Carlsbad Field	Offi sia	CE MM OIL CON	ISERV	HIGH CA	VE K	ARST
Form 3160-3 (March 2012)	514	ARTESIA		FORM OMB N Expires O	APPROVI lo. 1004-013 October 31. 2	ED 37 2014
UNITED STATES DEPARTMENT OF THE I BUREAU OF LAND MAN	NTERIOR	MAY I	1 2017	5. Lease Serial No. NMNM-00	3677	
APPLICATION FOR PERMIT TO I	DRILL OR		IVED	6. If Indian, Allotee N/A	or Tribe	Name
ia. Type of work: I DRILL REENTE	R			7. If Unit or CA Agre N/A	ement, Na	ame and No.
lb. Type of Well: Oil Well 🖌 Gas Well 🗍 Other	Sir	igle Zone 🔲 Multip	le Zone	8. Lease Name and V STEBBINS 19 FED	Well No.) 204H	
2. Name of Operator MATADOR PRODUCTION COMPANY				9. API Well No. 30-015- 444/1	67	
3a. Address 5400 LBJ FREEWAY, SUITE 1500 DALLAS, TX 75240	3b. Phone No. 972 371 52	(include area code) 241		10 Field and Pool of I BURTON FLAT: W	Explorator OLFCAI	y 98220 MP, E (GAS)
4. Location of Well (Report location clearly and in accordance with any) State requirem	ents.*)		11. Sec., T. R. M. or B	lk. and Su	rvey or Area
At surface 420' FSL & 130' FEL 19-20S-29E				SHL: SESE 19-205 BHL: Lot 4 19-205	6-29E NI 6-29E NI	MPM MPM
 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. BHL: 220' (Also to nearest drig. unit line, if any)	16. No. of a BLM lease	cres in lease = 2150.97 acres	17. Spacin Lots 38	ng Unit dedicated to this v & 4, E2SW, & SE4 1	well 9-20S-2	9E
 Distance from proposed location* SHL: 30' Steb. 19 134H to nearest well, drilling, completed, BHL: 255' (ditto) applied for, on this lease, ft. 	19. Proposed TVD: 9305 MD: 13991	l Depth	20. BLM/I BLM NN	BIA Bond No. on file MB-001079		
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approxir	nate date work will star	t*	23. Estimated duration	n	
	24 Attac	, hments		3 10 11 13		
The following completed in accordance with the requirements of Onshor	e Oil and Gas	Order No 1 must be at	tached to th	is form		
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System I SUPO must be filed with the appropriate Forest Service Office). 	Lands, the	 Bond to cover th Item 20 above). Operator certific: Such other site s BLM. 	e operatio ation specific info	ons unless covered by an formation and/or plans as	existing l s may be r	oond on file (see equired by the
25. Signature	Name BRIAI	(Printed/Typed) N WOOD (PHO	ONE: 505	5 466-8120)	Date 08/30/2	2016
Title CONSULTANT		(FA)	(: 505 46	6-9682)	· · · · · · · · · · · · · · · · · · ·	
Approved by (Signature)	Name	(Printed/Typed)	p.l	aypart	Date DS	104/17
Title FIELD MANAGER	Office	CARLSB	AD F	IELD OFFIC)E	
Application approval does not warrant or certify that the applicant holds conduct operations thereon.	s legal or equit	able title to those right	s in the sub $I = G D$	bject lease which would e $TMO NEADO$	entitle the a	applicant to
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cr States any false, fictitious or fraudulent statements or representations as t	ime for any pe o any matter w	erson knowingly and w ithin its jurisdiction.	rillfully to n	nake to any department of	or agency	of the United

(Continued on page 2)

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*(Instructions on page 2)

SEE ATTACHED FOR CONDITIONS OF APPROVAL

5.12.17 Rul.

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

1220 S. St. Francis Dr., Sante Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462 State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Sante Fe, NM 87505 FORM C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

30-015- 4	API Number 44167	r 7		7348 0	98220	BURTON FI	AT WOLF	CAMP. Eac	}∓ (GAS)
⁴ Property C 3/774	Code		S	TEBBIN	IS 19 FED	(AL	-		⁶ Well Number #204H
⁷ OGRID N 22893	10. 7			MATADO	⁸ Operator N R PRODUC	lame FION COMPAN	NY		⁹ Elevation 3242'
					¹⁰ Surface Lo	ocation			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West li	ine County
Р	19	20-S	29-E		420'	SOUTH	130'	EAST	EDDY
			,,						
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West l	ine County
4	19	20-S	29-E	-	330'	SOUTH	240'	WEST	EDDY
¹² Dedicated Acres	¹³ Joint or 1	Infill ¹⁴ Co	onsolidation Co	de ¹⁵ Ord	er No.		······		
311.12									

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.





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

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















EMAP 6

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



ORIGINAL DOCUMENT SIZE: 8.5" X 11"



SISURVEYWATADOR_RESOURCESISTEBBINS_FEDERAL_19-20S-29E_114H_SURFACE_PAD_SITE/FINAL_PRODUCTSICD_STEBBINS_FEDERAL_19-20S-29E_114H_SURFACE_PAD_SITE_PRO_REV1.DWG 8/25/2016 10.2010 AM (stoval









Matador Production Company Stebbins 19 Fed 204H SHL 420' FSL & 130' FEL Sec. 19 BHL 330' FSL & 240' FWL Sec. 19 T. 20 S., R. 29 E., Eddy County, NM

Drilling Program

1. ESTIMATED TOPS

Formation Name	TVD	Bearing
Quaternary	Surface	water
Salado/Salt	440′	salt
Yates	860'	gypsum
Seven Rivers	1160′	dolomite
Capitan Reef	1230′	water
Cherry Canyon	3175'	hydrocarbons
Brushy Canyon	4295′	hydrocarbons
Bone Spring Lime	5775′	hydrocarbons
1 st Bone Spring Carbonate	6460′	hydrocarbons
1 st Bone Spring Sand	6970'	Hydrocarbons
2 nd Bone Spring Carbonate	7155′	hydrocarbons
2 nd Bone Spring Sand	7585′	Hydrocarbons
3 rd Bone Spring Carbonate	7965	hydrocarbons
3 rd Bone Spring Sand	8750'	hydrocarbons
Wolfcamp	9180′	hydrocarbons & goal
TD (MD = 13991')	9305'	hydrocarbons

2. <u>NOTABLE ZONES</u>

Wolfcamp is the goal. Hole will extend west of the last perforation point to allow for pump installation. All perforations will be \geq 330' from the dedication perimeter. Closest water well (C 03265) is 1941' to the north. Depth to water was 52' in this now dry 89' deep well.



Matador Production Company Stebbins 19 Fed 204H SHL 420' FSL & 130' FEL Sec. 19 BHL 330' FSL & 240' FWL Sec. 19 T. 20 S., R. 29 E., Eddy County, NM

3. PRESSURE CONTROL

Matador requests a variance for a speed head and 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. 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 Production Company Stebbins 19 Fed 204H SHL 420' FSL & 130' FEL Sec. 19 BHL 330' FSL & 240' FWL Sec. 19 T. 20 S., R. 29 E., Eddy County, NM

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. Manufacturer does not require the hose 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.	тос	Weight (lb/ft)	Grade	Thread Collar
26"	400'	Surface	20"	GL	94	K-55	втс
17.5"	1200'	Intermediate 1	13.375"	GL	54.5	J-55	BTC
12.25"	3100'	Intermediate 2	9.625"	GL	40	J-55	втс
	0′-3000'		7.625"		29.7	P-110	втс
8.75"	3000′-8689′	Intermediate 3	7.625″	2100′	29.7	P-110	Hydril 513
	8689'-9639'		7″		29	P-110	BTC
6 125"	0'-8589'	Draduction	5.5″	96201	20	P-110	Tenaris XP
0.125	8589'-13991'	Production	4.5″	0039	13.5	P-110	Tenaris XP



Matador Production Company Stebbins 19 Fed 204H SHL 420' FSL & 130' FEL Sec. 19 BHL 330' FSL & 240' FWL Sec. 19 T. 20 S., R. 29 E., Eddy County, NM

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Casing Name	Туре	Sacks	Yield	Cu. Ft.	Weight	Blend
Surface	Tail	873	1.38	1204	14.8	Class C + 5% NaCl + LCM
TOC = GL		1	00% Exces	55	Centra	lizers 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		1	00% Exces	SS	2 on btn	n 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		1	00% Exces	55	2 on btn	n 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 = 210	0'	3	35% Exces	s	2 on btr top of	n jt, 1 on 2nd jt, 1 every other jt to f tail cement (500' above TOC), 1 every 4 th jt to GL
Production	Tail	401	1.38	553	15.8	Class H + Fluid loss + Dispersant + Retarder +LCM
TOC = 8639	9′	1	LO% exces	S	2 on btr o ⁻	n jt, 1 on 2 nd jt, 1 every 3 rd jt to top f tail cement (1000' tie back)



Matador Production Company Stebbins 19 Fed 204H SHL 420' FSL & 130' FEL Sec. 19 BHL 330' FSL & 240' FWL Sec. 19 T. 20 S., R. 29 E., Eddy County, NM

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. <u>CORES, TESTS, & LOGS</u>

No core or drill stem test is planned.

A 2-person mud-logging program will be used from \approx 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 \approx 6978 psi. Expected bottom hole temperature is \approx 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



Matador Production Company Stebbins 19 Fed 204H SHL 420' FSL & 130' FEL Sec. 19 BHL 330' FSL & 240' FWL Sec. 19 T. 20 S., R. 29 E., Eddy County, NM

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 \approx 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.







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Section of the	and a state of the

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 Can	neron Type U
BORE <u>13 5/8"</u> pre	ssure10,000
RAMS: 5" Pipe	
неіднт: <u>41 5/8"</u> wei	ынт: <u>13,000 lbs</u>





March 10, 2015 ، : بکر و



Internal Hydrostatic Test Graph

Customer: Patterson B&E

Pick Ticket #: 296283

Coupling Method

Length

Hose Type

Hose Specifications

Verification



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

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	MIUW St Spec	vialty. Inc	
	G Spec	lany, and.	
int	ernal Hydrost	atic Test Certificat	ø
General Infor	mation	Hose Spec	ifications
Customer	PATTERSON B&F	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	ОКС	Hose Workina 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
	Fi	ttings	
End A	anna a na sta Canada an an Anna an Ann	End	B
Stem (Part and Revision #)	R2.0X32M1502	Ste (cart and downon #)	RF2.0 32F1502
Stem (Heat #)	14104546	Sterry (reat #)	A144853
Ferrule (Part and Revision #)	RF2.0 10K	Ferrule (Part and Revision #)	RF2.0 10K
Ferrule (Heat #)	41044	Ferrule (Heat #)	41044
Connection . Flonge Hammer Union Pa	irt	Connection (Purt #	
Connection (Heat #)		Connection (Heat #	
Nut (Part #)	2" 1502 H2S	Nut (Part#)	
Nut (Heot #)		Nut (Heat #)	
Dies Used	37MM	Dies Used	97MM
	Hydrostatic To	est requirements	
Test Pressure (psi)	15,000	Hose assembly was teste	ed with ambient water
Test Pressure Hold Time (minutes)	173/4	temper	ature.
Test Pressure Hold Time (minutes	17 3/4	temper	ature.
Date Tested	Teste	d By	Approved By
3/10/2015	100 11	γ	Alama

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Mi & S	idwest Hose Specialty, inc.
Certifica	ite of Conformity
Customer: PATTERSON B&E	Customer P.O.# 270590
Sales Order # 245805	Date Assembled: 3/10/2015
Sp	ecifications
Hose Assembly Type: Choke & Kill	
Assembly Serial # 295283	Hose Lot # and Date Code 11839-11/14
Hose Working Pressure (psi) 10000	Test Pressure (psi) 15000
We hereby certify that the above material supplie to the requirements of the purchase order and cu Supplier: Midwest Hose & Specialty, Inc. 3312 S I-35 Service Rd Oklahoma City, OK 73129	ed for the referenced purchase order to be true according arrent industry standards.
We hereby certify that the above material supplie to the requirements of the purchase order and cu Supplier: Midwest Hose & Specialty, Inc. 3312 S I-35 Service Rd Oklahoma City, OK 73129 Comments:	ed for the referenced purchase order to be true according prent industry standards.





	Mid	west Hose	
	& Sp	pecialty, Inc.	
	Certificat	e of Conformity	
Customer: PATTERSON E	J&E	Customer P.O.# 261581	
Sales Order # 237566		Date Assembled: 12/23/2014	****
aracenaria 25 of Charles Carlos and the State of the Stat	Spe	cifications	
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
/e hereby certify that the above the requirements of the purc upplier: Iidwest Hose & Specialty, Inc. 312 S I-35 Service Rd klahoma City, OK 73129	e material suppliec hase order and curi	for the referenced purchase order rent industry standards.	to be true according
/e hereby certify that the above the requirements of the purc upplier: Iidwest Hose & Specialty, Inc. 312 S I-35 Service Rd klahoma City, OK 73129 comments:	e material suppliec hase order and curi	l for the referenced purchase order rent industry standards.	to be true according

Midanet Lloco

Midwest Hose & Specialty, Inc.

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Internal Hydrostatic Test Certificate

GeneralInform	nation	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	окс	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	
	in the second	tings		
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 (Port #)	2" 1502 H2S	Nut (Port#)		
NUt (Heat#)		Nut (Heat #)		
Dies Used	97MM	Dies Used	97MM	
	Hydrostatic Te	st Requirements		
Test Pressure (psi)	15,000	Hose assembly was tested with ambient water		
Test Pressure Hold Time (minutes)	17 3/4	temperature.		

Date Tested	Tested By	Approved By
3/10/2015	B.D.	Fran Alana

MHSI-008 Rev. 0.0 Proprietary

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Closed-Loop System

Matador Production Company Stebbins wells 19-20S-29E Eddy County, NM



Operating and Maintenance Plan:

During drilling operations, third party service companies will use 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



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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





Rig Diagram

For the latest performance data, always visit our website: www.tenaris.com

January 17 2017



Connection: Wedge 513[™]

Casing/Tubing: CAS

Size: 7.625 in. Wall: 0.375 in. Weight: 29.70 lbs/ft Grade: P110 Min. Wall Thickness: 87.5 %

PIPE BODY DATA

GEOMETRY					
Nominal OD	7.625 in	Nominal Weight	29.70 lbs/ft	Standard Drift Diameter	6.750 in.
Nominal ID	6.875 in	Wall Thickness	0.375 in.	Special Drift Diameter	N/A
Plain End Weight	29.06 lbs/ft				
PERFORMANCE					
Body Yield Strength	940 x 1000 lbs	Internal Yield	9470 psi	SMYS	110000 psi
Collapse	5350 psi				

WEDGE 513TM CONNECTION DATA

GEOMETRY						
Connection OD	7.625 in.	Connection ID	6.800 in.	Make-Up Loss	4.420 in	
Critical Section	5 105 ee in	Thursday	a a a			
Area	5.125 sq. in	i nreads per in.	3.29			
	PERFORMANCE					
Toppion Efficiency	60.0 %	Joint Yield Strength	564 × 1000	Internal Pressure	9470 psi	
Tension Enciency			lbs	Capacity		
Compression	303 - 1000 h	Compression	75.2 %	Bending	40 °/100 ft	
Strength	/U/ X 1000 P 4	Efficiency				
External Pressure	5050 mai					
Capacity	5350 þsi					
MAKE-UP TORQUES						
Minimum	9000 ft-lbs	Optimum	10800 ft-lbs	Maximum ⁽¹⁾	15800 ft-lbs	
OPERATIONAL LIMIT TORQUES						
Operating Torque	47000 ft-lbs	Yield Torque	70000 ft-lbs			

BLANKING DIMENSIONS
fγs in the probaging will be at the manufacture of a non-sides plant readon. No a since the first of any spheric

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For the latest performance data, always visit our website: <u>www.tenaris.com</u>

January 17 2017



Connection: TenarisXP® BTC Casing/Tubing: CAS Coupling Option: REGULAR API Size: 5.500 in. Wall: 0.361 in. Weight: 20.00 lbs/ft Grade: P110-IC Min. Wall Thickness: 87.5 %

		PIPE BODY	DATA		
· · · · · · · · · · · · · · · · · · ·		GEOMET	RY		
Nominal OD	5.500 in.	Nominal Weight	20.00 lbs/ft	Standard Drift Diameter	4.653 in.
Nominal ID	4.778 in.	Wall Thickness	0.361 in.	Special Drift Diameter	N/A
Plain End Weight	19.83 lbs/ft				
		PERFORM	ANCE	<u></u>	
Body Yield Strength	641 x 1000 lbs	Internal Yield	12630 psi	SMYS	110000 psi
Collapse	12100 psi				
				. . .	
·		GEOMET			
Connection OD	6.300 in.	Coupling Length	9.450 in.	Connection ID	4.766 in
Critical Section Area	5.828 sq. in	Threads per in.	5.00	Make-Up Loss	4 .204 in.
<u> </u>		PERFORM	ANCE		~~~~ <u>~~~~</u> ~~~~
Tension Efficiency	1 00 %	Joint Yield Strength	641 × 1000 Ibs	Internal Pressure Capacity ^(_)	12630 psi
Structural Compression Efficiency	100 %	Structural Compression Strength	641 × 1000 Ibs	Structural Bending ⁽²⁾	92 °/100 ft
External Pressure Capacity	12100 psi				
	ε	STIMATED MAKE-U	JP TORQUES	3)	
Minimum	11270 ft-lbs	Optimum	12520 ft-lbs	Maximum	13770 ft-lb
		OPERATIONAL LIN	11T TORQUES	5	
Operating Torque	21500 ft-lbs	Yield Torque	23900 ft-lbs		
······					

Blanking Dimensions

(1) Internal Pressure Capacity related to structural resistance only. Internal pressure leak resistance as per section 10.3 API 5C3 / ISO 10400 - 2007.

(2) Structural rating, pure bending to yield (i.e no other loads applied)

(3) Torque values calculated for API Modified thread compounds with Friction Factor=1. For other thread

compounds please contact us at licensces@ollficid.tenaris.com. Torque values may be further reviewed.

For additional information, please contact us at contact-tenarishydril@tenaris.com

For the latest performance data, always visit our website: <u>www.tenaris.com</u>

January 17 2017



Connection: TenarisXP® BTC Casing/Tubing: CAS Coupling Option: REGULAR API Size: 4.500 in. Wall: 0.290 in. Weight: 13.50 lbs/ft Grade: P110-ICY Min. Wall Thickness: 87.5 %

		PIPE BODY	DATA		
		GEOMET	RY		
Nominal OD	4.500 in.	Nominal Weight	13.50 lbs/ft	Standard Drift Diameter	3.795 in.
Nominal ID	3.920 in.	Wall Thickness	0.290 in.	Special Drift Diameter	N/A
Plain End Weight	13.05 lbs/ft				
		PERFORM	ANCE		
Body Yield Strength	479 x 1000 lbs	Internal Yield	1 4100 psi	SMYS	125000 psi
Collapse	11620 psi				
	TEI	NARISXP® BTC CO	NNECTION D	ATA	
		GEOMET	RY	1	
Connection OD	5.250 in.	Coupling Length	9.075 in.	Connection ID	3,908 in
Critical Section Area	3.836 sq. in.	Threads per in.	5.00	Make-Up ∟oss	4.016 in.
. <u>and da alle a den a</u> an en a		PERFORM	ANCE		
Tension Efficiency	100 %	Joint Yield Strength	479 x 1000 Ibs	Internal Pressure Capacity ⁽¹⁾	14100 psi
Structural Compression Efficiency	100 %	Structural Compression Strength	479 x 1000 Ibs	Structural Bending ⁽²⁾	127 ° /100 f
External Pressure Capacity	11620 psi				
	E	STIMATED MAKE-	JP TORQUES	(3)	
Minimum	6950 ft-lbs	Optimum	7720 ft-ibs	Maximum	8490 ft-lbs
		OPERATIONAL LI	AIT TORQUES	5	
Operating Torque	10500 ft-lbs	Yield Torque	12200 ft-lbs		

BLANKING DIMENSIONS

Blanking Dimensions

(1) Internal Prension Carlos V related to structural velocrame only. Internal presidure tesk resistance veloce section 10-3 API 511 - 15-011-406 - 1002

(2) Structural rando pure beading to yield 1 cline other hade applied;

(3) aroun values extratered an AFI Modifiers thread comprunds with Friction Factor of Facility the ac-

compounds please contact is at licensees@oilfield.tenaris.com, forque calls share be further accepted

For unumpility after action pleasurestant us at contact-tenarishydml@tenaris.com



{ Matador

L.

Pro Directional

Survey Report



Company:	Matador Resource	ces		Local Co-ordina	te Reference:	Well No. 204H		
Project:	Eddy County, NM	Л		TVD Reference:	TVD Reference:		Well @ 3270.50usft (GL: 3242' + KB: 28.5'	
Site:	Stebbins Federa	l 19 (114-124-134	I-204)	MD Reference:	MD Reference:		(Patt809)) Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))	
Well:	No. 204H			North Reference:		Grid	Grid	
Wellbore:	ОН			Survey Calculation Method:		Minimum Curvature		
Design:	Prelim Plan A			Database:		Well_Planner1		
Project	Eddy Count	y, NM						
Map System: Geo Datum: Map Zone:	US State Pla NAD 1927 (N New Mexico	ne 1927 (Exact s ADCON CONUS East 3001	olution))	System Datum	:	Mean Sea Level		
Site	Stebbins Fe	ederal 19 (114-124	4-134-204)					
Site Position:			Northing:	564,789	.00 usft Latitu	de:	32° 33' '	9.024 N
From:	Мар		Easting:	570,139	.00 usft Longi	tude:	104° 6' 20).518 W
Position Uncertain	nty:	3.30 usft	Slot Radius:	13-3	/16 " Grid C	Convergence:	0.	12 °
Well	No. 204H							
Well Position	+N/-S	0.00 usft	Northing:	:	564,879.00 usft	Latitude:	32° 33'	9.915 N
	+E/-W	0.00 usft	Easting:	:	570,139.00 usft	Longitude:	104° 6' 20	0.515 W
Position Uncertain	nty	1.10 usft	Wellhead Ele	vation:	0.00 usft	Ground Level:	3,242	.00 usft
Wellbore	ОН							
Magnetics	Model I	Name	Sample Date	Declinatio (°)	n	Dip Angle (°)	Field Strength (nT)	
		HDGM	8/4/2016		7.47	60.42	48,288	
Design	Prelim Plan	A]
Audit Notes:								
Version:			Phase:	PLAN	Tie On De	epth:		0.00
Vertical Section:		Depth F (ເ	rom (TVD) usft)	+N/-S (usft)	+E/-W (usft)	Directi (°)	on	I
			0.00	0.00	0.00		268.90	ĺ
		Data 9/4/07)16					
Survey fool Progr	am	Date 8/4/20	סונ					
From	To	Cumray Alla HL				Decerie ⁴¹		
(usit)	(usn)	Survey (Wellbo	014)	1001	lame	Description		
0.0	00 13,991.4	1 Prelim Plan A (OH)	MWD	- OWSG	MWD - OWSG		

	Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
i	100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
i	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
į	400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	1
	500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	:
1	600.00	2.00	121.52	599.98	-0.91	1.49	-1.47	2.00	2.00	0.00	
	700.00	4.00	121.52	699.84	-3.65	5.95	-5.88	2.00	2.00	0.00	
	750.00	5.00	121.52	749.68	-5.70	9.29	-9.18	2.00	2.00	0.00	



Survey Report



Company: Mata Project: Eddy	dor Resources County, NM	Local Co-ordinate Reference: TVD Reference:	Well No. 204H Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Pott900)
Project: Eddy	County, NM	TVD Reference:	Well @ 3270.50usft (GL: 3242' + KB: 28.5'
0 14			(rallous))
Site: Stepi	ins Federal 19 (114-124-134-204)	MD Reference:	Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Well: No. 2	04H	North Reference:	Grid
Wellbore: OH		Survey Calculation Method:	Minimum Curvature
Design: Prelir	n Plan A	Database:	Well_Planner1

Depth Inclination Azimuth Depth +W/S Tel/W Section Rate Rate Rate (ist) <	Measured			Vertical			Vertical	Dogleg	Build	Turn
800.00 5.00 121.52 798.49 -7.98 13.01 -12.85 0.00 0.00 0.00 900.00 5.00 121.52 898.73 -17.93 27.47 -27.53 0.00 0.00 0.00 1.000.00 5.00 121.52 1.988.73 -17.95 3.05.0 1.42.21 0.00 0.00 0.00 1.200.00 5.00 121.52 1.397.97 -36.20 42.73 -42.21 0.00 0.00 0.00 1.300.00 5.00 121.52 1.397.91 -35.32 57.58 -56.89 0.00 0.00 0.00 1.500.00 5.00 121.52 1.397.21 -35.32 57.88 -56.89 0.00 0.00 0.00 1.500.00 5.00 121.52 1.984.53 -48.99 78.97 -76.91 0.00 0.00 0.00 1.900.00 5.00 121.52 1.984.53 -76.31 124.54 -122.90 0.00 0.00 0.00 0.00	Depth (usft)	Inclination (°)	Azimuth (°)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Section (usft)	Rate (°/100usft)	Rate (°/100usft)	Rate (°/100usft)
900.00 5.00 121.52 898.73 .17.09 27.63 0.00 0.00 0.00 1,000.00 5.00 121.52 1,088.35 .21.65 35.30 -34.47 0.00 0.00 0.00 1,200.00 5.00 121.52 1,197.97 -26.20 42.73 -42.21 0.00 0.00 0.00 1,200.00 5.00 121.52 1,397.21 -35.32 57.58 -56.89 0.00 0.00 0.00 1,400.00 5.00 121.52 1,486.83 -39.88 65.01 -44.23 0.00 0.00 0.00 1,400.00 5.00 121.52 1,686.67 -48.99 79.87 -78.81 0.00 0.00 0.00 1,900.00 5.00 121.52 1,986.31 -47.73 -93.60 0.00 0.00 0.00 2,000.00 5.00 121.52 1,984.33 -62.66 102.16 -10.94 0.00 0.00 0.00 2,000.00 5.00	800.00	5.00	121.52	799.49	-7.98	13.01	-12.85	0.00	0.00	0.00
1,000.00 5.00 121.52 998.73 .17.09 27.87 .27.53 0.00 0.00 0.00 1,000.00 5.00 121.52 1.997.97 .26.20 42.73 .42.21 0.00 0.00 0.00 1,300.00 5.00 121.52 1.297.59 .30.76 50.15 .49.55 0.00 0.00 0.00 1,400.00 5.00 121.52 1.397.41 .365.32 .57.58 .56.89 0.00 0.00 0.00 1,600.00 5.00 121.52 1.596.45 .44.43 .72.44 .74.57 0.00 0.00 0.00 1,600.00 5.00 121.52 1.986.37 .481.97 .78.1 0.00 0.00 0.00 1,000.00 5.00 121.52 1.986.31 -681.26 1.01.24 .000 0.00 0.00 2,000.00 5.00 121.52 2.944.55 -72.23 109.59 .108.28 0.00 0.00 2,000.00 5.00 121.52	900.00	5.00	121.52	899.11	-12.53	20.44	-20.19	0.00	0.00	0.00
1.100.00 5.00 12152 1.998.35 -26.80 35.30 -34.87 0.00 0.00 0.00 1.200.00 5.00 121.52 1.397.59 -30.76 50.15 -49.55 0.00 0.00 0.00 1.400.00 5.00 121.52 1.397.59 -30.76 50.15 -49.55 0.00 0.00 0.00 1.600.00 5.00 121.52 1.496.83 -39.88 65.01 -64.23 0.00 0.00 0.00 1.600.00 5.00 121.52 1.966.67 -49.9 78.87 78.91 0.00 0.00 0.00 1.900.00 5.00 121.52 1.985.31 -58.15 97.30 -86.25 0.00 0.00 0.00 2.000.00 5.00 121.52 1.989.43 -62.66 102.16 -100.84 0.00 0.00 0.00 2.000.00 5.00 121.52 2.984.56 -122.96 0.00 0.00 0.00 2.000.00 5.00	1,000.00	5.00	121.52	998.73	-17.09	27.87	-27.53	0.00	0.00	0.00
1,200,00 5.00 121,52 1,297,59 -30,76 50,15 -42,23 0,00 0,00 0,00 1,400,00 5.00 121,52 1,397,21 -35,32 57,58 -56,89 0,00 0,00 0,00 1,600,00 5.00 121,52 1,496,83 -39,88 65,01 -44,23 0,00 0,00 0,00 1,700,00 5.00 121,52 1,496,83 -44,43 72,44 -71,67 0,00 0,00 0,00 1,700,00 5.00 121,52 1,496,53 -42,73 -46,25 0,00 0,00 0,00 2,000,00 5.00 121,52 1,496,53 -62,66 0,00 0,00 0,00 2,000,00 5.00 121,52 2,494,55 -67,22 109,59 -108,28 0,00 0,00 0,00 2,200,00 5.00 121,52 2,393,40 -90,89 131,88 -133,30 0,00 0,00 0,00 2,400,00 5.00 121,52 <td>1,100.00</td> <td>5.00</td> <td>121.52</td> <td>1,098.35</td> <td>-21.65</td> <td>35.30</td> <td>-34.87</td> <td>0.00</td> <td>0.00</td> <td>0.00</td>	1,100.00	5.00	121.52	1,098.35	-21.65	35.30	-34.87	0.00	0.00	0.00
1,300.00 5.00 121.52 1.297.59 -30.76 50.15 -49.55 0.00 0.00 0.00 1,400.00 5.00 121.52 1.498.83 -39.88 65.01 -68.89 0.00 0.00 0.00 1,600.00 5.00 121.52 1.496.83 -75.81 0.00 0.00 0.00 1,700.00 5.00 121.52 1.696.67 -49.99 778.91 0.00 0.00 0.00 1,800.00 5.00 121.52 1.985.31 -58.15 67.30 -66.25 0.00 0.00 0.00 2,000.00 5.00 121.52 1.985.31 -58.15 67.22 100.84 0.00 0.00 0.00 2,000.00 5.00 121.52 2.994.55 -67.22 109.59 -108.28 0.00 0.00 0.00 2,200.00 5.00 121.52 2.937.41 -76.33 124.45 -122.96 0.00 0.00 0.00 2,400.00 5.00 121.52 <td>1,200.00</td> <td>5.00</td> <td>121.52</td> <td>1,197.97</td> <td>-26.20</td> <td>42.73</td> <td>-42.21</td> <td>0.00</td> <td>0.00</td> <td>0.00</td>	1,200.00	5.00	121.52	1,197.97	-26.20	42.73	-42.21	0.00	0.00	0.00
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	1,300.00	5.00	121.52	1,297.59	-30.76	50.15	-49.55	0.00	0.00	0.00
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1,400.00	5.00	121.52	1,397.21	-35.32	57.58	-56.89	0.00	0.00	0.00
1,600,00 $5,00$ $121,52$ $1,596,45$ $44,43$ $72,44$ $-71,57$ 0.00 0.00 0.00 $1,700,00$ $5,00$ $121,52$ $1,795,60$ $45,99$ $77,397$ $-78,97$ $-78,91$ 0.00 0.00 0.00 $1,900,00$ $5,00$ $121,52$ $1,996,31$ $-58,15$ $57,30$ $-78,29$ 0.00 0.00 0.00 $2,000,00$ $5,00$ $121,52$ $1,994,93$ $-22,266$ $102,16$ $-100,94$ 0.00 0.00 0.00 $2,100,00$ $5,00$ $121,52$ $2,944,55$ $-67,22$ $109,99$ $-108,28$ 0.00 0.00 0.00 $2,200,00$ $5,00$ $121,52$ $2,944,55$ $-67,22$ $109,99$ $-106,28$ 0.00 0.00 0.00 $2,300,00$ $5,00$ $121,52$ $2,937,8$ $-76,33$ $124,45$ $-122,96$ 0.00 0.00 0.00 $2,500,00$ $5,00$ $121,52$ $2,937,8$ $-76,33$ $124,45$ $-122,96$ 0.00 0.00 0.00 $2,500,00$ $5,00$ $121,52$ $2,951,73$ $-86,30$ $140,71$ $-133,62$ 0.00 0.00 0.00 $2,760,80$ $13,88$ $121,52$ $2,962,73$ $-89,40$ $145,76$ $-144,20$ 2.00 -2.00 0.00 $2,760,80$ 0.00 0.00 $2,792,63$ $-92,00$ $150,00$ $-148,20$ 0.00 0.00 0.00 $2,760,80$ 0.00 0.00 $2,922,63$ $-92,00$ <td< td=""><td>1,500.00</td><td>5.00</td><td>121.52</td><td>1,496.83</td><td>-39.88</td><td>65.01</td><td>-64.23</td><td>0.00</td><td>0.00</td><td>0.00</td></td<>	1,500.00	5.00	121.52	1,496.83	-39.88	65.01	-64.23	0.00	0.00	0.00
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	1,600.00	5.00	121.52	1,596.45	-44.43	72.44	-71.57	0.00	0.00	0.00
1.800.00 5.00 121.52 1,795.69 -53.55 87.30 -86.25 0.00 0.00 0.00 1,900.00 5.00 121.52 1,895.31 -56.10 94.73 -93.60 0.00 0.00 0.00 2,000.00 5.00 121.52 1.994.93 -66.26 102.16 -100.28 0.00 0.00 0.00 2,000.00 5.00 121.52 2.944.17 -71.77 117.02 -116.62 0.00 0.00 0.00 2,000.00 5.00 121.52 2.293.78 -76.33 124.45 -122.96 0.00 0.00 0.00 2,500.00 5.00 121.52 2.493.02 -86.44 139.31 -137.64 0.00 0.00 0.00 2,500.00 5.00 121.52 2.592.73 -86.30 140.71 -139.02 0.00 -2.00 0.00 2,700.00 1.38 121.52 2.592.73 -92.00 150.00 -148.20 0.00 2.00 2.00 <	1,700.00	5.00	121.52	1,696.07	-48.99	79.87	-78.91	0.00	0.00	0.00
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	1,800.00	5.00	121.52	1,795.69	-53.55	87.30	-86.25	0.00	0.00	0.00
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1,900.00	5.00	121.52	1,895.31	-58.10	94.73	-93.60	0.00	0.00	0.00
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	2,000.00	5.00	121.52	1,994.93	-62.66	102.16	-100.94	0.00	0.00	0.00
2,200,00 5,00 121,52 2,194,17 -71,77 117,02 -116,62 0,00 0,00 0,00 2,300,00 5,00 121,52 2,293,78 -76,33 124,45 -122,96 0,00 0,00 0,00 2,400,00 5,00 121,52 2,393,40 -80,89 131,88 -137,64 0,00 0,00 0,00 2,500,00 5,00 121,52 2,511,78 -86,30 140,71 -139,02 0,00 0,00 0,00 2,600,00 3,38 121,52 2,592,73 -89,40 145,76 -144,01 2,00 -2,00 0,00 2,700,00 1,38 121,52 2,692,64 -91,57 149,30 -144,20 0,00 0,00 0,00 2,800,00 0,00 0,00 2,792,63 -92,00 150,00 -148,20 0,00 0,00 0,00 3,000,00 0,00 0,00 3,992,63 -92,00 150,00 -148,20 0,00 0,00 0,00	2,100.00	5.00	121.52	2,094.55	-67.22	109.59	-108.28	0.00	0.00	0.00
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	2,200.00	5.00	121.52	2,194.17	-71.77	117.02	-115.62	0.00	0.00	0.00
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	2,300.00	5.00	121.52	2,293.78	-76.33	124.45	-122.96	0.00	0.00	0.00
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2,400.00	5.00	121.52	2,393.40	-80.89	131.88	-130.30	0.00	0.00	0.00
2,518.82 5.00 121.52 2,511.78 -86.30 140.71 -139.02 0.00 0.00 2.00 0.00 2,600.00 3.38 121.52 2,592.73 -89.40 145.76 -144.01 2.00 -2.00 0.00 2,700.00 1.38 121.52 2,692.64 -91.57 149.30 -147.50 2.00 -2.00 0.00 2,768.82 0.00 0.00 2,792.63 -92.00 150.00 -148.20 0.00 0.00 0.00 2,900.00 0.00 0.00 2,992.63 -92.00 150.00 -148.20 0.00	2,500.00	5.00	121.52	2,493.02	-85.44	139.31	-137.64	0.00	0.00	0.00
2,600.00 3.38 121.52 2,592.73 -89.40 145.76 -144.01 2.00 -2.00 0.00 2,700.00 1.38 121.52 2,692.64 -91.57 149.30 -147.50 2.00 -2.00 0.00 2,768.82 0.00 0.00 2,761.46 -92.00 150.00 -148.20 0.00 0.00 0.00 2,800.00 0.00 0.00 2,782.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,000.00 0.00 0.00 2,992.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,000.00 0.00 0.00 3,992.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,200.00 0.00 0.00 3,992.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,400.00 0.00 0.00 3,492.63 -92.00 150.00 -148.20 0.00 0.00 0.00 <t< td=""><td>2,518.82</td><td>5.00</td><td>121.52</td><td>2,511.78</td><td>-86.30</td><td>140.71</td><td>-139.02</td><td>0.00</td><td>0.00</td><td>0.00</td></t<>	2,518.82	5.00	121.52	2,511.78	-86.30	140.71	-139.02	0.00	0.00	0.00
2,700.00 1.38 121.52 2,692.64 -91.57 149.30 -147.50 2.00 -2.00 0.00 2,768.82 0.00 0.00 2,761.46 -92.00 150.00 -148.20 2.00 -2.00 0.00 2,800.00 0.00 0.00 2,792.63 -92.00 150.00 -148.20 0.00 0.00 0.00 2,900.00 0.00 0.00 2,892.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,000.00 0.00 0.00 3,992.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,200.00 0.00 0.00 3,192.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,400.00 0.00 0.00 3,292.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,400.00 0.00 0.00 3,492.63 -92.00 150.00 -148.20 0.00 0.00 0.00	2,600.00	3.38	121.52	2,592.73	-89.40	145.76	-144.01	2.00	-2.00	0.00
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2,700.00	1.38	121.52	2,692.64	-91.57	149.30	-147.50	2.00	-2.00	0.00
2,800.00 0.00 2,792.63 -92.00 150.00 -148.20 0.00 0.00 0.00 2,900.00 0.00 0.00 2,892.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,100.00 0.00 0.00 3,092.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,200.00 0.00 0.00 3,092.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,200.00 0.00 0.00 3,092.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,200.00 0.00 0.00 3,292.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,400.00 0.00 0.00 3,392.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,600.00 0.00 0.00 3,692.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,600.00 0.00 0.00 3,692.63 -92.00 150.00 -148.20 0.00 <td>2,768.82</td> <td>0.00</td> <td>0.00</td> <td>2,761.46</td> <td>-92.00</td> <td>150.00</td> <td>-148.20</td> <td>2.00</td> <td>-2.00</td> <td>0.00</td>	2,768.82	0.00	0.00	2,761.46	-92.00	150.00	-148.20	2.00	-2.00	0.00
2,900.00 0.00 2,892.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,000.00 0.00 0.00 2,992.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,100.00 0.00 0.00 3,092.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,200.00 0.00 0.00 3,192.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,200.00 0.00 0.00 3,292.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,400.00 0.00 0.00 3,392.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,600.00 0.00 0.00 3,492.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,600.00 0.00 0.00 3,692.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,800.00 0.00 0.00 3,992.63 -92.00 150.00 -148.20 0.00 <td>2,800.00</td> <td>0.00</td> <td>0.00</td> <td>2,792.63</td> <td>-92.00</td> <td>150.00</td> <td>-148.20</td> <td>0.00</td> <td>0.00</td> <td>0.00</td>	2,800.00	0.00	0.00	2,792.63	-92.00	150.00	-148.20	0.00	0.00	0.00
3,000.00 0.00 2,992.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,100.00 0.00 0.00 3,092.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,200.00 0.00 0.00 3,192.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,400.00 0.00 0.00 3,292.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,400.00 0.00 0.00 3,392.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,600.00 0.00 0.00 3,492.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,600.00 0.00 0.00 3,692.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,800.00 0.00 0.00 3,792.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,900.00	2,900.00	0.00	0.00	2,892.63	-92.00	150.00	-148.20	0.00	0.00	0.00
3,100.00 0.00 3,092.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,200.00 0.00 0.00 3,192.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,300.00 0.00 0.00 3,292.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,400.00 0.00 0.00 3,392.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,500.00 0.00 0.00 3,492.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,600.00 0.00 0.00 3,692.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,700.00 0.00 0.00 3,692.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,800.00 0.00 0.00 3,892.63 -92.00 150.00 -148.20 0.00 0.00 0.00 4,000.00	3,000.00	0.00	0.00	2,992.63	-92.00	150.00	-148.20	0.00	0.00	0.00
3,200.00 0.00 0.00 3,192.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,300.00 0.00 0.00 3,292.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,400.00 0.00 0.00 3,392.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,500.00 0.00 0.00 3,492.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,600.00 0.00 0.00 3,592.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,700.00 0.00 0.00 3,692.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,800.00 0.00 0.00 3,792.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,900.00 0.00 0.00 3,992.63 -92.00 150.00 -148.20 0.00 0.00 0.00 4,000.00 0.00 0.00 4,092.63 -92.00 150.00 -148.20 <td>3,100.00</td> <td>0.00</td> <td>0.00</td> <td>3,092.63</td> <td>-92.00</td> <td>150.00</td> <td>-148.20</td> <td>0.00</td> <td>0.00</td> <td>0.00</td>	3,100.00	0.00	0.00	3,092.63	-92.00	150.00	-148.20	0.00	0.00	0.00
3.300.00 0.00 0.00 3,292.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,400.00 0.00 0.00 3,392.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,600.00 0.00 0.00 3,492.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,600.00 0.00 0.00 3,592.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,700.00 0.00 0.00 3,692.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,800.00 0.00 0.00 3,792.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,900.00 0.00 0.00 3,892.63 -92.00 150.00 -148.20 0.00 0.00 0.00 4,000.00 0.00 0.00 3,992.63 -92.00 150.00 -148.20 0.00 0.00 0.00 4,100.00 0.00 0.00 4,092.63 -92.00 150.00 -148.20 <td>3,200.00</td> <td>0.00</td> <td>0.00</td> <td>3,192.63</td> <td>-92.00</td> <td>150.00</td> <td>-148.20</td> <td>0.00</td> <td>0.00</td> <td>0.00</td>	3,200.00	0.00	0.00	3,192.63	-92.00	150.00	-148.20	0.00	0.00	0.00
3,400.00 0.00 0.00 3,392.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,500.00 0.00 0.00 3,492.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,600.00 0.00 0.00 3,592.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,700.00 0.00 0.00 3,792.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,800.00 0.00 0.00 3,792.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,900.00 0.00 0.00 3,892.63 -92.00 150.00 -148.20 0.00 0.00 0.00 4,000.00 0.00 0.00 3,892.63 -92.00 150.00 -148.20 0.00 0.00 0.00 4,000.00 0.00 0.00 3,992.63 -92.00 150.00 -148.20 0.00 0.00 0.00 4,200.00 0.00 0.00 4,992.63 -92.00 150.00 -148.20 <td>3,300.00</td> <td>0.00</td> <td>0.00</td> <td>3,292.63</td> <td>-92.00</td> <td>150.00</td> <td>-148.20</td> <td>0.00</td> <td>0.00</td> <td>0.00</td>	3,300.00	0.00	0.00	3,292.63	-92.00	150.00	-148.20	0.00	0.00	0.00
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3,400.00	0.00	0.00	3,392.63	-92.00	150.00	-148.20	0.00	0.00	0.00
3,600.000.000.003,592.63-92.00150.00-148.200.000.000.000.003,700.000.000.003,692.63-92.00150.00-148.200.000.000.000.003,800.000.000.003,792.63-92.00150.00-148.200.000.000.000.003,900.000.000.003,892.63-92.00150.00-148.200.000.000.000.004,000.000.000.003,992.63-92.00150.00-148.200.000.000.000.004,100.000.000.004,092.63-92.00150.00-148.200.000.000.000.004,200.000.000.004,192.63-92.00150.00-148.200.000.000.000.004,300.000.000.004,392.63-92.00150.00-148.200.000.000.000.004,400.000.000.004,392.63-92.00150.00-148.200.000.000.000.004,500.000.000.004,492.63-92.00150.00-148.200.000.000.000.004,600.000.000.004,592.63-92.00150.00-148.200.000.000.000.004,600.000.000.004,592.63-92.00150.00-148.200.000.000.004,600.000.000.00	3,500.00	0.00	0.00	3,492.63	-92.00	150.00	-148.20	0.00	0.00	0.00
3,700.000.000.003,692.63-92.00150.00-148.200.000.000.000.003,800.000.000.003,792.63-92.00150.00-148.200.000.000.003,900.000.000.003,892.63-92.00150.00-148.200.000.000.004,000.000.000.003,992.63-92.00150.00-148.200.000.000.004,100.000.000.004,092.63-92.00150.00-148.200.000.000.004,200.000.000.004,192.63-92.00150.00-148.200.000.000.004,200.000.000.004,192.63-92.00150.00-148.200.000.000.004,300.000.000.004,392.63-92.00150.00-148.200.000.000.004,400.000.000.004,392.63-92.00150.00-148.200.000.000.004,500.000.000.004,492.63-92.00150.00-148.200.000.000.004,600.000.000.004,492.63-92.00150.00-148.200.000.000.004,600.000.000.004,592.63-92.00150.00-148.200.000.000.004,600.000.000.004,592.63-92.00150.00-148.200.000.000.00	3,600.00	0.00	0.00	3,592.63	-92.00	150.00	-148.20	0.00	0.00	0.00
3,800.00 0.00 0.00 3,792.63 -92.00 150.00 -148.20 0.00 0.00 0.00 3,900.00 0.00 0.00 3,892.63 -92.00 150.00 -148.20 0.00 0.00 0.00 4,000.00 0.00 0.00 3,992.63 -92.00 150.00 -148.20 0.00 0.00 0.00 4,100.00 0.00 0.00 4,092.63 -92.00 150.00 -148.20 0.00 0.00 0.00 4,200.00 0.00 0.00 4,192.63 -92.00 150.00 -148.20 0.00 0.00 0.00 4,300.00 0.00 0.00 4,192.63 -92.00 150.00 -148.20 0.00 0.00 0.00 4,300.00 0.00 0.00 4,292.63 -92.00 150.00 -148.20 0.00 0.00 0.00 4,400.00 0.00 0.00 4,392.63 -92.00 150.00 -148.20 0.00 0.00 0.00 4,500.00 0.00 0.00 4,492.63 -92.00 150.00 -148.20 <td>3,700.00</td> <td>0.00</td> <td>0.00</td> <td>3,692.63</td> <td>-92.00</td> <td>150.00</td> <td>-148.20</td> <td>0.00</td> <td>0.00</td> <td>0.00</td>	3,700.00	0.00	0.00	3,692.63	-92.00	150.00	-148.20	0.00	0.00	0.00
3,900.000.000.003,892.63-92.00150.00-148.200.000.000.000.004,000.000.000.003,992.63-92.00150.00-148.200.000.000.000.004,100.000.000.004,092.63-92.00150.00-148.200.000.000.000.004,200.000.000.004,192.63-92.00150.00-148.200.000.000.000.004,300.000.000.004,292.63-92.00150.00-148.200.000.000.000.004,400.000.000.004,392.63-92.00150.00-148.200.000.000.000.004,500.000.000.004,492.63-92.00150.00-148.200.000.000.000.004,600.000.000.004,592.63-92.00150.00-148.200.000.000.000.004,600.000.000.004,592.63-92.00150.00-148.200.000.000.000.00	3,800.00	0.00	0.00	3,792.63	-92.00	150.00	-148.20	0.00	0.00	0.00
4,000.00 4,100.000.000.003,992.63 4,092.63-92.00150.00-148.200.000.000.000.004,200.000.000.004,092.63-92.00150.00-148.200.000.000.004,200.000.000.004,192.63-92.00150.00-148.200.000.000.004,300.000.000.004,292.63-92.00150.00-148.200.000.000.004,400.000.000.004,392.63-92.00150.00-148.200.000.000.004,500.000.000.004,492.63-92.00150.00-148.200.000.000.004,600.000.000.004,592.63-92.00150.00-148.200.000.000.004,600.000.000.004,592.63-92.00150.00-148.200.000.000.00	3,900.00	0.00	0.00	3,892.63	-92.00	150.00	-148.20	0.00	0.00	0.00
4,100.000.000.004,092.63-92.00150.00-148.200.000.000.000.004,200.000.000.004,192.63-92.00150.00-148.200.000.000.004,300.000.000.004,292.63-92.00150.00-148.200.000.000.004,400.000.000.004,392.63-92.00150.00-148.200.000.000.004,500.000.000.004,492.63-92.00150.00-148.200.000.000.004,600.000.000.004,592.63-92.00150.00-148.200.000.000.004,600.000.000.004,592.63-92.00150.00-148.200.000.000.00	4,000.00	0.00	0.00	3,992.63	-92.00	150.00	-148.20	0.00	0.00	0.00
4,200.000.000.004,192.63-92.00150.00-148.200.000.000.000.004,300.000.000.004,292.63-92.00150.00-148.200.000.000.000.004,400.000.000.004,392.63-92.00150.00-148.200.000.000.000.004,500.000.000.004,492.63-92.00150.00-148.200.000.000.000.004,600.000.000.004,592.63-92.00150.00-148.200.000.000.00	4,100.00	0.00	0.00	4,092.63	-92.00	150.00	-148.20	0.00	0.00	0.00
4,300.000.000.004,292.63-92.00150.00-148.200.000.000.000.004,400.000.000.004,392.63-92.00150.00-148.200.000.000.000.004,500.000.000.004,492.63-92.00150.00-148.200.000.000.000.004,600.000.000.004,592.63-92.00150.00-148.200.000.000.00	4,200.00	0.00	0.00	4,192.63	-92.00	150.00	-148.20	0.00	0.00	0.00
4,400.000.000.004,392.63-92.00150.00-148.200.000.000.004,500.000.000.004,492.63-92.00150.00-148.200.000.000.004,600.000.000.004,592.63-92.00150.00-148.200.000.000.004,600.000.000.004,592.63-92.00150.00-148.200.000.000.00	4,300.00	0.00	0.00	4,292.63	-92.00	150.00	-148.20	0.00	0.00	0.00
4,500.00 0.00 0.00 4,492.63 -92.00 150.00 -148.20 0.00 0.00 0.00 4,600.00 0.00 0.00 4,592.63 -92.00 150.00 -148.20 0.00 0.00 0.00	4.400.00	0.00	0.00	4,392.63	-92.00	150.00	-148.20	0.00	0.00	0.00
4,600.00 0.00 0.00 4,592.63 -92.00 150.00 -148.20 0.00 0.00 0.00	4.500.00	0.00	0.00	4,492.63	-92.00	150.00	-148.20	0.00	0.00	0.00
	4,600.00	0.00	0.00	4,592.63	-92.00	150.00	-148.20	0.00	0.00	0.00
4,700.00 0.00 0.00 4,692.63 -92.00 150.00 -148.20 0.00 0.00 0.00	4,700.00	0.00	0.00	4,692.63	-92.00	150.00	-148.20	0.00	0.00	0.00



Survey Report



Company: Project:	Matador Resources Eddy County, NM	Local Co-ordinate Reference: TVD Reference:	Well No. 204H Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Site:	Stebbins Federal 19 (114-124-134-204)	MD Reference:	Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Well:	No. 204H	North Reference:	Grid
Wellbore:	ОН	Survey Calculation Method:	Minimum Curvature
Design:	Prelim Plan A	Database:	Well_Planner1

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
4,800.00	0.00	0.00	4,792.63	-92.00	150.00	-148.20	0.00	0.00	0.00
4,900.00	0.00	0.00	4,892.63	-92.00	150.00	-148.20	0.00	0.00	0.00
5,000.00	0.00	0.00	4,992.63	-92.00	150.00	-148.20	0.00	0.00	0.00
5,100.00	0.00	0.00	5,092.63	-92.00	150.00	-148.20	0.00	0.00	0.00
5,200.00	0.00	0.00	5,192.63	-92.00	150.00	-148.20	0.00	0.00	0.00
5,300.00	0.00	0.00	5,292.63	-92.00	150.00	-148.20	0.00	0.00	0.00
5,400.00	0.00	0.00	5,392.63	-92.00	150.00	-148.20	0.00	0.00	0.00
5,500.00	0.00	0.00	5,492.63	-92.00	150.00	-148.20	0.00	0.00	0.00
5,600.00	0.00	0.00	5,592.63	-92.00	150.00	-148.20	0.00	0.00	0.00
5,700.00	0.00	0.00	5,692.63	-92.00	150.00	-148.20	0.00	0.00	0.00
5,800.00	0.00	0.00	5,792.63	-92.00	150.00	-148.20	0.00	0.00	0.00
5,900.00	0.00	0.00	5,892.63	-92.00	150.00	-148.20	0.00	0.00	0.00
6,000.00	0.00	0.00	5,992.63	-92.00	150.00	-148.20	0.00	0.00	0.00
6,100.00	0.00	0.00	6,092.63	-92.00	150.00	-148.20	0.00	0.00	0.00
6,200.00	0.00	0.00	6,192.63	-92.00	150.00	-148.20	0.00	0.00	0.00
6,300.00	0.00	0.00	6,292.63	-92.00	150.00	-148.20	0.00	0.00	0.00
6,400.00	0.00	0.00	6,392.63	-92.00	150.00	-148.20	0.00	0.00	0.00
6,500.00	0.00	0.00	6,492.63	-92.00	150.00	-148.20	0.00	0.00	0.00
6,600.00	0.00	0.00	6,592.63	-92.00	150.00	-148.20	0.00	0.00	0.00
6,700.00	0.00	0.00	6,692.63	-92.00	150.00	-148.20	0.00	0.00	0.00
6,800.00	0.00	0.00	6,792.63	-92.00	150.00	-148.20	0.00	0.00	0.00
6,900.00	0.00	0.00	6,892.63	-92.00	150.00	-148.20	0.00	0.00	0.00
7,000.00	0.00	0.00	6,992.63	-92.00	150.00	-148.20	0.00	0.00	0.00
7,100.00	0.00	0.00	7,092.63	-92.00	150.00	-148.20	0.00	0.00	0.00
7,200.00	0.00	0.00	7,192.63	-92.00	150.00	-148.20	0.00	0.00	0.00
7,300.00	0.00	0.00	7,292.63	-92.00	150.00	-148.20	0.00	0.00	0.00
7,400.00	0.00	0.00	7,392.63	-92.00	150.00	-148.20	0.00	0.00	0.00
7,500.00	0.00	0.00	7,492.63	-92.00	150.00	-148.20	0.00	0.00	0.00
7,600.00	0.00	0.00	7,592.63	-92.00	150.00	-148.20	0.00	0.00	0.00
7,700.00	0.00	0.00	7,692.63	-92.00	150.00	-148.20	0.00	0.00	0.00
7,800.00	0.00	0.00	7,792.63	-92.00	150.00	-148.20	0.00	0.00	0.00
7,900.00	0.00	0.00	7,892.63	-92.00	150.00	-148.20	0.00	0.00	0.00
8,000.00	0.00	0.00	7,992.63	-92.00	150.00	-148.20	0.00	0.00	0.00
8,100.00	0.00	0.00	8,092.63	-92.00	150.00	-148.20	0.00	0.00	0.00
8,200.00	0.00	0.00	8,192.63	-92.00	150.00	-148.20	0.00	0.00	0.00
8,300.00	0.00	0.00	8,292.63	-92.00	150.00	-148.20	0.00	0.00	0.00
8,400.00	0.00	0.00	8,392.63	-92.00	150.00	-148.20	0.00	0.00	0.00
8,500.00	0.00	0.00	8,492.63	-92.00	150.00	-148.20	0.00	0.00	0.00
8,600.00	0.00	0.00	8,592.63	-92.00	150.00	-148.20	0.00	0.00	0.00
8,700.00	0.00	0.00	8,692.63	-92.00	150.00	-148.20	0.00	0.00	0.00
8,739.37	0.00	0.00	8,732.00	-92.00	150.00	-148.20	0.00	0.00	0.00
 8,750.00	1.06	270.00	8,742.63	-92.00	149.90	-148.10	10.00	10.00	0.00



Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well No. 204H
Project:	Eddy County, NM	TVD Reference:	Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Site:	Stebbins Federal 19 (114-124-134-204)	MD Reference:	Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Well:	No. 204H	North Reference:	Grid
Wellbore:	ОН	Survey Calculation Method:	Minimum Curvature
Design:	Prelim Plan A	Database:	Well_Planner1

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth (usft)	Inclination	Azimuth	Depth (usft)	+N/-S	+E/-W	Section	Rate (°/100ueft)	Rate (°/100usft)	Rate
(usit)	C)	()	(usit)	(usit)	(usit)	(usit)	(/ louall)	(nousil)	(/ loodsh)
8,800.00	6.06	270.00	8,792.52	-92.00	146.79	-145.00	10.00	10.00	0.00
8,850.00	11.06	270.00	8,841.95	-92.00	139.35	-137.55	10.00	10.00	0.00
8,900.00	16.06	270.00	8,890.54	-92.00	127.63	-125.83	10.00	10.00	0.00
8,950.00	21.06	270.00	8,937.92	-92.00	111.72	-109.92	10.00	10.00	0.00
9,000.00	26.06	270.00	8,983.74	-92.00	91.73	-89.95	10.00	10.00	0.00
9,050.00	31.06	270.00	9,027.64	-92.00	67.84	-66.05	10.00	10.00	0.00
9,100.00	36.06	270.00	9,069.29	-92.00	40.20	-38.42	10.00	10.00	0.00
9,150.00	41.06	270.00	9,108.37	-92.00	9.04	-7.27	10.00	10.00	0.00
9,200.00	46.06	270.00	9,144.59	-92.00	-25.40	27.17	10.00	10.00	0.00
9,250.00	51.06	270.00	9,177.67	-92.00	-62.88	64.64	10.00	10.00	0.00
9,300.00	56.06	270.00	9,207.36	-92.00	-103.09	104.84	10.00	10.00	0.00
9,350.00	61.06	270.00	9,233.43	-92.00	-145.74	147.48	10.00	10.00	0.00
9,400.00	66.06	270.00	9,255.68	-92.00	-190.49	192.23	10.00	10.00	0.00
9,450.00	71.06	270.00	9,273.95	-92.00	-237.02	238.75	10.00	10.00	0.00
9,500.00	76.06	270.00	9,288.09	-92.00	-284.96	286.68	10.00	10.00	0.00
9,550.00	81.06	270.00	9,298.00	-92.00	-333.95	335.66	10.00	10.00	0.00
9,600.00	86.06	270.00	9,303.61	-92.00	-383.62	385.32	10.00	10.00	0.00
9,639.36	90.00	270.00	9,304.96	-92.00	-422.95	424.65	10.00	10.00	0.00
9,700.00	90.00	270.00	9,304.96	-92.00	-483.59	485.28	0.00	0.00	0.00
9,800.00	90.00	270.00	9,304.96	-92.00	-583.59	585.26	0.00	0.00	0.00
9,900.00	90.00	270.00	9,304.96	-92.00	-683.59	685.24	0.00	0.00	0.00
10,000.00	90.00	270.00	9,304.96	-92.00	-783.59	785.22	0.00	0.00	0.00
10,100.00	90.00	270.00	9,304.96	-92.00	-883.59	885.20	0.00	0.00	0.00
10,200.00	90.00	270.00	9,304.96	-92.00	-983.59	985.18	0.00	0.00	0.00
10,300.00	90.00	270.00	9,304.96	-92.00	-1,083.59	1,085.16	0.00	0.00	0.00
10,400.00	90.00	270.00	9,304.97	-92.00	-1,183.59	1,185.15	0.00	0.00	0.00
10,500.00	90.00	270.00	9,304.97	-92.00	-1,283.59	1,285.13	0.00	0.00	0.00
10,600.00	90.00	270.00	9,304.97	-92.00	-1,383.59	1,385.11	0.00	0.00	0.00
10,700.00	90.00	270.00	9,304.97	-92.00	-1,483.59	1,485.09	0.00	0.00	0.00
10,800.00	90.00	270.00	9,304.97	-92.00	-1,583.59	1,585.07	0.00	0.00	0.00
10,900.00	90.00	270.00	9,304.97	-92.00	-1,683.59	1,685.05	0.00	0.00	0.00
11,000.00	90.00	270.00	9,304.97	-92.00	-1,783.59	1,785.03	0.00	0.00	0.00
11,100.00	90.00	270.00	9,304.97	-92.00	-1,883.59	1,885.02	0.00	0.00	0.00
11,200.00	90.00	270.00	9,304.97	-92.00	-1,983.59	1,985.00	0.00	0.00	0.00
11,300.00	90.00	270.00	9,304.97	-92.00	-2,083.59	2,084.98	0.00	0.00	0.00
11,400.00	90.00	270.00	9,304.98	-92.00	-2,183.59	2,184.96	0.00	0.00	0.00
11,500.00	90.00	270.00	9,304.98	-92.00	-2,283.59	2,284.94	0.00	0.00	0.00
11,600.00	90.00	270.00	9,304.98	-92.00	-2,383.59	2,384.92	0.00	0.00	0.00
11,700.00	90.00	270.00	9,304.98	-92.00	-2,483.59	2,484.90	0.00	0.00	0.00
11,800.00	90.00	270.00	9,304.98	-92.00	-2,583.59	2,584.89	0.00	0.00	0.00
11,900.00	90.00	270.00	9,304.98	-92.00	-2,683.59	2,684.87	0.00	0.00	0.00
12,000.00	90.00	270.00	9,304.98	-92.00	-2,783.59	2,784.85	0.00	0.00	0.00



Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well No. 204H
Project:	Eddy County, NM	TVD Reference:	Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Site:	Stebbins Federal 19 (114-124-134-204)	MD Reference:	Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Well:	No. 204H	North Reference:	Grid
Wellbore:	ОН	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	270.00	9,304.98	-92.00	-2,883.59	2,884.83	0.00	0.00	0.00
12,200.00	90.00	270.00	9,304.98	-92.00	-2,983.59	2,984.81	0.00	0.00	0.00
12,300.00	90.00	270.00	9,304.98	-92.00	-3,083.59	3,084.79	0.00	0.00	0.00
12,400.00	90.00	270.00	9,304.98	-92.00	-3,183.59	3,184.77	0.00	0.00	0.00
12,500.00	90.00	270.00	9,304.99	-92.00	-3,283.59	3,284.76	0.00	0.00	0.00
12,600.00	90.00	270.00	9,304.99	-92.00	-3,383.59	3,384.74	0.00	0.00	0.00
12,700.00	90.00	270.00	9,304.99	-92.00	-3,483.59	3,484.72	0.00	0.00	0.00
12,800.00	90.00	270.00	9,304.99	-92.00	-3,583.59	3,584.70	0.00	0.00	0.00
12,900.00	90.00	270.00	9,304.99	-92.00	-3,683.59	3,684.68	0.00	0.00	0.00
13,000.00	90.00	270.00	9,304.99	-92.00	-3,783.59	3,784.66	0.00	0.00	0.00
13,100.00	90.00	270.00	9,304.99	-92.00	-3,883.59	3,884.64	0.00	0.00	0.00
13,200.00	90.00	270.00	9,304.99	-92.00	-3,983.59	3,984.63	0.00	0.00	0.00
13,300.00	90.00	270.00	9,304.99	-92.00	-4,083.59	4,084.61	0.00	0.00	0.00
13,400.00	90.00	270.00	9,304.99	-92.00	-4,183.59	4,184.59	0.00	0.00	0.00
13,500.00	90.00	270.00	9,305.00	-92.00	-4,283.59	4,284.57	0.00	0.00	0.00
13,600.00	90.00	270.00	9,305.00	-92.00	-4,383.59	4,384.55	0.00	0.00	0.00
13,700.00	90.00	270.00	9,305.00	-92.00	-4,483.59	4,484.53	0.00	0.00	0.00
13,800.00	90.00	270.00	9,305.00	-92.00	-4,583.59	4,584.51	0.00	0.00	0.00
13,900.00	90.00	270.00	9,305.00	-92.00	-4,683.59	4,684.50	0.00	0.00	0.00
13,991.41	90.00	270.00	9,305.00	-92.00	-4,775.00	4,775.89	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
[StebFed19#204H]FPP - plan misses target - Point	0.00 center by 219	0.00 .32usft at 0.0	0.00 00usft MD (0.	-90.00 00 TVD, 0.00	-200.00 N, 0.00 E)	564,789.00	569,939.00	32° 33' 9.029 N	104° 6' 22.854 W
[StebFed19#204H]LPP - plan misses target - Point	0.00 center by 468	0.00 5.90usft at 0	0.00 .00usft MD (0	-92.00 0.00 TVD, 0.0	-4,685.00 0 N, 0.00 E)	564,787.00	565,454.00	32° 33′ 9.100 N	104° 7' 15.255 W
[StebFed19#204H]BHL - plan hits target cer - Point	0.00 hter	0.00	9,305.00	-92.00	-4,775.00	564,787.00	565,364.00	32° 33' 9.102 N	104° 7' 16.307 W
Checked By:				Approved	By:			Date:	



Anticollision Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well No. 204H
Project:	Eddy County, NM	TVD Reference:	Well @ 3270.50usft (GL: 3242' + KB: 28.5'
Reference Site:	Stebbins Federal 19 (114-124-134-204)	MD Reference:	(Patt809)) Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Site Error:	3.30 usft	North Reference:	Grid
Reference Well:	No. 204H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.10 usft	Output errors are at	2.00 sigma
Reference Wellbore	ОН	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	n & 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 Evalua	ited at: 2.00 Sigma	Casing Method:	Not applied
Survey 1001 Program	Date 8/4/2016		
From (usft)	To (usft) Survey (Wellbore)	Tool Name	Description
0.00	13,991.41 Prelim Plan A (OH)	MWD - OWSG	MWD - OWSG

Summary Reference Offset Distance Measured Between Separation Warning Measured Between Site Name Depth Centres Ellipses Factor Depth Offset Well - Wellbore - Design (usft) (usft) (usft) (usft) Stebbins Federal 19 (114-124-134-204) No. 114H - OH - Prelim Plan A 764.89 762.87 86.85 15.994 CC 81.42 No. 114H - OH - Prelim Plan A 800.00 797.44 86.91 81.25 15.361 ES No. 114H - OH - Prelim Plan A 6,600.00 6,574.49 302.85 256.82 6.579 SF No. 124H - OH - Prelim Plan A 500.00 500.00 60.00 56.18 15.703 CC No. 124H - OH - Prelim Plan A 600.00 598.80 60.09 55.69 13.649 ES No. 124H - OH - Prelim Plan A 7,104.83 7,099.73 200.00 4.009 SF 150.12 No. 134H - OH - Prelim Plan A 500.00 500.00 30.00 26.18 7.851 CC No. 134H - OH - Prelim Plan A 6.913 ES 600.00 599.19 30.44 26.03 8,493.47 No. 134H - OH - Prelim Plan A 8,500.00 100.18 40.48 1.678 SF

Offset De	sign	Stebbin	s Federal	19 (114-124	4-134-204	l) - No. 114	H - OH - Prelir	n Plan A					Offset Site Error:	0 00 usft
Survey Prog	ram: 0-M	WD - OWSG											Offset Well Error:	1.10 usft
Refer	BUCB	Offs	et	Semi Major	Axis				Dista	nce				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (*)	Offset Wellbor +N/-S (usft)	e Centre +E/-W (usft)	Between Centres (usft)	Between Etlipses (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	599.85	599.83	2.20	2.21	60.56	-90.02	-1.74	89.17	84.76	4.41	20.227		
700.00	699.84	699.02	698.86	2.51	2.51	66.95	-90.09	-6.91	87.40	82.38	5.02	17.423		
764.89	764.54	762.87	762.50	2.71	2.72	73.20	-90.16	-12.02	86.85	81.42	5.43	15.994 CC		
800.00	799.49	797.44	796.94	2.83	2 83	77 21	-90.20	-15.03	86.91	81.25	5.66	15.361 ES		
900.00	899.11	896.04	895.17	3.16	3.17	87.80	-90.32	-23.63	89.48	83.16	6.32	14.148		
1,000.00	998.73	994.64	993.39	3.51	3.51	97.50	-90.43	-32.22	94.96	87.96	7.00	13.559		
1,100.00	1,098.35	1,093.24	1,091.61	3.86	3.86	105.95	-90.54	-40.81	102.88	95.19	7.69	13.383		
1,200.00	1,197.97	1,191.83	1,189.84	4.22	4.22	113.09	-90.66	-49.41	112.73	104.36	8.37	13.463		
1,300.00	1,297.59	1,290.43	1,288.06	4.59	4.58	119.02	-90.77	-58.00	124.05	114.99	9.06	13.689		
1,400.00	1,397.21	1,389.03	1,386.28	4.95	4.94	123.93	-90.89	-66.59	136.48	126.73	9.75	13.994		

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



Anticollision Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well No. 204H
Project:	Eddy County, NM	TVD Reference:	Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Reference Site:	Stebbins Federal 19 (114-124-134-204)	MD Reference:	Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Site Error:	3.30 usft	North Reference:	Grid
Reference Well:	No. 204H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.10 usft	Output errors are at	2.00 sigma
Reference Wellbore	ОН	Database:	Well_Planner1
Reference Design:	Prelim Plan A	Offset TVD Reference:	Offset Datum

Offset De Survey Prog	sign Iram: 0-M	Stebbin wp - owsg	is Federal	19 (114-124	1-134-204	4) - No. 114	H - OH - Prelir	m Plan A					Offset Site Error: Offset Well Error:	0.00 us
Refer	ence	Offs	et	Semi Major	Axís				Dist	ance			Children Enter	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbo +N/-S (usft)	re Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
1,500.00	1,496.83	1,487.63	1,484.50	5.32	5.31	128.01	-91.00	-75.18	149.74	139.29	10.45	14.334		
1,600.00	1,596.45	1,586.23	1,582.73	5.69	5.67	131.42	-91.12	-83.78	163.62	152.48	11,14	14.686		
1,700.00	1,696.07	1,684.83	1,680.95	6.07	6.04	134.28	-91.23	-92.37	177.99	166.15	11.84	15.033		
1,800.00	1,795.69	1,783.42	1,779.17	6.44	6.41	136.72	-91.35	-100.96	192.73	180.19	12.54	15.369		
1,900.00	1,895.31	1,882.02	1,877.40	6.82	6.78	138.81	-91.46	-109.55	207.76	194.52	13.24	15.689		
2,000.00	1,994.93	1,980.62	1,975.62	7.20	7.15	140.62	-91.58	-118.15	223.03	209.09	13.95	15.991		
2,100.00	2,094.55	2,079.22	2,073.84	7.57	7.53	142.19	-91.69	-126.74	238.49	223.84	14.65	16.276		
2,200.00	2,194.17	2,177.82	2,172.07	7.95	7.90	143.58	-91.80	-135.33	254.11	238.75	15.36	16.543		
2,300.00	2,293.78	2,282.16	2,276.06	8.33	8.29	144.86	-91.92	-143.78	269.26	253.15	16.11	16.713		
2,500.00	2,393.40 2,493.02	2,391.66	2,385.64 2,493.02	9.09	9.05	146.04	-91.99	-148.91	289.38	264.23	17.62	16.426		
2 600 00	2 592 73	2 598 96	2 592 73	9.47	9 39	147 93	-92.00	-150.00	295 77	277 45	18 37	16 147		
2,000.00	2,552.75	2,698.87	2,692.64	9.83	9.72	148.39	-92.00	-150.00	299.30	280.28	19.01	15.741		
2,800.00	2,792.63	2,798.87	2,792.63	10.16	10.06	-90.00	-92.00	-150.00	300.00	280.30	19.70	15.232		
2,900.00	2,892.63	2,898.87	2,892.63	10.49	10.40	-90.00	-92.00	-150.00	300.00	279.63	20.37	14.726		
3,000.00	2,992.63	2,998.87	2,992.63	10.81	10.74	-90.00	-92.00	-150.00	300.00	278.95	21.05	14.251		
3,100.00	3,092.63	3,098.87	3,092.63	11.14	11.08	-90.00	-92.00	-150.00	300.00	278.27	21.73	13.804		
3,200.00	3,192.63	3,198.87	3,192.63	11.47	11.42	-90.00	-92.00	-150.00	300.00	277.58	22.42	13.383		
3,300.00	3,292.63	3,298.87	3,292.63	11.81	11.76	-90.00	-92.00	~150.00	300.00	276.90	23.10	12.986		
3,400.00	3,392.63	3,398.87	3,392.63	12.14	12.10	-90.00	-92.00	-150.00	300.00	276.21	23.79	12.611		
3,500.00	3,492.63	3,498.87	3,492.63	12.48	12.45	-90.00	-92.00	~150.00	300.00	275.52	24.48	12.256		
3,600.00	3,592.63	3,598.87	3,592.63	12.81	12.79	-90.00	-92.00	-150.00	300.00	274.83	25.17	11.919		
3,700.00	3,692.63	3,698.87	3,692.63	13.15	13.14	-90.00	-92.00	-150.00	300.00	274.14	25.86	11.600		
3,800.00	3,792.63	3,798.87	3,792.63	13.49	13.49	-90.00	-92.00	-150.00	300.00	273.44	26.56	11.297		
3,900.00	3,892.63	3,898.87	3,892.63	13.83	13.84	-90.00	-92.00	~150.00	300.00	272.75	27.25	11.009		
4,000.00	3,992.03	3,998.87	3,992.63	14,17	14.18	-90.00	-92.00	~150.00	300.00	272.05	27.95	10.735		
4,100.00	4,092.63	4,098.87	4,092.63	14.51	14.53	-90.00	-92.00	-150.00	300.00	271.36	28.64	10.474		
4,200.00	4,192.63	4,198.87	4,192.63	14.86	14.88	-90.00	-92.00	-150.00	300.00	270.66	29.34	10.225		
4,300.00	4,292.63	4,298.87	4,292.63	15.20	15.23	-90.00	-92.00	-150.00	300.00	269.96	30.04	9.987		
4,400.00	4,392.03	4,398.87	4,392.63	15.54	15.58	-90.00	-92.00	-150.00	300.00	269.26	30.74	9.760		
4,000.00	4,432.03	4,490.07	4,492.00	10.05	10.55	-30.00	-32.00	-150.00	300.00	200.00	51,44	5.542		
4,600.00	4,592.63	4,598.87	4,592.63	16.23	16.28	-90.00	-92.00	-150.00	300.00	267.86	32.14	9.334		
4,700.00	4,692.63	4,698.87	4,692.63	16.58	16.63	-90.00	-92.00	-150.00	300.00	267.16	32.84	9.135		
4,800.00	4,792.63	4,798.87	4,792.63	16.93	16.98	-90.00	-92.00	-150.00	300.00	266.46	33.54	8.943		
4,900.00	4,892.63	4,898.87 4,998.87	4,892.63	17.27	17.33	-90.00	-92.00	-150.00	300.00	265.75	34.25 34.95	8.760		
-		5 000 07	5 000 00	(7.07	40.04		00.00							
5,100.00	5,092.63	5,098.87	5,092.63	17.97	18.04	-90.00 -90.00	-92.00	-150.00	300.00	264.35	36.36	8.414		
5 300 00	5 292.63	5 298 87	5,292,63	18.66	18.74	-90.00	-92.00	-150.00	300.00	262.94	37.06	8.094		
5,400.00	5,392.63	5,398.87	5,392.63	19.01	19,10	-90.00	-92.00	-150.00	300.00	262.23	37.77	7.943		
5,500.00	5,492.63	5,498.87	5,492.63	19.36	19.45	-90.00	-92.00	-150.00	300.00	261.52	38.48	7.797		
5 600 00	5 592 63	5 598 87	5 592 63	19 71	19.80	-90.00	-92.00	-150.00	300.00	260.82	39.18	7 656		
5,700.00	5.692.63	5.698.87	5.692.63	20.06	20.15	-90.00	-92.00	-150.00	300.00	260.11	39.89	7.521		
5,800.00	5,792,63	5,798,87	5,792.63	20.41	20.51	-90.00	-92.00	-150.00	300.00	259.40	40.60	7.390		
5,900.00	5,892.63	5,898.87	5,892.63	20.76	20.86	-90.00	-92.00	-150.00	300.00	258.70	41.30	7.263		
6,000.00	5,992.63	5,998.87	5,992.63	21.11	21.22	-90.00	-92.00	-150.00	300.00	257.99	42.01	7.141		
6,100.00	6,092.63	6,098.87	6,092.63	21.47	21.57	-90.00	-92.00	-150.00	300.00	257.28	42.72	7.023		
6,200.00	6,192.63	6,198.87	6,192.63	21.82	21.92	-90.00	-92.00	-150.00	300.00	256.57	43.43	6.908		
6,300.00	6,292.63	6,298.87	6,292.63	22.17	22.28	-90.00	-92.00	-150.00	300.00	255.86	44.14	6.797		
6,400.00	6,392.63	6,398.87	6,392.63	22.52	22.63	-90.00	-92.00	-150.00	300.00	255.15	44.85	6.690		
6,500.00	6,492.63	6,498.87	6,492.63	22.87	22.99	-90.00	-92.00	-150.00	300.00	254.45	45.55	6.586		



Anticollision Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well No. 204H
Project:	Eddy County, NM	TVD Reference:	Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Reference Site:	Stebbins Federal 19 (114-124-134-204)	MD Reference:	Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Site Error:	3.30 usft	North Reference:	Grid
Reference Well:	No. 204H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.10 usft	Output errors are at	2.00 sigma
Reference Wellbore	ОН	Database:	Well_Planner1
Reference Design:	Prelim Plan A	Offset TVD Reference:	Offset Datum

Offset De	sign	Stebbin	s Federal	19 (114-124	1-134-204	l) - No. 114	H - OH - Prelir	n Plan A					Offset Site Error:	0.00 usft
Survey Progr	am: 0-l	MWD - OWSG											Offset Well Error:	1.10 usft
Refere	ence	Offse	ət 🛛	Semi Major	Axis				Dista	ince				
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbor +N/-S	e Centre +E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(usrc)	(uait)	(0810)	(481()	(0510)	(usit)	()	(usit)	(usit)	(usit)	(UBIL)	(usit)			
6,600.00	6,592.63	6,574.49	6,568.21	23.22	23.26	-90.00	-92.00	-151.87	302.85	256.82	46.03	6.579 SF		
6,700.00	6,692.63	6,638.83	6,631.91	23.58	23.49	-90.00	-92.00	-160.64	316.52	270.58	45.94	6.890		
6,800.00	6,792.63	6,700.00	6,691.21	23.93	23.73	-90.00	-92.00	-175.56	340.99	295.67	45.32	7.525		
6,900.00	6,892.63	6,750.00	6,738.27	24.28	23.94	-90.00	-92.00	-192.39	375.57	331.67	43.91	8.554		
7,000.00	6,992.63	6,811.54	6,793.90	24.63	24.20	-90.00	-92.00	-218.63	418.78	375.75	43.03	9.732		
7 400 00	-		0.007.40	04.00	04.00	~~~~			170.15			14 405		
7,100.00	7,092.63	3 6,850.00	6,827.12	24.99	24.38	-90.00	-92.00	-238.00	4/0.15	429.14	41.01	11.465		
7,200.00	7,192.6	6,900.00	6,868.22	25.34	24.62	-90.00	-92.00	-266.44	527.89	488.05	39.83	13.252		
7,300.00	7,292.63	3 6,950.00	6,906.70	25.69	24.89	-90.00	-92.00	-298.35	591.58	552.69	38.89	15.213		
7,400.00	7,392.63	5 6,977.47	6,926.60	26.05	25.06	-90.00	-92.00	-317.28	659.95	622.95	37.00	17.835		
7,500.00	7,492.63	3 7,000.00	6,942.24	26.40	25.19	-90.00	-92.00	-333.50	/32.60	697.42	35.18	20.826		
7,600.00	7,592.63	3 7,050.00	6,974.58	26.75	25.53	-90.00	-92.00	-371.60	808.74	773.82	34.92	23.161		
7,700.00	7,692.63	3 7,050.00	6,974.58	27.11	25.53	-90.00	-92.00	-371.60	887.51	854.90	32.60	27.220		
7,800.00	7,792.63	3 7,083.33	6,994.25	27.46	25.79	-90.00	-92.00	-398.51	968.65	936.66	32.00	30.275		
7,900.00	7,892.63	3 7,100.00	7,003.48	27.82	25.92	-90.00	-92.00	-412.39	1,052.08	1,021.20	30.88	34.069		
8,000.00	7,992.63	3 7,121.30	7,014.69	28.17	26.11	-90.00	-92.00	-430.50	1,137.25	1,107.13	30.12	37.757		
8 100 00	8 092 63	3 7 150 00	7 028 72	28.53	26.36	-90.00	-92.00	-455 53	1 224 17	1 194 42	29.75	41 147		
8 200 00	8,192,63	7 150 00	7.028.72	28.88	26.36	-90.00	-92.00	-455.53	1 312 01	1 283 47	28.54	45 965		
8 300 00	8 292 63	3 7 150 00	7 028 72	29.23	26.36	-90.00	-92.00	-455 53	1 401 48	1 373 97	27.51	50 943		
8 400 00	8 392 63	3 7,178.06	7 041.21	29.59	26.64	-90.00	-92.00	-480.66	1 491 34	1 463 90	27.44	54 355		
8.500.00	8,492.63	3 7.200.00	7.050.10	29.94	26.86	-90.00	-92.00	-500 71	1 582 51	1 555 27	27.24	58 091		
	_, 102.00	,	.,	20.0	_0.00	50.00	02.00	200.11	.,502.01	.,200.27		22.001		
8,600.00	8,592.63	7,200.00	7,050.10	30.30	26.86	-90.00	-92.00	-500.71	1,674.17	1,647.64	26.53	63.099		
8,700.00	8,692.63	7,200.00	7,050.10	30.65	26.86	-90.00	-92.00	-500.71	1,766.74	1,740.81	25.93	68.143		
8,800.00	8,792.52	2 7,200.00	7,050.10	31.00	26.86	0.00	-92.00	-500.71	1,858.85	1,833.50	25.35	73.336		



Anticollision Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well No. 204H
Project:	Eddy County, NM	TVD Reference:	Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Reference Site:	Stebbins Federal 19 (114-124-134-204)	MD Reference:	Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Site Error:	3.30 usft	North Reference:	Grid
Reference Well:	No. 204H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.10 usft	Output errors are at	2.00 sigma
Reference Wellbore	ОН	Database:	Well_Planner1
Reference Design:	Prelim Plan A	Offset TVD Reference:	Offset Datum

Offset D	esign	Stebbin	ns Federal	19 (114-124	4-134-204	4) - No. 124	H - OH - Prelir	m Plan A					Offset Site Error:	0.00 usit
Survey Pr	ogram: 0-M	IWD - OWSG											Offset Well Error:	1.10 usft
Rei	erence	Offs	et	Semi Major	Axis	Mahalda			Dista	nce Detween	1 01-1	Concertion		
Depth	Depth	Depth	Depth	Keleience	Offset	Toolface	+N/-S	+E/-W	Centres	Ellipses	Separation	Factor	Warning	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(*)	(usft)	(usft)	(usft)	(usft)	(usft)			
0.0	0.00	0.00	0.00	1.10	1.10	180.00	-60.00	0.00	60.00					
100.0	0 100.00	100.00	100.00	1.11	1.11	180.00	-60.00	0.00	60.00	57.79	2.21	27.090		
200.0	0 200.00	200.00	200.00	1.20	1.20	180.00	-60.00	0.00	60.00	57.59	2.41	24,941		
300.0	0 300.00	300.00	300.00	1.39	1.39	180.00	-60.00	0.00	60.00	57.23	2.77	21.627		
400.0	0 400.00	400.00	400.00	1.03	1.63	180.00	-60.00	0.00	60.00	56.74	3.26	18.399		
500.0	0 300.00	500.00	500.00	1.51	1.91	160.00	-60.00	0.00	60.00	50.16	3.02	15.705 CC	•	
500.5	7 500.57	500.56	500.56	1.91	1.91	58.48	-60.00	0.00	60.00	56.18	3.82	15.690		
600.0	0 599.98	598.80	598.78	2.20	2.20	61.25	-60.92	-1.43	60.09	55.69	4.40	13.649 ES		
700.0	0 699.84	697.09	696.93	2.51	2.50	69.34	-63.65	-5.71	61.20	56.19	5.00	12.231		
800.0	0 799.49	795.27	794.78	2.83	2.81	81.18	-68.00	-12.51	65.39	59.76	5.64	11.600		
500.0	0 099.11	034.10	093.51	5.10	3.14	51.04	-72.05	-19.77	72.55	00.20	0.29	11.550		
1,000.0	0 998.73	993.09	991.85	3.51	3.48	100.38	-77.30	-27.03	81.76	74.80	6.96	11.746		
1,100.0	0 1,098.35	1,092.00	1,090.38	3.86	3.83	107.09	-81.94	-34.29	92.42	84.78	7.64	12.098		
1,200.0	0 1,197.97	1,191.28	1,189.29	4.22	4.19	112.39	-86.60	-41.56	104.05	95.72	8.33	12.495		
1,300.0	0 1,297.59	1,294.37	1,292.14	4.59	4.56	116.77	-90.25	-47.26	114.27	105.23	9.04	12.638		
1,400.0	0 1,397.21	1,396.10	1,393.62	4.90	4.92	120.56	-91.90	-49.84	121.42	111.00	9.76	12.443		
1,500.0	0 1,496.83	1,499.10	1,496.83	5.32	5.25	124.00	-92.00	-50.00	126.27	115.82	10.46	12.074		
1,600.0	0 1,596.45	1,598.72	1,596.45	5.69	5.59	127.14	-92.00	-50.00	131.36	120.20	11.16	11.774		
1,700.0	0 1,696.07	1,698.34	1,696.07	6.07	5.93	130.05	-92.00	-50.00	136.81	124.95	11.86	11.539		
1,800.0	0 1,795.69	1,797.96	1,795.69	6.44	6.26	132.72	-92.00	-50.00	142.59	130.03	12.56	11.354		
1,900.0	0 1,895.31	1,897.58	1,895.31	6.82	6.61	135.19	-92.00	-50.00	148.65	135.39	13.26	11.209		
2,000.0	0 1,994.93	1,997.20	1,994.93	7.20	6.95	137.45	-92.00	-50.00	154.96	141.00	13.97	11.096		
2,100.0	0 2,094.55	2,096.82	2,094.55	7.57	7.29	139.54	-92.00	-50.00	161.50	146.83	14.67	11.008		
2,200.0	0 2,194.17	2,196.44	2,194.17	7.95	7.64	141.47	-92.00	-50.00	168.24	152.86	15.38	10.941		
2,300.0	0 2,293.78	2,296.06	2,293.78	8.33	7.98	143.24	-92.00	-50.00	175.15	159.07	16.08	10.890		
2,400.0	2,393.40	2,395.00	2,393.40	0.71	0.33	144.88	-92.00	-50.00	182.22	165.43	16.79	10.852		
2,500.0	2,493.02	2,495.30	2,493.02	9.09	8.68	146.39	-92.00	-50.00	189.42	171.92	17.50	10.825		
2,600.0	2,592.73	2,595.01	2,592.73	9.47	9.03	147.67	-92.00	-50.00	195.78	177.57	18.21	10.754		
2,700.0	0 2,692.64	2,694.92	2,692.64	9.83	9.38	148.35	-92.00	-50.00	199.30	180.39	18.91	10.539		
2,800.0	J 2,792.63	2,794.91	2,792.63	10.16	9.73	-90.00	-92.00	-50.00	200.00	180.40	19.60	10.204		
2,500.0	2,092.05	2,034.51	2,032.00	10.45	10.00	-90.00	-92.00	-50.00	200.00	179.72	20.20	9.000		
3,000.0	2,992.63	2,994.91	2,992.63	10.81	10.43	-90.00	-92.00	-50.00	200.00	179.03	20.97	9.538		
3,100.0	3,092.63	3,094.91	3,092.63	11.14	10.79	-90.00	-92.00	-50.00	200.00	178.34	21.66	9.235		
3,200.0	3,192.63	3,194.91	3,192.63	11.47	11.14	-90.00	-92.00	-50.00	200.00	177.65	22.35	8.950		
3,300.0	J 3,292.63	3,294.91	3,292.63	11.81	11.49	-90.00	-92.00	-50.00	200.00	176.96	23.04	8.681		
0,400.0	5 0,052.00	0,004.01	3,332.00	12.14	11.00	-30.00	-92.00	-50.00	200.00	170.27	23.75	0.420		
3,500.0	3,492.63	3,494.91	3,492.63	12.48	12.20	-90.00	-92.00	-50.00	200.00	175.57	24.43	8.188		
3,600.0	3,592.63	3,594.91	3,592.63	12.81	12.55	-90.00	-92.00	-50.00	200.00	174.88	25.12	7.961		
3,700.0	0 3,692.63	3,694.91	3,692.63	13.15	12.91	-90.00	-92.00	-50.00	200.00	174.18	25.82	7.747		
3,800.0	J 3,792.63	3,794.91	3,/92.63	13.49	13.26	-90.00	-92.00	-50.00	200.00	173.48	26.52	7.543		
3,900.0	3,692.03	3,894.91	3,892.63	13.83	13.62	-90.00	-92.00	-50.00	200.00	1/2./9	27.21	7.349		
4,000.0	3,992.63	3,994.91	3,992.63	14.17	13.97	-90.00	-92.00	-50.00	200.00	172.09	27.91	7.165		
4,100.0	4,092.63	4,094.91	4,092.63	14.51	14.33	-90.00	-92.00	-50.00	200.00	171.39	28.61	6.989		
4,200.0	4,192.63	4,194.91	4,192.63	14.86	14.68	-90.00	-92.00	-50.00	200.00	170.68	29.32	6.822		
4,300.0	4,292.63	4,294.91	4,292.63	15.20	15.04	-90.00	-92.00	-50,00	200.00	169.98	30.02	6.663		
4,400.0	J 4,392.63	4,394.91	4,392.63	15.54	15.40	-90.00	-92.00	-50.00	200.00	169.28	30.72	6.510		
4,500.0	4,492.63	4,494.91	4,492.63	15.89	15.75	-90.00	-92.00	-50.00	200.00	168.58	31.42	6.365		
4,600.0	4,592.63	4,594.91	4,592.63	16.23	16.11	-90.00	-92.00	-50.00	200.00	167.87	32.13	6.225		
4,700.0	4,692.63	4,694.91	4,692.63	16.58	16.46	-90.00	-92.00	-50.00	200.00	167.17	32.83	6.091		
4,800.0	4,792.63	4,794.91	4,792.63	16.93	16.82	-90.00	-92.00	-50.00	200.00	166.46	33.54	5.963		
4,900.0	4,892.63	4,894.91	4,892.63	17.27	17.18	-90.00	-92.00	-50.00	200.00	165.76	34.24	5.841	en e la churche schut e anna anna	
			CC - Min	centre to ce	nter dista	nce or cover	gent point, SF	- min sepa	ration facto	or, ES - m	in ellipse s	eparation		

9/21/2016 6:54:23AM



Anticollision Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well No. 204H
Project:	Eddy County, NM	TVD Reference:	Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Reference Site:	Stebbins Federal 19 (114-124-134-204)	MD Reference:	Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Site Error:	3.30 usft	North Reference:	Grid
Reference Well:	No. 204H	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 De	sign	Stebbir	is Federal	19 (114-124	4-134-204	l) - No. 124	H - OH - Prelir	n Plan A					Offset Site Error:	0.00 usf
Survey Prog	ram: 0-M	WD - OWSG		_									Offset Well Error:	1.10 usf
Refer	ence	Offs	et Maatii	Semi Major	Axis	hilaha 1.4-	04	. Contra	Dista	Ince		B		
Measured Depth	Vertical Depth	Measured Depth	Depth	Reference	Offset	Toolface	+N/-S	e Centre +E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(*)	(usft)	(usft)	(usft)	(usft)	(usft)			
5,000.00	4,992.63	4,994.91	4,992.63	17.62	17.53	-90.00	-92.00	-50.00	200.00	165.05	34.95	5.723		
5,100.00	5,092.63	5,094.91	5,092.63	17.97	17.89	-90.00	-92.00	-50.00	200.00	164.34	35.66	5.609		
5,200.00	5,192.63	5,194.91	5,192.63	18.32	18.24	-90.00	-92.00	-50.00	200.00	163.64	36.36	5.500		
5,300.00	5,292.63	5,294.91	5,292.63	18.66	18.60	-90.00	-92.00	-50.00	200.00	162.93	37.07	5.395		
5,400.00	5,392.63	5,394.91	5,392.63	19.01	18.96	-90.00	-92.00	-50.00	200.00	162.22	37.78	5.294		
5,500.00	5.492.63	5,494.91	5,492.63	19.36	19.31	-90.00	-92.00	-50.00	200.00	161.51	38.49	5,197		
5,600.00	5,592.63	5,594.91	5,592.63	19.71	19.67	-90.00	-92.00	-50.00	200.00	160.81	39.19	5.103		
5,700.00	5,692.63	5,694.91	5,692.63	20.06	20.03	-90.00	-92.00	-50.00	200.00	160.10	39.90	5.012		
5,800.00	5,792.63	5,794.91	5,792.63	20.41	20.38	-90.00	-92.00	-50.00	200.00	159.39	40.61	4.925		
5,900.00	5,892.63	5,894.91	5,892.63	20.76	20.74	-90.00	-92.00	-50.00	200.00	158.68	41.32	4.840		
6.000.00	5.992.63	5,994.91	5,992.63	21.11	21.10	-90.00	-92.00	-50.00	200.00	157.97	42.03	4.759		
6,100.00	6,092.63	6,094.91	6,092.63	21.47	21.46	-90.00	-92.00	-50.00	200.00	157.26	42.74	4.679		
6,200.00	6,192.63	6,194.91	6,192.63	21.82	21.81	-90.00	-92.00	-50.00	200.00	156.55	43.45	4.603		
6,300.00	6,292.63	6,294.91	6,292.63	22.17	22.17	-90.00	-92.00	-50.00	200.00	155.84	44.16	4.529		
6,400.00	6,392.63	6,394.91	6,392.63	22.52	22.53	-90.00	-92.00	-50.00	200.00	155.13	44.87	4.457		
6 500 00	6 492 63	6 494 91	6.492.63	22.87	22.88	-90.00	-92.00	-50.00	200.00	154 42	45 58	4.388		
6.600.00	6,592,63	6 594.91	6,592.63	23.22	23.24	-90.00	-92.00	-50.00	200.00	153.71	46.29	4.320		
6,700.00	6,692,63	6,694.91	6,692.63	23.58	23.60	-90.00	-92.00	-50.00	200.00	153.00	47.00	4.255		
6,800.00	6,792.63	6,794.91	6,792.63	23.93	23.96	-90.00	-92.00	-50.00	200.00	152.29	47.71	4.192		
6,900.00	6,892.63	6,894.91	6,892.63	24.28	24.31	-90.00	-92.00	-50.00	200.00	151.58	48.42	4.130		
7 000 00	0.000.00	0 004 04	0.000.00	24.02	04.07	00.00	00.00	50.00		150.00	10.11	4.070		
7,000.00	5,992.53	7 004 01	7,002,63	24.03	24.07	-90.00	-92.00	-50.00	200.00	150.86	49.14	4.070		
7,100.00	7,092.03	7,034.51	7,092.03	24.99	25.05	-90.00	-92.00	-50.00	200.00	150.13	49.65	4.012		
7 200 00	7 192 63	7 180.44	7,178,13	25.34	25.33	-90.00	-92.00	-51.48	202.00	151.64	50.36	4 011		
7,300.00	7,292.63	7,250.00	7,247.04	25.69	25.58	-90.00	-92.00	-60.67	215.54	165.59	49.95	4.315		
7,400.00	7,392.63	7,322.28	7,316.91	26.05	25.84	-90.00	-92.00	-78.98	241.18	192.00	49.17	4.905		
7,500.00	7,492.63	7,386.34	7,376.48	26.40	26.07	-90.00	-92.00	-102.45	277.89	230.17	47.72	5.823		
7,800.00	7,592.03	7,450.00	7 432.72	20.75	20.31	-90.00	-92.00	-132.21	324.37	211.99	40.30	0.994		
7,700.00	7 792 63	7,500.00	7,474.30	27.46	26.52	-90.00	-92.00	-191.02	440 73	398 11	44.29	10.342		
,,	11.02.00	1,01111					02.00				12.02			
7,900.00	7,892.63	7,582.78	7,537.53	27.82	26.90	-90.00	-92.00	-213.25	507.99	467.83	40.16	12.650		
8,000.00	7,992.63	7,618.34	7,562.16	28.17	27.08	-90.00	-92.00	-238.88	580.11	541.73	38.38	15.114		
8,100.00	8,092.63	7,650.00	7,582.73	28.53	27.26	-90.00	-92.00	-262.95	656.15	619.37	36.78	17.841		
8,200.00	8,192.63	7,677.15	7,599.28	28.88	27.43	-90.00	-92.00	-284.47	735.41	700.13	35.28	20.846		
0,300.00	0,292.03	7,700.00	7,012.47	29.23	21.51	-90.00	-92.00	-303.17	017.35	103.41	33.00	24.122		
8,400.00	8,392.63	7,723.11	7,624.92	29.59	27.74	-90.00	-92.00	-322.60	901.52	868.73	32.79	27.497		
8,500.00	8,492.63	7,750.00	7,638.47	29.94	27.94	-90.00	-92.00	-345.82	987.64	955.56	32.08	30.788		
8,600.00	8,592.63	7,750.00	7,638.47	30.30	27.94	-90.00	-92.00	-345.82	1,075.30	1,044.84	30.46	35.306		
8,700.00	8,692.63	7,775.06	7,650.11	30.65	28.14	-90.00	-92.00	-368.01	1,164.13	1,134.09	30.04	38.751		
8,800.00	8,792.52	7,800.00	7,660.72	31.00	28.35	0.00	-92.00	-390.58	1,252.90	1,223.27	29.63	42.287		
8,900.00	8,890.54	7,800.00	7,660.72	31.32	28.35	0.00	-92.00	-390.58	1,334.54	1,306.45	28.09	47.502		
9,000.00	8,983.74	7,827.71	7,671.34	31.62	28.62	0.00	-92.00	-416.17	1,407.25	1,380.00	27.25	51.642		
9,100.00	9,069.29	7,850.00	7,678.98	31.92	28.83	0.00	-92.00	-437.11	1,469.96	1,443.90	26.07	56.394		
9,200.00	9,144.59	7,873.52	7,686.15	32.26	29.08	0.00	-92.00	-459.51	1,521.68	1,496.86	24.82	61.304		
9,300.00	9,207.36	7,900.00	7,693.11	32.69	29.36	0.00	-92.00	-485.05	1,561.68	1,538.05	23.63	66.087		
9 400 00	9 255 68	7 923 91	7,698.38	33.27	29 64	0.00	-92 00	-508 37	1 589 / 1	1 566 98	22 42	70 846		
9,500.00	9,288.09	7.950.00	7,703.02	34.04	29.95	0.00	-92.00	-534.04	1,604.53	1,583.09	22.43	74 864		
9,600.00	9,303.61	7.976.24	7,706.49	35.01	30.29	0.00	-92.00	-560.05	1,606.83	1,586.17	20.66	77.771		
9,700.00	9,304.96	8,000.00	7,708.61	36.16	30.60	0.00	-92.00	-583.71	1,599.48	1,579.33	20.16	79.356		
9,800.00	9,304.96	8,039.27	7,709.96	37.51	31.14	0.00	-92.00	-622.95	1,595.49	1,575.33	20.16	79.147		

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



Anticollision Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well No. 204H
Project:	Eddy County, NM	TVD Reference:	Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Reference Site:	Stebbins Federal 19 (114-124-134-204)	MD Reference:	Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Site Error:	3.30 usft	North Reference:	Grid
Reference Well:	No. 204H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.10 usft	Output errors are at	2.00 sigma
Reference Wellbore	ОН	Database:	Well_Planner1
Reference Design:	Prelim Plan A	Offset TVD Reference:	Offset Datum

Offset De	sign	Stebbin	s Federal	19 (114-124	4-134-204) - No. 124	H - OH - Prelir	n Plan A					Offset Site Error:	0.00 usft
Survey Progr	am: 0-M	WD - OWSG											Offset Well Error:	1.10 usft
Refer	ence	Offse	ət	Semi Major	Axis				Dista	ince				
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbor	e Centre	Between	Between	Minimum	Separation	Warning	
(usft)	Depth (usft)	Uepin (usft)	Depth (usft)	(usft)	(usft)	(oolface	+N/-S	+E/-W	Centres (usft)	Lilipses (usft)	Separation (usft)	Factor		
(2311)	((0010)	(uaic)	(asit)	(uait)	()	(usn)	(USIC)	(4311)	(0011)	(asit)			
9,900.00	9,304.96	8,099.93	7,709.96	39.04	32.03	0.00	-92.00	-683.61	1,595.00	1,574.44	20.57	77.552		
9,905.46	9,304.96	8,105.39	7,709.96	39.13	32.12	0.00	-92.00	-689.07	1,595.00	1,574.39	20.61	77.390		
10,000.00	9,304.96	8,199.93	7,709.96	40.72	33.66	0.00	-92.00	-783.61	1,595.00	1,573.64	21.36	74.675		
10,100.00	9,304.96	8,299.93	7,709.96	42.55	35.47	0.00	-92.00	-883.61	1,595.00	1,5/2.//	22.24	/1./29		
10,200.00	9,304.96	8,399.93	7,709.96	44.50	37.42	0.00	-92.00	-983.01	1,595.00	1,571.61	23.19	68.784		
10,300.00	9,304.90	0,499.93	7,709.96	40.00	39.50	0.00	-92.00	-1,063.01	1,595.00	1,370.60	24.21	00.093		
10,400.00	9,304.97	8,599.93	7,709.96	48.72	41.69	0.00	-92.00	-1,183.61	1,595.00	1,569.72	25.28	63.092		
10,500.00	9,304.97	8,699.93	7,709.96	50.95	43.98	0.00	-92.00	-1 ,283.61	1,595.00	1,568.60	26.40	60.406		
10,600.00	9,304.97	8,799.93	7,709.97	53.26	46.34	0.00	-92.00	-1,383.61	1,595.00	1,567.43	27.57	57.848		
10,700.00	9,304.97	8,899.93	7,709.97	55.63	48.77	0.00	-92.00	-1,483.61	1,595.00	1,566.22	28.78	55.424		
10,800.00	9,304.97	8,999.93	7,709.97	58.06	51.25	0.00	-92.00	-1,583.61	1,595.00	1,564.98	30.02	53.136		
	0.004.07	0.000.00								4 500 70		50 00 <i>4</i>		
10,900.00	9,304.97	9,099.93	7,709.97	60.54	53.79	0.00	-92.00	-1,683.61	1,595.00	1,563.72	31.29	50.981		
11,000.00	9,304.97	9,199.93	7,709.97	63.05	56.36	0.00	-92.00	-1,783.61	1,595.00	1,562.42	32.58	48.955		
11,100.00	9,304.97	9,299.93	7,709.97	65.61	58.98	0.00	-92.00	-1,883.01	1,595.00	1,001.10	33.90	47.053		
11,200.00	9,304.97	9,399.93	7,709.97	70.83	64.20	0.00	-92.00	-1,903.01	1,595.00	1,009.17	33.24	43.200		
11,300.00	9,304.97	3,433.53	7,709.97	70.02	04.30	0.00	-92.00	-2,003.01	1,555.00	1,556.41	30.39	43.300		
11,400.00	9,304.98	9,599.93	7,709.97	73.47	67.00	0.00	-92.00	-2,183.61	1,595.00	1,557.04	37.96	42.013		
11,500.00	9,304.98	9,699.93	7,709.97	76.14	69.72	0.00	-92.00	-2,283.61	1,595.00	1,555.65	39.35	40.532		
11,600.00	9,304.98	9,799.93	7,709.98	78.83	72.47	0.00	-92.00	-2,383.61	1,595.00	1,554.25	40.75	39.140		
11,700.00	9,304.98	9,899.93	7,709.98	81.55	75.23	0.00	-92.00	-2,483.61	1,595.00	1,552.84	42.16	37.830		
11,800.00	9,304.98	9,999.93	7,709.98	84.28	78.00	0.00	-92.00	-2,583.61	1,595.00	1,551.42	43.58	36.595		
11 000 00	0 204 09	10,000,00	7 700 00	07.00	00.70	0.00	02.00	0 600 64	1 505 00	1 540 00	45.00	25 424		
12,000,00	9,304.96	10,099.93	7,709.98	87.02	80.79	0.00	-92.00	-2,063.01	1,595.00	1,049.90	45.02	35.431		
12,000.00	9,304.90	10,199.93	7,709.90	09.70	03.00 96.41	0.00	-92.00	-2,703.01	1,595.00	1,040.04	40.40	34.332		
12,100.00	9,304.30	10,299.93	7,709.90	92.30	80.23	0.00	-92.00	-2,003.01	1 595.00	1 545 64	47.91	32 312		
12,200.00	9 304 98	10,499,93	7 709 98	98.14	92.07	0.00	-92.00	-2,000.01	1 595 00	1 544 18	50.82	31 383		
12,000.00	0,001.00	10,100.00	1,100.00	50.14	02.07	0.00	02.00	0,000.01	1,000.00	1,011.10	00.02	01.000		
12,400.00	9,304.98	10,599.93	7,709.98	100.94	94.91	0.00	-92.00	-3,183.61	1,595.00	1,542.71	52.29	30.501		
12,500.00	9,304.99	10,699.93	7,709.99	103.76	97.76	0.00	-92.00	-3,283.61	1,595.00	1,541.23	53.77	29.665		
12,600.00	9,304.99	10,799.93	7,709.99	106.58	100.62	0.00	-92.00	-3,383.61	1,595.00	1,539.75	55.25	28.870		
12,700.00	9,304.99	10,899.93	7,709.99	109.42	103.48	0.00	-92.00	-3,483.61	1,595.00	1,538.27	56.73	28.115		
12,800.00	9,304.99	10,999.93	7,709.99	112.26	106.35	0.00	-92.00	-3,583.61	1,595.00	1,536.78	58.22	27.396		
12 900 00	9 304 99	11 000 03	7 700 00	115 10	109 22	0.00	-92.00	-3 683 61	1 595 00	1 535 29	59 71	26 711		
13,000,00	9,304.35	11 199 93	7,709.99	117.96	112 10	0.00	-92.00	-3,003.01	1,595.00	1 533 79	61.21	26.058		
13 100 00	9 304 99	11 299 93	7 709 99	120.81	114 99	0.00	-92.00	-3 883 61	1,595.00	1 532 29	62 71	25 435		
13,200.00	9.304.99	11.399.93	7 709 99	123.68	117.88	0.00	-92.00	-3.983.61	1,595.00	1.530.79	64.21	24.839		
13.300.00	9,304,99	11,499.93	7.709.99	126.55	120.77	0.00	-92.00	-4.083.61	1.595.00	1.529.28	65.72	24.270		
13,400.00	9,304.99	11,599.93	7,709.99	129.42	123.67	0.00	-92.00	-4,183.61	1,595.00	1,527.77	67.23	23.725		
13,500.00	9,305.00	11,699.93	7,710.00	132.30	126.57	0.00	-92.00	-4,283.61	1,595.00	1,526.26	68.74	23.203		
13,600.00	9,305.00	11,799.93	7,710.00	135.18	129.47	0.00	-92.00	-4,383.61	1,595.00	1,524.75	70.25	22.703		
13,700.00	9,305.00	11,899.93	7,710.00	138.06	132.38	0.00	-92.00	-4,483.61	1,595.00	1,523.23	71.77	22.223		
13,800.00	9,305.00	11,999.93	7,710.00	140.95	135.29	0.00	-92.00	-4,583.61	1,595.00	1,521.71	73.29	21.763		
13 900 00	9,305.00	12,099,93	7 710 00	143.85	138.20	0.00	-92 00	-4 683 61	1 595 00	1.520.19	74 81	21 320		
13,962.97	9,305.00	12,162.89	7 710 00	145.67	140.04	0.00	-92.00	-4 746 57	1 595 00	1,519 23	75 77	21.020		
13,991 41	9,305.00	12,191.32	7,710.00	146.49	140.86	0.00	-92.00	-4,775.00	1,595.00	1.518.80	76.20	20.931		
							52.00	.,	1,000.00					



Anticollision Report



Company: Project:	Matador Resources Eddy County, NM	Local Co-ordinate Reference: TVD Reference:	Well No. 204H Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Reference Site:	Stebbins Federal 19 (114-124-134-204)	MD Reference:	Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Site Error:	3.30 usft	North Reference:	Grid
Reference Well:	No. 204H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.10 usft	Output errors are at	2.00 sigma
Reference Wellbore	ОН	Database:	Well_Planner1
Reference Design:	Prelim Plan A	Offset TVD Reference:	Offset Datum

Offset De	sign	Stebbin	is Federal	19 (114-124	4-134-204	I) - No. 134	H - OH - Prelir	n Plan A					Offset Site Error:	0.00 usf
Survey Prog	ram: 0-M	WD - OWSG											Offset Well Error:	1.10 usf
Refer	ence	Offs	et	Semi Major	Axis				Dista	Ince				
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbor	e Centre	Between	Between	Minimum	Separation	Warning	
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Centres (usft)	Ellipses (usft)	Separation (usft)	Factor		
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 CC		
600.00	599.98	599.19	599.17	2.20	2.20	59.22	-31.34	1.08	30.44	26.03	4.40	6.913 ES		
700.00	699.84	698.36	698.20	2.51	2.50	61.32	-35.34	4.31	31.78	26.78	5.00	6.352		
800.00	799.49	797.89	797.39	2.83	2.81	64.28	-41.73	9.46	34.01	28.37	5.64	6.034		
900.00	899.11	897.84	896.96	3.16	3.14	66.98	-48.52	14.93	36.46	30.17	6.30	5.790		
1,000.00	998.73	997.80	996.54	3.51	3.49	69.34	-55.30	20.40	38.99	32.01	6.98	5.586		
1,100.00	1,098.35	1,097.76	1,096.12	3.86	3.84	71.41	-62.08	25.87	41.57	33.90	7.68	5.414		
1,200.00	1,197.97	1,197.71	1,195.69	4.22	4.20	73.24	-68.86	31.34	44.21	35.82	8.39	5.269		
1,300.00	1,297.59	1,297.67	1,295.27	4.59	4.56	74.86	-75.64	36.81	46.88	37.77	9.11	5.145		
1,400.00	1,397.21	1,397.62	1,394.84	4.95	4.93	76.30	-82.42	42.28	49.59	39.75	9.84	5.040		
1,500.00	1,496.83	1,498.37	1,495.30	5.32	5.29	78.78	-88.29	47.01	51.68	41.10	10.58	4.885		
1,600.00	1,596.45	1,599.10	1,595.95	5.69	5.65	84.43	-91.43	49.54	52.29	40.97	11.32	4.620		
1,665.84	1,662.04	1,665.20	1,662.04	5.94	5.87	90.00	-92.00	50.00	52.28	40.49	11.80	4.432		
1,700.00	1,696.07	1,699.23	1,696.07	6.07	5.99	93.25	-92.00	50.00	52.37	40.33	12.04	4.349		
1,800.00	1,795.69	1,798.85	1,795.69	6.44	6.32	102.56	-92.00	50.00	53.57	40.83	12.75	4.202		
1,900.00	1,895.31	1,898.47	1,895.31	6.82	6.65	111.25	-92.00	50.00	56.12	42.68	13.44	4.175		
2,000.00	1,994.93	1,998.09	1,994.93	7.20	6.98	119.03	-92.00	50.00	59.85	45.72	14.13	4.237		
2,100.00	2,094.55	2,097.71	2,094.55	7.57	7.32	125.79	-92.00	50.00	64.54	49.74	14.80	4.359		
2,200.00	2,194.17	2,197.33	2,194.17	7.95	7.66	131.57	-92.00	50.00	70.01	54.52	15.48	4.522		
2,300.00	2,293.78	2,296.94	2,293.78	8.33	8.00	136.48	-92.00	50.00	76.08	59.92	16.16	4.708		
2,400.00	2,393.40	2,396.56	2,393.40	8.71	8.34	140.64	-92.00	50.00	82.63	65.79	16.84	4.906		
2,500.00	2,493.02	2,496.18	2,493.02	9.09	8.68	144.17	-92.00	50.00	89.55	72.02	17.53	5.109		
2,600.00	2,592.73	2,595.89	2,592.73	9.47	9.03	146.88	-92.00	50.00	95.80	77.58	18.22	5.259		
2,700.00	2,692.64	2,695.80	2,692.64	9.83	9.37	148.22	-92.00	50.00	99.30	80.39	18.91	5.251		
2,800.00	2,792.63	2,795.79	2,792.63	10.16	9.72	-90.00	-92.00	50.00	100.00	80.41	19.59	5.104		
2,900.00	2,892.63	2,895.79	2,892.63	10.49	10.07	-90.00	-92.00	50.00	100.00	79.73	20.27	4.933		
3,000.00	2,992.63	2,995.79	2,992.63	10.81	10.42	-90.00	-92.00	50.00	100.00	79.05	20.95	4.772		
3,100.00	3,092.63	3,095.79	3,092.63	11.14	10.76	-90.00	-92.00	50.00	100.00	78.36	21.64	4.621		
3,200.00	3,192.63	3,195.79	3,192.63	11.47	11.11	-90.00	-92.00	50.00	100.00	77.67	22.33	4.479		
3,300.00	3,292.63	3,295.79	3,292.63	11.81	11.47	-90.00	-92.00	50.00	100.00	76.99	23.01	4.345		
3,400.00	3,392.63	3,395.79	3,392.63	12.14	11.82	-90.00	-92.00	50.00	100.00	76.30	23.70	4.219		
3,500.00	3,492.63	3,495.79	3,492.63	12.48	12.17	-90.00	-92.00	50.00	100.00	75.60	24.40	4.099		
3,600.00	3,592.63	3,595.79	3,592.63	12.81	12.52	-90.00	-92.00	50.00	100.00	74.91	25.09	3.986		
3,700.00	3,692.63	3,695.79	3,692.63	13.15	12.87	-90.00	-92.00	50.00	100.00	74.22	25.78	3.878		
3,800.00	3,792.63	3,795.79	3,792.63	13.49	13.22	-90.00	-92.00	50.00	100.00	73.52	26.48	3.777		
3,900.00	3,892.63	3,895.79	3,892.63	13.83	13.58	-90.00	-92.00	50.00	100.00	72.82	27.18	3.680		
4,000.00	3,992.63	3,995.79	3,992.63	14.17	13.93	-90.00	-92.00	50.00	100.00	72.13	27.87	3.588		
4,100.00	4,092.63	4,095.79	4,092.63	14.51	14.28	-90.00	-92.00	50.00	100.00	71.43	28.57	3.500		
4,200.00	4,192.63	4,195.79	4,192.63	14.86	14.64	-90.00	-92.00	50.00	100.00	70.73	29.27	3.416		
4,300.00	4,292.63	4,295.79	4,292.63	15.20	14.99	-90.00	-92.00	50.00	100.00	70.03	29.97	3.336		
4,400.00	4,392.63	4,395.79	4,392.63	15.54	15.34	-90.00	-92.00	50.00	100.00	69.33	30.67	3.260		
4,500.00	4,492.63	4,495.79	4,492.63	15.89	15.70	-90.00	-92.00	50.00	100.00	68.62	31.38	3.187		
4,600.00	4,592.63	4,595.79	4,592.63	16.23	16.05	-90.00	-92.00	50.00	100.00	67.92	32.08	3.117		
4,700.00	4,692.63	4,695.79	4,692.63	16.58	16.41	-90.00	-92.00	50.00	100.00	67.22	32.78	3.051		
4,800.00	4,792.63	4,795.79	4,792.63	16.93	16.76	-90.00	-92.00	50.00	100.00	66.52	33.48	2.986		
4,900.00	4,892.63	4,895.79	4,892.63	17.27	17.12	-90.00	-92.00	50.00	100.00	65.81	34.19	2.925		
			CC - Min	centre to ce	nter dista	nce or cove	rgent point, SF	- min sepa	ration fact	or, ES - m	in ellipse s	eparation		



Anticollision Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well No. 204H
Project:	Eddy County, NM	TVD Reference:	Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Reference Site:	Stebbins Federal 19 (114-124-134-204)	MD Reference:	Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Site Error:	3.30 usft	North Reference:	Grid
Reference Well:	No. 204H	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 De	sign	Stebbin	s Federal	19 (114-124	4-134-204	4) - No. 134	H - OH - Prelir	n Plan A					Offset Site Error:	0.00 usft
Survey Prog	ram: 0-M	IWD - OWSG											Offset Well Error:	1.10 usft
Refer	ence	Offse	ət	Semi Major	Axis				Dista	nce				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (*)	Offset Wellbor +N/-S (usft)	e Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,000.00	4,992.63	4,995.79	4,992.63	17.62	17.47	-90.00	-92.00	50.00	100.00	65.11	34.89	2.866		
5,100.00	5,092.63	5,095.79	5,092.63	17.97	17.83	-90.00	-92.00	50.00	100.00	64.40	35.60	2.809		
5,200.00	5,192.63	5,195.79	5,192.63	18.32	18.18	-90.00	-92.00	50.00	100.00	63.70	36.30	2.754		
5,300.00	5,292.63	5,295.79	5,292.63	18.66	18.54	-90.00	-92.00	50.00	100.00	62.99	37.01	2.702		
5,400.00	5,392.63	5,395.79	5,392.63	19.01	18.89	-90.00	-92.00	50.00	100.00	62.28	37.72	2.651		
5,500.00	5,492.63	5,495.79	5,492.63	19.36	19.25	-90.00	-92.00	50.00	100.00	61.58	38.42	2.603		
5,600.00	5,592.63	5,595.79	5,592.63	19.71	19.61	-90.00	-92.00	50.00	100.00	60.87	39.13	2.555		
5,700.00	5,692.63	5,695.79	5,692.63	20.06	19.96	-90.00	-92.00	50.00	100.00	60.16	39.84	2.510		
5,800.00	5,792.63	5,795.79	5,792.63	20.41	20.32	-90.00	-92.00	50.00	100.00	59.45	40.55	2.466		
5,900.00	5,892.63	5,895.79	5,092.03	20.76	20.67	-90.00	-92.00	50.00	100.00	58.74	41.26	2.424		
6,000.00	5,992.63	5,995.79	5,992.63	21.11	21.03	-90.00	-92.00	50.00	100.00	58.04	41.96	2.383		
6,100.00	6,092.63	6,095.79	0,092.03 6 100 60	21.47	21.39	-90.00	-92.00	50.00	100.00	57.33	42.67	2.343		
6,200,00	0, 192.03 6 202 63	6 205 70	6 292 63	21.02	∠1.74 22.10	-90.00 -90.00	-92.00 -92.00	50.00	100.00	55.02	43.38	2.305		
6,400.00	6.392.63	6.395 79	6,392.63	22.52	22.46	-90.00	-92.00	50.00	100.00	55 20	44.09	2.200		
6,500,00	6 402 63	6 405 79	6 402 63	22.97	22.10	00.00	02.00	50.00	100.00	E4 40	44.00	2 107		
6,500.00	6,492.03	6,495.79	6,492.03	22.07	22.01	-90.00	-92.00	50.00	100.00	52.79	40.01	2.197		
6 700 00	6 692 63	6,695,79	6 692 63	23.58	23.17	-90.00	-92.00	50.00	100.00	53.78	40.22	2.104		
6.800.00	6,792.63	6,795,79	6,792.63	23.93	23.88	-90.00	-92.00	50.00	100.00	52.36	47.64	2.099		
6,900.00	6,892.63	6.895.79	6,892.63	24.28	24.24	-90.00	-92.00	50.00	100,00	51.65	48.35	2.068		
	-,													
7,000.00	6,992.63	6,995.79	6,992.63	24.63	24.60	-90.00	-92.00	50.00	100.00	50.94	49.06	2.038		
7,100.00	7,092.63	7,095.79	7,092.63	24.99	24.95	-90.00	-92.00	50.00	100.00	50.23	49.77	2.009		
7,200.00	7,192.63	7,195.79	7,192.63	25.34	25.31	-90.00	-92.00	50.00	100.00	49.51	50.49	1.981		
7,300.00	7 302 63	7,295.79	7 302 63	20.09	25.67	-90.00	-92.00	50.00	100.00	40.00	51.20	1.903		
7,400.00	7,392.03	7,353.75	7,002.00	20.00	20.02	-30.00	-92.00	50.00	100.00	40.09	51.51	1.520		
7,500.00	7,492.63	7,495.79	7,492.63	26.40	26.38	-90.00	-92.00	50.00	100.00	47.38	52.62	1.900		
7,600.00	7,592.63	7,595.79	7,092.00	20.75	20.74	-90.00	-92.00	50.00	100.00	40.07	53.33	1.875		
7,700.00	7,092.03	7,095.79	7,092.03	27.11	27.09	-90.00	-92.00	50.00	100.00	45.90	54.04	1,000		
7,900.00	7.892.63	7 895 79	7.892.63	27.82	27.81	-90.00	-92.00	50.00	100.00	44.53	55 47	1.820		
	.,													
8,000.00	7,992.63	7,995.79	7,992.63	28.17	28.17	-90.00	-92.00	50.00	100.00	43.82	56.18	1.780		
8,100.00	8,092.63	8,095.79	8,092.63	28.53	28.52	-90.00	-92.00	50.00	100.00	43.11	56.89	1.758		
8,200.00	0,192.03	8,195.79	0,192.00 8 202.63	20.00 20.23	20.00	-90.00	-92.00	50.00	100.00	42.40	57.00	1.730		
8,300.00	8 392 63	8 395 79	8 392 63	29.23	29.60	-90.00	-92.00	50.00	100.00	41.00	59.03	1.715		
61100.00	0,002.00	0,000.12			20100		02.00	00.00	100.00	10101	00.00	1.001		
8,410.49	8,403.12	8,406.28	8,403.12	29.63	29.63	-90.00	-92.00	50.00	100.00	40.89	59.11	1.692		
8,500.00	8,492.63	8,493.47	8,490.31	29.94	29.94	-90.00	-92.00	49.85	100.18	40.48	59.70	1.678 SF	2	
8,600.00	8,592.63	8,577.66	8,574.03	30.30	30.23	-90.00	-92.00	41.72	109.86	50.39	59.48	1.847		
8,700.00	8,692.63	8,657.85	0,001.04	30.05	30.49	-90.00	-92.00	22.67	133.70	111 20	58.19	2.298		
8,800.00	8,792.52	8,732.41	0,721.10	31.00	30.74	0.00	-92.00	-4.64	167.39	111.32	56.07	2.985		
8,900.00	8,890.54	8,800.00	8,780.49	31.32	30.96	0.00	-92.00	-36.98	198.01	145.49	52.52	3.770		
9,000.00	8,983.74	8,875.17	8,841.46	31.62	31.23	0.00	-92.00	-80.86	223.68	173.93	49.75	4.496		
9,100.00	9,069.29	8,950.00	0,892.93	31.92	31.53	0.00	-92.00	-132.08	244,41	197.79	46.62	5.243		
9,200.00	9,144.59	9,013.19	0,930.40 0,73.73	32.20	31.83	0.00	-92.00	-180.57	259.65	218.28	41.37	5.2//		
9,300.00	9,207.30	9,081.22	0,913.13	32.09	32.21	0.00	-92.00	-237.40	269.49	232.14	30.75	7.334		
9,400.00	9,255.68	9,150.00	9,004.35	33.27	32.68	0.00	-92.00	-298.94	273.73	241.45	32.28	8.479		
9,500.00	9,288.09	9,216.63	9,026.78	34.04	33.23	0.00	-92.00	-361.64	272.33	244.48	27.85	9.779		
9,600.00	9,303.61	9,284.48	9,041.99	35.01	33.87	0.00	-92.00	-427.72	265.31	240.85	24.46	10.848		
9,700.00	9,304.96 0,304.06	9,350.00	9,049.10 9.040.06	30.10	34.58	0.00	-92.00	-492.81	255.96	233.40	22.56	11.348		
9,600.00	9,304.96	9,440.80	9,049.90	37.51	33.71	0.00	-92.00	-583.60	255.00	232.08	22.92	11.127		

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



Anticollision Report



Company: Project:	Matador Resources Eddy County, NM	Local Co-ordinate Reference: TVD Reference:	Well No. 204H Well @ 3270.50usft (GL: 3242' + KB: 28.5'
Reference Site:	Stebbins Federal 19 (114-124-134-204)	MD Reference:	(Patt809)) Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Site Error:	3.30 usft	North Reference:	Grid
Reference Well:	No. 204H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.10 usft	Output errors are at	2.00 sigma
Reference Wellbore	ОН	Database:	Well_Planner1
Reference Design:	Prelim Plan A	Offset TVD Reference:	Offset Datum

Offset Des	sign	Stebbin	s Federal	19 (114-124	1-134-204) - No. 134	H - OH - Prelir	n Plan A					Offset Site Error:	0.00 usft
Survey Progr	ram: 0-M	WD - OWSG											Offset Well Error:	1.10 usft
Refere	ence	Offse	et	Semi Major	Axis				Dista	ince				
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbor +N/-S	e Centre +F/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(*)	(usft)	(usft)	(usft)	(usft)	(usft)			
982184	9 304 96	9 462 64	9 049 96	37 84	36.00	0.00	-02.00	-605.44	255.00	231 94	23.06	11 059		
9 900 00	0 304 96	9 540 80	0,040.00	39.04	37 12	0.00	-32.00	-683.60	255.00	231.04	23.57	10.817		
10,000,00	9 304 96	9 640 80	9 049 96	40.72	38.70	0.00	-92.00	-783.60	255.00	230.69	24.32	10.487		
10 100 00	9 304 96	9 740 80	9 049 96	42.55	40.44	0.00	-92.00	-883.60	255.00	229.87	25.13	10 146		
10,200,00	9 304 96	9 840 80	9 049 96	44.50	42.32	0.00	-92.00	-983.60	255.00	228.98	26.02	9 801		
10,200.00	9 304 96	9 940 80	9 049 96	46.56	44.32	0.00	-92.00	-1 083 60	255.00	228.03	26.97	9 4 5 6		
	0,00	0,0 10100					02.00	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
10,400.00	9,304.97	10,040.80	9,049.96	48.72	46.42	0.00	-92.00	-1,183.60	255.00	227.03	27.97	9.116		
10,500.00	9,304.97	10,140.80	9,049.97	50.95	48.62	0.00	-92.00	-1,283.60	255.00	225.97	29.03	8.785		
10,600.00	9,304.97	10,240.80	9,049.97	53.26	50.89	0.00	-92.00	-1,383.60	255.00	224.87	30.13	8.464		
10,700.00	9,304.97	10,340.80	9,049.97	55.63	53.23	0.00	-92.00	-1,483.60	255.00	223.73	31.27	8.155		
10,800.00	9,304.97	10,440.80	9,049.97	58.06	55.64	0.00	-92.00	-1,583.60	255.00	222.56	32.44	7.860		
{														
10,900.00	9,304.97	10,540.80	9,049.97	60.54	58.09	0.00	-92.00	-1,683.60	255.00	221.35	33.65	7.578		
11,000.00	9,304.97	10,640.80	9,049.97	63.05	60.59	0.00	-92.00	-1,783.60	255.00	220.11	34.89	7.309		
11,100.00	9,304.97	10,740.80	9,049.97	65.61	63.14	0.00	-92.00	-1,883.60	255.00	218.85	36.15	7.053		
11,200.00	9,304.97	10,840.80	9,049.97	68.20	65.72	0.00	-92.00	-1,983.60	255.00	217.56	37.44	6.811		
11,300.00	9,304.97	10,940.80	9,049.97	70.82	68.33	0.00	-92.00	-2,083.60	255.00	216.25	38.75	6.581		
11 400 00	0 304 08	11 040 80	0 0/0 07	73 /7	70.07	0.00	02.00	2 193 60	255.00	21/ 03	40.07	6 364		
11,500.00	9,304.30	11 140 80	0,040.07	76.14	73.63	0.00	-92.00	-2,105.00	255.00	214.55	40.07	6 157		
11,500.00	9,304.90	11 240 80	9,049,98	78.83	76.32	0.00	-92.00	-2,203.00	255.00	210.00	42 77	5 962		
11,000.00	0,304.00	11 340 80	0,040.00	81 55	79.02	0.00	-92.00	-2,000.00	255.00	210.85	44 15	5 776		
11 800 00	9 304 98	11 440 80	9.049.98	84.28	81 75	0.00	-92.00	-2,583.60	255.00	209.47	45.53	5 601		
	0,004.00	11,440.00	0,0 10.00	04.20	01.70	0.00	02.00	2,000.00	200.00	200.17	10100	0.001		
11,900.00	9,304.98	11,540.80	9,049.98	87.02	84.50	0.00	-92.00	-2,683.60	255.00	208.07	46.93	5.434		
12,000.00	9,304.98	11,640.80	9,049.98	89.78	87.25	0.00	-92.00	-2,783.60	255.00	206.67	48.34	5.276		
12,100.00	9,304.98	11,740.80	9,049.98	92.56	90.03	0.00	-92.00	-2,883.60	255.00	205.25	49.75	5.125		
12,200.00	9,304.98	11,840.80	9,049.98	95.34	92.81	0.00	-92.00	-2,983.60	255.00	203.82	51.18	4.983		
12,300.00	9,304.98	11,940.80	9,049.98	98.14	95.61	0.00	-92.00	-3,083.60	255.00	202.39	52.61	4.847		
12,400.00	9,304.98	12,040.80	9,049.98	100.94	98.41	0.00	-92.00	-3,183.60	255.00	200.95	54.05	4.717		
12,500.00	9,304.99	12,140.80	9,049.99	103.76	101.23	0.00	-92.00	-3,283.60	255.00	199.50	55.50	4.594		
12,600.00	9,304.99	12,240.80	9,049.99	106.58	104.05	0.00	-92.00	-3,383.60	255.00	198.04	56.96	4.477		
12,700.00	9,304.99	12,340.80	9,049.99	109.42	106.89	0.00	-92.00	-3,483.60	255.00	196.58	58.42	4.365		
12,800.00	9,304.99	12,440.80	9,049.99	112.26	109.73	0.00	-92.00	-3,583.60	255.00	195.11	59.89	4.258		
12,900.00	9.304.99	12.540.80	9.049.99	115.10	112.57	0.00	-92.00	-3.683.60	255.00	193.64	61.36	4,156		
13.000.00	9.304.99	12,640,80	9.049.99	117.96	115.42	0.00	-92.00	-3.783.60	255.00	192.17	62.83	4.058		
13,100.00	9,304,99	12,740.80	9,049,99	120.81	118.28	0.00	-92.00	-3.883.60	255.00	190.69	64.31	3.965		
13,200.00	9,304.99	12,840.80	9,049.99	123.68	121.15	0.00	-92.00	-3,983.60	255.00	189.20	65.80	3.875		
13,300.00	9,304.99	12,940.80	9,049.99	126.55	124.02	0.00	-92.00	-4,083.60	255.00	187.71	67.29	3.790		
13,400.00	9,304.99	13,040.80	9,049.99	129.42	126.89	0.00	-92.00	-4,183.60	255.00	186.22	68.78	3.707		
13,500.00	9,305.00	13,140.80	9,050.00	132.30	129.77	0.00	-92.00	-4,283.60	255.00	184.72	70.28	3.629		
13,600.00	9,305.00	13,240.80	9,050.00	135.18	132.65	0.00	-92.00	-4,383.60	255.00	183.22	71.78	3.553		
13,700.00	9,305.00	13,340.80	9,050.00	138.06	135.54	0.00	-92.00	-4,483.60	255.00	181.72	73.28	3.480		
13,800.00	9,305.00	13,440.80	9,050.00	140.95	138.43	0.00	-92.00	-4,583.60	255.00	180.22	74.78	3.410		
12 000 07	0.005.00	40 540 55	0.050.00	440.07	444.00	0.00	00.00		055.00	470 74	70.00	0.045		
13,900.00	9,305.00	13,540.80	9,050.00	143.85	141.33	0.00	-92.00	-4,683.60	255.00	178.71	76.29	3.343		
13,961.97	9,305.00	13,602.77	9,050.00	145.64	143.12	0.00	-92.00	-4,745.57	255.00	1//./8	77.22	3.302		
13,881.41	9,305.00	13,032.20	9,050.00	140.49	143.97	0.00	-92.00	-4,775.00	255.00	177.33	11.67	3.283		

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



Anticollision Report



Company:	Matador Resources
Project:	Eddy County, NM
Reference Site:	Stebbins Federal 19 (114-124-134-204)
Site Error:	3.30 usft
Reference Well:	No. 204H
Well Error:	1.10 usft
Reference Wellbore	OH
Reference Design:	Prelim Plan A

Local Co-ordinate Reference: TVD Reference:

MD Reference:

North Reference: Survey Calculation Method: Output errors are at Database: Offset TVD Reference: Well No. 204H Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809)) Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809)) Grid Minimum Curvature 2.00 sigma Well_Planner1 Offset Datum

Reference Depths are relative to Well @ 3270.50usft (GL: 3242' + KB: Offset Depths are relative to Offset Datum Central Meridian is 104° 20' 0.000 W Coordinates are relative to: No. 204H Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30 Grid Convergence at Surface is: 0.12°





Anticollision Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well No. 204H
Project:	Eddy County, NM	TVD Reference:	Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Reference Site:	Stebbins Federal 19 (114-124-134-204)	MD Reference:	Well @ 3270.50usft (GL: 3242' + KB: 28.5' (Patt809))
Site Error:	3.30 usft	North Reference:	Grid
Reference Well:	No. 204H	Survey Calculation Method:	Minimum Curvature
Well Error:	1.10 usft	Output errors are at	2.00 sigma
Reference Wellbore	ОН	Database:	Well_Planner1
Reference Design:	Prelim Plan A	Offset TVD Reference:	Offset Datum

Reference Depths are relative to Well @ 3270.50usft (GL: 3242' + KB: Offset Depths are relative to Offset Datum Central Meridian is 104° 20' 0.000 W Coordinates are relative to: No. 204H 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



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
 - o Green Flag Normal Safe Operation Condition
 - o 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 <u>Communication:</u>

- 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. 19, T20S, R29E, Eddy County, NM

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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	
<u>Santa Fe</u>			
New Mexico Emergency Response Con	nmission (Santa Fe)	505-476-9600	
New Mexico Emergency Response Con	nmission (Santa Fe) 24 hrs	505-827-9126	
New Mexico State Emergency Operation	ons Center	505-476-9635	
National			
Carlsbad BLM		575-234-5972	
National Emergency Response Center (Washington, D.C.)	800-424-8802	1
Medical			
Flight for Life- 4000 24th St.; Lubbock,	ТХ	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 Loo	op 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







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



ORIGINAL DOCUMENT SIZE: 8.5" X 11"

S:\SURVEY!MATADOR_RESOURCES\STEBBINS_FEDERAL_19-20S-29E_AH_204H\FINAL_PRODUCTS\LO_STEBBINS_FEDERAL_19-20S-29E_AH_204H_REV1.DWG 6/23/2016 2:10:19 PM mlewin

Matador Production Company Stebbins 19 Fed 204H SHL 420' FSL & 130' FEL Sec. 19 BHL 330' FSL & 240' FWL Sec. 19 T. 20 S., R. 29 E., Eddy County, NM

Surface Use Plan

1. <u>ROAD DIRECTIONS & DESCRIPTIONS</u> (See MAPS 1–5)

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 4636.41' cross-country to the proposed pad (length includes crossing 2 proposed Matador Stebbins well pads for 430' each)

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.

2. <u>ROAD TO BE BUILT OR UPGRADED</u> (See MAPS 2-5)

A BLM approved archaeologist will fence a cultural resource site along the road and monitor initial construction. The 4636.41' 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°



Matador Production Company Stebbins 19 Fed 204H SHL 420' FSL & 130' FEL Sec. 19 BHL 330' FSL & 240' FWL Sec. 19 T. 20 S., R. 29 E., Eddy County, NM

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 & 8-11)

A tank battery will be built on the west side of the pad. A \approx 6" O. D. steel gas line will be buried 4783.40' 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 4996.90' 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. <u>WATER SUPPLY</u> (See MAPS 1–5)

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

6. <u>CONSTRUCTION MATERIALS & METHODS</u> (See MAP 6)

NM One Call (811) will be notified before construction starts. Top \approx 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 Constructors, Inc. existing pit on private land in NWNE 34-21s-27e.



Matador Production Company Stebbins 19 Fed 204H SHL 420' FSL & 130' FEL Sec. 19 BHL 330' FSL & 240' FWL Sec. 19 T. 20 S., R. 29 E., Eddy County, NM

7. WASTE DISPOSAL

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

8. ANCILLARY FACILITIES

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

9. WELL SITE LAYOUT

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

10. RECLAMATION

Interim reclamation will consist of shrinking the pad $\approx 25\%$ by removing caliche and reclaiming the south side (110' x 360'), leaving 2.74 acres around the production equipment. Disturbed areas will be contoured to match preconstruction 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.



Matador Production Company Stebbins 19 Fed 204H SHL 420' FSL & 130' FEL Sec. 19 BHL 330' FSL & 240' FWL Sec. 19 T. 20 S., R. 29 E., Eddy County, NM

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.

These Lone Mountain archaeology reports cover the project from north to south: NMCRIS 136767 (October 21, 2016) NMCRIS 136774 (October 21, 2016) NMCRIS 136745 (September 23, 2016)



Matador Production Company Stebbins 19 Fed 204H SHL 420' FSL & 130' FEL Sec. 19 BHL 330' FSL & 240' FWL Sec. 19 T. 20 S., R. 29 E., Eddy County, NM

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 <u>1st</u> day of <u>November, 2016</u>.

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.:	204H-Stebbins 19 Fed
SURFACE HOLE FOOTAGE:	420'/S & 130'/E
BOTTOM HOLE FOOTAGE	330'/S & 240'/W
LOCATION:	Section 19, 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 <u>8 hours</u>. 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 <u>REQUIRED IN HIGH CAVE/KARST AREAS.</u> 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 2^{nd} 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 1180 feet (Top of Capitan Reef at 1230 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 should tie-back at least 200 feet into previous casing. Operator shall provide method of verification. Excess calculated to -46%. 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**.
- 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. <u>After the 9 5/8" casing has been landed and cemented, the</u> 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 05022017

DRILL PLAN PAGE 3

Matador Production Company Stebbins 19 Fed 204H SHL 420' FSL & 130' FEL Sec. 19 BHL 330' FSL & 240' FWL Sec. 19 T. 20 S., R. 29 E., Eddy County, NM

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. Manufacturer does not require the hose 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.	тос	Weight (lb/ft)	Grade	Thread Collar
26"	400'	Surface	20"	GL	94	K-55	втс
17.5"	1200'	Intermediate 1	13.375"	GL	54.5	J-55	втс
12.25"	3100'	Intermediate 2	9.625"	GL	40	J-55	втс
8.75"	0'-3000''',	Intermediate 3	7.625"		29.7	P-110	втс
	3000-8689'		7.625″	,2100' 1180'	29.7	P-110	Hydril 513
	8689'-9639'		7″		29	P-110	втс
6.125″	0'-8589'	Production	5.5″	8639'	20	P-110	Tenaris XP
	8589'-13991'		4.5″		13.5	P-110	Tenaris XP



PERMITS WEST

PECOS DISTRICT SURFACE USE CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Matador Production Company
LEASE NO.:	NMNM03677
WELL NAME & NO.:	204H-Stebbins 19 Fed
SURFACE HOLE FOOTAGE:	420'/S & 130'/E
BOTTOM HOLE FOOTAGE	330'/S & 240'/W
LOCATION:	Section 19, T.20 S., R.29 E., NMPM
COUNTY:	Eddy County, New Mexico

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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.

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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. <u>No pits are allowed</u>.

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 $1\frac{1}{2}$ 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 cavebearing 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.

Two-Track Road Reclamation Requirements

The two track road identified in the "Location Verification Map" in the APD and "Figure 1" in this document must be reclaimed during the same time as the new road construction. Reclamation procedures shall include ripping or disking the two-track road to break up the soil. The edges of the road and roadbed need to be contoured to match the surrounding terrain. The two ends of the portion of two-track road to be reclaimed must be sufficiently barricaded to prevent vehicle traffic on the reclamation.

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: $\underline{400'}_{4\%}$ + 100' = 200' lead-off ditch interval $\underline{4\%}$

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.



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 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, <u>Shale Green</u> 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 <u>et seq.</u> (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, <u>et seq</u>. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, <u>et seq</u>.) 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-ofway.

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 $\underline{30}$ feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed <u>20</u> 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 <u>30</u> 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 <u>6</u> 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. <u>Escape Ramps</u> - 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 <u>et seq</u>. (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, <u>et seq</u>. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, <u>et seq</u>.) 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 <u>no</u> 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	<u>lb/acre</u>
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