Appendix A – Location Maps

Matador Production Company Charlie Sweeney Fed Com 31-23S-28E 123H SHL 190' FSL & 2220' FEL Sec. 31, T. 23 S., R. 28 E. BHL 240' FNL & 1980' FEL Sec. 31, T. 23 S., R. 28 E. Eddy County, NM

Surface Use Plan

1. <u>ROAD DIRECTIONS & DESCRIPTIONS</u> (See MAPS 1 – 4)

From the gas stations in Loving, NM...

Go South 1.0 mile on US 285 to a substation

Then turn right onto paved County Road 716 and continue South 0.4 mile Turn right at a transfer station and go West 2.05 mi. on paved County Rd. 763 Then turn left and go South & SE 0.35 mile on a caliche road to a valve station Then turn left at the valve station and go Southeast 1082.28' cross-country Then turn left and go East ½ mile on an existing road

Then turn right and go South 319.52' cross-country to the proposed pad

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

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

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

All of the road (3/4 mile) from the valve station to the pad will be crowned, have a 14' wide driving surface, and be surfaced with caliche. Maximum disturbed width = 20'. Maximum grade = 2%. Maximum cut or fill = 1'. A cattle guard will be installed in the existing fence. No culvert or vehicle turn out is needed.



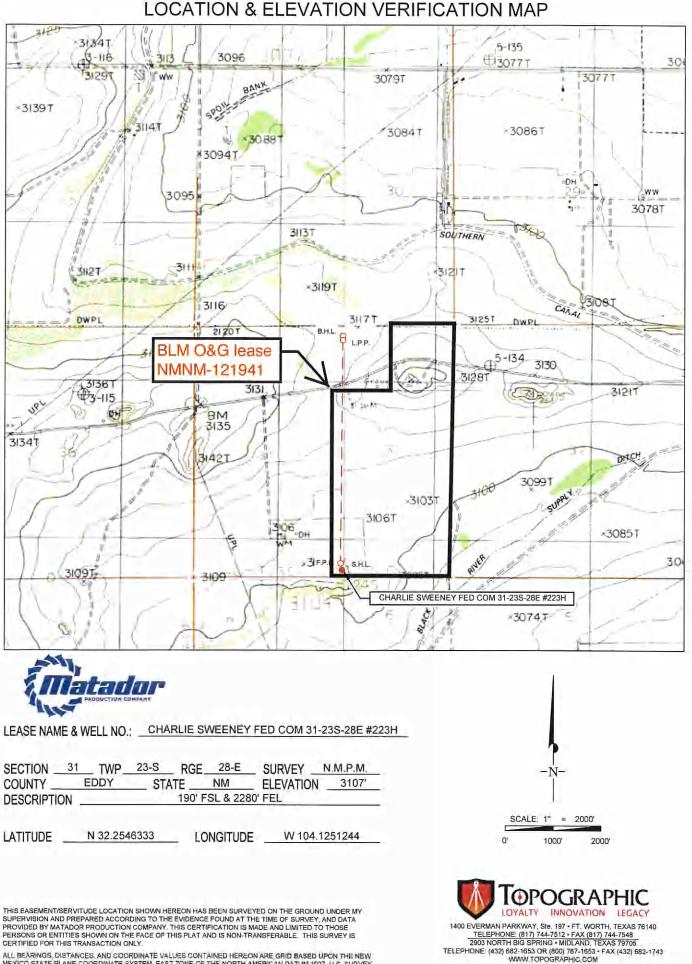


Figure 1. Access road looking east.



Figure 2. Looking northwest from access road.

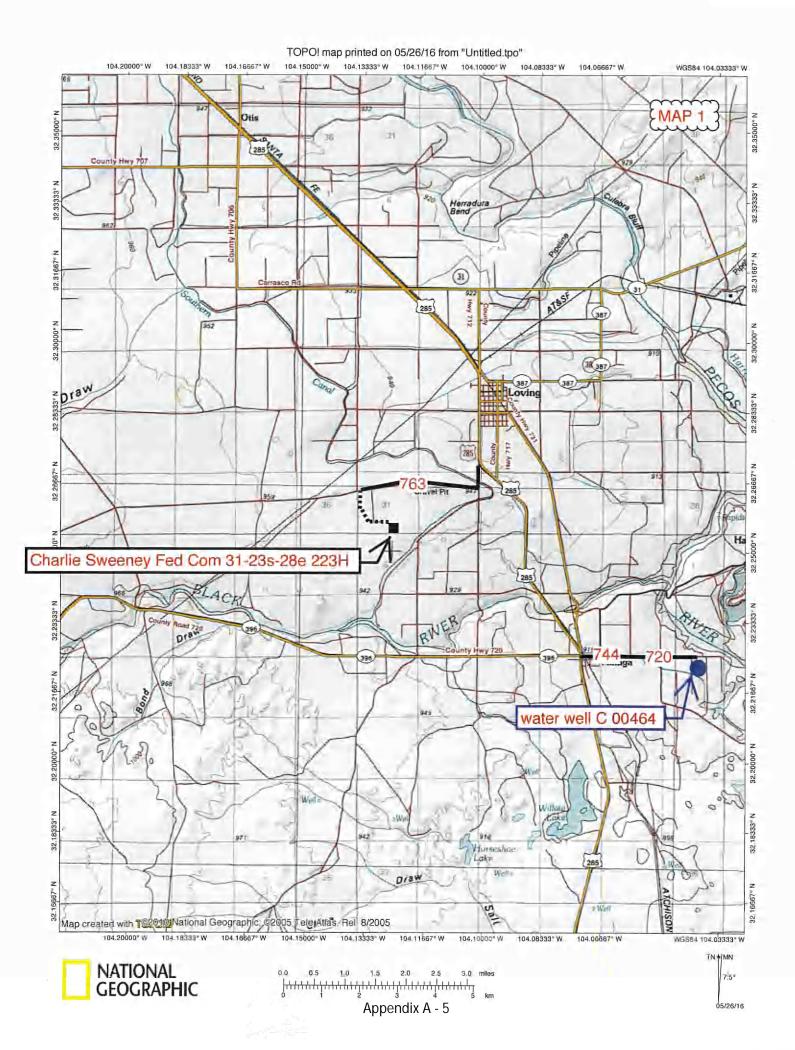
West Pad: Charlie Sweeney Federal RB 31-23S-28E 123H, 203H, 207H, 223H, and 227H wells

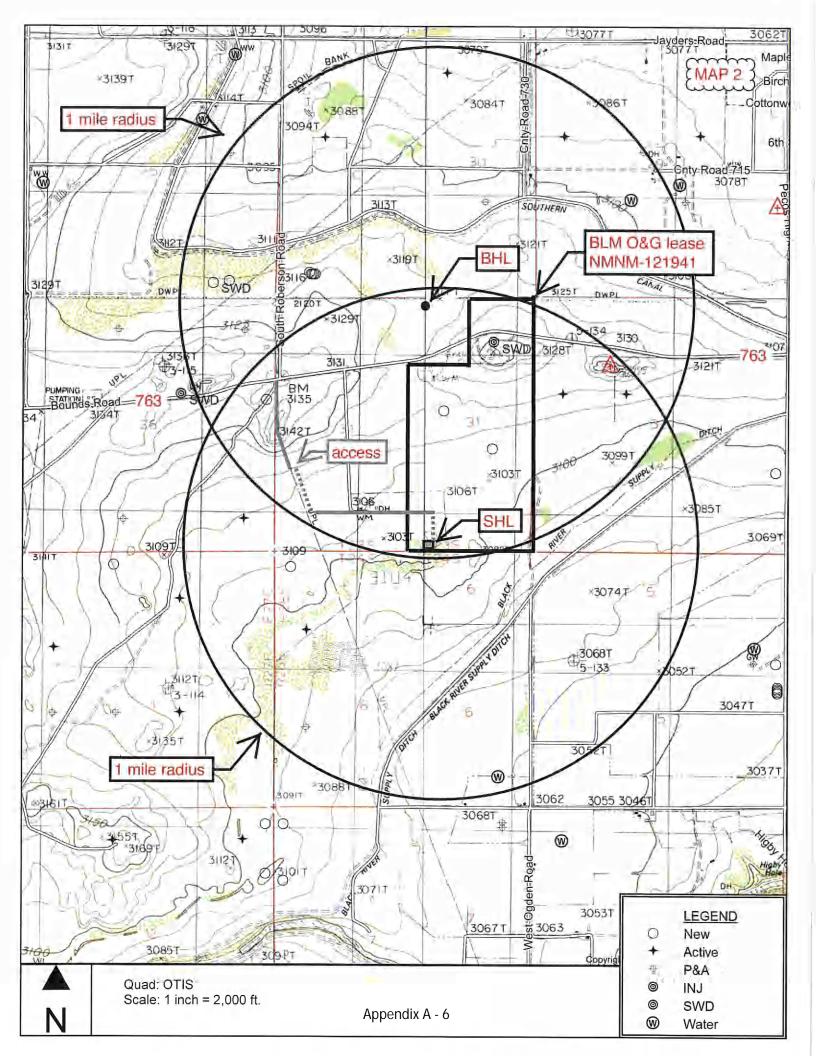


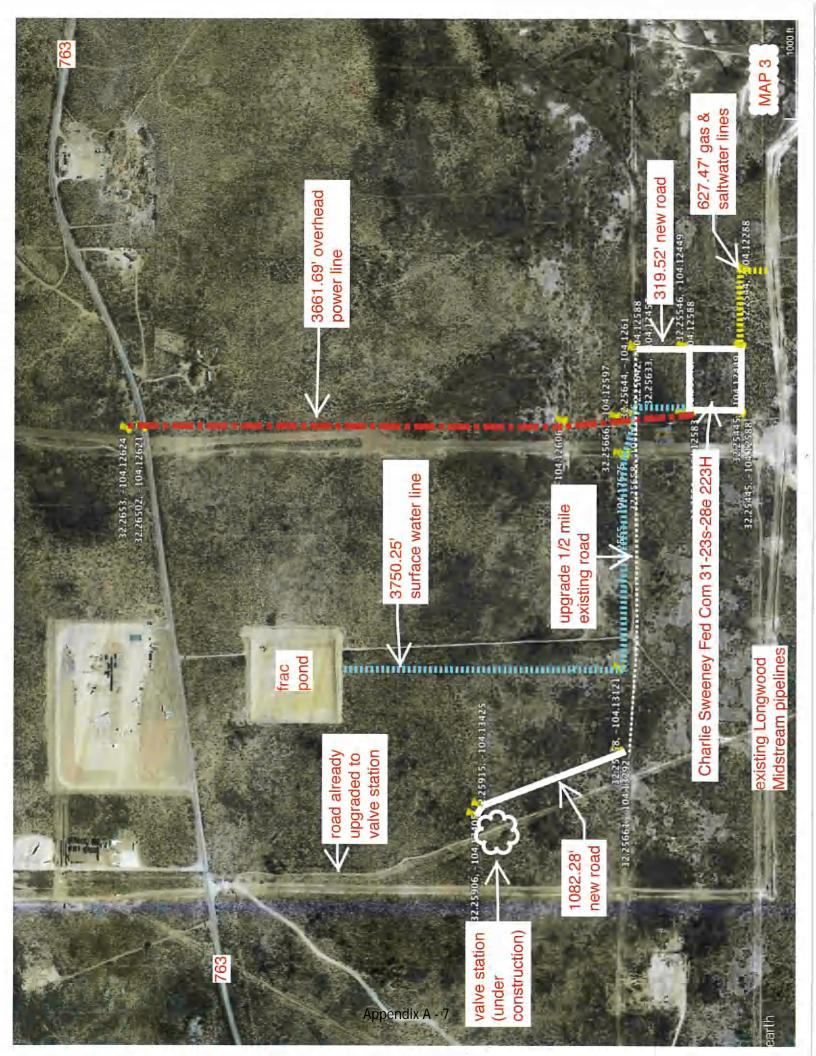
ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE OF THE NORTH AMERICAN DATUM 1927, U.S. SURVEY FEET.

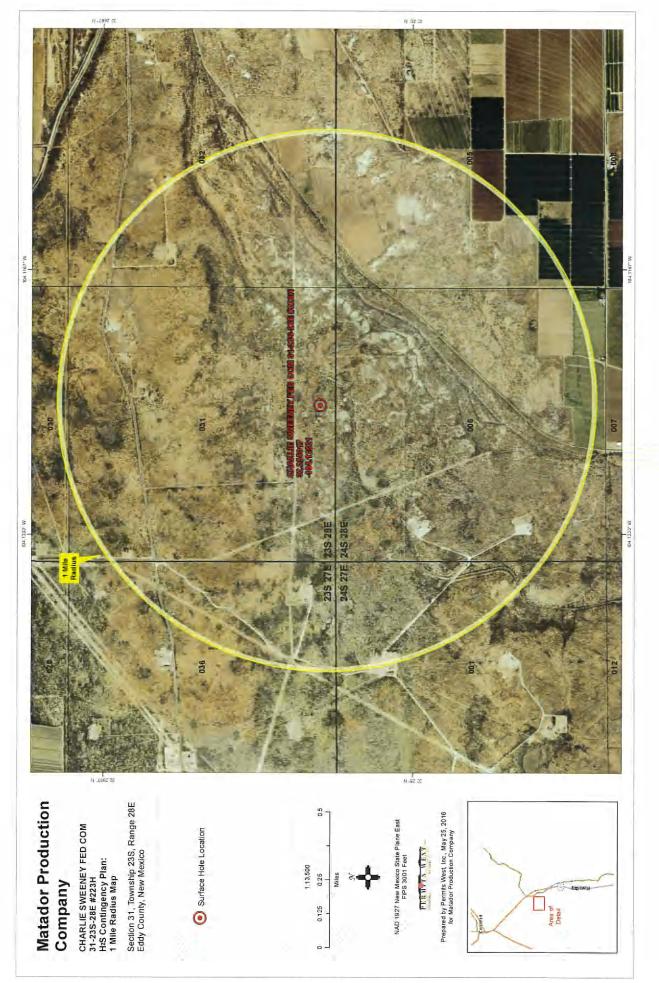
Appendix A - 4

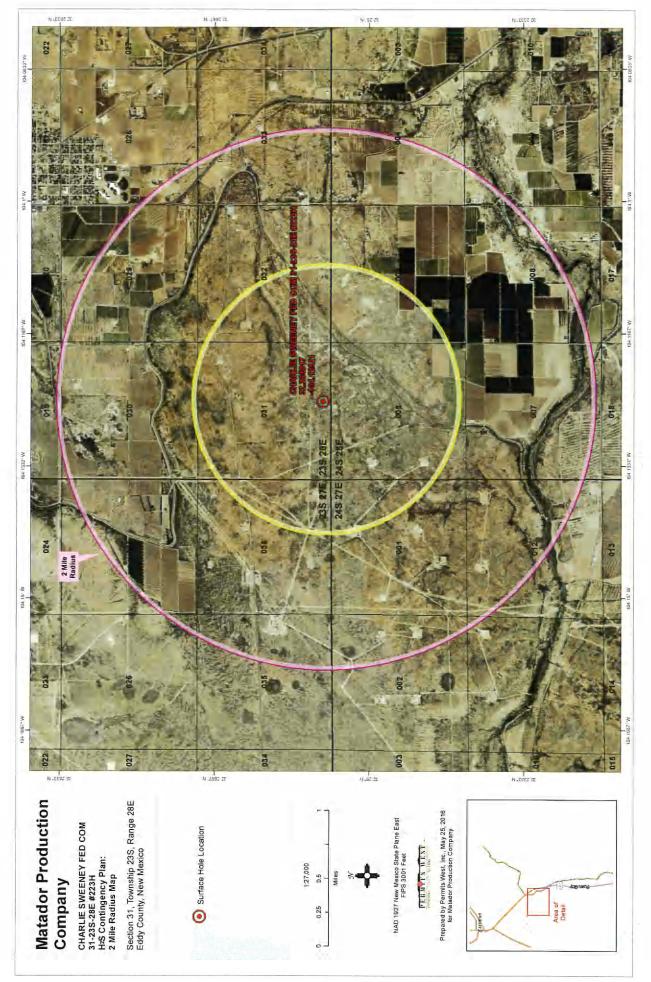
8 SURVEYMATADOR_RESOURCESICHARLIE_SWEENEY_FED_COM_31-239-28E_223H;FINAL_PRODUCTS/LO_CHARLIE_SWEENEY_FED_COM_31-238-28E_223H;REV3.DWG 4/27/2016 8:15:53 PM jstovall











West Pad: Charlie Sweeney Federal RB 31-23S-28E 123H, 203H, 207H, 223H, and 227H wells

Matador Production Company Charlie Sweeney Fed Com 31-23S-28E 123H SHL 190' FSL & 2220' FEL Sec. 31, T. 23 S., R. 28 E. BHL 240' FNL & 1980' FEL Sec. 31, T. 23 S., R. 28 E. Eddy County, NM

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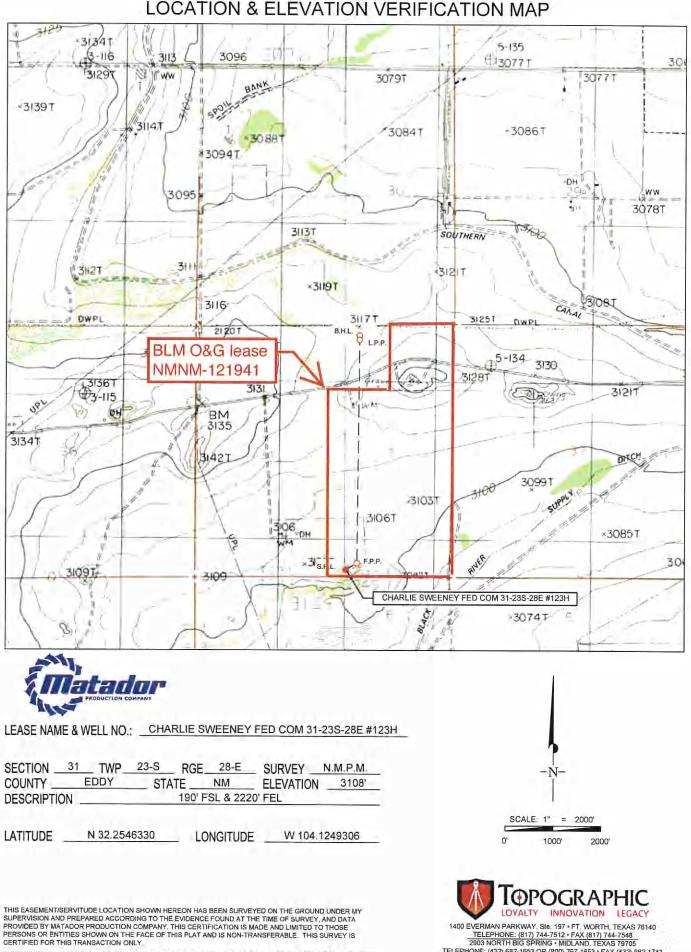
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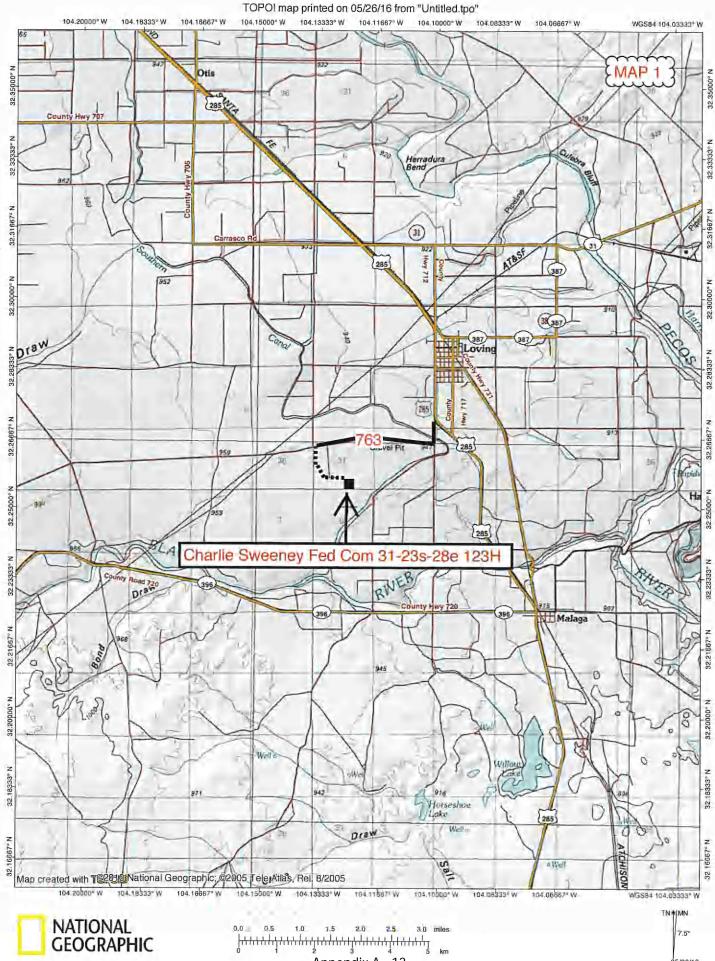
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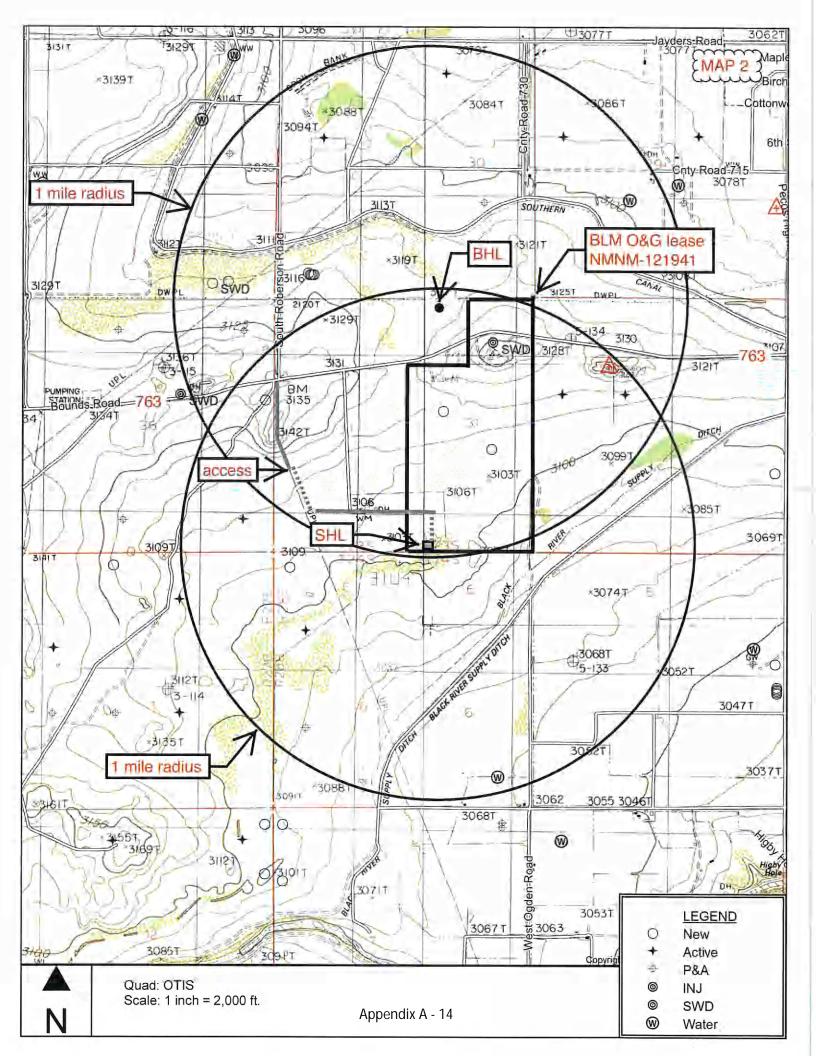
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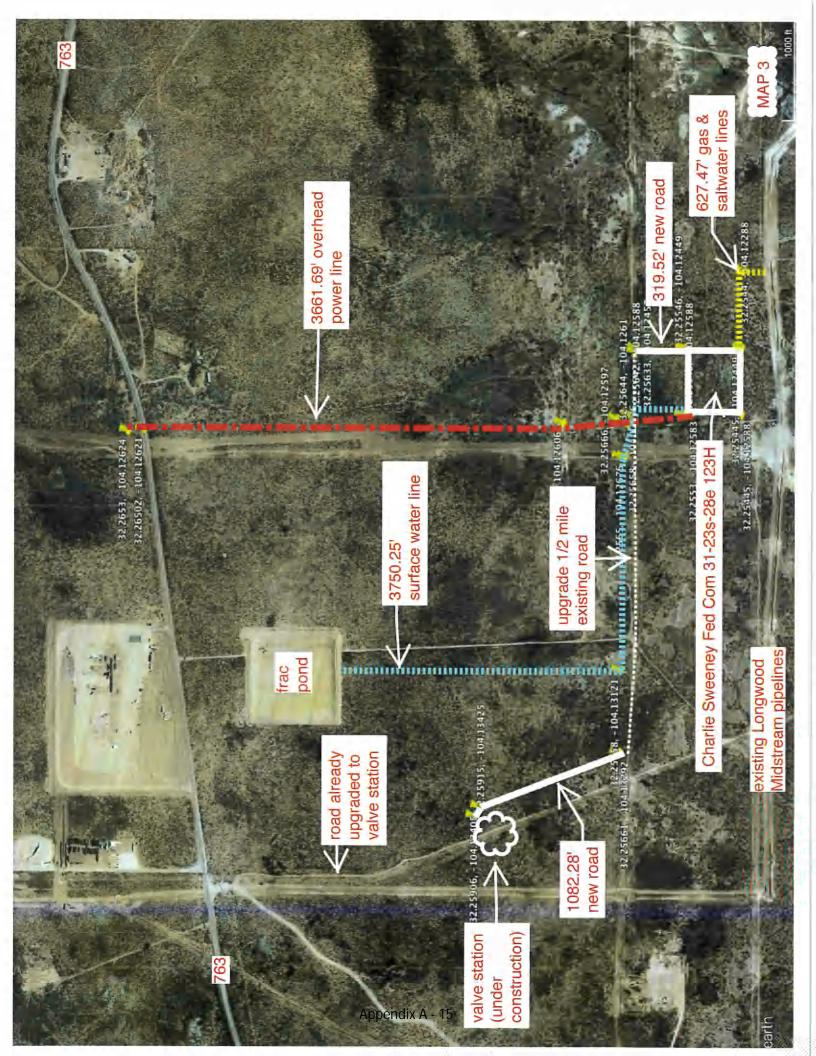
IS TELEPHONE: (817) 744-7512 * FAX (817) 744-7548 2903 NORTH BIG SPRING * MIDLAND, TEXAS 79705 E NEW TELEPHONE: (432) 682-1653 OR (800) 767-1653 * FAX (432) 682-1743 URVEY WWW.TOPOGRAPHIC COM

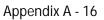


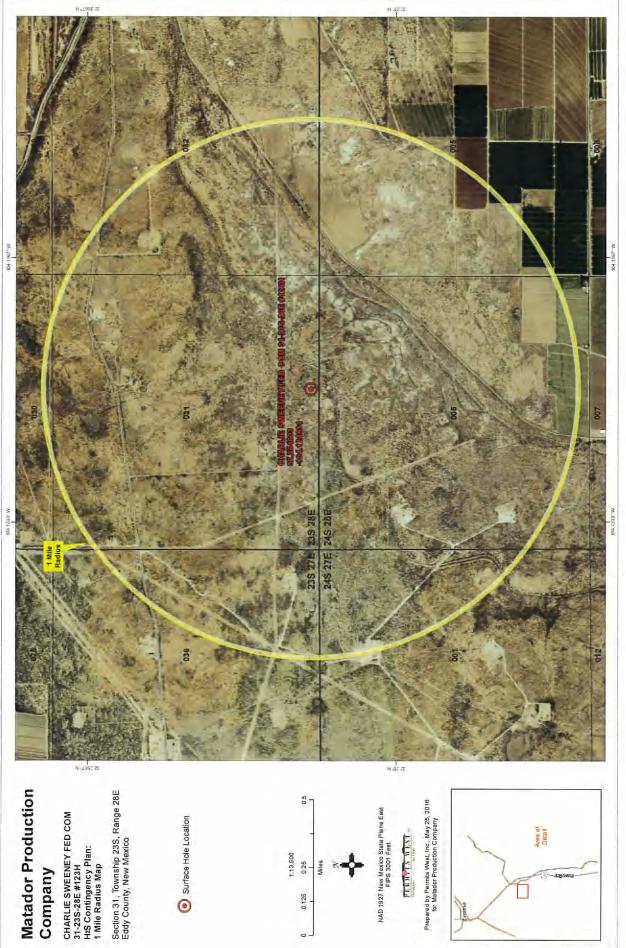
Appendix A - 13

05/26/16

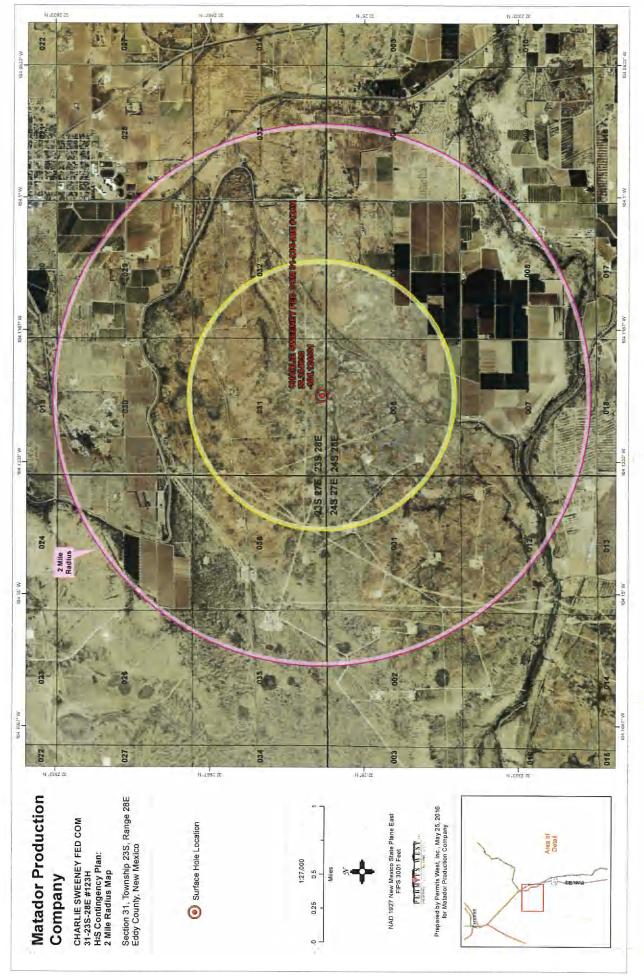




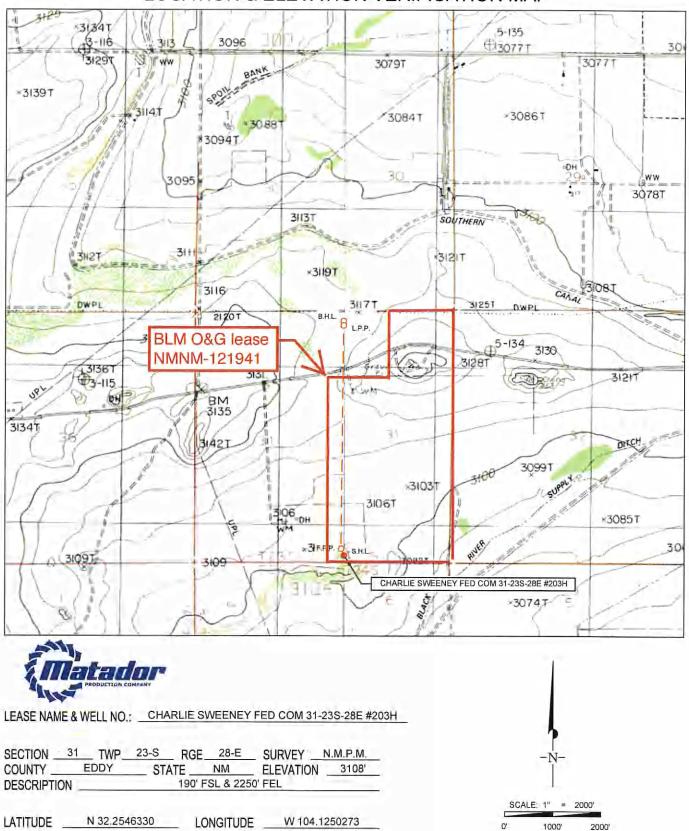




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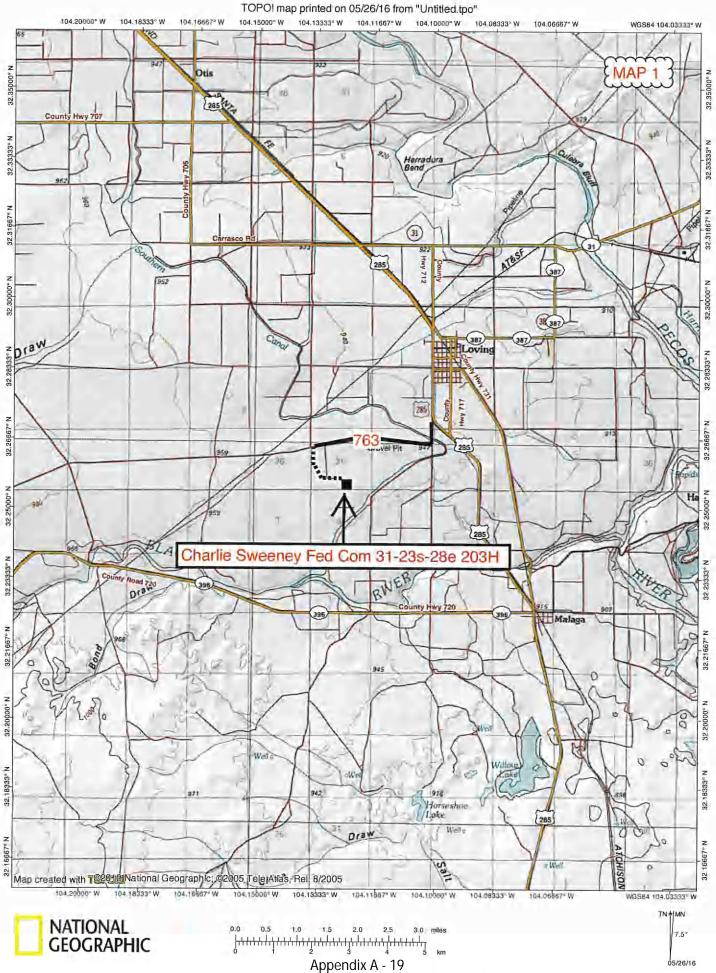
LOCATION & ELEVATION VERIFICATION MAP

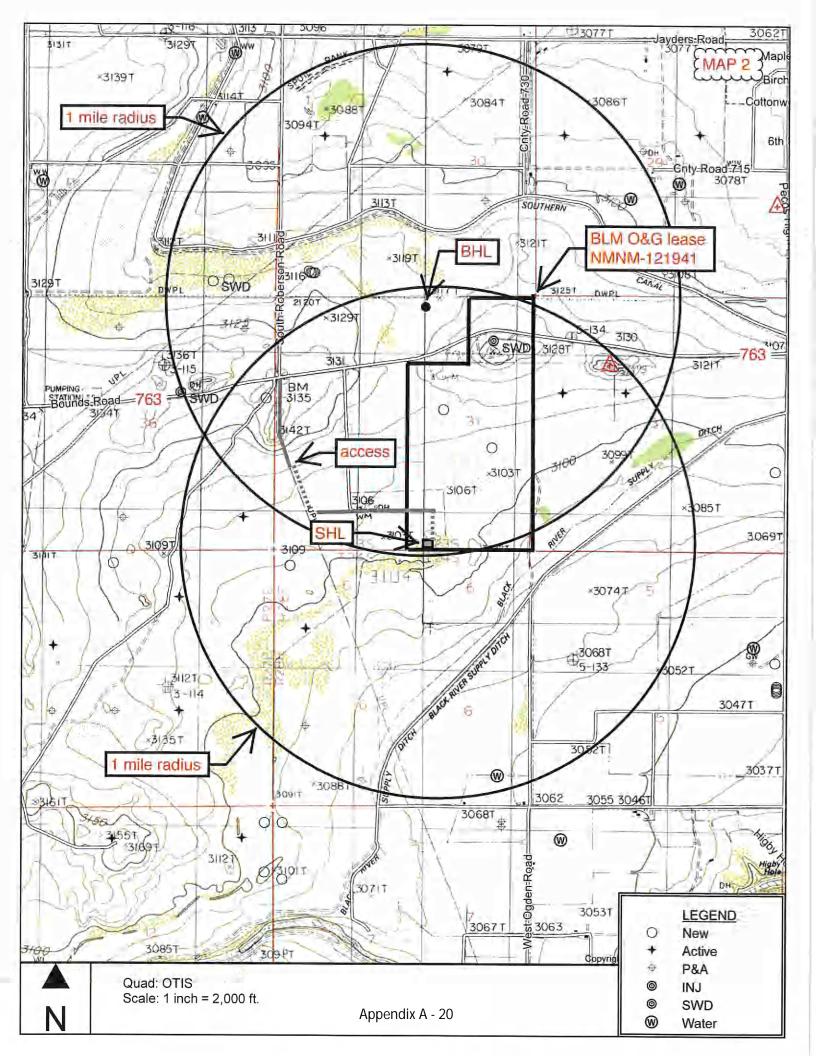


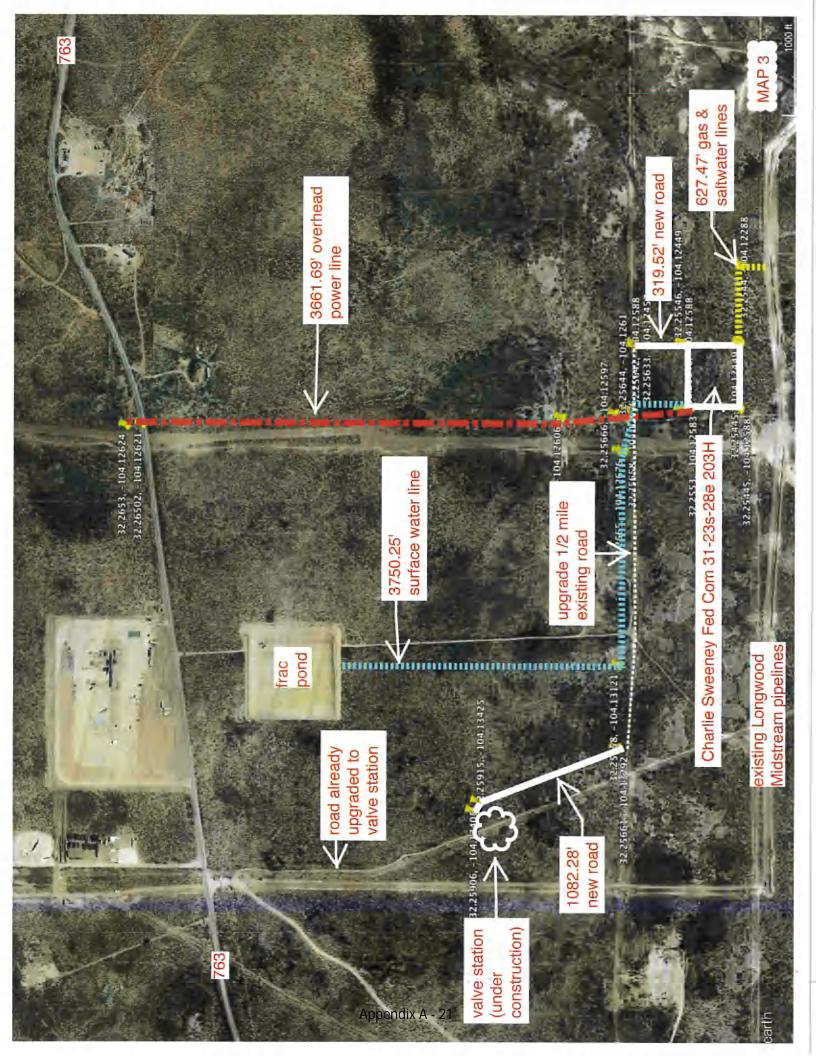
THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY MATADOR PRODUCTION COMPANY. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE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

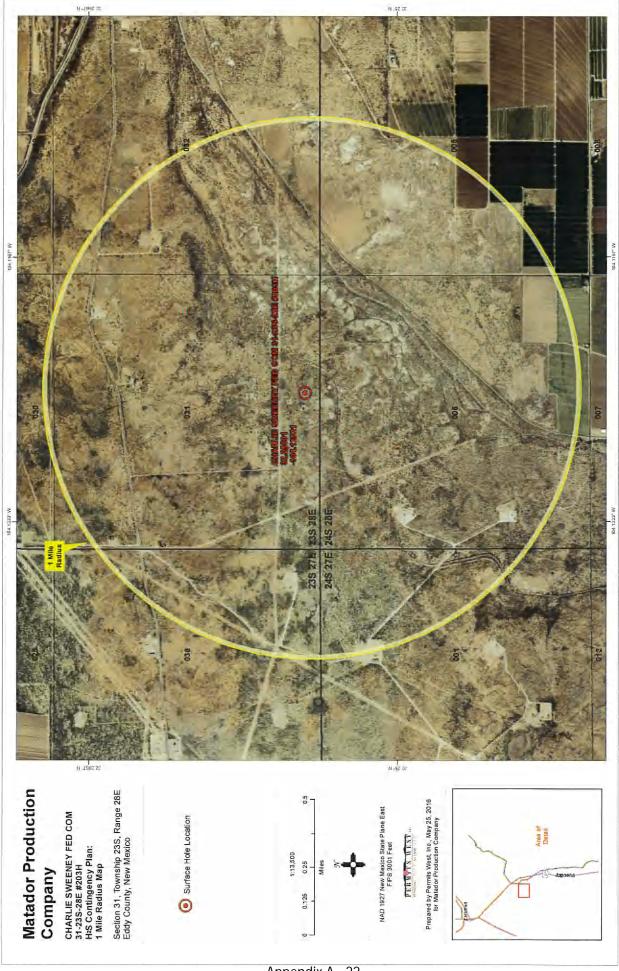
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Appendix A - 18

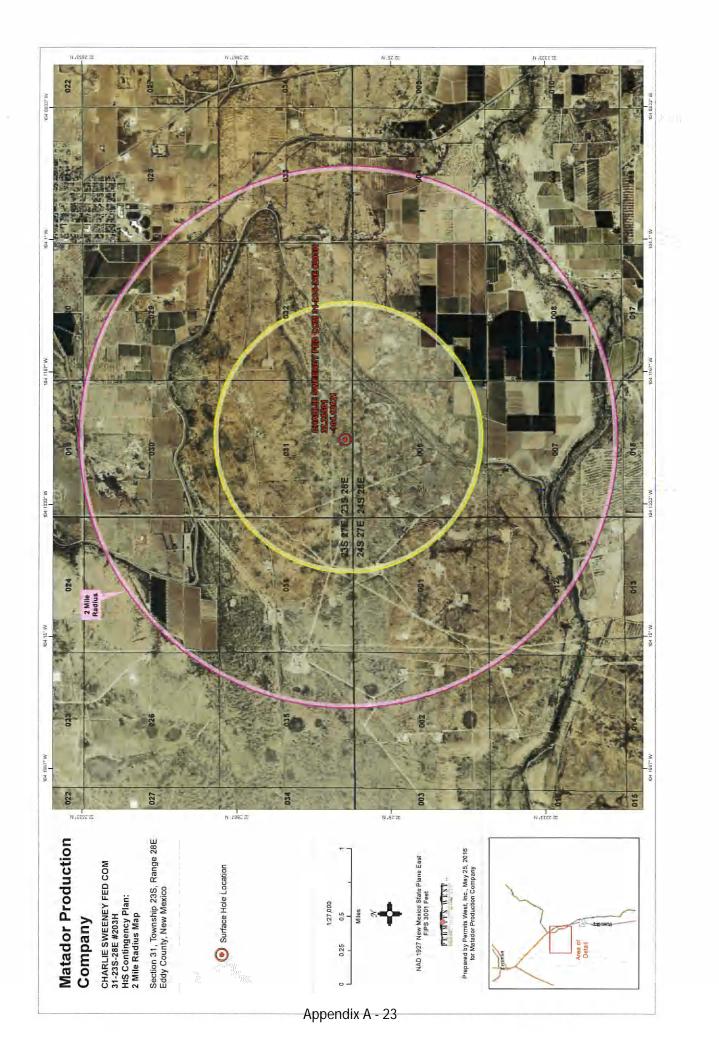


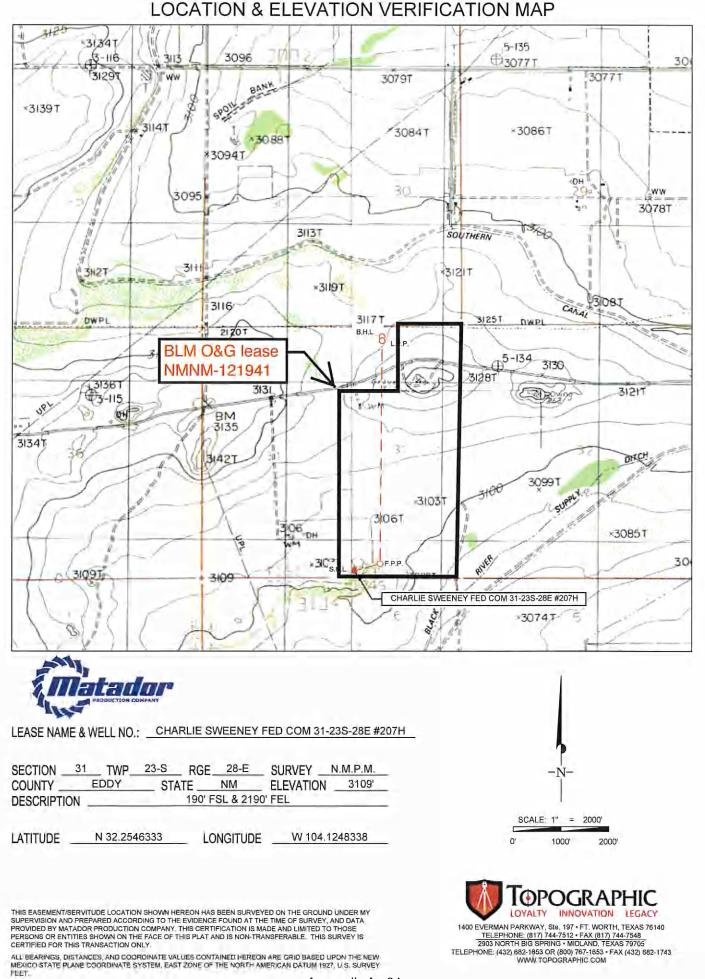






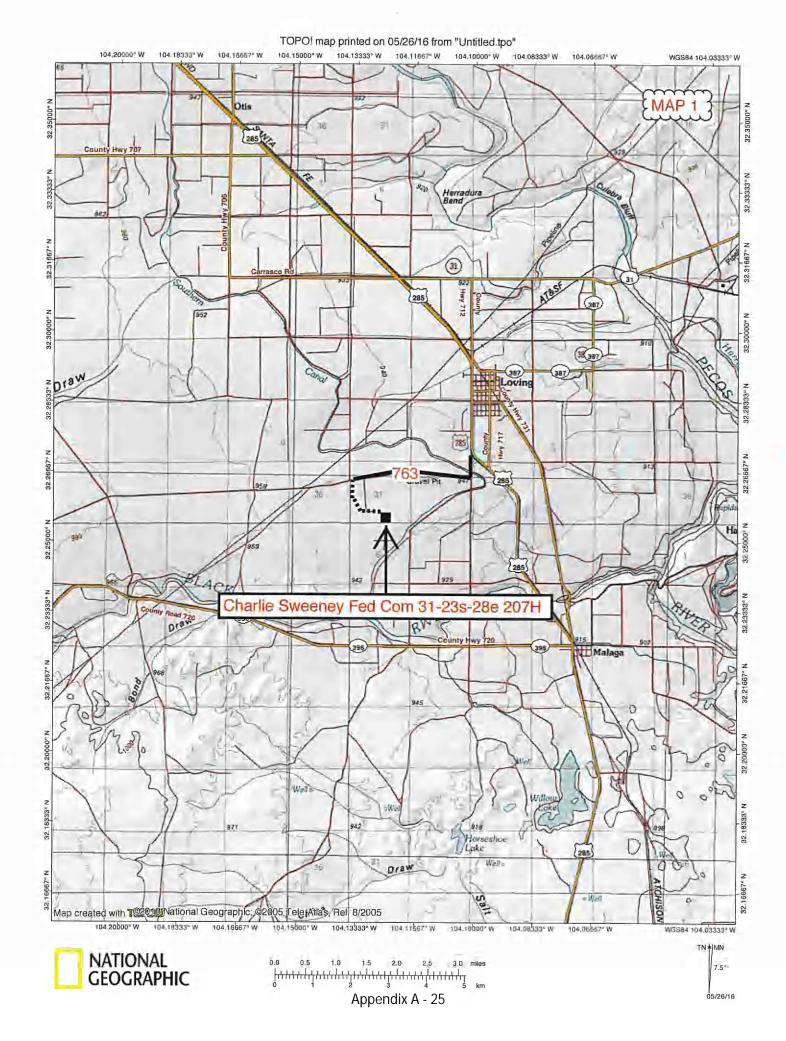
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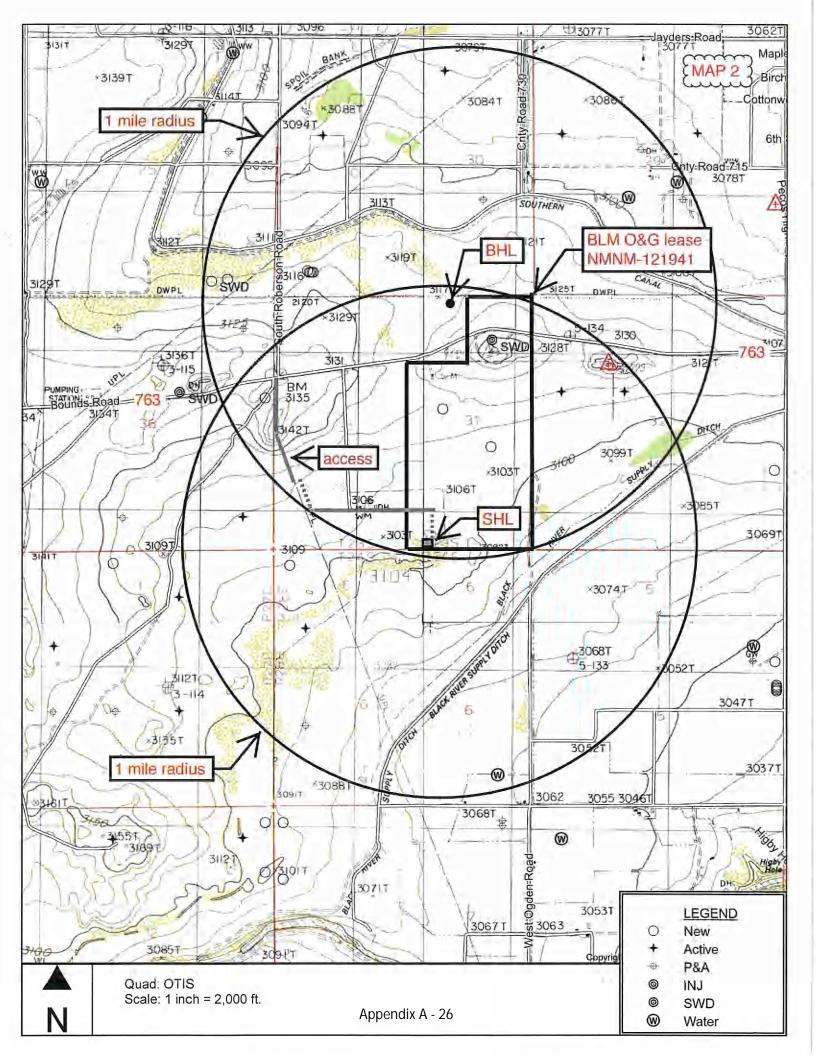


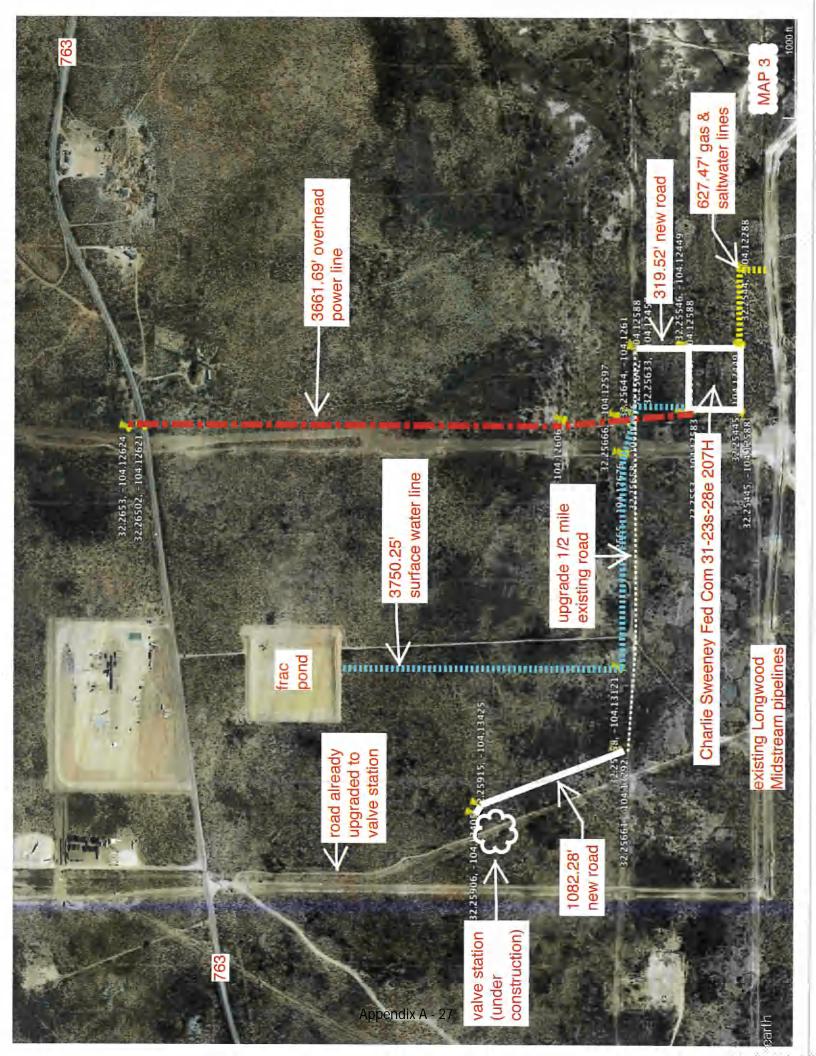


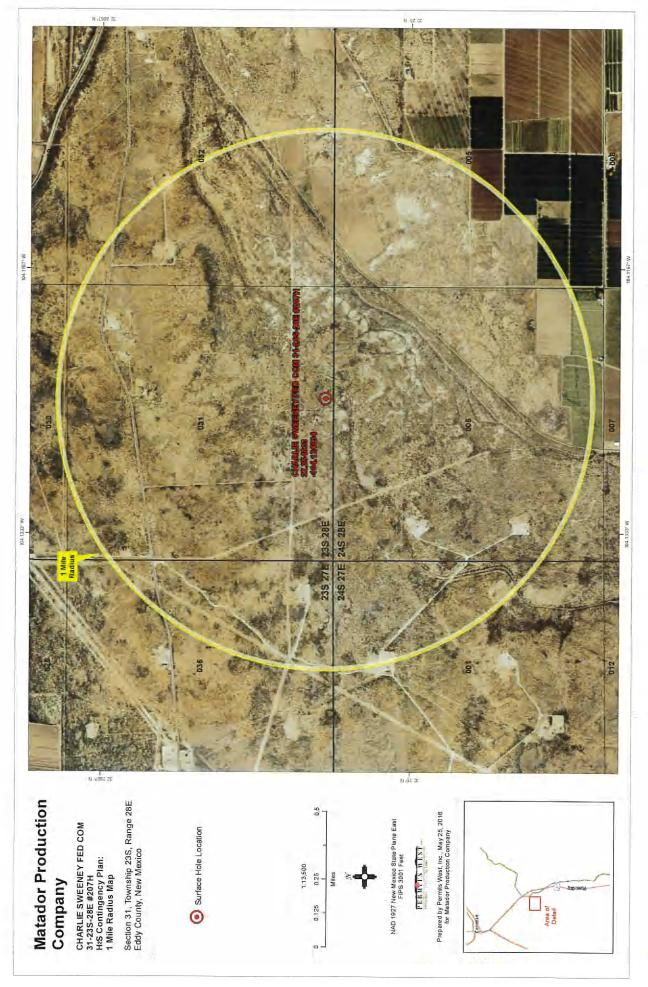
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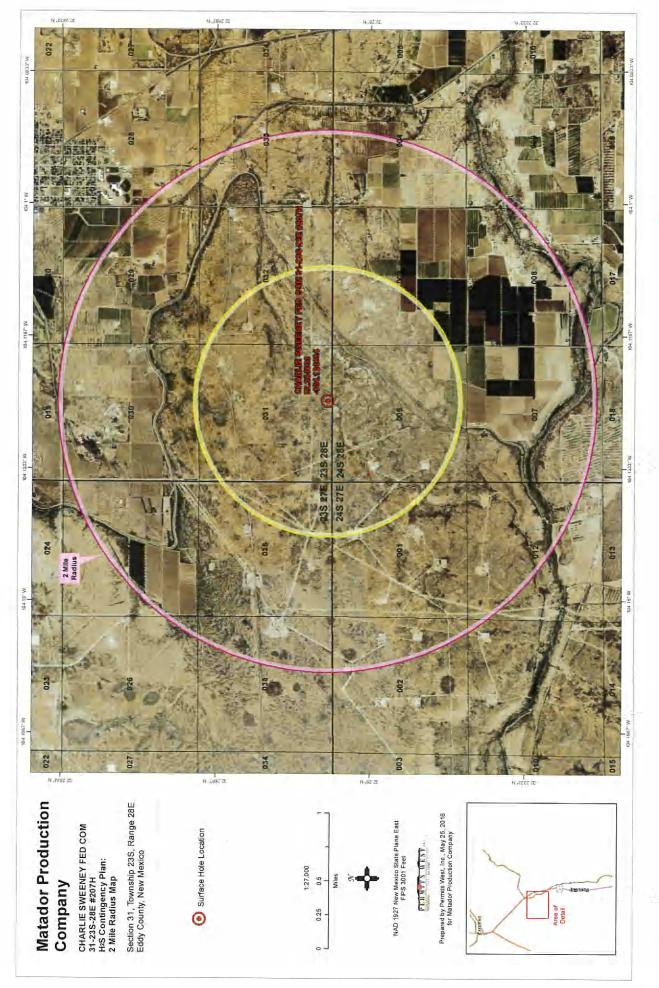
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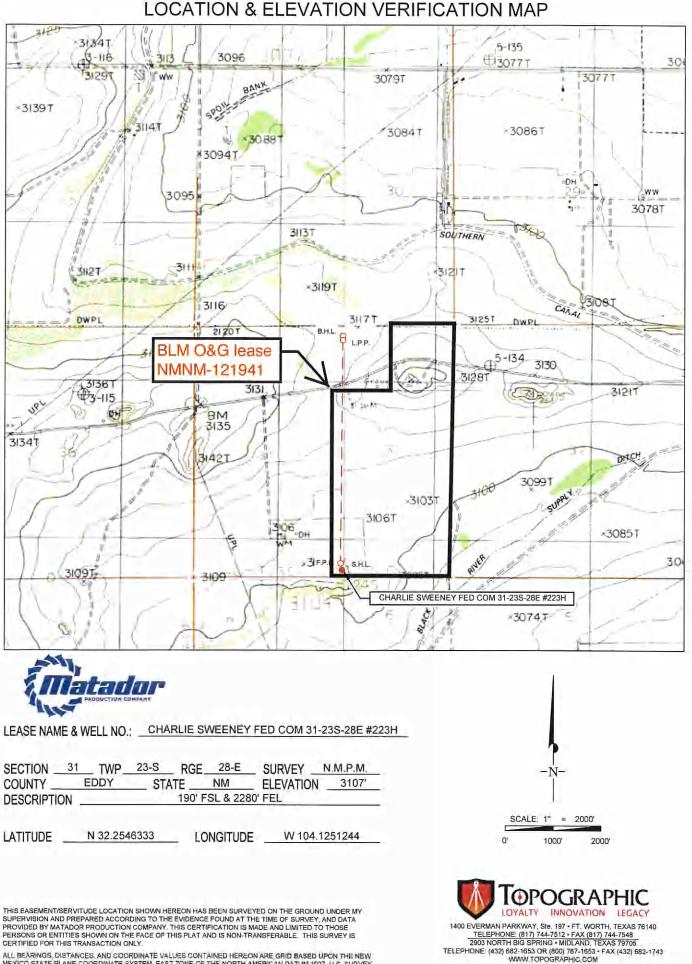






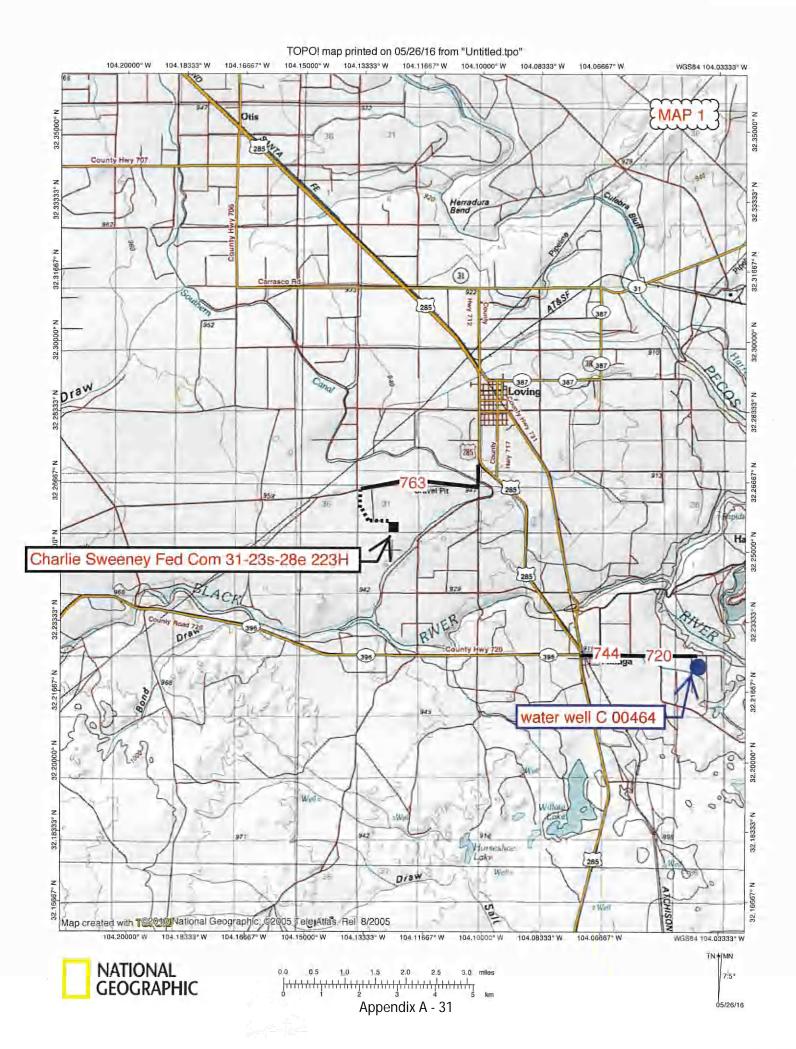


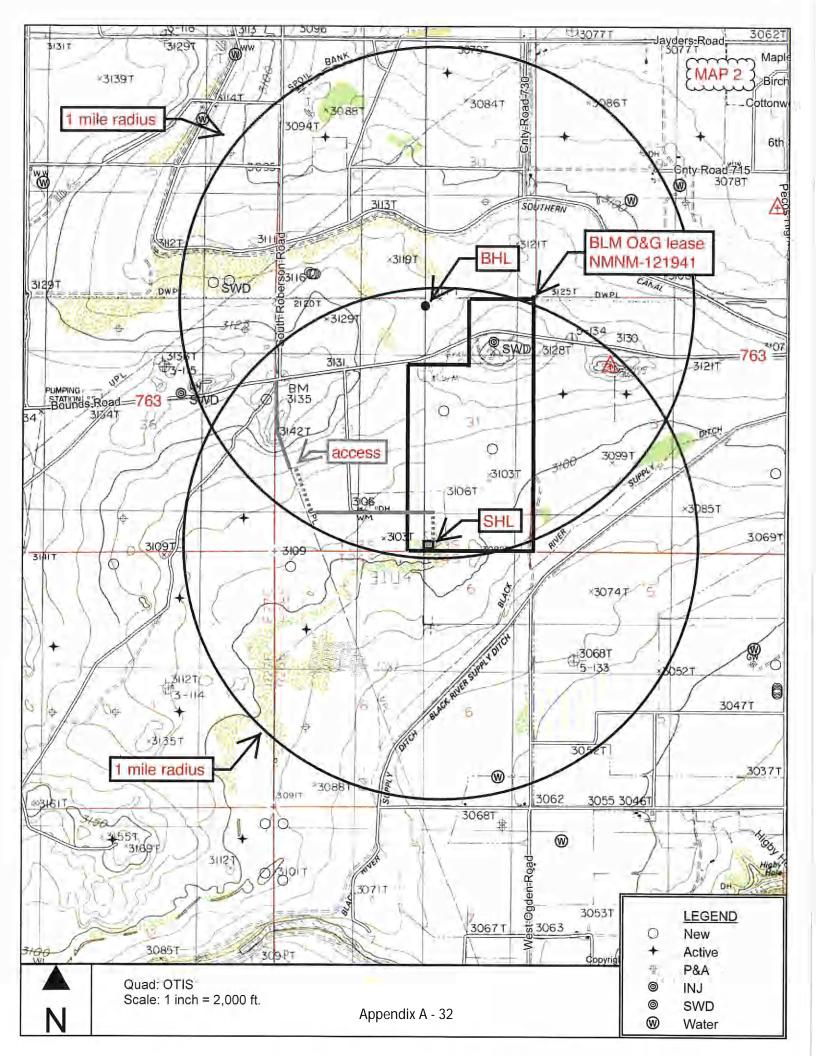


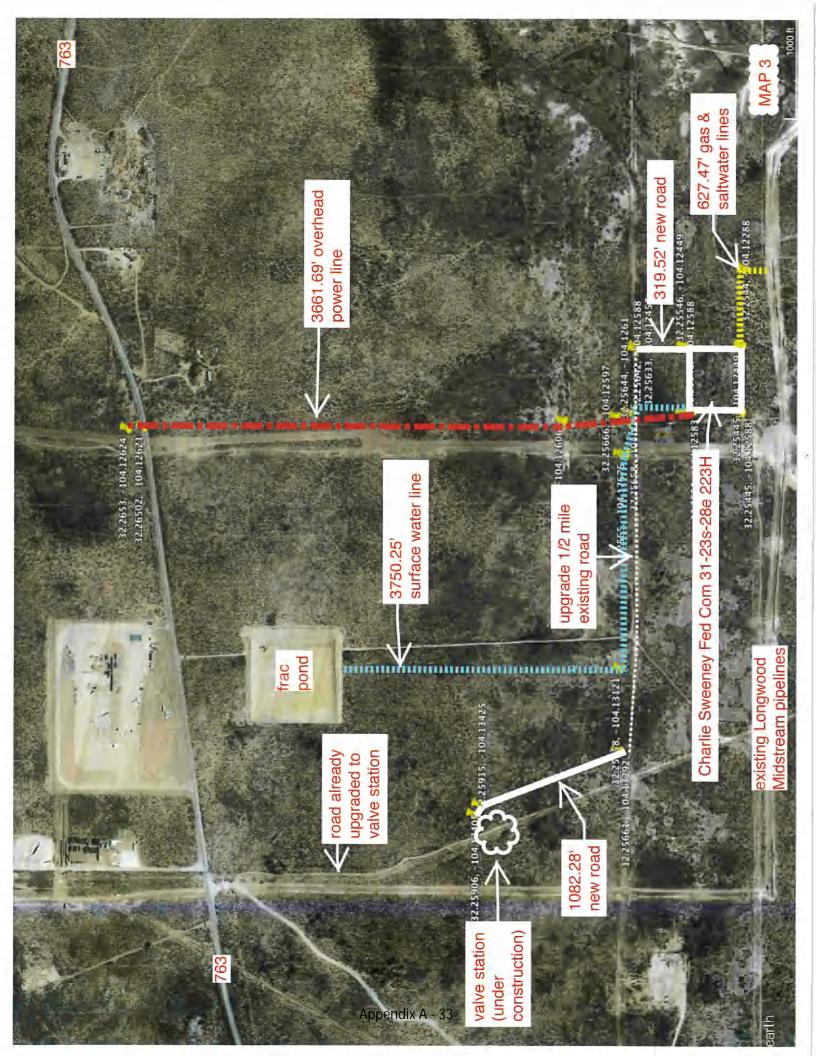


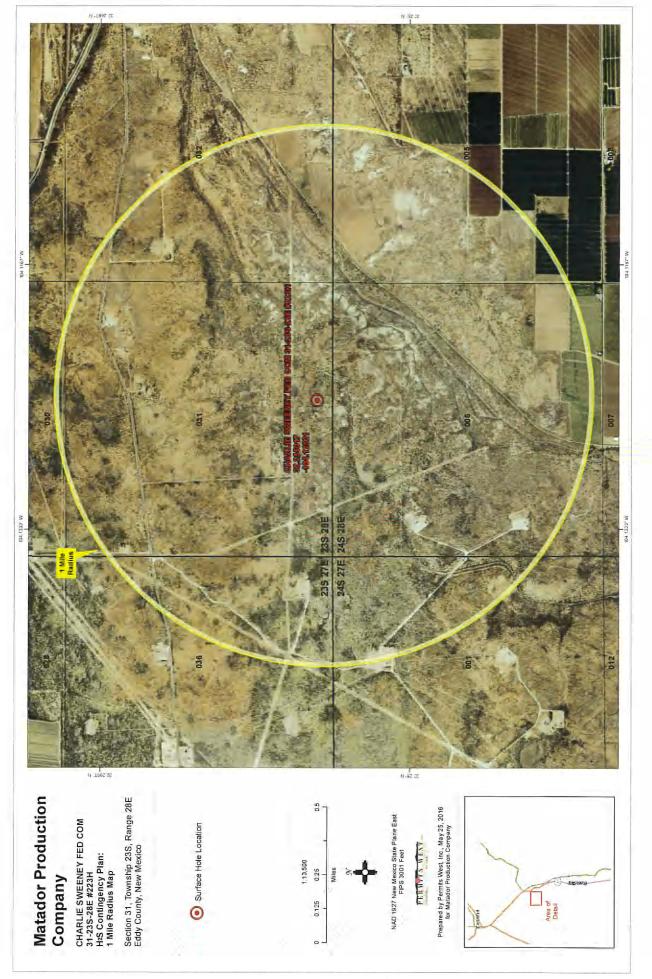
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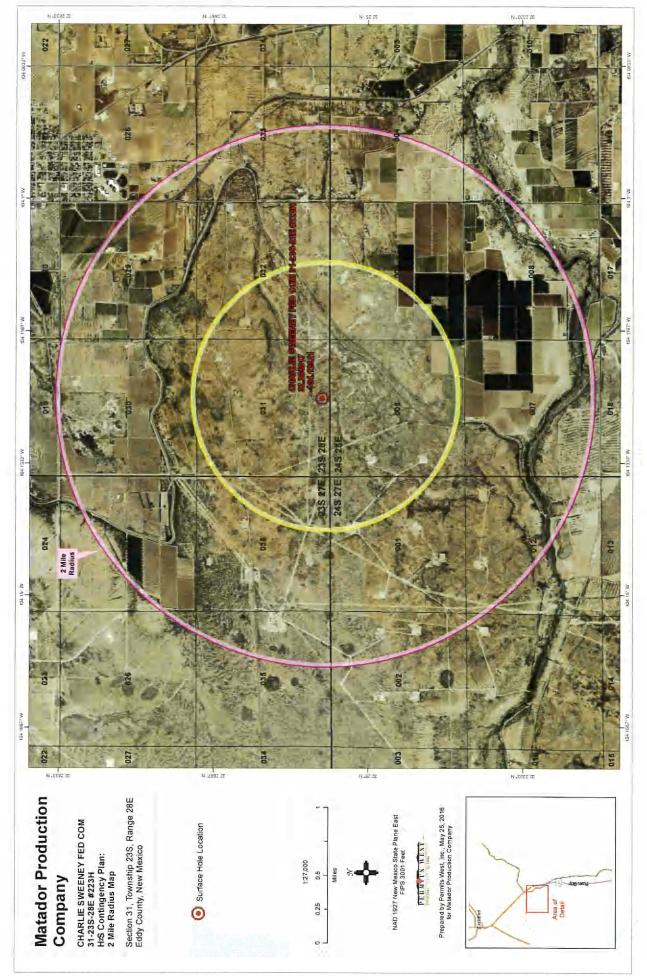
Appendix A - 30

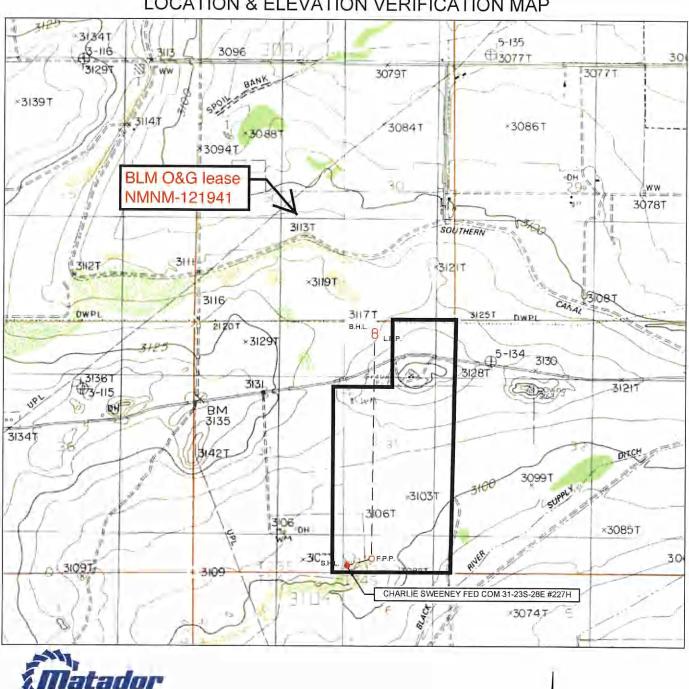












LOCATION & ELEVATION VERIFICATION MAP

LEASE NAME & WELL NO .: __CHARLIE SWEENEY FED COM 31-23S-28E #227H

SECTION	31 TWP	23-S	RGE	28-E	SURVEY	N.M.P.M.
COUNTY	EDDY	STA	TE	NM	ELEVATION	3111'
DESCRIPTION			190' F	0' FEL		
DECORA TIC			1.1.1			

N 32.2546332 LATITUDE LONGITUDE W 104.1247363

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.

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IOPOGRAPHIC LOYALTY INNOVATION LEGACY 1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140 TELEPHONE: (432) 682-1653 OR (800) 767-1653 FAX (432) 682-1743

WWW.TOPOGRAPHIC.COM

1000'

-N

2000

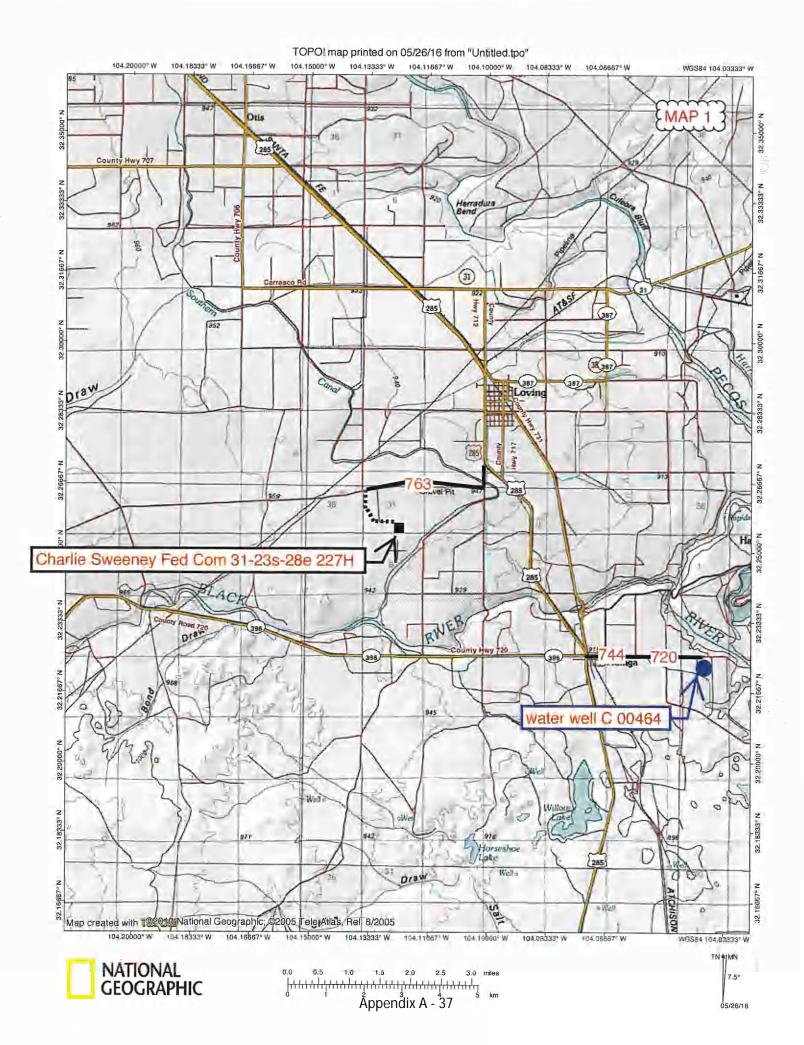
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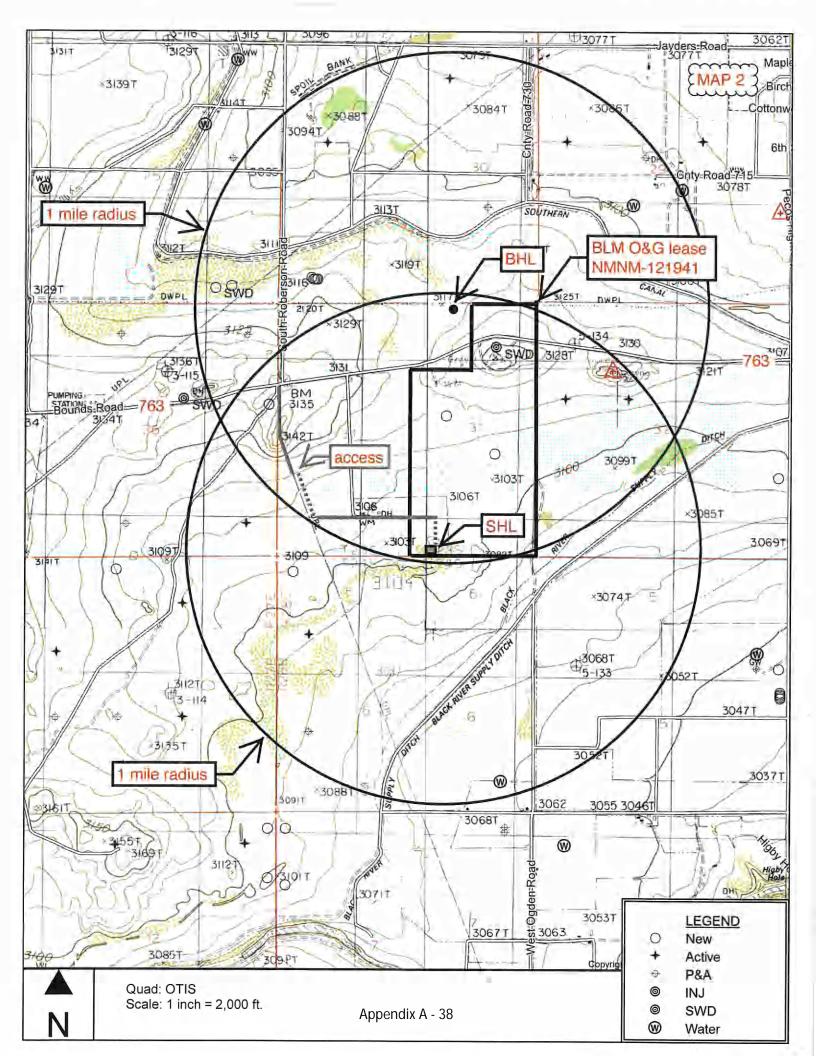
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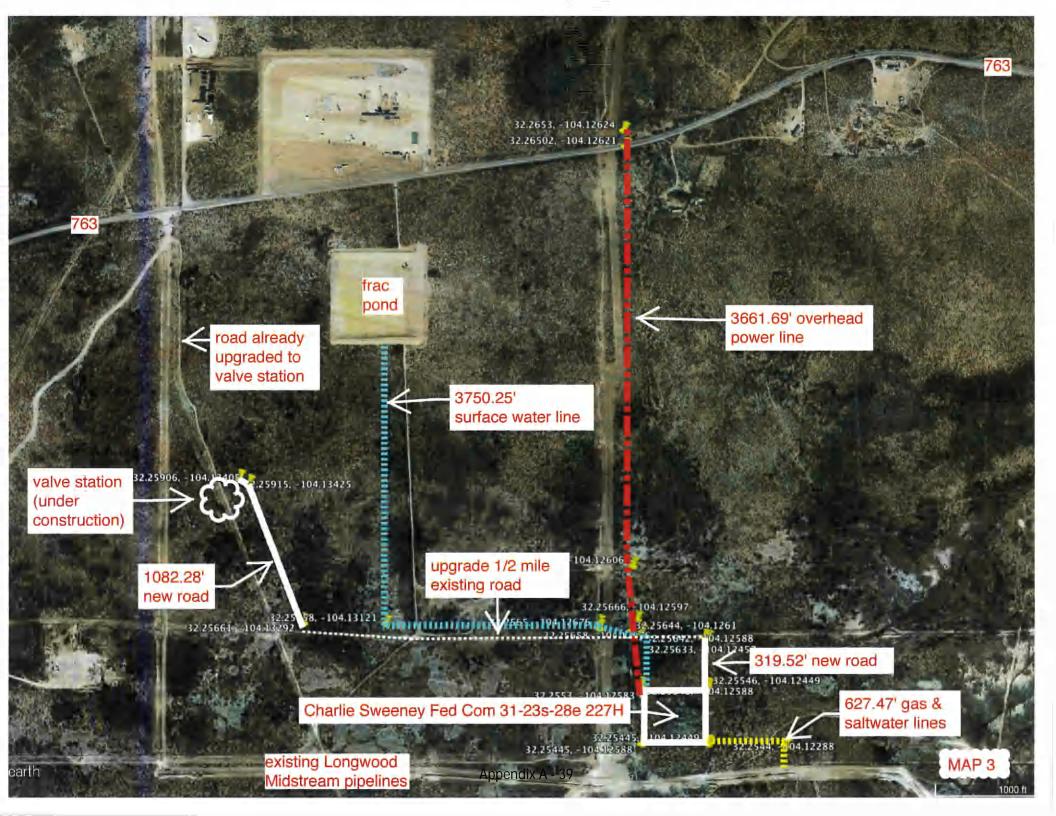
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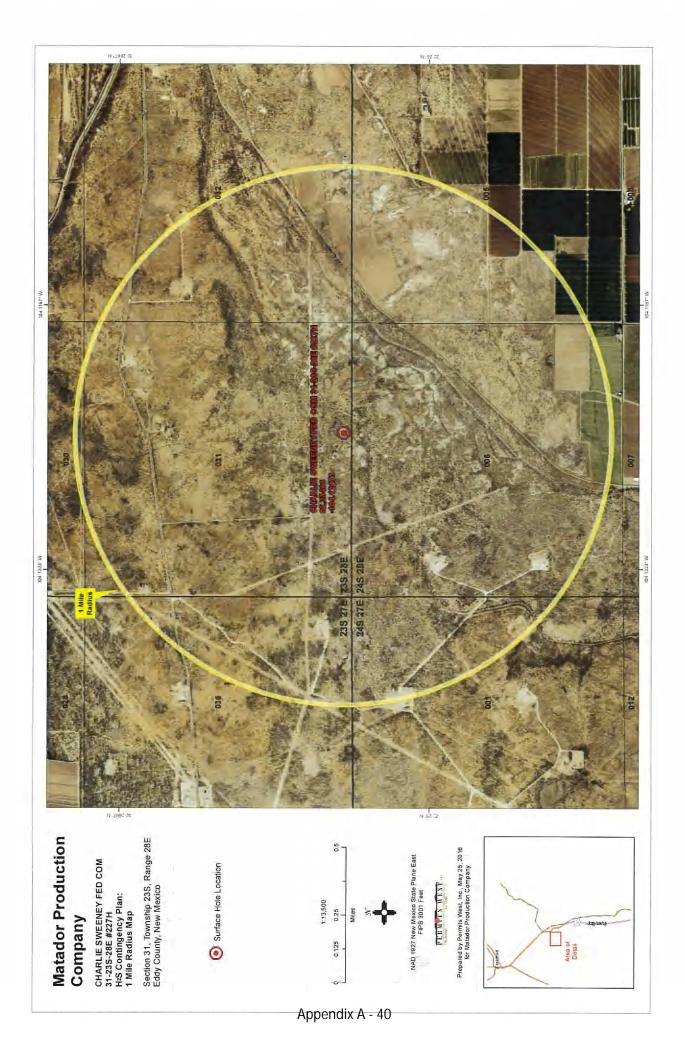
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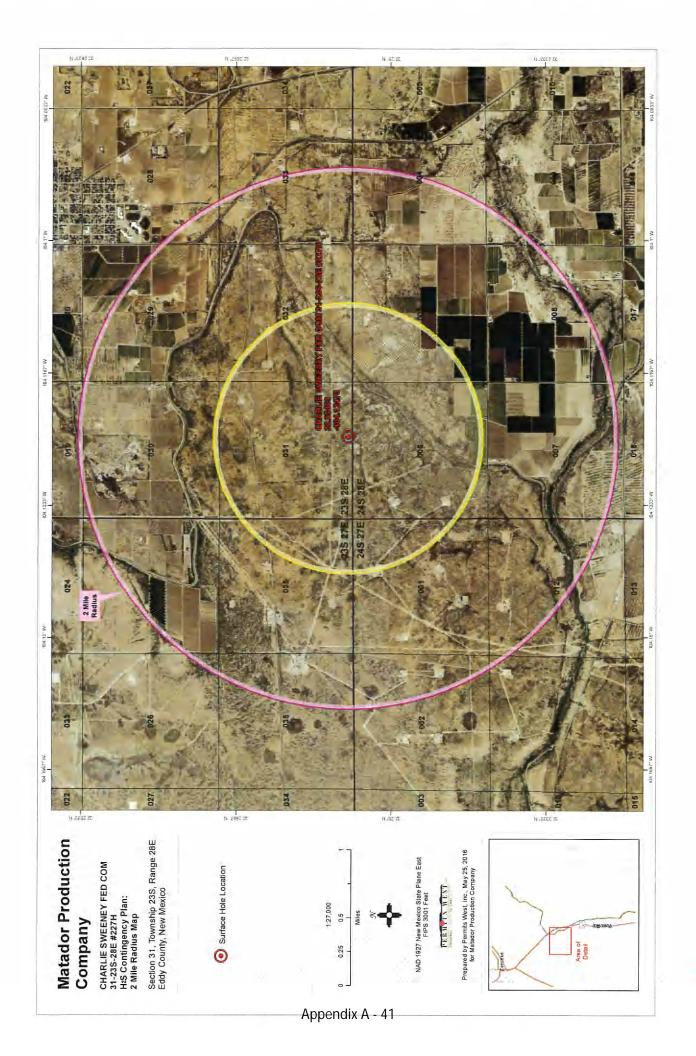
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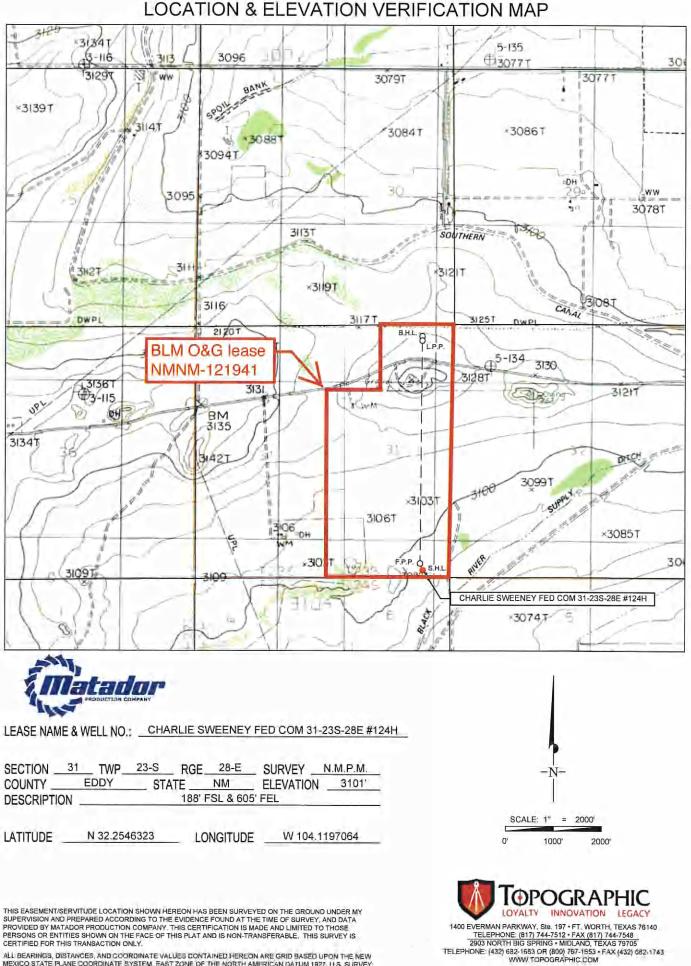








East Pad: Charlie Sweeney Federal RB 31-23S-28E 124H, 204H, 208H, 224H, and 228H wells



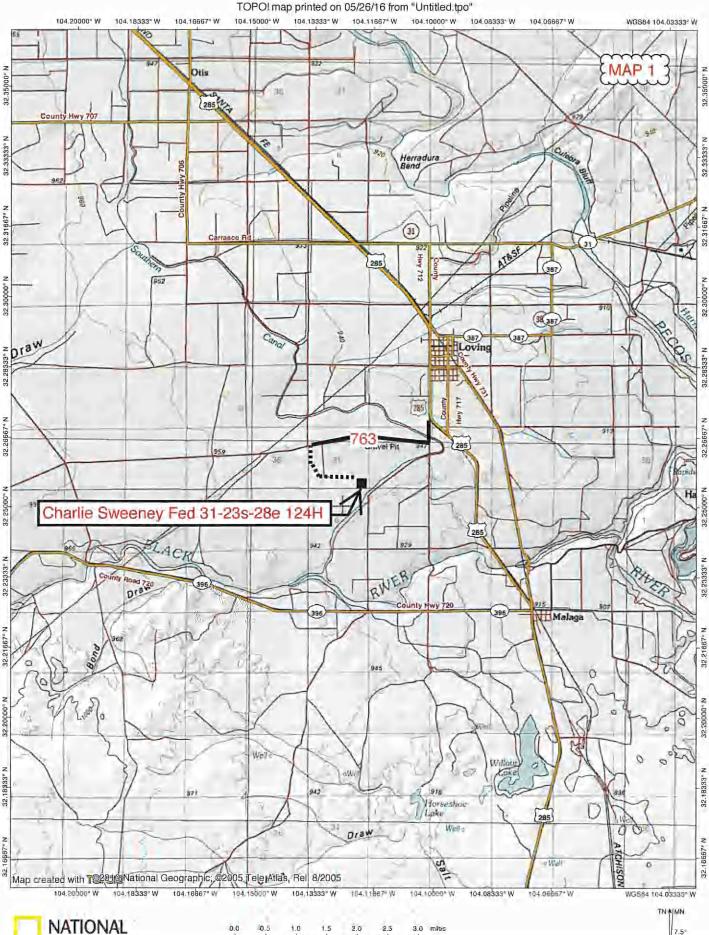
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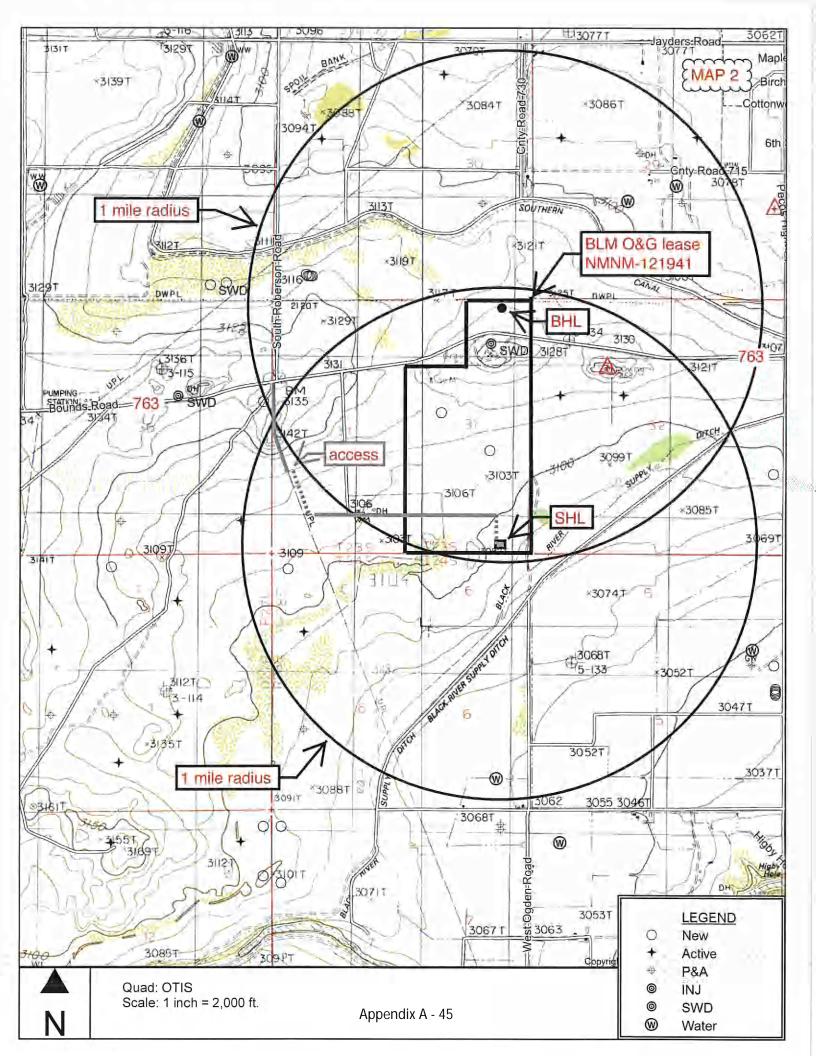
Appendix A - 43

S SURVEY MATADOR, RESOURCES/CHARLIE_SWEENEY_FED_COM_31-235-28E_124H/FINAL_PRODUCTS/LO_GHARLIE_SWEENEY_FED_COM_31-235-28E_124H, REV3,DWG 4/27/2016 4:00/45 PM Istovall

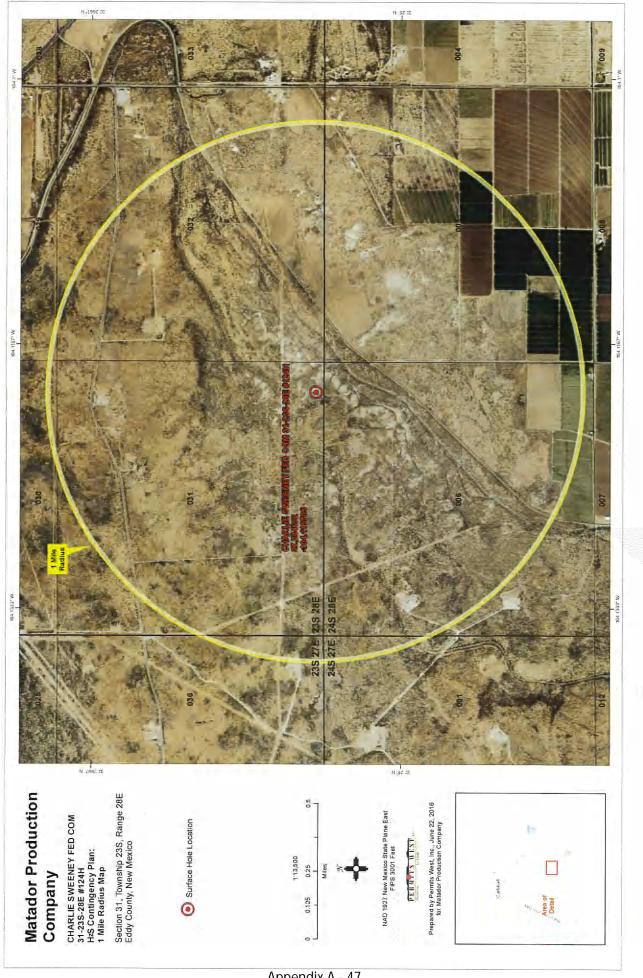


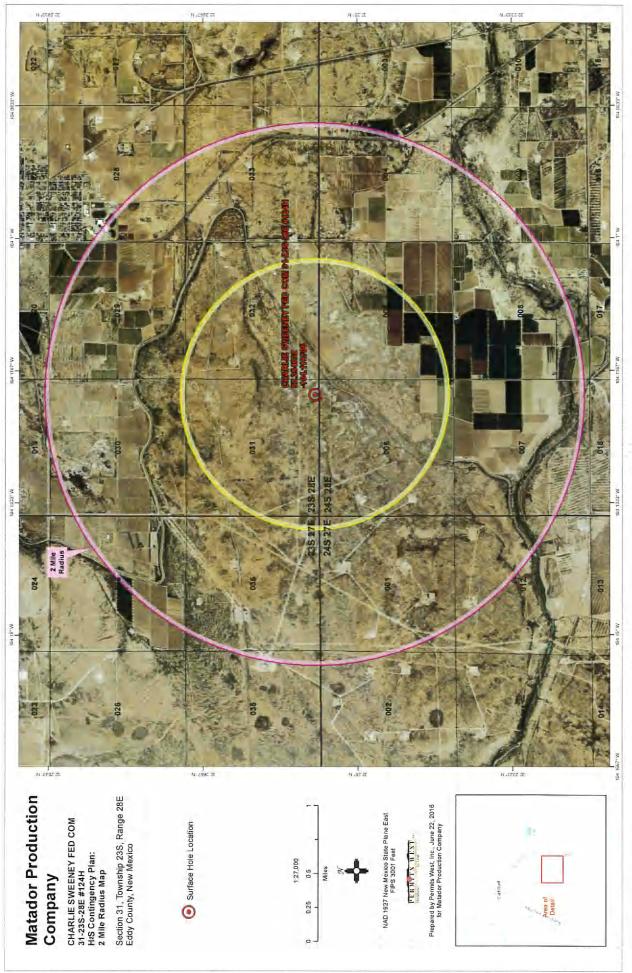
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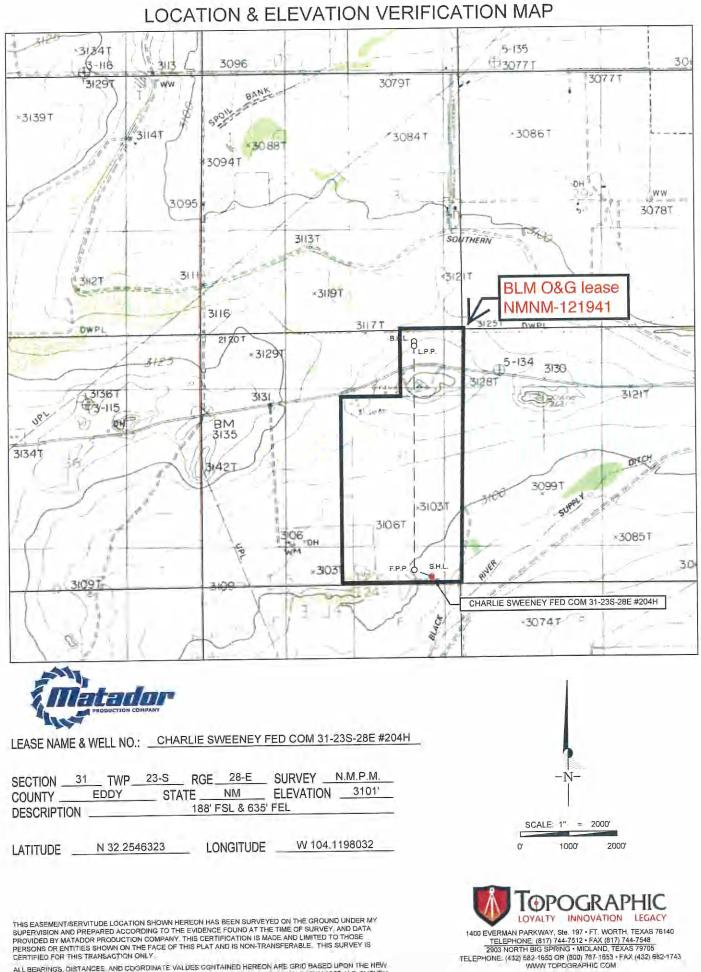




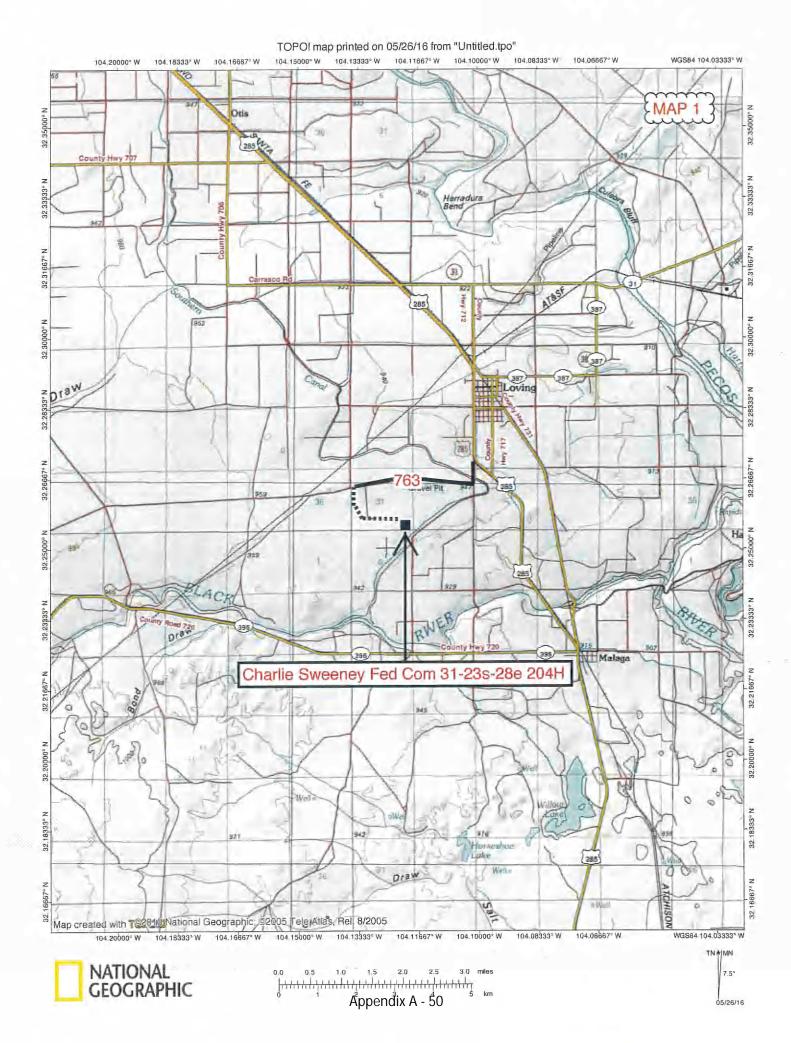


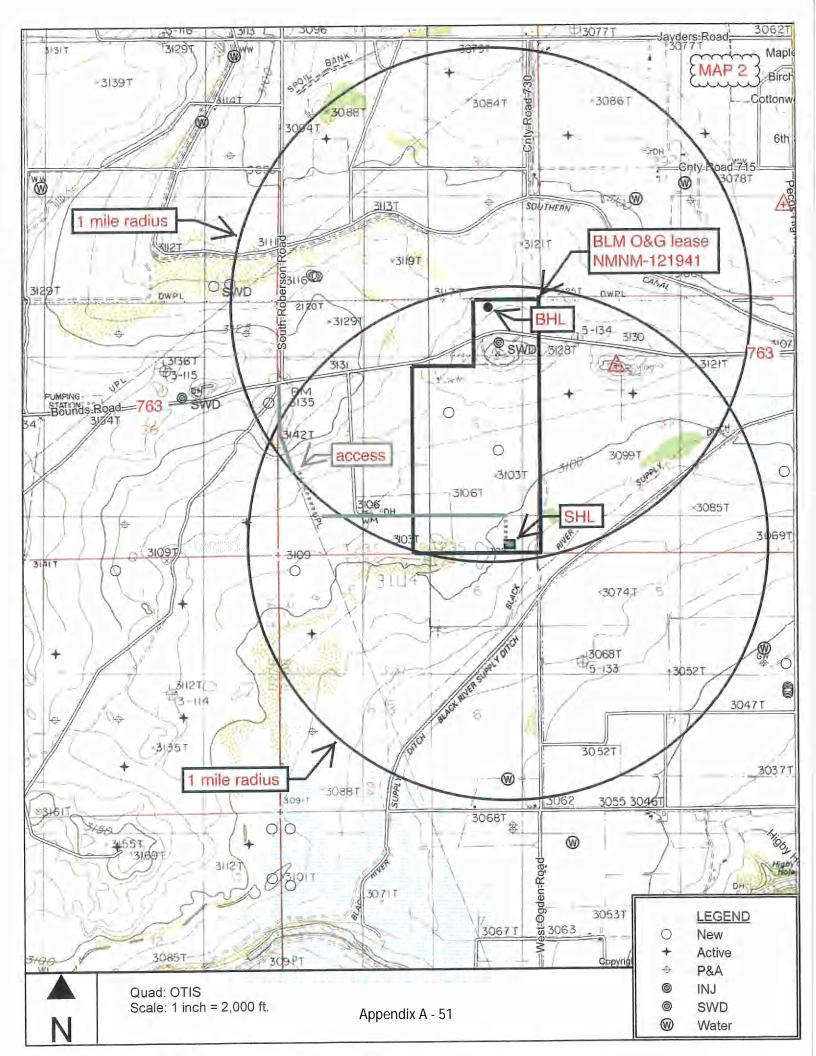




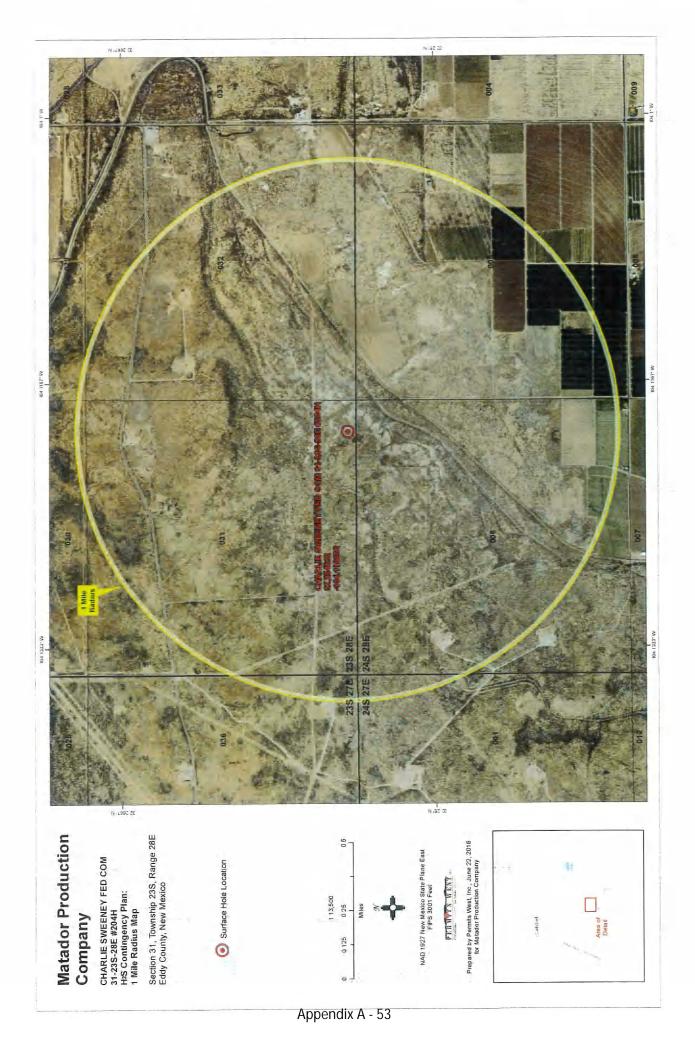


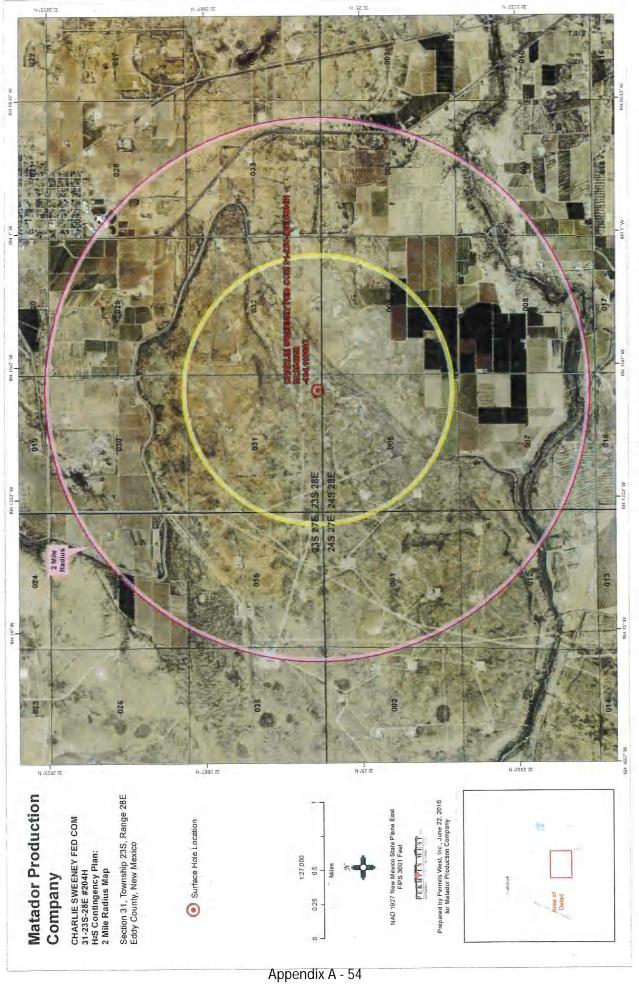
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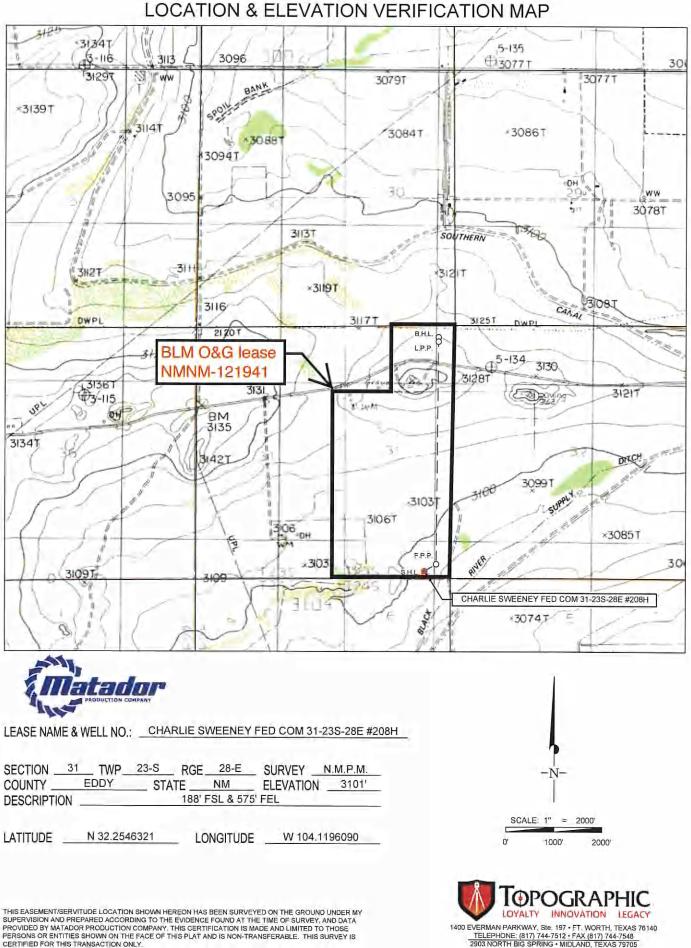






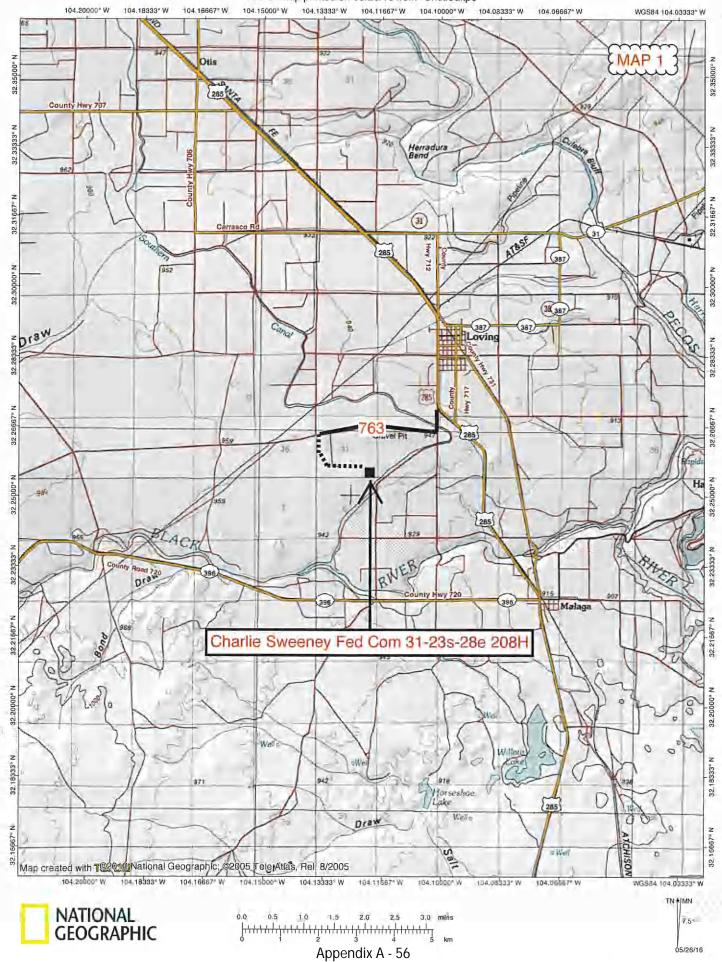




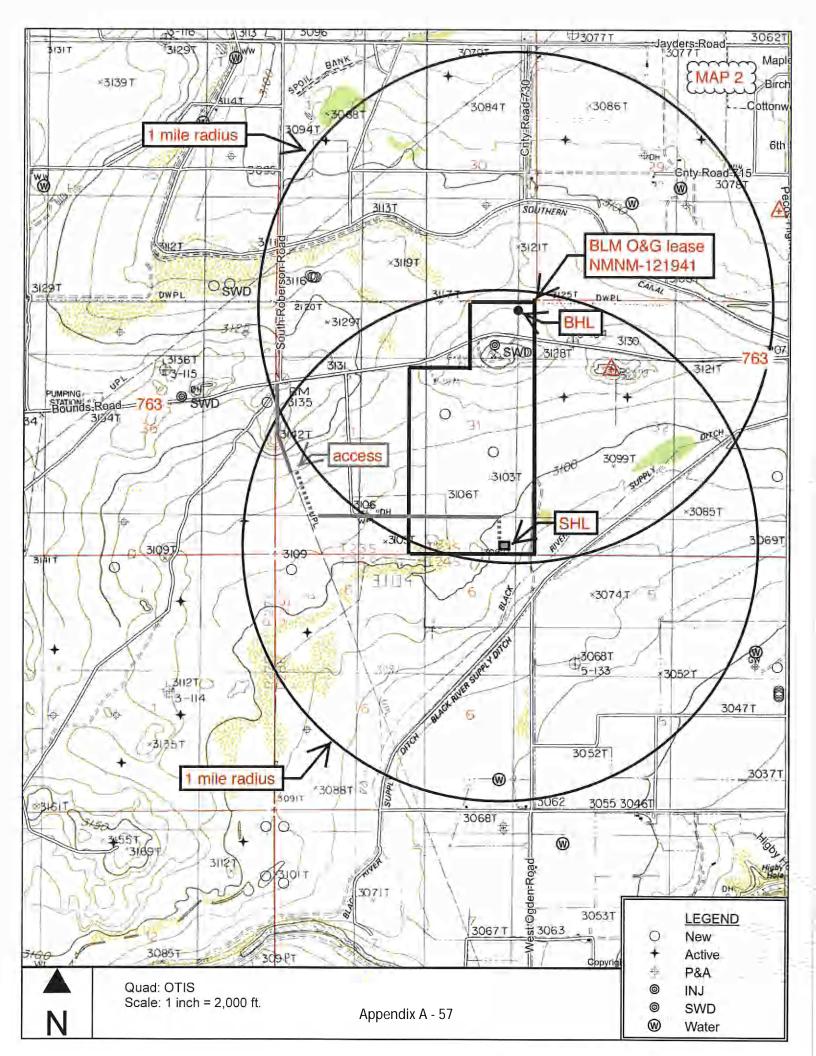


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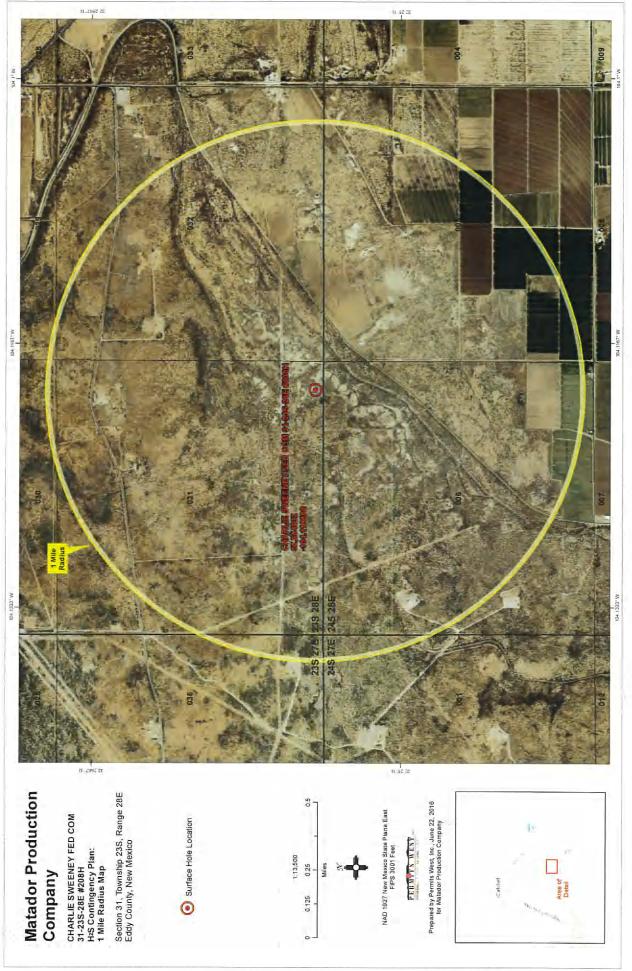
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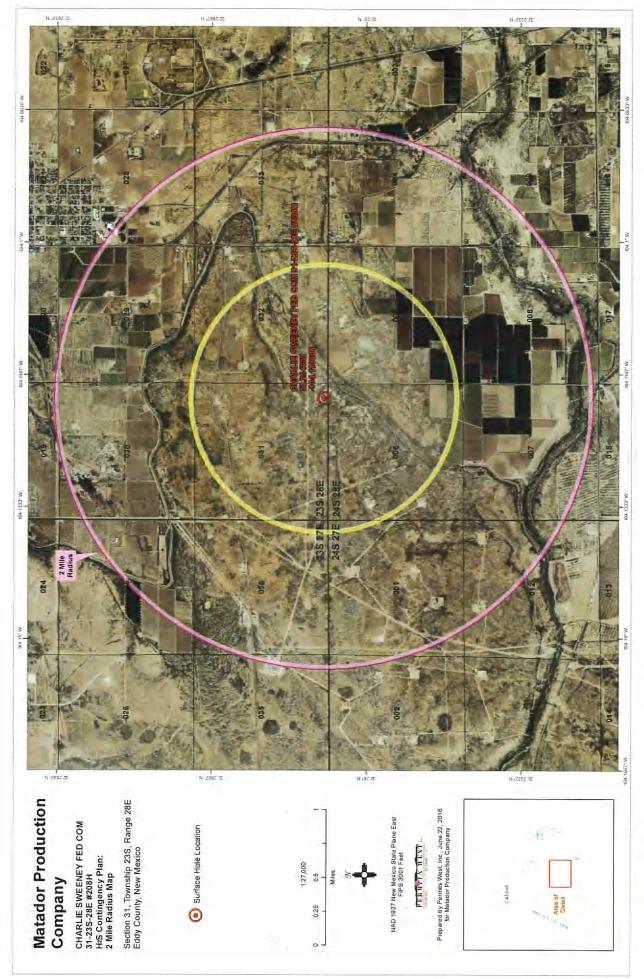


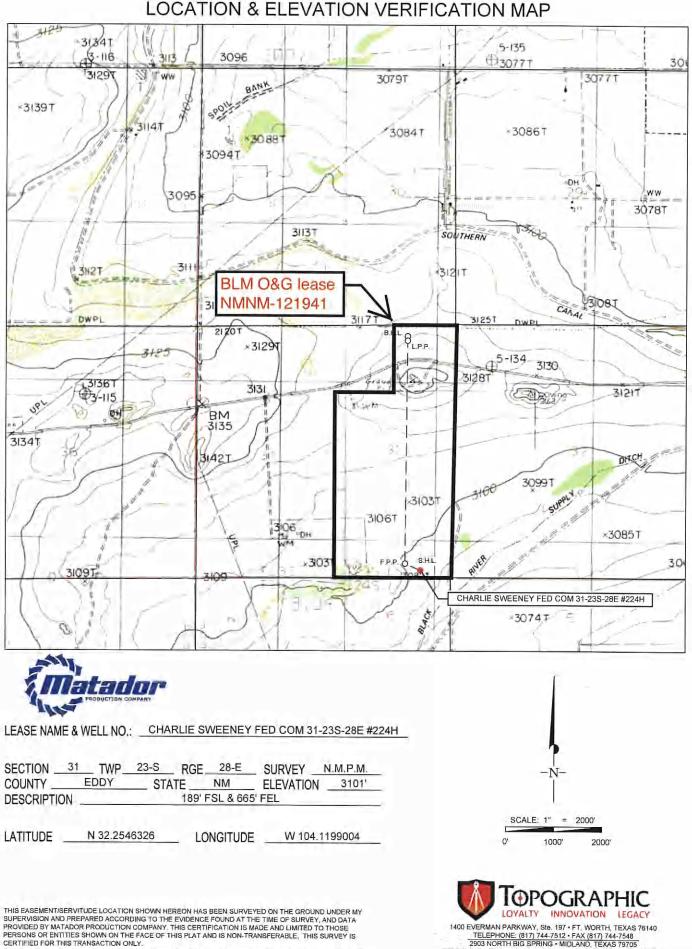
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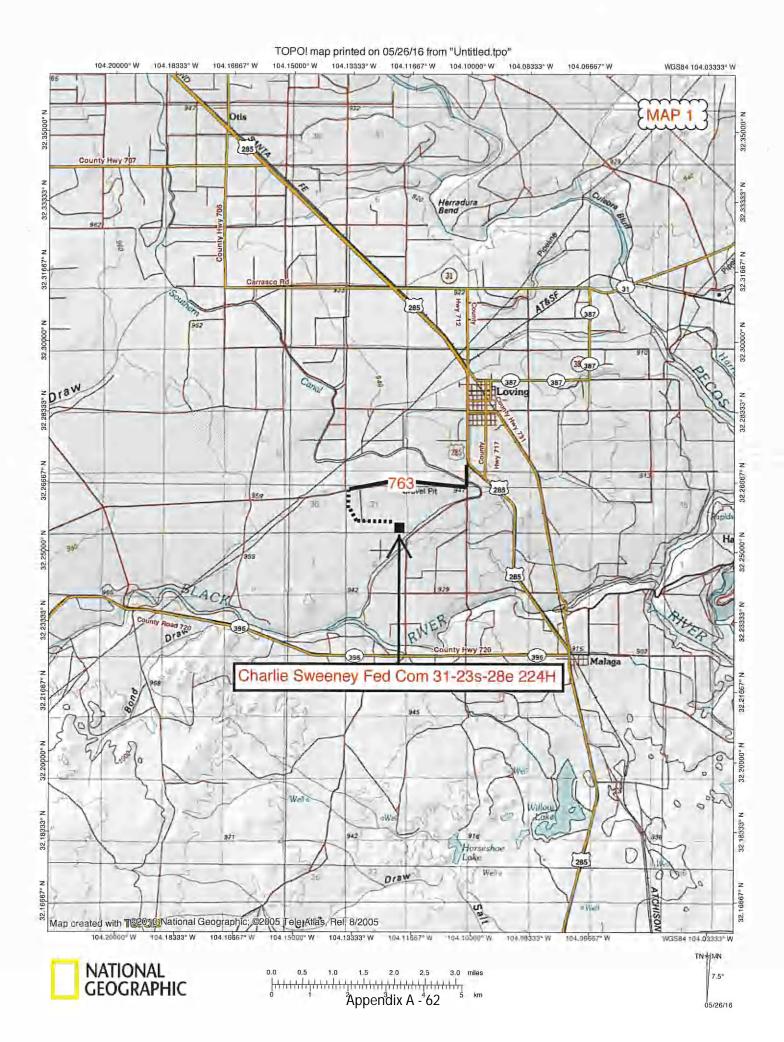


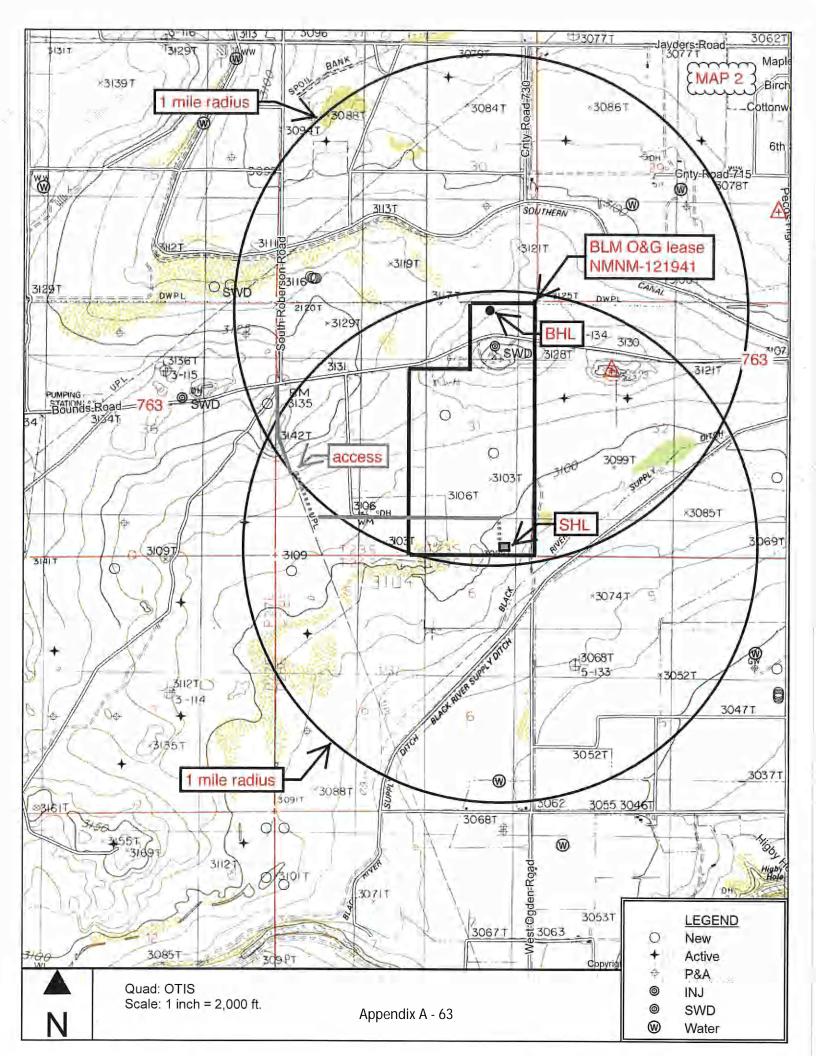


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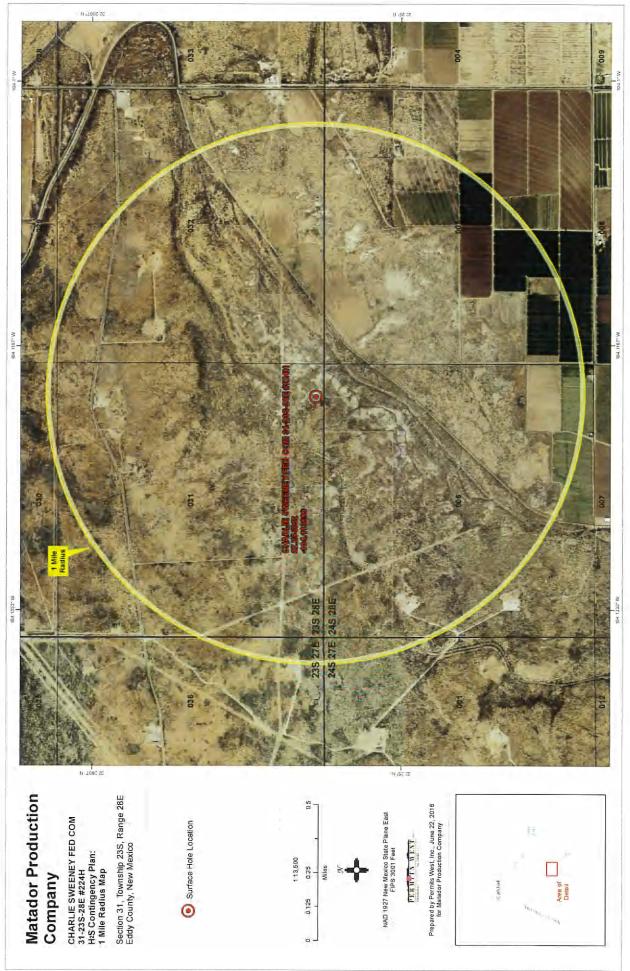
Appendix A - 61

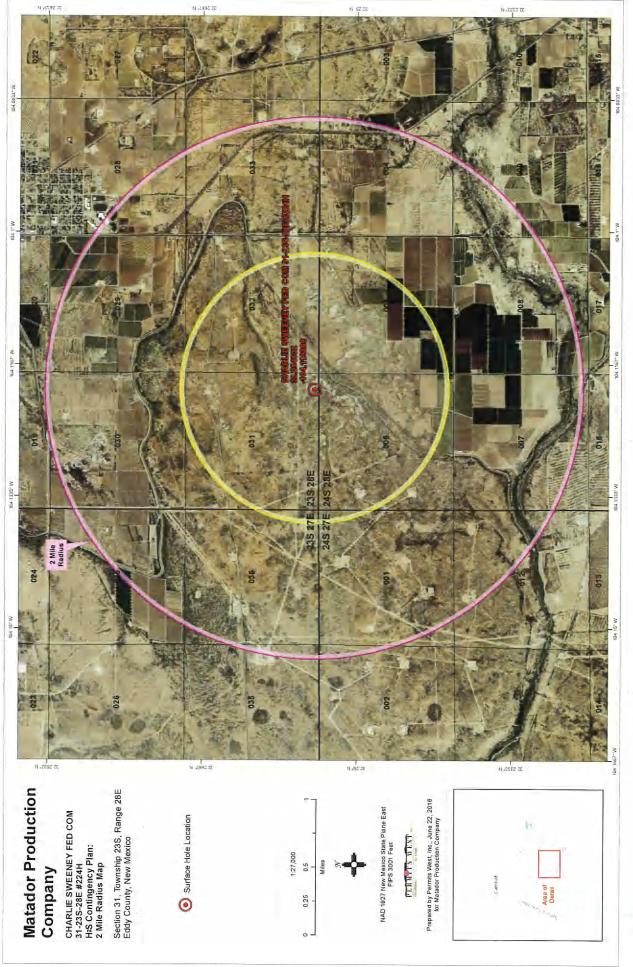
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743 WWW TOPOGRAPHIC COM

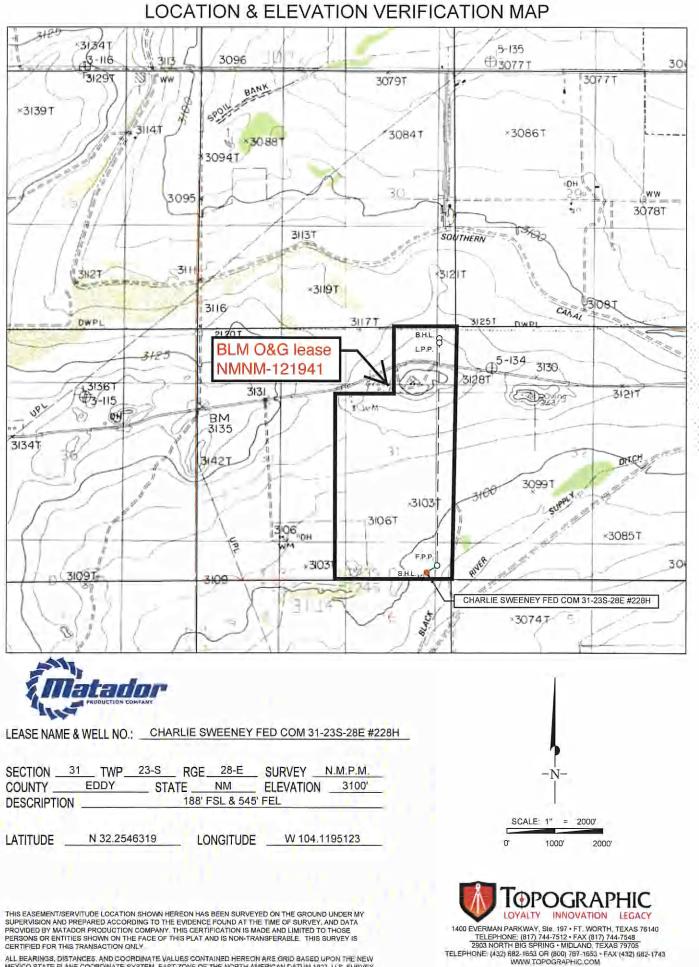




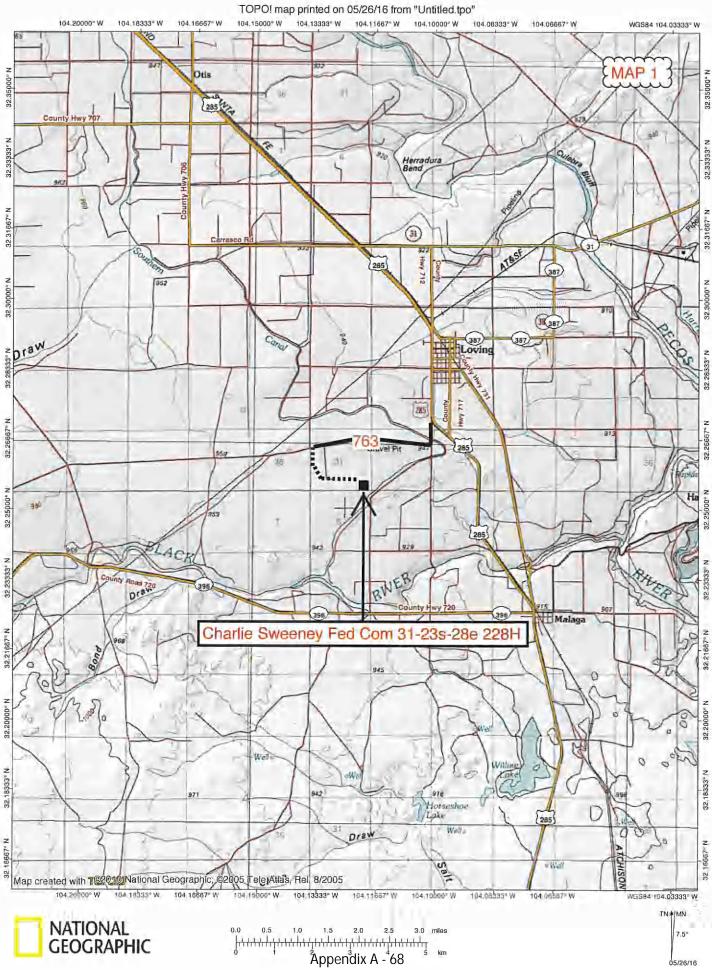


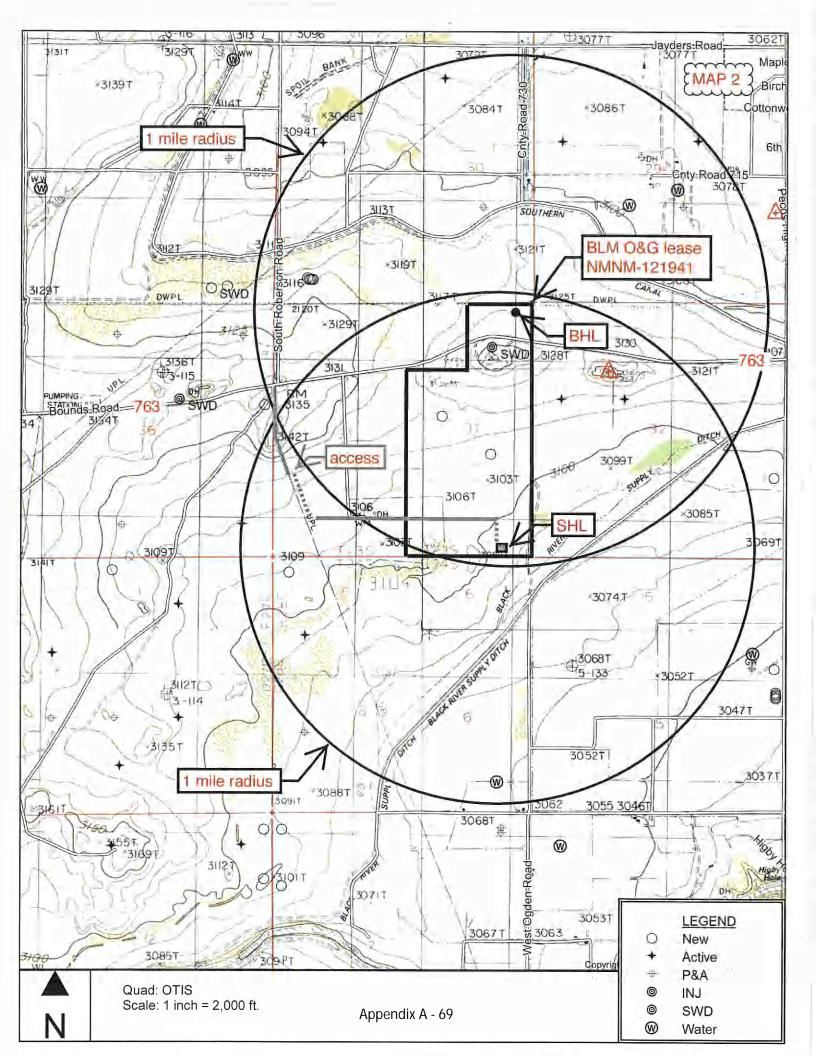




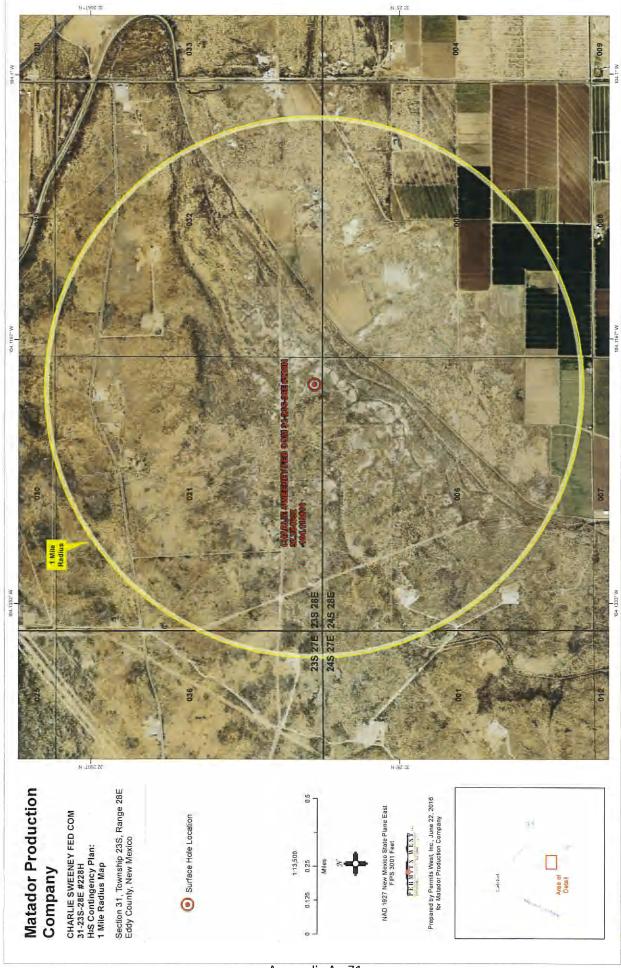


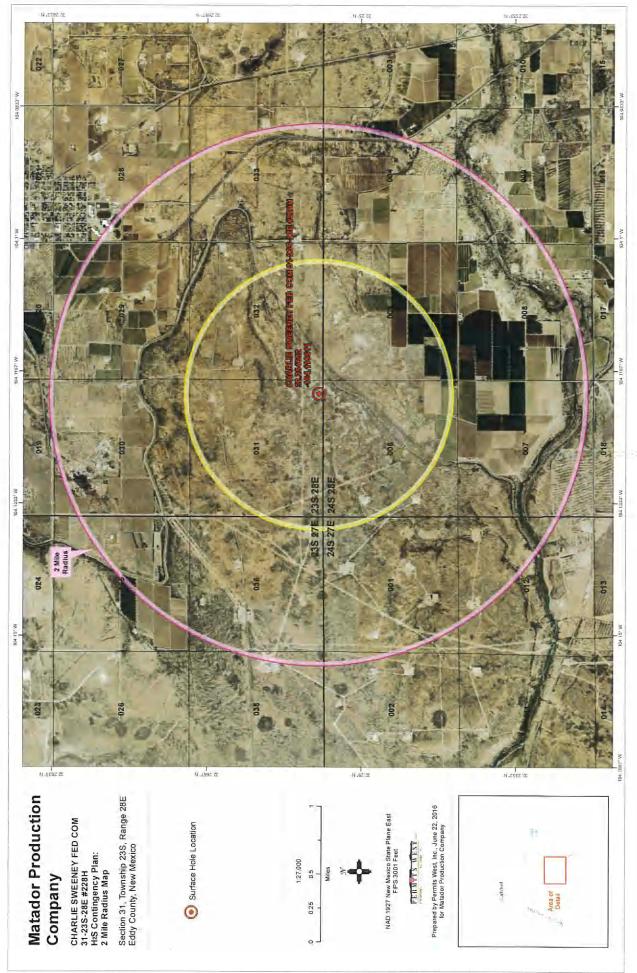
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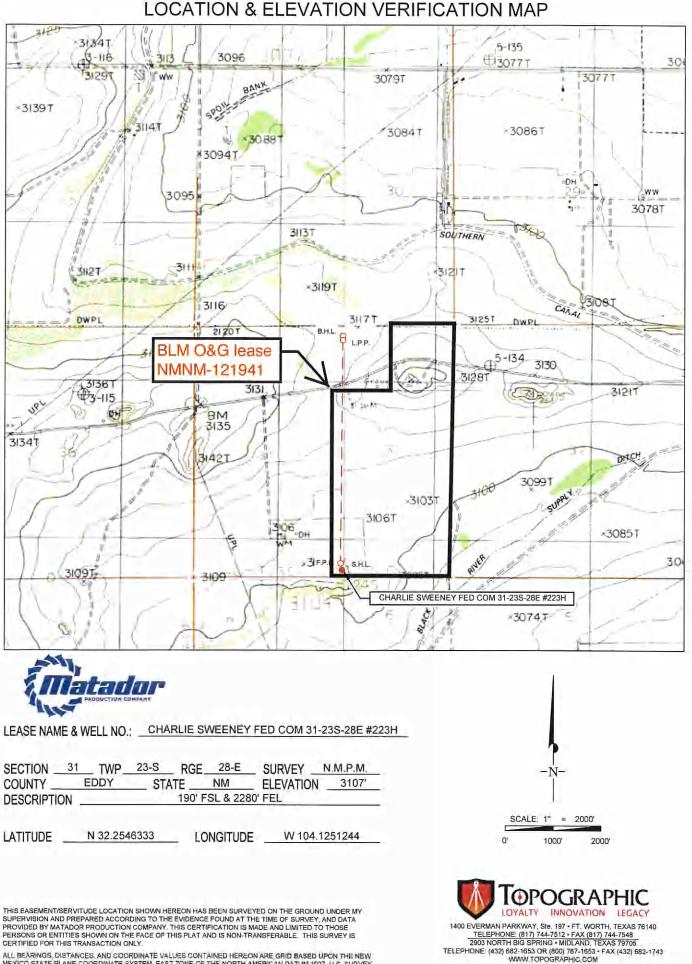




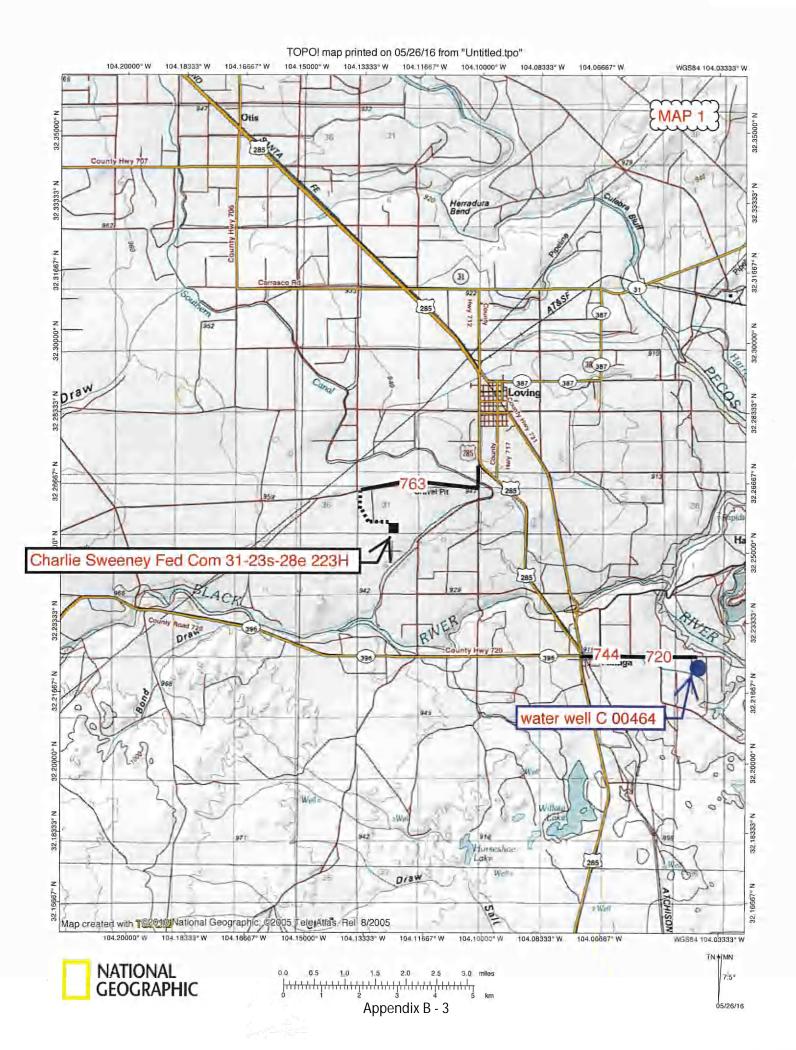


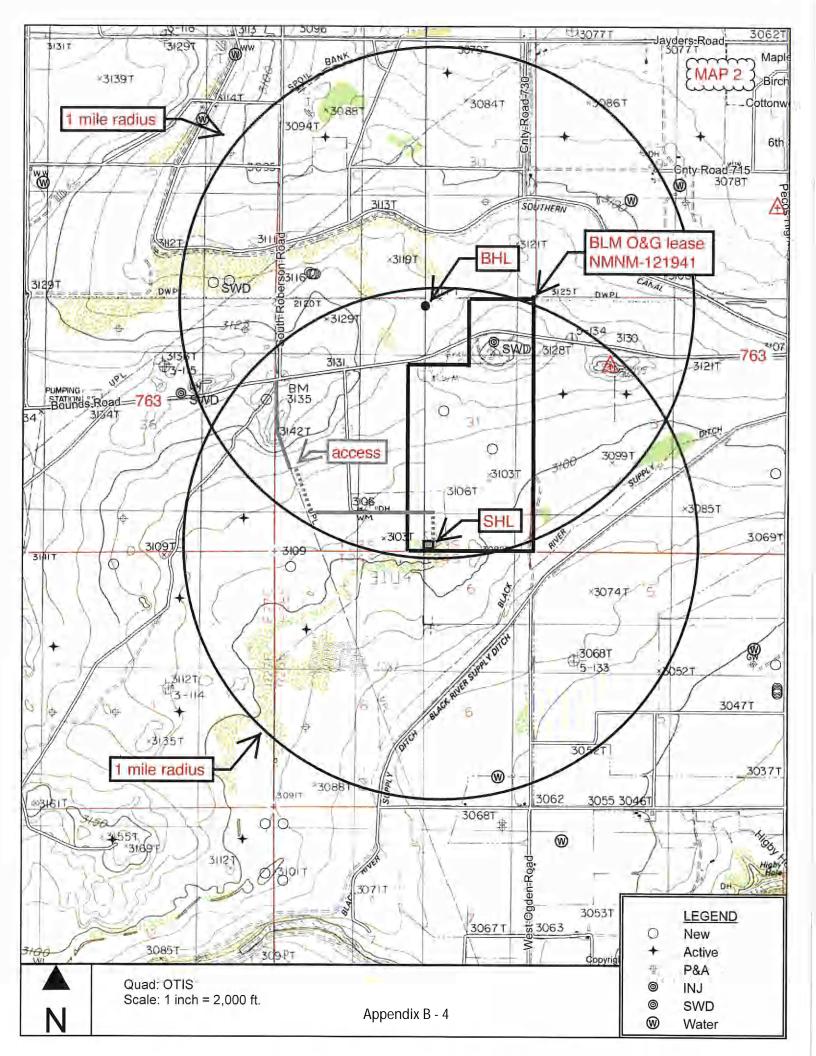


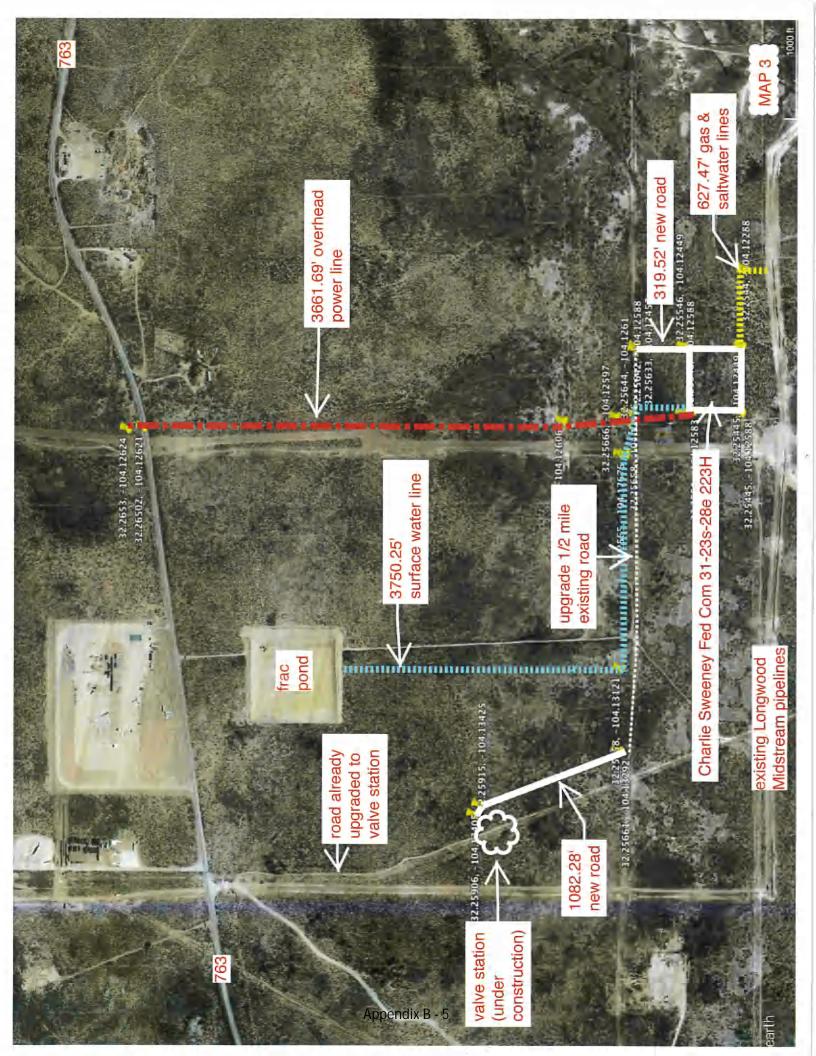
Appendix B – Plats

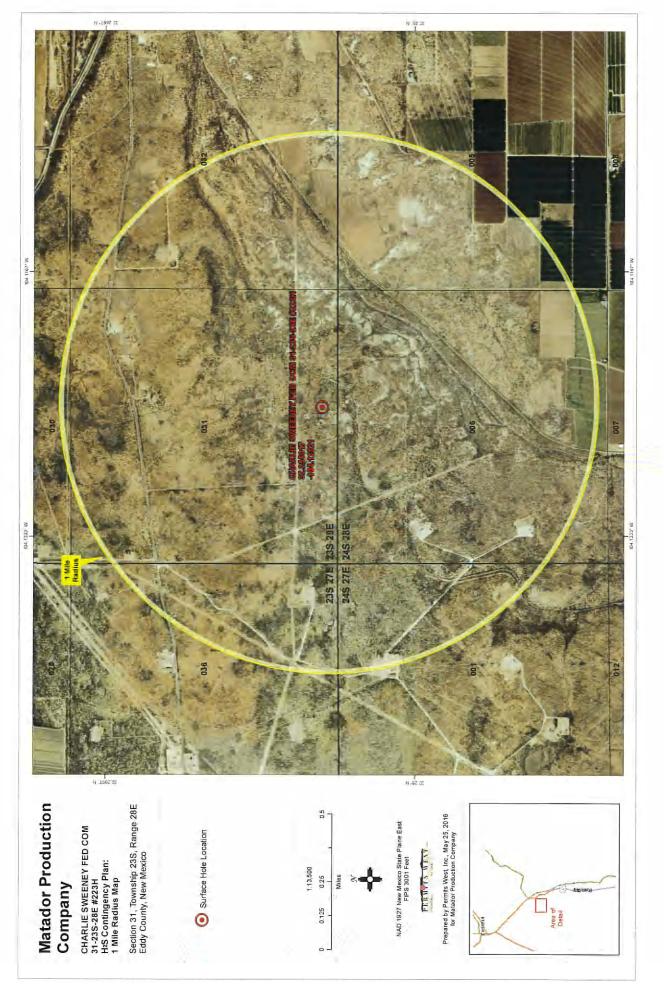


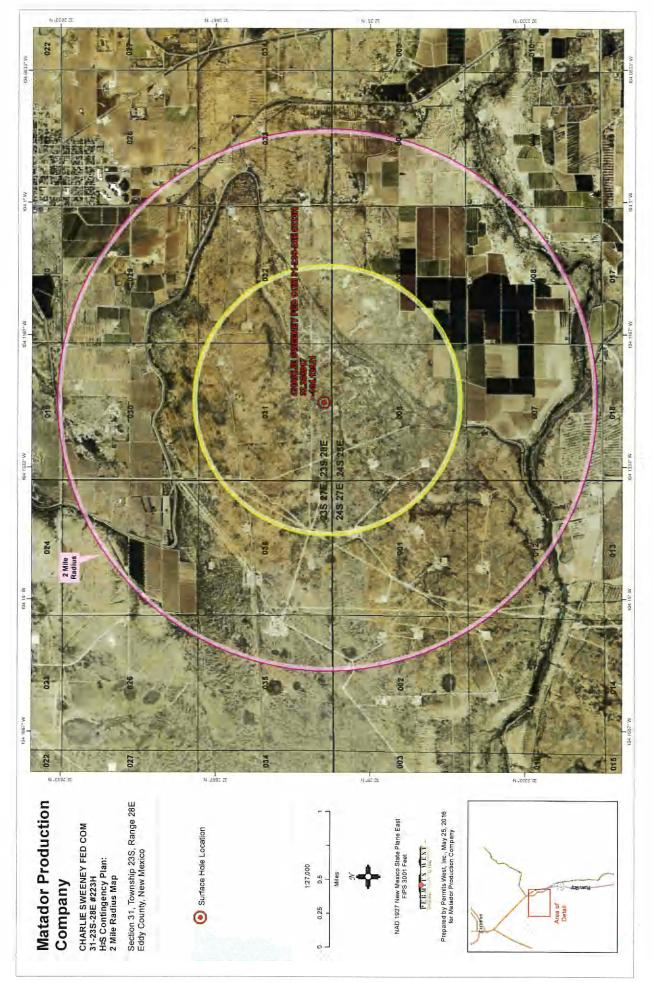
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West Pad: Charlie Sweeney Federal RB 31-23S-28E 123H, 203H, 207H, 223H, and 227H wells

Matador Production Company Charlie Sweeney Fed Com 31-23S-28E 123H SHL 190' FSL & 2220' FEL Sec. 31, T. 23 S., R. 28 E. BHL 240' FNL & 1980' FEL Sec. 31, T. 23 S., R. 28 E. Eddy County, NM

Surface Use Plan

1. <u>ROAD DIRECTIONS & DESCRIPTIONS</u> (See MAPS 1 – 4)

From the gas stations in Loving, NM...

Go South 1.0 mile on US 285 to a substation

Then turn right onto paved County Road 716 and continue South 0.4 mile Turn right at a transfer station and go West 2.05 mi. on paved County Rd. 763 Then turn left and go South & SE 0.35 mile on a caliche road to a valve station Then turn left at the valve station and go Southeast 1082.28' cross-country Then turn left and go East ½ mile on an existing road

Then turn right and go South 319.52' cross-country to the proposed pad

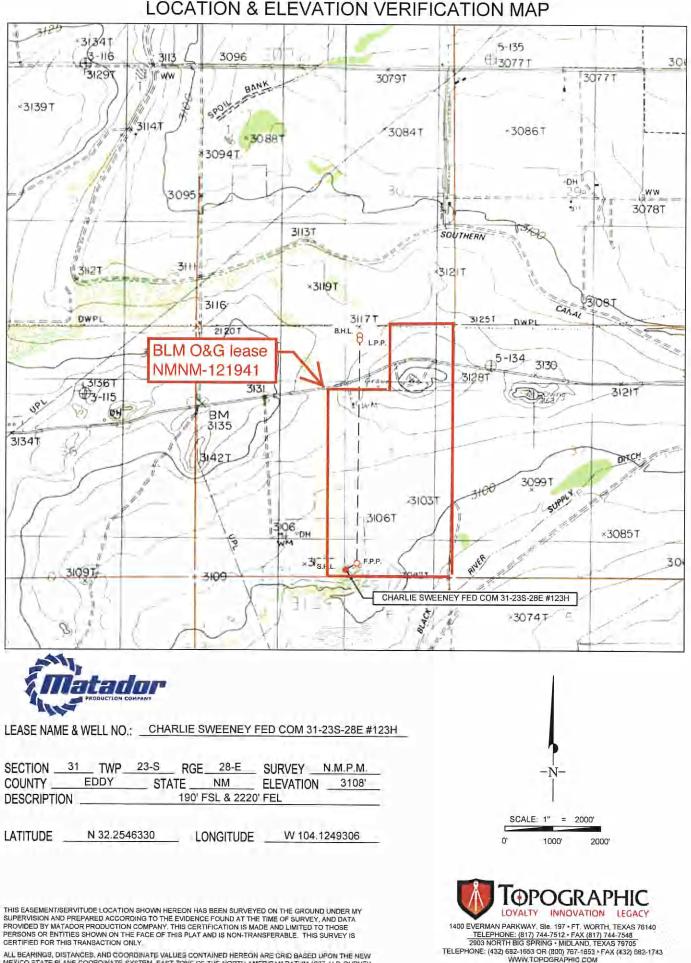
Non-county roads will be maintained as needed to Gold Book standards. This includes pulling ditches, preserving the crown, and cleaning culverts. This will be done at least once a year, and more often as needed. Caliche will be hauled from existing caliche pits on private land in NWSE 1-24s-28e and NWSW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

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

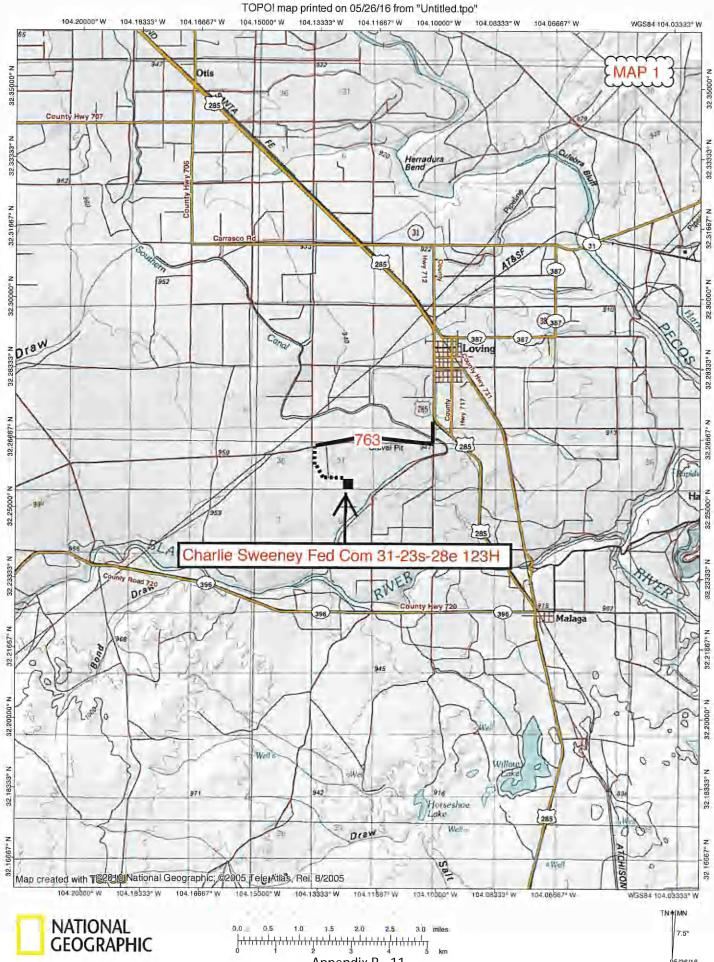
Road from County Road 763 to the valve station is 2 lanes, crowned, and surfaced with caliche. No upgrade is needed.

All of the road (3/4 mile) from the valve station to the pad will be crowned, have a 14' wide driving surface, and be surfaced with caliche. Maximum disturbed width = 20'. Maximum grade = 2%. Maximum cut or fill = 1'. A cattle guard will be installed in the existing fence. No culvert or vehicle turn out is needed.



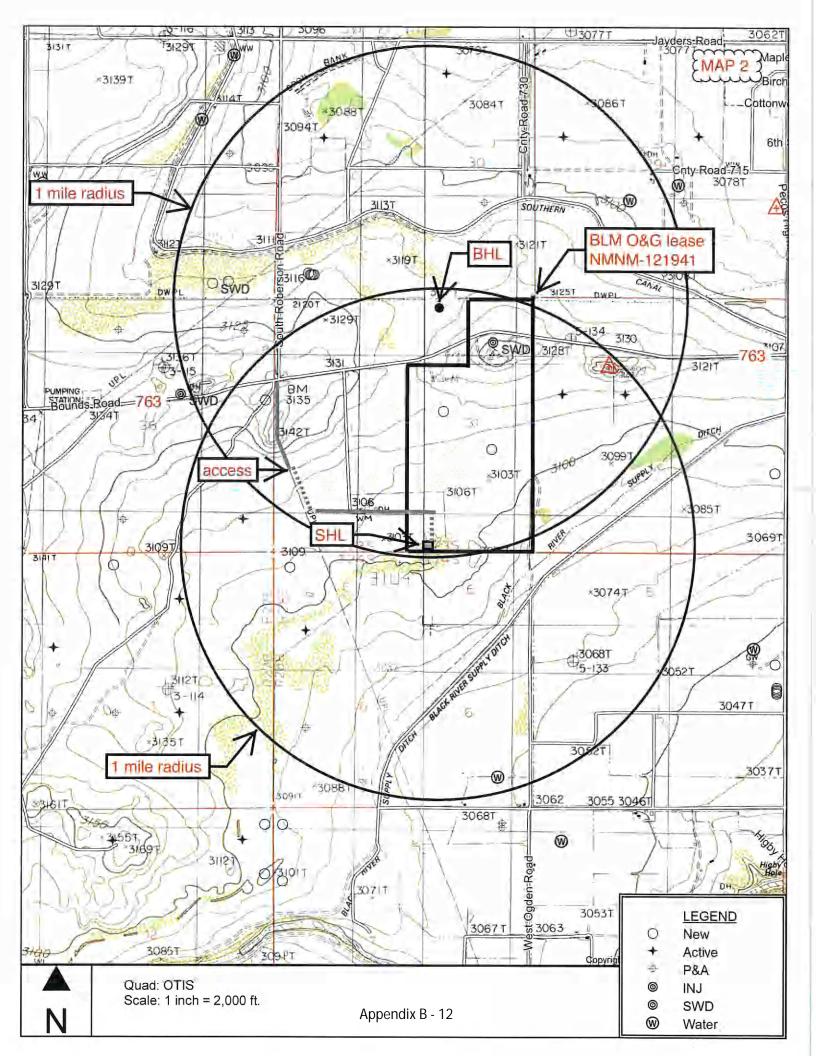


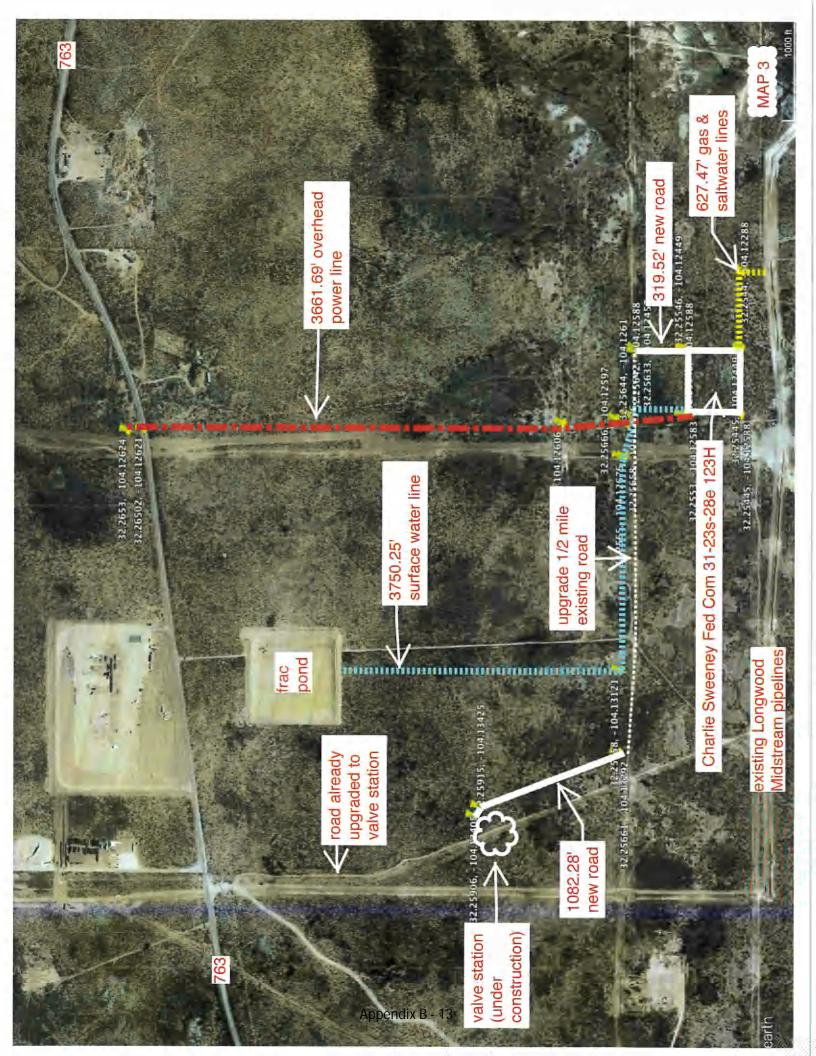
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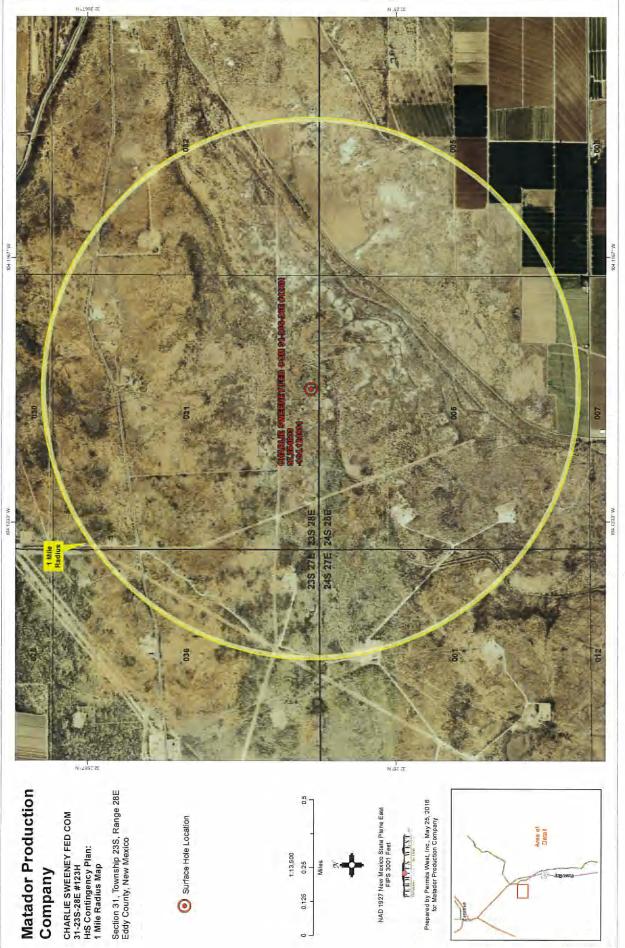
Appendix B - 11

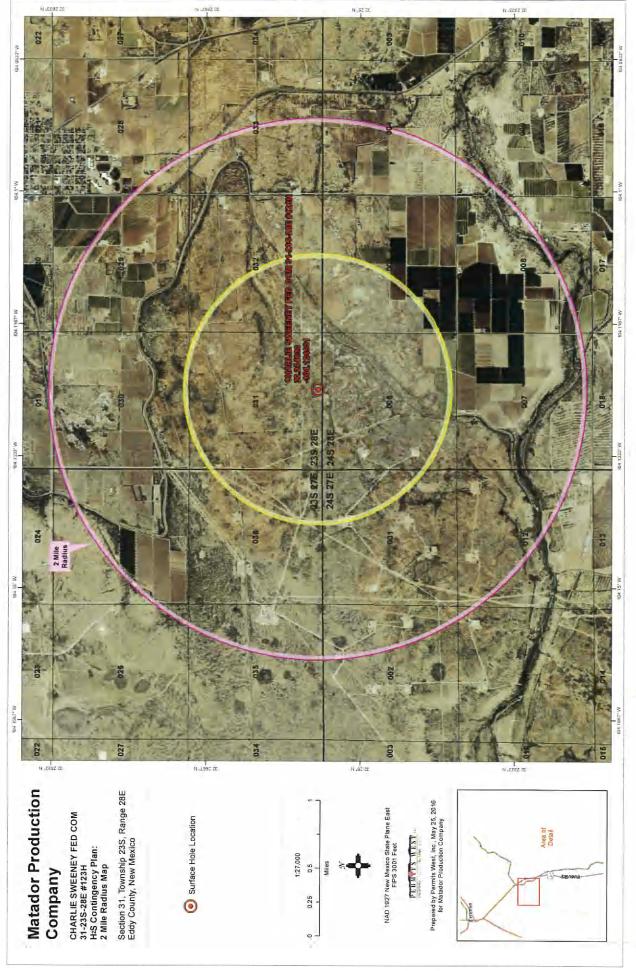
05/26/16



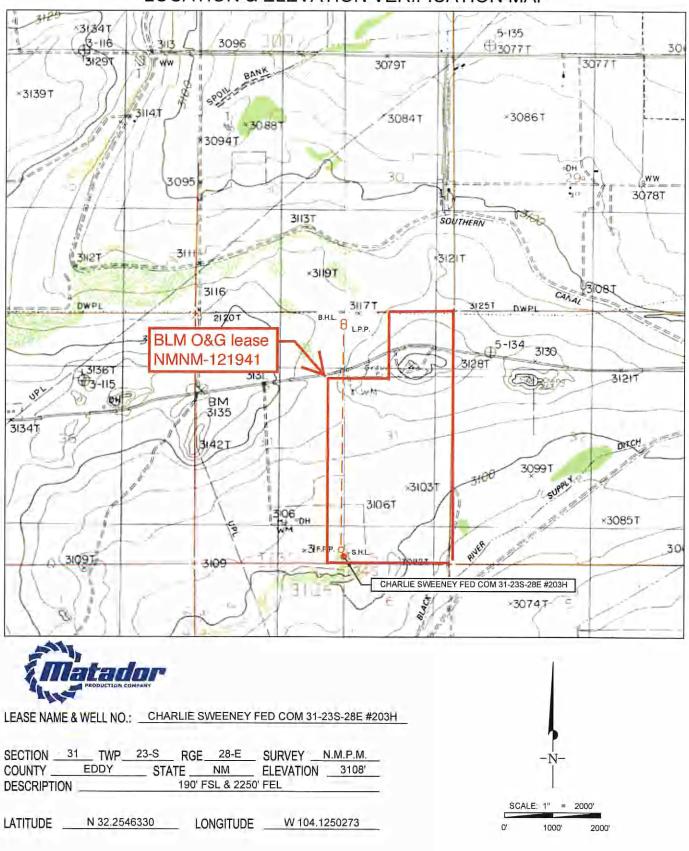






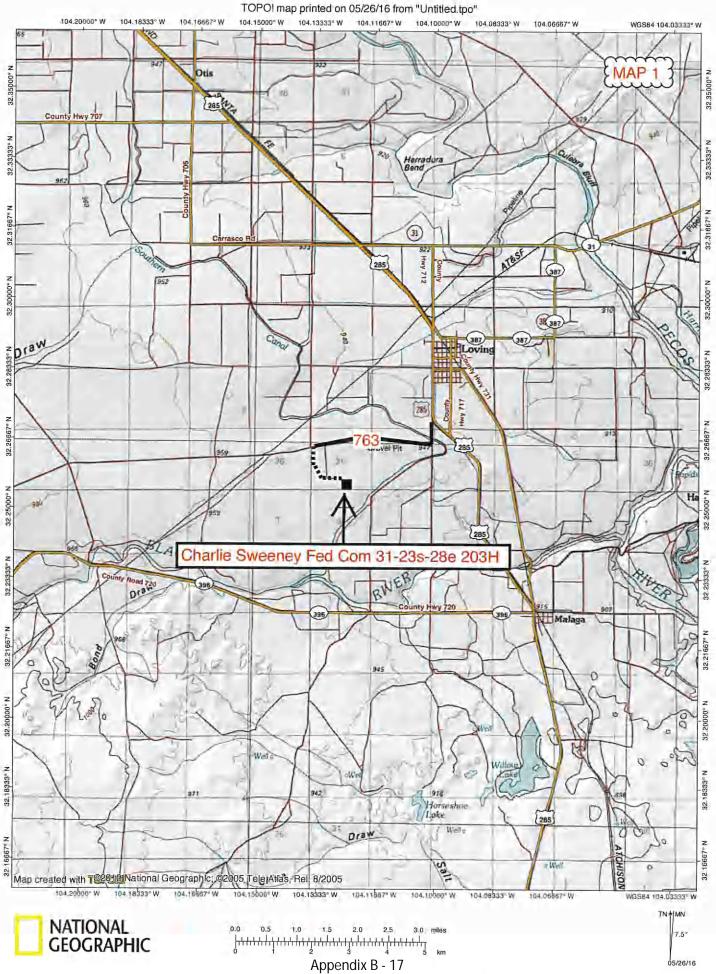


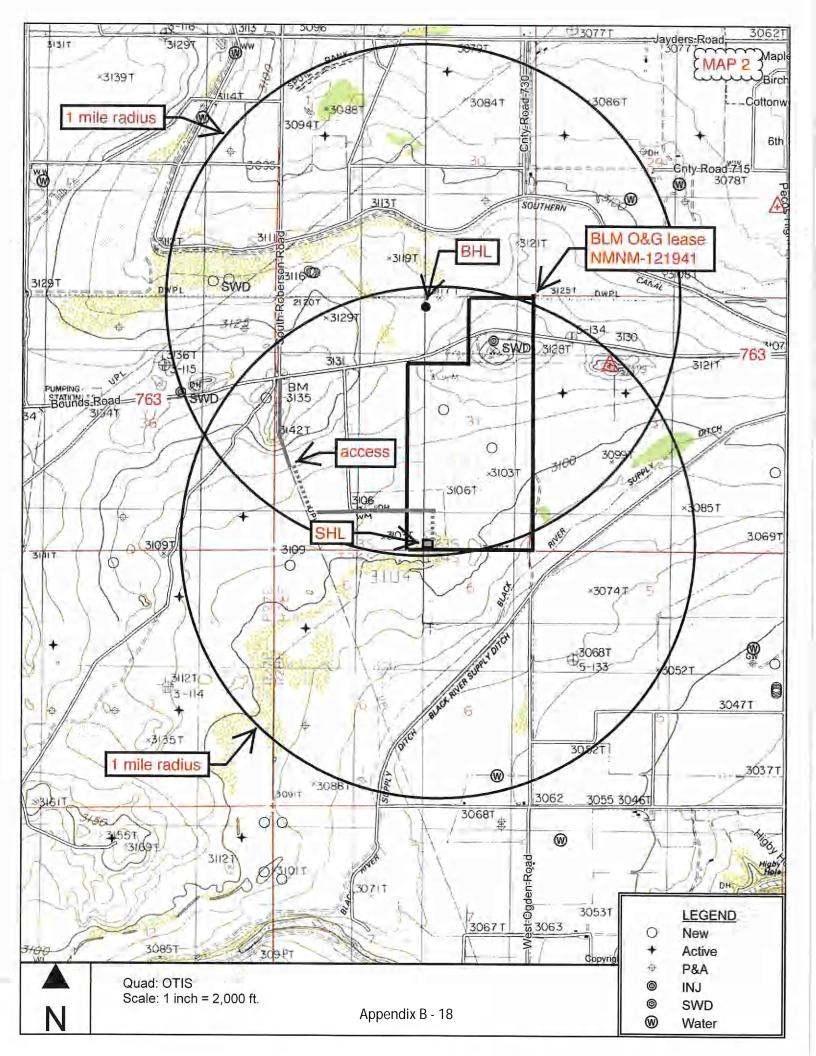
LOCATION & ELEVATION VERIFICATION MAP

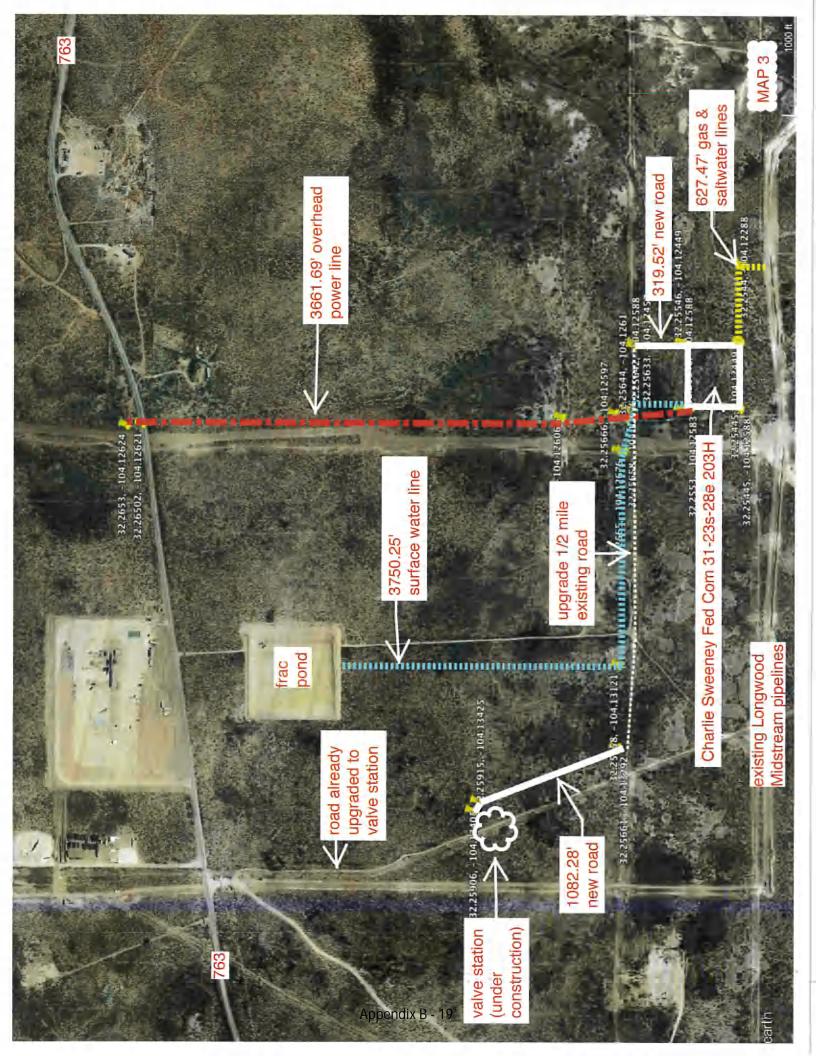


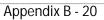
THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY MATADOR PRODUCTION COMPANY. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE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

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE OF THE NORTH AMERICAN DATUM 1927, U.S. SURVEY FEET: TOPPOGRAPHIC LOYALTY INNOVATION LEGACY 1400 EVERMAN PARKWAY, SIE. 197 • FT. WORTH, HEXAS 76140 TELEPHONE: (432) 682-1635 000; 764-7545 2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705 TELEPHONE: (432) 682-1653 000; 767-1655 • FAX (432) 682-1743 WWW.TOPDGRAPHIC.COM

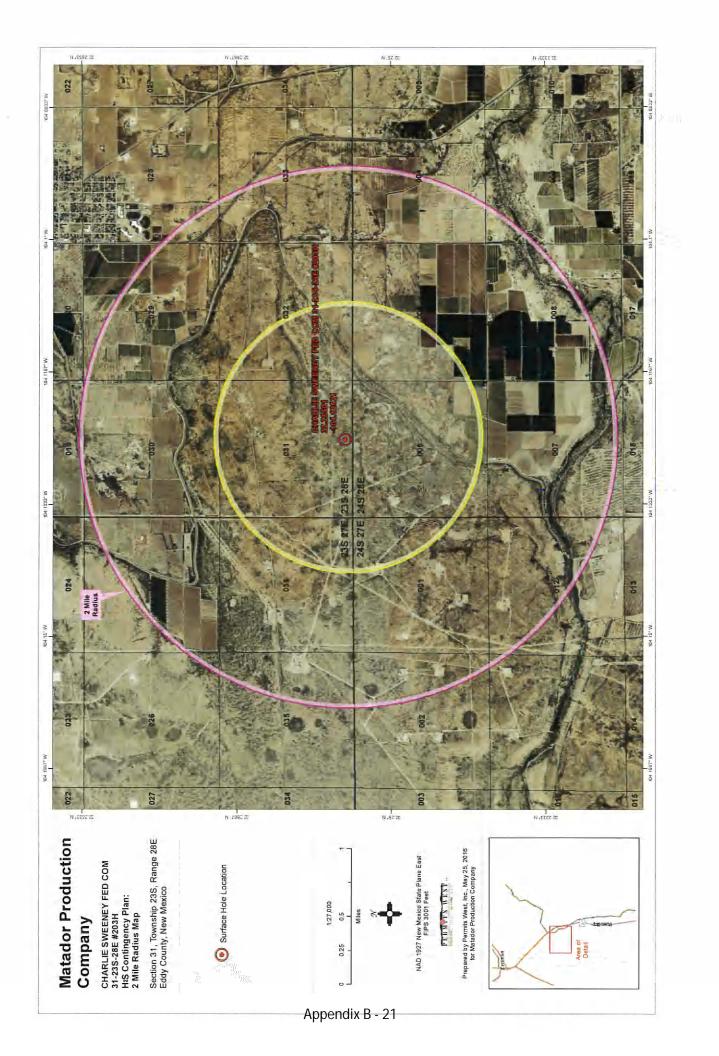


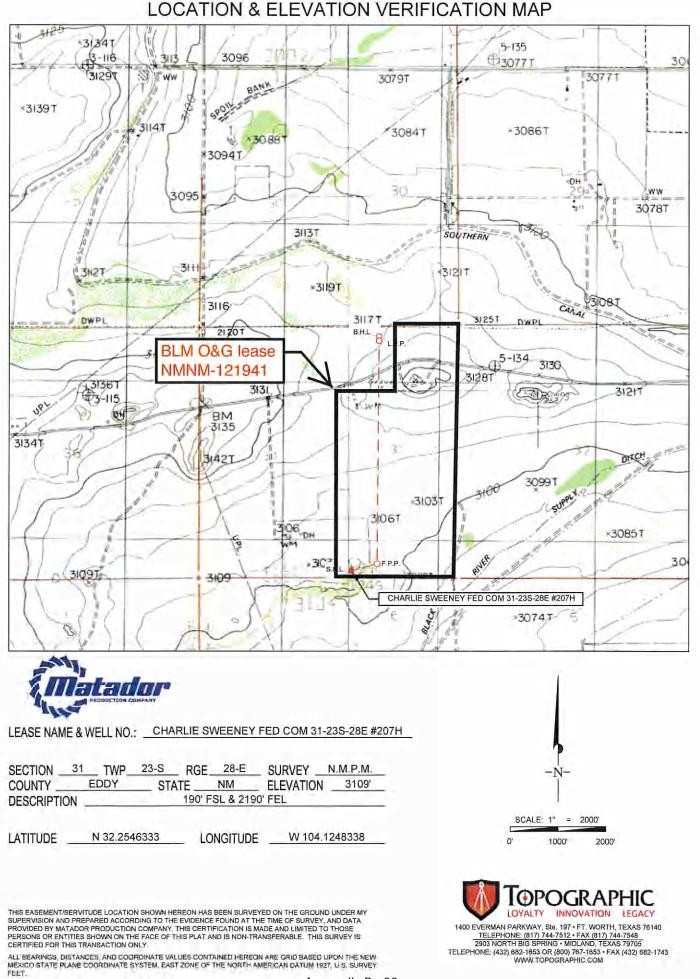






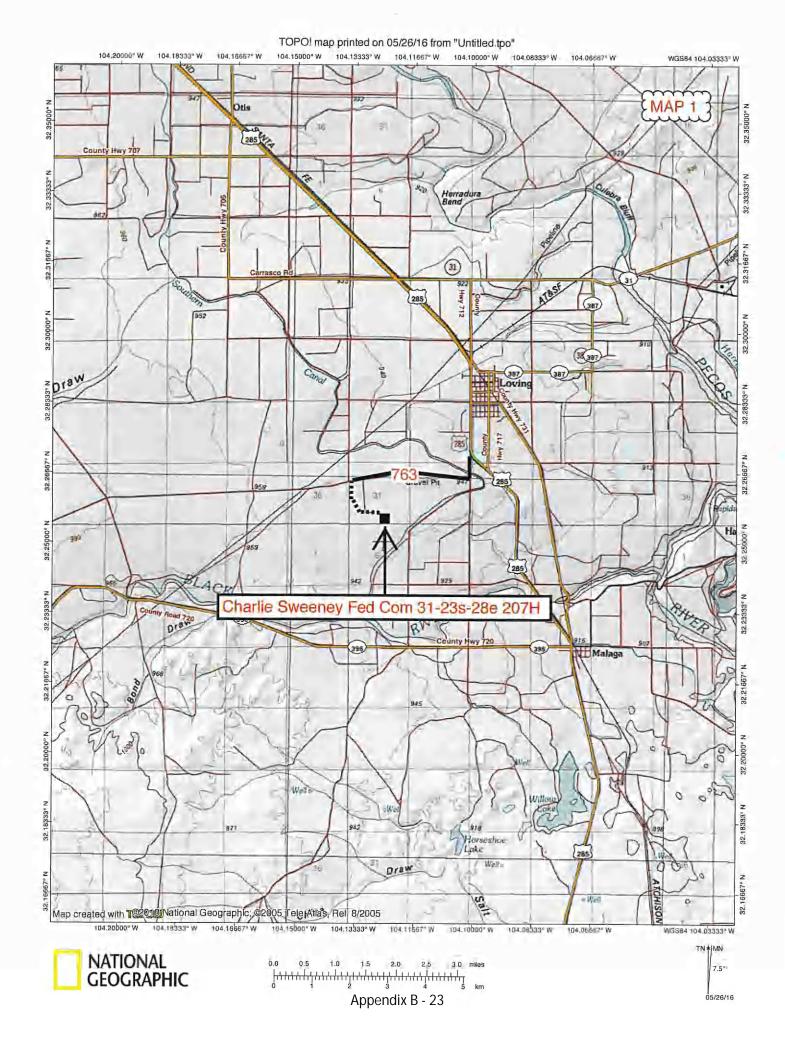


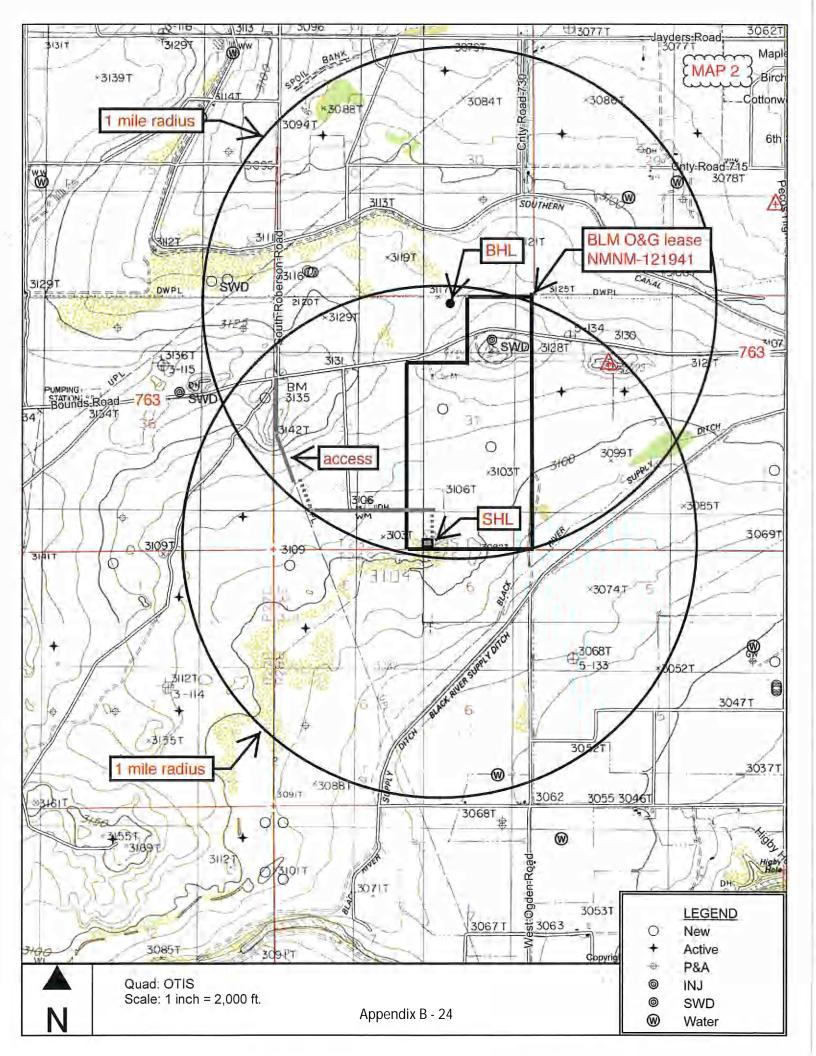


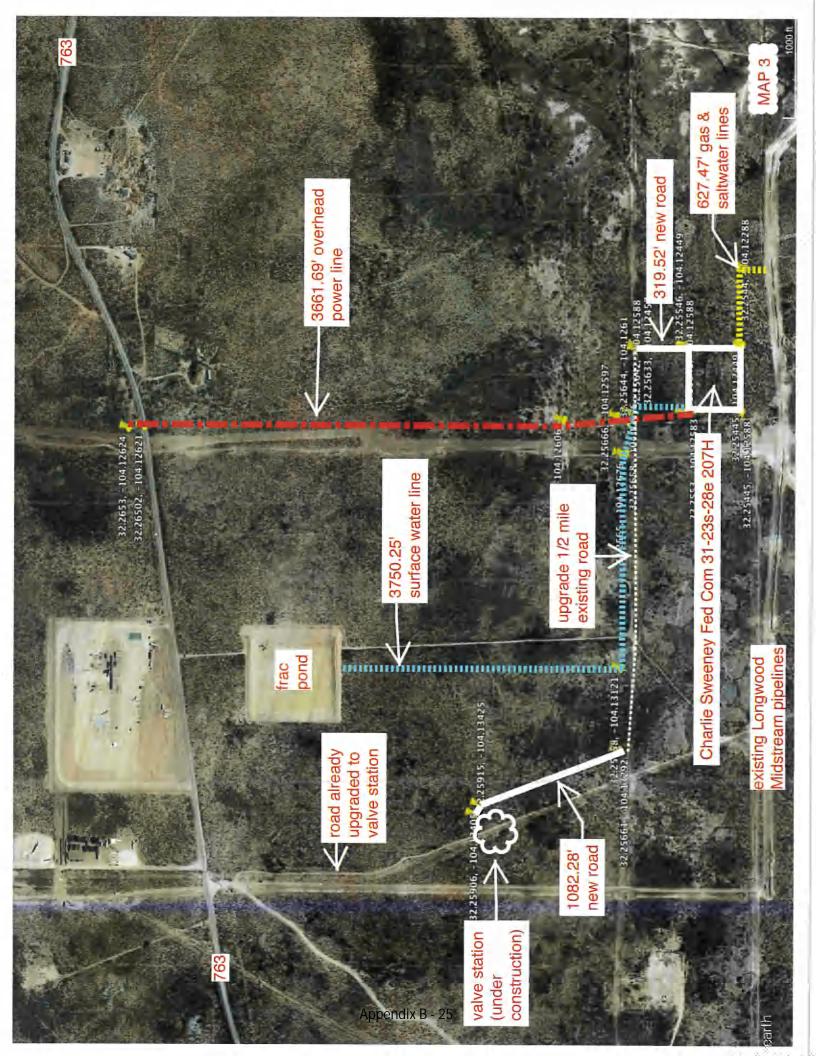


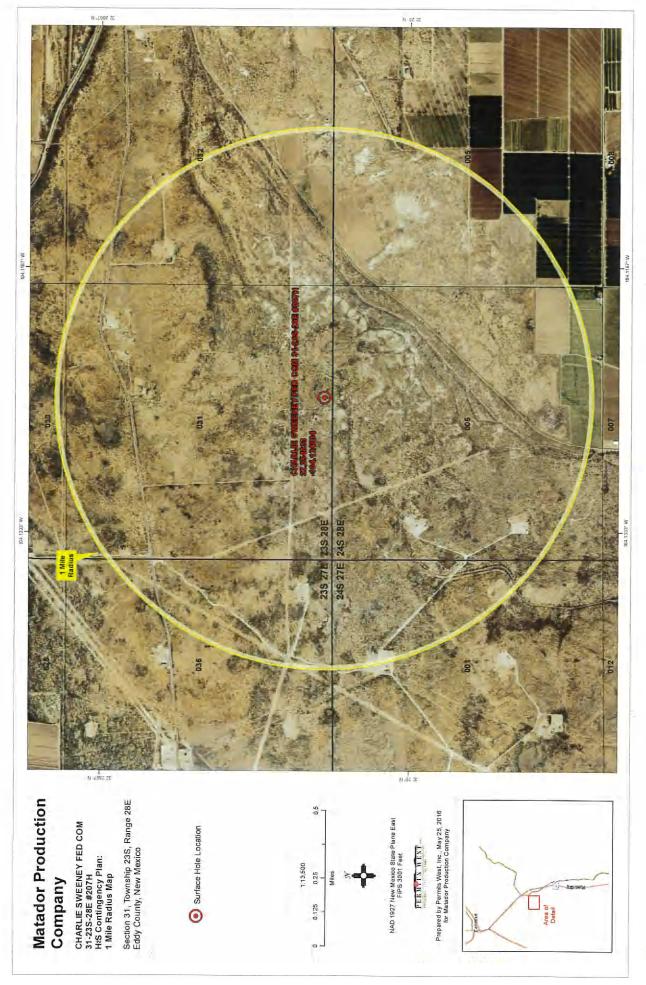
Appendix B - 22

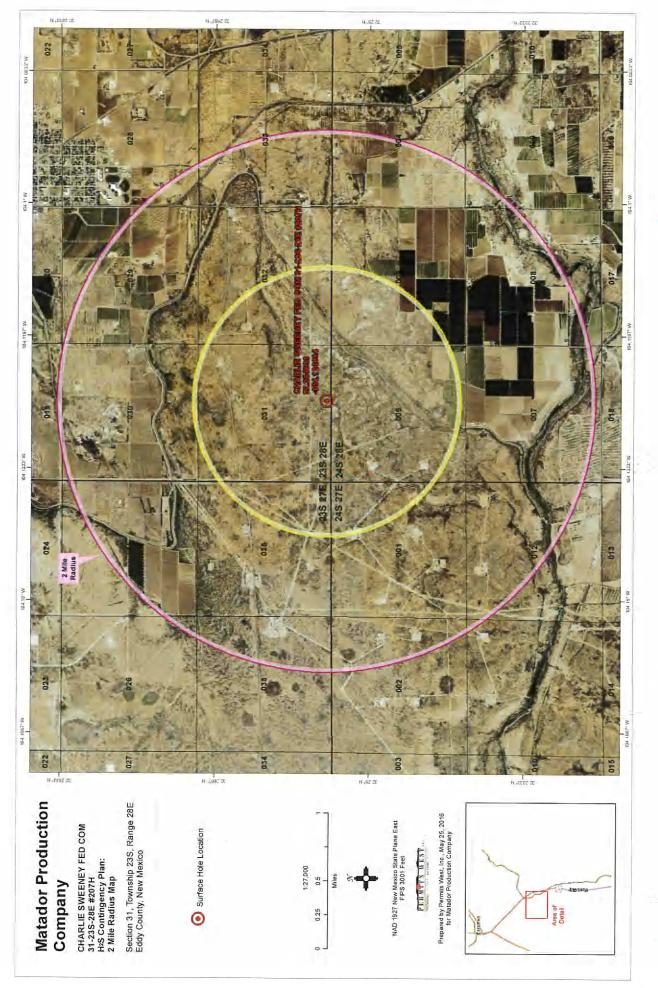
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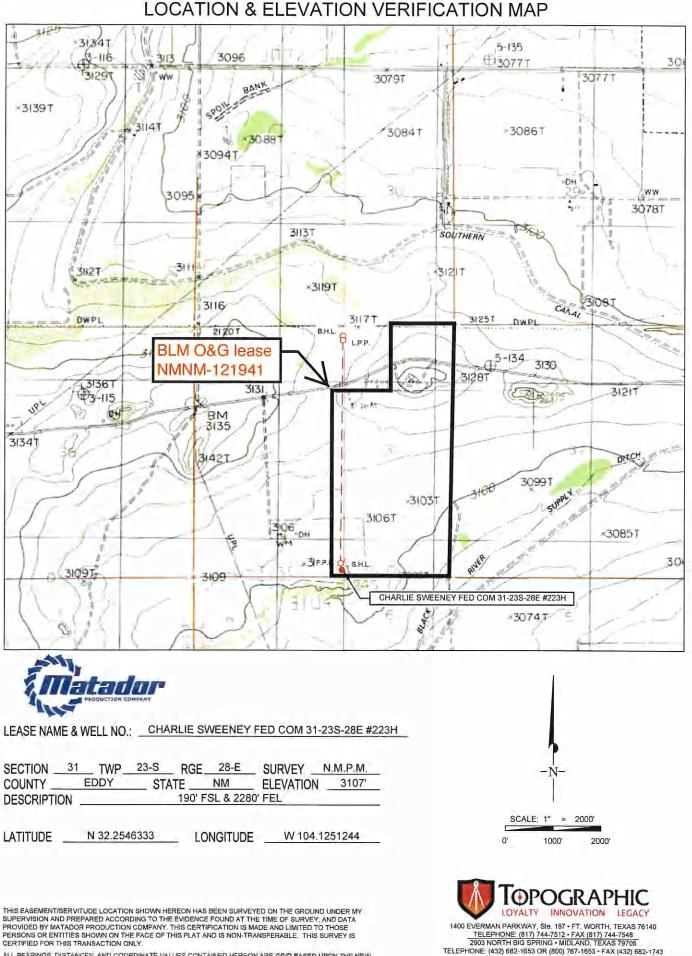






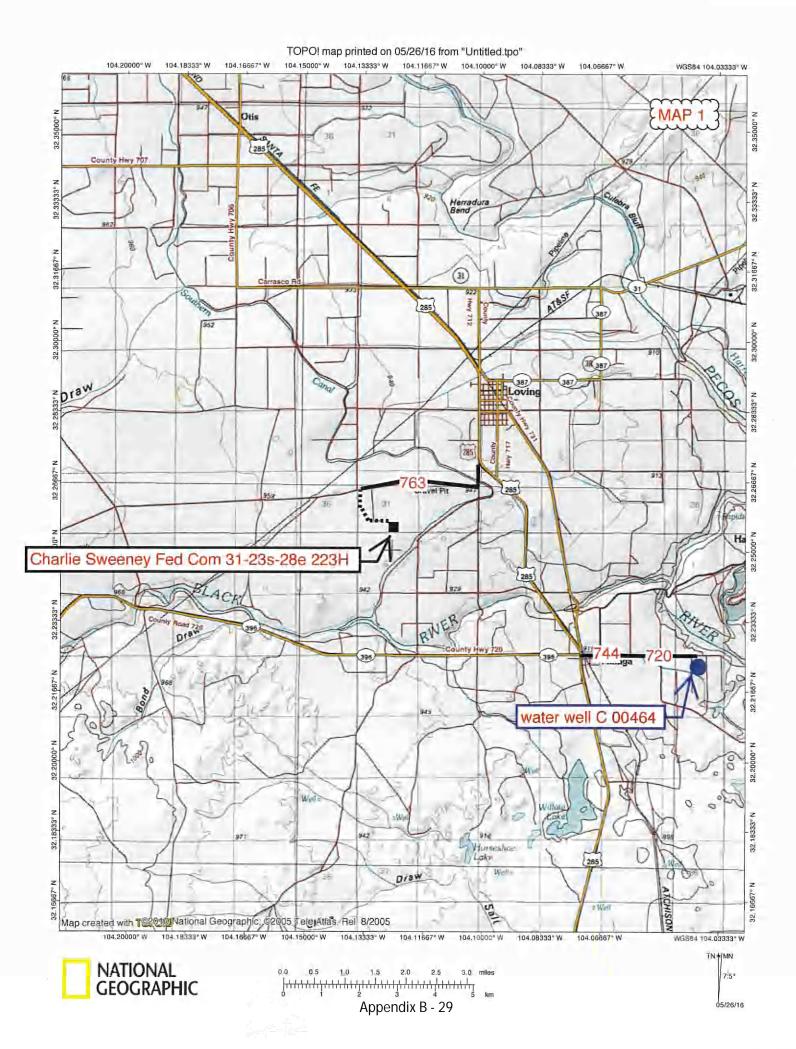


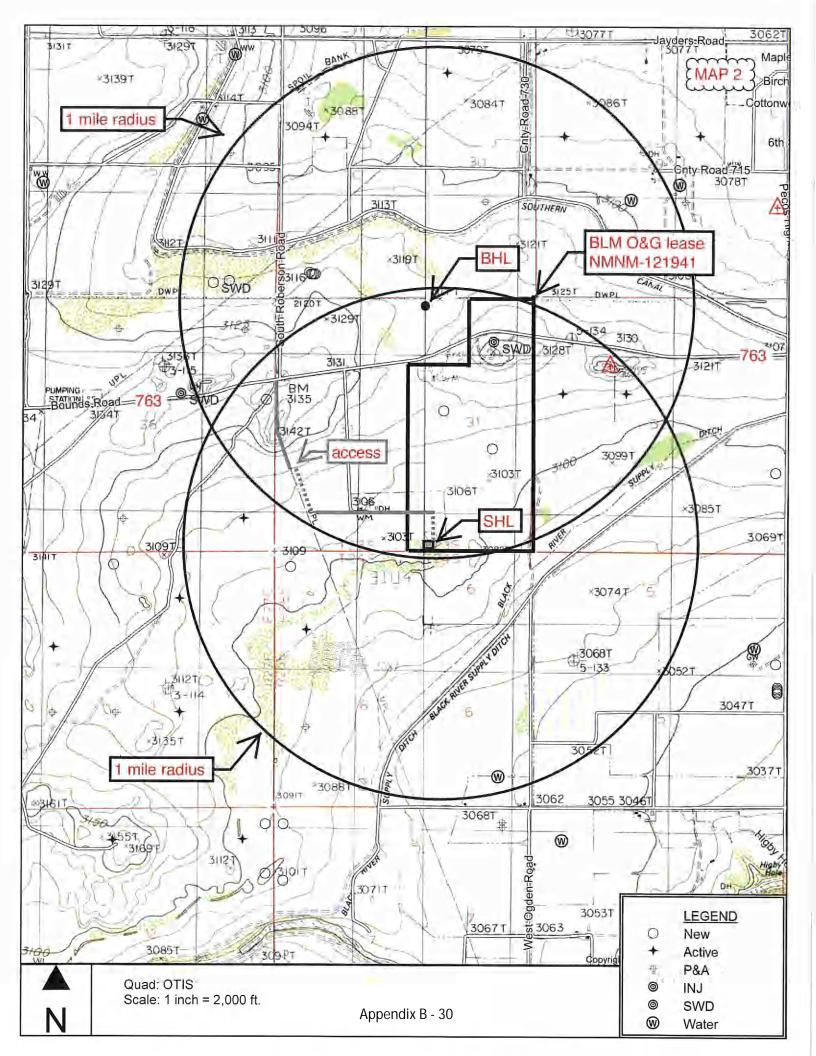


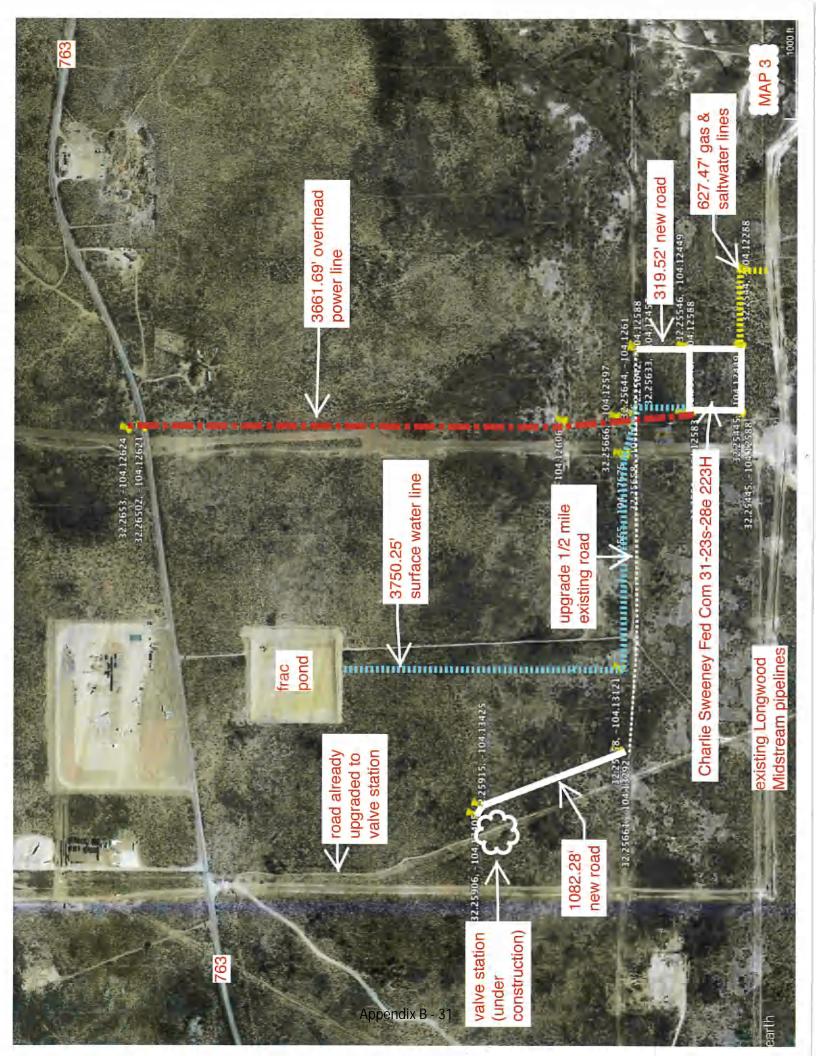


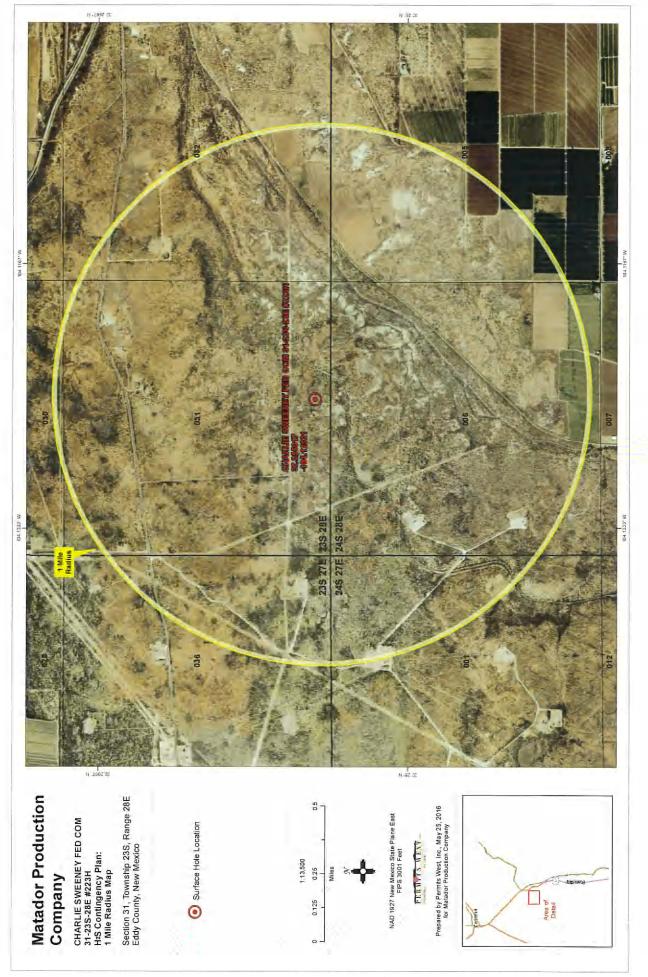
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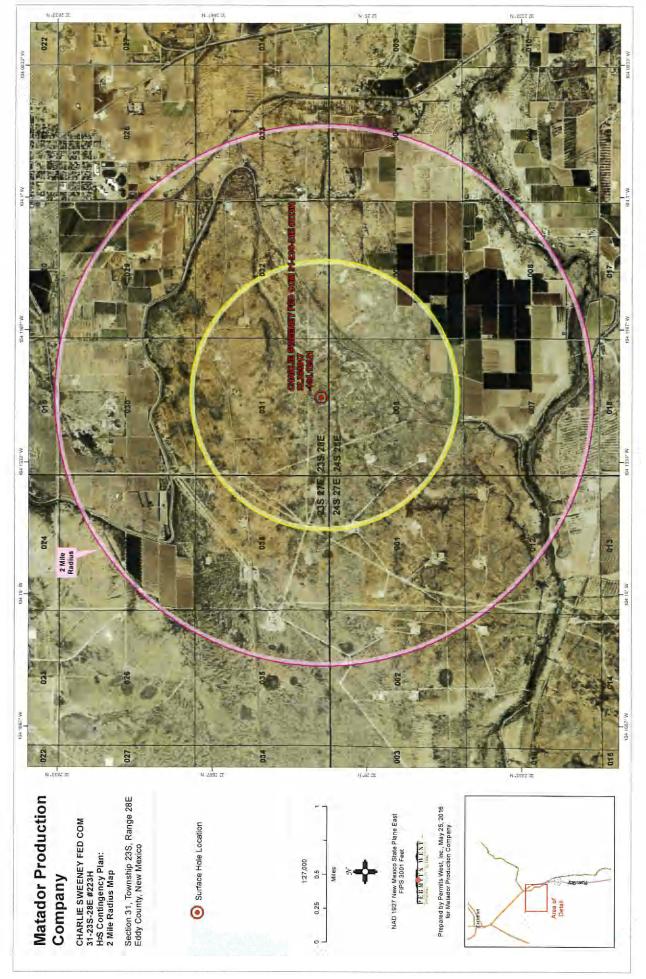
ASED UPON THE NEW TELEPHONE: (432) 682-1653 OR (800) 767-1653 - FAX (432) 682-1743 WWW.TOPOGRAPHIC.COM WWW.TOPOGRAPHIC.COM

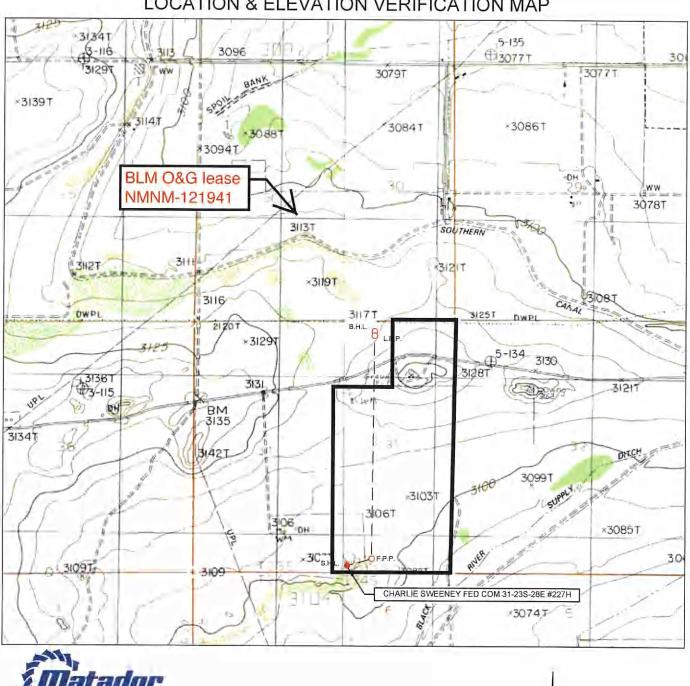












LOCATION & ELEVATION VERIFICATION MAP

atador

LEASE NAME & WELL NO .: __CHARLIE SWEENEY FED COM 31-23S-28E #227H

SECTION31	_ TWP_	23-S	RGE	28-E	SURVEY	N.M.P.M.
COUNTY	EDDY	STA	TE	NM	ELEVATION	3111'
DESCRIPTION _	190' FSL & 2160' FEL					
DESCRIPTION _	190 FSL & 2160 FEL					

N 32.2546332 LATITUDE LONGITUDE W 104.1247363

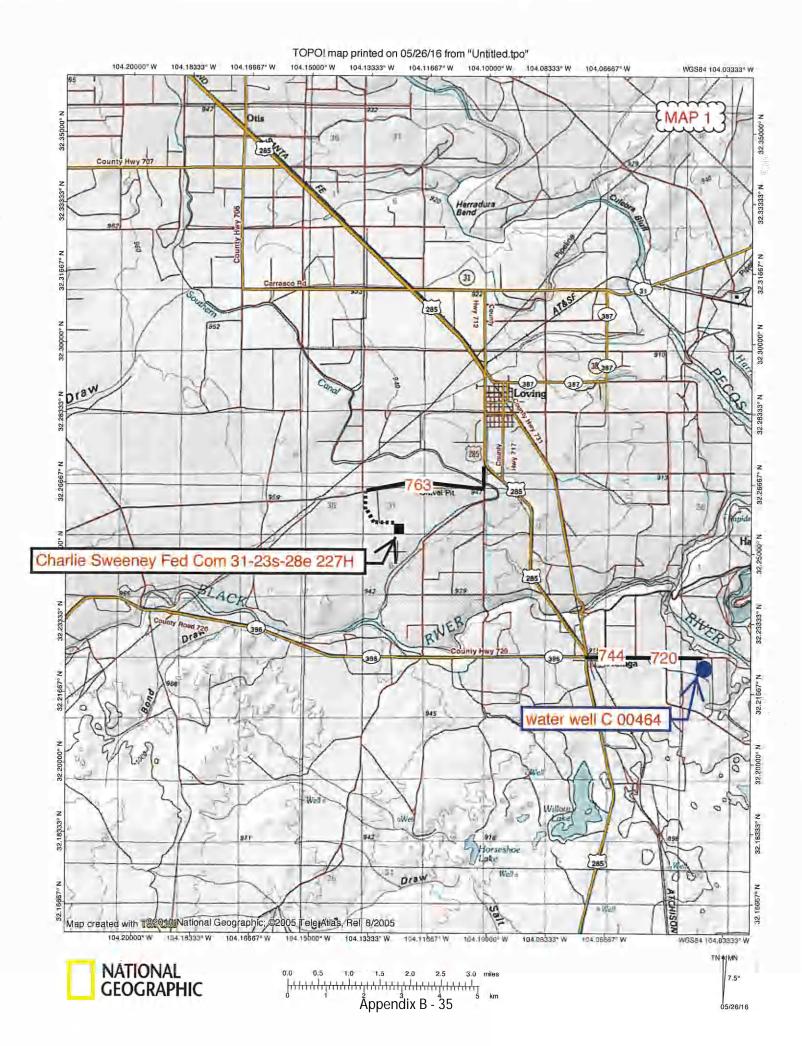
THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY MATADOR PRODUCTION COMPANY. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE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

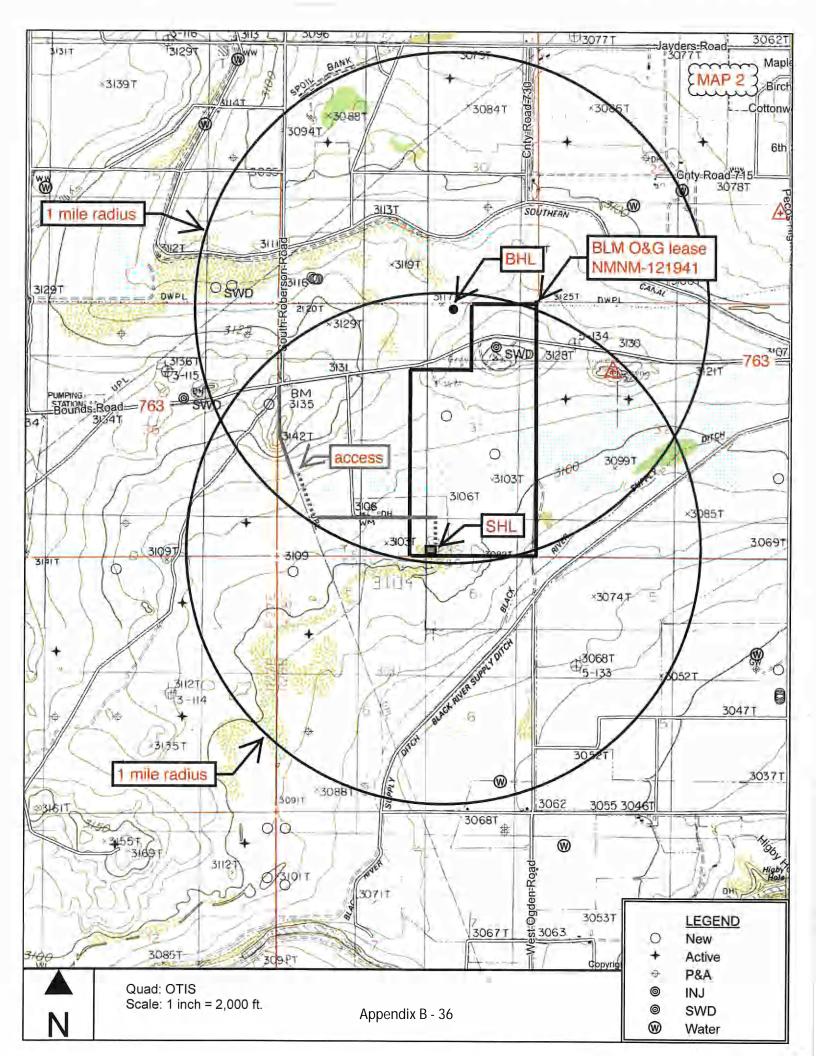
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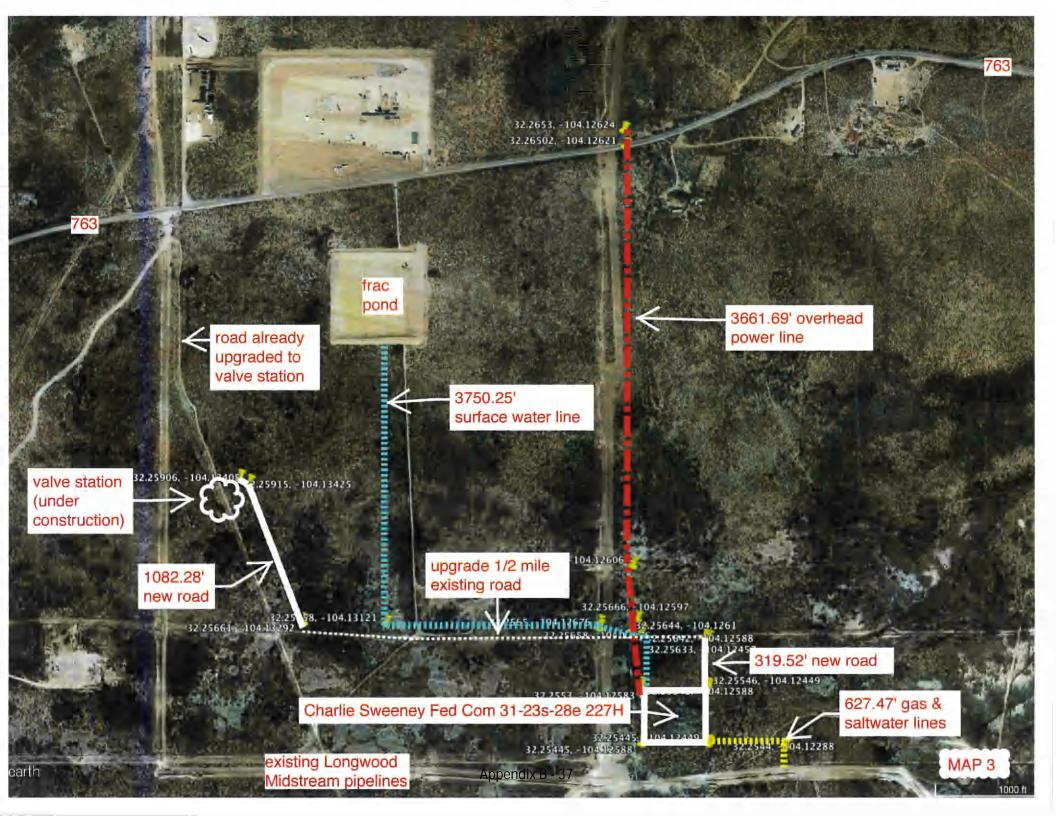
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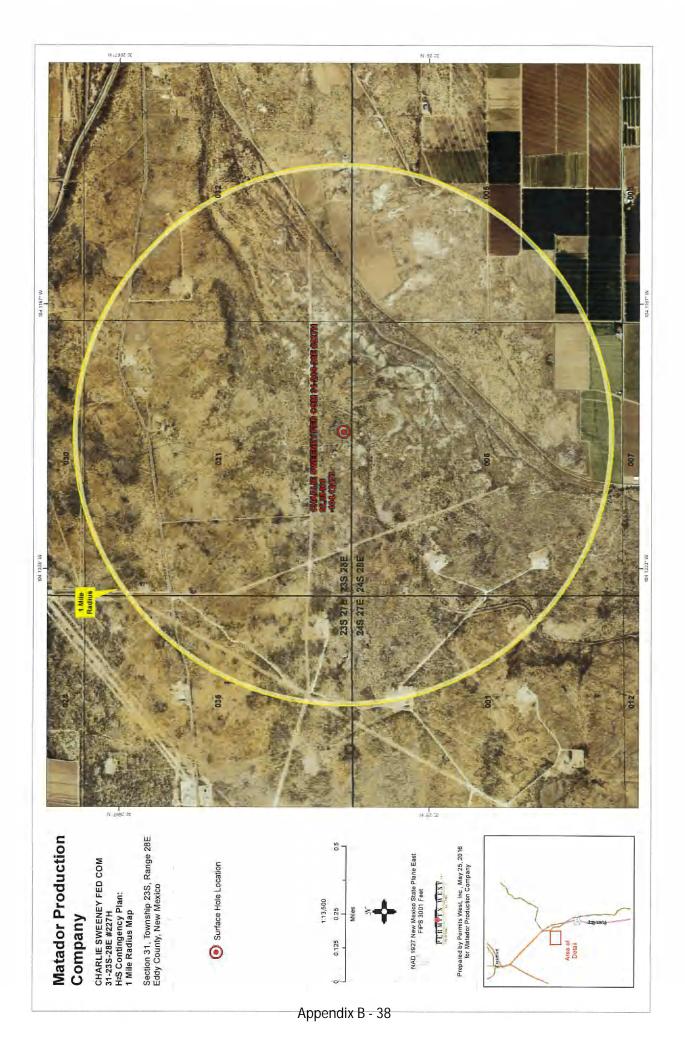
IOPOGRAPHIC LOYALTY INNOVATION LEGACY 1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140 TELEPHONE: (432) 682-1653 OR (800) 767-1653 FAX (432) 682-1743 WWW.TOPOGRAPHIC.COM

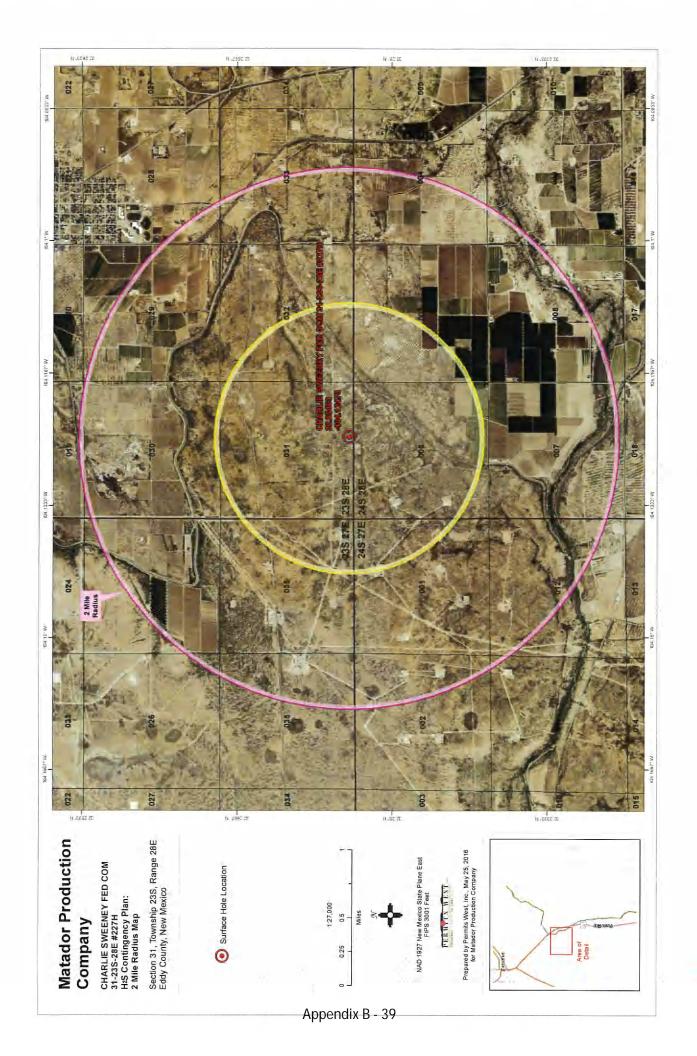
SISURVEYWATADOR_RESOURCESICHARLIE_SWEENEY_FED_COM_31-235-28E_227H/FINAL_PRODUCTSILD_CHARLIE_SWEENEY_FED_COM_31-235-28E_227H, REV3.DWG 4/28/2016 8:00:58 AM (slove)











East Pad: Charlie Sweeney Federal RB 31-23S-28E 124H, 204H, 208H, 224H, and 228H wells

Form 3160 -3 (March 2012)			OMB No.	M APPROVED No. 1004-0137 October 31, 2014			
UNITED STATE DEPARTMENT OF THE BUREAU OF LAND MAI	5. Lease Serial No. NMNM-121941						
APPLICATION FOR PERMIT TO	6. If Indian, Allotee o N/A	r Tribe Name					
Ia, Type of work: DRILL REENT		7. If Unit or CA Agreer N/A	nent, Name and No.				
Ib. Type of Well: 🔽 Oil Well 🗌 Gas Well 🗌 Other		Single Zone 🔲 Mult	iple Zone	8. Lease Name and We Charlie Sweeney Fee			
2. Name of Operator MATADOR PRODUCTION COMPANY	1			9. API Well No. 30-015-			
3a. Address 5400 LBJ FREEWAY, SUITE 1500 DALLAS, TX 75240	3b. Phone 972 371	No. (include area code) 5241		10. Field and Pool, or Ex CULEBRA BLUFF; E			
4. Location of Well (Report location clearly and in accordance with a	ny State requir	ements.*)		11. Sec., T. R. M. or Blk.			
At surface 188' FSL & 605' FEL				SESE 31-23S-28E N	MPM		
At proposed prod. zone 240' FNL & 660' FEL							
 Distance in miles and direction from nearest town or post office* 2 AIR MILES SW OF LOVING, NM 				12. County or Parish EDDY	13. State NM		
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig, unit line, if any)	280			ing Unit dedicated to this well 31-23S-28E			
 Distance from proposed location* to nearest well, drilling, completed, BHL: 30' (Sween. 208H) applied for, on this lease, ft. 	19. Propo TVD: 79	sed Depth 02' MD: 12663'		I/BIA Bond No. on file IMB-001079			
 Elevations (Show whether DF, KDB, RT, GL, etc.) 3101' UNGRADED 	22 Appro 09/01/20	ximate date work will st. 016	art*	23. Estimated duration3 MONTHS			
	24. Att	achments					
The following, completed in accordance with the requirements of Onsho	re Oil and Ga	s Order No.1, must be a	attached 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 SUPO must be filed with the appropriate Forest Service Office). 	Lands, the	Item 20 above). 5. Operator certifi	cation	ons unless covered by an ex ormation and/or plans as m			
25. Signature Dichter		e (Printed/Typed) AN WOOD (PH	March Colors and Colors and Colors	ate 07/05/2016			
Title CONSULTANT		(FA	X: 505 46	6-9682)			
Approved by (Signature)	Nam	e (Printed/Typed)			ate		
Title	Offic	Office					
Application approval does not warrant or certify that the applicant hold conduct operations thereon. Conditions of approval, if any, are attached.	ls legal orequ	uitable title to those rigi	nts in the sub	ject lease which would enti	tle the applicant to		
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a c. States any false, fictitious or fraudulent statements or representations as	rime for any to any matter	person knowingly and within its jurisdiction.	willfully to n	nake to any department or a	gency of the United		
(Continued on page 2)				*(Instru	ctions on page 2)		

July 3, 2016

To Who it May Concern:

Matador Resources Company has a private surface owner agreement with Vickie Connally (R211 Ash Road, Loving NM 88256) for the Charlie Sweeney Fed 31-23s-28e 124H well site, pipelines, power line, and road in NWSW, S2S2, SWNE, & NWSE Section 31, T. 23 S., R. 28 E. and pipelines in Lot 2 Section 6, T. 24 S., R. 28 E.; all Eddy County, NM.

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

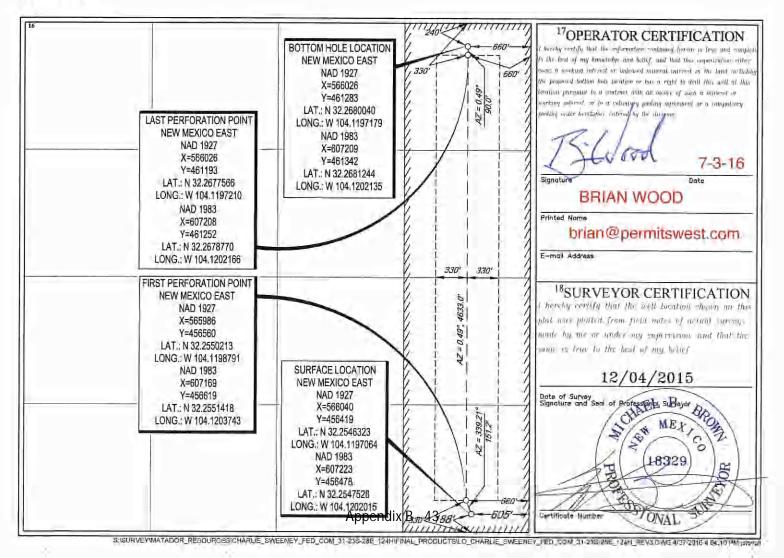
Matador Resources Company has a private surface owner agreement with Longwood Midstream Delaware LLC (5400 LBJ Freeway, Suite 1500, Dallas TX 75240) for their portion (Lot 2 31-23s-28e) of the water (Fast Line) pipeline.

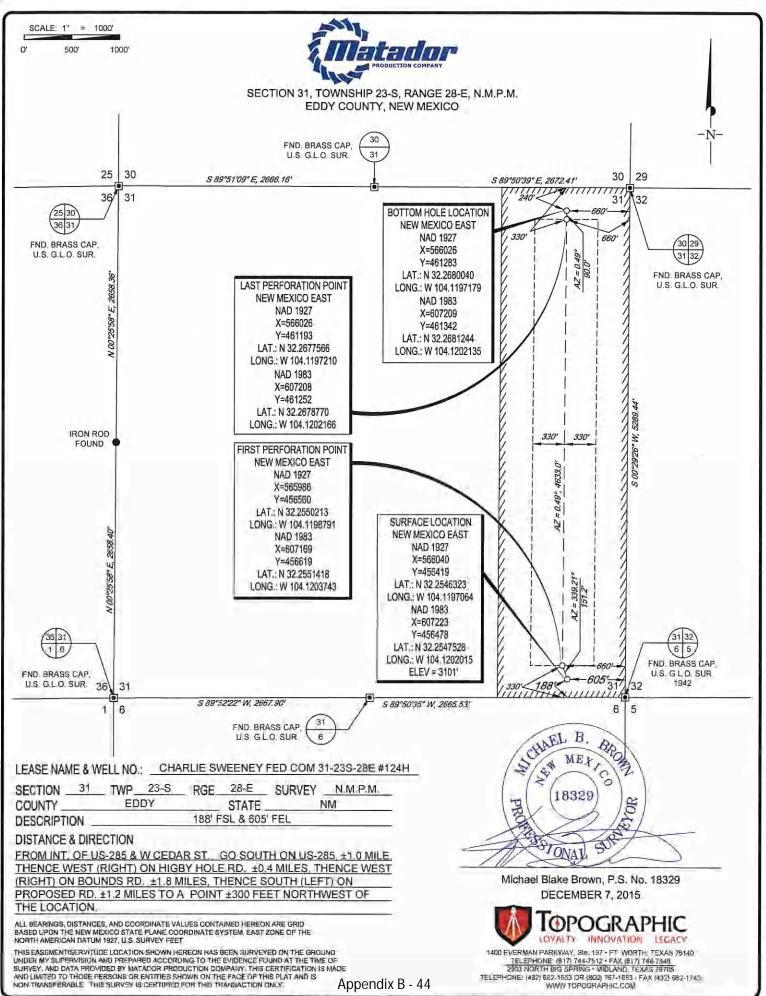
Brian Wood

District 1 State of New Mexico **FORM C-102** 1625 N French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 Revised August 1, 2011 Energy, Minerals & Natural Resources District II 811 S. First St., Artesia, NM 88210 Submit one copy to appropriate Department Phone (575) 748-1283 Fax: (575) 748-9720 District III OIL CONSERVATION DIVISION **District Office** 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax. (505) 334-6170 1220 South St. Francis Dr. District IV 1220 S St Francis Dr . Sance Fe, NM 87505 AMENDED REPORT Sante Fe, NM 87505 Phone: (505) 476-3460. Fax. (505) 476-3462

WELL LOCATION AND ACREAGE DEDICATION PLAT*2nd Bone Spring sand

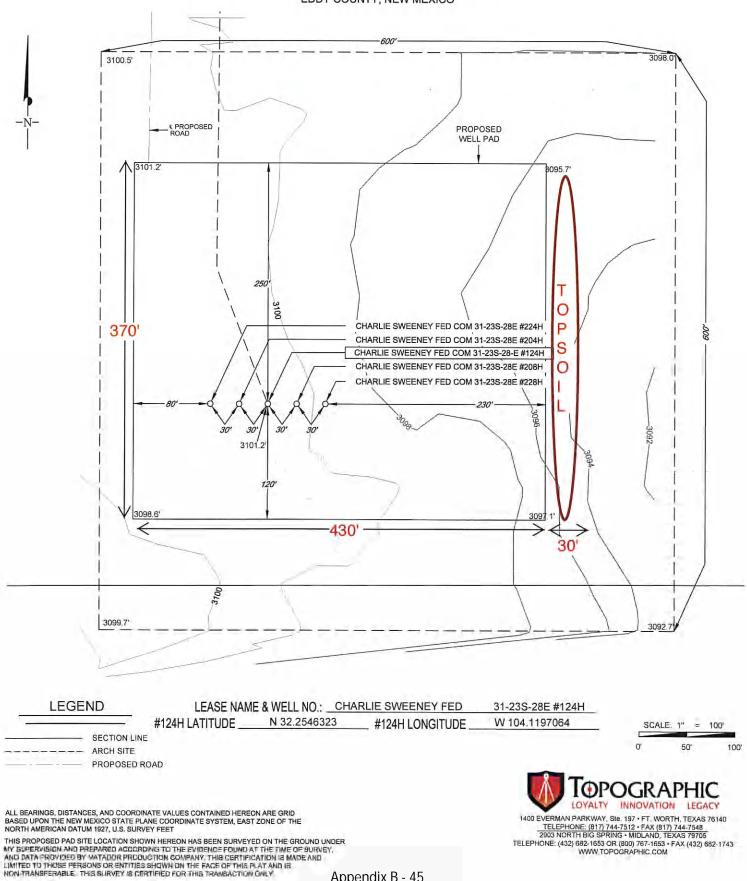
30-015-	¹ API Numbe	ber ³ Pool Name 15011 CULEBRA BLUFF; BONE SPRING							OUTH		
⁴ Property Code ⁵ F CHARLIE SWEENEY						Property Name Well Number Y FED 31–23S–28E #124H					
[*] Operator Name 228937 MATADOR PRODUCTION COMPANY								levation 101'			
				-	¹⁰ Surface Loc	ation					
UL or lot no. P	Section 31	Township 23–S	Range 28–E	Lot fðn —	Feet from the 188'	North/South line	Feet from the 605'	East/West line EAST	County EDDY		
UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County		
A	31	23-S	28-E	-	240'	NORTH	660'	EAST	EDDY		







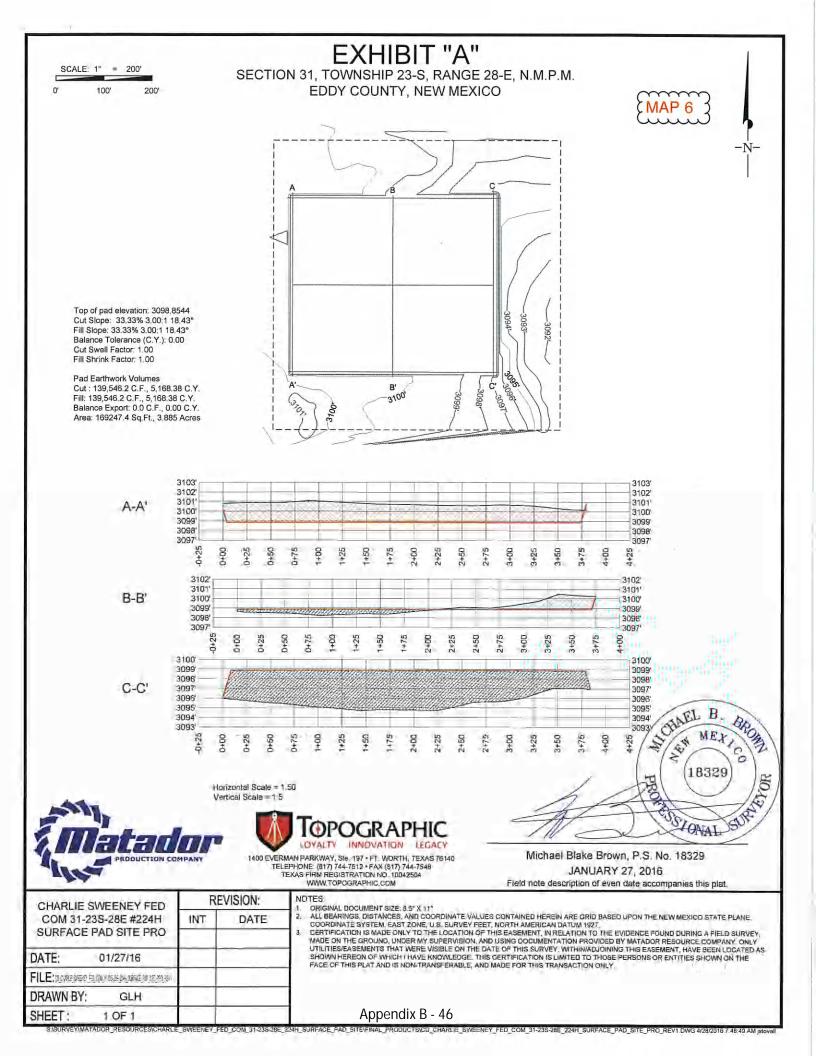




ORIGINAL DOCUMENT SIZE: 8,5" X 11"

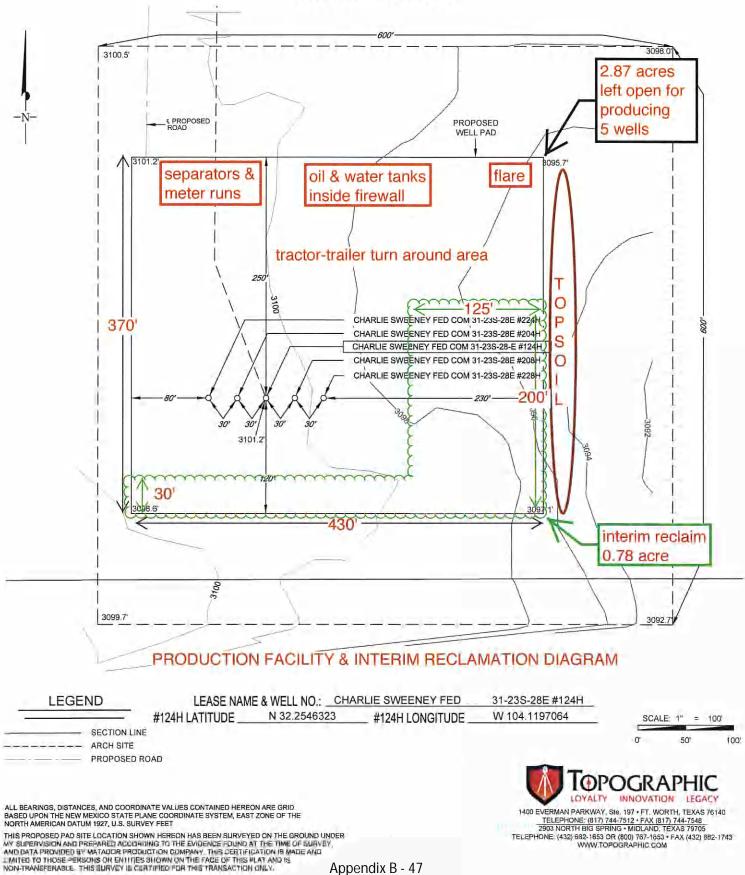
Appendix B - 45

BABURVEYIMA1ADOR_RESOURCESICHARLIE_SWEENEY_FED_DOM_11-335 28E 124HIFINAL_FRODUCTS10_CHARLIE_SWEENEY_FED_COM_31-235-28E_124H_REV3.DWG 4/27/2016 4.02:08 PM jstovali









ORIGINAL DOCUMENT SIZE, 8.5" X 11"

Appendix B - 47

SIRVEYWATADDR_RESDURCESSOHARLIE_SWEEREY_FED_COM_31/233/28E_124HIFINAL_PRODUCT91 D_CHARLIE_SWEEREY_FED_COM_31/235/28E_124H_REV3 DWG 4/27/2016 4/02/08 PM (stovali

Form 3160 -3 (March 2012)	Full well name will be: Charlie Sweeney Fed Co		OMB No	APPROVED 1004-0137 tober 31, 2014			
	UNITED STAT DEPARTMENT OF TH	5. Lease Serial No. NMNM-121941					
	BUREAU OF LAND M	6. If Indian, Allotee of N/A	or Tribe Name				
la. Type of work	e 🗹 DRILL 🗌 REE		 If Unit or CA Agreement, Name and No. will comm. w/ fee lease 				
Ib. Type of Well	: Dil Well 🗸 Gas Well Dther	VS	ingle Zone 🔲 Mul	tiple Zone	8. Lease Name and W Charlie Sweeney FC		
2. Name of Ope	TATOR MATADOR PRODUCTION COMPA	NY			9. API Well No. 30-015-		
	00 LBJ FREEWAY, SUITE 1500 LLAS, TX 75240	3h Phone N 972 371 5	0, (include area code) 5241		10. Field and Pool, or E WILDCAT; WOLFC.	(5.) (1.) (5.)	
At surface 1	'ell (Report location clearly and in accordance with 88' FSL & 635' FEL rod. zone 240' FNL & 990' FEL	i any State require	ments.*)		11. Sec., T. R. M. or Bl SESE 31-23S-28E I		
	es and direction from nearest town or post office* SW OF LOVING, NM				12. County or Parish EDDY	13. State NM	
property or lea	proposed* SHL: 188' rest se line, ft. BHL: 240' st drig. unit line, if any)		No. of acres in lease M lease = 280 acres mm. area = 320 acres H lease = 320 acres				
 Distance from to nearest well, applied for. on 	drilling, completed, put a pool (1994)	 19. Propos TVD: 953 	ed Depth 2' MD: 14299'		VBIA Bond No. on file IMB-001079		
21. Elevations (S 3101' UNGRA	now whether DF, KDB, RT, GL, etc.) DED	22. Approv 10/01/20	imate date work will s 16	tart*	23. Estimated duration 3 MONTHS		
			achments				
 Well plat certifi A Drilling Plan, A Surface Use 	pleted in accordance with the requirements of Or ed by a registered surveyor. Plan (if the location is on National Forest Sys filed with the appropriate Forest Service Office)	em Lands, the	 Bond to cover Item 20 above Operator certi Such other si BLM. 	the operati). fication	ons unless covered by an of formation and/or plans as	may be required by the	
25. Signature	Award		e (Printed Typed) AN WOOD (P	HONE: 50	5 466-8120)	Date 07/11/2016	
Title CONSULT	ANT		(F	AX: 505 46	66-9682)		
Approved by (Signa	lure)-	Nam	e (Printed Typed)		1.1	Date	
Title		Offic	e				
conduct operations	ral does not warrant or certify that the applicant thereon. oval, if any, are attached.	holds legalor eq	uitable title to those ri	ghts in the su	ibject lease which would en	ntitle the applicant to	
Title 18 U.S.C. Sec States any false, fic	ion 1001 and Title 43 U.S.C. Section 1212, make it titions or fraudulent statements or representation	a crime for any s as to any matter	person knowingly and within its jurisdiction.	1 willfully to	make to any department o	r agency of the United	
(Continued or	n page 2)				*(Inst	ructions on page 2)	

July 11, 2016

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Brian Wood

District 1 1625 N. French Dr., Hobbs, NMI 88240 Phone (575) 393-6161 Fax (575) 393-0720 District 11 811 S. First St., Artesia, NMI 88210 Phone (575) 748-1283 Fax: (575) 748-9720 District 111 1000 Rio Brazos Road, Aztec, NMI 87410 Phone (505) 334-6178 Fax: (505) 334-6170 District IV

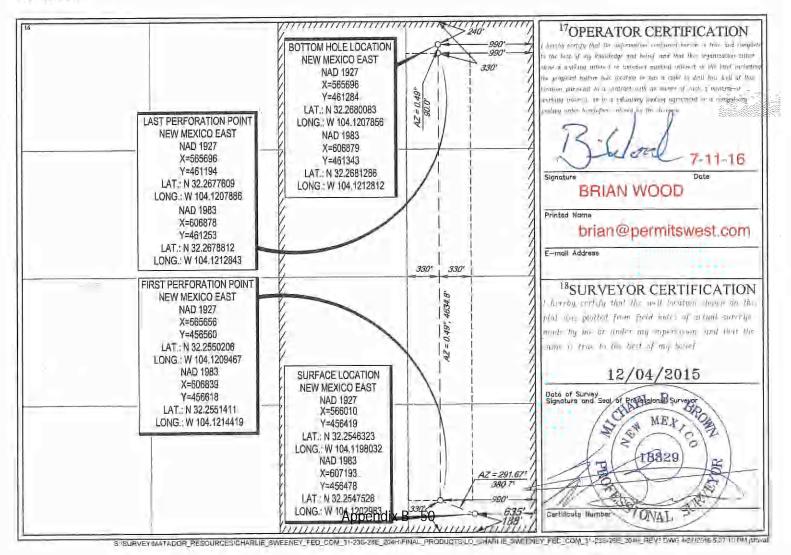
1220 S St Francis Dr., Sante Fe, NM 87505 Phone. (505) 476-3460. Fax: (505) 476-3462 State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Sante Fe, NM 87505 FORM C-102 Revised August 1, 2011 Submit one copy to appropriate

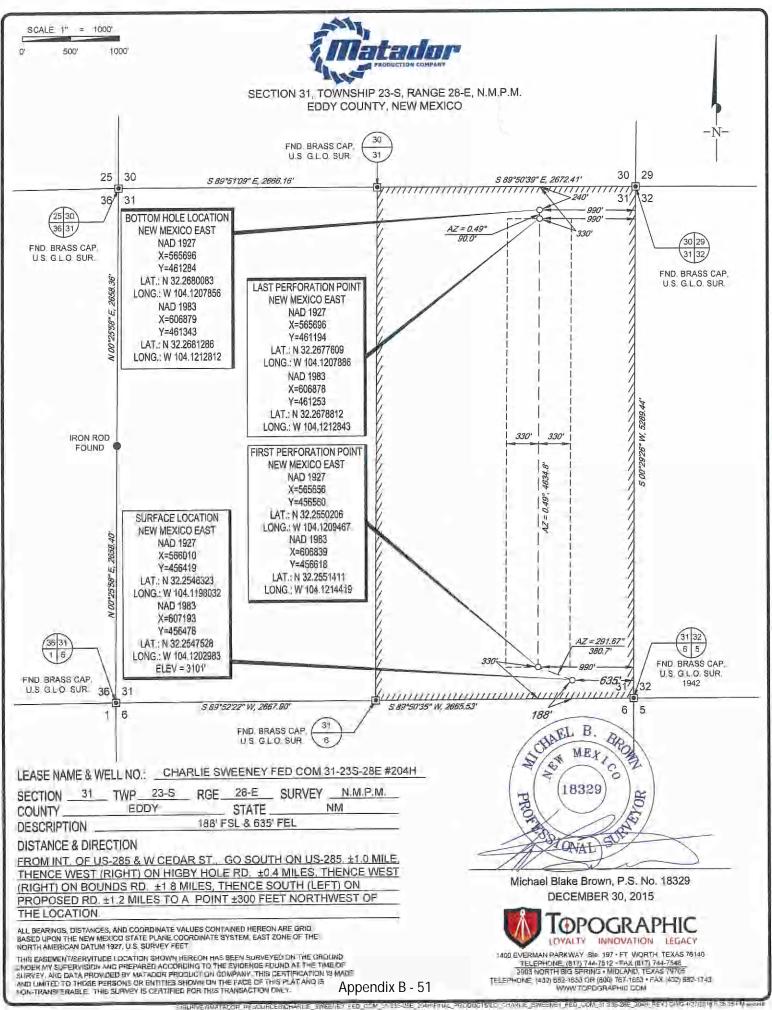
AMENDED REPORT

District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

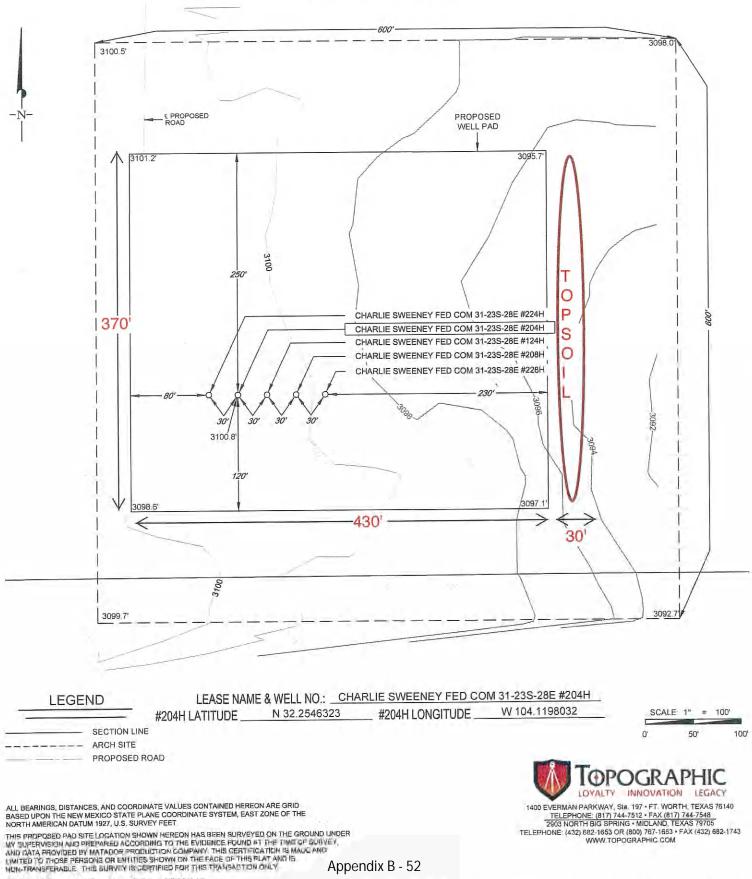
30-015-	'API Number ² Pool Code WILDCAT; WOLFCAMP Y									
Property Code CHARLIE SWEENE						me COM 31-235		⁶ Well Number #204H		
⁷ OGRID No. 228937 MATADOR PRODUCTION COMPANY									⁹ Elevation 3101'	
			2007	1	⁰ Surface Loo	cation				
UL or lot no. P	Section 31	Township 23–S	Range 28-E	Loi Idn	Feet from the 188'	North/South line SOUTH	Feet from the 635'	East/West line EAST	County EDDY	
UI, or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County	
A	31	23-S	28-E	-	240'	NORTH	990'	EAST	EDDY	
Dedicated Acres 320	¹³ Joint or 1	Infill ¹⁴ Ce	onsolidation Code	¹⁵ Order No						







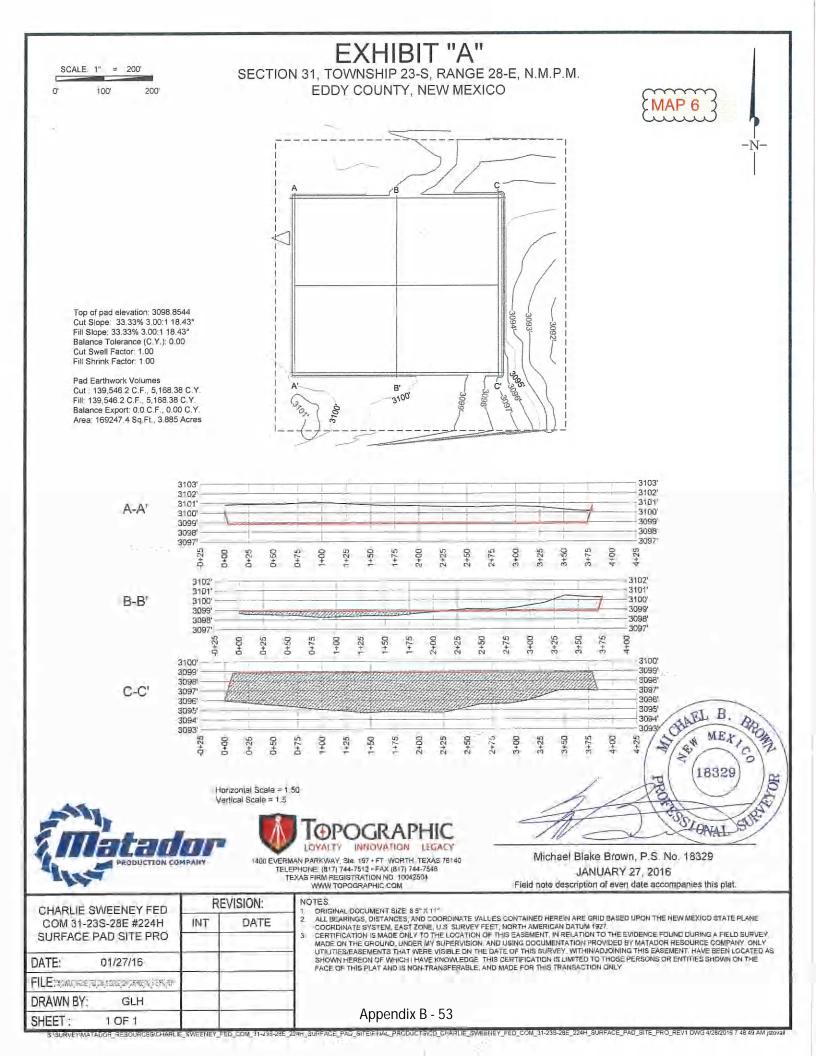




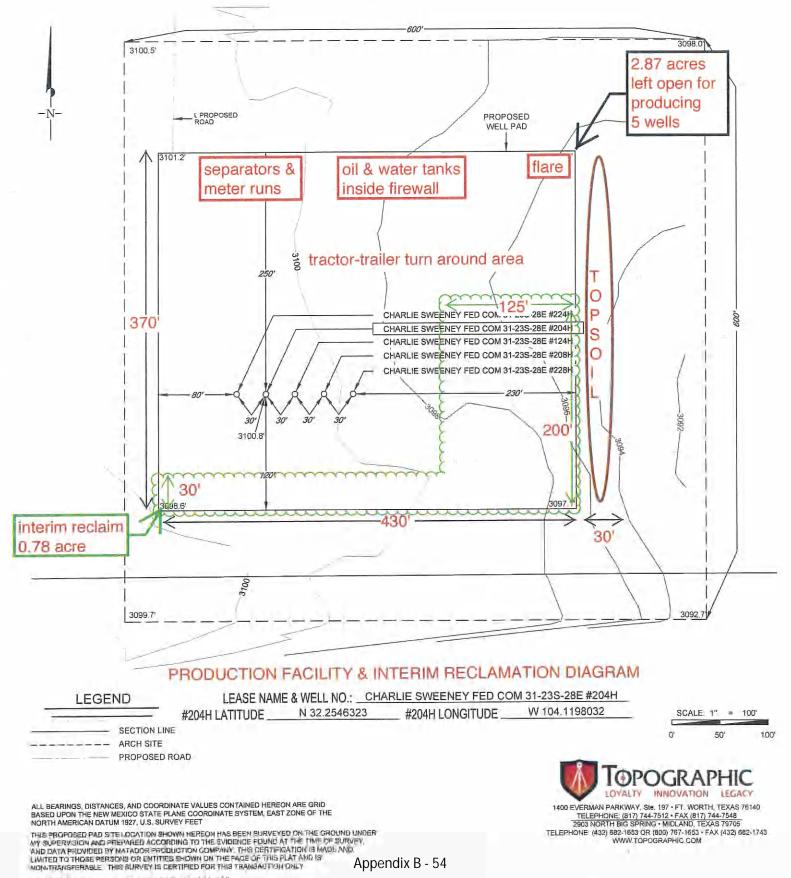
ORIGINAL DOCUMENT SIZE: 8,5" X 11"

Appendix B - 52

5 SUNVI YWATADOR RESOURCES CHARLIE SWEENEY RED COM 11-235-286 204H FINAL PRECIDINEL 2 CHARLIE SWEENEY FED COM 31-23S-28E 204H REV3 DWG 4/27/2016 5.32:22 PM jstoval







3.ISURVEYWATADDR REGOURDESICHARUE_6WEENEY_EED_COM_3 C35 SEE 20440 INAL_FRODUCTS1 ()_CHARUE_SWEENEY_FED_COM_31-23S-28E_204H_REV3 DWG 4/27/2016 5 32:22 PM (stoval)

Form 3160-3 (March 2012)	Full well name will be: Charlie Sweeney Fed Cor		FORM APPROVED OMB No. 1004-0137 Expires October 31, 2014					
	UNITED STATES DEPARTMENT OF THE BUREAU OF LAND MAN		5. Lease Serial No. NMNM-121941					
	APPLICATION FOR PERMIT TO				6. If Indian, Allotee N/A	or Tribe Name		
la. Type of work		ER			7 If Unit or CA Agreement, Name and N will comm. w/ fee lease			
lb. Type of Well	: Dil Well 🖌 Gas Well Diher	√ Si	ingle Zone 🔲 Mult	iple Zone	8. Lease Name and V Charlie Sweeney F	Well No. ℃ 31-23s-28e 208⊢		
2. Name of Ope	RATADOR PRODUCTION COMPANY	1			9. API Well No. 30-015-			
3a. Address 540 DA	00 LBJ FREEWAY, SUITE 1500 LLAS, TX 75240	3b. Phone No 972 371 5	5. (include area code) 241		10. Field and Pool, or I WILDCAT; WOLFC			
At surface 1	Vell (Report location clearly and in accordance with an 88' FSL & 575' FEL prod. zone 240' FNL & 330' FEL	ny State requiren	nenis,*)		11. Sec., T. R. M. or B SESE 31-23S-28E			
	es and direction from nearest town or post office* SW OF LOVING, NM				12. County or Parish EDDY	13. State NM		
 Distance from location to nea property or lea (Also to neares) 	proposed* SHL: 188' rest SHL: 240' se line, ft BHL: 240' st drig. unit line, if any)		of acres in lease ease = 280 acres n. area = 320 acres 17. Spacing Unit dedicated to this well E2 31-23S-28E			well		
	proposed location* SHL: 30' (Sweeney 124)	and a second second	9. Proposed Depth 20. BLM/BIA Bond No. on file 'VD: 9532' MD: 14293' BLM NMB-001079					
21. Elevations (SI 3101' UNGRA	how whether DF, KDB, RT, GL, etc.) DED	22 Approxi 12/01/201	mate date work will sta 6	art*	23. Estimated duration3 MONTHS			
		24. Atta	Sector Se					
 Well plat certifie A Drilling Plan. A Surface Use 	pleted in accordance with the requirements of Onsho ed by a registered surveyor. Plan (if the location is on National Forest System filed with the appropriate Porest Service Office),		 Bond to cover litem 20 above). Operator certifi 	the operatio	is form: ns unless covered by an ormation and/or plans as			
25. Signature	Bull		(Printed Typed) N WOOD (PH	HONE: 505	6 466-8120)	Date 07/04/2016		
Title CONSULT/	ANT		(FA	X: 505 46	6-9682)			
Approved by (Signa	ture)	Name	(FAX: 505 466-9682) Name (Printed Typed) Date					
Title		Office						
conduct operations	al does not warrant or certify that the applicant hole thereon. oval, if any, are attached.	ls legal or equi	table title to those righ	nts in the sub	oject lease which would e	ntitle the applicant to		
Title 18 U.S.C. Sect States any false, fict	ion 1001 and Title 43 U.S.C. Section 1212, make it a c itious or fraudulent statements or representations as	rime for any p to any maller v	erson knowingly and vithin its jurisdiction.	willfully to n	nake to any department o	r agency of the United		
(Continued a					÷	and the second second		

(Continued on page 2)

*(Instructions on page 2)

July 4, 2016

To Who it May Concern:

Matador Resources Company has a private surface owner agreement with Vickie Connally (R211 Ash Road, Loving NM 88256) for the Charlie Sweeney Fed Com 31-23s-28e 208H well site, pipelines, power line, and road in NWSW, S2S2, SWNE, & NWSE Section 31, T. 23 S., R. 28 E. and pipelines in Lot 2 Section 6, T. 24 S., R. 28 E.; all Eddy County, NM.

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

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

Brian Wood

 District1

 1625 N. French Dr., Hobbs, NM 88240

 Phone: (575) 393-6161

 Phone: (575) 393-6161

 Fax: (573) 393-0720

 District11

 811 S. First St., Artesia, NM 88210

 Phone: (575) 748-1283

 Fax: (575) 748-9720

 District111

 1000 Rio Brizos Road: Aziec, NM 87410

 Phone: (505) 334-6178

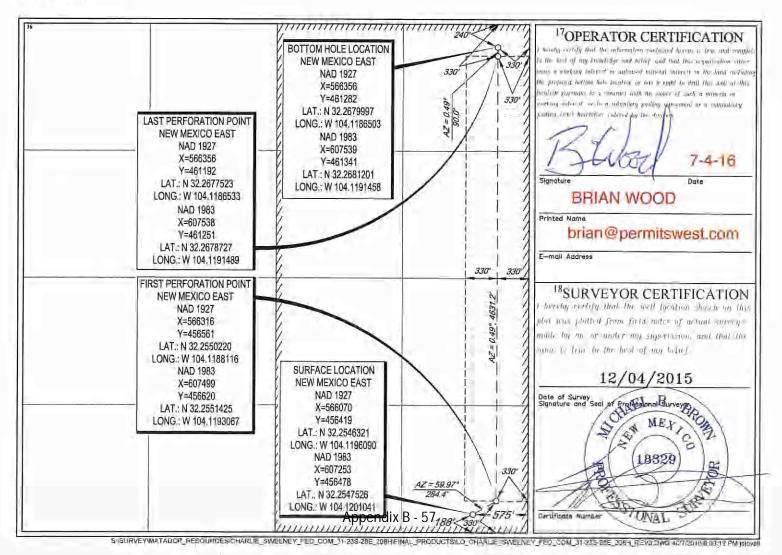
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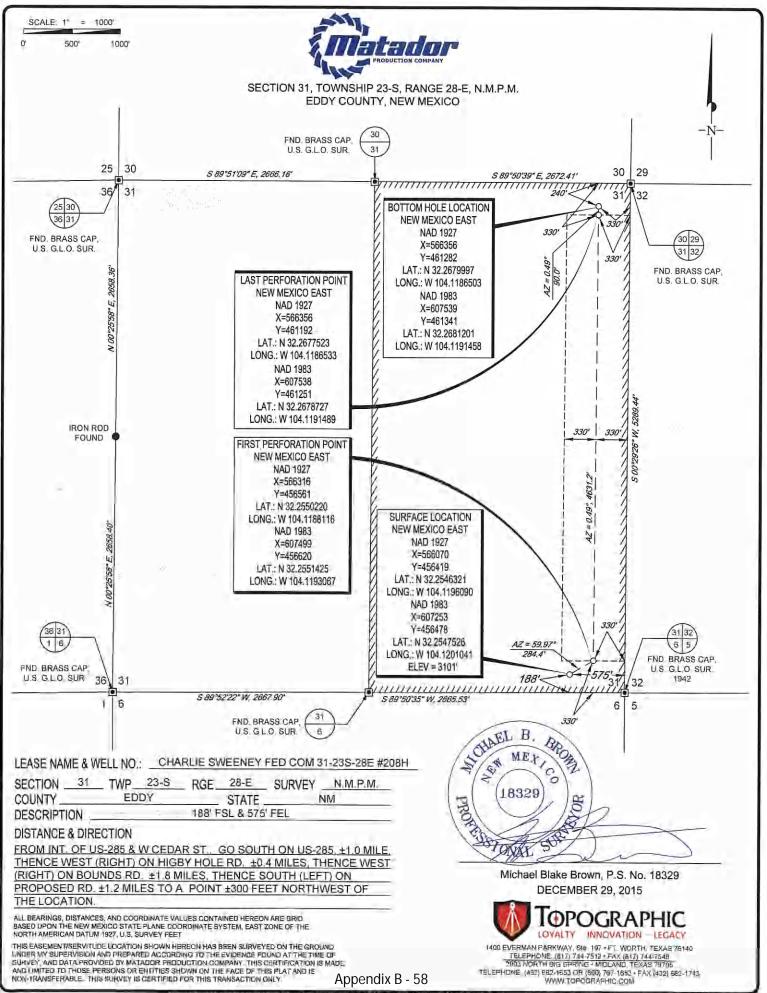
1220 S. St. Francis Dr., Sante Fe, NM 87505 Phone (505) 476-3460 Fax. (505) 476-3462 State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Sante Fe, NM 87505 FORM C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

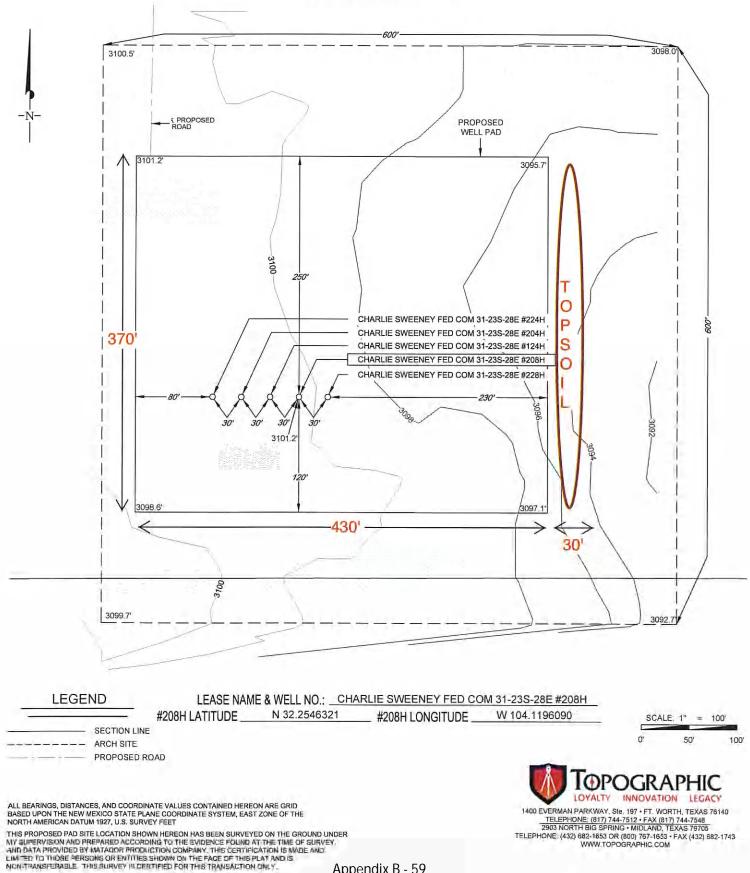
30-015-	¹ API Numbe	r.		¹ Pool Code	I Code JPool Name WILDCAT; WOLFCAMP Y						
⁴ Property (Code		CHARI	IE SWEI	⁵ Property Na ENEY FED		⁶ Well Number #208H				
⁷ OGRID No. ⁸ Operator Name 228937 MATADOR PRODUCTION COMPANY									⁹ Elevation 3101'		
					¹⁰ Surface Loc	ation					
UL or lot no. P	Section 31	Township 23–S	Range 28–E	Lot lila —	Feet from the 188'	Narth/South line SOUTH	Feet from the 575'	East/West line EAST	County EDDY		
UL or lot no.		Township	Range	Lot Idn	Feet from the	North/Soath line	Feet from the	East/West line	County		
Α	31	23-S	28-E	-	240'	NORTH	330'	EAST	EDDY		
² Dedicated Acres 320	¹³ Joint or l	Infill ¹⁴ Ce	insolidation Code	¹⁵ Order N	0.						







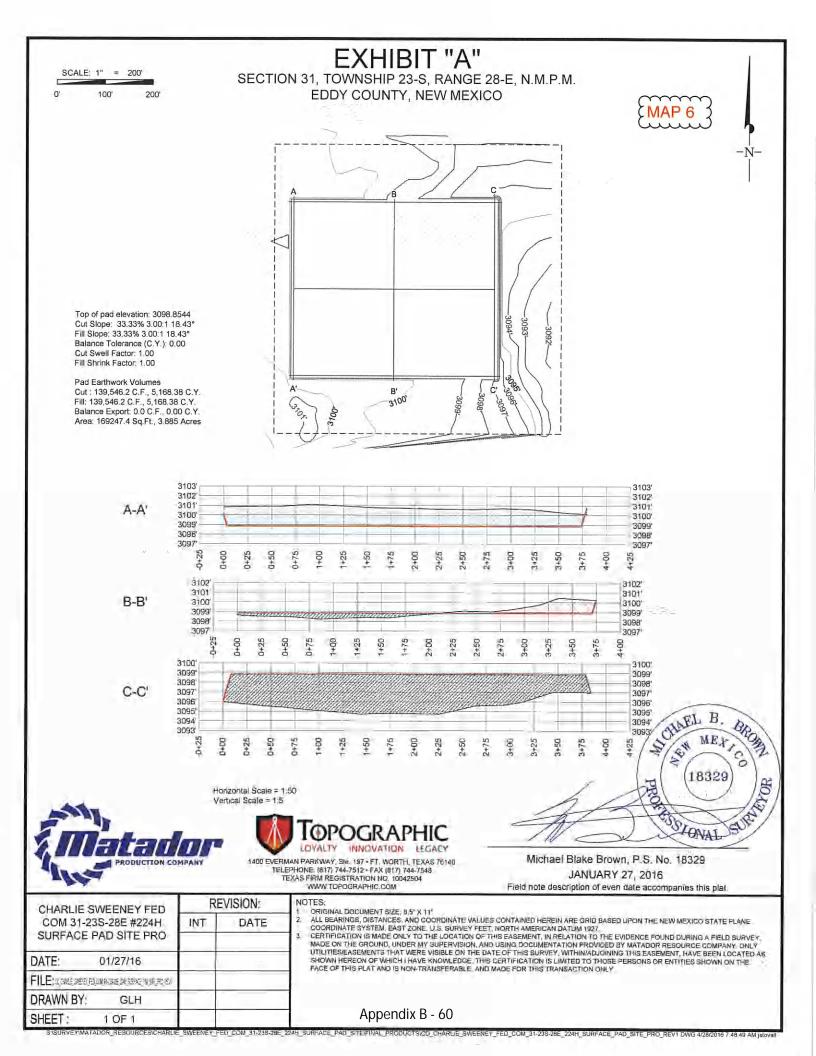




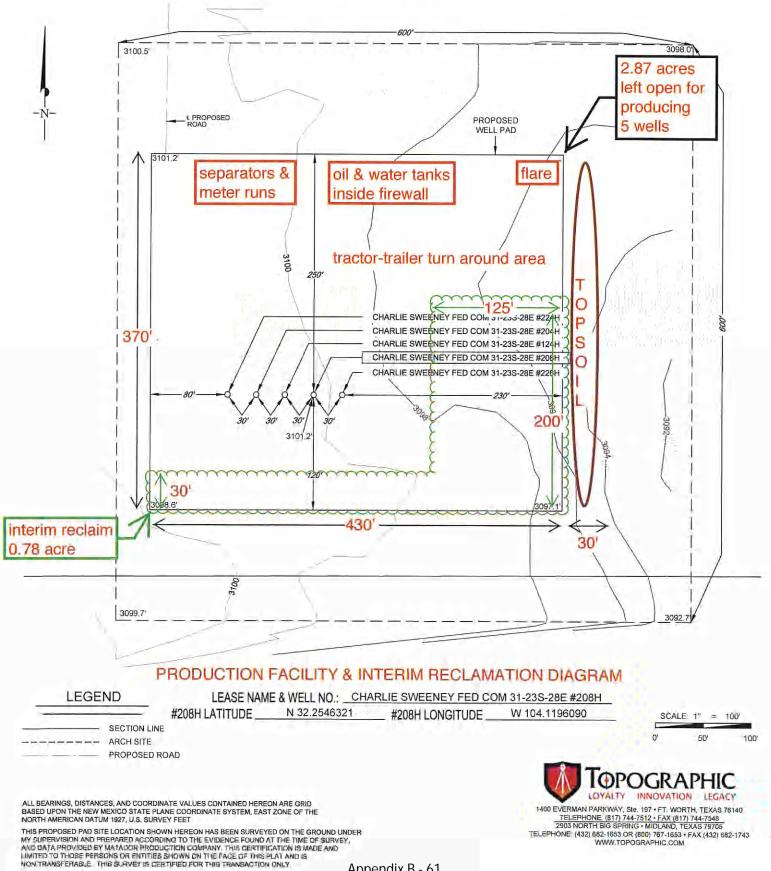
ORIGINAL DOCUMENT SIZE: 8.5" X 11"

Appendix B - 59

SISURVEYWATADOR RESOURCESICHARLIE SWEENEY FED_COM_31-233-28E_208H/FINAL PRODUCTION CHARLIE SWEENEY FED_COM_31-238-28E_208H_REV3.DWG 4/27/2016 6:04:56 PM (stoval)







ORIGINAL DOCUMENT SIZE: 8.5" X 11"

Appendix B - 61

S-SURVEYWATADDF_HESOURCES/CHARLIE_SWEENEY_FED_COM_31-235-28E_208H/F USL_PHODUCTSUD_CHARLIE_SWEENEY_FED_COM_31-235-28E_208H_REV3.DWG 4/27/2016 6:04:56 PM jsiovail

Fom 3160-3 (March 2012) Full well name will be: Charlie Sweeney Fed Cor UNITED STATES	Charlie Sweeney Fed Com 31-23s-28e							
DEPARTMENT OF THE	5. Lease Serial No. NMNM-121941							
BUREAU OF LAND MAN APPLICATION FOR PERMIT TO				6. If Indian, Allotee N/A	or Tribe Name			
Ia. Type of work: 🖌 DRILL 🗌 REENT	7. If Unit or CA Agreement, Name and No. will comm, w/ fee lease							
1b. Type of Well: Oil Well 🗸 Gas Well Other	√ Si	ngle Zone 🗌 Multi	ple Zone	8. Lease Name and V Charlie Sweeney Fo				
2. Name of Operator MATADOR PRODUCTION COMPANY				9. API Well No. 30-015-	and a state of the second			
3a. Address 5400 LBJ FREEWAY, SUITE 1500 DALLAS, TX 75240	3b. Phone No 972 371 52	, (include area code) 241		10. Field and Pool, or E WILDCAT; WOLFC				
 Location of Well (Report location clearly and in accordance with an At surface 189' FSL & 665' FEL At proposed prod. zone 240' FNL & 990' FEL 	ny State requirem	ents,*)		11. Sec., T. R. M. or BI SESE 31-23S-28E				
14. Distance in miles and direction from nearest town or post office* 2 AIR MILES SW OF LOVING, NM				12. County or Parish EDDY	13. State NM			
 Distance from proposed* location to nearest property or lease line, ft. BHL: 189' (Also to nearest drig, unit line, if any) 		eres in lease = 280 acres a = 320 acres	A CONTRACTOR OF	acing Unit dedicated to this well 1-23S-28E				
 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. SHL: 30' (Sween, 204) BHL: 660' (Sween, 228) 	19. Proposed TVD: 1030	1 Depth 00' MD: 15067'	rest statut	M/BIA Bond No. on file NMB-001079				
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3101' UNGRADED	22. Approximate date work will start* 01/01/2017			23. Estimated duration 3 MONTHS	1			
	24. Attac	chments						
 The following, completed in accordance with the requirements of Onsho Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office). 		 Bond to cover t Item 20 above). Operator certific 	he operatio	is form: ns unless covered by an o prmation and/or plans as				
25. Signature Dialoval		(Printed Typed) N WOOD (PH	ONE: 505	466-8120)	Date 07/04/2016			
Title CONSULTANT		(FA	X: 505 460	6-9682)				
Approved by (Signature)	Name	(Printed Typed)			Date			
Title	Office							
Application approval does not warrant or certify that the applicant hole conduct operations thereon. Conditions of approval, if any, are attached.	ls legal or equit	able title to those righ	ts in the sub	ject lease which would er	ntitle the applicant to			
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a c States any false, fictitious or fraudulent statements or representations as	rime for any pe to any matter w	erson knowingly and vithin its jurisdiction.	willfully to m	nake to any department or	agency of the United			
(Continued on page 2)		1		*(Instr	uctions on page 2			

July 4, 2016

To Who it May Concern:

Matador Resources Company has a private surface owner agreement with Vickie Connally (R211 Ash Road, Loving NM 88256) for the Charlie Sweeney Fed Com 31-23s-28e 224H well site, pipelines, power line, and road in NWSW, S2S2, NWSE, & SWNE Section 31, T. 23 S., R. 28 E. and pipelines in Lot 2 Section 6, T. 24 S., R. 28 E.; all Eddy County, NM.

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

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

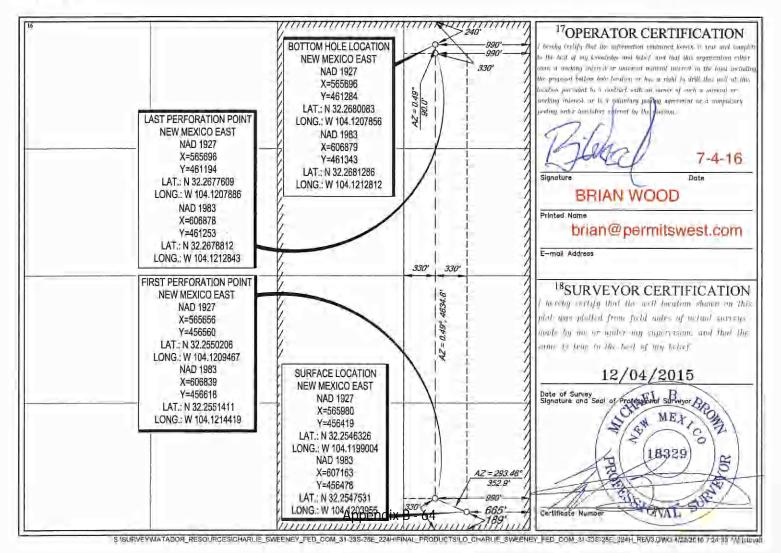
Brian Wood

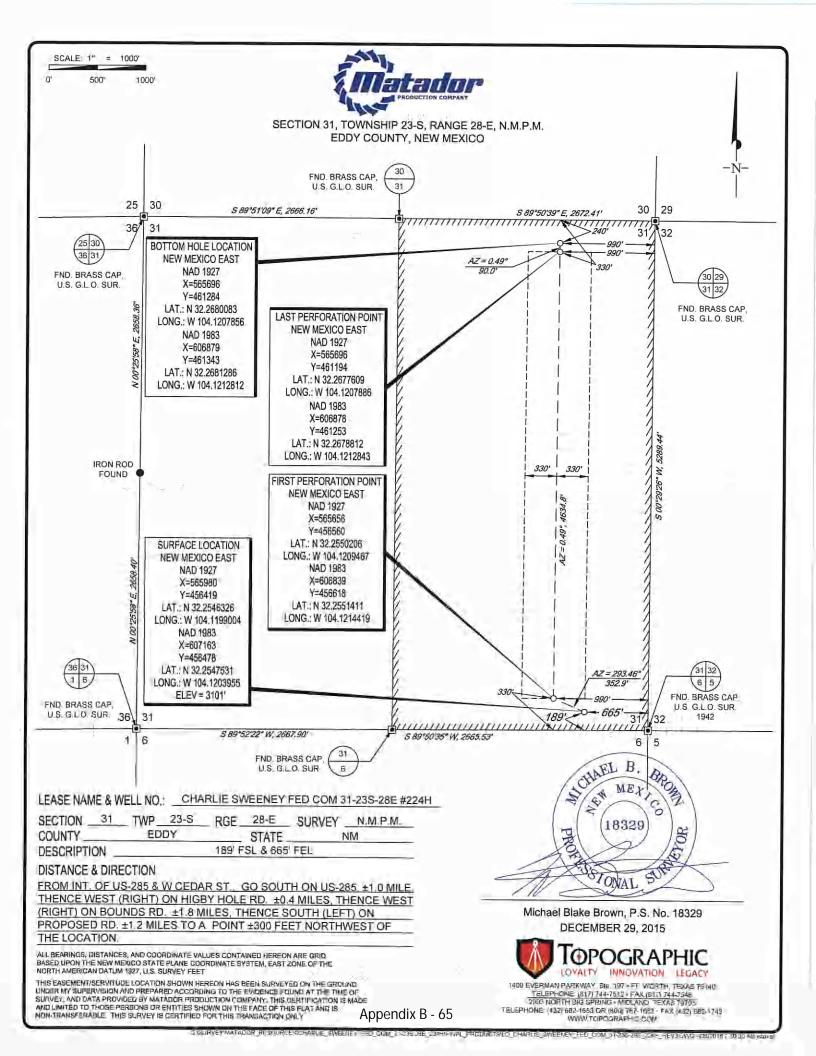
District I 1625 N. French Dr., Hobbs, NM 88240 Phone; (575) 393-6161 Fax: (575) 393-0720 District II 811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 District III 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 District IV 1220 S. St. Francis Dr., Sante Fo, 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- ¹ API Number ² Pool Code WILDCAT; WOLFCAMP B							³ Pool Name	2			
The second						³ Property Name EY FED COM 31–23S–28E #224H					
⁷ OGRID 1 22893			М	ATADOR	⁸ Operator Nat PRODUCT		[°] Elevation 3101'				
					¹⁰ Surface Loc	ation					
UL or lot no. P	Section 31	Township 23–S	Range 28–E	Lot ldn —	Feet from the 189'	North/South line SOUTH	Feet from the 665'	East/West line EAST	County EDDY		
UL or lot no.	Section	Township	Range	Lot lun	Feet from the	North/South line	Feet from the	East/West line	County		
A	31	23-S	28-E	-	240'	NORTH	990'	EAST	EDDY		
A ¹² Dedicated Acres 320	31	118 211	28–E	15Order No	19 T. N.	NORTH	990'	EAST	EDDY		

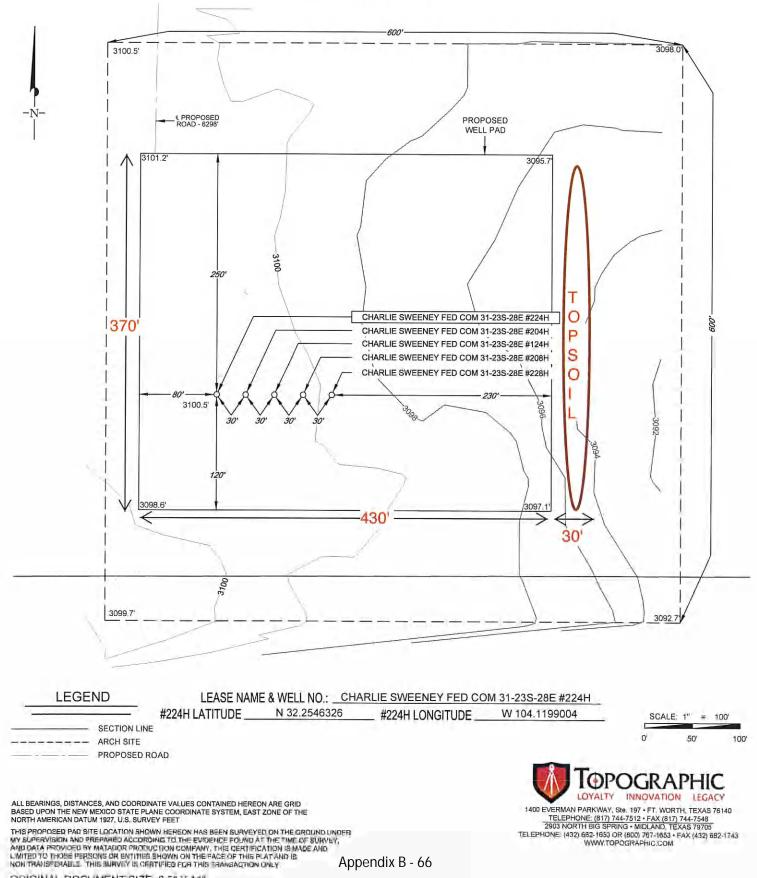






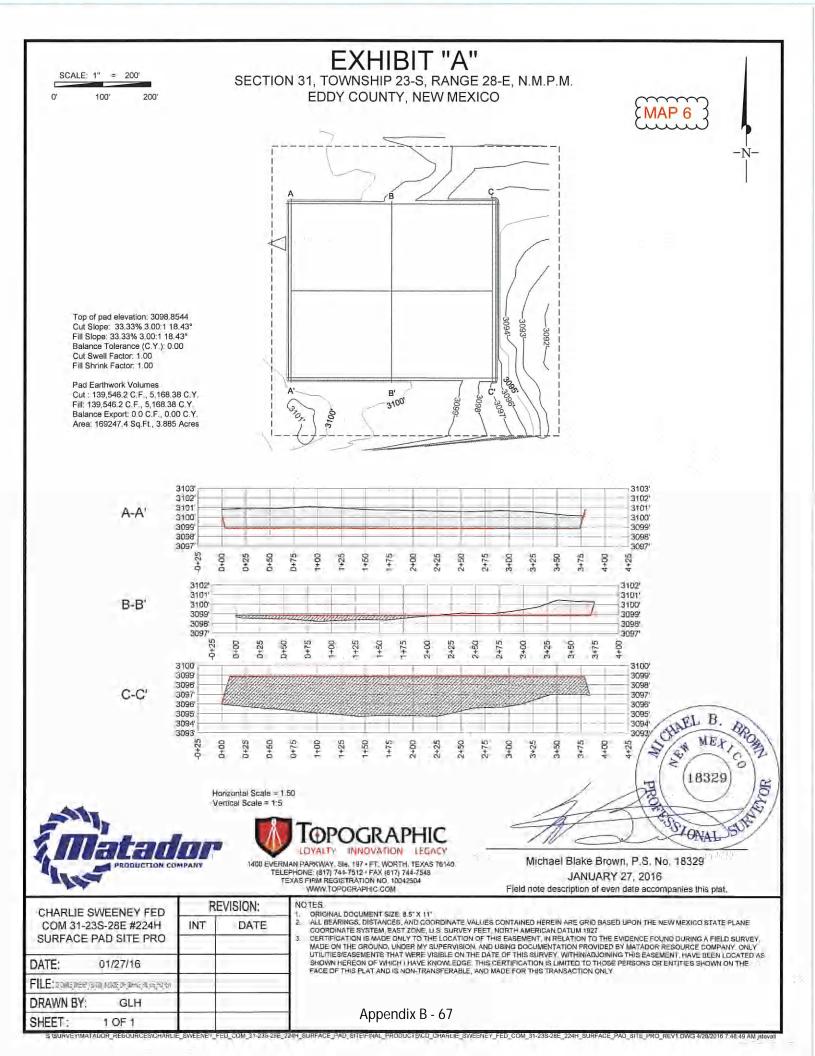


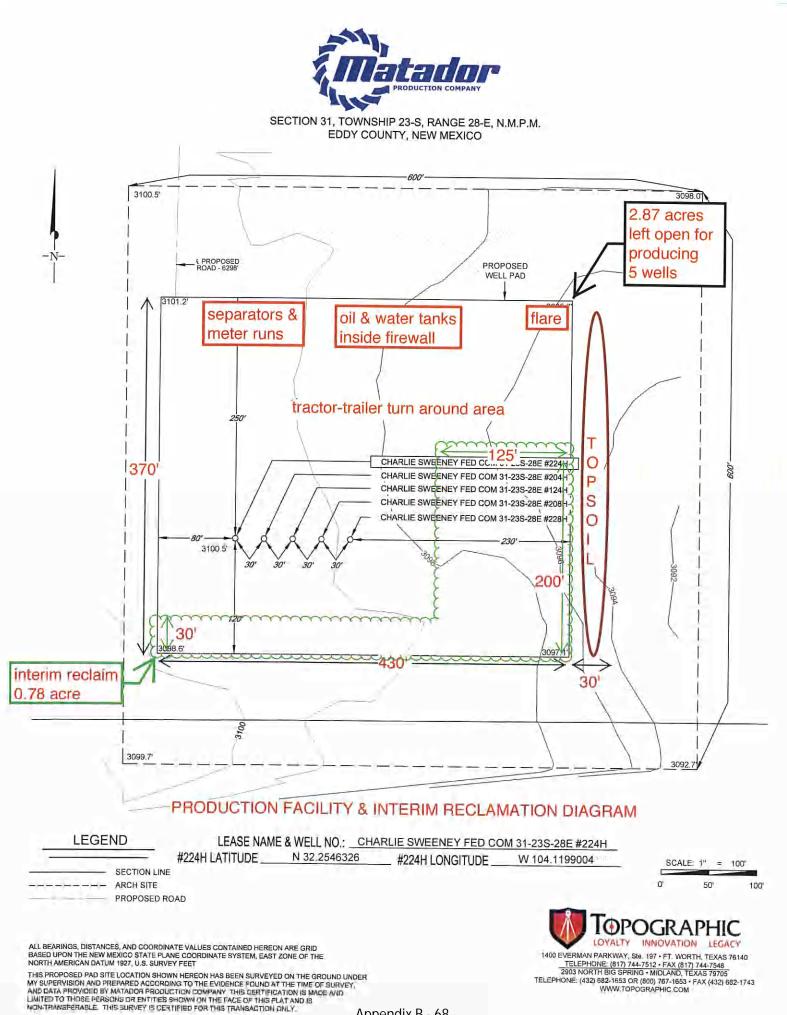
SECTION 31, TOWNSHIP 23-S, RANGE 28-E, N.M.P.M. EDDY COUNTY, NEW MEXICO



ORIGINAL DOCUMENT SIZE: 8.5" X 11"

3 BURVEYWATADOR_RB3DVRCB8/CHARLIE_SWEENEY_FED_COM_31-33-33E_321HERWI_DRCDVCTS/LO_CHARLIE_SWEENEY_FED_COM_31-23S-28E_224H_REV3.DWG 4/28/2016 7:30:52 AM Jatovali





ORIGINAL DOCUMENT SIZE: 8.5" X 11"

Appendix B - 68

SISURVEYMATADOR RESOURCESICHARUE SWEENEY PED_COM_21-216 3/4 204 PRODUCTPUD_CHARUE SWEENEY_FED_COM_31-235-28E_224H_REV3.DWG 4/28/2016 7:30:52 AM (stoval)

Form 3160-3 (March 2012) Full well name will be: Charlie Sweeney Fed Cor UNITED STATES		s-28e		FORM APPROVED OMB No. 1004-0137 Expires October 31, 2014 5. Lease Serial No. NMNM-121941					
DEPARTMENT OF THE BUREAU OF LAND MAN	INTERIOR								
APPLICATION FOR PERMIT TO				6. If Indian, Alloted N/A	e or Tribe	Name			
la. Type of work; 🗹 DRILL 🗌 REENT	a, Type of work; DRILL REENTER								
lb. Type of Well: Oil Well 🗸 Gas Well Other	✓ si	ingle Zone 🔲 Mult	iple Zone	8. Lease Name and Well No. Charlie Sweeney FC 31-23s-28e 228H					
2. Name of Operator MATADOR PRODUCTION COMPANY	<i>t</i>			9. API Well No. 30-015-					
3a. Address 5400 LBJ FREEWAY, SUITE 1500 DALLAS, TX 75240	3b. Phone No 972 371 5	5. (include area code) 241		10. Field and Pool, or WILDCAT; WOLF		*			
4. Location of Well (Report location clearly and in accordance with an	ny State requirem	nents.*)		11. Sec., T. R. M. or J	Blk. and St	irvey or Area			
At surface 188' FSL & 545' FEL				SESE 31-23S-28E	E NMPM				
At proposed prod. zone 240' FNL & 330' FEL									
 Distance in miles and direction from nearest town or post office* 2 AIR MILES SW OF LOVING, NM 				12. County or Parish EDDY		13. State NM			
 Distance from proposed* location to nearest property or lease line, ft. BHL: 240' (Also to nearest drig, unit line, if any) 		acres in lease s = 280 acres sa = 320 acres		acing Unit dedicated to this well 1-23S-28E					
 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft SHL: 30' (Sweeney 208) BHL: 330' (ditto) 		Proposed Depth 20. BLM/BIA Bond No. o 'D: 10300' MD: 15056' BLM NMB-001079							
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3100' UNGRADED	22. Approxi 03/01/20	mate date work will st 17	on						
	24. Atta	chments							
The following, completed in accordance with the requirements of Onsho	re Oil and Gas	Order No.1, must be a	attached to th	us form:					
 Well plat certified by a registered surveyor. A Drilling Plan, 		4. Bond to cover Item 20 above).		ons unless covered by an	n existing	bond on file (see			
 A During Fran. A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office). 	Lands, the	5. Operator certifi	cation	formation and/or plans a	s may be i	equired by the			
25. Signature		Name (Printed Typed) Date BRIAN WOOD (PHONE: 505 466-8120) 07/0							
Title CONSULTANT		(FA	X: 505 46	6-9682)					
Approved by (Signature)	Name	Name (Printed Typed) Date							
Title	Office								
Application approval does not warrant or certify that the applicant hole conduct operations thereon. Conditions of approval, if any, are attached.	ls legal or equi	table title to those rig	hts in the su	bject lease which would	entitle the	applicant to			
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a c States any false, fictitious or fraudulent statements or representations as	rime for any p to any matter v	erson knowingly and vithin its jurisdiction.	willfully to r	nake to any department	or agency	of the United			

(Continued on page 2)

*(Instructions on page 2)

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Brian Wood

District I IG25 N. French Dr., Hobbs, NMI 88240 Phone: (575) 393-6161 Fax. (575) 393-0720 District II 811 S. First St., Artesija, NM 88210 Phone: (575) 748-1283 Tax. (575) 748-9720

District III 1000 Ris Brazos Road, Aztec, NM 87410

Phone: (505) 334-6178 Fax: (505) 334-6170 District IV

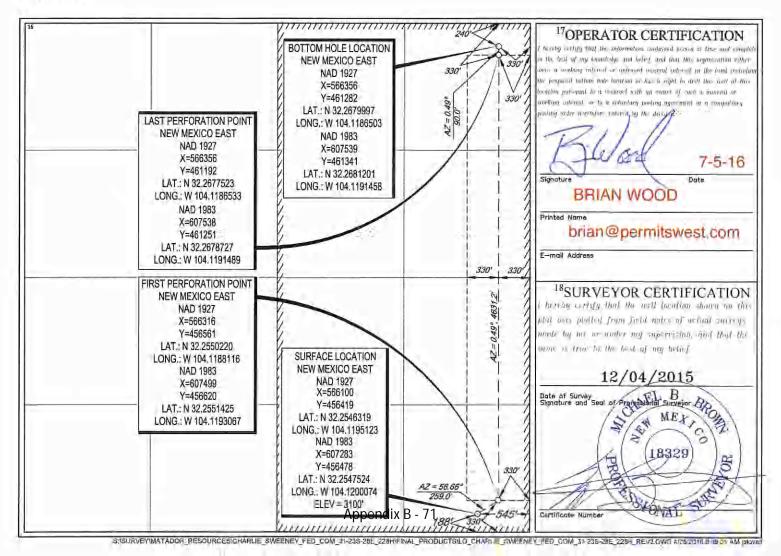
1220 S St Francis Dr., Sante Fe, NM 87505 Phone: (505) 476-3460 Fax. (505) 476-3462 State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Sante Fe, NM 87505 FORM C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

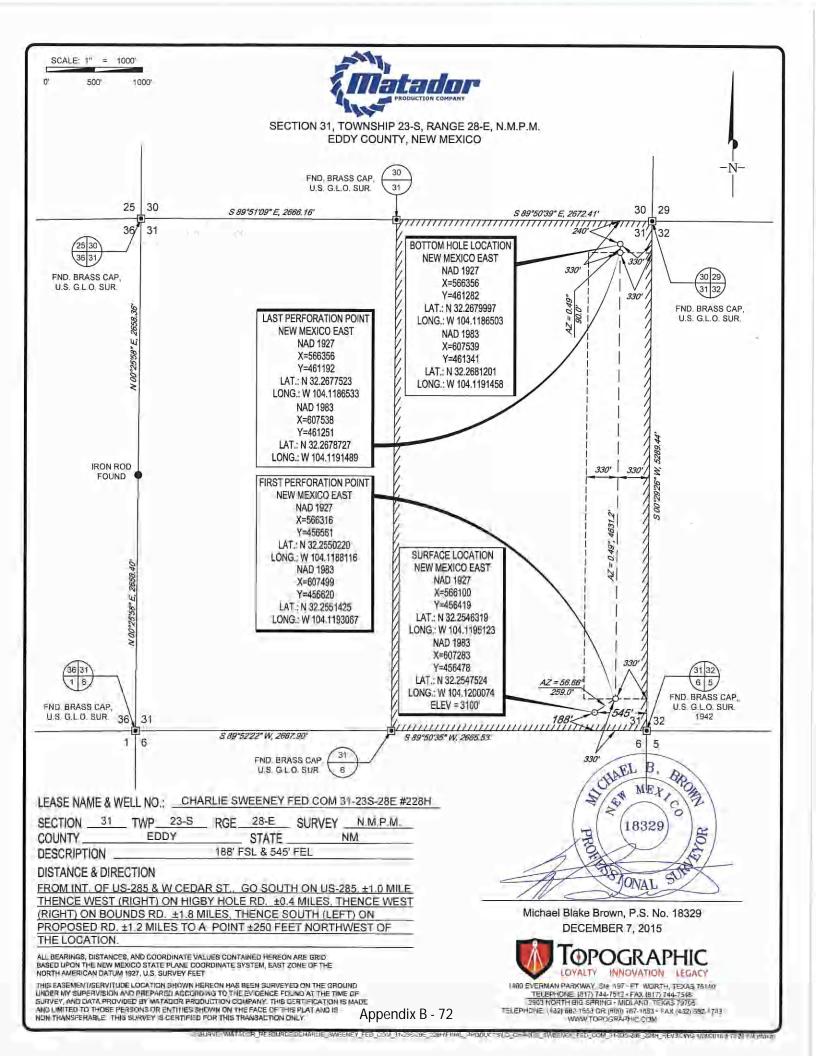
AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

30-015- API Number			Pool Code	WILD	CAT; WOLFC	³ Pool Name			
⁴ Property Code		CHARI	⁵ Property Name CHARLIE SWEENEY FED COM 31-23S-28E				⁶ Well Number #228H		
⁷ OGRID No. 228937		М	*Operator Name *E		levation 100'				
				A	¹⁰ Surface Loc	ation	2.2 A.m.		
UL or lot no. P	Section 31	Township 23–S	Range 28–E	Lot Ido —	Feet from the 188'	North/South line	Feet from the 545'	East/West line EAST	County EDDY
UL or lot no.	20110	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A ¹² Dedicated Acres 320	31 ¹³ Joint or)	23–S	28–E	15Order N	240'	NORTH	330'	EAST	EDDY

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.

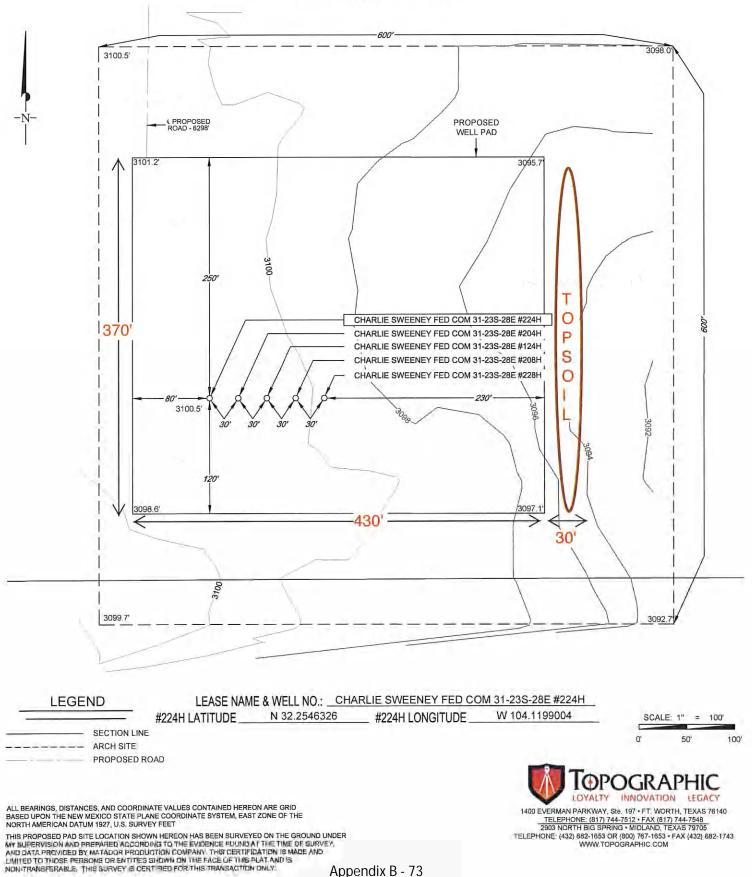








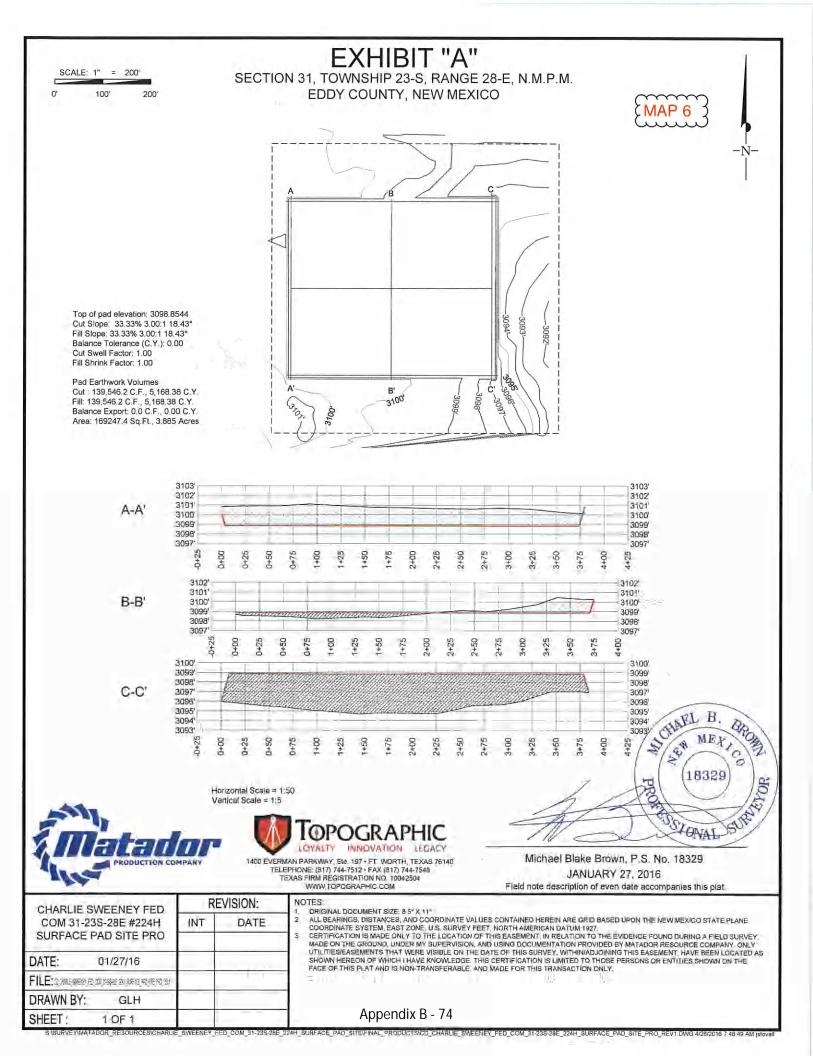
SECTION 31, TOWNSHIP 23-S, RANGE 28-E, N.M.P.M. EDDY COUNTY, NEW MEXICO



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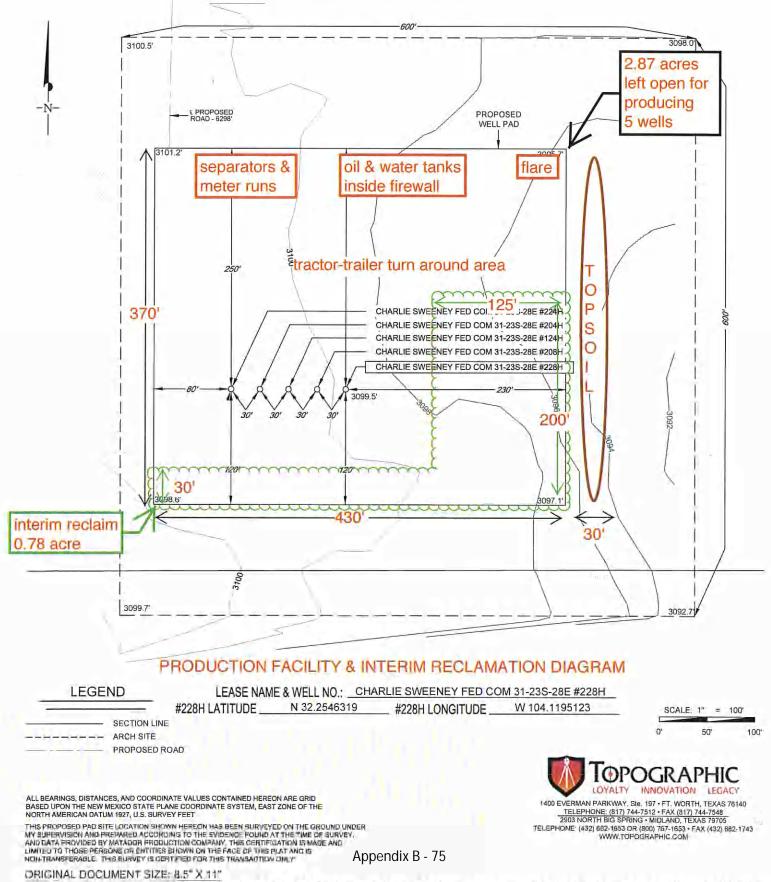
Appendix B - 73

SISURVEYMATADDA_RESOURCES/CHÁRLE SWEENEY HED COM 1/ 038 200 224 H/IIIIAL PRODUCTS/LO_CHARLIE_SWEENEY_FED_COM_31-235-28E_224H_REV3 DWG 4/26/2016 7:30:52 AM jalovali



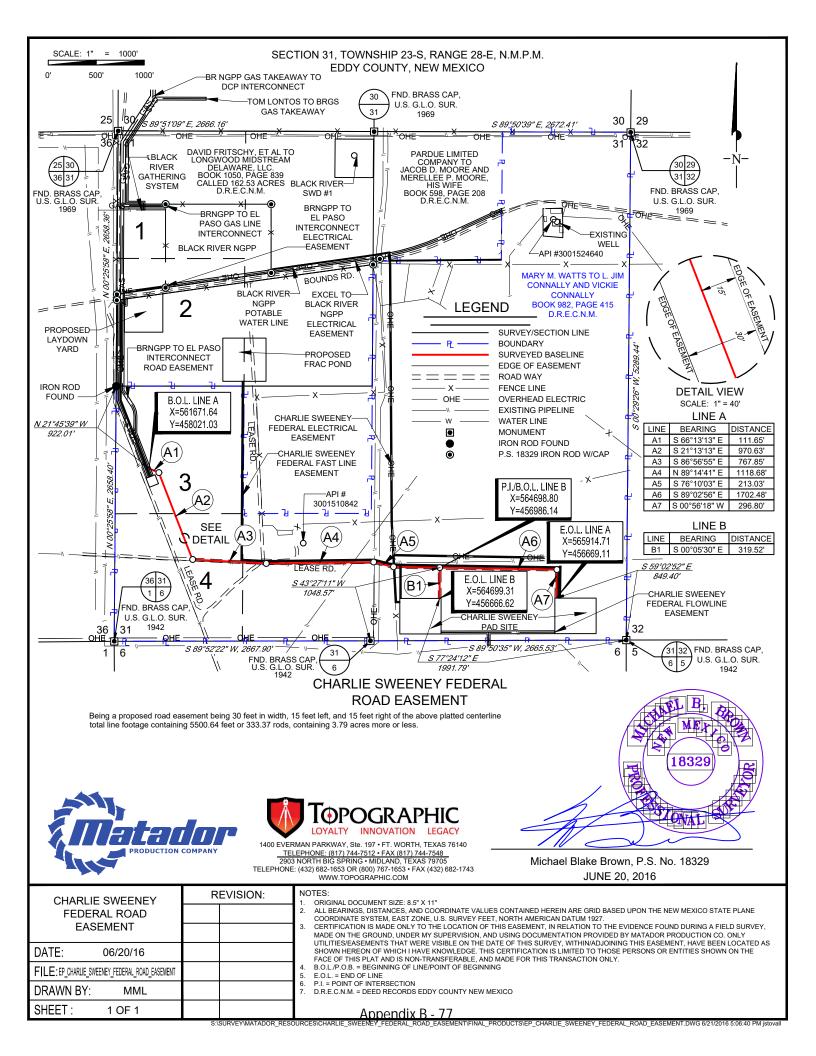


SECTION 31, TOWNSHIP 23-S, RANGE 28-E, N.M.P.M. EDDY COUNTY, NEW MEXICO

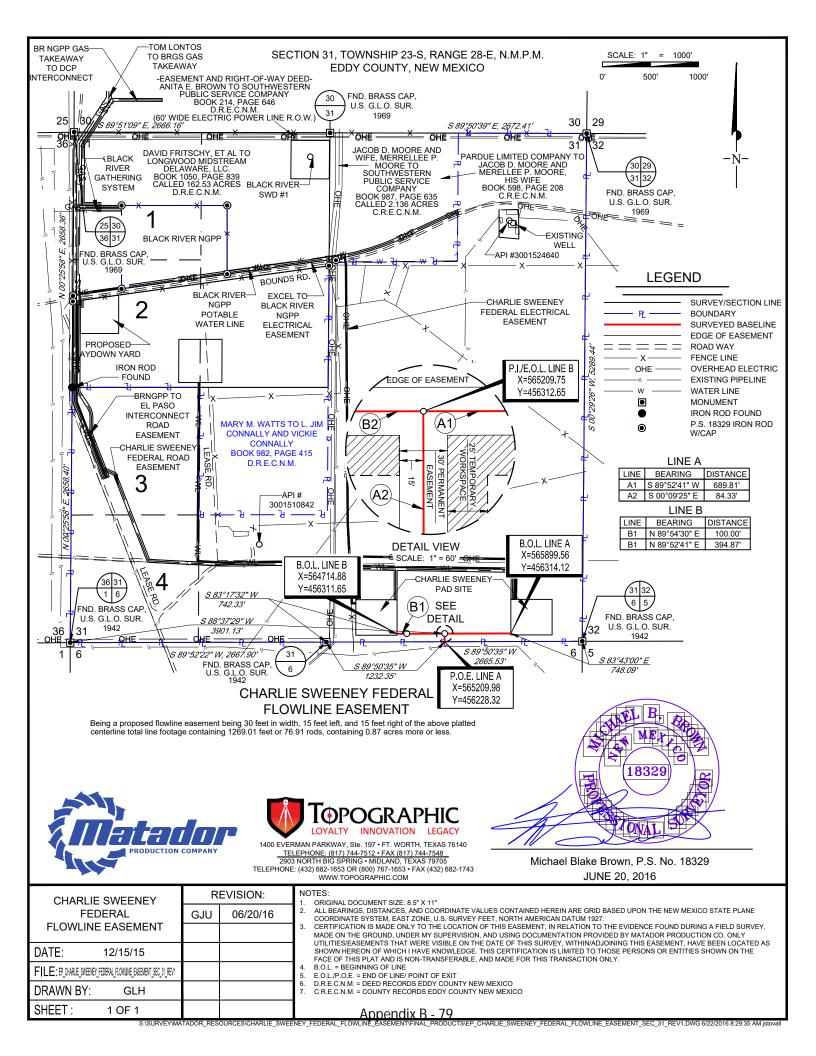


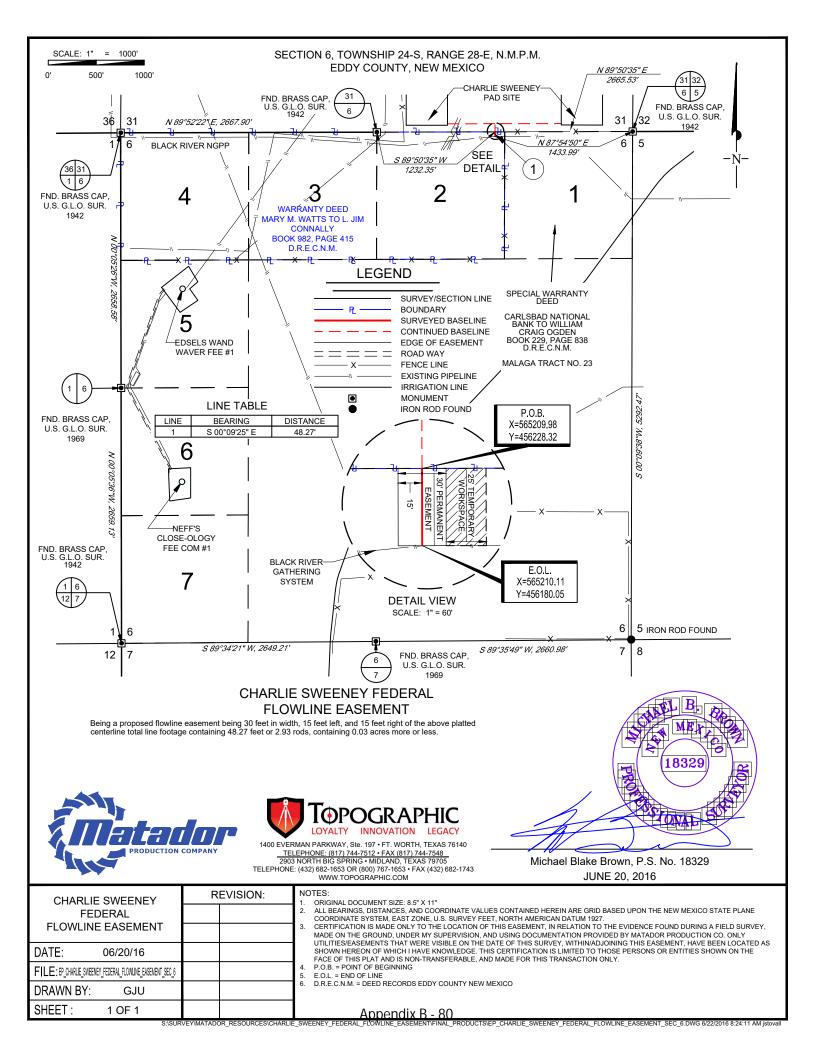
SVEWRVEYWATADOR_RESOURCESICHARLIE_SWEENEY_FED_GOM_41-286-28E_328H FIVINL_PRODUCTOLID_CHARLIE_SWEENEY_FED_COM_31-235-28E_228H_REV3.DWG 4/28/2016 8:14-07 AM (slovel)

Well Pad Access Road

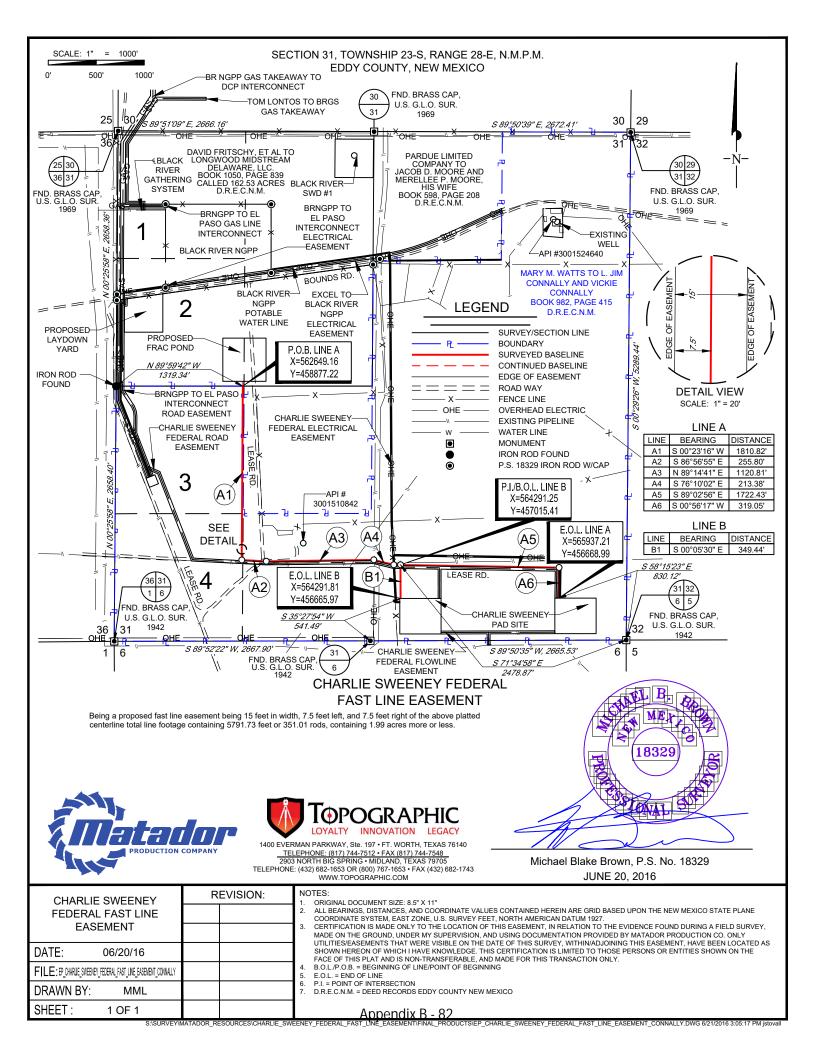


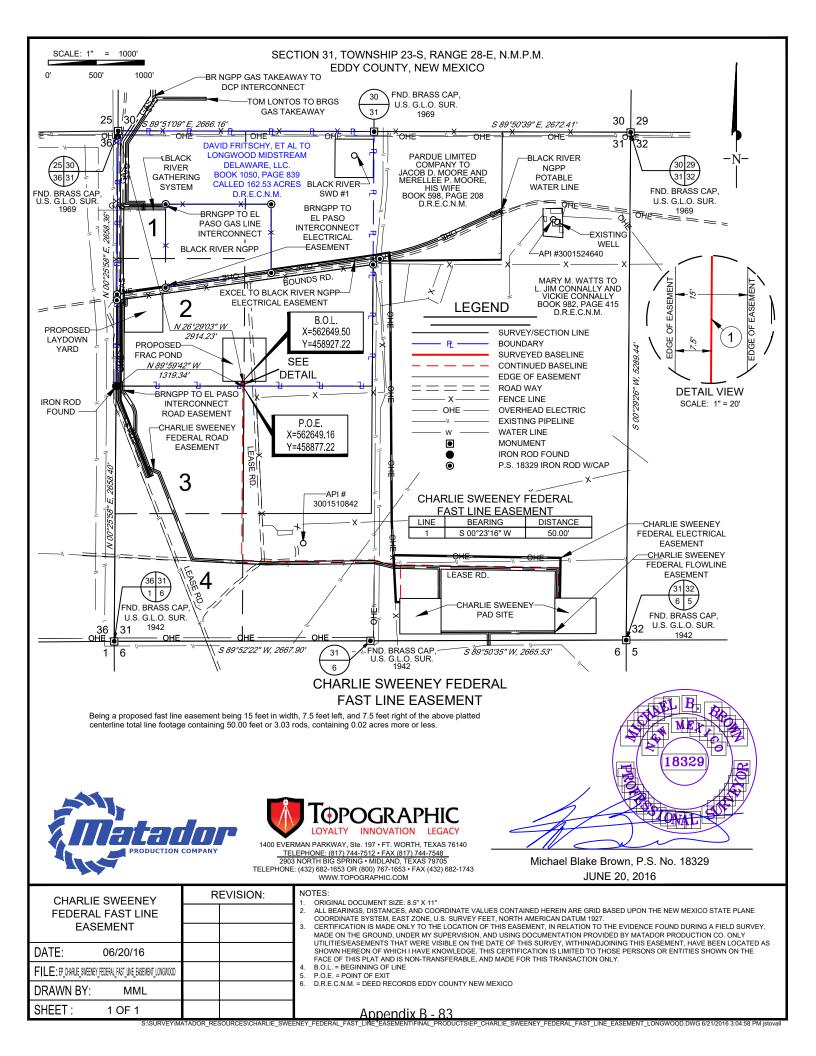
Flowlines



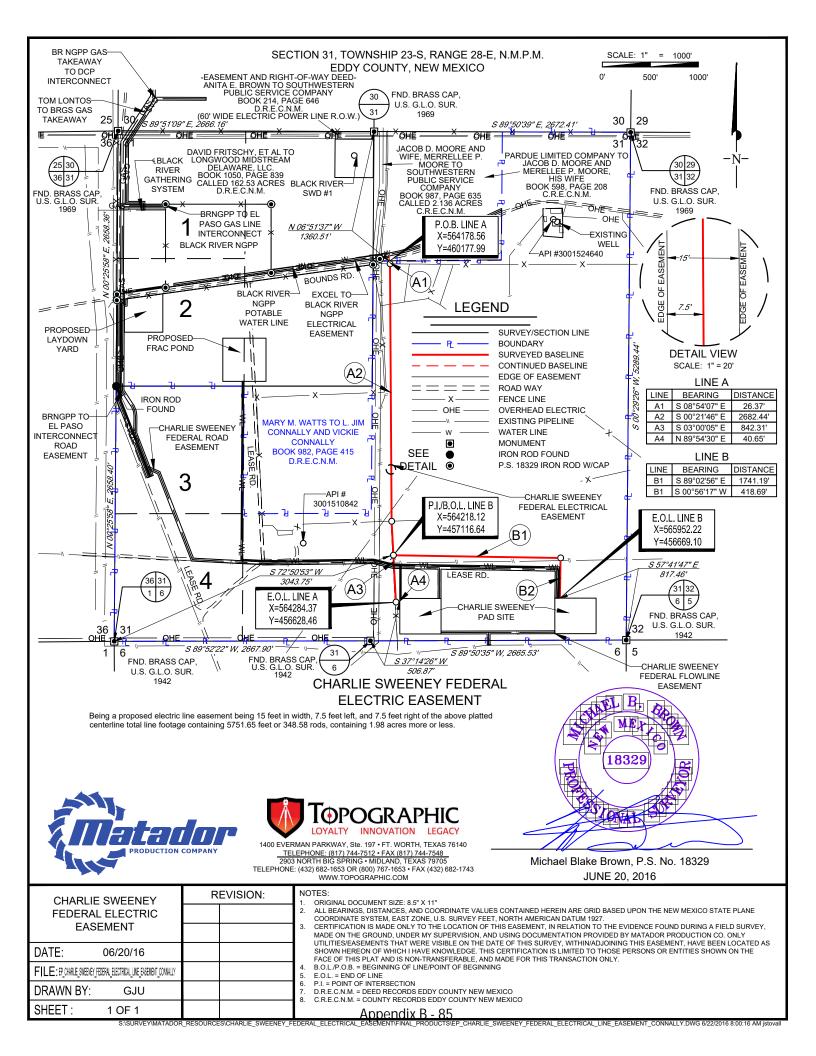


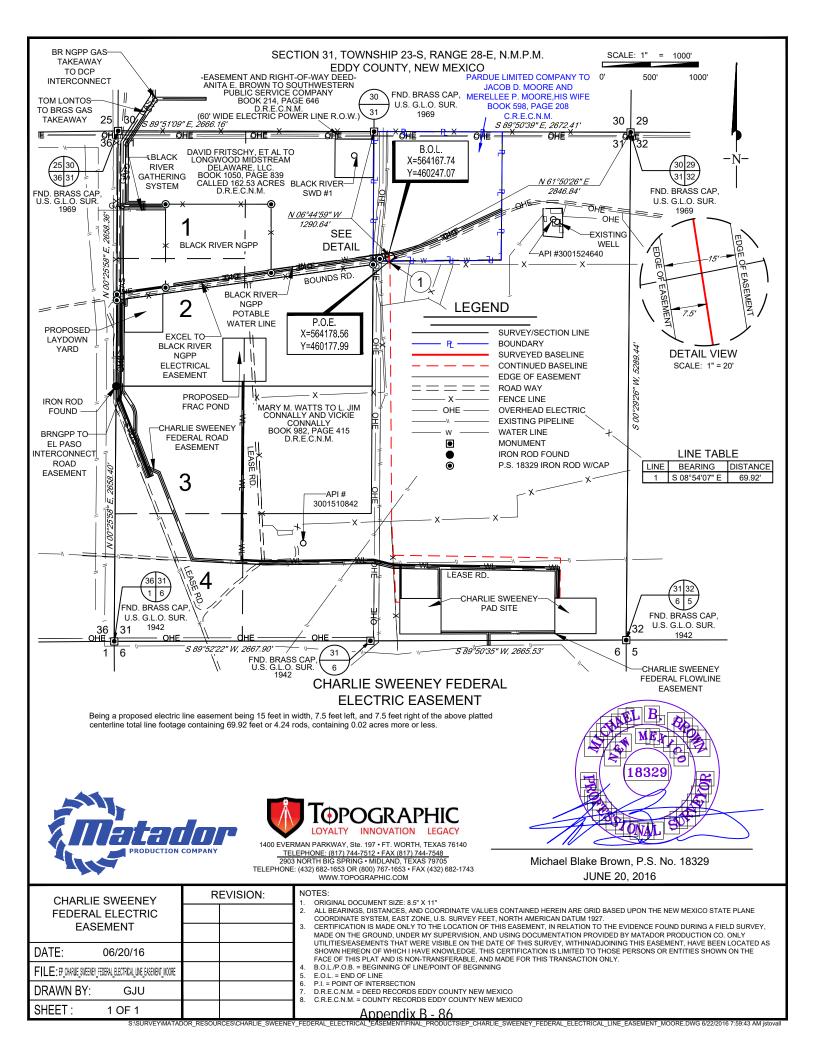
Water Line (Fast Line)

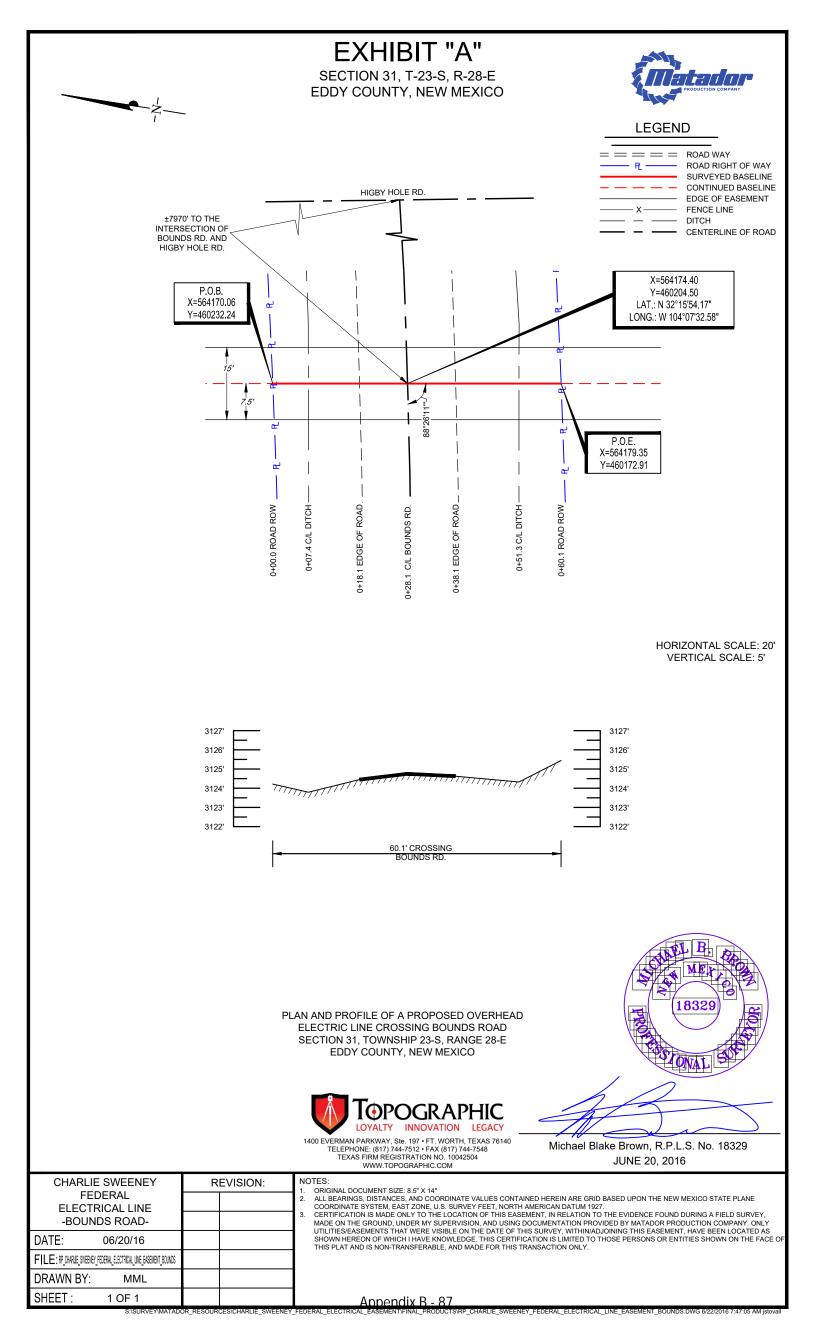




Overhead Electric Line







Appendix C – Plant Survey Report



Matador Production Company

Proposed Charley Sweeney Federal 31-23S-28E RB, #123H, 203H, 207H, 223H, 227H (West Pad) and Charley Federal 31-23S-28E RB #124, 204H, 208H, 224H, 228H (East Pad) Section 31, Township 23 South, Range 28 East, Eddy County, New Mexico

Plant Survey Report Prepared by Robyn W. Tierney, Permits West, Inc., Santa Fe, New Mexico December 30, 2015 Revised August 5, 2016

Matador Production Company (Matador) proposes to drill five oil and gas wells (Charlie Sweeney Federal 01-24S-28E RB 123H, 203H, 207H, 223H, 227H) on one well pad (West pad), drill five additional oil and gas wells (Charlie Sweeney Federal 01-24S-28E RB 124H, 204H, 208H, 224H, 228H) on a second (East) well pad; install an access road to the well pads; nstall 1317.28 feet of new surface and buried flowlines; install 5791.73 feet of surface water line and construct 5751.65 feet of overhead electric line to the two proposed well pads. The proposed project is located on private land is located in the Culebra Bluff Field approximately 2.8 miles southwest of Loving, New Mexico.

This botanical survey report discusses the potential for disturbance to federal and state listed plant species and designated critical habitats protected under the Endangered Species Act (ESA, 16 USC 1531 et seq.) and the corresponding New Mexico State Endangered Plant Species List (EMNRD 2015) that have the potential to occur within Eddy County and the proposed (Charley Sweeney Federal 31-23S-28E RB #123) project area.

An endangered plant species is one that is considered in danger of becoming extinct throughout all or a significant portion of its range. A threatened species is one that is likely to become endangered within the foreseeable future. The federal Endangered Species Act (ESA) protects these listed species from harm or "take" which is broadly defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." Any such activity includes destruction of habitat and can be defined as a "take" even if it is unintentional or accidental. The U.S. Fish and Wildlife Service (USFWS) has jurisdiction over federally listed threatened and endangered plant species.

In addition to federally listed endangered and threatened species, which are legally protected under the ESA, the USFWS has developed a list of proposed and candidate species, species of concern, and experimental populations. Proposed species are those for which a proposed rule to list them as

endangered or threatened has been published in the Federal Register; a designation that offers limited protection under the ESA. A candidate species is one for which the USFWS currently has enough information to support a proposal to list it as a threatened or endangered species under the Endangered Species Act (ESA), but for which development of a proposed listing regulation is precluded by other higher priority listing activities. A species of concern refers to a species that may be in decline or may require specific conservation actions. An experimental population is a reintroduced population established outside of its current range, but within its historical range and is treated as a proposed species. Candidate species, species of concern, and experimental populations are not afforded legal protection under the federal ESA or under Section 75-6-1 of the New Mexico Statutes Annotated (NMSA 1978).

The proposed project area was also surveyed for the potential presence of sensitive species identified from the New Mexico State Endangered Plant Species List (Section 75-6-1 NMSA 1978) and the New Mexico Bureau of Land Management State Office's (NMSO BLM) list of sensitive species, in accordance with BLM Manual 6840. Again, these species are not protected under the ESA, but are part of an overall effort by the BLM to focus management efforts toward maintaining habitats under a multiple use mandate.

Project Description

The project includes ten wells, two well pads *East, West), an access road, new surface and buried flowlines; surface water line and an overhead electric line. Each well pad will measure 370-foot N/S by 430-foot E/W for a total of 3.65 acres on each pad site. Following interim reclamation, the two well pads will be reduced in size.

The proposed project is located on private surface lands in the E/2, Section 31, Township 23 South, Range 28 East, Eddy County, New Mexico (Loving, NM, 7.5 minute USGS quadrangle). The elevation of the project area ranges from 3092.4 feet at the southeast corner of the East well pad to 3106.8 feet at the northeast corner of the West well pad. Disturbances in the project area include: livestock grazing, a three-strand barb-wire fence and a two-track dirt access road that run north-south along the west boundary of the West well pad..

The area is in the Pecos Valley subsection of the Southern Great Plains physiographic province. The project area in located in a flat to gently sloping area containing transitional deposits of alluvial gravels and eolian dunes (NMBGMR 2004) and is dominated by a small outcrop or hill composed of the Virginia Member of Rustler Formation limestone (NMBGMR 2004). A canal, known as the Black River Supply Ditch, is located southeast of the outcrop and the southeast corner of the West well pad. Soils throughout the project area are composed of Reeves-Gypsum land complex, 0 to 3 percent slopes, and are derived from residuum weathered from gypsum (NMBGMR 2003, NRCS 2015). Reeves soils are typically found on back slopes, foot slopes, and shoulders of hills, and are composed of loam (0 to 8 inches), clay loams (8 to 32 inches) and gypsiferous materials (32 to 60 inches). These soils are well drained and have very low to moderately low capacity to transmit water (Ksat- 0.00 to 0.06 in/hr). Vegetation in the project area is classified as Chihuahuan desert scrub (Brown 1998 2007). Dominant species observed throughout the project area included creosote (*Larrea tridentata*), tarbush (*Fluorensia cernua*), whitethorn acacia (*Acacia constricta*), mesquite (*Prosopsis glandulosa* var. torreyana), range ratany (*Krameria parvifolia*), snakeweed (*Gutierrezia sarothrae*), and a few allthorn shrubs (*Koeberlinia spinosa*) growing at the top of the hill. The area has been extensively grazed and growth of grasses and forbs was very limited across the entire project area. Grasses observed during the botanical survey included burrograss (*Schleropogon brevifolius*), traces of three-awn (*Aristida* sp.), gyp dropseed (*Sporobolus nealleyi*), alkali sacaton (*Sporobolus airoides*), sand bluestem (*Andropogon hallii*), tobosa (*Pleuraphis mutica*), and bush muhly (*Muhlenbergia porteri*). Native forbs included desert holly (*Acourtia nana*), spectaclepod (*Dimorphocarpa sp*) and prickle leaf dogweed (*Thymophyulla acerosa*).

METHODOLOGY

The proposed project area was surveyed on December 10, 2015 by botanist Robyn Tierney and again on July 29, 2016 by biologist, Geoff Carpenter. Weather during the December survey was clear and sunny with temperatures in upper 60s to mid-70s°F. Weather during the July 2016 survey was also clear with temperatures in low 100s°F. Prior to conducting the surveys, databases identifying the Threatened and Endangered plant species and species of concern listed by the U.S. Fish and Wildlife Service's Information, Planning, and Conservation System (IPaC 2016), the State of New Mexico's Endangered Plant Species Program (EMNRD 2015), the New Mexico Rare Plant Technical Committee (NMRPTC 1999, revised 2015), and the New Mexico State Office, Bureau of Land Management (NMSO-BLM) were examined.

The pedestrian surveys were conducted by walking a series of parallel belt transects spaced at 50 to 100-foot intervals, across the proposed well pads, a 50-foot wide area marking the limit of disturbance around the well pads, the proposed access road, the flowline corridors, the water line corridor, and the overhead electric line corridor. The purpose of the surveys was to inspect for and to identify federally listed species and other species of concern. All plants observed in the project area were identified in order to provide a more complete description of the project area's environment. A list of the plants observed in the project area is included at the end of this report in Table 2.

SURVEY RESULTS

Species of Interest to the U.S. Fish and Wildlife Service (USFWS) and the State of New Mexico: This report discusses the potential for disturbance to the plant species of concern identified by the U.S. Fish and Wildlife Service's Information, Planning, and Conservation System (IPaC 2016) the BLM, and the State of New Mexico Endangered Plant Species Program (EMNRD 2015, NMRPTC 1999, revised 2015) that may occur in the project area.

Details of the status, habitat, and the potential to occur in the project area for each of these species are presented in Table 1.

SPECIES STATUS	НАВІТАТ	POTENTIAL TO OCCUR IN THE PROJECT AREA*
Amsonia tharpii Tharp's blue-star USFWS: SoC State of New Mexico: E BLM: S	Occupies limestone and gypsum hills composed of sedimentary outcrops or alluvium derived from Upper Permian beds of the Rustler, Gatuña, and Castille Formations containing gypsum or Ogallala- like caliche fragments in Chihuahuan desert scrub communities; 3,100-3,500 ft. (NMRPTC 1999, Howard 2007, cited in Roth 2013).	Three known populations of this plant are located north, southwest, and southeast of the project area. While the hill/outcrop in project area is composed of the Virginia Member of the Rustler Formation, the project area has been extensively grazed and the species is not likely to occur within the project area. Habitat is marginally suitable, but species is not suspected to occur within the project area.
Anulocaulis leiosolenus var. gypsogenus Pecos gyp ringstem USFWS: SoC State of New Mexico: SoC BLM:	Species is confined to open gypsum outcrops and gypsum rich soils; 3,300 – 4,600 ft. (NMRPTC 1999).	Project area is located in desert scrub and is located in eolian rather than gypsic soils. No appropriate habitat
Aquilegia chaplinei Chaplines columbine USFWS: SoC State of New Mexico: SoC BLM: S	Found near limestone seeps and springs in the montane scrub or riparian canyon bottoms of remote canyons; 4,700 – 5,500 ft. (NMRPTC 1999).	Project area is located in desert scrub and is over 1,000 feet lower than species elevational range. No appropriate habitat
Astragalus gypsodes Gypsum milkvetch USFWS: SoC State of New Mexico: SoC BLM: S	Endemic to the gypsum flats and low gullied gypsic hills of the Castile Formation in Chihuahuan desert scrub; 3,500 – 4,000 ft. (NMRPTC 1999).	Project area is located in desert scrub and is located in eolian soils rather than gypsic soils. No appropriate habitat

Table 1. Species of interest, status, habitat, and potential to occur in the project area.

SPECIES STATUS	НАВІТАТ	POTENTIAL TO OCCUR IN THE PROJECT AREA*
Chaetopappa hersheyi Hershey's cliff daisy USFWS: SoC State of New Mexico: SoC BLM:	Endemic to steep canyons of the Guadalupe Mountains. Habitat consists of steep limestone cliffs in pinon-juniper woodland and Rocky Mountain montane coniferous forest communities; 5,000 ft. (NMRPTC 1999).	Project area is located in desert scrub and is nearly 2,000 feet lower than species elevational range. No appropriate habitat
Cirsium wrightii Wright's marsh thistle USFWS: C State of New Mexico: E BLM:	Obligate wetland species found in wet, alkaline soils of spring seeps and along the marshy edges of streams and ponds; (3,450 - 8,500 ft. (NMRPTC 1999).	Project area is located in desert scrub with no springs, seeps, or marshes. No appropriate habitat
Coryphantha robustispina ssp. scheeri Scheer pincushion USFWS: C State of New Mexico: E BLM: S	Favors nearly level areas in desert grassland Chihuahuan desert scrub, usually found on gravelly or silty soils and occasionally on rocky limestone or gypseous benches or bajadas, 3,300 – 3,600 ft. (NMRPTC 1999).	While the hill/outcrop in project area is located in desert scrub on soils composed of the limestone rich Virginia Member of the Rustler Formation, the area has been extensively grazed and the species is not likely to occur within the project area. Habitat is marginally suitable, but species is not suspected to occur within the project area.
Dermatophyllum guadalupense Guadalupe mescal bean USFWS: SoC State of New Mexico: SoC BLM: S	Found in outcrops of pink, limy, fine- grained sandstone that is 1-2 percent gypsum by analysis with a surface pavement of limestone gravel and cobble, in Chihuahuan desert scrub and juniper savanna; 5,260 – 6,650 ft. (NMRPTC 1999).	Project area is nearly 2,000 feet lower than species elevational range. Only known Eddy County location straddles the Otero/Eddy county line and is limited to the Brokeoff Mountains and Upper Dog Canyon area of the Guadalupe Mountains in New Mexico and adjacent Culberson County, Texas (NMRPTC 1999) No appropriate habitat

SPECIES STATUS	НАВІТАТ	POTENTIAL TO OCCUR IN THE PROJECT AREA*
Echinocereus fendleri var. kuenzleri Kuenzler's hedgehog cactus USFWS: Endangered State of New Mexico: E BLM: E	Found on gentle, gravelly to rocky slopes and benches on limestone or limy sandstone in Great Plains grassland, oak woodland, or pinon-juniper woodland at the north end of the Guadalupe Mountains; 5,200 – 6,600 ft. (NMRPTC 1999).	Project area is located in desert scrub and is nearly 2,000 feet lower than species elevational range. No appropriate habitat
Ericameria nauseosa var. texensis Guadalupe rabbitbrush USFWS: SoC State of New Mexico: SoC BLM:	Endemic to the Guadalupe-Brokeoff range of mountains, plant is found in crevices on faces of limestone cliffs and adjacent to boulders of canyon woodlands; less frequently in open gravel alluvium of stream beds in pinon-juniper woodland and Chihuahuan desert scrub; 4,900 – 7,000 ft. (NMRPTC 1999).	Project area is located nearly 2,000 feet lower than species elevational range. No appropriate habitat
Eriogonum gypsophilum Gypsum wild buckwheat USFWS: T State of New Mexico: E BLM: T	Plant is restricted to almost pure gypsum that is sparsely vegetated with other gypsophilous plants; 3,280 – 3,600 ft. (NMRPTC 1999).	Project area is located in desert scrub and is located in eolian soils rather than gypsic soils. No appropriate habitat
Escobaria guadalupensis Guadalupe pincushion cactus USFWS: SoC State of New Mexico: SoC BLM:	Plant is found in cracks in limestone and rocky soils of broken terrain in open oak and pinon-juniper woodland, also in lower montane coniferous forest and Chihuahuan desert scrub; 5,200 – 7,200 ft. (NMRPTC 1999).	Project area is located in desert scrub and is nearly 2,000 feet lower than species elevational range. No appropriate habitat

SPECIES STATUS	НАВІТАТ	POTENTIAL TO OCCUR IN THE PROJECT AREA*
Escobaria sneedii var. leei Lee's pincushion cactus USFWS: T State of New Mexico: E BLM: T	Plant is found in cracks in limestone in areas of broken terrain and steep slopes of Chihuahuan desert scrub of the Guadalupe Mountains; 4,000 – 5,000 ft. (NMRPTC 1999).	Project area is located in desert scrub and is nearly 1,000 feet lower than species elevational range. No appropriate habitat
Hedeoma apiculate McKittrick pennyroyal USFWS: SoC State of New Mexico: SoC BLM:	Endemic to the Guadalupe Mountains, plant is found in limestone crevices of steep canyon walls; usually on north-facing slopes or in areas that sheltered and relatively moist in the Guadalupe Mounains; 5,400 – 8,400 ft. (NMRPTC 1999).	Project area is located in desert scrub and is nearly 2,500 feet lower than species elevational range. No appropriate habitat
Hexalectris nitida Shining crested coralroot USFWS: SoC State of New Mexico: E BLM:	Plant is found in leaf litter under oaks in the deep canyons of the Guadalupe Mountains; 4,300 ft. (NMRPTC 1999).	Project area is located in desert scrub and is over 1,000 feet lower than species elevational range. No appropriate habitat
Hexalectris revoluta Curly crested coralroot USFWS: SoC State of New Mexico: SoC BLM: S	Plant is found in heavy leaf litter under oaks or in thin humic soils among rock outcrops; 6,400 ft. (NMRPTC 1999).	Project area is located in desert scrub and is nearly 3,000 feet lower than species elevational range. No appropriate habitat

SPECIES STATUS	НАВІТАТ	POTENTIAL TO OCCUR IN THE PROJECT AREA*
Justicia wrightii Wright's justicia USFWS: SoC State of New Mexico: SoC BLM:	Found in dry, gravelly clay soils over limestone on flats or on limestone benches on low hills in Chihuahuan desert scruband and shortgrass grasslands ; 3,900 ft. (NMRPTC 1999, Poole et al. 2007).	While the hill/outcrop in project area is located in desert scrub on soils composed of the limestone rich Virginia Member of the Rustler Formation, the project area has been extensively grazed and is nearly 1,000 feet lower than the species elevational range. No appropriate habitat
Linum allredii Allred's flax USFWS: SoC State of New Mexico: SoC BLM: S	Plant is found on scarps and hillsides on exposed pale sandy gypsum of the Castile Formation in Chihuahuan Desert scrub; 3,900 ft. (NMRPTC 1999).	Project area is located in desert scrub on soils composed of the limestone rich Virginia Member of the Rustler Formation. No appropriate habitat
Muhlenbergia villiflora var. villosa Hairy muhly USFWS: SoC State of New Mexico: SoC BLM:	Found in open desert grassland and desert savanna on alkaline and calcareous soils; 4,800 – 5,200 ft. (NMRPTC 1999).	Project area is located in desert scrub and is over 1,000 feet lower than species elevational range. No appropriate habitat
Nama xylopodum Cliff nama USFWS: SoC State of New Mexico: SoC BLM:	Found in partly shaded limestone cliffs and outcrops in montane scrub to pinon-juniper oak woodlands of the Guadalupe Mountains; 4,500 – 6,500 ft. (NMRPTC 1999).	Project area is located in desert scrub and is nearly 1,500 feet lower than species elevational range. No appropriate habitat

SPECIES STATUS	HABITAT	POTENTIAL TO OCCUR IN THE PROJECT AREA*
Penstemon cardinalis ssp. regalis Guadalupe penstemon USFWS: SoC State of New Mexico: SoC BLM: S	Plant is found on limestone slopes and canyon bottoms in montane scrub, pinon- juniper woodlands, and lower montane coniferous forests; 4,500 – 6,000 ft. (NMRPTC 1999).	Project area is located in desert scrub and is nearly 1,500 feet lower than species elevational range. No appropriate habitat
Perityle quinqueflora Five-flowered rock daisy USFWS: SoC State of New Mexico: SoC BLM:	Plant is found in crevices of limestone bluffs, cliffs in high canyons and caprock; 5,000 – 6,000 ft. (NMRPTC 1999).	Project area is located in desert scrub and is nearly 2,000 feet lower than species elevational range. No appropriate habitat
Polygala rimulicola var. rimulicola Guadalupe milkwort USFWS: SoC State of New Mexico: SoC BLM:	Plant is found in cool crevices of limestone cliffs in montane coniferous forests; 5,000 – 8,000 ft. (NMRPTC 1999).	Project area is located in desert scrub and is nearly 2,000 feet lower than species elevational range. No appropriate habitat
Salvia summa Supreme sage USFWS: SoC State of New Mexico: SoC BLM:	Restricted to partly shaded limestone cliffs in the Guadalupe mountains; 5,000 – 7,000 ft. (NMRPTC 1999).	Project area is located in desert scrub and is nearly 2,000 feet lower than species elevational range. No appropriate habitat

SPECIES STATUS	HABITAT	POTENTIAL TO OCCUR IN THE PROJECT AREA*		
Solidago wrightii var. guadalupensis Gudadalupe Mountains goldenrod USFWS: SoC State of New Mexico: SoC BLM:	Plant is found on limestone outcrops and substrates and is most commonly associated with acacia-juniperus-dasylirion- lechuguilla, oak, oak-maple, and yellow pine-maple-hophornbeam-madrone vegetation types of the Guadalupe Mountains; 4,300 – 7,100 ft. (NMRPTC 1999).	Project area is located in desert scrub and is nearly 1,500 feet lower than species elevational range. No appropriate habitat		
Streptanthus sparsiflorus Guadalupe jewelflower USFWS: SoC State of New Mexico: SoC BLM: S	Found in rugged limestone canyon bottoms and montane scrub; 5,000 – 7,000 ft. (NMRPTC 1999).	Project area is located in desert scrub and is nearly 2,000 feet lower than species elevational range. No appropriate habitat		
Valeriana texana Texas tobacco- root USFWS: SoC State of New Mexico: SoC BLM:	Plant is found in shaded, moist limestone or igneous cliffs, occuasionally in canyon bottoms and in boulder fields in creek bottoms, within pinon-juniper woodland and montane coniferous forest; 5,200 – 8,000 ft. (NMRPTC 1999).	Project area is located in desert scrub and is nearly 2,000 feet lower than species elevational range. No appropriate habitat		
 Status USFWS – U.S Fish and Wildlife Service (federal) and New Mexico (state) listed species Endangered (E) – An animal or plant species in danger of extinction throughout all or a significant portion of its range. Threatened (T) – An animal or plant species likely to become endangered within the foreseeable future throughout all or a significant portion of its range. Candidate (C) - Candidate species are plants and animals for which the U.S. Fish and Wildlife Service (FWS) has sufficient information on their biological status and threats to propose them as endangered or threatened under the Endangered Species Act (ESA), but for which development of a proposed listing regulation is precluded by other higher priority listing activities. Sensitive (S) and Species of Concern (SoC) 				

Marginally suitable habitat for Scheer's pincushion (*Coryphantha robustispina* ssp. *scheer*i) cactus, a federal Candidate species was observed on the hill/outcrop within the proposed West pad of the project area. However, no cacti were observed within the proposed project area. The project area has been extensively grazed and it is unlikely that the pincushion cactus is able to establish and grow in the area

because of damage from livestock hoof action. Therefore, construction of the proposed project will likely not impact the Scheer's pincushion cactus or its habitat.

Marginally suitable habitat for Tharp's blue-star (*Amsonia tharpii*), a USFWS species of concern and a state Endangered species was also observed on the hill/outcrop within the project area. However, no individual plants were observed within the proposed project area. The project area has been extensively grazed and it is unlikely that a population of this plant has persisted because of grazing pressure. Therefore, construction of the proposed project will likely not affect the Tharp's blue-star its habitat.

No federal or state listed plant species were observed in the project area (IPaC 2014, EMNRD 2015, NMRPTC 1999, revised 2015). No BLM plant species of concern were observed in the project area.

Plant species that were observed during the survey are listed in Table 2 below. Plant identifications are based on a variety of sources including: Poole et al. (2007) *Rare Plants of Texas* and the herbarium holdings and database in the Centennial Museum, University of Texas, El Paso (Centennial Museum, UTEP 2015). Scientific names are from these sources and from the USDA Plants Database (2015).

Scientific Name	Common Name				
Shrubs and Subshrubs					
Atriplex canescens	Four-wing saltbush				
Condalia ericoides	Javelina bush				
Fluorensia cernua	Tarbush				
Gutierrezia sarothrae	Snakeweed				
Koeberlinia spinosa	Allthorn				
Krameria parvifolia	Range ratany				
Larrea tridentata	Creosote				
Lycium berlandieri	Berlandier wolfberry				
Prosopsis glandulosa var. torreyana	Torrey mesquite				
Acacia constricta	Whitethorn acacia				
Grasses and Grass-like Plants					
Andropogon hallii	Sand bluestem				
Aristida spp.	Three-awn species				
Muhlenbergia porteri	Bush muhly				
Pleuraphis mutica	Tobosa				
Schleropogon brevifolius	Burrograss				
Sporobolus airoides	Alkali sacaton				
Sporobolus nealleyi	Gyp dropseed				
Forbs					

Table 2. Plants observed in the vicinity of the proposed Charlie Sweeney Federal 31-23S-28E RB	
project area	

Acourtia nana	Desert holly
Dimorphocarpa sp.	Spectacle pod
Isocoma tenuisecta	Burroweed
Thymophylla acerosa	Prickleleaf dogweed
Yucca glauca	Soapweed yucca

No perennial streams, alkali seeps or wetlands were recorded in the immediate area of the project line (USFWS 2015, National Wetlands Inventory) and none were observed within the boundaries of the well pad, access road, or buffer zone around these features.

No noxious weed species listed by the New Mexico Department of Agriculture (NMDA, Gonzales 2009), were observed in the proposed project area.

DISCUSSION

The U.S. Fish and Wildlife Service's Information, Planning, and Conservation System (IPaC 2016) the State of New Mexico (EMNRD 2015)), and the New Mexico Rare Plant Technical Committee (NMRPTC 1999, revised 2014) list 27 Threatened, Endangered or species of concern in the project area or Eddy County, New Mexico. No federal or state listed plant species or suitable habitats for 26 of these species were observed in the project area (IPaC 2014, EMNRD 2015, NMRPTC 1999, revised 2015).

Marginally suitable habitat for Scheer's pincushion (*Coryphantha robustispina* ssp. *scheer*i) cactus, a federal Candidate species was observed on the hill/outcrop within the project area. However, no cacti were observed within the proposed project area. The project area has been extensively grazed and it is unlikely that the pincushion cactus is able to establish and grow in the area because of damage from livestock hoof action. Therefore, construction of the proposed project will likely not impact the Scheer's pincushion cactus.

Marginally suitable habitat for Tharp's blue-star (*Amsonia tharpii*), a USFWS species of concern and a state Endangered species was also observed on the hill/outcrop within the project area. However, no individual plants were observed within the proposed project area. The project area has been extensively grazed and it is unlikely that a population of this plant has persisted because of grazing pressure. Therefore, construction of the proposed project will likely not affect the Tharp's blue-star its habitat.

The proposed Charlie Sweeney, Federal RB 31-23S-28E project would have no effect on any federally listed threatened or endangered plant species. Furthermore, no critical habitat occurs within or near the proposed project and the proposed project would not modify current or proposed critical habitat. Therefore no USFWS consultation is necessary for this project.

RECOMMENDATIONS

- Earth-moving equipment should be washed prior to being brought onto the site to help prevent the introduction of noxious weeds to the project area.
- Topsoil stockpiles within the project area will be exposed during development and expansion of the well pads and associated reserve pits. The project area will be subject to erosion while soils remain bare. Surface disturbance will exceed one acre and the project will require a Storm Water Pollution Prevention Plan (SWPPP).
- Upon completion of the project, successful reclamation of the project area should include cleanup of all materials and equipment. Revegetation of the project area should include use of certified weed-free native seed mixes approved by the BLM Carlsbad Field Office that are compatible with wildlife habitat requirements and the current land use of rangeland.

CONCLUSIONS

The proposed Charlie Sweeney, Federal RB 31-23S-28E project would have no effect on federal or state listed threatened, endangered, or candidate plant species. Furthermore, no critical habitat occurs within or near the proposed project and the proposed project would not modify existing or proposed critical habitat. Therefore no USFWS consultation is necessary for this project.

Report Preparer and Certification

The results and conclusions contained in this report represent my best professional judgment and are based on actual field examination, field notes from Dr. Geoff Carpenter, information provided by the project proponent, applicable agencies, and other sources.

Roby W. Tieney

Signature of Author: Robyn W. Tierney

December 30, 2015 Revised August 5, 2016 Permits West, Inc. 37 Verano Loop Santa Fe, NM 87508 (505) 466-8120

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Matador Production Company

Proposed Charlie Sweeney Federal 31-23S-28E RB, #123H, 203H, 207H, 223H, 227H (West Pad) and Charlie Federal 31-23S-28E RB #124, 204H, 208H, 224H, 228H (East Pad) Section 31, Township 23 South, Range 28 East, Eddy County, New Mexico

Threatened, Endangered, and Special Status Wildlife Species Report January 14, 2016, revised August 5, 2016

Introduction

Matador Production Company (Matador) proposes to drill five oil and gas wells (Charlie Sweeney Federal 01-24S-28E RB 123H, 203H, 207H, 223H, 227H) on one well pad (West pad), drill five additional oil and gas wells (Charlie Sweeney Federal 01-24S-28E RB 124H, 204H, 208H, 224H, 228H) on a second (East) well pad; install an access road to the well pads; and install production flowlines from the two proposed well pads, install a water line to the two wells from an existing frac pond, and install an overhead electric power line.

The proposed project is located on private land is located in the Culebra Bluff Field approximately 2.8 miles southwest of Loving, New Mexico.

Methods

Prior to the field surveys, the following databases were reviewed:

• U.S. Fish and Wildlife Service (USFWS IPaC 2016) *Listed and Sensitive Species in Eddy County* (downloaded and reviewed December 9, 2015 and again on January 14, 2016 and July 28, 2016)

• New Mexico Department of Game and Fish Biota Information System of New Mexico (BISON-M), 2016. *Threatened, Endangered, and Sensitive Wildlife Species for Eddy County, New Mexico* (downloaded and reviewed December 9, 2015 and again on January 14, 2016 and July 28, 2016)

On December 10, 2015, Wildlife Biologist Charles Black conducted a pedestrian survey of the project area to inspect for the potential presence of threatened, endangered, or special status species. Weather during the survey was clear and breezy, with daytime highs around 65 °F.

The surveyed area consisted of the two proposed well sites, and a 50-foot buffer around the two well pads, the proposed flowline corridor and the proposed pipeline corridor.

On July 29, 2016, Charles Black conducted a second pedestrian survey of the project area to inspect for the potential presence of threatened, endangered, or special status species Weather during the survey was warm and dry with daytime highs around 100 °F. °F. The surveyed area consisted of the two well pads and a 50-foot buffer around the flowline, access road, overhead electric line, and water line easements. Habitat and existing conditions were evaluated in both surveys. The surveyor used 10 x 40 binoculars and surveyed for raptor nests in a half-mile radius around the project area.

Description of Existing Habitat

The project scope consists of developing ten wells, ten horizontal oil and gas wells and constructing the associated infrastructure including: two well pads (East and West pads); 5500.64 feet of access road; construct 1317.28 feet of new surface and buried flowlines; install 5791.73 feet of surface water line and construct 5751.65 feet of overhead electric line. Topography at the site is gently rolling to hilly. The West well pad is built on top of a small hill. The project area is 3105 feet in elevation.

Vegetation is dominated by slightly degraded Chihuahuan desert shrubland. Dominant shrubs included creosote bush (*Larrea spp.*) and honey mesquite (*Prosopis glandulosa*). Grass cover is moderate. Wildlife occurring in the area, include passerines such as Black-throated sparrows (*Amphispiza bileanata*), Brewer's sparrows (*Spizella breweri*), as well as jackrabbits (*Lepus spp.*), and whiptail lizards (*Aspidoscelis spp.*), which are typical of degraded, brush encroached grasslands and scrublands of the Chihuahuan Desert.

Threatened, Endangered, and Special Status Wildlife Species Federal Species

The following table (Table 1) discusses federal endangered and threatened species of Eddy County with the potential to occur at or near the project area.

Table 1. Federal Endangered, Threatened, and Special Status Species, Eddy County, NM

Species	Status	Habitat	Potential to Occur in Project Area*
Northern Aplomado Falcon (Falco femoralis septentrionalios)	Federal Endangered /Experimenta I Population	Formerly resident in Chihuahuan Desert grassland, now rare. An experimental reintroduction program is being conducted in Sierra County, New Mexico	NP-see discussion
Lesser Prairie- Chicken (Thympanuchus pallidicintus)	USFWS Threatened	This species is obligate to shinery oak (<i>Quercus harvardii</i>) stands in sand dunes	NP-see discussion
Sprague's pipit (Anthus spragueii)	Federal Candidate (not warranted for listed, see USFWS findings, April 2016, Federal Register	Migrates and occasionally overwinters in grassland areas of southeastern New Mexico	NS-See discussion

*Potential to Occur in Project Area

K - Known, documented observation within project area

S - Habitat suitable and species suspected to occur within the project area

NS - Habitat suitable but species is not suspected to occur within the project area

NP - Habitat not present and species unlikely to occur within the project area

State of New Mexico, Threatened and Special Status Species

The following table discusses state threatened and special status species of Eddy County with potential to occur at or near the project area.

Table 2. State of New Mexico Endangered,	Threatened, and S	pecial Status Species	. Eddy County, NM
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Species	Status	Habitat	Potential to Occur in Project Area*
Baird's sparrow (Ammodrammus bairdi)	NM State Threatened	Migrates and occasionally overwinters in grassland areas of southeastern New Mexico	NS-See discussion
Loggerhead shrike (Lanius ludoviciannus)	NM State Sensitive taxa	Widespread; occurs within Chihuahuan Desert shrublands	S-See discussion
Dune Sagebrush Lizard (Sceloporus arenicolus)	NM State Threatened	Occurs only the shinery /sand dune habitats, generally requires deep dune fields	NP-See discussion
Swift fox (Vulpes velox)	NM State Sensitive taxa	Occurs in mesa country and grasslands of NE New Mexico	S-See discussion

*Potential to Occur in Project Area

K - Known, documented observation within project area

- S Habitat suitable and species suspected to occur within the project area
- NS Habitat suitable but species is not suspected to occur within the project area

NP - Habitat not present and species unlikely to occur within the project area

Migratory Birds

Migratory birds are protected under the Migratory Bird Treaty Act. Birds protected under the Act include all common songbirds, waterfowl, shorebirds, hawks, owls, eagles, ravens, crows, native does and pigeons, swifts, martins, swallows and others, including their body parts (feathers, plumes etc.), nests, and eggs. The Act protects migratory birds from a "take". Take is defined as "to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or any attempt to carry out these activities". A "take" does not include habitat destruction or alteration, as long as these is not a direct taking of birds, nests, eggs, or parts thereof.

Six bird species observed during the wildlife surveys are protected under the Migratory Bird Treaty Act (see the species list below). If measures in the recommendation section of this report are followed, these species should not be adversely impacted by the proposed project.

Harris' Hawk

This species has no federal, state or BLM protected status, but is afforded protection under the Migratory Bird Treaty Act.

An active Harris' hawk nest was observed atop a windmill, approximately 40 feet north of the water line/pipeline route during the July 29, 2016 wildlife survey. Two adults were seen near the nest, and one egg was found inside the nest. The adults did not protest the wildlife biologist's presence near the nest, indicating that they had likely abandoned the nest at some point earlier in the season.

If the measures outlined in the Recommendation section of this report (below) are followed, there should be no adverse impact to individuals or the species.

Discussion

Northern Aplomado Falcon

This raptor was formerly a resident in Chihuahuan Desert grasslands of southern New Mexico. It is currently very rare in terms of its natural occurrence. A reintroduction of this species occurred in Sierra County, New Mexico in 2005. This location is approximately 150 miles to the west of the proposed well site. Historic populations of this species required large spans of continuous desert grasslands with sporadic large, fire-resistant yucca stands for nest sites. Grassland habitat at the proposed site is far too degraded to be suitable falcon habitat and sufficient yucca stands are entirely lacking.

No suitable habitat is located at or near the proposed site.

Lesser Prairie Chicken

This species requires monotypic stands of shinery oak in sand dune habitat. In recent decades, this vegetation type has receded in southern Lea and Eddy counties due to fragmentation and desertification. Based on wildlife surveys, the habitat present at the site is not suitable for Prairie chickens.

No suitable habitat is located at or near the proposed site.

Spague's Pipit

This grassland passerine migrates through grassland areas in eastern New Mexico where it occasionally overwinters. It could potentially occur in the project area, although the habitat is marginal. Pipits typically migrate through southeastern New Mexico in March and April (spring), and August-early September (fall). On April 5, 2016, the USFWS determined that Sprague's Pipit is not warranted for listing and proposed to remove the species from candidate status (Federal Register 2016). Given the rarity of the species, and the small size of the proposed disturbance, this species should not be adversely impacted by the proposed project.

Baird's Sparrow

This grassland sparrow migrates through grassland areas on eastern New Mexico. It could potentially occur in the project area, although habitat is marginal. Baird's sparrows are rare, but the scarcity of credible reports may be due to the furtive nature of the species. Baird Sparrows migrate through southeastern New Mexico in March and April (spring), and Augustearly September (fall). Given the rarity of the species, and the small size of the proposed disturbance, this species should not be adversely impacted by the proposed project.

Loggerhead Shrike

This species is widespread and common throughout the Chihuahuan Desert shrublands of southeastern New Mexico. Given the common occurrence of the species, and the small size of the proposed disturbance, this species should not be adversely impacted by the proposed project.

Dune Sagebrush Lizard

This species generally requires deep sand dunes within the shinery oak community. Based on this wildlife survey, the habitat present at the site is not suitable for lizards, as there are no dunes or stands of oak in the project area. Given the unsuitable habitat and the small size of the proposed disturbance, this species should not be adversely impacted by the proposed project.

Swift Fox

This species could potentially occur in the project area. No potential fox burrows were observed in the project area. Given the small size of the proposed disturbance, this species should not be adversely impacted by the proposed project.

Harris' Hawk

This species has no federal, state or BLM protected status, but is afforded protection under the Migratory Bird Treaty Act.

An active Harris' hawk nest was observed atop a windmill, approximately 40 feet north of the water line/pipeline route during the July 29, 2016 wildlife survey. Two adults were seen near the nest, and one egg was found inside the nest. The adults did not protest the wildlife biologist's presence near the nest, indicating that they had likely abandoned the nest at some point earlier in the season.

If the measures outlined in the Recommendation section of this report (below) are followed, there should be no adverse impact to individuals or the species.

Wildlife Species Observed on December 10, 2015 and on July 29, 2016

Avian Species

Swainson's hawk (Buteo swainsoni) Harris' hawk (Parabuteo unicinctus) Scaled quail (Callipepla squamata) Chihuahuan raven (Corvus cryptoleucus) Loggerhead shrike (Lanius ludovicianus) Black-throated sparrow (Amphispiza bileanata) Casssin's sparrow (Aimophila cassinii) Sagebrush sparrow (Amphispiza belli) Eastern meadowlark (Sturnella magna)

Mammalian species

Coyote (*Canis latrans*) Woodrat (*Neotoma* spp.)

Mammalian observations were generally made from tracks, scat, and other sign.

Reptile species

Little striped whiptail (Aspidoscelis inornatus)

Recommendations

It is recommended that construction of the water line/pipeline portion of the project be conducted outside of the Harris' Hawk nesting and fledging season (February 1-August 31). This is to ensure that the hawks aren't forced to abandon nesting efforts due to noise or harassment.

The nest was located at (UTM, NAD 83): 581975, 356923

There are no other recommendations regarding wildlife in association with this proposed project.

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