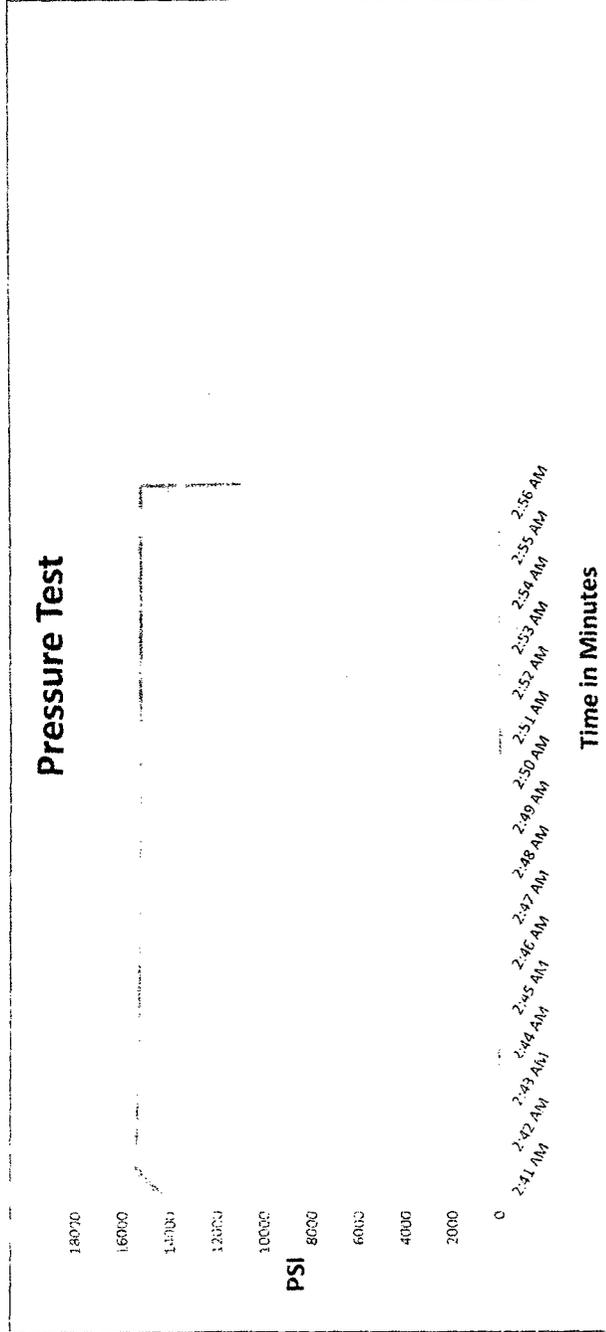
Hose Specifications

Hose Type: CK
Length: 20'
I.D.: 3"
O.D.: 4.77"Working Pressure: 10000 PSI

Verification

Type of Fitting: 4-1/16 10K
Die Size: 5.37"
Coupling Method: Swage
Final O.D.: 5.40"
Hose Serial #: 10490
Hose Assembly Serial #: 284918-1

Standard Safety Multiplier Applies



Test Pressure: 15000 PSI
 Time Held at Test Pressure: 15 2/4 Minutes
 Actual Burst Pressure: 15893 PSI
 Peak Pressure: 15893 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: Tyler Hill

Approved By: Ryan Adams

Handwritten signature: Tyler Hill

Handwritten signature: Ryan Adams



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Certificate

General Information		Hose Specifications	
Customer	PATTERSON B&E	Hose Assembly Type	Choke & Kill
MWH Sales Representative	AMY WHITE	Certification	API 7K
Date Assembled	12/8/2014	Hose Grade	MUD
Location Assembled	OKC	Hose Working Pressure	10000
Sales Order #	236404	Hose Lot # and Date Code	10490-01/13
Customer Purchase Order #	260471	Hose I.D. (Inches)	3"
Assembly Serial # (Pick Ticket #)	287918-1	Hose O.D. (Inches)	5.30"
Hose Assembly Length	20'	Armor (yes/no)	YES
Fittings			
End A		End B	
Stem (Part and Revision #)	R3.0X64WB	Stem (Part and Revision #)	R3.0X64WB
Stem (Heat #)	A141420	Stem (Heat #)	A141420
Ferrule (Part and Revision #)	RF3.0	Ferrule (Part and Revision #)	RF3.0
Ferrule (Heat #)	37DA5631	Ferrule (Heat #)	37DA5631
Connection (Part #)	4 1/16 10K	Connection (Part #)	4 1/16 10K
Connection (Heat #)	V3579	Connection (Heat #)	V3579
Dies Used	5.37	Dies Used	5.37
Hydrostatic Test Requirements			
Test Pressure (psi)	15,000	Hose assembly was tested with ambient water temperature.	
Test Pressure Hold Time (minutes)	15 1/2		
Date Tested	Tested By		Approved By
12/9/2014			



Midwest Hose
& Specialty, Inc.

Certificate of Conformity

Customer: **PATTERSON B&E**

Customer P.O.# **260471**

Sales Order # **236404**

Date Assembled: **12/8/2014**

Specifications

Hose Assembly Type: **Choke & Kill**

Assembly Serial # **287918-1**

Hose Lot # and Date Code **10490-01/13**

Hose Working Pressure (psi) **10000**

Test Pressure (psi) **15000**

We hereby certify that the above material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards.

Supplier:

Midwest Hose & Specialty, Inc.

3312 S I-35 Service Rd

Oklahoma City, OK 73129

Comments:

Approved By

Date

12/9/2014

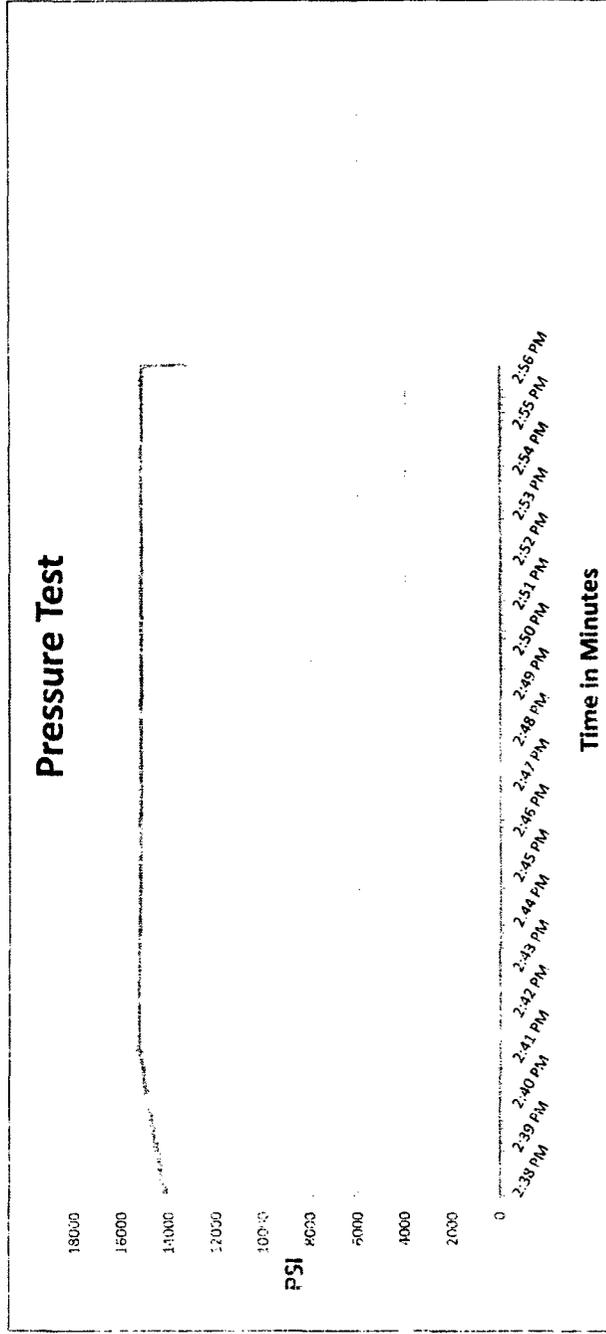
Internal Hydrostatic Test Graph

Customer: Patterson Pick Ticket #: 284918



Midwest Hose & Specialty, Inc.

Hose Specifications		Verification	
Hose Type Mud	Length 70'	Type of Fitting 4 1/16 10K	Coupling Method Swage
I.D. 3"	O.D. 4.79"	Die Size 5.37"	Final O.D. 5.37"
Working Pressure 10000 PSI	Burst Pressure Standard Safety Multiplier Applies	Hose Serial # 10490	Hose Assembly Serial # 284918-3



Test Pressure 15000 PSI Time Held at Test Pressure 16 3/4 Minutes Actual Burst Pressure Peak Pressure 15410 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: Tyler Hill

Approved By: Ryan Adams

(Handwritten signatures)



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Certificate

General Information		Hose Specifications	
Customer	PATTERSON B&E	Hose Assembly Type	Choke & Kill
MWH Sales Representative	AMY WHITE	Certification	API 7K
Date Assembled	12/8/2014	Hose Grade	MUD
Location Assembled	OKC	Hose Working Pressure	10000
Sales Order #	236404	Hose Lot # and Date Code	10490-01/13
Customer Purchase Order #	260471	Hose I.D. (Inches)	3"
Assembly Serial # (Pick Ticket #)	287918-3	Hose O.D. (Inches)	5.23"
Hose Assembly Length	70'	Armor (yes/no)	YES
Fittings			
End A		End B	
Stem (Part and Revision #)	R3.0X64WB	Stem (Part and Revision #)	R3.0X64WB
Stem (Heat #)	A141420	Stem (Heat #)	A141420
Ferrule (Part and Revision #)	RF3.0	Ferrule (Part and Revision #)	RF3.0
Ferrule (Heat #)	37DA5631	Ferrule (Heat #)	37DA5631
Connection (Part #)	4 1/16 10K	Connection (Part #)	4 1/16 10K
Connection (Heat #)		Connection (Heat #)	
Dies Used	5.37	Dies Used	5.37
Hydrostatic Test Requirements			
Test Pressure (psi)	15,000	Hose assembly was tested with ambient water temperature.	
Test Pressure Hold Time (minutes)	16 3/4		
Date Tested	12/9/2014	Tested By	Approved By



Midwest Hose
& Specialty, Inc.

Certificate of Conformity

Customer: **PATTERSON B&E**

Customer P.O.# **260471**

Sales Order # **236404**

Date Assembled: **12/8/2014**

Specifications

Hose Assembly Type: **Choke & Kill**

Assembly Serial # **287918-3**

Hose Lot # and Date Code **10490-01/13**

Hose Working Pressure (psi) **10000**

Test Pressure (psi) **15000**

We hereby certify that the above material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards.

Supplier:

Midwest Hose & Specialty, Inc.
3312 S I-35 Service Rd
Oklahoma City, OK 73129

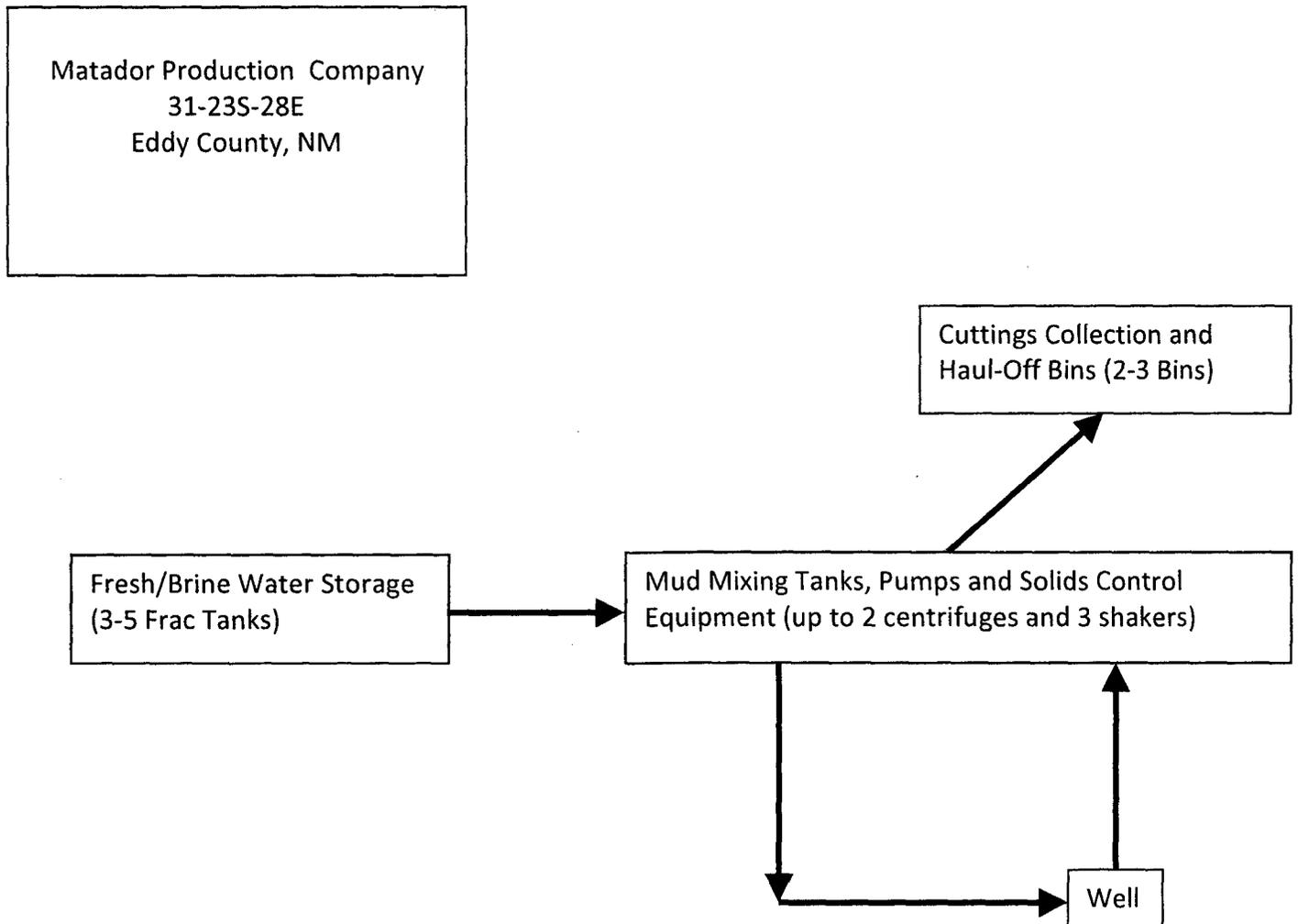
Comments:

Approved By

Date

12/9/2014

Closed-Loop System

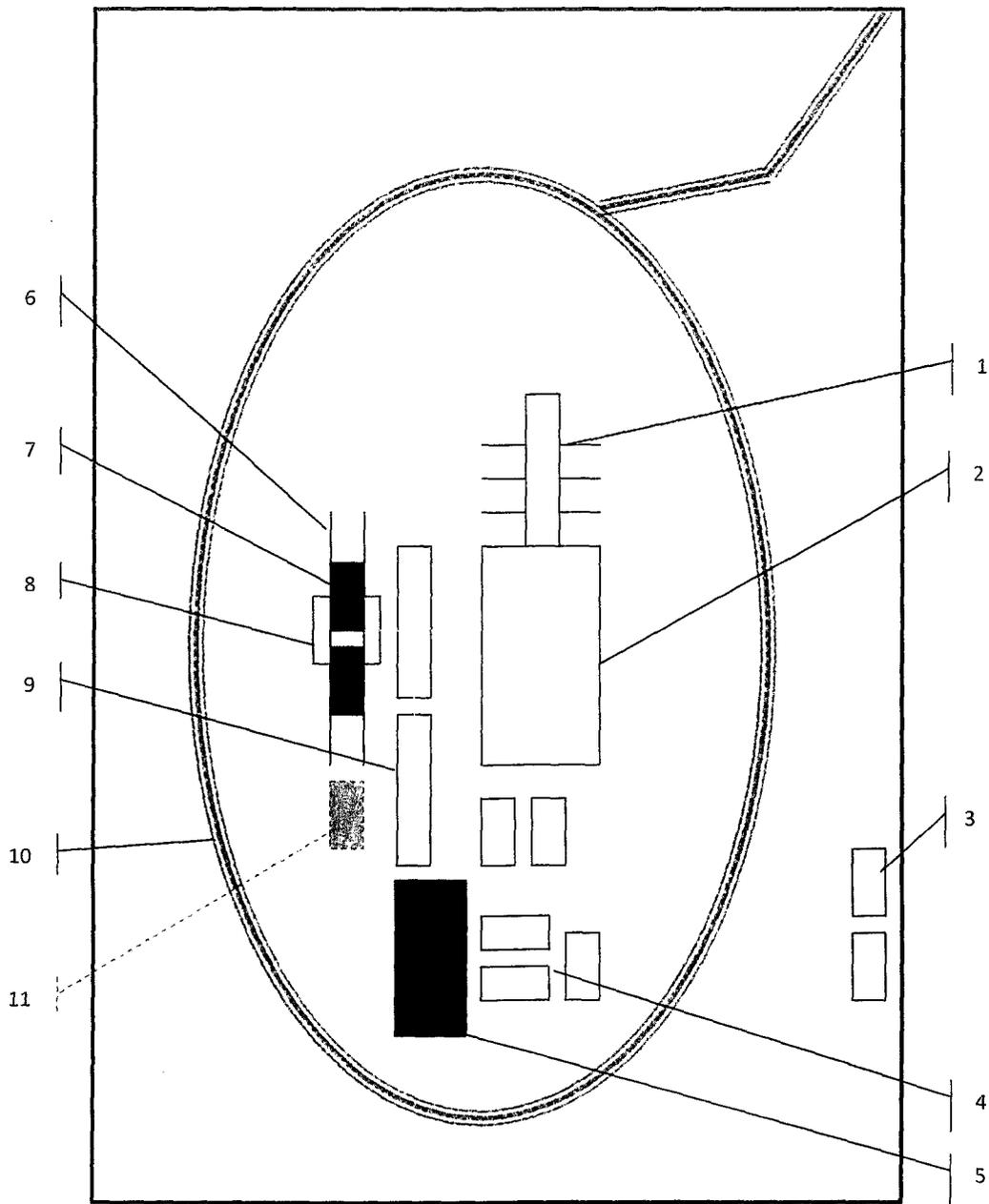


Operating and Maintenance Plan:

During drilling operations, third party service companies will utilize solids control equipment to remove cuttings from the drilling fluids and collect it in haul-off bins. Equipment will be closely monitored at all times while drilling by the derrick man and the service company employees.

Closure Plan:

During drilling operations, third party service companies will haul off drill solids and fluids to an approved disposal facility. At the end of the well, all closed loop equipment will be removed from the location.



Schematic Closed Loop Drilling Rig*

1. Pipe Rack
2. Drill Rig
3. House Trailers/ Offices
4. Generator/Fuel/Storage
5. Overflow-Frac Tank
6. Skids
7. Roll Offs
8. Hopper or Centrifuge
9. Mud Tanks
10. Loop Drive
11. Generator (only for use with centrifuge)

*Not drawn to scale: Closed loop system requires at least 30 feet beyond mud tanks. Ideally 60 feet would be available

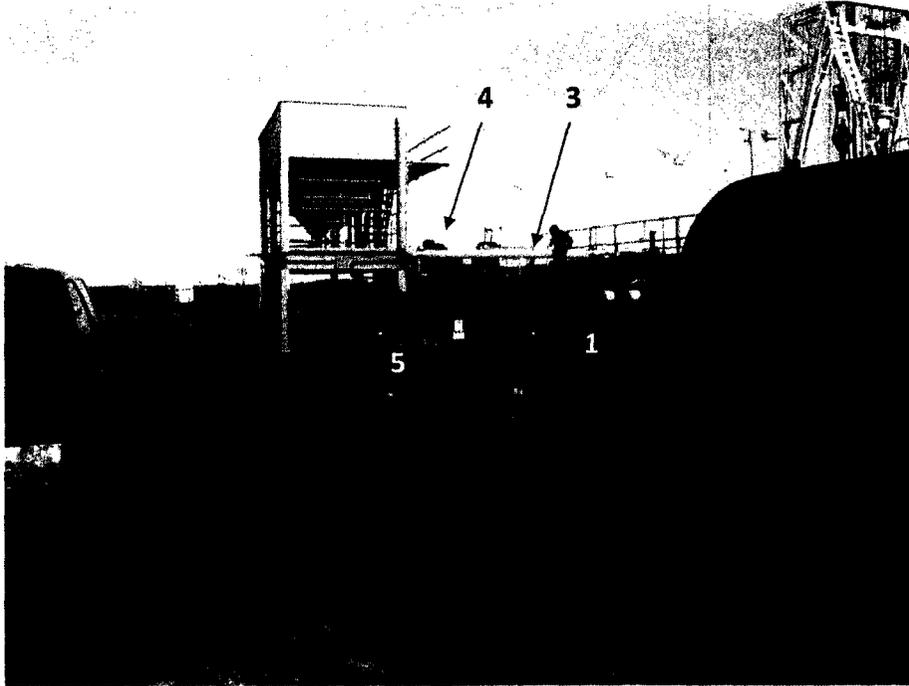


Above: Centrifugal Closed Loop System

PERMITS WEST, INC.

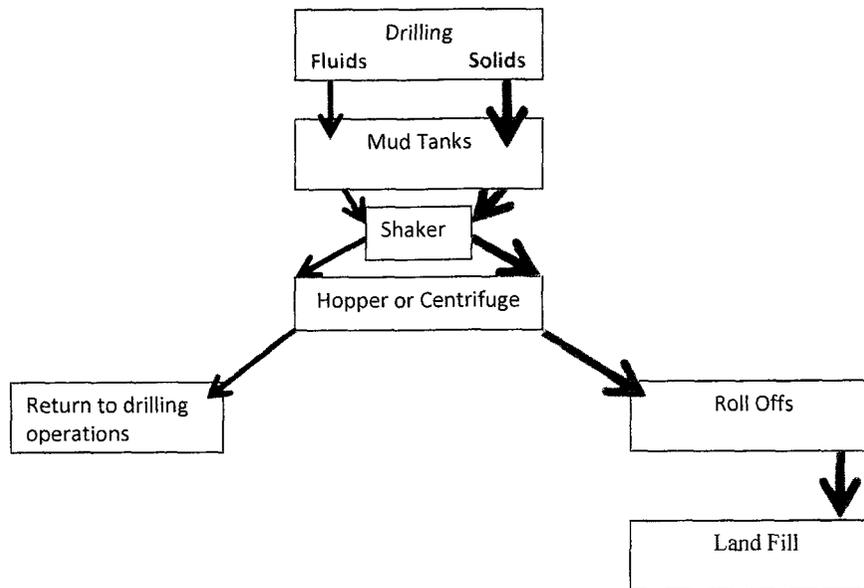
PROVIDING PERMITS for LAND USERS

17 Vorano Loop, Santa Fe, New Mexico 87508 (505) 466-8120



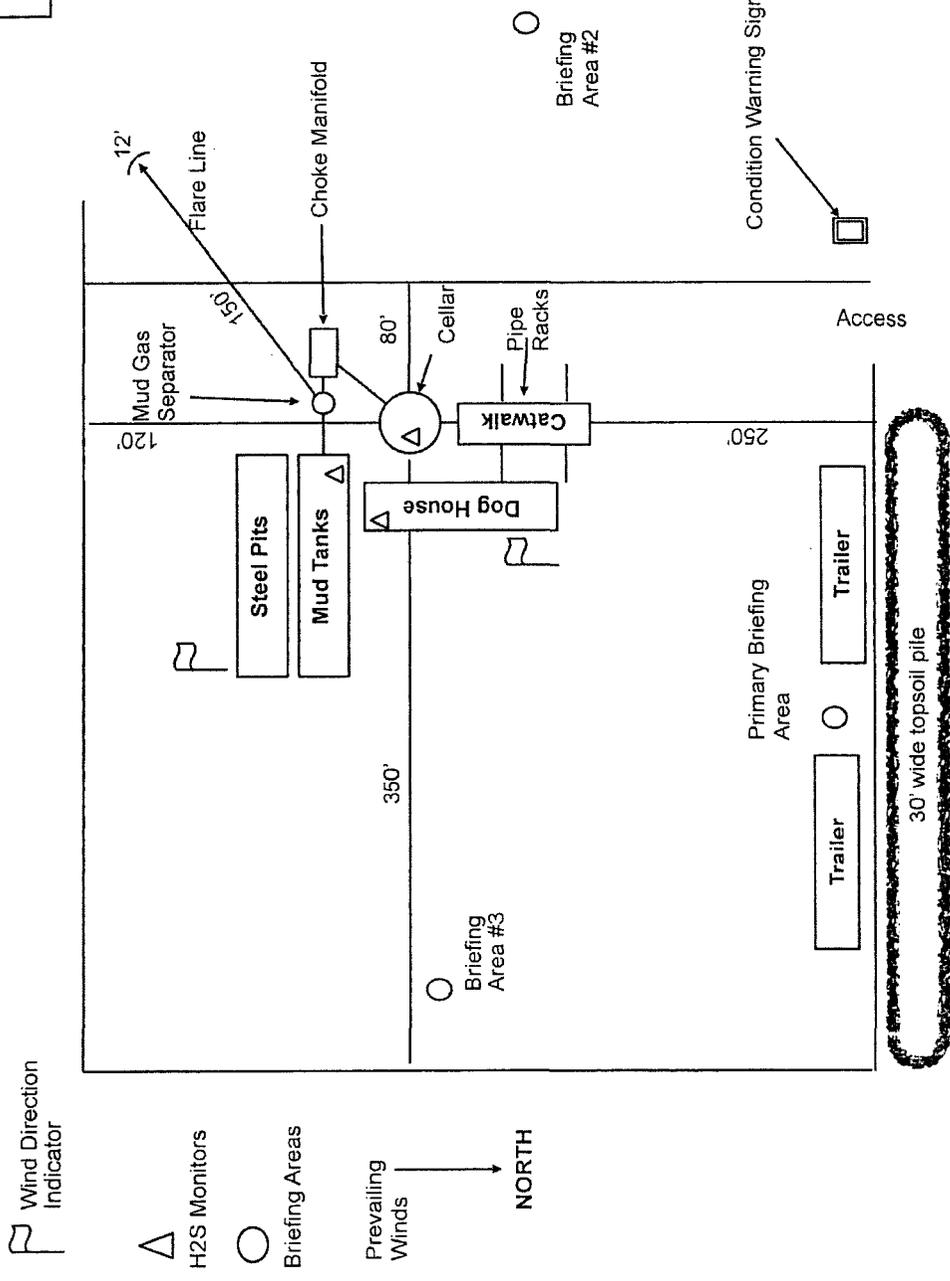
Closed Loop Drilling System: Mud tanks to right (1)
Hopper in air to settle out solids (2)
Water return pipe (3)
Shaker between hopper and mud tanks (4)
Roll offs on skids (5)

Flow Chart for Drilling Fluids and Solids



Rig Diagram

Rig Diagram
 Charlie Sweeney Fed Com 223H
 Matador Resources Company
 31-23S-28E
 SHL 190' FSL & 2280' FEL
 Eddy County, NM





Hydrogen Sulfide Drilling Operations Plan

Matador Production Company

1 H2S safety instructions to the following:

- Characteristics of H2S
- Physical effects and hazards
- Principal and operation of H2S detectors, warning system and briefing areas
- Evacuation procedures, routes and first aid
- Proper use of safety equipment & life support systems
- Essential personnel meeting medical evaluation criteria will receive additional training on the proper use of 30min pressure demand air packs

2 H2S Detection and Alarm Systems:

- H2S sensor/detectors to be located on the drilling rig floor, in the base of the sub structure / cellar area, on the mud pits in the shale shaker area. Additional H2S detectors may be placed as deemed necessary
- An audio alarm system will be installed on the derrick floor and in the doghouse

3 Windssocks and / Wind Streamers:

- Windssocks at mud pit area should be high enough to be visible
- Windssock on the rig floor and / top of doghouse should be high enough to be visible

4 Condition Flags and Signs:

- Warning sign on access road to location
- Flags to be displayed on sign at entrance to location
 - Green Flag – Normal Safe Operation Condition
 - Yellow Flag – Potential Pressure and Danger
 - Red Flag – Danger (H2S present in dangerous concentrations) Only H2S trained personnel admitted on location

5 Well Control Equipment:

- See APD

6 Communications:

- While working under masks, chalkboards will be used for communications
- Hand signals will be used where chalk board is inappropriate
- Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at drilling foreman's trailer or living quarters.



7 Drilling Stem Testing:

- No DST or cores are planned at this time

8 Drilling contractor supervisor will be required to be familiar with the effects H₂S has on tubulars good and other mechanical equipment

9 If H₂S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H₂S scavengers if necessary

11 Emergency Contacts

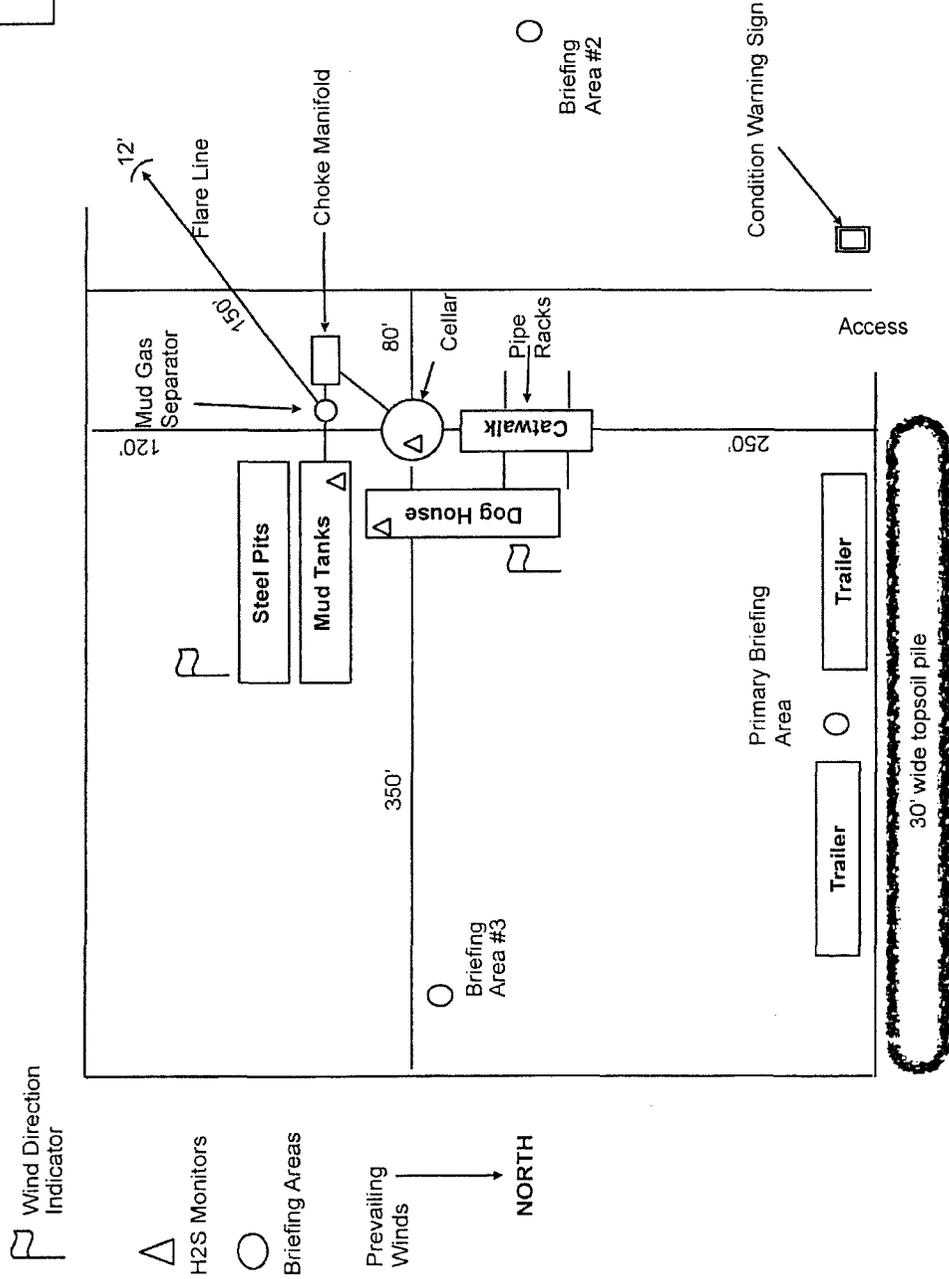
- See next page

H2S Contingency Plan Emergency Contacts
 Matador Production Company
 Sec. 31, 23S, 28E, Eddy County, NM

<u>Company Office</u>			
Matador Production Company	(972)-371-5200		
<u>Key Personnel</u>			
Name	Title	Office	Mobile
Billy Goodwin	Vice President Drilling	972-371-5210	817-522-2928
Gary Martin	Drilling Superintendent		601-669-1774
Dee Smith	Drilling Superintendent	972-371-5447	972-822-1010
Aaron Byrd	Drilling Engineer	972-371-5267	214-507-2333
	Construction Superintendent		
	Construction Superintendent		
<u>Artesia</u>			
Ambulance			911
State Police		575-746-2703	
City Police		575-746-2703	
Sheriff's Office		575-746-9888	
Fire Department		575-746-2701	
Local Emergency Planning Committee		575-746-2122	
New Mexico Oil Conservation Division		575-748-1283	
<u>Carlsbad</u>			
Ambulance			911
State Police		575-885-3137	
City Police		575-885-2111	
Sheriff's Office		575-887-7551	
Fire Department		575-887-3798	
Local Emergency Planning Committee		575-887-6544	
New Mexico Oil Conservation Division		575-887-6544	
<u>Santa Fe</u>			
New Mexico Emergency Response Commission (Santa Fe)		505-476-9600	
New Mexico Emergency Response Commission (Santa Fe) 24 hrs		505-827-9126	
New Mexico State Emergency Operations Center		505-476-9635	
<u>National</u>			
Carlsbad BLM		575-234-5972	
National Emergency Response Center (Washington, D.C.)		800-424-8802	
<u>Medical</u>			
Flight for Life- 4000 24th St.; Lubbock, TX		806-743-9911	
Aerocare- R3, Box 49F; Lubbock, TX		806-747-8923	
Med Flight Air Amb- 2301 Yale Blvd S.E., D3; Albuquerque, NM		505-842-4433	
SB Air Med Service- 2505 Clark Carr Loop S.E.; Albuquerque, NM		505-842-4949	
<u>Other</u>			
Boots & Coats IWC		800-256-9688	or 281-931-8884
Cudd Pressure Control		432-699-0139	or 432-563-3356
Haliburton		575-746-2757	
B.J. Services		575-746-3569	

H2S Rig Diagram

Rig Diagram
 Charlie Sweeney Fed Com 223H
 Matador Resources Company
 31-23S-28E
 SHL 190' FSL & 2280' FEL
 Eddy County, NM



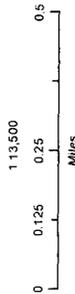
Matador Production Company

CHARLIE SWEENEY FED COM
 31-23S-28E #223H
 H+S Contingency Plan:
 1 Mile Radius Map

Section 31, Township 23S, Range 28E
 Eddy County, New Mexico



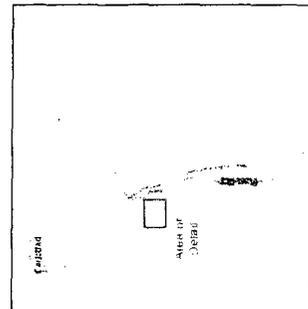
Surface Hole Location



NAD 1927 New Mexico State Plane East
 FIPS 3001 Feet

PERMITS WEST

Prepared by Permits West, Inc. May 25, 2016
 for Matador Production Company



1 Mile Radius

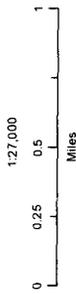
Matador Production Company

CHARLIE SWEENEY FED COM
31-23S-28E #223H
H&S Contingency Plan:
2 Mile Radius Map

Section 31, Township 23S, Range 28E
Eddy County, New Mexico



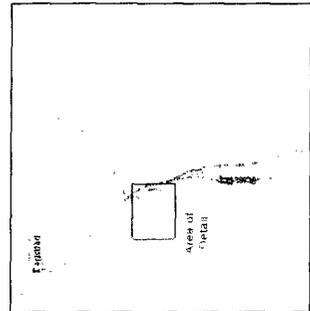
Surface Hole Location



NAD 1927 New Mexico State Plane East
FPS 3001 Feet



Prepared by Permits West, Inc. May 25, 2016
for Matador Production Company



**PECOS DISTRICT
DRILLING OPERATIONS
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	Matador Operating Company
LEASE NO.:	NMNM121941
WELL NAME & NO.:	223H-Charlie Sweeney Fed Com
SURFACE HOLE FOOTAGE:	190'/S & 2280'/E
BOTTOM HOLE FOOTAGE:	240'/N & 2310'/E
LOCATION:	Section 31, T. 23 S., R. 28 E., NMPM
COUNTY:	Eddy County, New Mexico

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(575) 361-2822

1. **Although Hydrogen Sulfide has not been reported in the area, it is always a potential hazard. It is recommended that monitoring equipment be onsite for potential Hydrogen Sulfide. If H₂S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, report measured amounts and formations to the BLM.**
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a “Major” violation.**
3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.
4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM**

office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) for Water Basin:

After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.

Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Medium Cave/Karst

Possibility of water flows in the Castile and Salado.

Possibility of lost circulation in the Red Beds, Rustler, and Delaware.

Abnormal pressures may be encountered upon penetrating the 3rd Bone Spring Sandstone and all subsequent formations.

1. The 13-3/8 inch surface casing shall be set at approximately 350 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. If salt is encountered, set casing at least 25 feet above the salt.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature

survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

- b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

If cement does not circulate to surface on the intermediate casing, the cement on the production casing must come to surface.

- 2. The minimum required fill of cement behind the **9-5/8** inch first intermediate casing, which shall be set at approximately **2450** feet, is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.**
- 3. The minimum required fill of cement behind the **7** inch second intermediate casing, is:
 - Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

Formation below the 7" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe and the mud weight for the bottom of the hole. Report results to BLM office.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

- 4. The minimum required fill of cement behind the **4-1/2** inch production casing is:
 - Cement as proposed by operator. Operator shall provide method of verification. **Excess calculates to 23% - Additional cement may be required.**

5. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API 53.
2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).
3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi
4. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** inch first intermediate casing shoe shall be **3000 (3M)** psi.
5. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **7** inch second intermediate casing shoe shall be **5000 (5M)** psi.

5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

6. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before

cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

- b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- d. The results of the test shall be reported to the appropriate BLM office.
- e. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**
- f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- g. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

D. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented.

E. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

F. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

G. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

MHH 11162016

Matador Production Company
Charlie Sweeney Fed Com 223H

SURFACE PLAN PAGE 1

SHL 190' FSL & 2280' FEL Sec. 31, T. 23 S., R. 28 E.
BHL 240' FNL & 2310' FEL Sec. 31, T. 23 S., R. 28 E.
Eddy County, NM

Surface Use Plan

1. ROAD DIRECTIONS & DESCRIPTIONS (See MAPS 1 - 4)

From the gas stations in Loving, NM...

Go South 1.0 mile on US 285 to a substation

Then turn right onto paved County Road 716 and continue South 0.4 mile

Turn right at a transfer station and go West 2.05 mi. on paved County Rd. 763

Then turn left and go South & SE 0.35 mile on a caliche road to a valve station

Then turn left at the valve station and go Southeast 1082.28' cross-country

Then turn left and go East 0.4 mile on an existing road

Then turn right and go South 326.53' cross-country to the proposed pad

Non-county roads will be maintained as needed to Gold Book standards. This includes pulling ditches, preserving the crown, and cleaning culverts. This will be done at least once a year, and more often as needed. Caliche will be hauled from existing caliche pits on private land in NWSE 1-24s-28e and NWSW 6-24s-29e.

2. ROAD TO BE BUILT OR UPGRADED (See MAPS 3 & 4)

Road from County Road 763 to the valve station is 2 lanes, crowned, and surfaced with caliche. No upgrade is needed.

All of the road (2/3 mile) from the valve station to the pad will be crowned, have a 14' wide driving surface, and be surfaced with caliche. Maximum disturbed width = 20'. Maximum grade = 2%. Maximum cut or fill = 1'. A cattle guard will be installed in the existing fence. No culvert or vehicle turn out is needed.

Matador Production Company

SURFACE PLAN PAGE 2

Charlie Sweeney Fed Com 31-23S-28E 223H

SHL 190' FSL & 2280' FEL Sec. 31, T. 23 S., R. 28 E.

BHL 240' FNL & 2310' FEL Sec. 31, T. 23 S., R. 28 E.

Eddy County, NM

3. EXISTING WELLS (See MAP 2)

Existing oil, gas, water, disposal, and P & A wells are within a mile. There are no injection wells within a mile radius.

4. PROPOSED PRODUCTION FACILITIES (See MAPS 3 & 8-11)

Oil tanks, water tanks, meter runs, separators, and a flare will be installed on the north side of the pad (see preceding diagram). A ≈ 6 " O. D. steel buried gas line and ≈ 6 " O. D. HDPE buried saltwater disposal line will be laid 627.47' east and then south in the same trench to Longwood Midstream's Black River Gathering System. A 3-phase raptor safe overhead power line will be built 3661.69' north the gas plant power line that is under construction.

5. WATER SUPPLY (See MAPS 3, 12, & 13)

Water will be piped 3750.25' via a ≈ 10 " O. D. surface "Fast Line" from an existing frac pond on private land in S2NW4 31-23s-28e.

6. CONSTRUCTION MATERIALS & METHODS (see MAPS 5-7)

NM One Call (811) will be notified before construction starts. A temporary fence will be built on the east side of the pad before construction starts to keep construction equipment out of an old canal. Top ≈ 6 " of soil and brush will be stockpiled north of the pad. Pipe racks will be to the west. A closed loop drilling system will be used. Caliche will be hauled from existing caliche pits on private land in NWSE 1-24s-28e and NWSW 6-24s-29e.

Matador Production Company

SURFACE PLAN PAGE 3

Charlie Sweeney Fed Com 31-23S-28E 223H

SHL 190' FSL & 2280' FEL Sec. 31, T. 23 S., R. 28 E.

BHL 240' FNL & 2310' FEL Sec. 31, T. 23 S., R. 28 E.

Eddy County, NM

7. WASTE DISPOSAL

All trash will be placed in a portable trash cage. It will be hauled to the Eddy County landfill. There will be no trash burning. Contents (drill cuttings, mud, salts, and other chemicals) of the mud tanks will be hauled to CRI's state approved (NM-01-0006) disposal site. Human waste will be disposed of in chemical toilets and hauled to the Carlsbad wastewater treatment plant.

8. ANCILLARY FACILITIES

There will be no airstrip or camp. Camper trailers will be on location for the company man, tool pusher, or mud logger.

9. WELL SITE LAYOUT

See Rig Diagram for depictions of the well pad, trash cage, access onto the location, parking, living facilities, and rig orientation.

10. RECLAMATION

Interim reclamation will be completed within 6 months of completing the last well on the pad. Interim reclamation will consist of shrinking the pad $\approx 21\%$ by removing caliche and reclaiming the south (30') and east (125') sides. This will leave 2.87 acres for the production equipment, 5 pump jacks, and tractor-trailer turn around. Disturbed areas will be contoured to match pre-construction grades. Soil and brush will be evenly spread over disturbed areas. Disturbed areas will be seeded in accordance with the surface owner's requirements. Enough stockpiled topsoil will be retained to cover the remainder of the pad when the wells are plugged. Once the last well is plugged, then the remainder of the pad will be similarly reclaimed within 6 months of plugging. Noxious weeds will be controlled.

Matador Production Company

SURFACE PLAN PAGE 4

Charlie Sweeney Fed Com 31-23S-28E 223H

SHL 190' FSL & 2280' FEL Sec. 31, T. 23 S., R. 28 E.

BHL 240' FNL & 2310' FEL Sec. 31, T. 23 S., R. 28 E.

Eddy County, NM

11. SURFACE OWNER

All construction will be on private surface.

Matador Resources Company has a private surface owner agreement with Vickie Connally (R211 Ash Road, Loving NM 88256) for the well site, pipelines, power line, and road in NWSW, S2S2, NWSE, & SWSE Section 31, T. 23 S., R. 28 E. and pipelines in Lot 2 Section 6, T. 24 S., R. 28 E.; all Eddy County, NM.

Matador Resources Company has a private surface owner agreement with Jacob & Merrellee Moore (1011 Bounds Road, Loving NM 88256) for their portion (NWNE 31-23s-28e) of the power line.

Matador Resources Company has a private surface owner agreement with Longwood Midstream Delaware LLC (5400 LBJ Freeway, Suite 1500, Dallas TX 75240) for their portion (Lot 2 31-23s-28e) of the water (Fast Line) pipeline.

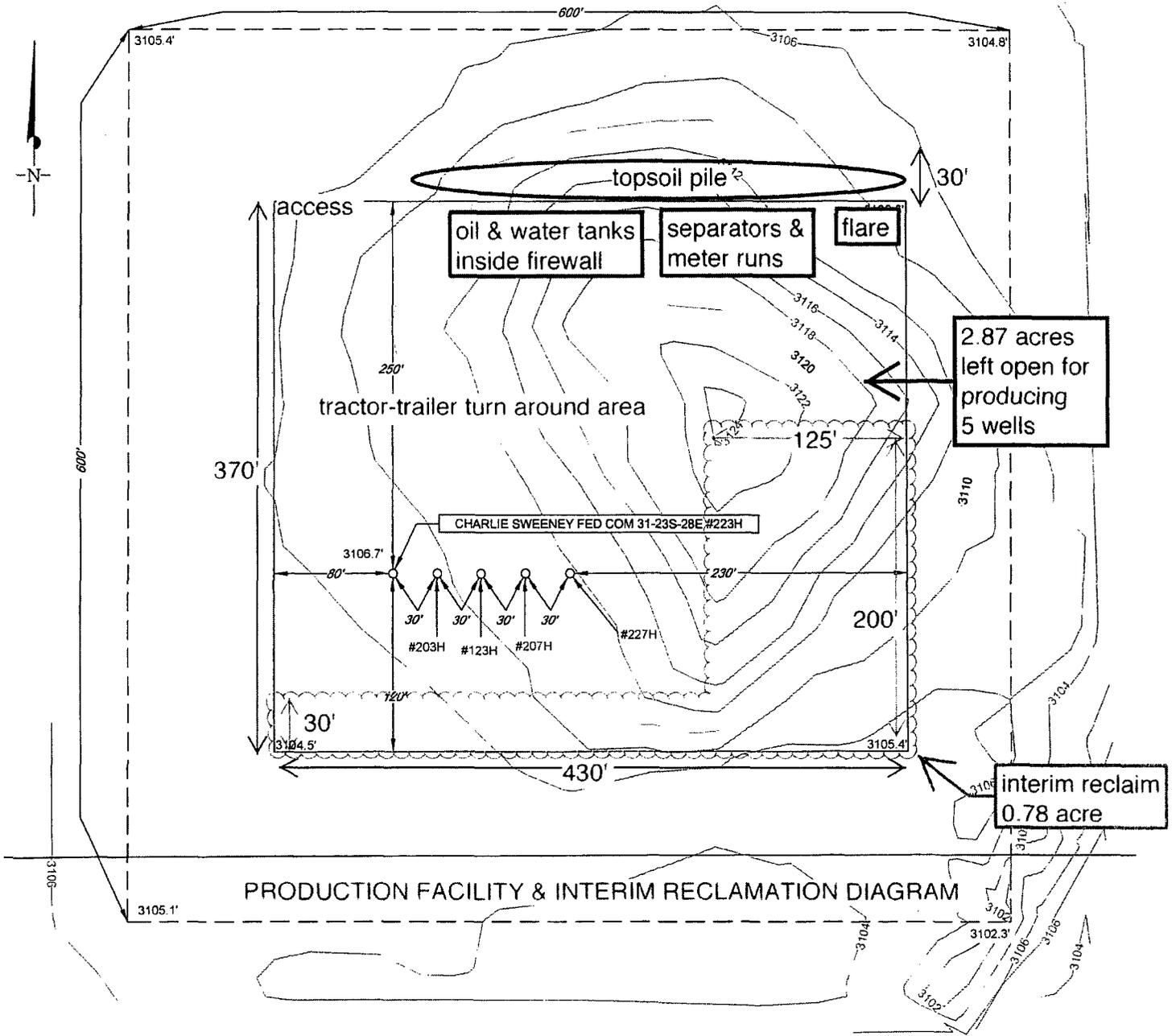
12. OTHER INFORMATION

On site inspection was held with Trish Bad Bear (BLM) on December 10, 2015.

Lone Mountain submitted archaeology report NMCRIS-135215 on February 29, 2016 for the well site and will file a report for the associated infrastructure.



SECTION 31, TOWNSHIP 23-S, RANGE 28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



PRODUCTION FACILITY & INTERIM RECLAMATION DIAGRAM

LEGEND

LEASE NAME & WELL NO.: CHARLIE SWEENEY FED COM 31-23S-28E #223H
 #223H LATITUDE N 32.2546333 #223H LONGITUDE W 104.1251244

SECTION LINE

SCALE: 1" = 100'

0' 50' 100'

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE OF THE NORTH AMERICAN DATUM 1927, U.S. SURVEY FEET

THIS PROPOSED PAD SITE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY MATADOR PRODUCTION COMPANY. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAN AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ORIGINAL DOCUMENT SIZE: 8.5" X 11"



1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
 TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
 2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
 TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
 WWW.TOPOGRAPHIC.COM

**PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	Matador Operating Company
LEASE NO.:	NMNM121941
WELL NAME & NO.:	223H-Charlie Sweeney Fed Com
SURFACE HOLE FOOTAGE:	190'S & 2280'E
BOTTOM HOLE FOOTAGE:	240'N & 2310'E
LOCATION:	Section 31, T. 23 S., R. 28 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- General Provisions**
- Permit Expiration**
- Archaeology, Paleontology, and Historical Sites**
- Noxious Weeds**
- Special Requirements**
 - Cave/Karst
 - Cultural
- Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- Road Section Diagram**
- Production (Post Drilling)**
 - Well Structures & Facilities
 - Pipelines
 - Electric Lines
- Interim Reclamation**
- Final Abandonment & Reclamation**

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Cave and Karst

** Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Construction:

In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

No Blasting:

No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Pad Berming:

The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.

- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g. caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised. (Any access road crossing the berm cannot be lower than the berm height.)

Tank Battery Liners and Berms:

Tank battery locations and all facilities will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

Leak Detection System:

A method of detecting leaks is required. The method could incorporate gauges to measure loss, situate values and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

Automatic Shut-off Systems:

Automatic shut off, check valves, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:

Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Directional Drilling:

Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

Lost Circulation:

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:

Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Pressure Testing:

Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS**Road Width**

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching

Ditching shall be required on both sides of the road.

Turnouts

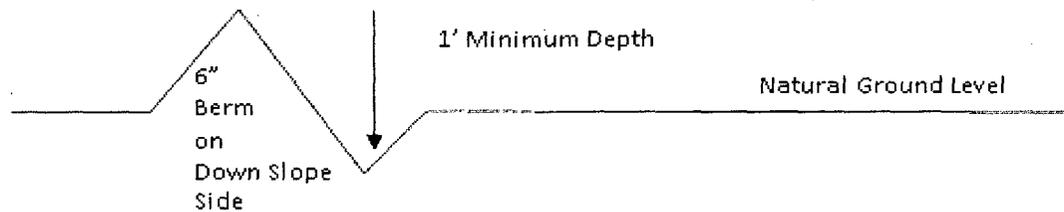
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill out-sloping and in-sloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

- Construction Steps**
1. Salvage topsoil
 2. Construct road
 3. Redistribute topsoil
 4. Revegetate slopes

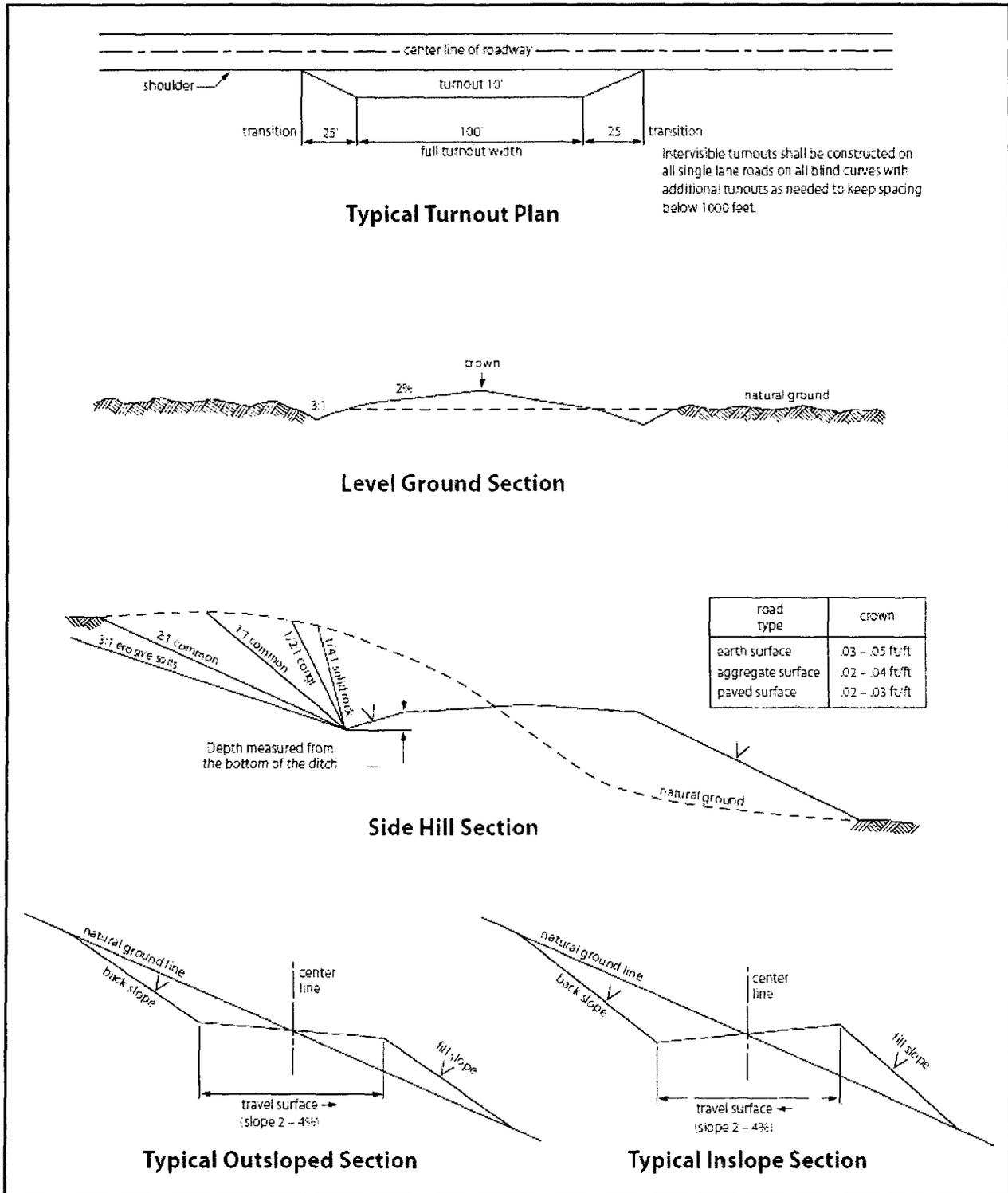


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)

Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening

The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures

The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. PIPELINES

BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of

the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of 36 inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be 30 feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed 20 feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)
- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed 30 feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)
- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

- | | |
|--|--|
| <input checked="" type="checkbox"/> seed mixture 1 | <input type="checkbox"/> seed mixture 3 |
| <input type="checkbox"/> seed mixture 2 | <input type="checkbox"/> seed mixture 4 |
| <input type="checkbox"/> seed mixture 2/LPC | <input type="checkbox"/> Aplomado Falcon Mixture |

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

17. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

18. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

- a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
- b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the Grant and attachments, including stipulations, survey plat(s) and/or map(s), shall be on location during construction. BLM personnel may request to review a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, Holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC § 2601 *et seq.* (1982) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant (*see* 40 CFR, Part 702-799 and in particular, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193). Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. Holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. § 9601, *et seq.* or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et seq.*) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way Holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way Holder on the Right-of-Way. This provision applies without regard to whether a release is caused by Holder, its agent, or unrelated third parties.
4. Holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. Holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:
 - a. Activities of Holder including, but not limited to: construction, operation, maintenance, and termination of the facility;
 - b. Activities of other parties including, but not limited to:
 - (1) Land clearing
 - (2) Earth-disturbing and earth-moving work
 - (3) Blasting
 - (4) Vandalism and sabotage;

c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars (\$1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of Holder, regardless of fault. Upon failure of Holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he/she deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of Holder. Such action by the Authorized Officer shall not relieve Holder of any responsibility as provided herein.

6. All construction and maintenance activity shall be confined to the authorized right-of-way width of 20 feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the surface pipeline shall be installed no farther than 10 feet from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline shall be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity shall be confined to existing roads or right-of-ways.

7. No blading or clearing of any vegetation shall be allowed unless approved in writing by the Authorized Officer.

8. Holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky or dune areas, the pipeline shall be "snaked" around hummocks and dunes rather than suspended across these features.

9. The pipeline shall be buried with a minimum of 24 inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When

necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.

14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

16. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, powerline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

17. Surface pipelines shall be less than or equal to 4 inches and a working pressure below 125 psi.

C. ELECTRIC LINES

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION

LINES

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.
4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.
5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to

the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms:

6. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.
7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.
8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.
9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.
10. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.
11. Special Stipulations:
 - For reclamation remove poles, lines, transformer, etc. and dispose of properly.
 - Fill in any holes from the poles removed.

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Seed Mixture 1 for Loamy Sites

Holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed shall be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed shall be either certified or registered seed. The seed container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed shall be planted using a drill equipped with a depth regulator to ensure proper depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture shall be evenly and uniformly planted over the disturbed area (small/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed shall be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre shall be doubled. The seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

<u>Species</u>	<u>lb/acre</u>
Plains lovegrass (Eragrostis intermedia)	0.5
Sand dropseed (Sporobolus cryptandrus)	1.0
Sideoats grama (Bouteloua curtipendula)	5.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed

NMOCD CONDITION OF APPROVAL

The *New!* Gas Capture Plan (GCP) notice is posted on the NMOCD website under Announcements. The Plan became effective May 1, 2016. A copy of the GCP form is included with the NOTICE and is also in our FORMS section under Unnumbered Forms. Please review filing dates for all applicable activities currently approved or pending and submit accordingly. Failure to file a GCP may jeopardize the operator's ability to obtain C-129 approval to flare gas after the initial 60-day completion period.