Carlsbad Field Office
OCD Artesia

NM OIL CONSERVATION
ARTESIA DISTRICT
MAY 12 2017
RECEIVED

HIGH CAVE/KARST

Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☑ DRILL ☐ REENTER	5. Lease Serial No. NMNM-003677
1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone	6. If Indian, Allotee or Tribe Name *N/A
2. Name of Operator MATADOR PRODUCTION COMPANY	7. If Unit or CA Agreement, Name and No. N/A
3a. Address 5400 LBJ FREEWAY, SUITE 1500 DALLAS, TX 75240	8. Lease Name and Well No. STEBBINS 20 FED 203H 315007
3b. Phone No. *(include area code)* 972 371 5241	9. API Well No. 30-015- 44184
4. Location of Well *(Report location clearly and in accordance with any State requirements.*)* At surface 1753' FSL & 130' FWL 20-20S-29E At proposed prod. zone 1870' FSL & 240' FEL 20-20S-29E	10. Field and Pool, or Exploratory PURPLE SAGE 98220 ~~BURTON FLAT~~; WOLFCAMP, ~~EAST~~ (G
	11. Sec., T. R. M. or Blk. and Survey or Area SHL: NWSW 20-20S-29E NMPM BHL: NESE 20-20S-29E NMPM
14. Distance in miles and direction from nearest town or post office* 11 MILES NE OF CARLSBAD, NM	12. County or Parish EDDY / 13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) SHL: 887' BHL: 1885'	16. No. of acres in lease BLM lease = 2150.97 acres / 17. Spacing Unit dedicated to this well S2 20-20S-29E
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. SHL: 30' Stebbins 133H BHL: 250' (dittto)	19. Proposed Depth TVD: 9295' MD: 14074' / 20. BLM/BIA Bond No. on file BLM NMB-001079
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3245' UNGRADED	22. Approximate date work will start* 01/02/2017 / 23. Estimated duration 3 MONTHS

24. Attachments

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

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

25. Signature B. Wood	Name *(Printed/Typed)* BRIAN WOOD (PHONE: 505 466-8120)	Date 08/26/2016
Title CONSULTANT	(FAX: 505 466-9682)	
Approved by *(Signature)* Cody R. Layton	Name *(Printed/Typed)* Cody R. Layton	Date 05/03/17
Title for 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. APPROVAL FOR TWO YEARS

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)

*(Instructions on page 2)

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

5-17-17 RP

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

NM OIL CONSERVATION
ARTESIA DISTRICT
MAY 12 2017
RECEIVED

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1]API Number	[2]Pool Code	[3]Pool Name
30-015- 44184	~~73480~~ 98220	Purple Sage ~~BURTON FLAT~~; WOLFCAMP, ~~EAST~~ (GAS)

[4]Property Code	[5]Property Name	[6]Well Number
315007	STEBBINS 20 FED	#203H

[7]OGRID No.	[8]Operator Name	[9]Elevation
228937	MATADOR PRODUCTION COMPANY	3245'

[10]Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	20	20-S	29-E	-	1753'	SOUTH	130'	WEST	EDDY

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	20	20-S	29-E	-	1870'	SOUTH	240'	EAST	EDDY

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

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.

16

SURFACE LOCATION
NEW MEXICO EAST
NAD 1927
X=570396
Y=566213
LAT.: N 32.5564184
LONG.: W 104.1048554
NAD 1983
X=611576
Y=566274
LAT.: N 32.5565368
LONG.: W 104.1053598
ELEV = 3245'

FIRST PERFORATION POINT
NEW MEXICO EAST
NAD 1927
X=570596
Y=566329
LAT.: N 32.5567380
LONG.: W 104.1042068
NAD 1983
X=611776
Y=566390
LAT.: N 32.5568564
LONG.: W 104.1047112

LAST PERFORATION POINT
NEW MEXICO EAST
NAD 1927
X=575225
Y=566325
LAT.: N 32.5566988
LONG.: W 104.0891804
NAD 1983
X=616405
Y=566386
LAT.: N 32.5568174
LONG.: W 104.0896844

BOTTOM HOLE LOCATION
NEW MEXICO EAST
NAD 1927
X=575315
Y=566325
LAT.: N 32.5566981
LONG.: W 104.0888883
NAD 1983
X=616495
Y=566386
LAT.: N 32.5568167
LONG.: W 104.0893923

889' 330' 772'
AZ = 59.69°
231.2'
AZ = 90.05°
4629.8'
330'
330'
AZ = 90.05°
90.0'
771' 770' 240'
330'
1753' 130'
1870'
1870' 1870'

[17]OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature 8-26-16 Date

BRIAN WOOD
Printed Name

brian@permitswest.com
E-mail Address

(505) 466-8120

[18]SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true to the best of my belief.

04/06/2016
Date of Survey

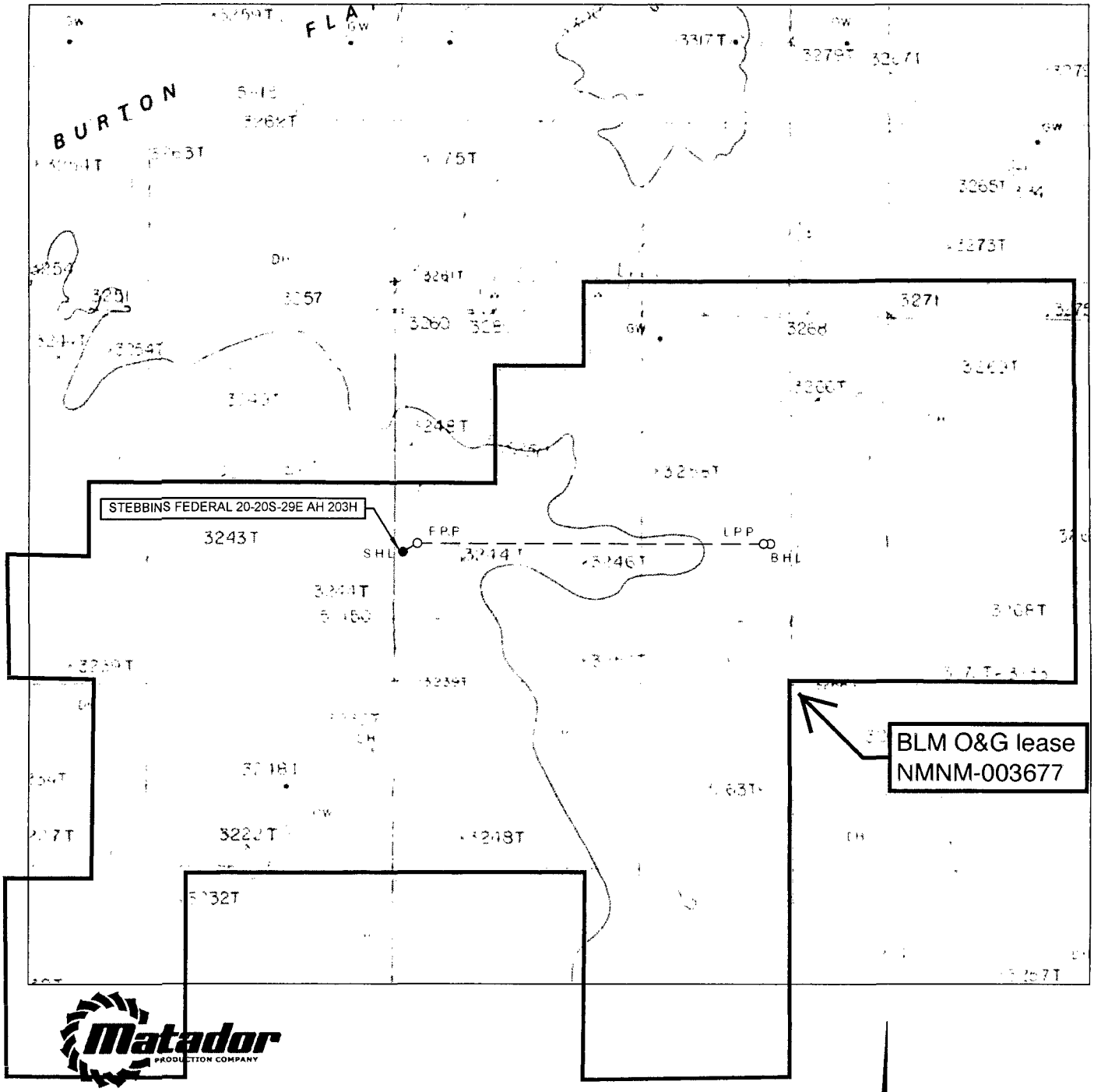
Signature and Seal of Professional Surveyor

MICHAEL D. BROWN
NEW MEXICO
18329
PROFESSIONAL SURVEYOR

Certificate Number

S:\SURVEY\MATADOR_RESOURCES\STEBBINS_FEDERAL_20-20S-29E_AH_203H\FINAL_PRODUCTS\LO_STEBBINS_FEDERAL_20-20S-29E_AH_203H.DWG 5/16/2016 9:00:39 AM jstovall

LOCATION & ELEVATION VERIFICATION MAP



LEASE NAME & WELL NO.: STEBBINS FEDERAL 20-20S-29E AH #203H

SECTION 20 TWP 20-S RGE 29-E SURVEY N.M.P.M.
COUNTY EDDY STATE NM ELEVATION 3245'
DESCRIPTION 1753' FSL & 130' FWL

LATITUDE N 32.5564184 LONGITUDE W 104.1048554

-N-

SCALE: 1" = 2000'
0' 1000' 2000'

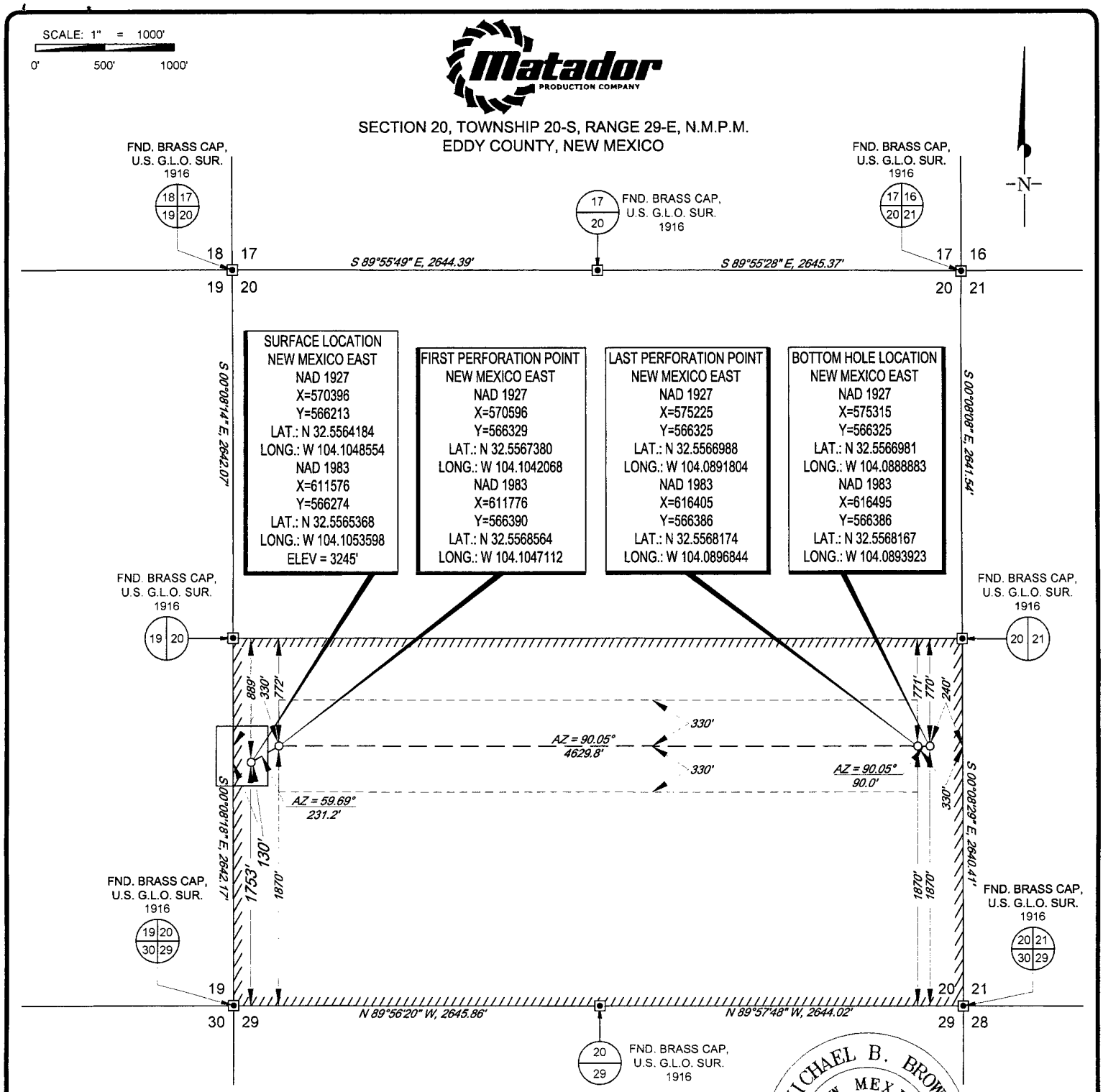
THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY MATADOR PRODUCTION COMPANY. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE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

WWW.TOPOGRAPHIC.COM

S:\SURVEY\MATADOR_RESOURCES\STEBBINS_FEDERAL_20-20S-29E_AH_203H\FINAL_PRODUCTS\LO_STEBBINS_FEDERAL_20-20S-29E_AH_203H.DWG 5/16/2016 9:01:09 AM jstovall



LEASE NAME & WELL NO.: STEBBINS FEDERAL 20-20S-29E AH #203H

SECTION 20 TWP 20-S RGE 29-E SURVEY N.M.P.M.

COUNTY EDDY STATE NM

DESCRIPTION 1753' FSL & 130' FWL

DISTANCE & DIRECTION

FROM INT. OF US-285 AND US-180/US-62 E/W GREENE ST. GO EAST ON

MICHAEL B. BROWN NEW MEXICO 18329 PROFESSIONAL SURVEYOR

Michael Blake Brown, P.S. No. 18329

APRIL 12, 2016

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

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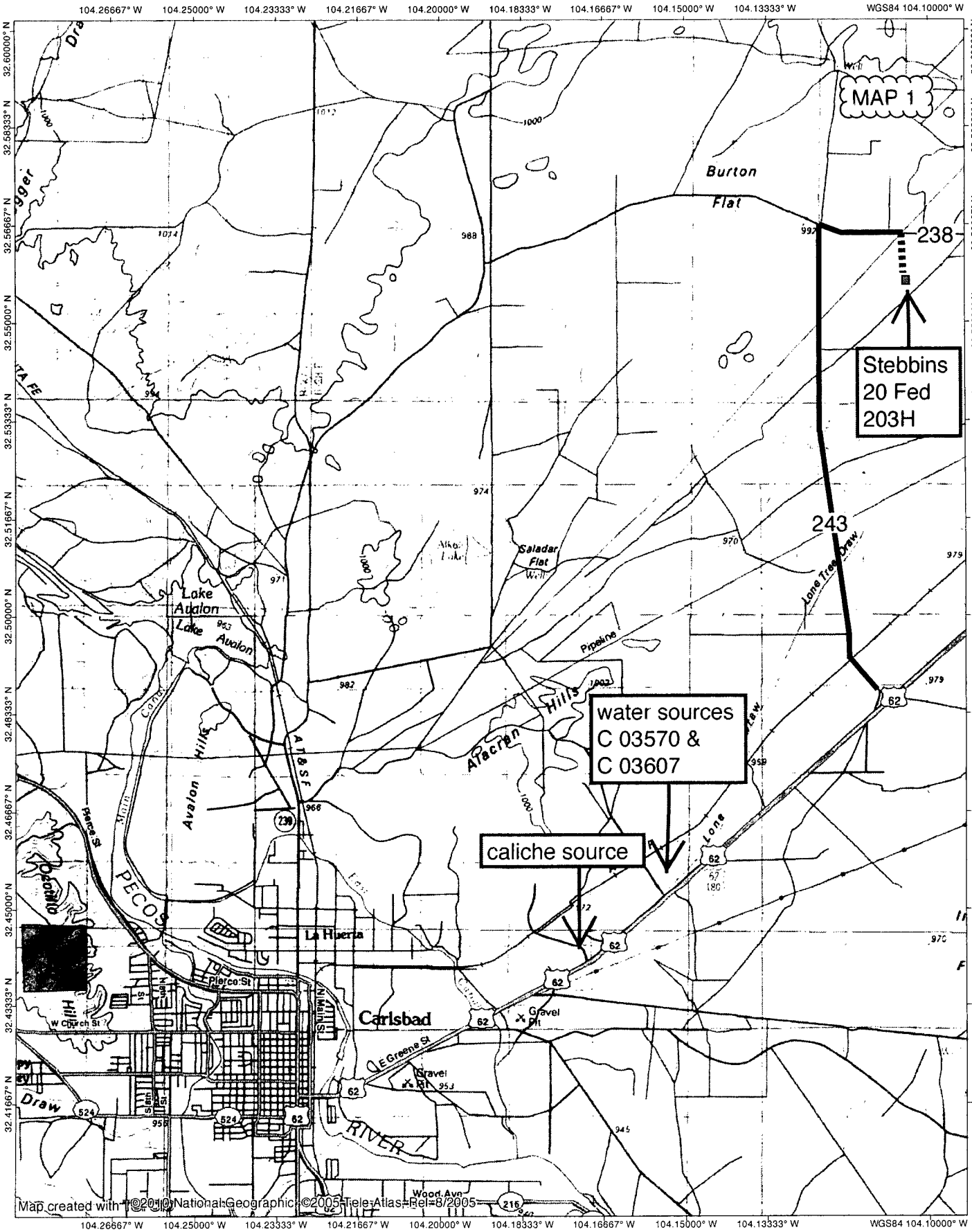
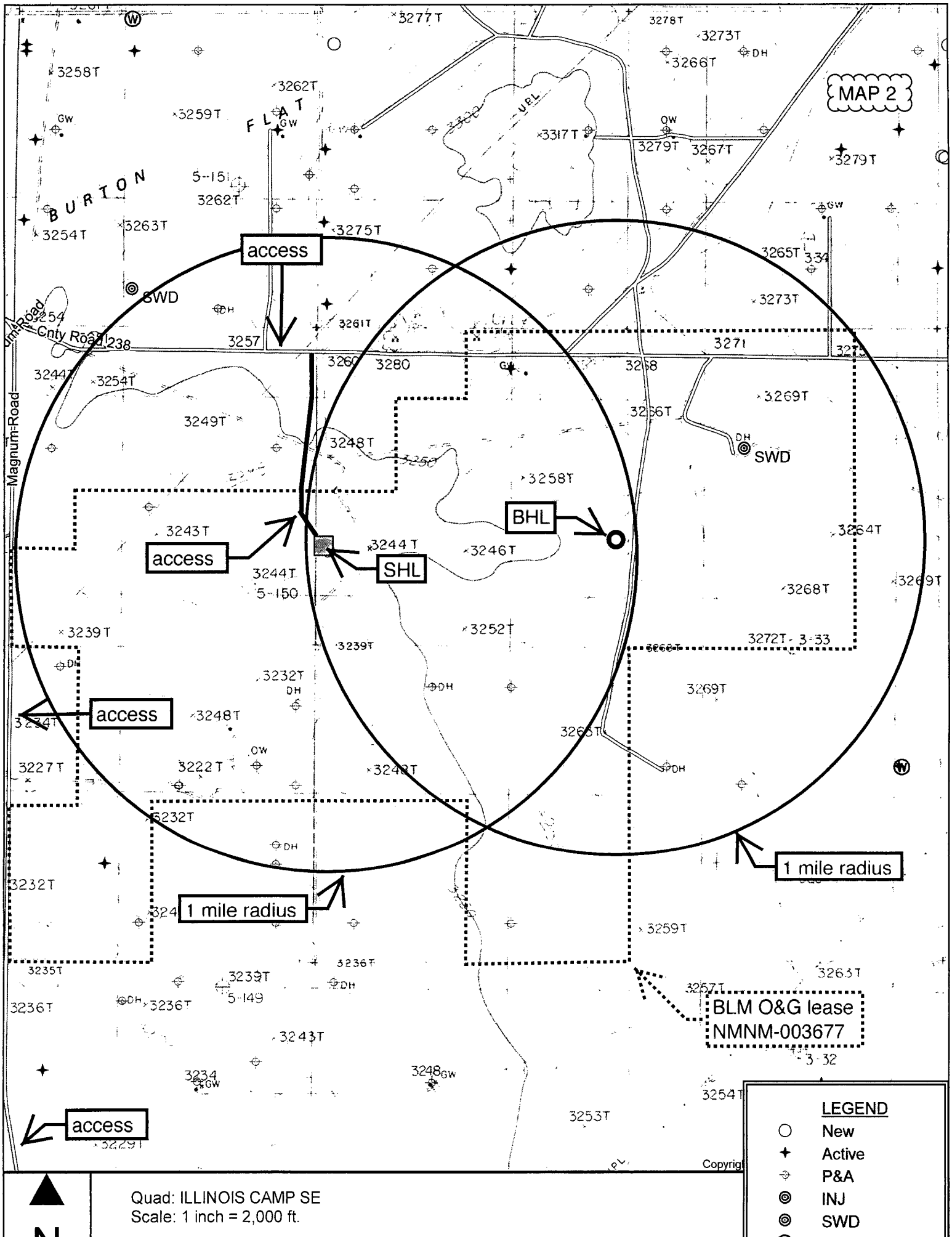
AS OF THE DATE OF SURVEY, ALL ABOVE GROUND APPURTENANCES WITHIN 300' OF THE STAKED LOCATION ARE SHOWN HEREON.

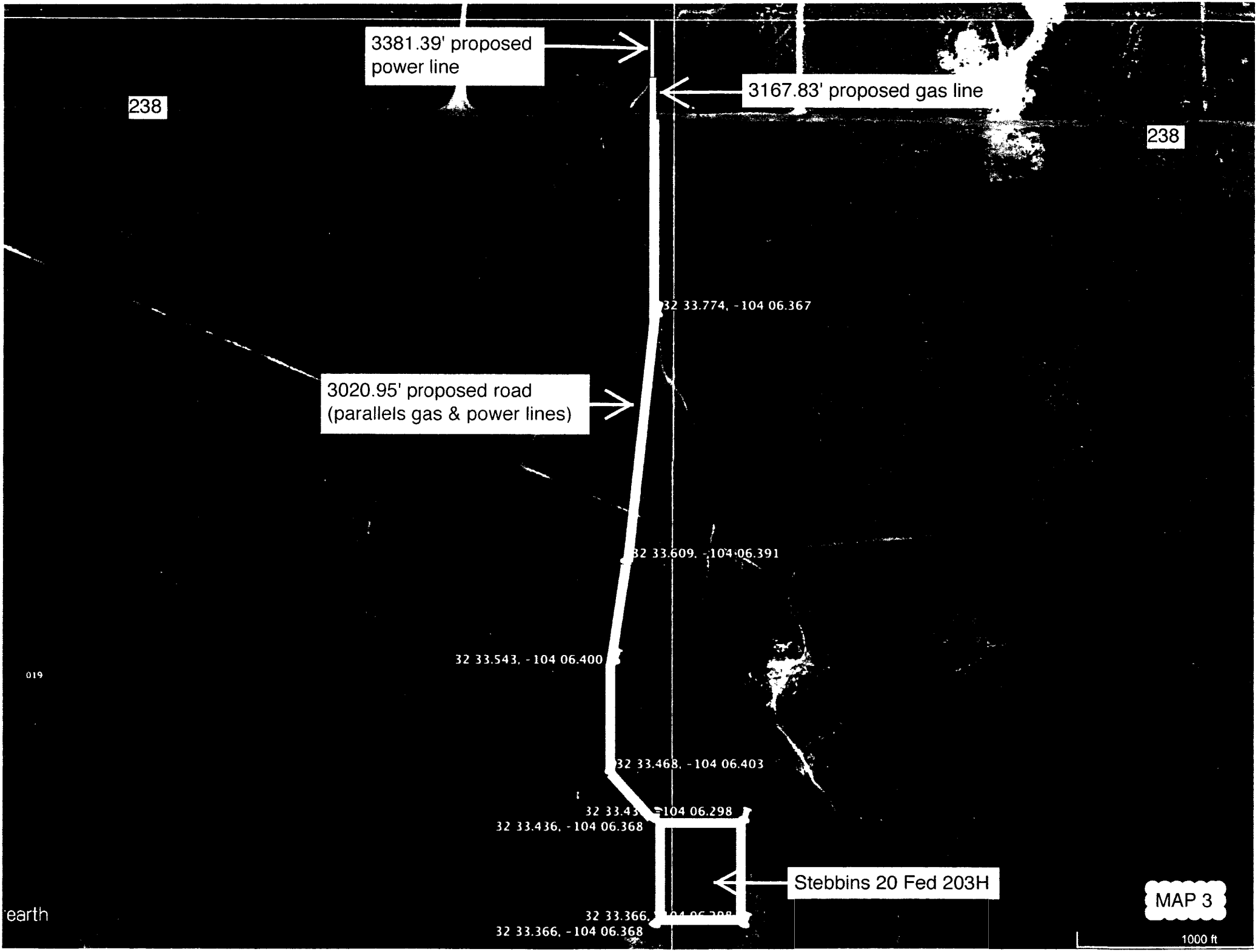
TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

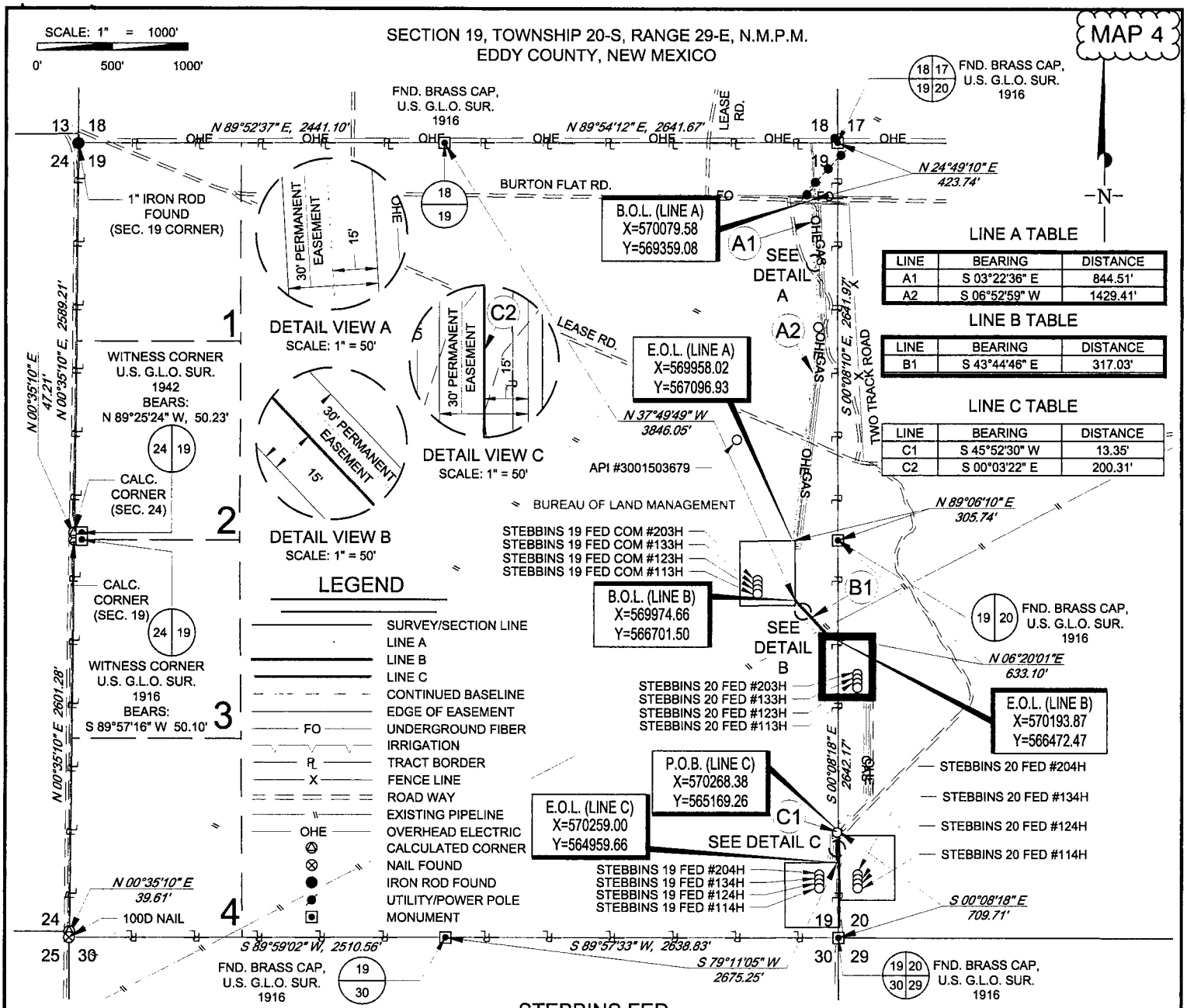
WWW.TOPOGRAPHIC.COM

S:\SURVEY\MATADOR_RESOURCES\STEBBINS_FEDERAL_20-20S-29E_AH_203H\FINAL_PRODUCTS\LO_STEBBINS_FEDERAL_20-20S-29E_AH_203H.DWG 5/16/2016 9:02:46 AM jstovall


TOPO! map printed on 08/21/16 from "Untitled.tpo"
MAP 1
Burton Flat
238
Stebbins 20 Fed 203H
243
Saladar Flat
Lake Avalon
Pipeline
Long Draw
water sources C 03570 & C 03607
caliche source
Carlsbad
La Huerta
PECOS RIVER
Avalon Hills
Atacran Hills
Gravel Pit
Map created with TOPO! ©2010 National Geographic ©2005 Tele Atlas Rel 8/2005
NATIONAL GEOGRAPHIC
0.0 0.5 1.0 1.5 2.0 2.5 3.0 miles
0 1 2 3 4 5 km
TN MN
7.5°
08/21/16


MAP 2
access
SWD
BHL
SHL
access
access
access
1 mile radius
1 mile radius
BLM O&G lease
NMNM-003677
Magnum-Road
Cnty Road 238
BURTON
FLAT
LEGEND
New
Active
P&A
INJ
SWD
Water
N
Quad: ILLINOIS CAMP SE
Scale: 1 inch = 2,000 ft.


3381.39' proposed power line
3167.83' proposed gas line
238
238
32 33.774, -104 06.367
3020.95' proposed road (parallels gas & power lines)
32 33.609, -104 06.391
32 33.543, -104 06.400
019
32 33.468, -104 06.403
32 33.436, -104 06.368
Stebbins 20 Fed 203H
32 33.366, -104 06.368
earth
MAP 3
1000 ft



LINE A TABLE

LINE	BEARING	DISTANCE
A1	S 03°22'36" E	844.51'
A2	S 06°52'59" W	1429.41'

LINE B TABLE

LINE	BEARING	DISTANCE
B1	S 43°44'46" E	317.03'

LINE C TABLE

LINE	BEARING	DISTANCE
C1	S 45°52'30" W	13.35'
C2	S 00°03'22" E	200.31'

STEBBINS 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 2804.61 feet or 169.98 rods, containing 1.93 acres more or less.

MICHAEL B. BROWN NEW MEXICO 18329 PROFESSIONAL SURVEYOR

Matador PRODUCTION COMPANY

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
SEPTEMBER 7, 2016

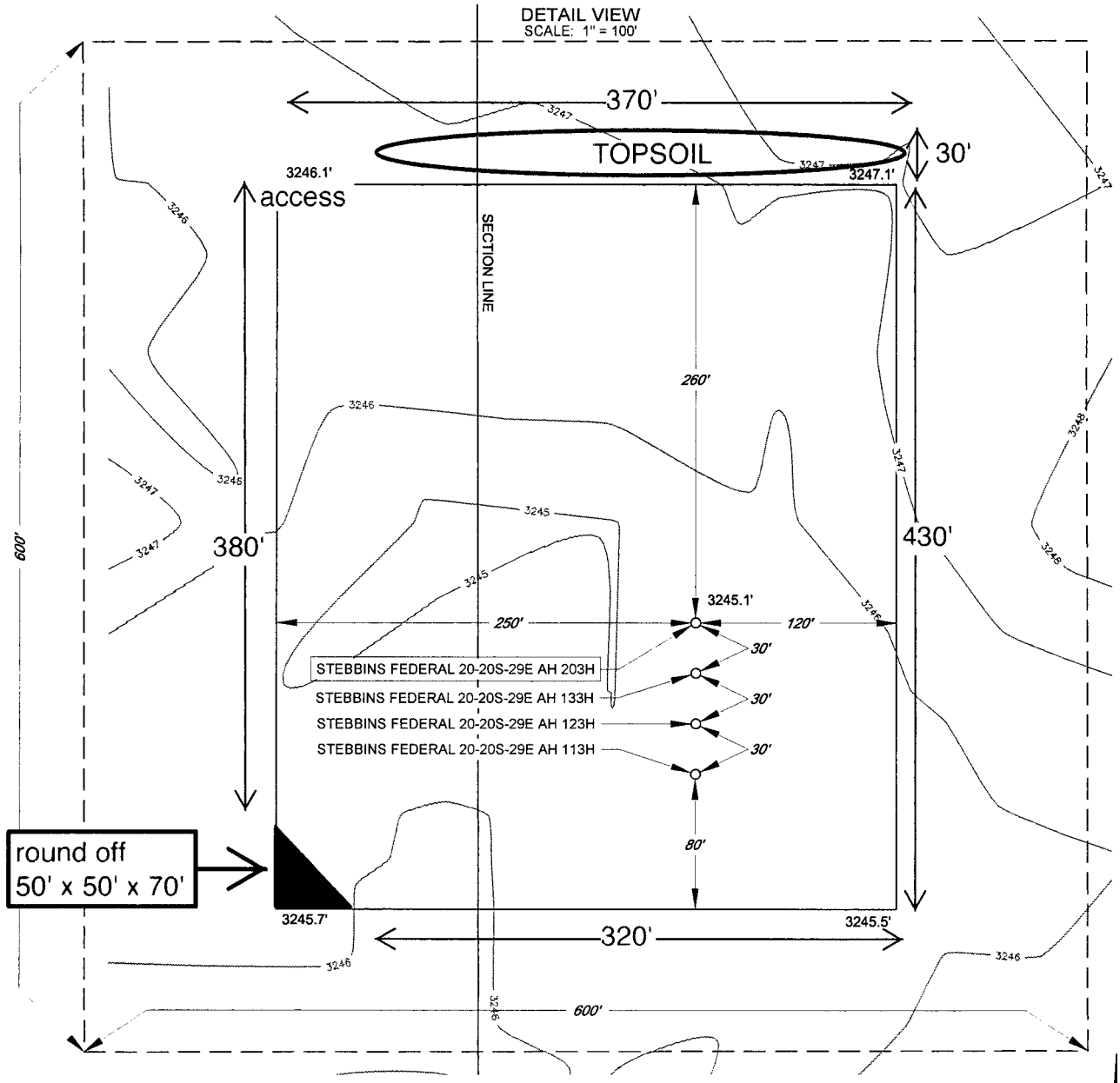
STEBBINS FED ROAD EASEMENT	REVISION:	
	GJU	08/05/16
	R.M.	08/23/16
DATE: 06/30/16	A.V.F.	09/07/16
FILE: EP_STEBBINS_FED_ROAD_EASEMENT_SEC_19_REV3		
DRAWN BY: MML		
SHEET: 1 OF 1		

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 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.
4. B.O.L./P.O.B. = BEGINNING OF LINE/POINT OF BEGINNING
5. E.O.L. = END OF LINE

Matador PRODUCTION COMPANY

MAP 5

SECTION 20, TOWNSHIP 20-S, RANGE 29-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



LEASE NAME & WELL NO.: STEBBINS FEDERAL 20-20S-29E AH #203H

#203H LATITUDE N 32.5564184 #203H LONGITUDE W 104.1048554

LEGEND

SECTION LINE

N

SCALE: 1" = 100'

0' 50' 100'

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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.

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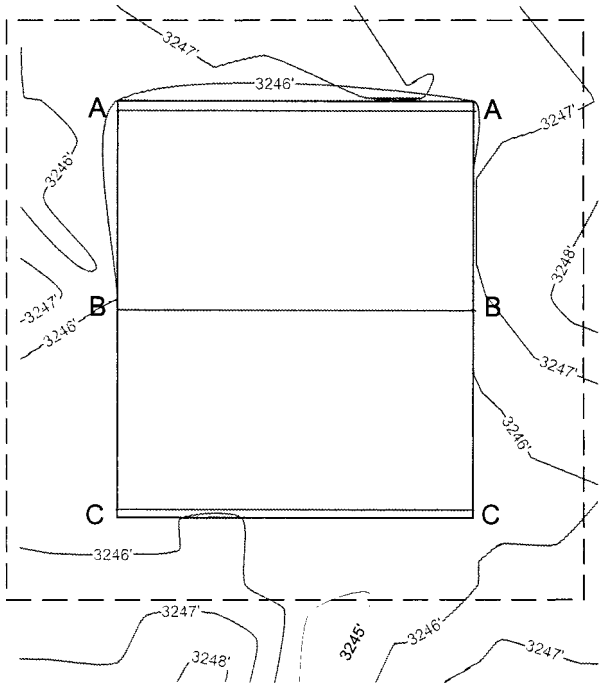
S:\SURVEY\MATADOR_RESOURCES\STEBBINS_FEDERAL_20-20S-29E_AH_203H\FINAL_PRODUCTS\LO_STEBBINS_FEDERAL_20-20S-29E_AH_203H.DWG 5/16/2016 9:03:10 AM jstovall

SCALE: 1" = 200'

0' 100' 200'

MAP 6

N

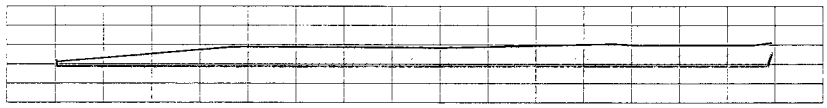


TOP OF PAD ELEVATION:
3241.8'

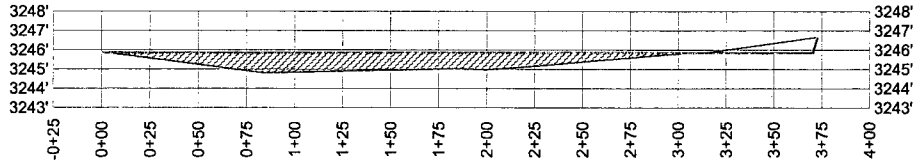
CUT SLOPE: 33.33% 3.00:1 18.43°
FILL SLOPE: 33.33% 3.00:1 18.43°
BALANCE TOLERANCE (C.Y.): 0.00
CUT SWELL FACTOR: 1.00
FILL SHRINK FACTOR: 1.00

PAD EARTHWORK VOLUMES
CUT 27,100.0 C.F., 1,003.70 C.Y.
FILL: 27,100.0 C.F., 1,003.70 C.Y.
BALANCE IMPORT: 0.0 C.F., 0.00 C.Y.
AREA: 161609.7 Sq.Ft., 3.710 Acres

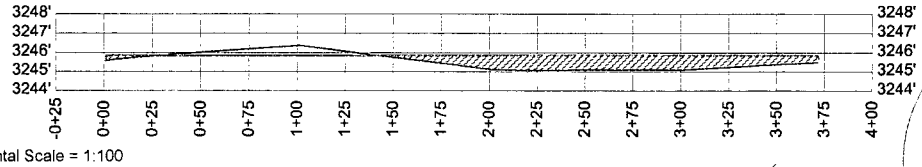
A-A'



B-B'



C-C'



Horizontal Scale = 1:100
Vertical Scale = 1:5

Matador PRODUCTION COMPANY

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 B. BROWN
NEW MEXICO
18329
PROFESSIONAL SURVEYOR

Michael Blake Brown, P.S. No. 18329
APRIL 15, 2016
Field note description of even date accompanies this plat.

SURFACE PAD SITE PROFILE	REVISION: INT	DATE
DATE: 04/15/16		
FILE: CD_STEBBINS_FEDERAL_20-20S-29E_AH_123H_SURFACE_PAD_SITE		
DRAWN BY: SRJ		
SHEET : 1 OF 1		

NOTES:
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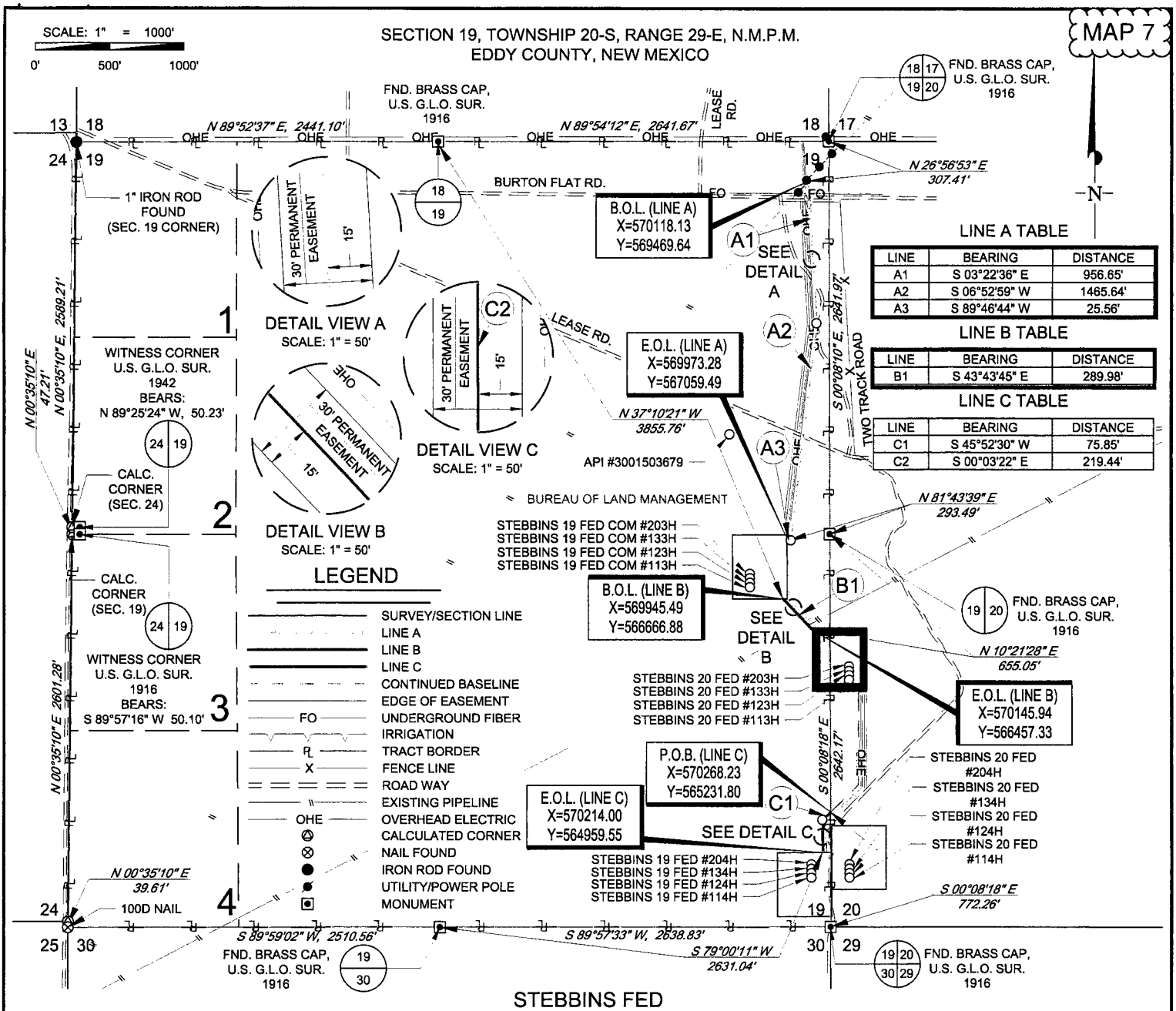

STEBBINS FED GAS LINE EASEMENT

Being a proposed gas sales easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 3033.12 feet or 183.83 rods, containing 2.09 acres more or less.

MICHAEL B. BROWN
NEW MEXICO
18329
PROFESSIONAL SURVEYOR

Michael Blake Brown, P.S. No. 18329
SEPTEMBER 7, 2016

Matador PRODUCTION COMPANY

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
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TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM

STEBBINS FED GAS LINE EASEMENT	REVISION:	
	GJU	08/05/16
	R.M.	08/24/16
DATE: 06/30/16	A.V.F.	09/07/16
FILE: EP_STEBBINS_FED_GAS_LINE_EASEMENT_SEC_19_REV3		
DRAWN BY: MML		
SHEET: 1 OF 1		

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1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
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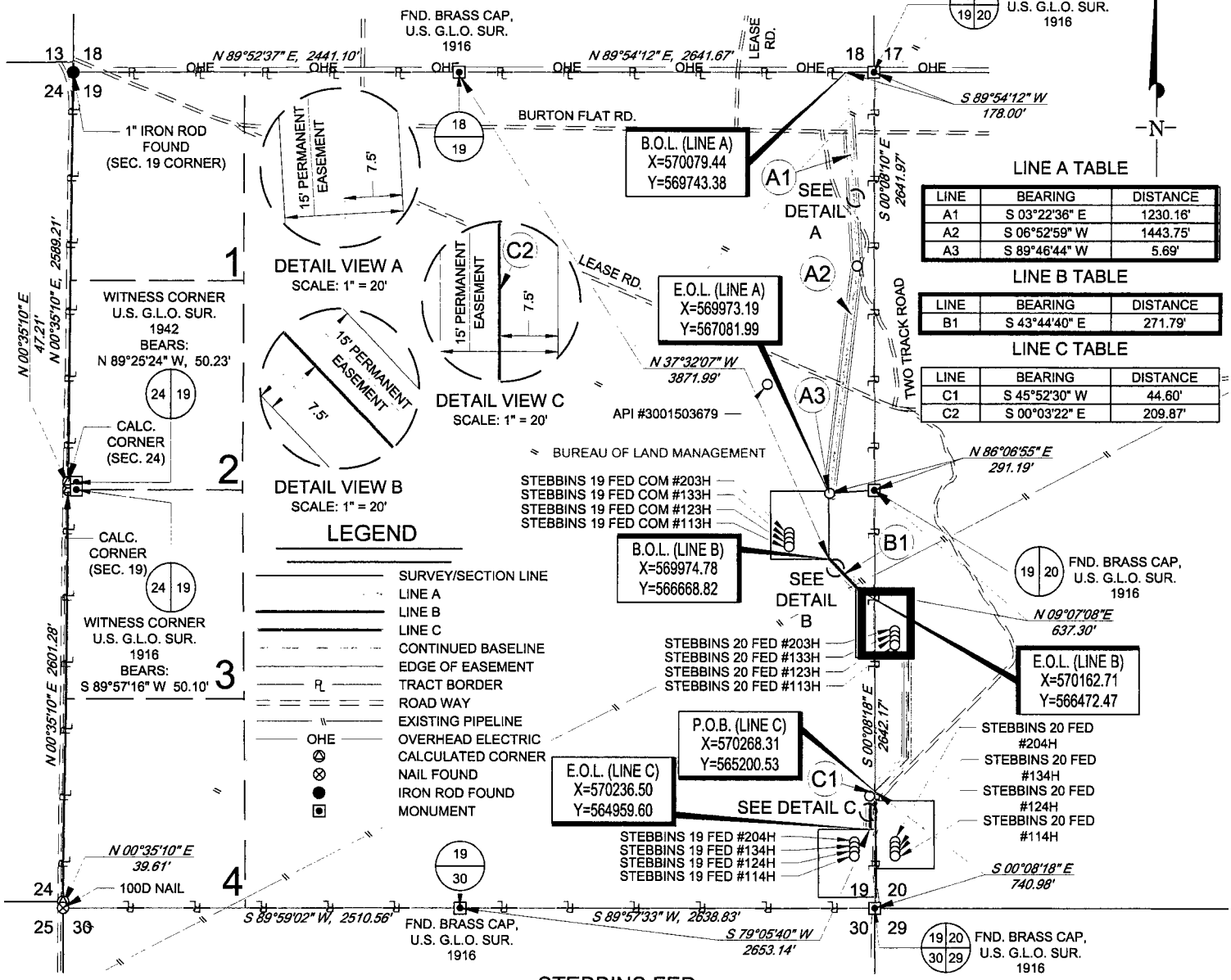
3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY MATADOR PRODUCTION COMPANY. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING 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.
4. B.O.L./P.O.B. = BEGINNING OF LINE/POINT OF BEGINNING
5. E.O.L. = END OF LINE

MAP 8

SCALE: 1" = 1000'

0' 500' 1000'

SECTION 19, TOWNSHIP 20-S, RANGE 29-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



LINE A TABLE

LINE	BEARING	DISTANCE
A1	S 03°22'36" E	1230.16'
A2	S 06°52'59" W	1443.75'
A3	S 89°46'44" W	5.69'

LINE B TABLE

LINE	BEARING	DISTANCE
B1	S 43°44'40" E	271.79'

LINE C TABLE

LINE	BEARING	DISTANCE
C1	S 45°52'30" W	44.60'
C2	S 00°03'22" E	209.87'

STEBBINS FED ELECTRICAL EASEMENT

Being a proposed electrical 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 3205.86 feet or 194.29 rods, containing 1.10 acres more or less.

MICHAEL B. BROWN NEW MEXICO 18329 PROFESSIONAL SURVEYOR

Michael Blake Brown, P.S. No. 18329
SEPTEMBER 6, 2016

Matador PRODUCTION COMPANY

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

STEBBINS FED ELECTRICAL EASEMENT	REVISION:	
	GJU	08/05/16
	R.M.	08/23/16
DATE: 06/30/16	GLH	09/06/16
FILE: EP_STEBBINS_FED_ELECTRICAL_EASEMENT_SEC_19_REV3		
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.
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5. E.O.L. = END OF LINE

Drilling Program

1. ESTIMATED TOPS

Formation Name	TVD	Bearing
Quaternary	Surface	water
Salado/Salt	440	salt
Yates	950	gypsum
Seven Rivers	1250	dolomite
Capitan Reef	1340	water
Cherry Canyon	3130	hydrocarbons
Brushy Canyon	4260	hydrocarbons
Bone Spring Lime	5765	hydrocarbons
1st Bone Spring Carbonate	6450	hydrocarbons
1st Bone Spring Sand	6940	hydrocarbons
2nd Bone Spring Carbonate	7145	hydrocarbons
2nd Bone Spring Sand	7580	hydrocarbons
3rd Bone Spring Carbonate	7955	hydrocarbons
3rd Bone Spring Sand	8745	hydrocarbons
Wolfcamp	9170	hydrocarbons & goal
TD (MD = 14074)	9295	hydrocarbons

2. NOTABLE ZONES

Wolfcamp is the goal for this well. Hole will extend east of the last perforation point to allow for pump installation. All perforations will be ≥330' from the dedication perimeter. Closest water well (C 03265) is 590' north. Depth to water was 52' in this now dry 89' deep well.

3. PRESSURE CONTROL

Matador requests a variance for a 2000-psi annular to be installed after running 20" surface casing.

After 20" surface casing, 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 intermediate casing 1 to TD. See attached BOP and choke manifold diagrams.

An accumulator complying with Onshore Order 2 requirements for the BOP stack pressure rating will be present. 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 required in Onshore Order 2. 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.

Intermediate 1 casing pressure tests will be made to 250 psi low and 2000 psi high. Intermediate 2 casing pressure tests will be made to 250 psi low and 3000 psi high. Intermediate 3 casing pressure tests will be made to 250 psi low and 7500 psi high.

Annular preventer will be tested to 250 psi low and 2500 psi high on the intermediate 1 casing and tested to 250 psi low and 2500 psi high on the intermediate 2 and 3 casing. In the case of running a speed head with landing mandrel for 9-5/8" and 7-5/8" x 7" casing, initial intermediate 1 casing 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 D-section of the wellhead. BOP will be nippled back up and pressure tests will be made to 250 psi low and 7500 psi high. 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. If the specific hose is not available, then one of equal or higher rating will be used.

4. CASING & CEMENT

All casing will be new. Minimum safety factors are burst = 1.125, collapse = 1.125, and tension = 1.8.

Hole O. D.	Set @ (MD)	Name	Casing O. D.	TOC	Weight (lb/ft)	Grade	Thread Collar
26"	400'	Surface	20"	GL	94	K-55	BTC
17.5"	1200'	Intermediate 1	13.375"	GL	54.5	J-55	BTC
12.25"	3100'	Intermediate 2	9.625"	GL	40	J-55	BTC
8.75"	0'-3000'	Intermediate 3	7.625"	2100'	29.7	P-110	BTC
	3000'-8678'		7.625"		29.7	P-110	Hydril 513
	8678'-9628'		7"		29	P-110	BTC
6.125"	0'-8578'	Production	5.5"	8628'	20	P-110	Tenaris XP
	8578'-14074'		4.5"		13.5	P-110	Tenaris XP

Casing Name	Type	Sacks	Yield	Cu. Ft.	Weight	Blend
Surface	Tail	873	1.38	1204	14.8	Class C + 5% NaCl + LCM
TOC = GL		100% Excess			Centralizers per Onshore Order 2.III.B.1f	
Intermediate 1	Lead	528	2.09	1103	12.6	Class C + Bentonite + 1% $CaCl_2$ + 8% NaCl + LCM
	Tail	302	1.38	416	14.8	Class C + 5% NaCl + LCM
TOC = GL		100% Excess			2 on btm jt, 1 on 2nd jt, 1 every 4th jt to GL	
Intermediate 2	Lead	499	2.48	1237	11.9	Class C + Bentonite + 2% $CaCl_2$ + 3% NaCl + LCM
	Tail	308	1.26	388	14.4	Class C + 5% NaCl +
TOC = GL		100% Excess			2 on btm jt, 1 on 2nd jt, 1 every 4th jt to GL	
Intermediate 3	Lead	632	2.36	1491	11.5	TXI + Fluid Loss + Dispersant + Retarder + LCM
	Tail	263	1.38	369	13.2	TXI + Fluid Loss + Dispersant + Retarder + LCM
TOC = 2100'		35% Excess			2 on btm jt, 1 on 2nd jt, 1 every other jt to top of tail cement (500' above TOC), 1 every 4^{th} jt to GL	
Production	Tail	409	1.38	564	15.8	Class H + Fluid loss + Dispersant + Retarder +LCM
TOC = 8628'		10% excess			2 on btm jt, 1 on 2^{nd} jt, 1 every 3^{rd} jt to top of tail cement (1000' tie back)	

5. MUD PROGRAM

An electronic Pason mud monitoring system satisfying the requirements of Onshore Order 1 will be used. 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 hole conditions.

Name	Hole Size	Mud Weight	Visc	Fluid Loss	Type Mud
Surface	26"	8.40	28	NC	FW Spud Mud
Intermediate 1	17.5"	10.00	30-32	NC	Brine Water
Intermediate 2	12.25"	8.4 - 8.6	28-30	NC	Fresh Water
Intermediate 3	8.75"	9.00	30-32	NC	FW/Cut Brine
Production	6.125"	12.50	50-60	<10 cc	OBM

6. CORES, TESTS, & LOGS

No core or drill stem test is planned.

A 2-person mud-logging program will be used from ≈1200' to TD.

No electric logs are planned at this time. GR will be collected through the MWD tools from intermediate 2 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 ≈6971 psi. Expected bottom hole temperature is ≈135° F.

In accordance with Onshore Order 6, Matador does not anticipate that there will be enough H_2S from the surface to the Bone Spring to meet the BLM's minimum requirements for the submission of an "H_2S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since Matador has an H_2S safety package on all wells, an "H_2S Drilling Operations Plan" is attached. 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

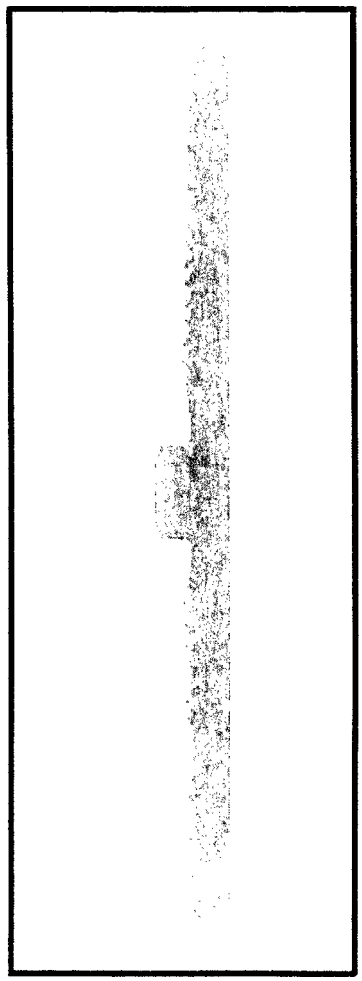
Anticipated spud date is upon approval. It is expected it will take ≈3 months to drill and complete the well.

Matador Production Company owns the majority working interest in this well. Per its discussions with its potential partners, Matador will be named operator upon execution of the final Operating Agreements signed by the partners or the issuance of a pooling order by the State.

Technical Specifications

Connection Type:	Size(O.D.):	Weight (Wall):	Grade:
DWC/C-IS PLUS Casing	5-1/2 in	20.00 lb/ft (0.361 in)	VST P110 EC
standard			

VAM USA
4424 W. Sam Houston Pkwy. Suite 150
Houston, TX 77041
Phone: 713-479-3200
Fax: 713-479-3234
E-mail: VAMUSAsales@vam-usa.com



	Material
VST P110 EC	Grade
125,000	Minimum Yield Strength (psi)
135,000	Minimum Ultimate Strength (psi)
	Pipe Dimensions
5.500	Nominal Pipe Body O.D. (in)
4.778	Nominal Pipe Body I.D.(in)
0.361	Nominal Wall Thickness (in)
20.00	Nominal Weight (lbs/ft)
19.83	Plain End Weight (lbs/ft)
5.828	Nominal Pipe Body Area (sq in)
	Pipe Body Performance Properties
729,000	Minimum Pipe Body Yield Strength (lbs)
12,090	Minimum Collapse Pressure (psi)
14,360	Minimum Internal Yield Pressure (psi)
13,100	Hydrostatic Test Pressure (psi)
	Connection Dimensions
6.300	Connection O.D. (in)
4.778	Connection I.D. (in)
4.653	Connection Drift Diameter (in)
4.13	Make-up Loss (in)
5.828	Critical Area (sq in)
100.0	Joint Efficiency (%)
	Connection Performance Properties
729,000	Joint Strength (lbs)
26,040	Reference String Length (ft) 1.4 Design Factor
728,000	API Joint Strength (lbs)
729,000	Compression Rating (lbs)
12,090	API Collapse Pressure Rating (psi)
14,360	API Internal Pressure Resistance (psi)
104.2	Maximum Uniaxial Bend Rating [degrees/100 ft]
	Appoximated Field End Torque Values
16,600	Minimum Final Torque (ft-lbs)
19,100	Maximum Final Torque (ft-lbs)
21,600	Connection Yield Torque (ft-lbs)

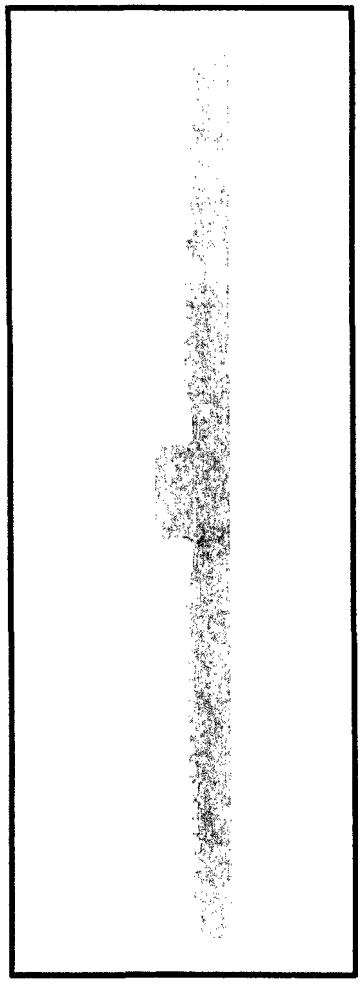
For detailed information on performance properties, refer to DWC Connection Data Notes on following page(s).

Connection specifications within the control of VAM USA were correct as of the date printed. Specifications are subject to change without notice. Certain connection specifications are dependent on the mechanical properties of the pipe. Mechanical properties of mill proprietary pipe grades were obtained from mill publications and are subject to change. Properties of mill proprietary grades should be confirmed with the mill. Users are advised to obtain current connection specifications and verify pipe mechanical properties for each application.

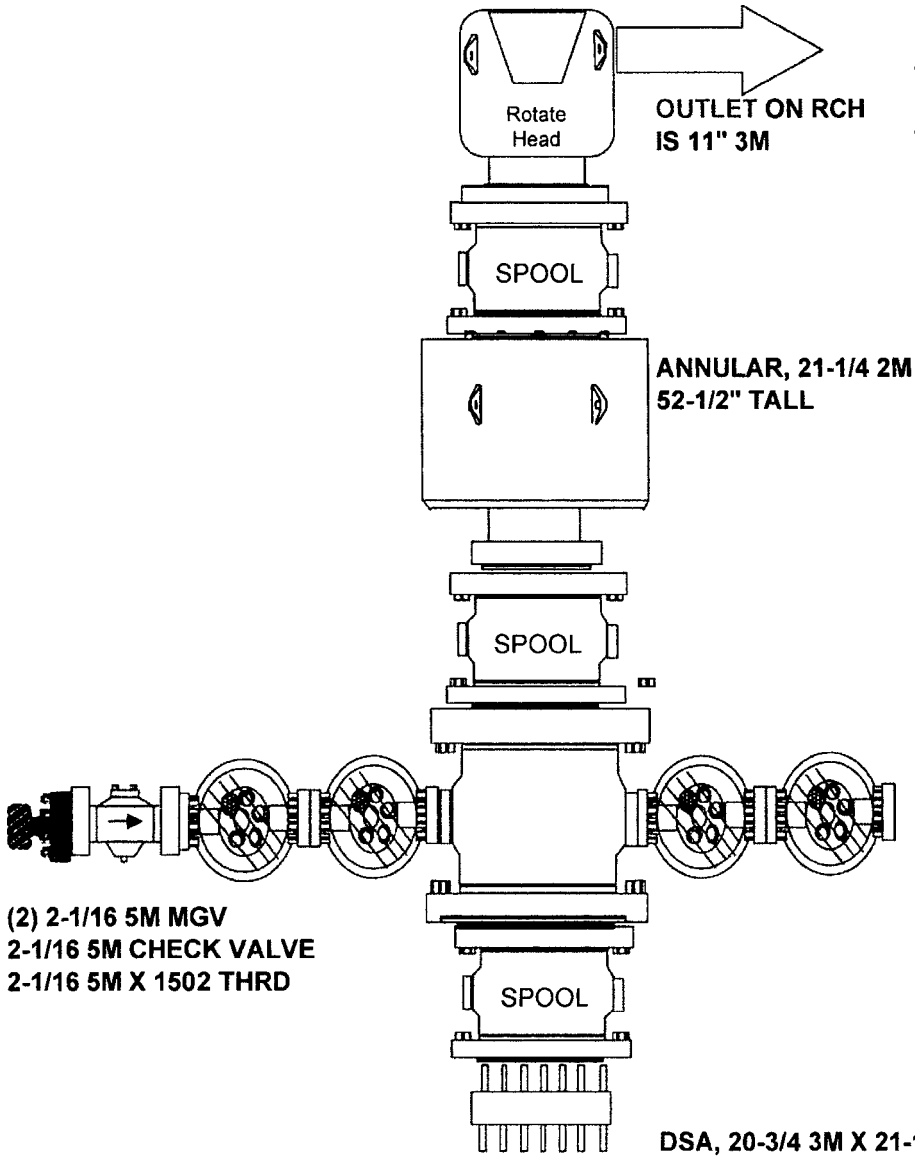
4/14/2015

DWC Connection Data Notes:

1. DWC connections are available with a seal ring (SR) option.
2. All standard DWC/C connections are interchangeable for a give pipe OD. DWC connections are interchangeable with DWC/C-SR connections of the same OD and wall.
3. Connection performance properties are based on nominal pipe body and connection dimensions.
4. DWC connection internal and external pressure resistance is calculated using the API rating for buttress connections. API Internal pressure resistance is calculated from formulas 31, 32, and 35 in the API Bulletin 5C3.
5. DWC joint strength is the minimum pipe body yield strength multiplied by the connection critical area.
6. API joint strength is for reference only. It is calculated from formulas 42 and 43 in the API Bulletin 5C3.
7. Bending efficiency is equal to the compression efficiency.
8. The torque values listed are recommended. The actual torque required may be affected by field conditions such as temperature, thread compound, speed of make-up, weather conditions, etc.
9. Connection yield torque is not to be exceeded.
10. Reference string length is calculated by dividing the joint strength by both the nominal weight in air and a design factor (DF) of 1.4. These values are offered for reference only and do not include load factors such as bending, buoyancy, temperature, load dynamics, etc.
11. DWC connections will accommodate API standard drift diameters.



4/14/2015



21-1/4 2M ROTATING HEAD
TOTAL HEIGHT: 33-1/2"
HEIGHT FROM BOTTOM FLG
TO CENTER OUTLET: 16"

OUTLET ON RCH
IS 11" 3M

ANNULAR, 21-1/4 2M
52-1/2" TALL

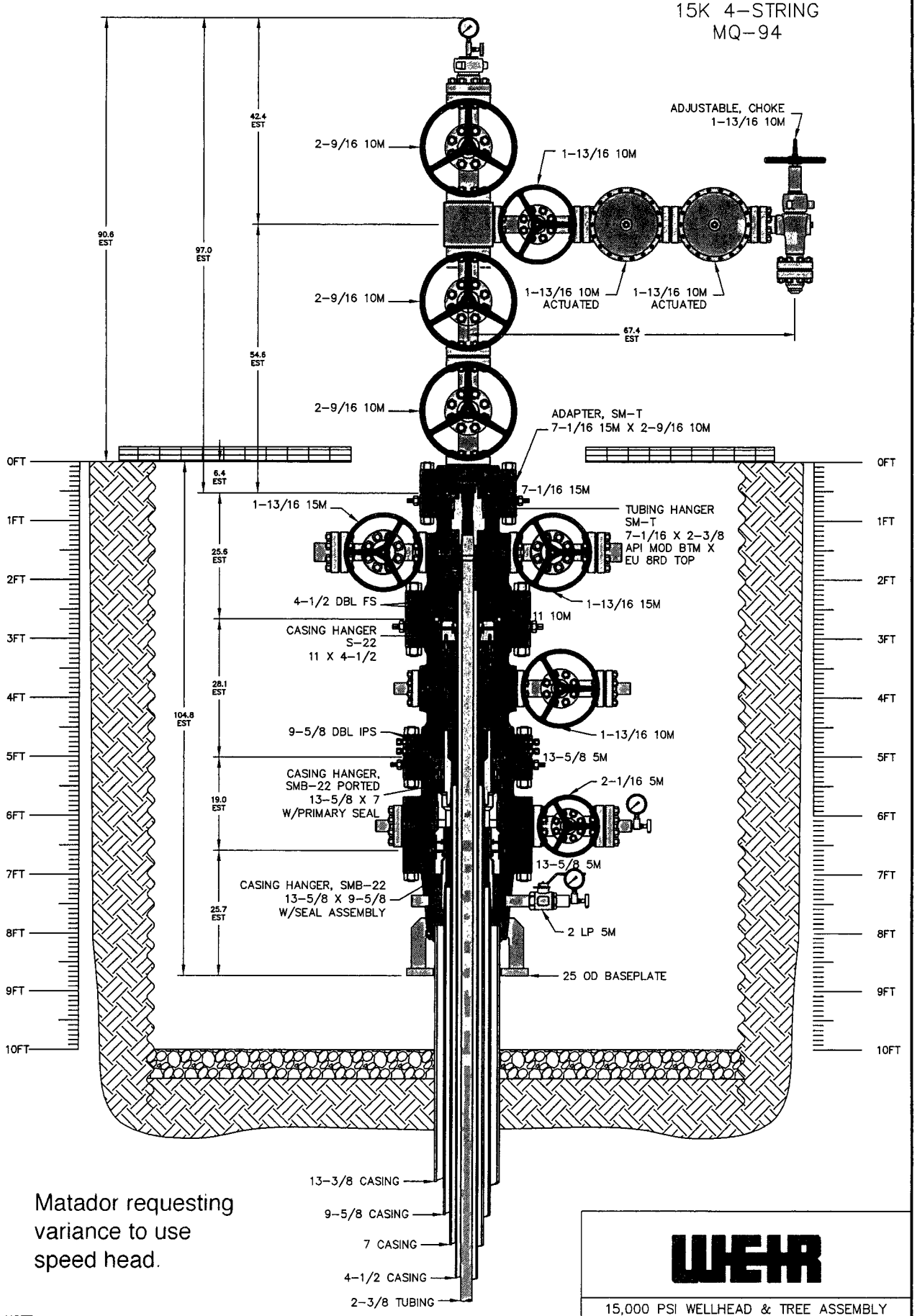
DRILLING SPOOL, 21-1/4 2M
TOTAL HEIGHT; 29"
BOTTOM FLANGE TO CENTER
14-1/2"
4-1/16 10M MGV
4-1/16 10M HCR

(2) 2-1/16 5M MGV
2-1/16 5M CHECK VALVE
2-1/16 5M X 1502 THRD

DSA, 20-3/4 3M X 21-1/4 2M
5-1/2" TALL

SPOOL HEIGHTS CAN BE ADJUSTED AS NEEDED*

MATADOR
15K 4-STRING
MQ-94



Matador requesting variance to use speed head.

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.

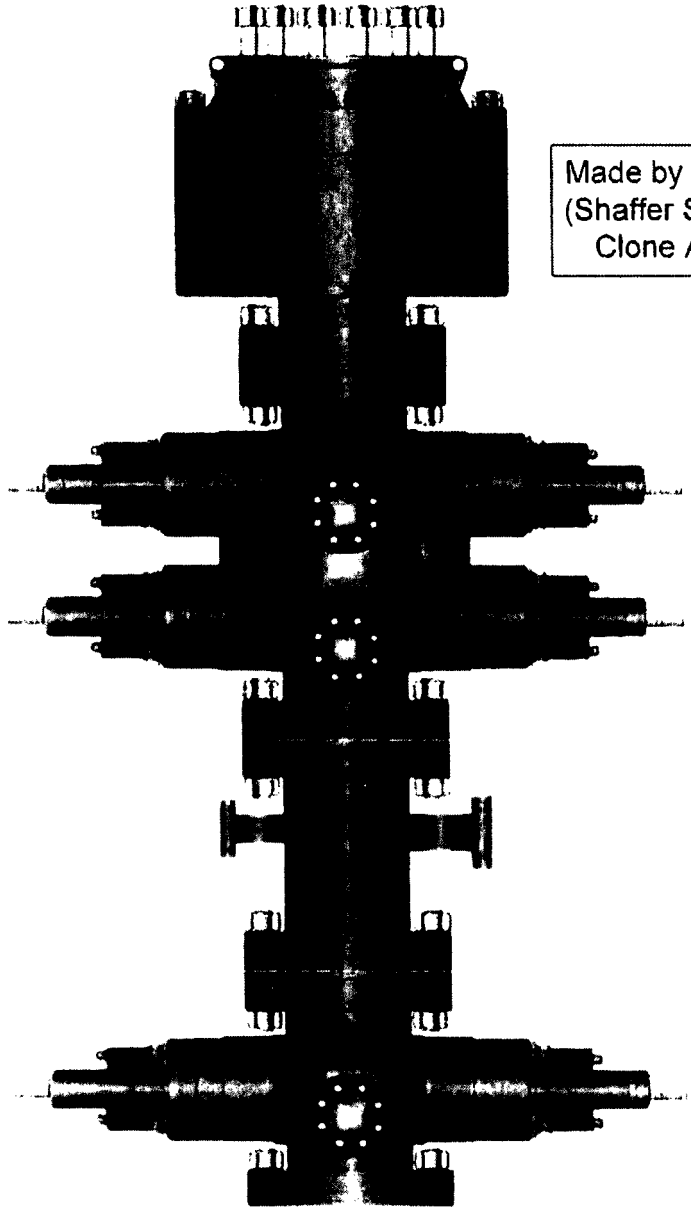
WEIR

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:			

PATTERSON-UTI
Well Control

RIG 809



Made by Cameron
(Shaffer Spherical)
Clone Annular

PATTERSON-UTI # PS2-628
STYLE: New Shaffer Spherical
BORE 13 5/8" **PRESSURE** 5,000
HEIGHT: 48 ½" **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

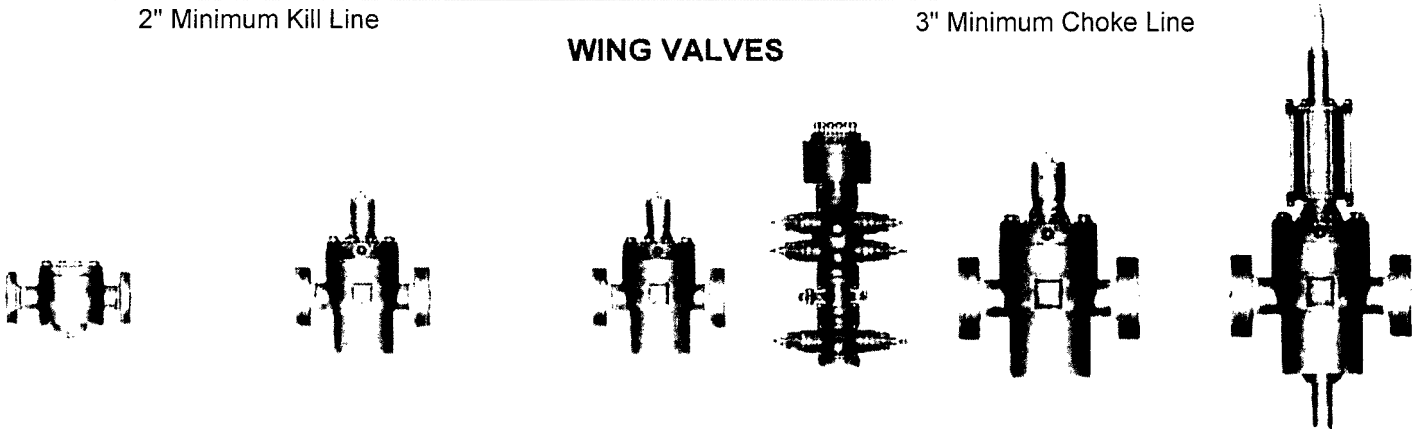
Length 40" **Outlets** 4" 10M
DSA 4" 10M x 2" 10M

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

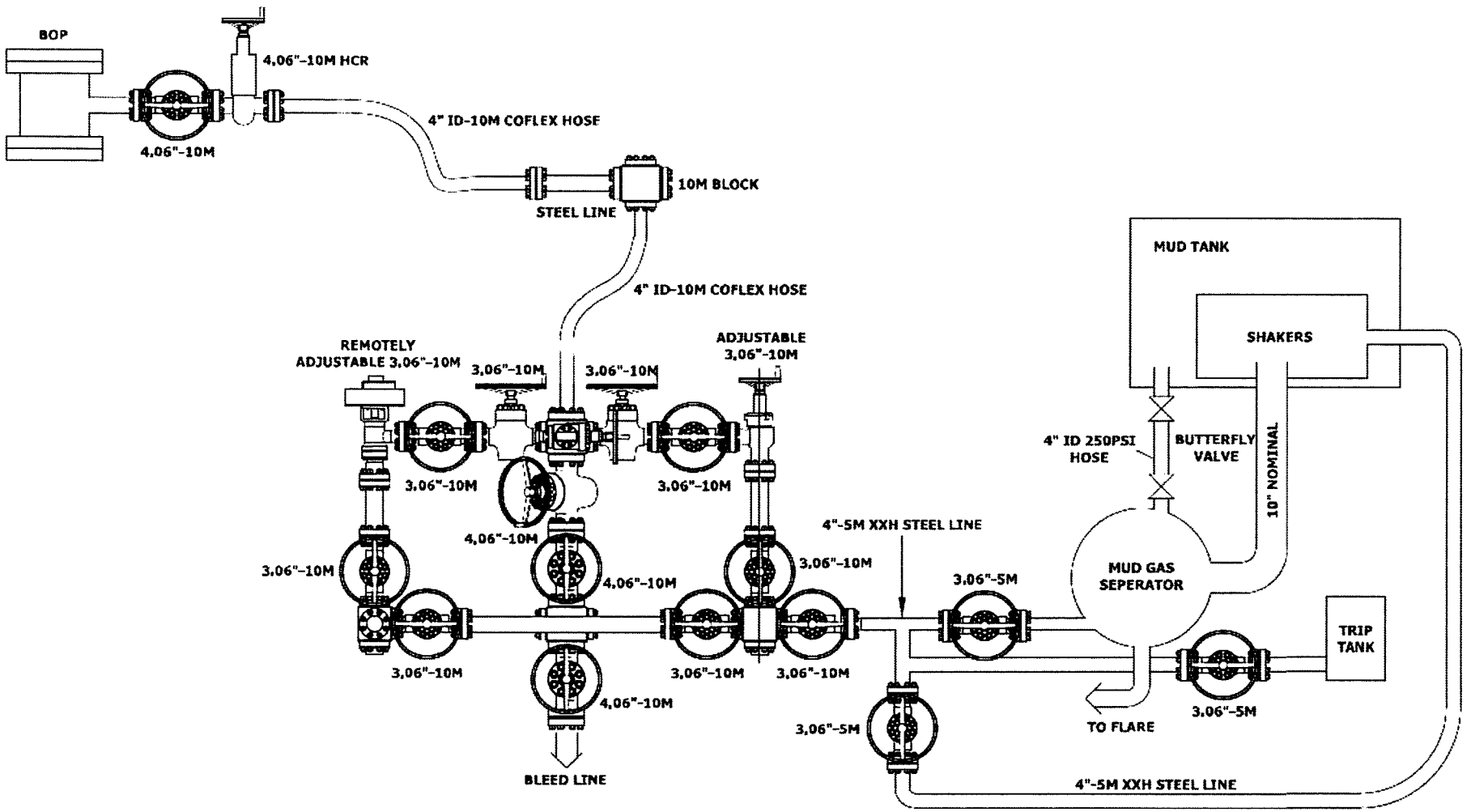
2" Minimum Kill Line

WING VALVES

3" Minimum Choke Line



2" Check Valve | 2" Manual Valve | 2" Manual Valve | 4" Manual Valve | 4" Hydraulic Valve



WELDING NOTES & TOLERANCES UNLESS OTHERWISE SPECIFIED,

REV	DATE	DESCRIPTION	DRAWN BY	CHK BY	APVD ENG.
02	6-13	ISSUED FOR CONSTRUCTION	CP	LSL	
01	4-13	ISSUED FOR CONSTRUCTION	CP	LSL	

PATTERSON-UTI DRILLING COMPANY LLC

CHOKE MANIFOLD

10M CHOKE ARRANGEMENT
RIG 257

DWG. NO. R0297-D.001.LAY.09

SHT. 1 REV. 02

Midwest Hose & Specialty, Inc.

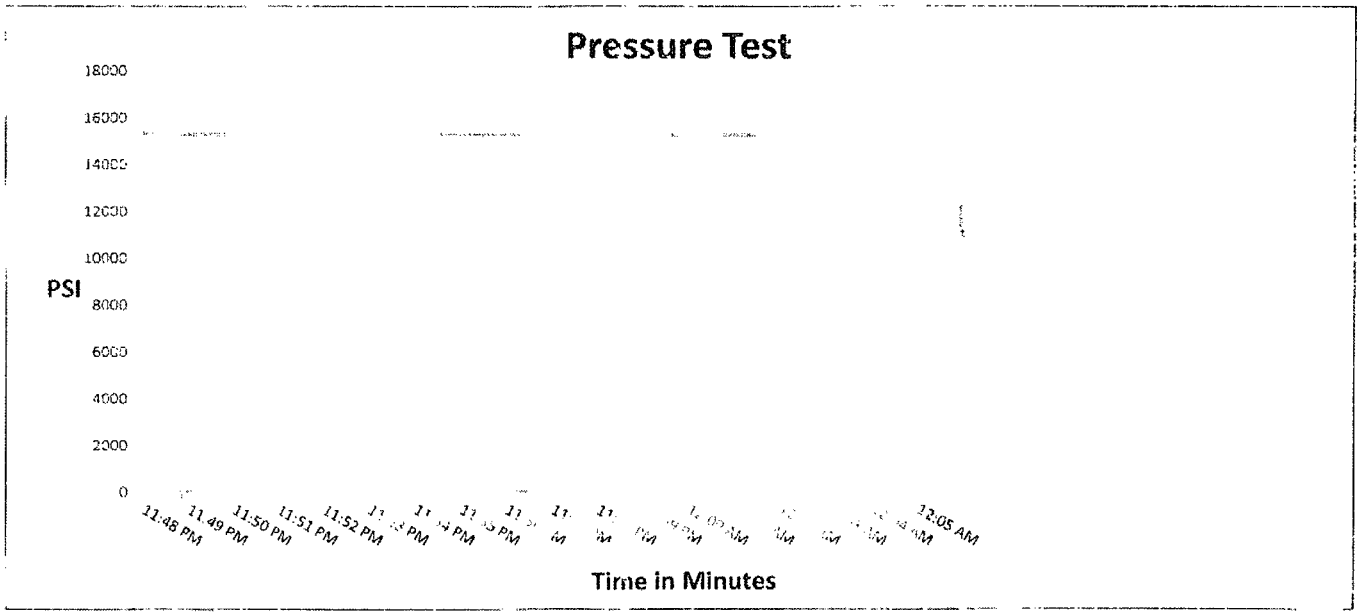
Internal Hydrostatic Test Graph

March 10, 2015

Customer: Patterson B&E

Pick Ticket #: 296283

Hose Specifications		Verification	
Hose Type	**Length**	**Type of Fitting**	**Coupling Method**
Mud	50'	2"1502	Swage
I.D.	**O.D.**	**Die Size**	**Final O.D.**
2"	3.47"	97MM	4.03"
Working Pressure	**Burst Pressure**	**Hose Serial #**	**Hose Assembly Serial #**
10000 PSI	Standard Safety Multiple Applies	11839	296283



Test Pressure	Time Held at Test Pressure	Actual Burst Pressure	Peak Pressure
15000 PSI	17 3/4 Minutes		15361 PSI

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

Tested By: *Richard Davis*

Approved By: *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/FSL Level 2
Date Assembled	3/10/2015	Hose Grade	MUD
Location Assembled	OKC	Hose Working Pressure	10000
Sales Order #	245805	Hose Lot # and Date Code	11839-11/14
Customer Purchase Order #	270590	Hose I.D. (inches)	2"
Assembly Serial # (Pick Ticket #)	296283	Hose O.D. (inches)	3.99"
Hose Assembly Length	50'	Armor (yes/no)	YES

Fittings

End A		End B	
Stem (Part and Revision #)	R2.0X32M1502	Stem (Part and Revision #)	RF2.0 32F1502
Stem (Heat #)	14104546	Stem (Heat #)	A144853
Ferrule (Part and Revision #)	RF2.0 10K	Ferrule (Part and Revision #)	RF2.0 10K
Ferrule (Heat #)	41044	Ferrule (Heat #)	41044
Connection . Flange Hammer Union Part		Connection (Part #)	
Connection (Heat #)		Connection (Heat #)	
Nut (Part #)	2" 1502 H2S	Nut (Part #)	
Nut (Heat #)		Nut (Heat #)	
Dies Used	97MM	Dies Used	97MM

Hydrostatic Test Requirements

Test Pressure (psi)	15,000	*Hose assembly was tested with ambient water temperature.*
Test Pressure Hold Time (minutes)	17 3/4	

Date Tested	Tested By	Approved By
3/10/2015		

Midwest Hose
& Specialty, Inc.

Certificate of Conformity

Customer: **PATTERSON B&E**	*Customer P.O.#* **270590**
Sales Order # **245805**	*Date Assembled:* **3/10/2015**

Specifications

Hose Assembly Type:	**Choke & Kill**		
Assembly Serial #	**296283**	*Hose Lot # and Date Code*	**11839-11/14**
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*
Ryan Adams	3/19/2015

R 809 · Check & Kelly Hoses

December 24, 2014

Midwest Hose & Specialty, Inc.

Internal Hydrostatic Test Graph

Customer: Patterson

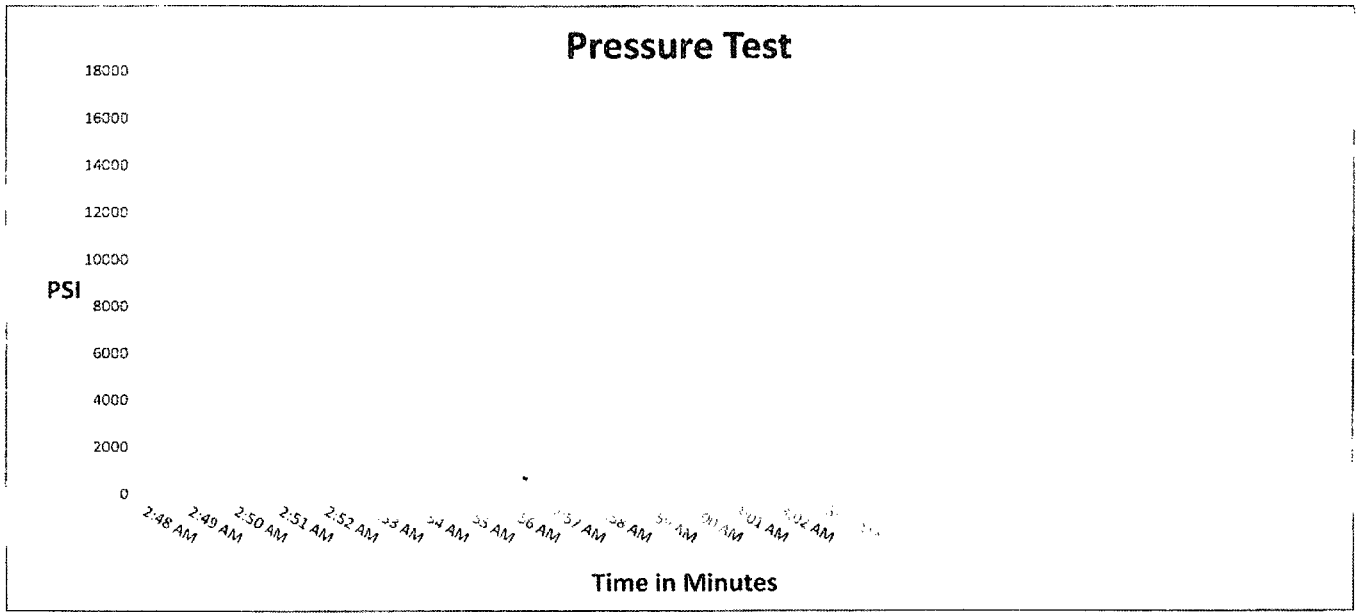
Pick Ticket #: 286159

Hose Specifications

Hose Type	Length
Ck	50'
I.D.	**O.D.**
2"	3.55"
Working Pressure	**Burst Pressure**
10000 PSI	Standard Safety Multiplier Applied

Verification

Type of Fitting	Coupling Method
2" 1502	Swage
Die Size	**Final O.D.**
97MM	3.98"
Hose Serial #	**Hose Assembly Serial #**
11784	286159



Test Pressure	Time Held at Test Pressure	Actual Burst Pressure	Peak Pressure
15000 PSI	15 1/4 Minutes		15410 PSI

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

Tested By: *Tyler Hill*

Approved By: *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/FSL Level 2**
Date Assembled	**12/23/2014**	*Hose Grade*	**MUD**
Location Assembled	**OKC**	*Hose Working Pressure*	**10000**
Sales Order #	**237566**	*Hose Lot # and Date Code*	**11784-10/14**
Customer Purchase Order #	**261581**	*Hose I.D. (Inches)*	**2"**
Assembly Serial # (Pick Ticket #)	**286159**	*Hose O.D. (Inches)*	**4.00"**
Hose Assembly Length	**50'**	*Armor (yes/no)*	YES

Fittings

End A		End B	
Stem (Part and Revision #)	**R2.0X32M1502**	*Stem (Part and Revision #)*	**R2.0X32M1502**
Stem (Heat #)	**M14104546**	*Stem (Heat #)*	**M14101226**
Ferrule (Part and Revision #)	**RF2.0 10K**	*Ferrule (Part and Revision #)*	**RF2.0 10K**
Ferrule (Heat #)	**41044**	*Ferrule (Heat #)*	**41044**
Connection - Flange Hammer Union Part	**2"1502**	*Connection (Part #)*	
Connection (Heat #)	**2866**	*Connection (Heat #)*	
Nut (Part #)		*Nut (Part #)*	
Nut (Heat #)		*Nut (Heat #)*	
Dies Used	**97MM**	*Dies Used*	**97MM**

Hydrostatic Test Requirements

Test Pressure (psi)	**15,000**	***Hose assembly was tested with ambient water temperature.***
Test Pressure Hold Time (minutes)	**15 1/4**	

Date Tested	*Tested By*	*Approved By*
12/24/2014		

Midwest Hose
& Specialty, Inc.

Certificate of Conformity

Customer: **PATTERSON B&E**	*Customer P.O.#* **261581**
Sales Order # **237566**	*Date Assembled:* **12/23/2014**

Specifications

Hose Assembly Type:	**Choke & Kill**		
Assembly Serial #	**286159**	*Hose Lot # and Date Code*	**11784-10/14**
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*
	12/29/2014

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/FSL Level 2
Date Assembled	3/10/2015	Hose Grade	MUD
Location Assembled	OKC	Hose Working Pressure	10000
Sales Order #	245805	Hose Lot # and Date Code	11839-11/14
Customer Purchase Order #	270590	Hose I.D. (Inches)	2"
Assembly Serial # (Pick Ticket #)	296283	Hose O.D. (Inches)	3.99"
Hose Assembly Length	50'	Armor (yes/no)	YES

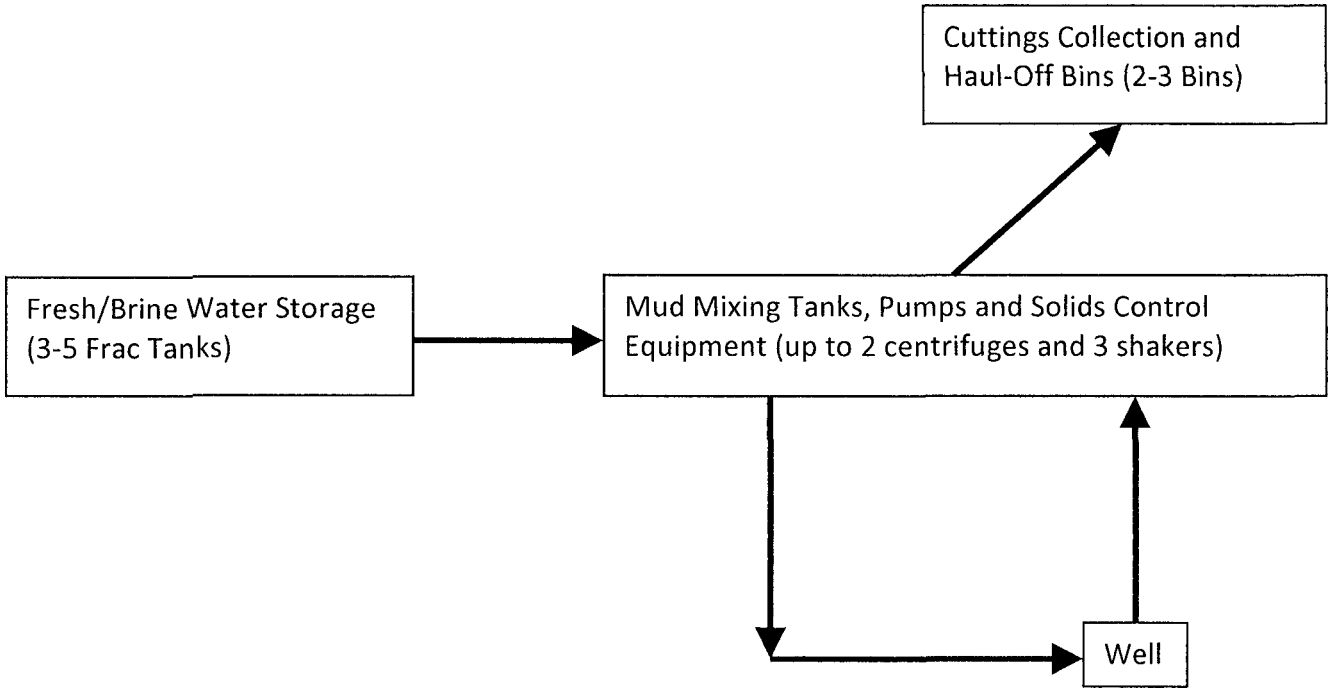
Fittings			
End A		End B	
Stem (Part and Revision #)	R2.0X32M1502	Stem (Part and Revision #)	RF2.0 32F1502
Stem (Heat #)	14104546	Stem (Heat #)	A144853
Ferrule (Part and Revision #)	RF2.0 10K	Ferrule (Part and Revision #)	RF2.0 10K
Ferrule (Heat #)	41044	Ferrule (Heat #)	41044
Connection . Flange Hammer Union Part		Connection (Part #)	
Connection (Heat #)		Connection (Heat #)	
Nut (Part #)	2" 1502 H2S	Nut (Part #)	
Nut (Heat #)		Nut (Heat #)	
Dies Used	97MM	Dies Used	97MM

Hydrostatic Test Requirements		
Test Pressure (psi)	15,000	Hose assembly was tested with ambient water temperature.
Test Pressure Hold Time (minutes)	17 3/4	

Date Tested	Tested By	Approved By
3/10/2015		

Closed-Loop System

Matador Production Company
Stebbins wells
20-20S-29E
Eddy County, NM

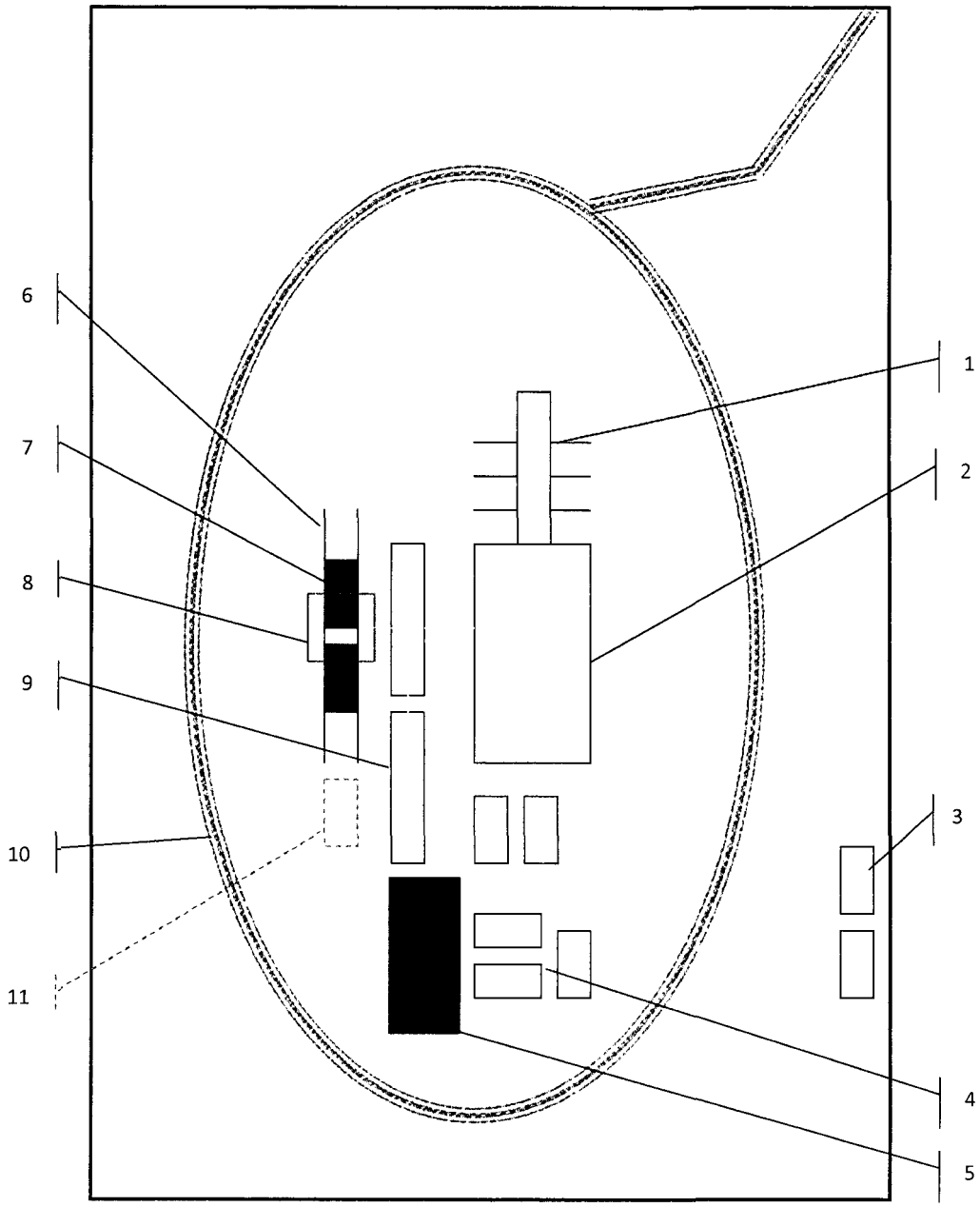


Operating and Maintenance Plan:

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:

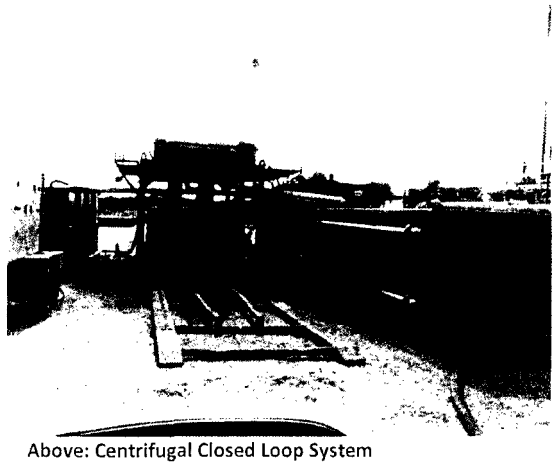
During drilling operations, third party service companies will haul off drill solids and fluids to an approved disposal facility. At the end of the well, all closed loop equipment will be removed from the location.



Schematic Closed Loop Drilling Rig*

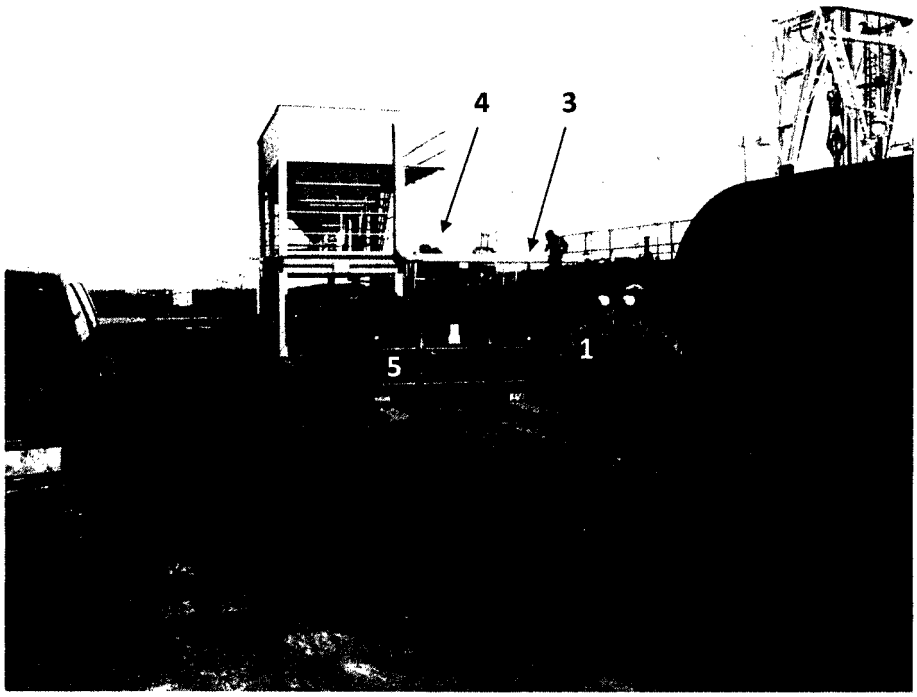
1. **Pipe Rack**
2. **Drill Rig**
3. **House Trailers/ Offices**
4. **Generator/Fuel/Storage**
5. **Overflow-Frac Tank**
6. **Skids**
7. **Roll Offs**
8. **Hopper or Centrifuge**
9. **Mud Tanks**
10. **Loop Drive**
11. Generator (only for use with centrifuge)

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



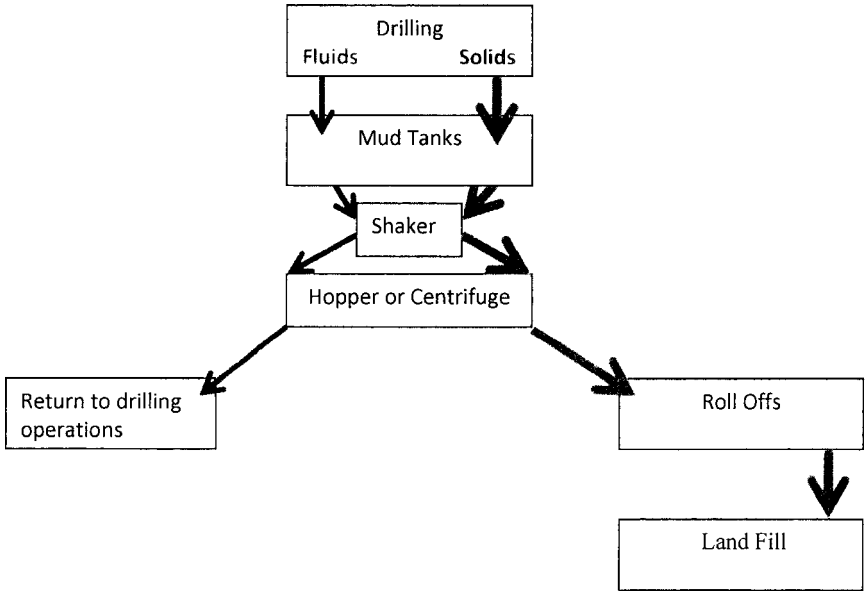
Above: Centrifugal Closed Loop System

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37Verano 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)

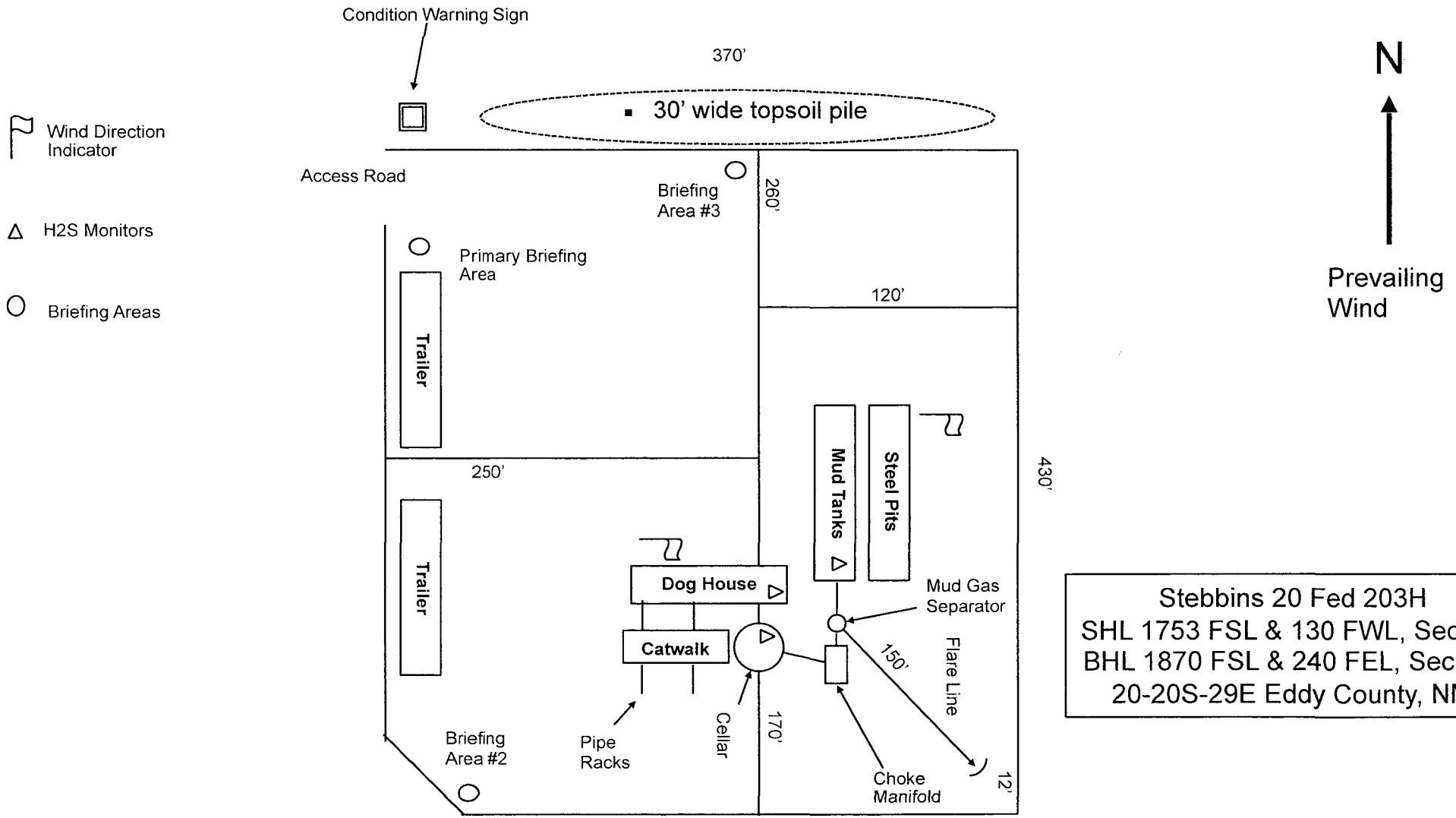
Flow Chart for Drilling Fluids and Solids



Photos Courtesy of Gandy Corporation Oil Field Service

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

Rig Diagram



Stebbins 20 Fed 203H
SHL 1753 FSL & 130 FWL, Sec. 20
BHL 1870 FSL & 240 FEL, Sec. 20
20-20S-29E Eddy County, NM

Matador Resources
Eddy County, NM
Stebbins Federal 20 (113-133-203)
No. 203H
Prelim Plan A
GL: 3245' + KB: 28.5' (Patt809)

PRODIRECTIONAL

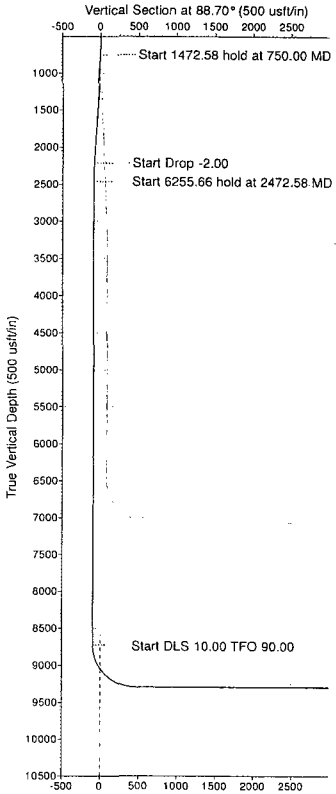
US State Plane 1927 (Exact solution)
NAD 1927 (NADCON CONUS)
Clarke 1866
New Mexico East 3001
Mean Sea Level

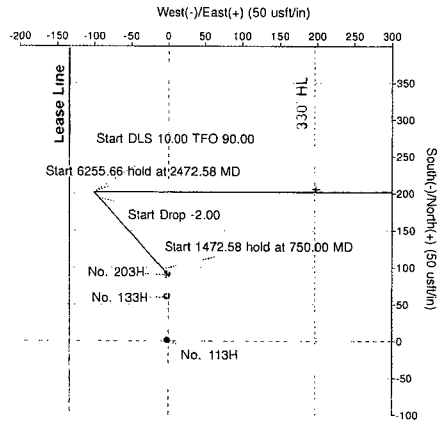
RKB Elevation: Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
90.00	0.00	566213.00	570396.00	32° 33' 23.110 N	104° 6' 17.479 W	

SECTION DETAILS- Lateral

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect
1	0.00	0.00	0.00	0.00	90.00	0.00	0.00	0.00
2	500.00	0.00	0.00	500.00	90.00	0.00	0.00	0.00
3	750.00	5.00	318.24	749.68	98.13	-7.26	2.00	-7.07
4	2222.58	5.00	318.24	2216.66	193.87	-92.74	0.00	-90.35
5	2472.58	0.00	0.00	2466.34	202.00	-100.00	2.00	-97.42
6	8728.24	0.00	0.00	8722.00	202.00	-100.00	0.00	-97.42
7	9628.23	90.00	90.00	9294.96	202.00	472.95	10.00	475.38
8	14074.28	90.00	90.00	9295.00	202.00	4919.00	0.00	4920.27

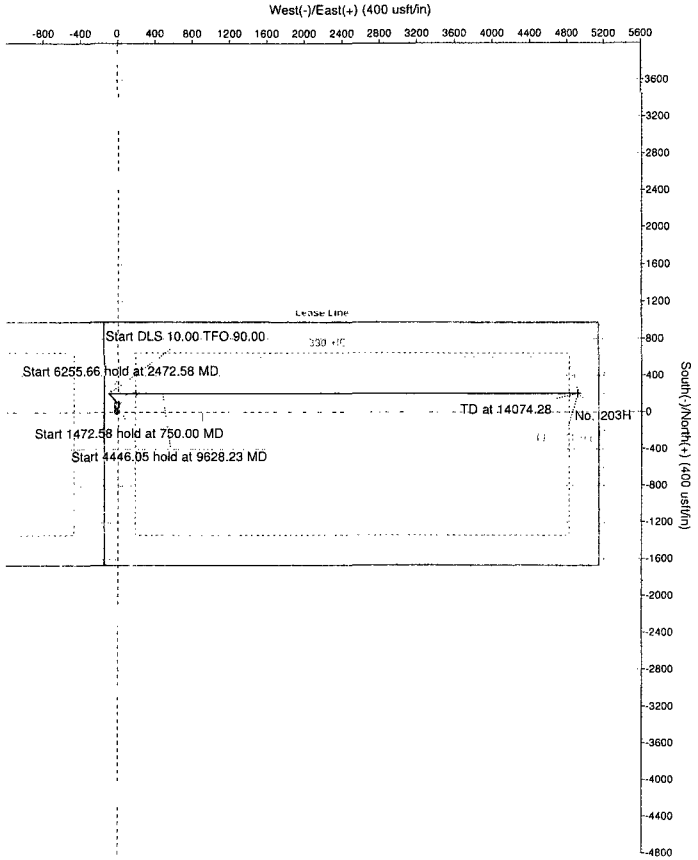


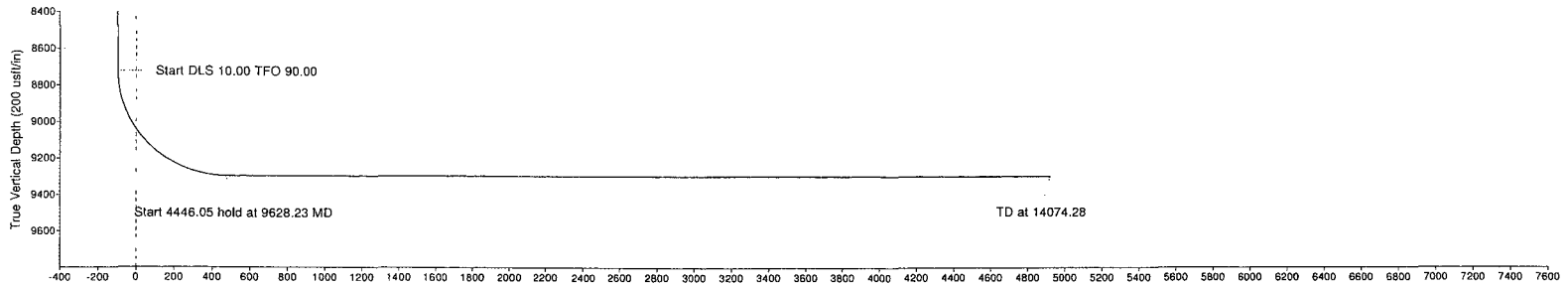


Azimuths to Grid North
True North: 0.12°
Magnetic North: 7.36°

Magnetic Field
Strength: 48289.1snT
Dip Angle: 60.42°
Date: 8/3/2016
Model: IGRF

Azimuth Corrections
Total Magnetic Corr. (M to G): 7.36°
Declination (M to T): 7.48° East





36" x 48"

Pro Directional
Survey Report

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site Stebbins Federal 20 (113-133-203)
Project:	Eddy County, NM	**TVD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Site:	Stebbins Federal 20 (113-133-203)	**MD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Well:	No. 203H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Prelim Plan A	**Database:**	Well_Planner1

Project	Eddy County, NM		
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 Stebbins Federal 20 (113-133-203)

Site Position:		**Northing:**	566,123.00 usft	**Latitude:**	32° 33' 22.220 N
From:	Map	**Easting:**	570,396.00 usft	**Longitude:**	104° 6' 17.481 W
Position Uncertainty:	3.30 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.12 °

Well No. 203H

Well Position	**+N/-S**	90.00 usft	**Northing:**	566,213.00 usft	**Latitude:**	32° 33' 23.110 N
	+E/-W	0.00 usft	**Easting:**	570,396.00 usft	**Longitude:**	104° 6' 17.479 W
Position Uncertainty		1.10 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	3,245.00 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	8/3/2016	7.48	60.42	48,289

Design Prelim Plan A

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	90.00	0.00	88.70

Survey Tool Program **Date** 8/3/2016

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	14,074.15	Prelim Plan A (OH)	MWD - OWSG	MWD - OWSG

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	90.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	90.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	90.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	90.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	90.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	90.00	0.00	0.00	0.00	0.00	0.00
600.00	2.00	318.24	599.98	91.30	-1.16	-1.13	2.00	2.00	0.00
700.00	4.00	318.24	699.84	95.21	-4.65	-4.53	2.00	2.00	0.00
750.00	5.00	318.24	749.68	98.13	-7.26	-7.07	2.00	2.00	0.00

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site Stebbins Federal 20 (113-133-203)
Project:	Eddy County, NM	**TVD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Site:	Stebbins Federal 20 (113-133-203)	**MD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Well:	No. 203H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Prelim Plan A	**Database:**	Well_Planner1

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)
800.00	5.00	318.24	799.49	101.38	-10.16	-9.90	0.00	0.00	0.00
900.00	5.00	318.24	899.11	107.88	-15.97	-15.56	0.00	0.00	0.00
1,000.00	5.00	318.24	998.73	114.38	-21.77	-21.21	0.00	0.00	0.00
1,100.00	5.00	318.24	1,098.35	120.89	-27.58	-26.87	0.00	0.00	0.00
1,200.00	5.00	318.24	1,197.97	127.39	-33.38	-32.52	0.00	0.00	0.00
1,300.00	5.00	318.24	1,297.59	133.89	-39.19	-38.18	0.00	0.00	0.00
1,400.00	5.00	318.24	1,397.21	140.39	-44.99	-43.83	0.00	0.00	0.00
1,500.00	5.00	318.24	1,496.83	146.89	-50.80	-49.49	0.00	0.00	0.00
1,600.00	5.00	318.24	1,596.45	153.39	-56.60	-55.14	0.00	0.00	0.00
1,700.00	5.00	318.24	1,696.07	159.89	-62.41	-60.80	0.00	0.00	0.00
1,800.00	5.00	318.24	1,795.69	166.40	-68.21	-66.45	0.00	0.00	0.00
1,900.00	5.00	318.24	1,895.31	172.90	-74.01	-72.11	0.00	0.00	0.00
2,000.00	5.00	318.24	1,994.93	179.40	-79.82	-77.76	0.00	0.00	0.00
2,100.00	5.00	318.24	2,094.55	185.90	-85.62	-83.42	0.00	0.00	0.00
2,200.00	5.00	318.24	2,194.17	192.40	-91.43	-89.07	0.00	0.00	0.00
2,222.58	5.00	318.24	2,216.66	193.87	-92.74	-90.35	0.00	0.00	0.00
2,300.00	3.45	318.24	2,293.87	198.12	-96.54	-94.05	2.00	-2.00	0.00
2,400.00	1.45	318.24	2,393.77	201.31	-99.39	-96.83	2.00	-2.00	0.00
2,472.58	0.00	0.00	2,466.34	202.00	-100.00	-97.42	2.00	-2.00	0.00
2,500.00	0.00	0.00	2,493.76	202.00	-100.00	-97.42	0.00	0.00	0.00
2,600.00	0.00	0.00	2,593.76	202.00	-100.00	-97.42	0.00	0.00	0.00
2,700.00	0.00	0.00	2,693.76	202.00	-100.00	-97.42	0.00	0.00	0.00
2,800.00	0.00	0.00	2,793.76	202.00	-100.00	-97.42	0.00	0.00	0.00
2,900.00	0.00	0.00	2,893.76	202.00	-100.00	-97.42	0.00	0.00	0.00
3,000.00	0.00	0.00	2,993.76	202.00	-100.00	-97.42	0.00	0.00	0.00
3,100.00	0.00	0.00	3,093.76	202.00	-100.00	-97.42	0.00	0.00	0.00
3,200.00	0.00	0.00	3,193.76	202.00	-100.00	-97.42	0.00	0.00	0.00
3,300.00	0.00	0.00	3,293.76	202.00	-100.00	-97.42	0.00	0.00	0.00
3,400.00	0.00	0.00	3,393.76	202.00	-100.00	-97.42	0.00	0.00	0.00
3,500.00	0.00	0.00	3,493.76	202.00	-100.00	-97.42	0.00	0.00	0.00
3,600.00	0.00	0.00	3,593.76	202.00	-100.00	-97.42	0.00	0.00	0.00
3,700.00	0.00	0.00	3,693.76	202.00	-100.00	-97.42	0.00	0.00	0.00
3,800.00	0.00	0.00	3,793.76	202.00	-100.00	-97.42	0.00	0.00	0.00
3,900.00	0.00	0.00	3,893.76	202.00	-100.00	-97.42	0.00	0.00	0.00
4,000.00	0.00	0.00	3,993.76	202.00	-100.00	-97.42	0.00	0.00	0.00
4,100.00	0.00	0.00	4,093.76	202.00	-100.00	-97.42	0.00	0.00	0.00
4,200.00	0.00	0.00	4,193.76	202.00	-100.00	-97.42	0.00	0.00	0.00
4,300.00	0.00	0.00	4,293.76	202.00	-100.00	-97.42	0.00	0.00	0.00
4,400.00	0.00	0.00	4,393.76	202.00	-100.00	-97.42	0.00	0.00	0.00
4,500.00	0.00	0.00	4,493.76	202.00	-100.00	-97.42	0.00	0.00	0.00
4,600.00	0.00	0.00	4,593.76	202.00	-100.00	-97.42	0.00	0.00	0.00
4,700.00	0.00	0.00	4,693.76	202.00	-100.00	-97.42	0.00	0.00	0.00

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site Stebbins Federal 20 (113-133-203)
Project:	Eddy County, NM	**TVD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Site:	Stebbins Federal 20 (113-133-203)	**MD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Well:	No. 203H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Prelim Plan A	**Database:**	Well_Planner1

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)
4,800.00	0.00	0.00	4,793.76	202.00	-100.00	-97.42	0.00	0.00	0.00
4,900.00	0.00	0.00	4,893.76	202.00	-100.00	-97.42	0.00	0.00	0.00
5,000.00	0.00	0.00	4,993.76	202.00	-100.00	-97.42	0.00	0.00	0.00
5,100.00	0.00	0.00	5,093.76	202.00	-100.00	-97.42	0.00	0.00	0.00
5,200.00	0.00	0.00	5,193.76	202.00	-100.00	-97.42	0.00	0.00	0.00
5,300.00	0.00	0.00	5,293.76	202.00	-100.00	-97.42	0.00	0.00	0.00
5,400.00	0.00	0.00	5,393.76	202.00	-100.00	-97.42	0.00	0.00	0.00
5,500.00	0.00	0.00	5,493.76	202.00	-100.00	-97.42	0.00	0.00	0.00
5,600.00	0.00	0.00	5,593.76	202.00	-100.00	-97.42	0.00	0.00	0.00
5,700.00	0.00	0.00	5,693.76	202.00	-100.00	-97.42	0.00	0.00	0.00
5,800.00	0.00	0.00	5,793.76	202.00	-100.00	-97.42	0.00	0.00	0.00
5,900.00	0.00	0.00	5,893.76	202.00	-100.00	-97.42	0.00	0.00	0.00
6,000.00	0.00	0.00	5,993.76	202.00	-100.00	-97.42	0.00	0.00	0.00
6,100.00	0.00	0.00	6,093.76	202.00	-100.00	-97.42	0.00	0.00	0.00
6,200.00	0.00	0.00	6,193.76	202.00	-100.00	-97.42	0.00	0.00	0.00
6,300.00	0.00	0.00	6,293.76	202.00	-100.00	-97.42	0.00	0.00	0.00
6,400.00	0.00	0.00	6,393.76	202.00	-100.00	-97.42	0.00	0.00	0.00
6,500.00	0.00	0.00	6,493.76	202.00	-100.00	-97.42	0.00	0.00	0.00
6,600.00	0.00	0.00	6,593.76	202.00	-100.00	-97.42	0.00	0.00	0.00
6,700.00	0.00	0.00	6,693.76	202.00	-100.00	-97.42	0.00	0.00	0.00
6,800.00	0.00	0.00	6,793.76	202.00	-100.00	-97.42	0.00	0.00	0.00
6,900.00	0.00	0.00	6,893.76	202.00	-100.00	-97.42	0.00	0.00	0.00
7,000.00	0.00	0.00	6,993.76	202.00	-100.00	-97.42	0.00	0.00	0.00
7,100.00	0.00	0.00	7,093.76	202.00	-100.00	-97.42	0.00	0.00	0.00
7,200.00	0.00	0.00	7,193.76	202.00	-100.00	-97.42	0.00	0.00	0.00
7,300.00	0.00	0.00	7,293.76	202.00	-100.00	-97.42	0.00	0.00	0.00
7,400.00	0.00	0.00	7,393.76	202.00	-100.00	-97.42	0.00	0.00	0.00
7,500.00	0.00	0.00	7,493.76	202.00	-100.00	-97.42	0.00	0.00	0.00
7,600.00	0.00	0.00	7,593.76	202.00	-100.00	-97.42	0.00	0.00	0.00
7,700.00	0.00	0.00	7,693.76	202.00	-100.00	-97.42	0.00	0.00	0.00
7,800.00	0.00	0.00	7,793.76	202.00	-100.00	-97.42	0.00	0.00	0.00
7,900.00	0.00	0.00	7,893.76	202.00	-100.00	-97.42	0.00	0.00	0.00
8,000.00	0.00	0.00	7,993.76	202.00	-100.00	-97.42	0.00	0.00	0.00
8,100.00	0.00	0.00	8,093.76	202.00	-100.00	-97.42	0.00	0.00	0.00
8,200.00	0.00	0.00	8,193.76	202.00	-100.00	-97.42	0.00	0.00	0.00
8,300.00	0.00	0.00	8,293.76	202.00	-100.00	-97.42	0.00	0.00	0.00
8,400.00	0.00	0.00	8,393.76	202.00	-100.00	-97.42	0.00	0.00	0.00
8,500.00	0.00	0.00	8,493.76	202.00	-100.00	-97.42	0.00	0.00	0.00
8,600.00	0.00	0.00	8,593.76	202.00	-100.00	-97.42	0.00	0.00	0.00
8,700.00	0.00	0.00	8,693.76	202.00	-100.00	-97.42	0.00	0.00	0.00
8,728.24	0.00	0.00	8,722.00	202.00	-100.00	-97.42	0.00	0.00	0.00
8,750.00	2.18	90.00	8,743.76	202.00	-99.59	-97.01	10.00	10.00	0.00

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site Stebbins Federal 20 (113-133-203)
Project:	Eddy County, NM	**TVD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Site:	Stebbins Federal 20 (113-133-203)	**MD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Well:	No. 203H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Prelim Plan A	**Database:**	Well_Planner1

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,800.00	7.18	90.00	8,793.57	202.00	-95.51	-92.94	10.00	10.00	0.00
8,850.00	12.18	90.00	8,842.85	202.00	-87.11	-84.54	10.00	10.00	0.00
8,900.00	17.18	90.00	8,891.20	202.00	-74.45	-71.88	10.00	10.00	0.00
8,950.00	22.18	90.00	8,938.27	202.00	-57.62	-55.05	10.00	10.00	0.00
9,000.00	27.18	90.00	8,983.69	202.00	-36.75	-34.19	10.00	10.00	0.00
9,050.00	32.18	90.00	9,027.11	202.00	-12.00	-9.45	10.00	10.00	0.00
9,100.00	37.18	90.00	9,068.22	202.00	16.44	18.98	10.00	10.00	0.00
9,150.00	42.18	90.00	9,106.69	202.00	48.35	50.89	10.00	10.00	0.00
9,200.00	47.18	90.00	9,142.23	202.00	83.49	86.02	10.00	10.00	0.00
9,250.00	52.18	90.00	9,174.58	202.00	121.60	124.12	10.00	10.00	0.00
9,300.00	57.18	90.00	9,203.48	202.00	162.38	164.89	10.00	10.00	0.00
9,350.00	62.18	90.00	9,228.72	202.00	205.53	208.02	10.00	10.00	0.00
9,400.00	67.18	90.00	9,250.10	202.00	250.71	253.19	10.00	10.00	0.00
9,450.00	72.18	90.00	9,267.46	202.00	297.58	300.05	10.00	10.00	0.00
9,500.00	77.18	90.00	9,280.67	202.00	345.79	348.25	10.00	10.00	0.00
9,550.00	82.18	90.00	9,289.62	202.00	394.96	397.41	10.00	10.00	0.00
9,600.00	87.18	90.00	9,294.26	202.00	444.73	447.17	10.00	10.00	0.00
9,628.23	90.00	90.00	9,294.96	202.00	472.95	475.38	10.00	10.00	0.00
9,700.00	90.00	90.00	9,294.96	202.00	544.72	547.13	0.00	0.00	0.00
9,800.00	90.00	90.00	9,294.96	202.00	644.72	647.10	0.00	0.00	0.00
9,900.00	90.00	90.00	9,294.96	202.00	744.72	747.08	0.00	0.00	0.00
10,000.00	90.00	90.00	9,294.96	202.00	844.72	847.05	0.00	0.00	0.00
10,100.00	90.00	90.00	9,294.96	202.00	944.72	947.02	0.00	0.00	0.00
10,200.00	90.00	90.00	9,294.96	202.00	1,044.72	1,047.00	0.00	0.00	0.00
10,300.00	90.00	90.00	9,294.96	202.00	1,144.72	1,146.97	0.00	0.00	0.00
10,400.00	90.00	90.00	9,294.97	202.00	1,244.72	1,246.95	0.00	0.00	0.00
10,500.00	90.00	90.00	9,294.97	202.00	1,344.72	1,346.92	0.00	0.00	0.00
10,600.00	90.00	90.00	9,294.97	202.00	1,444.72	1,446.89	0.00	0.00	0.00
10,700.00	90.00	90.00	9,294.97	202.00	1,544.72	1,546.87	0.00	0.00	0.00
10,800.00	90.00	90.00	9,294.97	202.00	1,644.72	1,646.84	0.00	0.00	0.00
10,900.00	90.00	90.00	9,294.97	202.00	1,744.72	1,746.82	0.00	0.00	0.00
11,000.00	90.00	90.00	9,294.97	202.00	1,844.72	1,846.79	0.00	0.00	0.00
11,100.00	90.00	90.00	9,294.97	202.00	1,944.72	1,946.77	0.00	0.00	0.00
11,200.00	90.00	90.00	9,294.97	202.00	2,044.72	2,046.74	0.00	0.00	0.00
11,300.00	90.00	90.00	9,294.97	202.00	2,144.72	2,146.71	0.00	0.00	0.00
11,400.00	90.00	90.00	9,294.97	202.00	2,244.72	2,246.69	0.00	0.00	0.00
11,500.00	90.00	90.00	9,294.98	202.00	2,344.72	2,346.66	0.00	0.00	0.00
11,600.00	90.00	90.00	9,294.98	202.00	2,444.72	2,446.64	0.00	0.00	0.00
11,700.00	90.00	90.00	9,294.98	202.00	2,544.72	2,546.61	0.00	0.00	0.00
11,800.00	90.00	90.00	9,294.98	202.00	2,644.72	2,646.58	0.00	0.00	0.00
11,900.00	90.00	90.00	9,294.98	202.00	2,744.72	2,746.56	0.00	0.00	0.00
12,000.00	90.00	90.00	9,294.98	202.00	2,844.72	2,846.53	0.00	0.00	0.00

Company:	Matador Resources	**Local Co-ordinate Reference:**	Site Stebbins Federal 20 (113-133-203)
Project:	Eddy County, NM	**TVD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Site:	Stebbins Federal 20 (113-133-203)	**MD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Well:	No. 203H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Prelim Plan A	**Database:**	Well_Planner1

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)
12,100.00	90.00	90.00	9,294.98	202.00	2,944.72	2,946.51	0.00	0.00	0.00
12,200.00	90.00	90.00	9,294.98	202.00	3,044.72	3,046.48	0.00	0.00	0.00
12,300.00	90.00	90.00	9,294.98	202.00	3,144.72	3,146.45	0.00	0.00	0.00
12,400.00	90.00	90.00	9,294.98	202.00	3,244.72	3,246.43	0.00	0.00	0.00
12,500.00	90.00	90.00	9,294.99	202.00	3,344.72	3,346.40	0.00	0.00	0.00
12,600.00	90.00	90.00	9,294.99	202.00	3,444.72	3,446.38	0.00	0.00	0.00
12,700.00	90.00	90.00	9,294.99	202.00	3,544.72	3,546.35	0.00	0.00	0.00
12,800.00	90.00	90.00	9,294.99	202.00	3,644.72	3,646.32	0.00	0.00	0.00
12,900.00	90.00	90.00	9,294.99	202.00	3,744.72	3,746.30	0.00	0.00	0.00
13,000.00	90.00	90.00	9,294.99	202.00	3,844.72	3,846.27	0.00	0.00	0.00
13,100.00	90.00	90.00	9,294.99	202.00	3,944.72	3,946.25	0.00	0.00	0.00
13,200.00	90.00	90.00	9,294.99	202.00	4,044.72	4,046.22	0.00	0.00	0.00
13,300.00	90.00	90.00	9,294.99	202.00	4,144.72	4,146.20	0.00	0.00	0.00
13,400.00	90.00	90.00	9,294.99	202.00	4,244.72	4,246.17	0.00	0.00	0.00
13,500.00	90.00	90.00	9,294.99	202.00	4,344.72	4,346.14	0.00	0.00	0.00
13,600.00	90.00	90.00	9,295.00	202.00	4,444.72	4,446.12	0.00	0.00	0.00
13,700.00	90.00	90.00	9,295.00	202.00	4,544.72	4,546.09	0.00	0.00	0.00
13,800.00	90.00	90.00	9,295.00	202.00	4,644.72	4,646.07	0.00	0.00	0.00
13,900.00	90.00	90.00	9,295.00	202.00	4,744.72	4,746.04	0.00	0.00	0.00
14,000.00	90.00	90.00	9,295.00	202.00	4,844.72	4,846.01	0.00	0.00	0.00
14,074.28	90.00	90.00	9,295.00	202.00	4,919.00	4,920.28	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
[StebFed20#203H]LPP	0.00	0.00	0.00	202.00	4,829.00	566,325.00	575,225.00	32° 33' 24.113 N	104° 5' 21.054 W
- plan misses target center by 4830.30usft at 0.00usft MD (0.00 TVD, 90.00 N, 0.00 E)									
- Point									
[StebFed20#203H]FPP	0.00	0.00	0.00	206.00	200.00	566,329.00	570,596.00	32° 33' 24.254 N	104° 6' 15.139 W
- plan misses target center by 231.21usft at 0.00usft MD (0.00 TVD, 90.00 N, 0.00 E)									
- Point									
[StebFed20#203H]BHL	0.00	0.00	9,295.00	202.00	4,919.00	566,325.00	575,315.00	32° 33' 24.111 N	104° 5' 20.002 W
- plan hits target center									
- Point									

Checked By: _____ Approved By: _____ Date: _____

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well No. 203H
Project:	Eddy County, NM	**TVD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Reference Site:	Stebbins Federal 20 (113-133-203)	**MD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Site Error:	3.30 usft	**North Reference:**	Grid
Reference Well:	No. 203H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.10 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	Well_Planner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Reference	Prelim Plan A		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.00usft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,875.15 usft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 8/3/2016

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	14,074.15	Prelim Plan A (OH)	MWD - OWSG	MWD - OWSG

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Stebbins Federal 20 (113-133-203)						
No. 113H - OH - Prelim Plan A	778.19	784.51	88.68	83.08	15.841	CC, ES
No. 113H - OH - Prelim Plan A	6,500.00	6,501.52	200.01	153.74	4.322	SF
No. 133H - OH - Prelim Plan A	799.25	801.54	27.53	21.80	4.809	CC, ES
No. 133H - OH - Prelim Plan A	8,500.00	8,496.40	100.35	39.93	1.661	SF

Offset Design Stebbins Federal 20 (113-133-203) - No. 113H - OH - Prelim Plan A

Offset Site Error: 0.00 usft
Survey Program: 0-MWD - OWSG
Offset Well Error: 1.10 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	1.10	1.10	180.00	-90.00	0.00	90.00				
100.00	100.00	100.00	100.00	1.11	1.11	180.00	-90.00	0.00	90.00	87.79	2.21	40.634	
200.00	200.00	200.00	200.00	1.20	1.20	180.00	-90.00	0.00	90.00	87.59	2.41	37.412	
300.00	300.00	300.00	300.00	1.39	1.39	180.00	-90.00	0.00	90.00	87.23	2.77	32.441	
400.00	400.00	400.00	400.00	1.63	1.63	180.00	-90.00	0.00	90.00	86.74	3.26	27.599	
500.00	500.00	500.00	500.00	1.91	1.91	180.00	-90.00	0.00	90.00	86.18	3.82	23.554	
600.00	599.98	602.86	602.83	2.21	2.22	-139.53	-88.35	0.82	89.71	85.28	4.44	20.222	
700.00	699.84	705.47	705.29	2.53	2.55	-143.42	-83.40	3.27	89.12	84.04	5.08	17.536	
778.19	777.80	784.51	784.06	2.79	2.81	-147.97	-77.53	6.17	88.68	83.08	5.60	15.841	CC, ES
800.00	799.49	806.20	805.66	2.86	2.88	-149.46	-75.84	7.01	89.11	83.37	5.74	15.520	
900.00	899.11	905.72	904.81	3.20	3.22	-155.62	-68.07	10.86	90.22	83.81	6.41	14.066	
1,000.00	998.73	1,005.24	1,003.95	3.55	3.57	-161.57	-60.29	14.71	92.35	85.25	7.10	13.008	
1,100.00	1,098.35	1,104.77	1,103.10	3.91	3.93	-167.19	-52.52	18.55	95.43	87.64	7.80	12.242	
1,200.00	1,197.97	1,204.29	1,202.25	4.27	4.29	-172.42	-44.75	22.40	99.38	90.88	8.50	11.693	
1,300.00	1,297.59	1,303.81	1,301.39	4.64	4.65	-177.22	-36.97	26.25	104.09	94.88	9.21	11.303	
1,400.00	1,397.21	1,403.34	1,400.54	5.00	5.01	178.42	-29.20	30.10	109.47	99.55	9.92	11.030	
1,500.00	1,496.83	1,502.86	1,499.68	5.37	5.38	174.49	-21.43	33.95	115.43	104.78	10.65	10.843	
1,600.00	1,596.45	1,602.39	1,598.83	5.74	5.75	170.96	-13.65	37.80	121.87	110.50	11.37	10.720	
1,700.00	1,696.07	1,701.91	1,697.97	6.12	6.12	167.79	-5.88	41.64	128.73	116.63	12.10	10.642	
1,800.00	1,795.69	1,801.43	1,797.12	6.49	6.49	164.95	1.90	45.49	135.94	123.12	12.83	10.600	
1,900.00	1,895.31	1,900.96	1,896.26	6.87	6.86	162.40	9.67	49.34	143.46	129.90	13.56	10.582	

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

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well No. 203H
Project:	Eddy County, NM	**TVD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Reference Site:	Stebbins Federal 20 (113-133-203)	**MD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Site Error:	3.30 usft	**North Reference:**	Grid
Reference Well:	No. 203H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.10 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	Well_Planner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design Stebbins Federal 20 (113-133-203) - No. 113H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD - OWSG — **Offset Well Error:** 1.10 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,000.00	1,994.93	2,000.48	1,995.41	7.24	7.23	160.11	17.44	53.19	151.23	136.93	14.29	10.582	
2,100.00	2,094.55	2,100.00	2,094.55	7.62	7.61	158.04	25.22	57.04	159.21	144.19	15.03	10.596	
2,200.00	2,194.17	2,199.53	2,193.70	7.99	7.98	156.17	32.99	60.89	167.39	151.62	15.76	10.619	
2,300.00	2,293.87	2,299.10	2,292.89	8.37	8.36	154.38	40.77	64.74	174.78	158.28	16.50	10.593	
2,400.00	2,393.77	2,398.76	2,392.17	8.73	8.73	152.23	48.55	68.59	179.33	162.09	17.23	10.406	
2,500.00	2,493.76	2,498.40	2,491.43	9.07	9.11	107.89	56.33	72.44	181.22	163.26	17.96	10.090	
2,600.00	2,593.76	2,598.02	2,590.67	9.41	9.48	105.20	64.12	76.30	182.71	164.02	18.68	9.778	
2,700.00	2,693.76	2,697.64	2,689.91	9.76	9.86	102.55	71.90	80.15	184.60	165.19	19.41	9.511	
2,800.00	2,793.76	2,797.26	2,789.15	10.10	10.24	99.96	79.68	84.00	186.87	166.74	20.13	9.282	
2,900.00	2,893.76	2,896.88	2,888.39	10.44	10.61	97.44	87.46	87.85	189.52	168.67	20.85	9.088	
3,000.00	2,993.76	2,996.50	2,987.64	10.79	10.99	95.00	95.24	91.70	192.53	170.96	21.58	8.924	
3,100.00	3,093.76	3,096.41	3,087.16	11.14	11.37	92.63	103.03	95.56	195.87	173.58	22.30	8.785	
3,200.00	3,193.76	3,199.15	3,189.68	11.48	11.75	90.84	109.07	98.55	198.61	175.58	23.03	8.624	
3,300.00	3,293.76	3,302.24	3,292.72	11.83	12.11	90.05	111.82	99.91	199.91	176.17	23.75	8.418	
3,400.00	3,393.76	3,403.29	3,393.76	12.18	12.46	90.00	112.00	100.00	200.00	175.55	24.45	8.181	
3,500.00	3,493.76	3,503.29	3,493.76	12.53	12.80	90.00	112.00	100.00	200.00	174.86	25.14	7.956	
3,600.00	3,593.76	3,603.29	3,593.76	12.88	13.14	90.00	112.00	100.00	200.00	174.17	25.83	7.742	
3,700.00	3,693.76	3,703.29	3,693.76	13.23	13.48	90.00	112.00	100.00	200.00	173.47	26.53	7.539	
3,800.00	3,793.76	3,803.29	3,793.76	13.58	13.83	90.00	112.00	100.00	200.00	172.77	27.23	7.345	
3,900.00	3,893.76	3,903.29	3,893.76	13.93	14.17	90.00	112.00	100.00	200.00	172.07	27.93	7.162	
4,000.00	3,993.76	4,003.29	3,993.76	14.28	14.52	90.00	112.00	100.00	200.00	171.38	28.62	6.987	
4,100.00	4,093.76	4,103.29	4,093.76	14.63	14.86	90.00	112.00	100.00	200.00	170.68	29.32	6.820	
4,200.00	4,193.76	4,203.29	4,193.76	14.99	15.21	90.00	112.00	100.00	200.00	169.97	30.03	6.661	
4,300.00	4,293.76	4,303.29	4,293.76	15.34	15.56	90.00	112.00	100.00	200.00	169.27	30.73	6.509	
4,400.00	4,393.76	4,403.29	4,393.76	15.69	15.90	90.00	112.00	100.00	200.00	168.57	31.43	6.363	
4,500.00	4,493.76	4,503.29	4,493.76	16.04	16.25	90.00	112.00	100.00	200.00	167.87	32.13	6.224	
4,600.00	4,593.76	4,603.29	4,593.76	16.40	16.60	90.00	112.00	100.00	200.00	167.16	32.84	6.091	
4,700.00	4,693.76	4,703.29	4,693.76	16.75	16.95	90.00	112.00	100.00	200.00	166.46	33.54	5.963	
4,800.00	4,793.76	4,803.29	4,793.76	17.10	17.30	90.00	112.00	100.00	200.00	165.76	34.24	5.840	
4,900.00	4,893.76	4,903.29	4,893.76	17.46	17.65	90.00	112.00	100.00	200.00	165.05	34.95	5.723	
5,000.00	4,993.76	5,003.29	4,993.76	17.81	18.00	90.00	112.00	100.00	200.00	164.35	35.65	5.609	
5,100.00	5,093.76	5,103.29	5,093.76	18.16	18.35	90.00	112.00	100.00	200.00	163.64	36.36	5.500	
5,200.00	5,193.76	5,203.29	5,193.76	18.52	18.70	90.00	112.00	100.00	200.00	162.93	37.07	5.396	
5,300.00	5,293.76	5,303.29	5,293.76	18.87	19.05	90.00	112.00	100.00	200.00	162.23	37.77	5.295	
5,400.00	5,393.76	5,403.29	5,393.76	19.23	19.40	90.00	112.00	100.00	200.00	161.52	38.48	5.197	
5,500.00	5,493.76	5,503.29	5,493.76	19.58	19.75	90.00	112.00	100.00	200.00	160.81	39.19	5.104	
5,600.00	5,593.76	5,603.29	5,593.76	19.94	20.10	90.00	112.00	100.00	200.00	160.10	39.90	5.013	
5,700.00	5,693.76	5,703.29	5,693.76	20.29	20.45	90.00	112.00	100.00	200.00	159.40	40.60	4.926	
5,800.00	5,793.76	5,803.29	5,793.76	20.65	20.80	90.00	112.00	100.00	200.00	158.69	41.31	4.841	
5,900.00	5,893.76	5,903.29	5,893.76	21.00	21.16	90.00	112.00	100.00	200.00	157.98	42.02	4.759	
6,000.00	5,993.76	6,003.29	5,993.76	21.36	21.51	90.00	112.00	100.00	200.00	157.27	42.73	4.680	
6,100.00	6,093.76	6,103.29	6,093.76	21.71	21.86	90.00	112.00	100.00	200.00	156.56	43.44	4.604	
6,200.00	6,193.76	6,203.29	6,193.76	22.07	22.22	90.00	112.00	100.00	200.00	155.85	44.15	4.530	
6,300.00	6,293.76	6,303.29	6,293.76	22.42	22.57	90.00	112.00	100.00	200.00	155.14	44.86	4.458	
6,400.00	6,393.76	6,403.29	6,393.76	22.78	22.92	90.00	112.00	100.00	200.00	154.43	45.57	4.389	
6,416.07	6,409.83	6,419.35	6,409.83	22.84	22.98	90.00	112.00	100.00	200.00	154.32	45.68	4.378	
6,500.00	6,493.76	6,501.52	6,492.00	23.14	23.27	90.00	112.00	100.00	200.01	153.74	46.27	4.322	SF
6,600.00	6,593.76	6,576.52	6,566.79	23.49	23.53	90.00	112.00	104.90	206.67	160.16	46.51	4.444	
6,700.00	6,693.76	6,650.00	6,638.82	23.85	23.80	90.00	112.00	119.13	225.91	179.76	46.16	4.895	
6,800.00	6,793.76	6,714.78	6,700.37	24.20	24.03	90.00	112.00	139.23	256.82	211.83	44.99	5.708	
6,900.00	6,893.76	6,776.17	6,756.24	24.56	24.27	90.00	112.00	164.57	298.18	254.65	43.53	6.850	

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

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well No. 203H
Project:	Eddy County, NM	**TVD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Reference Site:	Stebbins Federal 20 (113-133-203)	**MD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Site Error:	3.30 usft	**North Reference:**	Grid
Reference Well:	No. 203H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.10 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	Well_Planner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design Stebbins Federal 20 (113-133-203) - No. 113H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD - OWSG — **Offset Well Error:** 1.10 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,000.00	6,993.76	6,831.42	6,803.97	24.92	24.49	90.00	112.00	192.38	348.58	306.75	41.82	8.334	
7,100.00	7,093.76	6,880.54	6,843.97	25.27	24.71	90.00	112.00	220.85	406.62	366.60	40.02	10.160	
7,200.00	7,193.76	6,923.88	6,877.13	25.63	24.91	90.00	112.00	248.75	471.04	432.81	38.23	12.321	
7,300.00	7,293.76	6,950.00	6,896.06	25.99	25.05	90.00	112.00	266.74	540.98	505.23	35.75	15.132	
7,400.00	7,393.76	7,000.00	6,929.93	26.34	25.33	90.00	112.00	303.50	614.78	579.59	35.19	17.473	
7,500.00	7,493.76	7,024.99	6,945.62	26.70	25.50	90.00	112.00	322.94	692.34	658.89	33.46	20.693	
7,600.00	7,593.76	7,050.00	6,960.46	27.06	25.66	90.00	112.00	343.08	772.91	740.82	32.08	24.090	
7,700.00	7,693.76	7,074.04	6,973.89	27.41	25.85	90.00	112.00	363.01	855.92	824.97	30.95	27.657	
7,800.00	7,793.76	7,100.00	6,987.43	27.77	26.05	90.00	112.00	385.16	941.04	910.91	30.13	31.233	
7,900.00	7,893.76	7,100.00	6,987.43	28.13	26.05	90.00	112.00	385.16	1,028.01	999.58	28.44	36.150	
8,000.00	7,993.76	7,129.17	7,001.44	28.48	26.30	90.00	112.00	410.75	1,116.05	1,087.92	28.13	39.678	
8,100.00	8,093.76	7,150.00	7,010.63	28.84	26.49	90.00	112.00	429.44	1,205.60	1,177.99	27.62	43.657	
8,200.00	8,193.76	7,150.00	7,010.63	29.20	26.49	90.00	112.00	429.44	1,296.19	1,269.66	26.53	48.865	
8,300.00	8,293.76	7,169.33	7,018.55	29.55	26.68	90.00	112.00	447.07	1,387.61	1,361.40	26.21	52.945	
8,400.00	8,393.76	7,180.33	7,022.79	29.91	26.79	90.00	112.00	457.22	1,479.88	1,454.16	25.73	57.525	
8,500.00	8,493.76	7,200.00	7,029.88	30.27	26.99	90.00	112.00	475.56	1,572.97	1,547.39	25.57	61.509	
8,600.00	8,593.76	7,200.00	7,029.88	30.62	26.99	90.00	112.00	475.56	1,666.43	1,641.47	24.96	66.759	
8,700.00	8,693.76	7,200.00	7,029.88	30.98	26.99	90.00	112.00	475.56	1,760.62	1,736.17	24.45	72.008	
8,800.00	8,793.57	7,200.00	7,029.88	31.32	26.99	0.00	112.00	475.56	1,853.85	1,829.91	23.93	77.456	

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well No. 203H
Project:	Eddy County, NM	**TVD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Reference Site:	Stebbins Federal 20 (113-133-203)	**MD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Site Error:	3.30 usft	**North Reference:**	Grid
Reference Well:	No. 203H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.10 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	Well_Planner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design Stebbins Federal 20 (113-133-203) - No. 133H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD - OWSG — **Offset Well Error:** 1.10 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	1.10	1.10	180.00	-30.00	0.00	30.00				
100.00	100.00	100.00	100.00	1.11	1.11	180.00	-30.00	0.00	30.00	27.79	2.21	13.545	
200.00	200.00	200.00	200.00	1.20	1.20	180.00	-30.00	0.00	30.00	27.59	2.41	12.471	
300.00	300.00	300.00	300.00	1.39	1.39	180.00	-30.00	0.00	30.00	27.23	2.77	10.814	
400.00	400.00	400.00	400.00	1.63	1.63	180.00	-30.00	0.00	30.00	26.74	3.26	9.200	
500.00	500.00	500.00	500.00	1.91	1.91	180.00	-30.00	0.00	30.00	26.18	3.82	7.851	
600.00	599.98	601.04	601.02	2.21	2.22	-140.52	-28.22	0.00	29.56	25.13	4.43	6.670	
700.00	699.84	701.99	701.82	2.53	2.54	-147.72	-22.88	0.00	28.54	23.46	5.07	5.624	
799.25	798.78	801.54	801.02	2.86	2.87	-159.31	-14.61	0.00	27.53	21.80	5.72	4.809	CC, ES
800.00	799.49	802.28	801.76	2.86	2.87	-159.72	-14.54	0.00	27.94	22.21	5.73	4.876	
900.00	899.11	902.08	901.19	3.20	3.21	-172.20	-5.84	0.00	28.68	22.28	6.40	4.482	
1,000.00	998.73	1,001.89	1,000.62	3.55	3.56	176.45	2.86	0.00	30.68	23.60	7.08	4.333	
1,100.00	1,098.35	1,101.70	1,100.04	3.91	3.92	166.80	11.55	0.00	33.72	25.94	7.78	4.335	
1,200.00	1,197.97	1,201.50	1,199.47	4.27	4.28	158.93	20.25	0.00	37.55	29.06	8.49	4.424	
1,300.00	1,297.59	1,301.31	1,298.90	4.64	4.64	152.61	28.95	0.00	41.96	32.75	9.21	4.556	
1,400.00	1,397.21	1,401.12	1,398.32	5.00	5.01	147.54	37.65	0.00	46.77	36.84	9.94	4.708	
1,500.00	1,496.83	1,500.93	1,497.75	5.37	5.37	143.43	46.35	0.00	51.89	41.22	10.67	4.864	
1,600.00	1,596.45	1,600.73	1,597.18	5.74	5.74	140.08	55.05	0.00	57.22	45.81	11.40	5.017	
1,700.00	1,696.07	1,700.54	1,696.61	6.12	6.12	137.31	63.75	0.00	62.71	50.57	12.14	5.164	
1,800.00	1,795.69	1,800.35	1,796.03	6.49	6.49	134.98	72.45	0.00	68.33	55.44	12.88	5.303	
1,900.00	1,895.31	1,900.15	1,895.46	6.87	6.86	133.02	81.14	0.00	74.04	60.41	13.63	5.433	
2,000.00	1,994.93	1,999.96	1,994.89	7.24	7.23	131.33	89.84	0.00	79.82	65.45	14.37	5.554	
2,100.00	2,094.55	2,099.77	2,094.31	7.62	7.61	129.87	98.54	0.00	85.67	70.55	15.12	5.666	
2,200.00	2,194.17	2,199.68	2,193.92	7.99	7.98	129.15	106.38	0.00	91.52	75.65	15.86	5.769	
2,300.00	2,293.87	2,299.66	2,293.79	8.37	8.34	130.06	110.90	0.00	96.58	79.99	16.58	5.824	
2,400.00	2,393.77	2,399.65	2,393.77	8.73	8.69	131.36	112.00	0.00	99.39	82.11	17.28	5.751	
2,500.00	2,493.76	2,499.64	2,493.76	9.07	9.03	90.00	112.00	0.00	100.00	82.03	17.97	5.565	
2,600.00	2,593.76	2,599.64	2,593.76	9.41	9.37	90.00	112.00	0.00	100.00	81.34	18.66	5.359	
2,700.00	2,693.76	2,699.64	2,693.76	9.76	9.72	90.00	112.00	0.00	100.00	80.65	19.35	5.168	
2,800.00	2,793.76	2,799.64	2,793.76	10.10	10.07	90.00	112.00	0.00	100.00	79.96	20.04	4.989	
2,900.00	2,893.76	2,899.64	2,893.76	10.44	10.41	90.00	112.00	0.00	100.00	79.26	20.74	4.822	
3,000.00	2,993.76	2,999.64	2,993.76	10.79	10.76	90.00	112.00	0.00	100.00	78.57	21.43	4.665	
3,100.00	3,093.76	3,099.64	3,093.76	11.14	11.11	90.00	112.00	0.00	100.00	77.87	22.13	4.518	
3,200.00	3,193.76	3,199.64	3,193.76	11.48	11.46	90.00	112.00	0.00	100.00	77.17	22.83	4.380	
3,300.00	3,293.76	3,299.64	3,293.76	11.83	11.81	90.00	112.00	0.00	100.00	76.47	23.53	4.250	
3,400.00	3,393.76	3,399.64	3,393.76	12.18	12.16	90.00	112.00	0.00	100.00	75.77	24.23	4.127	
3,500.00	3,493.76	3,499.64	3,493.76	12.53	12.51	90.00	112.00	0.00	100.00	75.07	24.93	4.011	
3,600.00	3,593.76	3,599.64	3,593.76	12.88	12.86	90.00	112.00	0.00	100.00	74.36	25.64	3.901	
3,700.00	3,693.76	3,699.64	3,693.76	13.23	13.21	90.00	112.00	0.00	100.00	73.66	26.34	3.797	
3,800.00	3,793.76	3,799.64	3,793.76	13.58	13.56	90.00	112.00	0.00	100.00	72.96	27.04	3.698	
3,900.00	3,893.76	3,899.64	3,893.76	13.93	13.92	90.00	112.00	0.00	100.00	72.25	27.75	3.604	
4,000.00	3,993.76	3,999.64	3,993.76	14.28	14.27	90.00	112.00	0.00	100.00	71.55	28.45	3.515	
4,100.00	4,093.76	4,099.64	4,093.76	14.63	14.62	90.00	112.00	0.00	100.00	70.84	29.16	3.429	
4,200.00	4,193.76	4,199.64	4,193.76	14.99	14.98	90.00	112.00	0.00	100.00	70.13	29.87	3.348	
4,300.00	4,293.76	4,299.64	4,293.76	15.34	15.33	90.00	112.00	0.00	100.00	69.43	30.57	3.271	
4,400.00	4,393.76	4,399.64	4,393.76	15.69	15.68	90.00	112.00	0.00	100.00	68.72	31.28	3.197	
4,500.00	4,493.76	4,499.64	4,493.76	16.04	16.04	90.00	112.00	0.00	100.00	68.01	31.99	3.126	
4,600.00	4,593.76	4,599.64	4,593.76	16.40	16.39	90.00	112.00	0.00	100.00	67.30	32.70	3.058	
4,700.00	4,693.76	4,699.64	4,693.76	16.75	16.74	90.00	112.00	0.00	100.00	66.60	33.40	2.994	
4,800.00	4,793.76	4,799.64	4,793.76	17.10	17.10	90.00	112.00	0.00	100.00	65.89	34.11	2.931	
4,900.00	4,893.76	4,899.64	4,893.76	17.46	17.45	90.00	112.00	0.00	100.00	65.18	34.82	2.872	

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

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well No. 203H
Project:	Eddy County, NM	**TVD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Reference Site:	Stebbins Federal 20 (113-133-203)	**MD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Site Error:	3.30 usft	**North Reference:**	Grid
Reference Well:	No. 203H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.10 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	Well_Planner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design Stebbins Federal 20 (113-133-203) - No. 133H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD - OWSG — **Offset Well Error:** 1.10 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.00	4,993.76	4,999.64	4,993.76	17.81	17.81	90.00	112.00	0.00	100.00	64.47	35.53	2.814	
5,100.00	5,093.76	5,099.64	5,093.76	18.16	18.16	90.00	112.00	0.00	100.00	63.76	36.24	2.759	
5,200.00	5,193.76	5,199.64	5,193.76	18.52	18.52	90.00	112.00	0.00	100.00	63.05	36.95	2.706	
5,300.00	5,293.76	5,299.64	5,293.76	18.87	18.87	90.00	112.00	0.00	100.00	62.34	37.66	2.655	
5,400.00	5,393.76	5,399.64	5,393.76	19.23	19.23	90.00	112.00	0.00	100.00	61.63	38.37	2.606	
5,500.00	5,493.76	5,499.64	5,493.76	19.58	19.58	90.00	112.00	0.00	100.00	60.92	39.08	2.559	
5,600.00	5,593.76	5,599.64	5,593.76	19.94	19.94	90.00	112.00	0.00	100.00	60.20	39.80	2.513	
5,700.00	5,693.76	5,699.64	5,693.76	20.29	20.29	90.00	112.00	0.00	100.00	59.49	40.51	2.469	
5,800.00	5,793.76	5,799.64	5,793.76	20.65	20.65	90.00	112.00	0.00	100.00	58.78	41.22	2.426	
5,900.00	5,893.76	5,899.64	5,893.76	21.00	21.01	90.00	112.00	0.00	100.00	58.07	41.93	2.385	
6,000.00	5,993.76	5,999.64	5,993.76	21.36	21.36	90.00	112.00	0.00	100.00	57.36	42.64	2.345	
6,100.00	6,093.76	6,099.64	6,093.76	21.71	21.72	90.00	112.00	0.00	100.00	56.65	43.35	2.307	
6,200.00	6,193.76	6,199.64	6,193.76	22.07	22.07	90.00	112.00	0.00	100.00	55.93	44.07	2.269	
6,300.00	6,293.76	6,299.64	6,293.76	22.42	22.43	90.00	112.00	0.00	100.00	55.22	44.78	2.233	
6,400.00	6,393.76	6,399.64	6,393.76	22.78	22.79	90.00	112.00	0.00	100.00	54.51	45.49	2.198	
6,500.00	6,493.76	6,499.64	6,493.76	23.14	23.14	90.00	112.00	0.00	100.00	53.80	46.20	2.164	
6,600.00	6,593.76	6,599.64	6,593.76	23.49	23.50	90.00	112.00	0.00	100.00	53.08	46.92	2.131	
6,700.00	6,693.76	6,699.64	6,693.76	23.85	23.86	90.00	112.00	0.00	100.00	52.37	47.63	2.100	
6,800.00	6,793.76	6,799.64	6,793.76	24.20	24.21	90.00	112.00	0.00	100.00	51.66	48.34	2.069	
6,900.00	6,893.76	6,899.64	6,893.76	24.56	24.57	90.00	112.00	0.00	100.00	50.95	49.05	2.039	
7,000.00	6,993.76	6,999.64	6,993.76	24.92	24.92	90.00	112.00	0.00	100.00	50.23	49.77	2.009	
7,100.00	7,093.76	7,099.64	7,093.76	25.27	25.28	90.00	112.00	0.00	100.00	49.52	50.48	1.981	
7,200.00	7,193.76	7,199.64	7,193.76	25.63	25.64	90.00	112.00	0.00	100.00	48.81	51.19	1.953	
7,300.00	7,293.76	7,299.64	7,293.76	25.99	26.00	90.00	112.00	0.00	100.00	48.09	51.91	1.926	
7,400.00	7,393.76	7,399.64	7,393.76	26.34	26.35	90.00	112.00	0.00	100.00	47.38	52.62	1.900	
7,500.00	7,493.76	7,499.64	7,493.76	26.70	26.71	90.00	112.00	0.00	100.00	46.66	53.34	1.875	
7,600.00	7,593.76	7,599.64	7,593.76	27.06	27.07	90.00	112.00	0.00	100.00	45.95	54.05	1.850	
7,700.00	7,693.76	7,699.64	7,693.76	27.41	27.42	90.00	112.00	0.00	100.00	45.24	54.76	1.826	
7,800.00	7,793.76	7,799.64	7,793.76	27.77	27.78	90.00	112.00	0.00	100.00	44.52	55.48	1.803	
7,900.00	7,893.76	7,899.64	7,893.76	28.13	28.14	90.00	112.00	0.00	100.00	43.81	56.19	1.780	
8,000.00	7,993.76	7,999.64	7,993.76	28.48	28.49	90.00	112.00	0.00	100.00	43.09	56.91	1.757	
8,100.00	8,093.76	8,099.64	8,093.76	28.84	28.85	90.00	112.00	0.00	100.00	42.38	57.62	1.736	
8,200.00	8,193.76	8,199.64	8,193.76	29.20	29.21	90.00	112.00	0.00	100.00	41.67	58.33	1.714	
8,300.00	8,293.76	8,299.64	8,293.76	29.55	29.56	90.00	112.00	0.00	100.00	40.95	59.05	1.694	
8,400.00	8,393.76	8,399.64	8,393.76	29.91	29.92	90.00	112.00	0.00	100.00	40.24	59.76	1.673	
8,407.39	8,401.16	8,407.04	8,401.16	29.94	29.95	90.00	112.00	0.00	100.00	40.19	59.81	1.672	
8,500.00	8,493.76	8,496.40	8,490.52	30.27	30.27	90.00	112.00	0.30	100.35	39.93	60.42	1.661 SF	
8,600.00	8,593.76	8,580.44	8,574.01	30.62	30.55	90.00	112.00	9.15	110.93	50.76	60.16	1.844	
8,700.00	8,693.76	8,660.27	8,651.32	30.98	30.81	90.00	112.00	28.79	135.60	76.76	58.84	2.305	
8,800.00	8,793.57	8,734.79	8,720.38	31.32	31.05	0.00	112.00	56.64	168.84	112.17	56.67	2.979	
8,900.00	8,891.20	8,807.12	8,783.41	31.64	31.31	0.00	112.00	92.02	198.32	144.56	53.76	3.689	
9,000.00	8,983.69	8,877.93	8,840.32	31.95	31.58	0.00	112.00	134.08	223.01	172.81	50.20	4.442	
9,100.00	9,068.22	8,950.00	8,892.48	32.27	31.88	0.00	112.00	183.75	242.65	196.14	46.51	5.217	
9,200.00	9,142.23	9,016.48	8,934.71	32.64	32.22	0.00	112.00	235.05	256.98	215.34	41.63	6.173	
9,300.00	9,203.48	9,084.83	8,971.63	33.11	32.63	0.00	112.00	292.52	265.87	228.96	36.91	7.203	
9,400.00	9,250.10	9,150.00	9,000.23	33.73	33.09	0.00	112.00	351.04	269.25	237.52	31.73	8.486	
9,500.00	9,280.67	9,220.97	9,023.61	34.55	33.69	0.00	112.00	418.00	267.01	239.18	27.83	9.595	
9,600.00	9,294.26	9,289.25	9,038.12	35.55	34.37	0.00	112.00	484.68	259.24	234.85	24.40	10.627	
9,700.00	9,294.96	9,358.23	9,044.62	36.74	35.13	0.00	112.00	553.31	250.49	227.84	22.64	11.062	
9,746.45	9,294.96	9,396.09	9,044.96	37.38	35.59	0.00	112.00	591.17	250.00	227.33	22.67	11.030	

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

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well No. 203H
Project:	Eddy County, NM	**TVD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Reference Site:	Stebbins Federal 20 (113-133-203)	**MD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Site Error:	3.30 usft	**North Reference:**	Grid
Reference Well:	No. 203H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.10 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	Well_Planner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Offset Design Stebbins Federal 20 (113-133-203) - No. 133H - OH - Prelim Plan A — **Offset Site Error:** 0.00 usft

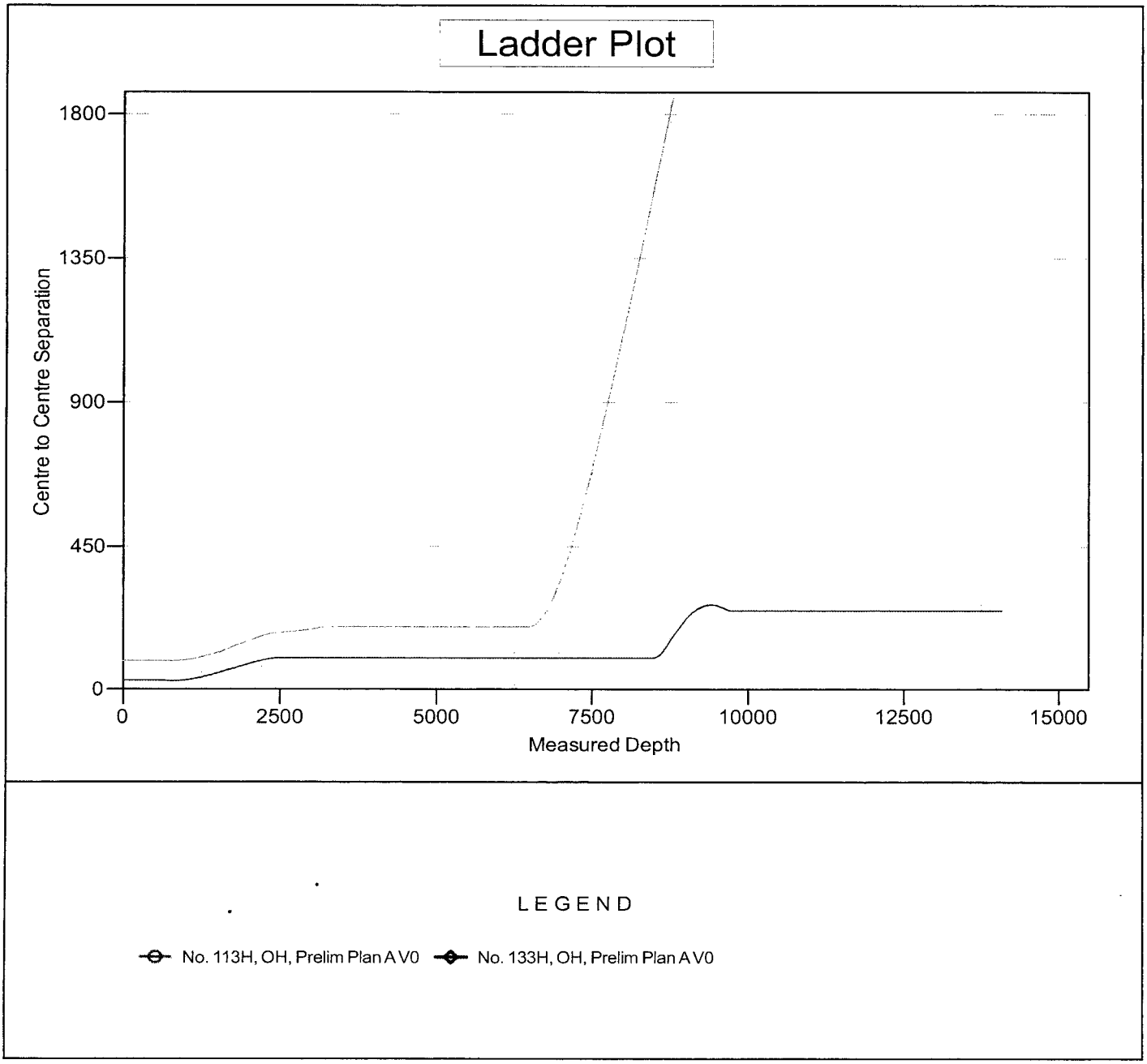
Survey Program: 0-MWD - OWSG — **Offset Well Error:** 1.10 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,800.00	9,294.96	9,449.65	9,044.96	38.11	36.31	0.00	112.00	644.72	250.00	227.01	22.99	10.875	
9,900.00	9,294.96	9,549.65	9,044.96	39.67	37.75	0.00	112.00	744.72	250.00	226.34	23.66	10.568	
10,000.00	9,294.96	9,649.65	9,044.96	41.37	39.36	0.00	112.00	844.72	250.00	225.59	24.41	10.243	
10,100.00	9,294.96	9,749.65	9,044.96	43.22	41.12	0.00	112.00	944.72	250.00	224.77	25.23	9.907	
10,200.00	9,294.96	9,849.65	9,044.96	45.18	43.02	0.00	112.00	1,044.72	250.00	223.87	26.13	9.568	
10,300.00	9,294.96	9,949.65	9,044.96	47.26	45.03	0.00	112.00	1,144.72	250.00	222.92	27.09	9.230	
10,400.00	9,294.97	10,049.65	9,044.96	49.42	47.15	0.00	112.00	1,244.72	250.00	221.90	28.10	8.898	
10,500.00	9,294.97	10,149.65	9,044.97	51.66	49.35	0.00	112.00	1,344.72	250.00	220.84	29.16	8.574	
10,600.00	9,294.97	10,249.65	9,044.97	53.98	51.63	0.00	112.00	1,444.72	250.00	219.74	30.26	8.261	
10,700.00	9,294.97	10,349.65	9,044.97	56.35	53.98	0.00	112.00	1,544.72	250.00	218.59	31.41	7.959	
10,800.00	9,294.97	10,449.65	9,044.97	58.78	56.39	0.00	112.00	1,644.72	250.00	217.41	32.59	7.671	
10,900.00	9,294.97	10,549.65	9,044.97	61.26	58.85	0.00	112.00	1,744.72	250.00	216.20	33.80	7.396	
11,000.00	9,294.97	10,649.65	9,044.97	63.78	61.35	0.00	112.00	1,844.72	250.00	214.96	35.04	7.134	
11,100.00	9,294.97	10,749.65	9,044.97	66.34	63.90	0.00	112.00	1,944.72	250.00	213.69	36.31	6.885	
11,200.00	9,294.97	10,849.65	9,044.97	68.93	66.48	0.00	112.00	2,044.72	250.00	212.40	37.60	6.649	
11,300.00	9,294.97	10,949.65	9,044.97	71.55	69.09	0.00	112.00	2,144.72	250.00	211.09	38.91	6.425	
11,400.00	9,294.97	11,049.65	9,044.97	74.20	71.73	0.00	112.00	2,244.72	250.00	209.76	40.24	6.213	
11,500.00	9,294.98	11,149.65	9,044.98	76.87	74.40	0.00	112.00	2,344.72	250.00	208.42	41.58	6.012	
11,600.00	9,294.98	11,249.65	9,044.98	79.56	77.09	0.00	112.00	2,444.72	250.00	207.06	42.94	5.822	
11,700.00	9,294.98	11,349.65	9,044.98	82.27	79.79	0.00	112.00	2,544.72	250.00	205.68	44.32	5.641	
11,800.00	9,294.98	11,449.65	9,044.98	85.00	82.52	0.00	112.00	2,644.72	250.00	204.30	45.70	5.470	
11,900.00	9,294.98	11,549.65	9,044.98	87.75	85.26	0.00	112.00	2,744.72	250.00	202.90	47.10	5.308	
12,000.00	9,294.98	11,649.65	9,044.98	90.51	88.02	0.00	112.00	2,844.72	250.00	201.49	48.51	5.153	
12,100.00	9,294.98	11,749.65	9,044.98	93.28	90.79	0.00	112.00	2,944.72	250.00	200.07	49.93	5.007	
12,200.00	9,294.98	11,849.65	9,044.98	96.06	93.58	0.00	112.00	3,044.72	250.00	198.64	51.36	4.868	
12,300.00	9,294.98	11,949.65	9,044.98	98.86	96.37	0.00	112.00	3,144.72	250.00	197.21	52.79	4.736	
12,400.00	9,294.98	12,049.65	9,044.98	101.66	99.18	0.00	112.00	3,244.72	250.00	195.77	54.24	4.610	
12,500.00	9,294.99	12,149.65	9,044.98	104.48	101.99	0.00	112.00	3,344.72	250.00	194.32	55.68	4.490	
12,600.00	9,294.99	12,249.65	9,044.99	107.30	104.81	0.00	112.00	3,444.72	250.00	192.86	57.14	4.375	
12,700.00	9,294.99	12,349.65	9,044.99	110.13	107.65	0.00	112.00	3,544.72	250.00	191.40	58.60	4.266	
12,800.00	9,294.99	12,449.65	9,044.99	112.97	110.48	0.00	112.00	3,644.72	250.00	189.93	60.07	4.162	
12,900.00	9,294.99	12,549.65	9,044.99	115.82	113.33	0.00	112.00	3,744.72	250.00	188.46	61.54	4.062	
13,000.00	9,294.99	12,649.65	9,044.99	118.67	116.18	0.00	112.00	3,844.72	250.00	186.98	63.02	3.967	
13,100.00	9,294.99	12,749.65	9,044.99	121.53	119.04	0.00	112.00	3,944.72	250.00	185.50	64.50	3.876	
13,200.00	9,294.99	12,849.65	9,044.99	124.39	121.90	0.00	112.00	4,044.72	250.00	184.01	65.99	3.789	
13,300.00	9,294.99	12,949.65	9,044.99	127.26	124.77	0.00	112.00	4,144.72	250.00	182.52	67.48	3.705	
13,400.00	9,294.99	13,049.65	9,044.99	130.13	127.65	0.00	112.00	4,244.72	250.00	181.03	68.97	3.625	
13,500.00	9,294.99	13,149.65	9,044.99	133.01	130.53	0.00	112.00	4,344.72	250.00	179.54	70.46	3.548	
13,600.00	9,295.00	13,249.65	9,045.00	135.89	133.41	0.00	112.00	4,444.72	250.00	178.04	71.96	3.474	
13,700.00	9,295.00	13,349.65	9,045.00	138.77	136.29	0.00	112.00	4,544.72	250.00	176.53	73.47	3.403	
13,800.00	9,295.00	13,449.65	9,045.00	141.66	139.18	0.00	112.00	4,644.72	250.00	175.03	74.97	3.335	
13,900.00	9,295.00	13,549.65	9,045.00	144.55	142.08	0.00	112.00	4,744.72	250.00	173.52	76.48	3.269	
14,000.00	9,295.00	13,649.65	9,045.00	147.45	144.97	0.00	112.00	4,844.72	250.00	172.01	77.99	3.206	
14,050.34	9,295.00	13,699.99	9,045.00	148.91	146.43	0.00	112.00	4,895.06	250.00	171.25	78.75	3.175	
14,074.28	9,295.00	13,723.92	9,045.00	149.60	146.86	0.00	112.00	4,919.00	250.00	170.98	79.02	3.164	

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well No. 203H
Project:	Eddy County, NM	**TVD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Reference Site:	Stebbins Federal 20 (113-133-203)	**MD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Site Error:	3.30 usft	**North Reference:**	Grid
Reference Well:	No. 203H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.10 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	Well_Planner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to Well @ 3273.50usft (GL: 3245' + KB:
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

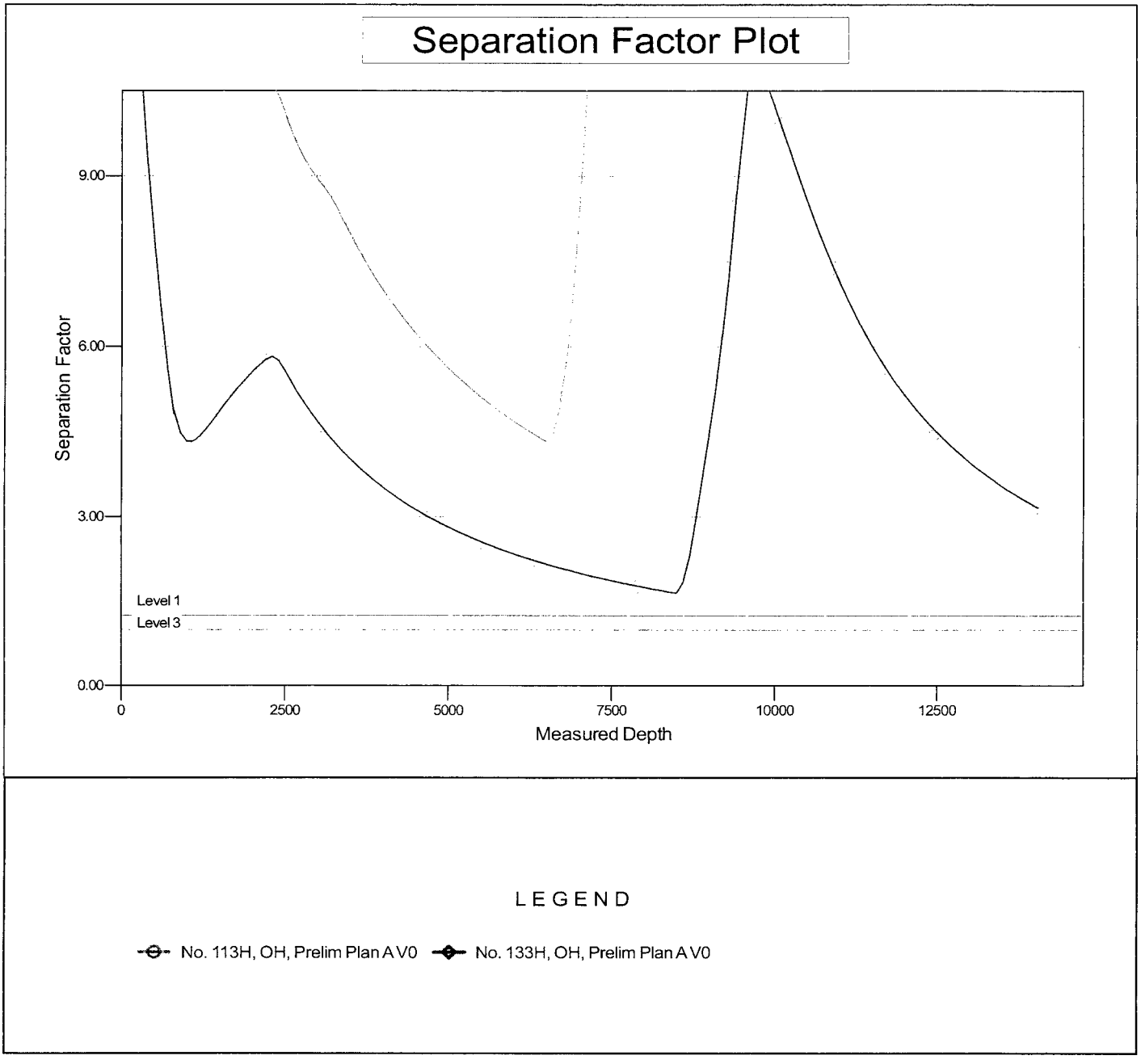
Coordinates are relative to: No. 203H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.12°



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

Company:	Matador Resources	**Local Co-ordinate Reference:**	Well No. 203H
Project:	Eddy County, NM	**TVD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Reference Site:	Stebbins Federal 20 (113-133-203)	**MD Reference:**	Well @ 3273.50usft (GL: 3245' + KB: 28.5' (Patt809))
Site Error:	3.30 usft	**North Reference:**	Grid
Reference Well:	No. 203H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.10 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	Well_Planner1
Reference Design:	Prelim Plan A	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to Well @ 3273.50usft (GL: 3245' + KB:
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W
Coordinates are relative to: No. 203H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.12°



Hydrogen Sulfide Drilling

Operations Plan

Matador Resources

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 30-minute pressure demand air packs.

2 H2S Detection and Alarm Systems:

- H2S sensor/detectors will be located on the drilling rig floor, in the base of the sub structure / cellar area, and 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 Windsocks and / Wind Streamers:

- Windsocks at mud pit area should be high enough to be visible.
- Windsock 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 Communication:

- While working under masks, chalkboards will be used for communications.
- Hand signals will be used where chalkboard 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 most drilling foreman's trailer or living quarters.

7 Drill 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 APD

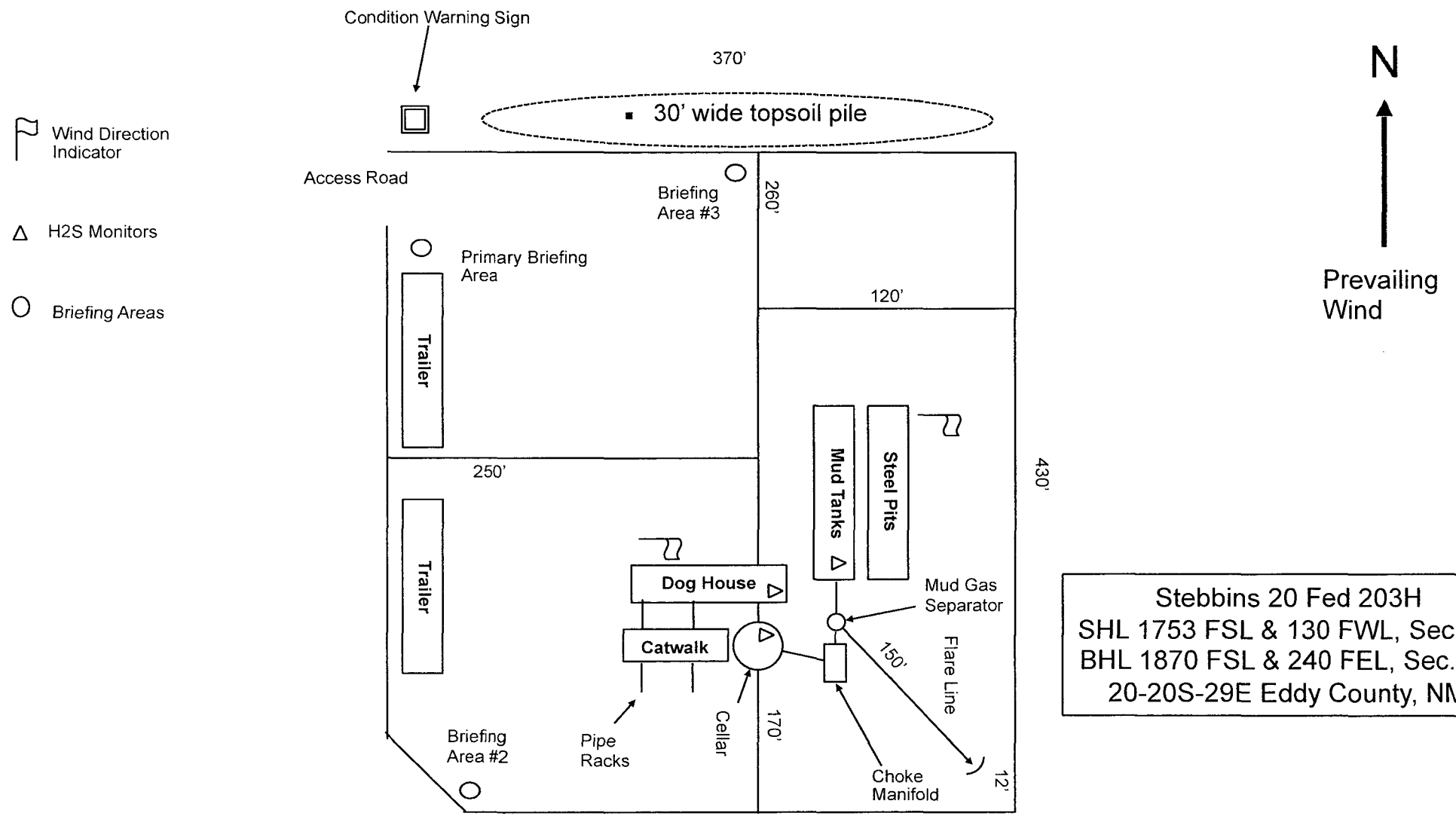
H2S Contingency Plan Emergency Contacts
Matador Production Company
Sec. 20, T20S, R29E, Eddy County, NM

Company Office			
Matador Production Company	(972)-371-5200		
Key Personnel			
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		

Artesia	
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
Carlsbad	
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	575-885-3581
Santa Fe	
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
National	
Carlsbad BLM	575-234-5972
National Emergency Response Center (Washington, D.C.)	800-424-8802
Medical	
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

Other		
Boots & Coots 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

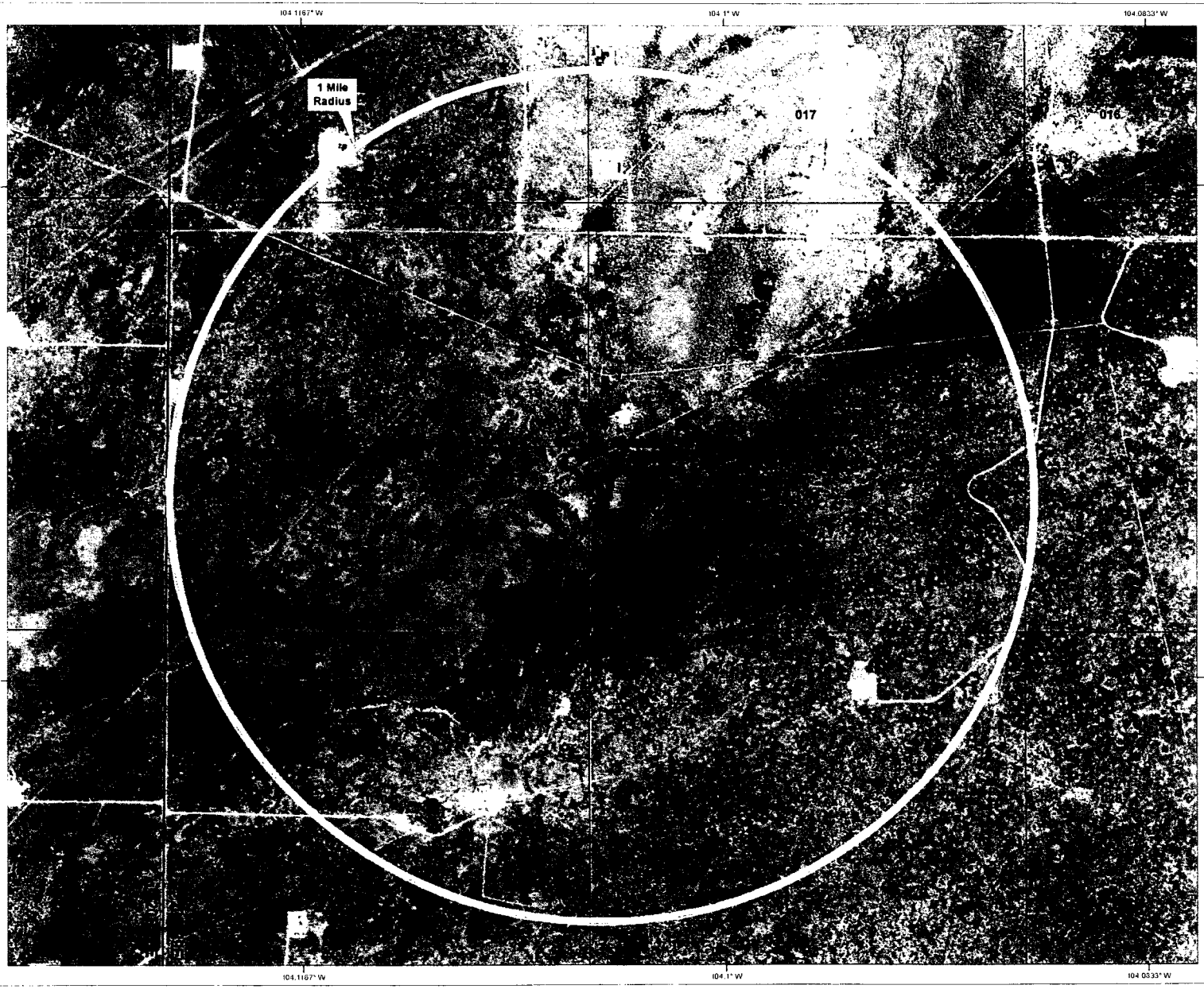


Stebbins 20 Fed 203H
SHL 1753 FSL & 130 FWL, Sec. 20
BHL 1870 FSL & 240 FEL, Sec. 20
20-20S-29E Eddy County, NM

Matador Production Company

Stebbins Fed 20 #203H
H2S Contingency Plan:
1 Mile Radius Map

Section 20, Township 20S, Range 29E
Eddy County, New Mexico



Surface Hole Location

1:13,500

0 0.125 0.25 0.5

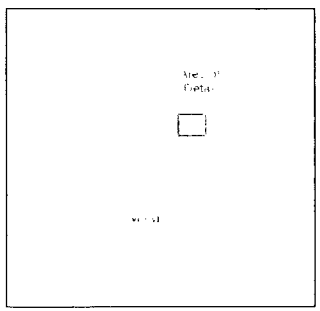
Miles

N

NAD 1927 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST

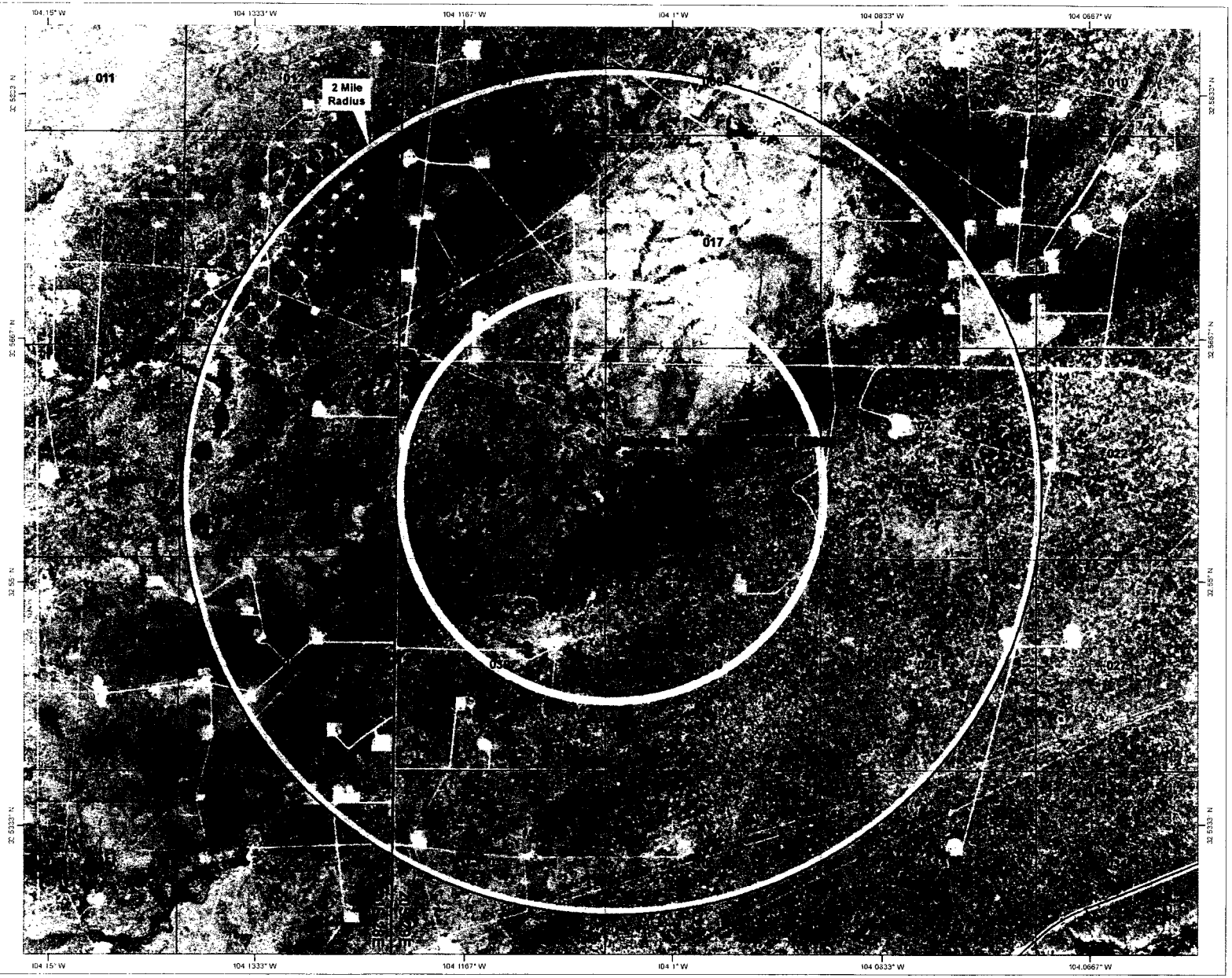
Prepared by Permits West, Inc., July 29, 2016
for Matador Production Company



Matador Production Company

Stebbins Fed 20 #203H
H2S Contingency Plan:
2 Mile Radius Map

Section 20, Township 20S, Range 29E
Eddy County, New Mexico



Surface Hole Location

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0 0.25 0.5 1

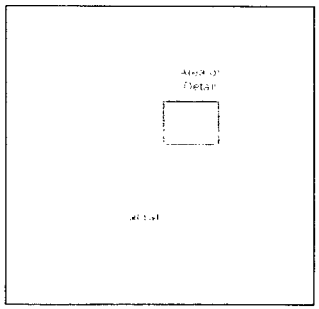
Miles

N

NAD 1927 New Mexico State Plane East
FIPS 3001 Feet

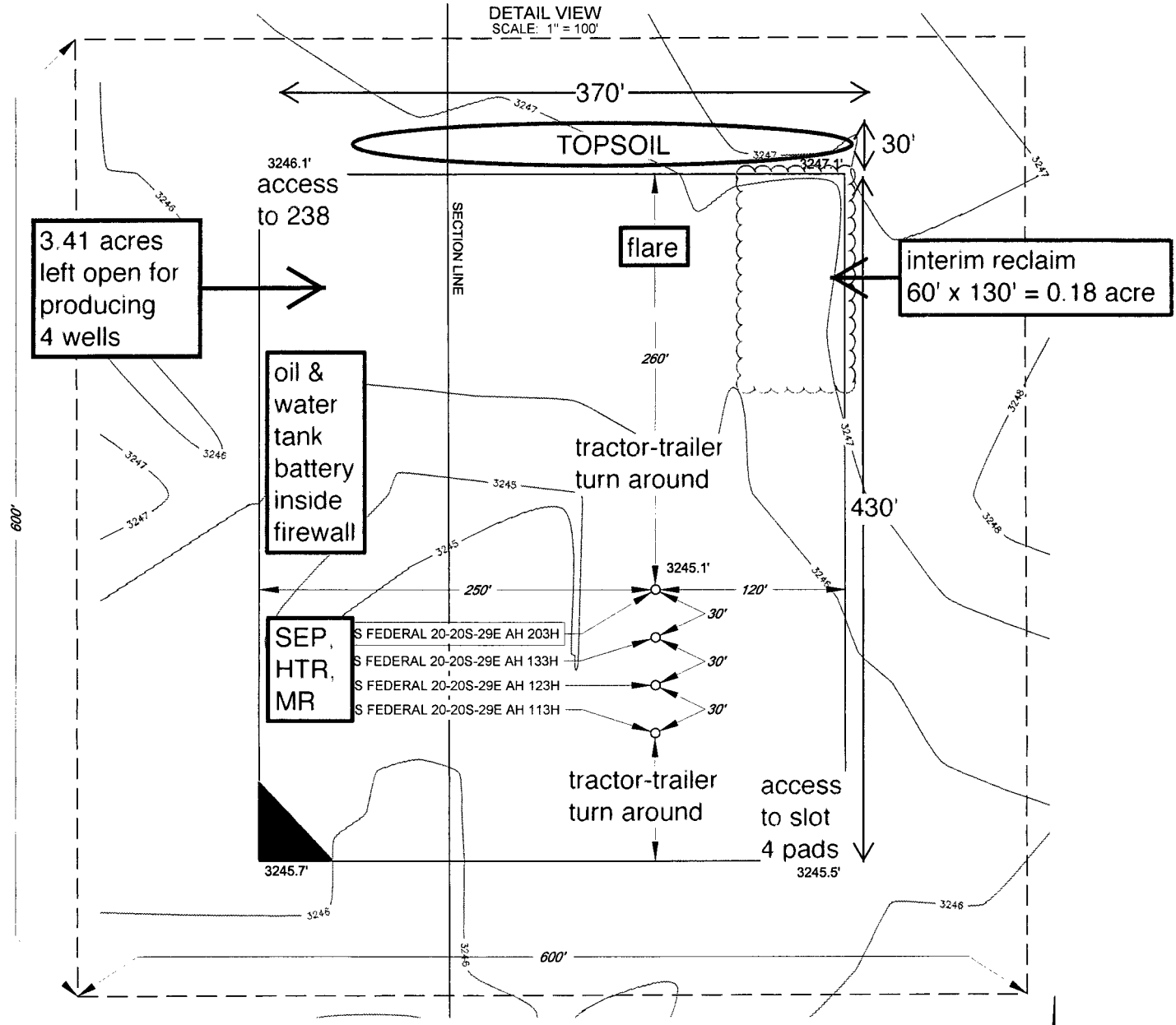
PERMITS WEST

Prepared by Permits West, Inc., July 29, 2016
for Matador Production Company



SECTION 20, TOWNSHIP 20-S, RANGE 29-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 100'



LEASE NAME & WELL NO.: STEBBINS FEDERAL 20-20S-29E AH #203H

#203H LATITUDE N 32.5564184 #203H LONGITUDE W 104.1048554

LEGEND

SECTION LINE

-N-

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 PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

WWW.TOPOGRAPHIC.COM

ORIGINAL DOCUMENT SIZE: 8.5" X 11"

S:\SURVEY\MATADOR_RESOURCES\STEBBINS_FEDERAL_20-20S-29E_AH_203H\FINAL_PRODUCTS\LO_STEBBINS_FEDERAL_20-20S-29E_AH_203H.DWG 5/16/2016 9:03:10 AM jstovall

Surface Use Plan

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

From the junction of US 285 and Us 62/180 in Carlsbad...
Go East 9.1 miles on paved US 62/180 to the equivalent of Mile Post 44.15
Then turn left and go North 5.8 miles on paved County Road 243
Then turn sharply right and go East 1 mile on paved County Road 238
Then turn right and go South 3020.95' 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 Constructors, Inc. existing pit on private land in NWNE 34-21s-27e.

This APD is also doubling as a plan of development for a BLM road right-of-way application in E2NE4 & NESE 19-20s-29e. Dimensions are 30' x 3020.95' (from County Road 238 (Burton Flat Road) to pad edge) = 2.08 acres.

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

A BLM approved archaeologist will fence a cultural resource site along the road and monitor initial construction. The 3020.95' of new road to the well will be crowned and ditched, have a 14' wide driving surface, and be surfaced with caliche. Maximum disturbed width = 30'. Maximum grade = 1%. Maximum cut or fill = 2'. An 18" x 50' culvert will be installed in the south borrow ditch of County Road 238. No upgrade, cattle guard, or vehicle turn out is needed.

Existing jeep trails will be blocked at 3 intersections:
north and south of 32.56315° & -104.10602°
west of 32.56075° & -104.10635°

3. EXISTING WELLS (See MAP 2)

Existing oil, gas, water, disposal, and P & A wells are within a mile. No injection well is within a mile.

4. PROPOSED PRODUCTION FACILITIES (See MAPS 3, 7, & 8)

A tank battery will be built on the west side of the pad. A ≈6" O. D. steel gas line will be buried 3167.83' north parallel to the new road to NM Gas Company's 10" line (NMNM-112801). County road will be bored. Construction corridor will be 30' wide.

A 3381.39' long overhead raptor safe 3-phase power line will be built north parallel to the gas line to Southwest Public Service's line (NMNM-120415). Construction corridor will be 15' wide.

5. WATER SUPPLY (See MAPS 1 - 4)

Water will be trucked from existing water wells (C 0370 & C 03607) on private land in NENE 24-21s-27e.

6. CONSTRUCTION MATERIALS & METHODS (see MAP 5)

NM One Call (811) will be notified before construction starts. A BLM approved archaeologist will fence off the southwest corner (50' x 50' x 70') of the pad and monitor initial construction. A livestock water line will be re-routed.

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 an existing Constructors, Inc. pit on private land in NWNE 34-21s-27e.

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 consist of shrinking the pad ≈5% by removing caliche and reclaiming the northeast corner (60' x 130'), leaving 3.41 acres around the production equipment. 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 BLM'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 and new road will be similarly reclaimed. Noxious weeds will be controlled.

11. SURFACE OWNER

All construction will be on BLM

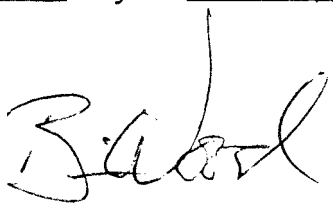
12. OTHER INFORMATION

On site inspection was held with Vance Wolf and Stan Allison (both BLM) on June 16, 2016.

Lone Mountain submitted archaeology report NMCRIS 136767 and 136774 on October 21, 2016.

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 30th day of October, 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

PECOS DISTRICT
DRILLING OPERATIONS
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Matador Production Company
LEASE NO.:	NMNM03677
WELL NAME & NO.:	203H-Stebbins 20 Fed
SURFACE HOLE FOOTAGE:	1753'/S & 130'/W
BOTTOM HOLE FOOTAGE	1870'/S & 240'/E
LOCATION:	Section 20, T.20 S., R.29 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.

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

High Cave/Karst
Capitan Reef
Possible water flows in the Artesia Group and Salado.
Possibility of lost circulation in the Artesia Group, Rustler, Capitan Reef, and Delaware.
Abnormal pressure might be encountered upon entering third Bone Spring and subsequent formations.

A MINIMUM OF TWO CASING STRINGS CEMENTED TO SURFACE IS REQUIRED IN HIGH CAVE/KARST AREAS. THE CEMENT MUST BE IN A SOLID SHEATH. THEREFORE, ONE INCH OPERATIONS ARE NOT SUFFICIENT TO PROTECT CAVE KARST RESOURCES. A CASING DESIGN THAT HAS A ONE INCH JOB PERFORMED DOES NOT COUNT AS A SOLID SHEATH.

1. The **20** inch surface casing shall be set at approximately **400** 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.

2. The minimum required fill of cement behind the **13-3/8** inch 1st intermediate casing 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 **9-5/8** inch 2nd intermediate casing 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 Capitan Reef.**

4. The minimum required fill of cement behind the **7-5/8 X 7.0** inch 3rd intermediate casing is:

    ☒ Cement should tie-back at least **50 feet above the Capitan Reef which is 1435 feet. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to Capitan Reef.**

5. The minimum required fill of cement behind the **5-1/2 X 4-1/2** inch production casing is:

    ☒ Cement as proposed. Operator shall provide method of verification. **Excess calculated to -44%. Additional cement will be required.**

6. 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 **20** inch surface casing shoe shall be **2000 (2M) annular**.

4. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **13 3/8** inch first intermediate casing shoe shall be **2000 (2M)** psi.

Option 1:

i. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** inch second intermediate casing shoe shall be **3000 (3M)** psi.

ii. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **7-5/8 X 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.

Option 2:

i. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the second intermediate casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** inch second intermediate casing shoe shall be **5000 (5M)** psi.

   a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.

   b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.

   c. Manufacturer representative shall install the test plug for the initial BOP test.

   d. Operator shall perform the intermediate casing integrity test to 70% of the casing burst. This will test the multi-bowl seals.

   e. After the 9 5/8" casing has been landed and cemented, the operator will then lift up the BOP to install the 'D-section' of the wellhead. Therefore, per Onshore Oil and Has Order No. 2, the entire BOP/BOPE shall be tested prior to drilling out the second intermediate casing hole.

   f. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

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.

4. 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.

Proposed mud weight may not be adequate for drilling through Wolfcamp.

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.

MHH 04212017

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. If the specific hose is not available, then one of equal or higher rating will be used.

4. CASING & CEMENT

All casing will be new. Minimum safety factors are burst = 1.125, collapse = 1.125, and tension = 1.8.

Hole O. D.	Set @ (MD)	Name	Casing O. D.	TOC	Weight (lb/ft)	Grade	Thread Collar
26"	400'	Surface	20"	GL	94	K-55	BTC
17.5"	1200'	Intermediate 1	13.375"	GL	54.5	J-55	BTC
12.25"	3100'	Intermediate 2	9.625"	GL	40	J-55	BTC
8.75"	0'-~~3000'~~ 1430'	Intermediate 3	7.625"	~~2100'~~ 1435'	29.7	P-110	BTC
	~~3000'~~ 1430'-8678'		7.625"		29.7	P-110	Hydril 513
	8678'-9628'		7"		29	P-110	BTC
6.125"	0'-8578'	Production	5.5"	8628'	20	P-110	Tenaris XP
	8578'-14074'		4.5"		13.5	P-110	Tenaris XP

SEE COA

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Matador Production Company
LEASE NO.:	NMNM03677
WELL NAME & NO.:	203H-Stebbins 20 Fed
SURFACE HOLE FOOTAGE:	1753'/S & 130'/W
BOTTOM HOLE FOOTAGE	1870'/S & 240'/E
LOCATION:	Section 20, T.20 S., R.29 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.

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/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 pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the pad.

Closed Mud System Using Steel Tanks with All Fluids and Cuttings Hauled Off.
A closed mud system using steel tanks for all cuttings and fluids is required. All fluids and cuttings will be hauled off site for disposal. No pits are allowed.

Tank Battery Liners and Berms:
Tank battery locations 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, situating 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 values, 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.

Range Waterline

A livestock water line is located near the Stebbins 20 Federal Slot 3 well pad and would be re-routed by the Applicant prior to construction of the pad. Following proper procedures for crossing fence lines including bracing and tying off on both sides of the passageway with H-braces prior to cutting the fence, would mitigate the impacts to the fence. The operator would notify the grazing allotment holders prior to crossing any fences.

Any damage to fences, cattle guards, and pipelines or structures that provide water to livestock during construction, throughout the life of the project, and caused by its operation, must be immediately corrected by the Applicant. The Applicant must notify the grazing allottee or the private surface landowner and the BLM-CFO (575-234-5972) if any damage occurs to pipelines or structures that provide water to livestock.

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.

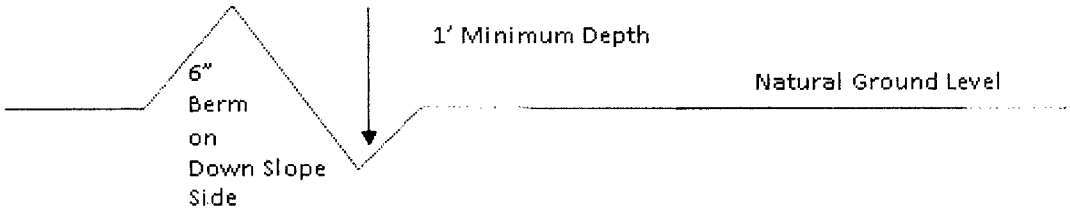
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, 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 foot road with 4% road slope: $\frac{400'}{4\%} + 100' = 200'$ 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

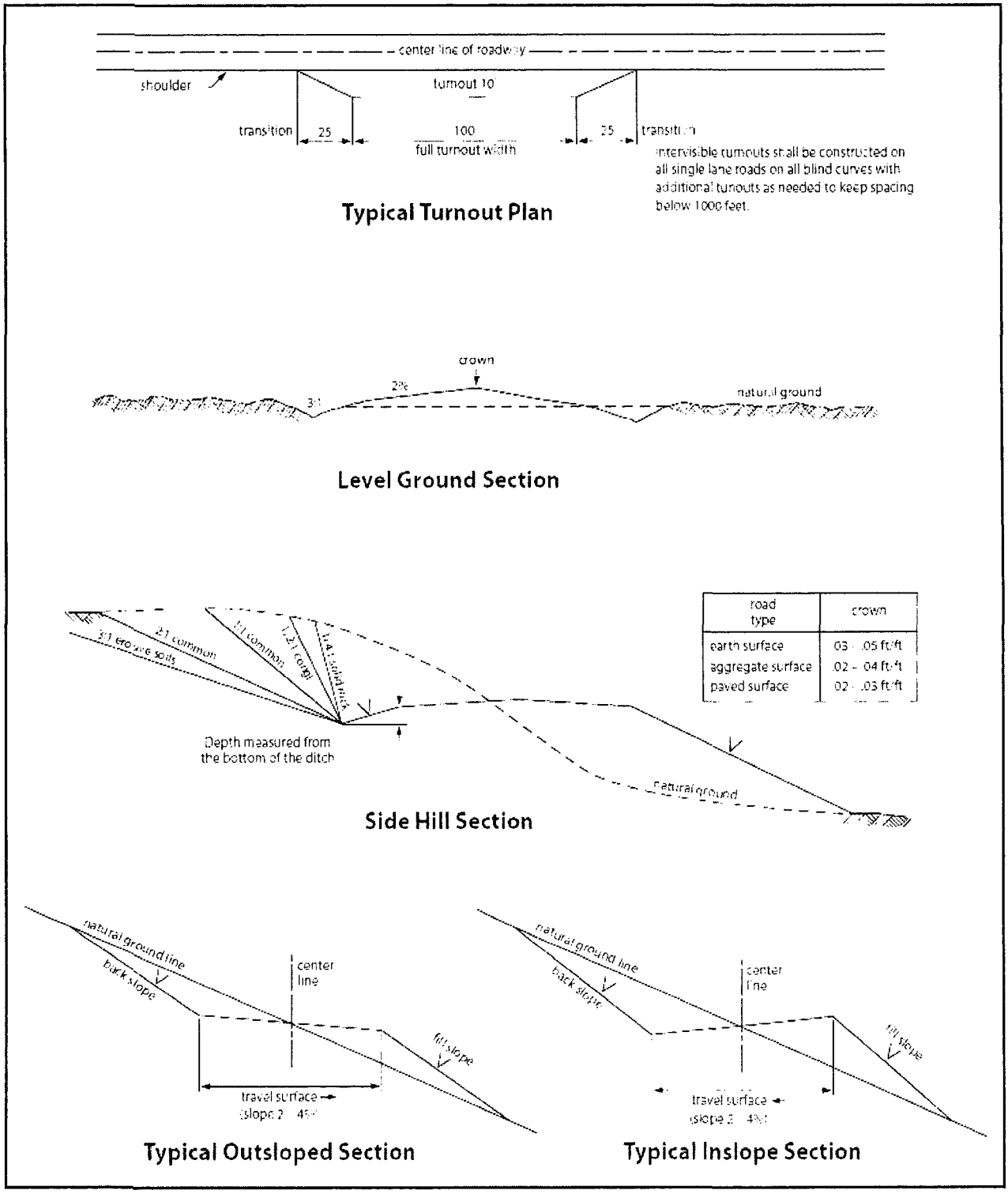


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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.

( ) seed mixture 1 ( ) seed mixture 3

() seed mixture 2 (X) seed mixture 4

( ) seed mixture 2/LPC ( ) 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.

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).

Mixture 4, for Gypsum Sites

The holder shall seed all the 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 will 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 will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will 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:

Species	lb/acre
Alkli Sacaton (*Sporobolus airoides*)	1.5
DWS~ Four-wing saltbush (*Atriplex canescens*)	8.0

~DWS: DeWinged Seed

*Pounds of pure live seed:

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