RAILROAD COMMISSION OF TEXAS

Form W-2

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

Status: Approved
Date: 02/03/2017
Tracking No.: 164007

OIL WELL POTENTIAL TEST, COMPLETION OR RECOMPLETION REPORT, AND LOG

OPERATOR INFORMATION

Operator Name: BAM PERMIAN OPERATING, LLC **Operator No.:** 048351
Operator Address: SUITE 110 PMB #53 4416 BRIARWOOD AVE MIDLAND, TX 79707-0000

WELL INFORMATION

API No.: 42-103-36547 **County:** CRANE
Well No.: 4 **RRC District No.:** 08
Lease Name: UNIVERSITY AMANDA **Field Name:** UNIVERSITY 31 WEST (U. DEVONIAN)
RRC Lease No.: 48191 **Field No.:** 92505500
Location: Section: 6, Block: 30, Survey: UL, Abstract: U6

Latitude: 31.52787 **Longitude:** -102.42262
This well is located 10.2 **miles in a** NW **direction from** CRANE, **which is the nearest town in the county.**

FILING INFORMATION

Purpose of filing: Initial Potential
Type of completion: New Well
Well Type: Producing **Completion or Recompletion Date:** 10/16/2016

Type of Permit	Date	Permit No.
Permit to Drill, Plug Back, or Deepen	10/10/2016	815449
Rule 37 Exception		
Fluid Injection Permit		
O&G Waste Disposal Permit		
Other:		

COMPLETION INFORMATION

Spud date: 06/11/2016 **Date of first production after rig released:** 10/16/2016
Date plug back, deepening, recompletion, or drilling operation commenced: 06/11/2016 **Date plug back, deepening, recompletion, or drilling operation ended:** 06/30/2016
Number of producing wells on this lease in this field (reservoir) including this well: 1 **Distance to nearest well in lease & reservoir (ft.):** 0.0
Total number of acres in lease: 320.50 **Elevation (ft.):** 2648 GL
Total depth TVD (ft.): 9445 **Total depth MD (ft.):**
Plug back depth TVD (ft.): 9180 **Plug back depth MD (ft.):**
Was directional survey made other than inclination (Form W-12)? No **Rotation time within surface casing (hours):** 58.0
Is Cementing Affidavit (Form W-15) attached? Yes
Recompletion or reclass? No **Multiple completion?** No
Type(s) of electric or other log(s) run: Combo of Induction/Neutron/Density
Electric Log Other Description:

Location of well, relative to nearest lease boundaries of lease on which this well is located: 2128.0 **Feet from the** West **Line and** 607.0 **Feet from the** South **Line of the** UNIVERSITY AMANDA **Lease.** **Off Lease :** No

FORMER FIELD (WITH RESERVOIR) & GAS ID OR OIL LEASE NO.

Field & Reservoir	Gas ID or Oil Lease No.	Well No.	Prior Service Type

PACKET: N/A

W2: N/A

FOR NEW DRILL OR RE-ENTRY, SURFACE CASING DEPTH DETERMINED BY:

GAU Groundwater Protection Determination **Depth (ft.):** 850.0 **Date:** 10/03/2014

SWR 13 Exception **Depth (ft.):**

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION

Date of test: 10/24/2016 **Production method:** Pumping

Number of hours tested: 24 **Choke size:**

Was swab used during this test? No **Oil produced prior to test:** 695.00

PRODUCTION DURING TEST PERIOD:

Oil (BBLS): 152.00 **Gas (MCF):** 183

Gas - Oil Ratio: 1203 **Flowing Tubing Pressure:**

Water (BBLS): 33

CALCULATED 24-HOUR RATE

Oil (BBLS): 152.0 **Gas (MCF):** 183

Oil Gravity - API - 60.: 42.0 **Casing Pressure:** 60.00

Water (BBLS): 33

CASING RECORD

Row	Type of Casing	Casing Size (in.)	Hole Size (in.)	Setting Depth (ft.)	Multi - Stage Tool Depth (ft.)	Multi - Stage Shoe Depth (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
1	Surface	13 3/8	17 1/2	866			C	665	1059.0	0	Circulated to Surface
2	Intermediate	8 5/8	11	3780			C	855	1873.0	0	Circulated to Surface
3	Conventional Production	5 1/2	7 7/8	9445	7450		H	510	1102.0	2550	Cement Evaluation Log
4	Conventional Production	5 1/2	7 7/8	9445			H	400	488.0	7450	Cement Evaluation Log

LINER RECORD

Row	Liner Size (in.)	Hole Size (in.)	Liner Top (ft.)	Liner Bottom (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By

N/A

TUBING RECORD

Row	Size (in.)	Depth Size (ft.)	Packer Depth (ft.)/Type
1	2 3/8	8566	/

PRODUCING/INJECTION/DISPOSAL INTERVAL

Row	Open hole?	From (ft.)	To (ft.)
1	No	L 8414	8484.0

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC.

Was hydraulic fracturing treatment performed? Yes

Is well equipped with a downhole actuation sleeve? No

If yes, actuation pressure (PSIG):

Production casing test pressure (PSIG) prior to hydraulic fracturing treatment: 5000

Actual maximum pressure (PSIG) during hydraulic fracturing: 5017

Has the hydraulic fracturing fluid disclosure been reported to FracFocus disclosure registry (SWR29)? Yes

Row	Type of Operation	Amount and Kind of Material Used	Depth Interval (ft.)	
1	Fracture	2625 BBL FLUID. SEE FRAC FOCUS FOR DETAILS.	8414	8484
2	Cast Iron Bridge Plug	CIBP W/ 20' CEMENT (W-15 ATTACHED)	9200	9200
3	Retainer	CICR-SQUEEZE W/ 50 SX CLASS H (W-15 ATTACHED)	9294	9294
4	Acid	4750 GAL 15% HCL	9258	9359

FORMATION RECORD

Formations	Encountered	Depth TVD (ft.)	Depth MD (ft.)	Is formation isolated?	Remarks
RUSTLER	Yes	1140.0		Yes	
YATES	Yes	2194.0		Yes	
GRAYBURG - ACTIVE CO2 FLOOD	Yes	3218.0		Yes	
SAN ANDRES - USABLE QUALITY WATER/ACTIVE CO2 FLOOD	Yes	3456.0		Yes	
SAN ANGELO	No			No	DID NOT ENCOUNTER
SEVEN RIVERS	No			No	DID NOT ENCOUNTER
GLORIETA	Yes	4341.0		Yes	
PERMIAN GENERAL	No			No	DID NOT ENCOUNTER
QUEEN	No			No	DID NOT ENCOUNTER
CLEARFORK	No			No	DID NOT ENCOUNTER
MONTOYA	No			No	NOT DEEP ENOUGH
TUBB	No			No	DID NOT ENCOUNTER
WICHITA ALBANY	Yes	5862.0		Yes	
FUSSELMAN	No			No	NOT DEEP ENOUGH
WOLFCAMP	Yes	7076.0		Yes	
WADDELL	No			No	NOT DEEP ENOUGH
BEND	Yes	8391.0		Yes	
PENNSYLVANIAN	No			No	DID NOT ENCOUNTER
CISCO	No			No	DID NOT ENCOUNTER
STRAWN	Yes	7936.0		Yes	
DEVONIAN - ACTIVE CO2 FLOOD	Yes	9225.0		Yes	
ELLENBURGER	No			No	NOT DEEP ENOUGH

Do the producing interval of this well produce H2S with a concentration in excess of 100 ppm (SWR 36)? No

Is the completion being downhole commingled (SWR 10)? No

REMARKS

RRC REMARKS

PUBLIC COMMENTS:

CASING RECORD :

TUBING RECORD:

PRODUCING/INJECTION/DISPOSAL INTERVAL :

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. :

POTENTIAL TEST DATA:

OPERATOR'S CERTIFICATION

Printed Name: Blake Morphew **Title:**

Telephone No.: (432) 413-9289 **Date Certified:** 10/25/2016

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

CEMENTING REPORT

Form W-15
Rev. 08/2014

Cementer: Fill in shaded areas.
Operator: Fill in other items.

OPERATOR INFORMATION

Operator Name:	BAM PERMIAN	Operator P-5 No.:	048351
Cementer Name:	O - Tex Pumping , LLC	Cementer P-5 No.:	617021

WELL INFORMATION

District No.:	08	County:	CRANE		
Well No.:	#4	API No.:	42-103-36547	Drilling Permit No.:	815449
Lease Name:	AMANDA	Lease No.:			
Field Name:	University 31 West (U. Devonian)	Field No.:	92505500		

I. CASING CEMENTING DATA

Type of Casing: ☐ Conductor	☑ Surface	☐ Intermediate	☐ Liner	☐ Production	
Drilled hole size (in.): 17 1/2	Depth of drilled hole (ft.): 866.2		Est. % wash-out or hole enlargement: 30%		
Size of casing in O.D. (in.): 13 3/8	Casing weight (lbs/ft) and grade: 54.5#/FT J-55		No. of centralizers used: 8		
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☑ YES ☐ NO If no for surface casing, explain in Remarks.	Setting depth shoe (ft.): [redacted] 866'		Top of liner (ft.):		
Hrs. waiting on cement before drill-out: 18	Calculated top of cement (ft.): SURFACE		Setting depth liner (ft.):		
			Cementing date: 6/12/2016		

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	350	CLASS C	SEE REMARKS	637	557
2	315	CLASS C	SEE REMARKS	422	913
3					
Total	665			1059	1470

II. CASING CEMENTING DATA

Type of casing: ☐ Surface	☐ Intermediate	☐ Production	☐ Tapered production	☐ Multi-stage cement shoe	☐ Multiple parallel strings
Drilled hole size (in.):	Depth of drilled hole (ft.):			Est. % wash-out or hole enlargement:	
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:			No. of centralizers used:	
Tapered string drilled hole size (in.) Upper: Lower:		Tapered string depth of drilled hole (ft.) Upper: Lower:			
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight(lbs/ft) and grade Upper: Lower:			Tapered string no. of centralizers used Upper: Lower:	
Was cement circulated to ground surface (or bottom of cellar) outside casing? YES ☐ NO ☐				Setting depth shoe (ft.):	
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):			Cementing date:	

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

III. CASING CEMENTING DATA

Type of casing: ☐ Surface	☐ Intermediate	☐ Production	☐ Tapered production	☐ Multi-stage cement/DV tool	☐ Multiple parallel strings
Drilled hole size (in.):	Depth of drilled hole (ft.):			Est. % wash-out or hole enlargement:	
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:			No. of centralizers used:	
Tapered string drilled hole size (in.) Upper: Lower:		Tapered string depth of drilled hole (ft.) Upper: Lower:			
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight(lbs/ft) and grade Upper: Lower:			Tapered string no. of centralizers used Upper: Lower:	
Was cement circulated to ground surface (or bottom of cellar) outside casing? YES ☐ NO ☐				Setting depth shoe (ft.):	
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):			Cementing date:	

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON							
	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date							
Size of hole or pipe (in.)							
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used							
Slurry volume pumped (cu. ft.)							
Calculated top of plug (ft.)							
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)							
Class/type of cement							
Perforate and squeeze (YES/NO)							

REMARKS
1ST SLURRY 65/35 CLASSC / POZ 6% GEL, 0.25#/SK CELLOFLAKE, 3% SALT, 2ND SLURRY 100% CLASS C, 2% CALCIUM CHLORIDE

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

JASON JONES — Name and title of cementer's representative

O-Tex Pumping — Cementing Company

Signature

2609 E I-20 — Address

Midland TX 79706 — City, State, Zip Code

432-686-8559 — Tel: Area Code Number

6/12/2016 — Date: mo. day yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

Blake Morphew — Typed or printed name of operator's representative

Managing Member — Title

Signature

4416 Briarwood Ave, Suite 110 PMB #53 — Address

Midland, TX 79707 — City, State, Zip Code

(432)413-9289 — Tel: Area Code Number

10/25/16 — Date: mo. day yr.

Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

A. **What to file:** An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form.
The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. **How to file:** An oil and gas completion report and Form W-15 may be filed online using the Commission's Online System

(https://webapps.rrc.state.tx.us/security/login.do) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 787112967).

C. **Surface casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.

To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 (http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

D. **Estimated % wash-out:** If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.

E. **Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.

F. **Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15s to show all data for multiple parallel strings.

G. **Slurry data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

Form W-15
Rev. 08/2014

CEMENTING REPORT

Cementer: Fill in shaded areas.
Operator: Fill in other items.

OPERATOR INFORMATION			
Operator Name:	BAM PERMIAN OPERATING LLC	Operator P-5 No.:	048351
Cementer Name:	O - Tex Pumping , LLC	Cementer P-5 No.:	617021

WELL INFORMATION			
District No.:	08	County:	CRANE
Well No.:	4	API No.: 42-103-36547	Drilling Permit No.: 815449
Lease Name:	AMANDA	Lease No.:	
Field Name:	University 31 West (U. Devonian)	Field No.:	92505500

I. CASING CEMENTING DATA

Type of Casing:	☐ Conductor	☐ Surface	☑ Intermediate	☐ Liner	☐ Production
Drilled hole size (in.):	11"	Depth of drilled hole (ft.):	3780'	Est. % wash-out or hole enlargement:	20%
Size of casing in O.D. (in.):	8-5/8"	Casing weight (lbs/ft) and grade:	24-32# J-55	No. of centralizers used:	20
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☑ YES ☐ NO If no for surface casing, explain in Remarks.		Setting depth shoe (ft.): 3780'		Top of liner (ft.):	
				Setting depth liner (ft.):	
Hrs. waiting on cement before drill-out: 14		Calculated top of cement (ft.): SURFACE		Cementing date:	6/17/2016

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	655	50:50 CLASS C	REMARKS # 1	1605	6314
2	200	CLASS C	REMARKS # 2	268	1054
3					
Total	855			1873	7368

II. CASING CEMENTING DATA

Type of casing:	☐ Surface	☐ Intermediate	☐ Production	☐ Tapered production	☐ Multi-stage cement shoe ☐ Multiple parallel strings
Drilled hole size (in.):		Depth of drilled hole (ft.):		Est. % wash-out or hole enlargement:	
Size of casing in O.D. (in.):		Casing weight (lbs/ft) and grade:		No. of centralizers used:	
Tapered string drilled hole size (in.) Upper:	Lower:		Tapered string depth of drilled hole (ft.) Upper:	Lower:	
Tapered string size of casing in O.D. (in.) Upper:	Lower:	Tapered string casing weight(lbs/ft) and grade Upper:	Lower:	Tapered string no. of centralizers used Upper:	Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? YES ☐ NO ☐				Setting depth shoe (ft.):	
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.):		Cementing date:	

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

III. CASING CEMENTING DATA

Type of casing:	☐ Surface	☐ Intermediate	☐ Production	☐ Tapered production	☐ Multi-stage cement/DV tool ☐ Multiple parallel strings
Drilled hole size (in.):		Depth of drilled hole (ft.):		Est. % wash-out or hole enlargement:	
Size of casing in O.D. (in.):		Casing weight (lbs/ft) and grade:		No. of centralizers used:	
Tapered string drilled hole size (in.) Upper:	Lower:		Tapered string depth of drilled hole (ft.) Upper:	Lower:	
Tapered string size of casing in O.D. (in.) Upper:	Lower:	Tapered string casing weight(lbs/ft) and grade Upper:	Lower:	Tapered string no. of centralizers used Upper:	Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? YES ☐ NO ☐				Setting depth shoe (ft.):	
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.):		Cementing date:	

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON							
	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date							
Size of hole or pipe (in.)							
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used							
Slurry volume pumped (cu. ft.)							
Calculated top of plug (ft.)							
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)							
Class/type of cement							
Perforate and squeeze (YES/NO)							

REMARKS
REMARKS # 1 10% Gel + .25#/sk Cello Flake + 5% Salt
REMARKS # 2 2% CaCl2

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CARLOS A FLORES SERVICE SUPERVISOR	O-Tex Pumping	
Name and title of cementer's representative	Cementing Company	Signature

2609 E I-20	Midland TX 79706	432-686-8559	6/17/2016
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. day yr.

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Blake Morphew	Managing Member	
Typed or printed name of operator's representative	Title	Signature

4416 Briarwood Ave. Suite 110 PMB #53	Midland, TX 79707	(432) 242-8851	6/17/16
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. day yr.

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D. **Estimated % wash-out:** If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.

E. **Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.

F. **Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15s to show all data for multiple parallel strings.

G. **Slurry data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.

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Form W-15
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Operator Name:	Bam Permian Operating LLc	Operator P-5 No.:	048351
Cementer Name:	O - Tex Pumping , LLC	Cementer P-5 No.:	617021

WELL INFORMATION

District No.:	08	County:	Crane
Well No.:	#4	API No.: 42-103-36547	Drilling Permit No.: 815449
Lease Name:	Amanda	Lease No.:	
Field Name:	University 31 West (U. Devonian)	Field No.:	92505500

I. CASING CEMENTING DATA

Type of Casing: ☐ Conductor ☐ Surface ☐ Intermediate ☐ Liner ☒ Production

Drilled hole size (in.): 7 7/8"	Depth of drilled hole (ft.): ~~9445~~	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☐ NO If no for surface casing, explain in Remarks.	Setting depth shoe (ft.):	Top of liner (ft.): / Setting depth liner (ft.):
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

II. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☑ Production ☐ Tapered production ☑ Multi-stage cement shoe ☐ Multiple parallel strings

Drilled hole size (in.): 7 7/8"	Depth of drilled hole (ft.): 9445	Est. % wash-out or hole enlargement: 20%
Size of casing in O.D. (in.): 5 1/2"	Casing weight (lbs/ft) and grade: 20# L-80	No. of centralizers used: 36
Tapered string drilled hole size (in.) Upper: Lower:	Tapered string depth of drilled hole (ft.) Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight(lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? YES ☐ NO ☑		Setting depth shoe (ft.): 9445'
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.): 6629'	Cementing date: 6/30/2016

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	400	50:50 H	Remark 1	488	2816
2					
3					
Total	400			488	2816

III. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☑ Production ☐ Tapered production ☑ Multi-stage cement/DV tool ☐ Multiple parallel strings

Drilled hole size (in.): 7 7/8"	Depth of drilled hole (ft.): 9445	Est. % wash-out or hole enlargement: 20%
Size of casing in O.D. (in.): 5 1/2"	Casing weight (lbs/ft) and grade: 20# L-20	No. of centralizers used: 36
Tapered string drilled hole size (in.) Upper: Lower:	Tapered string depth of drilled hole (ft.) Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight(lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? YES ☐ NO ☑		Setting depth shoe (ft.): 7450'
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.): 2550' (CBL)	Cementing date: 6/30/2016

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	400	50:50 H	Remark 2	992	5728
2	110	Class H	Remark 3	110	744
3					
Total	510			1102	6472

CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON							
	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date							
Size of hole or pipe (in.)							
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used							
Slurry volume pumped (cu. ft.)							
Calculated top of plug (ft.)							
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)							
Class/type of cement							
Perforate and squeeze (YES/NO)							

REMARKS
1: Remark 1 :2% Gel + 3/10% C-12 + 2/10% C-49 + 2/10% SMS + 3/10%O-TX20 + 1/4#/sk Cello Flake
2: Remark 2 :10% Gel + 1/10% O-TX20 + .25#/sk Cello Flake + 5% Salt
3: Remark 3 :1/10% O-TX20

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

Lee Herrera/Service Supervisor — Name and title of cementer's representative

Otex Pumping LLC — Cementing Company

Signature

2601 E-I20 Midland,Tx 79706 — Address / City, State, Zip Code

432-686-8563 — Tel: Area Code / Number

6/30/2016 — Date: mo. day yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

Blake Morphew — Typed or printed name of operator's representative

Managing Member — Title

Signature

4416 Briarwood Ave. Suite 110 PMB #53 Midland, TX 79707 — Address / City, State, Zip Code

432-413-9289 — Tel: Area Code / Number

6/30/2016 — Date: mo. day yr.

Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

A. **What to file:** An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form.
The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. **How to file:** An oil and gas completion report and Form W-15 may be filed online using the Commission's Online System

(https://webapps.rrc.state.tx.us/security/login.do) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 787112967).

C. **Surface casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.

To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 (http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

D. **Estimated % wash-out:** If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.

E. **Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.

F. **Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15s to show all data for multiple parallel strings.

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

CEMENTING REPORT

Form W-15
Rev. 08/2014

Cementer: Fill in shaded areas.
Operator: Fill in other items.

OPERATOR INFORMATION

Operator Name: BAM Permian operating LLC	Operator P-5 No.: 048351
Cementer Name: Capitan Corp	Cementer P-5 No.: 130095

WELL INFORMATION

District No.: 08		County: Crane	
Well No.: 4		API No.: 42-103-36547	Drilling Permit No.: 815449
Lease Name: University Amanda		Lease No.:	
Field Name: University 31 West (U. Devonian)		Field No.: 92505500	

I. CASING CEMENTING DATA

Type of casing: ☐ Conductor ☐ Surface ☐ Intermediate ☐ Liner ☐ Production

Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☐ NO If no for surface casing, explain in Remarks.	Setting depth shoe (ft.):	Top of liner (ft.): / Setting depth liner (ft.):
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

II. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement shoe ☐ Multiple parallel strings

Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:
Tapered string drilled hole size (in.) Upper: Lower:	Tapered string depth of drilled hole (ft.) Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight(lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☐ NO		Setting depth shoe (ft.):
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

III. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement/DV tool ☐ Multiple parallel strings

Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:
Tapered string drilled hole size (in.) Upper: Lower:	Tapered string depth of drilled hole (ft.) Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight(lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☐ NO		Setting depth tool (ft.):
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON							
	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date	10-5-16						
Size of hole or pipe (in.)	5 1/2						
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)	9200						
Amount of cement on top of CIBP (ft.)	20'						
Sacks of cement used	2						
Slurry volume pumped (cu. ft.)	2.2						
Calculated top of plug (ft.)	9180						
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)	15.1						
Class/type of cement	H						
Perforate and squeeze (YES/NO)							

REMARKS

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

Mike Aguilar — Name and title of cementer's representative

Capitan Corp — Cementing Company

Signature

PO Box 60018 Midland TX 79711 — Address, City, State, Zip Code

432-561-9356 — Tel: Area Code Number

10-5-16 — Date: mo. day yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

Blake Morphew — Typed or printed name of operator's representative

Managing member — Title

Signature

4416 Briarwood Ave. suite 110 PMB #53 — Address

Midland, TX 79707 — City, State, Zip Code

(432) 413-9289 — Tel: Area Code Number

10/25/16 — Date: mo. day yr.

Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

A. **What to file:** An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form.

The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. **How to file:** An oil and .gas completion report and Form W-15 may be filed online using the Commission's Online System (https://webapps.rrc.state.tx.us/security/login.do) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711-2967).

C. **Surface casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.

To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 (http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

D. **Estimated % wash-out:** If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.

E. **Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing **and** Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.

F. **Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15s to show all data for multiple parallel strings.

G. **Slurry data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

CEMENTING REPORT

Form W-15
Rev. 08/2014

Cementer: Fill in shaded areas.
Operator: Fill in other items.

OPERATOR INFORMATION			
Operator Name:	BAM Permian Operating, LLC	Operator P-5 No.:	048351
Cementer Name: Allied OFS, LLC		Cementer P-5 No.:	014442

WELL INFORMATION			
District No.:	08	County:	Crane
Well No.:	#4	API No.: 42-103-36547	Drilling Permit No.: 815449
Lease Name:	University Amanda	Lease No.:	
Field Name:	University 31 west (U. Devonian)	Field No.:	92505500

I. CASING CEMENTING DATA

Type of casing: ☐ Conductor ☐ Surface ☐ Intermediate ☐ Liner ☐ Production

Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:	
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:	
Was cement circulated to ground surface (or bottom of cellar) outside casing? If no for surface casing, explain in Remarks. ☐ YES ☐ NO	Setting depth shoe (ft.):	Top of liner (ft.):	
		Setting depth liner (ft.):	
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:	9/15/2016

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1					
2					
3					
Total					

II. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement shoe ☐ Multiple parallel strings

Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:	
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:	
Tapered string drilled hole size (in.)		Tapered string drilled hole size (in.)	
Tapered string size of casing in O.D. (in.)	Tapered string casing weight(lbs/ft) and grade	Tapered string no. of centralizers used	
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☐ NO		Setting depth shoe (ft):	
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:	9/15/2016

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1					
2					
3					
Total					

III. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement/DV tool ☐ Multiple parallel strings

Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:	
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:	
Tapered string drilled hole size (in.) Upper: Lower:		Tapered string depth of drilled hole (ft.) Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight(lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used Upper: Lower:	
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☐ NO		Setting depth tool (ft):	
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:	9/15/2016

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1					
2					
3					
Total					

CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON							
	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date	9/15/2016						
Size of hole or pipe (in.)	5 1/2"						
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)	9294'						
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used	50SKS						
Slurry volume pumped (cu. ft.)	59						
Calculated top of plug (ft.)	9310						
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)	15.6PPG						
Class/type of cement	SEE RMKS						
Perforate and squeeze (YES/NO)							

REMARKS

CEMENT - 50SKS OF CLASS H NEAT AT 15.6PPG

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

Omar Ramos	Allied OFS, LLC		
Name and title of cementer's representative	Cementing Company	Signature	
8711 W. CR 127	Midland Texas 79706	(432) 563-4440	9/15/16
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. Day yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct and complete to the best of my knowledge. This certification covers all well data.

Blake Morphew	Managing Member		
Typed or printed name of operator's representative	Title	Signature	
4416 Briarwood Ave. Suite 110 PMB#53	Midland, TX 79707	(432) 413-9289	10/25/16
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. Day yr.

Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

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C. **Surface Casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing fromt the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the commission.

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D. **Estimated % wash-out:** If the estimated % wash-out is less than 20% (or30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.

E. **Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cement Data section by selecting the type of casing **and** Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-Stage cement/DV tool.

F. **Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to sumbit multiple form W-15s to show all data for multiple parallel strings.

G. **Slurry Data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

Form W-12
(1-1-71)

RIG #: 5

INCLINATION REPORT
(One Copy Must Be Filed With Each Completion Report)

1. FIELD NAME (as per RRC Records or Wildcat): **Waddell (Devonian)**	2. LEASE NAME: **University Amanda**
3. OPERATOR: **BAM Permian Operating, LLC**	
4. ADDRESS: **4416 Briarwood Ave, Suite 110 PMB #53, Midland, TX 79707**	
5. LOCATION (Section, Block and Survey): **2128' FWL & 607'FSL, Sec 6, Blk 30, UL Survey, A-U6**	

6. RRC District: **8**	
7. RRC Lease Number (Oil completions only)	
8. Well Number: **4**	
9. RRC Identification Number (Gas completions only)	
10. County: **Crane**	

RECORD OF INCLINATION

*11. Measured Depth (feet)	12. Course Length (Hundreds of feet)	*13. Angle of Inclination (Degrees)	14. Displacement per (Hundred Feet (Sine of Angle X 100)	15. Course Displacement (feet)	16. Accumulative Displacement (feet)
231	2.31	0.70	1.22	2.82	2.82
706	4.75	0.90	1.57	7.46	10.28
832	1.26	0.80	1.40	1.76	12.04
1280	4.48	0.50	0.87	3.91	15.95
1753	4.73	2.00	3.49	16.51	32.46
1848	0.95	2.30	4.01	3.81	36.27
1974	1.26	1.80	3.14	3.96	40.23
2100	1.26	1.40	2.44	3.08	43.31
2353	2.53	0.90	1.57	3.97	47.28
2637	2.84	1.30	2.27	6.44	53.73
2923	2.86	0.50	0.87	2.50	56.22
3280	3.57	0.40	0.70	2.49	58.71
3522	2.42	0.40	0.70	1.69	60.40
3785	2.63	0.50	0.87	2.30	62.70
3828	0.43	0.20	0.35	0.15	62.85
4043	2.15	0.20	0.35	0.75	63.60

If additional space is needed, use the reverse side of this form.

17. Is any information shown on the reverse side of this form? ☑ Yes ☐ No

18. Accumulative total displacement of well bore at total depth of **9353** feet = **168.09** feet.

*19. Inclination measurements were made in ☐ Tubing ☐ Casing ☐ Open hole ☒ Drill Pipe

20. Distance from surface location of well to the nearest lease line **607** feet.

21. Minimum distance to lease line as prescribed by field rules **330** feet.

22. Was the subject well at any time intentionally deviated from the vertical in any manner whatsoever? **no**

(If the answer to above question is "yes," attach written explanation of the circumstances.)

INCLINATION DATA CERTIFICATION

I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authroized to make this certification, that I have personal knowledge of the inclination data and facts placed on both side of this form and that such data and facts are true, correct, and complete to the best of my knowledge. This certification covers all data as indicated by asterisks (*) by the item numbers on this form.

Signature of Authorized Representative
JEFF PHILLIPS, PRESIDENT
Name of Person and Title (type or print)
RYAN DRILLING, LLC dba O'RYAN DRILLING
Name of Company
Telephone: **432** - **561-8470**
Area Code

OPERATOR CERTIFICATION

I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have personal knowledge of all information presented in this report, and that all data is presented on both sides of this forms are true, correct, and complete to the best of my knowledge. This certification covers all data and information presented herein except inclination data as indicated by asterisks (*) by the item numbers on this form.

Signature of Authorized Representative
Blake Morpher, Managing member
Name of Person and Title (type or print)
BAM Permian Operating, LLC
Operator
Telephone: 432 - 413-9289
Area Code

Railroad Commission Use Only:

Approved By: _____ Title: _____ Date: _____

* Designates items certified by company that conducted the inclination surveys.

RECORD OF INCLINATION (Continued from reverse side)

*11. Measured Depth (feet)	12. Course Length (Hundreds of feet)	*13. Angle of Inclination (Degrees)	14. Displacement per (Hundred Feet (Sine of Angle X 100)	15. Course Displacement (feet)	16. Accumulative Displacement (feet)
4234	1.91	0.50	0.87	1.67	65.27
4582	3.48	0.60	1.05	3.64	68.91
4740	1.58	0.40	0.70	1.10	70.01
4898	1.58	0.20	0.35	0.55	70.56
5269	3.71	1.10	1.92	7.12	77.69
5519	2.50	1.30	2.27	5.67	83.36
5844	3.25	1.40	2.44	7.94	91.30
6314	4.70	0.80	1.40	6.56	97.86
6677	3.63	1.10	1.92	6.97	104.83
7076	3.99	1.10	1.92	7.66	112.49
7517	4.41	0.60	1.05	4.62	117.11
7774	2.57	3.50	6.10	15.69	132.80
8028	2.54	0.80	1.40	3.55	136.34
8406	3.78	0.80	1.40	5.28	141.62
8688	2.82	1.60	2.79	7.87	149.49
9006	3.18	2.10	3.66	11.65	161.15
9172	1.66	1.60	2.79	4.63	165.78
9300	1.28	0.70	1.22	1.56	167.35
9353	0.53	0.80	1.40	0.74	168.09
0	-93.53	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09

If additional space is needed, attach separate sheet and check here. ☐

REMARKS: _____

- INSTRUCTIONS -

An inclination survey made by persons or concerns approved by the Commission shall be filed on a form prescribed by the Commission for each well drilled or deepened with rotary tools or when, as a result of any operation, the course of the well is changed. No inclination survey is required on wells that are drilled and completed as dry holes that are plugged and abandoned. (Inclination surveys are required on re - entry of abandoned wells.) Inclination surveys must be made in accordance with the provisions of Statewide Rule 11.

This report shall be filed in the District Office of the Commission for the district in which the well is drilled; by attaching one copy to each appropriate completion for the well. (except Plugging Report)

The Commission may require the submittal of the original charts, graphs, or discs, resulting from the surveys.

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

ELECTRIC LOG STATUS REPORT

FORM L-1

Tracking No.: 164007

This facsimile L-1 was generated electronically from data submitted to the RRC.

Instructions

When to File Form L-1:
- with Forms G-1, W-2, and GT-1 for new and deepened gas, oil, and geothermal wells
- with Form W-3 for plugged dry holes
- when sending in a log which was held under a request for confidentiality and the period for confidentiality has not yet expired.

When is Form L-1 NOT required:
- with Forms W-2, G-1, and GT-1 filed for injection wells, disposal wells, water supply wells, service wells, re-test wells, re-classifications, and plugbacks of oil, gas or geothermal wells
- with Form W-3 for plugging of other than a dry hole

Where to File Form L-1:
- with the appropriate Commission district office

Filling out Form L-1:
- Section I and the signature section must be filled out for all wells
- complete only the appropriate part of Section II

Type of log required:
- any wireline survey run for the purpose of obtaining lithology, porosity, or resistivity information
- no more than one such log is required but it must be of the subject well
- if such log is NOT run on the subject well, do NOT substitute any other type of log; just select Section II, Part A below

SECTION I. IDENTIFICATION

Operator Name: BAM PERMIAN OPERATING, LLC	District No. 08	Completion Date: 10/16/2016
Field Name UNIVERSITY 31 WEST (U. DEVONIAN)	Drilling Permit No. 815449	
Lease Name UNIVERSITY AMANDA	Lease/ID No. 48191	Well No. 4
County CRANE	API No. 42- 103-36547	

SECTION II. LOG STATUS (Complete either A or B)

☐ A. BASIC ELECTRIC LOG NOT RUN

☒ B. BASIC ELECTRIC LOG RUN. (Select one)

☐ 1. Confidentiality is requested and a copy of the header for each log that has been run on the well is attached.

☐ 2. Confidentiality already granted on basic electric log covering this interval (applicable to deepened wells only).

☐ 3. Basic electric log covering this interval already on file with Commission (applicable to deepened wells only).

☒ 4. Log attached to (select one):

☒ (a) Form L-1 (this form). If the company/lease name on log is different from that shown in Section I, please enter name on log here: _____

Check here if attached log is being submitted after being held confidential. ☐

☐ (b) Form P-7, Application for Discovery Allowable and New Field Designation.

☐ (c) Form W-4, Application for Multiple Completion:

Lease or ID No(s). _____

Well No(s). _____

Blake Morphew
Signature

Name (print)

Title

(432) 413-9289
Phone

10/25/2016
Date

-FOR RAILROAD COMMISSION USE ONLY-

Schlumberger

Company: BAM Permian Operating, LLC

Well: University Amanda #4

Field: Waddell (Devonian)

County: Crane State: Texas

County: Crane
Field: Waddell (Devonian)
Location: 607' FSL x 2128' FWL
Well: University Amanda #4
Company: BAM Permian Operating, LLC

Platform Express

Compensated Neutron Log

Three Detector Litho-Density

Location:				
607' FSL x 2128' FWL Sec. 6, Blk. 30, Abs. U6 Survey: University Lands			Elev.:	K.B. 2664.00 ft G.L. 2648.00 ft D.F. 2663.00 ft
Permanent Datum:	Ground Level		Elev.:	2648.00 f
Log Measured From:	Kelly Bushing		16.00 ft	above Perm.Datum
Drilling Measured From:	Kelly Bushing			

API Serial No.	Section:	Block:	Abstract:
42-103-36547	6	30	U6

Logging Date			29-Jun-2016			
Run Number			1A			
Depth Driller			9445.00 ft			
Schlumberger Depth			9444.00 ft			
Bottom Log Interval			9454.00 ft			
Top Log Interval			7800.00 ft			
Casing Driller Size @ Depth			8.625 in @ 3780.00 ft			
Casing Schlumberger			3774 ft			
Bit Size			7.875 in			
Type Fluid In Hole			Salt Brine			
MUD	Density	Viscosity	9.9 lbm/gal	42 s		
	Fluid Loss	PH	3 cm3	9		
	Source of Sample		Active Tank			
RM @ Meas Temp			0.06 ohm.m @ 75 degF			
RMF @ Meas Temp			0.04 ohm.m @ 75 degF			
RMC @ Meas Temp			0.07 ohm.m @ 75 degF			
Source RMF	RMC		Calculated	Calculated		
RM @ BHT	RMF @ BHT		0.04 @ 126.69	0.02 @ 126.69		
Max Recorded Temperatures			135.31 degF			
Circulation Stopped	Time		28-Jun-2016	03:00:00		
Logger on Bottom	Time		29-Jun-2016	12:34:00		
Unit Number	Location:		2224	Midland		
Recorded By			AJ Trublowski			
Witnessed By			Blake Morphew			

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division
PO Box 12967
Austin TX 78711-2967
www.rrc.texas.gov

CERTIFICATE OF COMPLIANCE AND TRANSPORTATION AUTHORITY

P-4

This facsimile P-4 was generated electronically from data submitted to the RRC.
A certification of the automated data is available in the RRC's Austin office.

Tracking No.: 164007

1. Field name exactly as shown on proration schedule	2. Lease name as shown on proration schedule			
UNIVERSITY 31 WEST (U. DEVONIAN)	UNIVERSITY AMANDA			
3. Current operator name exactly as shown on P-5 Organization Report	4. Operator P-5 no.	5. Oil Lse/Gas ID no	6. County	7. RRC district
BAM PERMIAN OPERATING, LLC	048351	48191	CRANE	08
8. Operator address including city, state, and zip code	9. Well no(s) *(see instruction E)*			
SUITE 110 PMB #53 4416 BRIARWOOD AVE MIDLAND, TX 79707	4			
	10. Classification: [X] Oil [ ] Gas [ ] Other *(see instruction A)*			11. Effective Date: 10/16/2016

12. Purpose of Filing. (Complete section a or b below.) *(See instructions B and G)*

a. Change of: [ ] operator [ ] oil or condensate gatherer [ ] gas gatherer [ ] gas purchaser [ ] gas purchaser system code
[ ] field name from _____
[ ] lease name from _____

OR

b. New RRC Number for: [X] oil lease [ ] gas well [ ] other well (specify) _____ **Due to:** [X] new completion or recompletion [ ] reclass oil to gas [ ] reclass gas to oil [ ] consolidation, unitization, or subdivision (oil lease only)

13. Authorized GAS WELL GAS or CASINGHEAD GAS Gatherer(s) and/or Purchaser(s). *(See instruction G).*

Gatherer	Purchaser	Name of GAS WELL GAS or CASINGHEAD GAS Gatherer(s) or Purchaser(s) As Indicated in Columns to the Left *(Attach an additional sheet in same format if more space is needed)*	Purchaser's RRC Assigned System Code	Percent of Take	Full-well stream
X	X	TARGA MIDSTREAM SERVICES LLC(836037)	0007	100.0	

14. Authorized OIL or CONDENSATE Gatherer(s). *(See instruction G).*

Name of OIL or CONDENSATE Gatherer(s) - List Highest Volume Gatherer First *(Attach an additional sheet in same format if more space is needed)*	Percent of Take
LPC CRUDE OIL MARKETING LLC(480177)	100.0

RRC USE ONLY: Reviewer's initials: RRC Staff Approval date: 02/03/2017

15. PREVIOUS OPERATOR CERTIFICATION FOR CHANGE OF OPERATOR P-4 FILING. Being the PREVIOUS OPERATOR, I certify that operating responsibility for the well(s) designated in this filing, located on the subject lease has been transferred in its entirety to the above named Current Operator. I understand, as Previous Operator, that designation of the above named operator as Current Operator is not effective until this certificate is approved by the Commission.

Name of Previous Operator

Signature

Name (print)

[ ] **Authorized Employee of previous operator**

[ ] **Authorized agent of previous operator** *(see instruction G)*

Title

Date

Phone with area code

16. CURRENT OPERATOR CERTIFICATION. By signing this certificate as the Current Operator, I certify that all statements on this form are true and correct and I acknowledge responsibility for the regulatory compliance of the subject lease including plugging of well(s) pursuant to Rule 14. I further acknowledge that I assume responsibility for the physical operation, control, and proper plugging of each well designated in this filing. I also acknowledge that I will remain designated as the Current Operator until a new certificate designating a new Current Operator is approved by the Commission.

Name (print)

Blake Morphew
Signature

[X] **Authorized Employee of current operator**

[ ] **Authorized agent of current operator** *(see instruction G)*

Title

blake.morphew@gmail.com
E-mail Address (optional)

10/25/2016
Date

(432) 413-9289
Phone with area code

STATEMENT OF PRODUCTIVITY OF ACREAGE ASSIGNED TO PRORATION UNITS

Form P-15

Tracking No.: 164007

This facsimile P-15 was generated electronically from data submitted to the RRC.

The undersigned states that he is authorized to make this statement; that he has knowledge of the facts concerning the BAM PERMIAN OPERATING, LLC (OPERATOR), UNIVERSITY AMANDA (LEASE), No. 4 (WELL); that such well is completed in the UNIVERSITY 31 WEST (U. DEVONIAN) Field, CRANE County, Texas and that the acreage claimed, and assigned to such well for proration purposes as authorized by special rule and as shown on the attached certified plat embraces 40.0 acres which can reasonably be considered to be productive of hydrocarbons.

- CERTIFICATE -

I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge,

Date 02/02/2017 Signature Blake Morphew

Telephone (432) 413-9289 (AREA CODE) Title

Groundwater Advisory Unit

GROUNDWATER PROTECTION DETERMINATION — **Form GW-2**

Date: October 3, 2014 — GAU File No.: 8189

API Number: 10300000

Attention: PAM MORPHEW — RRC Lease No.: 000000

SC_197416_10300000_000000_8189.pdf

DAKOTA RESOURCES INC I
4914 N MIDKIFF
MIDLAND TX 79705

--Measured--
467 ft FWL
1870 ft FSL
MRL:SECTION

Digital Map Location:
X-coord/Long: 102.42928
Y-coord/Lat: 31.53013
Datum: 83 Zone:

P-5# 197416

County: CRANE — Lease & Well No.: UNIVERSITY AMANDA #1 — Purpose: ND

Location: SUR-UL,BLK-30,SEC-6,--[TD=9500],[RRC 8],

To protect **usable-quality groundwater** at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends:

The interval from the land surface to the base of the SANTA ROSA, which is estimated to occur at a depth of 850 feet, must be protected.

Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. **This recommendation is intended for normal drilling, production, and plugging operations only. It does not apply to saltwater disposal operation into a nonproductive zone (RRC Form W-14).**

If you have any questions, please contact us at 512-463-2741, gau@rrc.state.tx.us, or by mail.

Sincerely,

Digitally signed by Jack Oswalt
DN: c=US, st=TEXAS, l=Austin, o=Railroad Commission of Texas, cn=Jack Oswalt, email=jack.oswalt@rrc.state.tx.us
Date: 2014.10.03 15:45:15 -05'00'

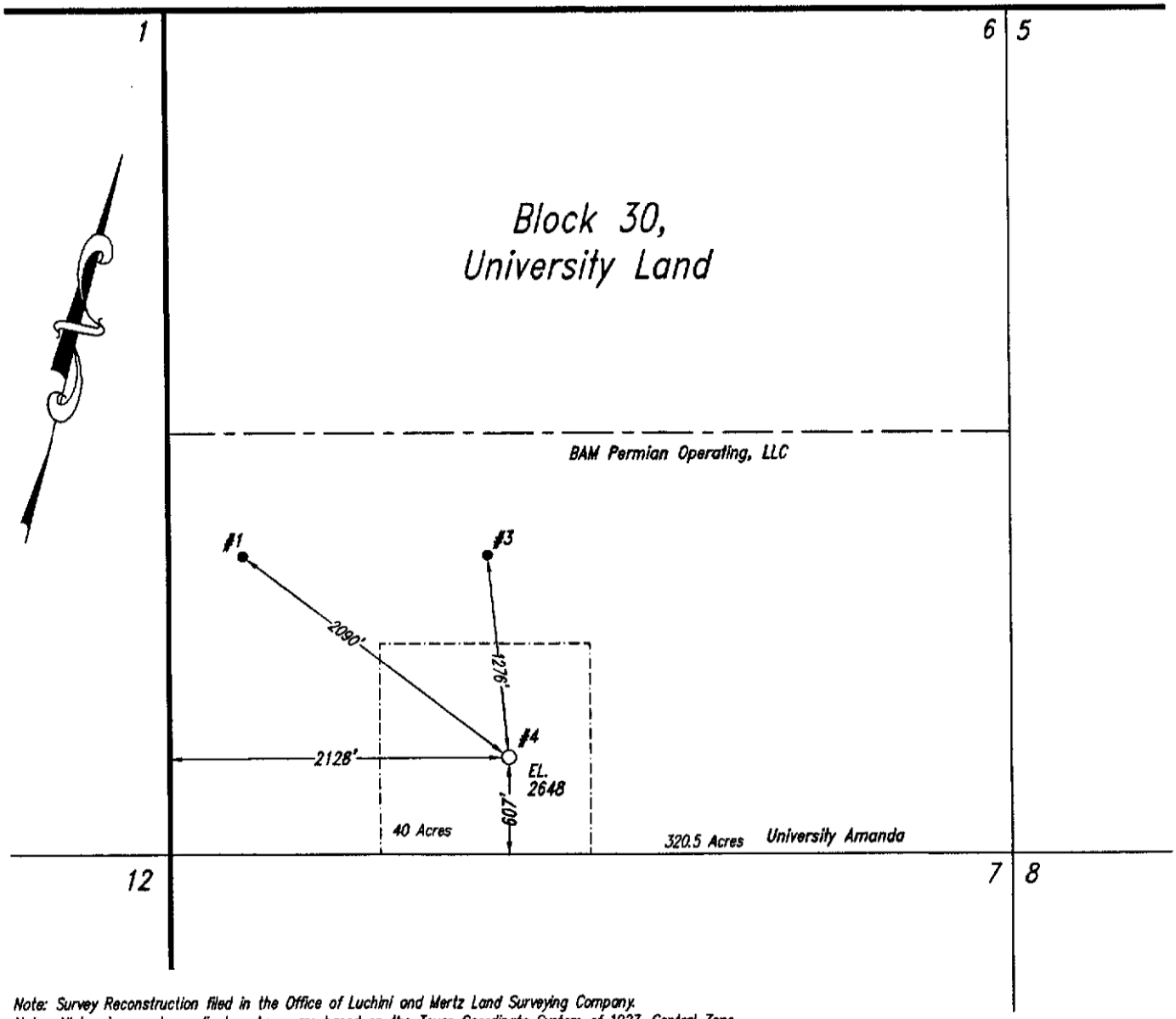
Jack M. Oswalt, P.G.

Geologist, Groundwater Advisory Unit
Oil & Gas Division

GEOLOGIST SEAL

STATE OF TEXAS
Jack M. Oswalt
Geology
897
LICENSED
PROFESSIONAL GEOSCIENTIST

The seal appearing on this document was authorized by Jack M. Oswalt on 10/3/2014
Note: Alteration of this electronic document will invalidate the digital signature.



Note: Survey Reconstruction filed in the Office of Luchini and Mertz Land Surveying Company.
Note: All bearings and coordinates shown are based on the Texas Coordinate System of 1927, Central Zone.
Note: The above sketch represents the location as staked on the ground and is for permit purposes only.
Note: NAD '27 Coordinates & Latitude/Longitude on well location in Section 6.
Note: Well location is approximately 10.2 miles northwest of Crane.
Note: This does not constitute a boundary survey.
Note: Lease description provided by client.

#4
X: 1349064.07
Y: 683017.31
Latitude: 31.52787460°
Longitude: -102.42262103°
607' FSL, 2128' FWL – Section 6

STATE OF TEXAS
REGISTERED
Jeffrey D. Suiter
4650
PROFESSIONAL
LAND SURVEYOR

PROFESSIONAL LAND SURVEYORS
Well Locations
Pipelines
LUCHINI & MERTZ
Boundary Surveys

April 25, 2016
Rev.: Jan. 30, 2017 – 160425MC

P. O. Box 1963 Midland, Texas 79702 (432) 684-6728 Firm# 10086500

Railroad Commission Drawing

BAM Permian Operating, LLC
"University Amanda" Lease
S/2 of
Section 6, Block 30,
University Land,
Crane County, Texas

Scale: 1" = 1000'