



RAILROAD COMMISSION OF TEXAS

Form W-2

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

Status: Approved
Date: 06/20/2018
Tracking No.: 192491

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

OPERATOR INFORMATION

Operator Name: FELIX WATER, LLC Operator No.: 265326
Operator Address: % FELIX ENERGY 1530 16TH ST STE 500 DENVER, CO 80202-0000

WELL INFORMATION

API No.: 42-495-34045 County: WINKLER
Well No.: 1 RRC District No.: 08
Lease Name: UNIVERSITY 21-21 Field Name: WAR-WINK, E. (7000)
RRC Lease No.: 50007 Field No.: 95123875
Location: Section: 21, Block: 21, Survey: UL, Abstract: U61
Latitude: Longitude:
This well is located 4.9 miles in a W direction from WINK, which is the nearest town in the county.

FILING INFORMATION

Purpose of filing: Initial Potential
Type of completion: New Well
Well Type: Active UIC Completion or Recompletion Date: 05/10/2018
Type of Permit Date Permit No.
Permit to Drill, Plug Back, or Deepen 01/29/2018 835300
Rule 37 Exception
Fluid Injection Permit
O&G Waste Disposal Permit
Other:

COMPLETION INFORMATION

Spud date: 04/10/2018 Date of first production after rig released: 05/10/2018
Date plug back, deepening, recompletion, or drilling operation commenced: 04/10/2018 Date plug back, deepening, recompletion, or drilling operation ended: 05/10/2018
Number of producing wells on this lease in this field (reservoir) including this well: 1 Distance to nearest well in lease & reservoir (ft.):
Total number of acres in lease: 640.00 Elevation (ft.): 2799 GL
Total depth TVD (ft.): 6587 Total depth MD (ft.):
Plug back depth TVD (ft.): 6524 Plug back depth MD (ft.):
Was directional survey made other than inclination (Form W-12)? Yes Rotation time within surface casing (hours): 42.5
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 Off Lease : No
of lease on which this well is located: 641.0 Feet from the North Line and
825.0 Feet from the West Line of the
UNIVERSITY 21-21 Lease.

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.):** 700.0 **Date:** 02/09/2018
SWR 13 Exception **Depth (ft.):**

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION

Date of test: **Production method:**
Number of hours tested: 24 **Choke size:**
Was swab used during this test? No **Oil produced prior to test:**

PRODUCTION DURING TEST PERIOD:

Oil (BBLs): **Gas (MCF):**
Gas - Oil Ratio: 0 **Flowing Tubing Pressure:**
Water (BBLs):

CALCULATED 24-HOUR RATE

Oil (BBLs): **Gas (MCF):**
Oil Gravity - API - 60.: **Casing Pressure:**
Water (BBLs):

CASING RECORD

Row	Type of Casing	Casing Size (in.)	Hole Size (in.)	Setting Depth (ft.)	Multi - Stage 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	9 5/8	12 1/4	840			C	490	772.0	SURF ACE	Circulated to Surface
2	Tapered Production	7	8 3/4	6572		6572	H	400	692.0	5079	Calculation
3	Tapered Production	7	8 3/4	6572	5079		C	940	2089.0	SURF ACE	Circulated to Surface

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 (ft.)	Packer Depth (ft.)/Type
1	4 1/2	5042	5042 /

PRODUCING/INJECTION/DISPOSAL INTERVAL

Row	Open hole?	From (ft.)	To (ft.)
1	No	L 5114	6494.0

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

Was hydraulic fracturing treatment performed? No

Is well equipped with a downhole actuation sleeve? No **If yes, actuation pressure (PSIG):**

Production casing test pressure (PSIG) prior to hydraulic fracturing treatment: **Actual maximum pressure (PSIG) during hydraulic fracturing:**

Has the hydraulic fracturing fluid disclosure been reported to FracFocus disclosure registry (SWR29)? No

Row	Type of Operation	Amount and Kind of Material Used	Depth Interval (ft.)
-----	-------------------	----------------------------------	----------------------

FORMATION RECORD

<u>Formations</u>	<u>Encountered</u>	<u>Depth TVD (ft.)</u>	<u>Depth MD (ft.)</u>	<u>Is formation isolated?</u>	<u>Remarks</u>
RUSTLER - POSSIBLE FLOW; POSSIBLE USABLE QUALITY W	Yes	729.0		Yes	
BELL CANYON	Yes	5113.0		Yes	
COLBY-QUEEN	No			No	FORMATION NOT PRESENT
YATES	No			No	FORMATION NOT PRESENT
QUEEN-SEVEN RIVERS	No			No	FORMATION NOT PRESENT
SAN ANDRES - HIGH FLOWS, H2S, CORROSIVE	No			No	FORMATION NOT PRESENT
HOLT	No			No	FORMATION NOT PRESENT
DELAWARE	No			No	FORMATION NOT PRESENT
GLORIETA	No			No	FORMATION NOT PRESENT
CLEARFORK	No			No	FORMATION NOT PRESENT
WICHITA ALBANY	No			No	FORMATION NOT PRESENT
BRUSHY CANYON	No			No	FORMATION NOT PRESENT
CHERRY CANYON	Yes	6027.0		Yes	
CANYON	No			No	NOT DRILLED DEEP
BONE SPRINGS	No			No	NOT DRILLED DEEP
MONTOYA	No			No	NOT DRILLED DEEP
WADDELL	No			No	NOT DRILLED DEEP
WOLFCAMP	No			No	NOT DRILLED DEEP
ATOKA	No			No	NOT DRILLED DEEP
STRAWN	No			No	NOT DRILLED DEEP
PENNSYLVANIAN	No			No	NOT DRILLED DEEP
MISSISSIPPIAN	No			No	NOT DRILLED DEEP
DEVONIAN	No			No	NOT DRILLED DEEP
SILURIAN	No			No	NOT DRILLED DEEP
FUSSELMAN	No			No	NOT DRILLED DEEP
ELLENBURGER	No			No	NOT DRILLED DEEP

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:

[RRC Staff 2018-05-15 14:33:52.517] Notification ID: 130290

Caller Information

First Name:

MICKO

Last Name:

HOLARD

Company:

FELIX ENERGY

Phone:

(580) 571-5950

Type: *

Industry Activity

Category: *

Testing

Date/Time:

05/07/2018 08:32

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: Bill Spencer

Title: Consultant

Telephone No.: (512) 918-1062

Date Certified: 05/15/2018



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: **FELIX ENERGY SERVICES Water LLC** Operator P-5 No.: **265326**
 Cementer Name: **TRANS TEX CEMENTING SERVICES, LLC** Cementer P-5 No.: **864412**

WELL INFORMATION

District No.: **08** County: **WINKLER**
 Well No.: **1 SWD** API No.: **42-495-34045** Drilling Permit No.: **835300**
 Lease Name: **UNIVERSITY 21-21** Lease No.:
 Field Name: **War-Wink, E. (7000)** Field No.: **95/23875**

I. CASING CEMENTING DATA

Type of Casing: Conductor Surface Intermediate Liner Production
 Drilled hole size (in.): **12 1/4** Depth of drilled hole (ft.): **845** Est. % wash-out or hole enlargement: **20%**
 Size of casing in O.D. (in.): **9 5/8** Casing weight (lbs/ft) and grade: **36 # 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.):
 Hrs. waiting on cement before drill-out: **10** Calculated top of cement (ft.): **SURFACE** Cementing date: **4/10/2018**

SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	230	TRANS TEXT DIVERSE C	REMARKS # 1	426	1360
2	260	CLASS C	REMARKS # 2	346	1105
Total	490			772	2465

II. CASING CEMENTING DATA

Type of casing: Surface Intermediate Production Tapered production Multi-stage cement slurry 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 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 TO 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 5%NaCl+6%GEL+.02%CF-1+2#GILS+.25CF
 REMARKS # 2 1% CaCl+1/4#CF+.2% CFL+.2% CFR-1
 WE CIRCULATE 60 BBLs OF CMT = 185 SKS

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.

CARLOS A FLORES SERVICE SUPERVISOR
 Name and title of cementer's representative

TRANS TEX CEMENTING
 Cementing Company

[Signature]
 Signature

5019 BASIN ST
 Address
 MIDLAND, TX 79703
 City, State, Zip Code

432-694-4900
 Tel: Area Code Number
 4/10/2018
 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.

David Gjonig
 Typed or printed name of operator's representative

Co. Man
 Title

[Signature]
 Signature

Box 509
 Address
 Crosby ND 58730
 City, State, Zip Code
 101-965-4329
 Tel: Area Code Number
 4-17-18
 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 78712967).
- 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/readacSext.TacPage?sl=R&app=9&p_dir=&p_floc=&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 form.



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: FELIX HOLDINGS Water LLC	Operator P-5 No.: 265326
Cementer Name: TRANS TEX CEMENTING SERVICES, LLC	Cementer P-5 No.: 864412

WELL INFORMATION	
District No.: 08	County: Winkler
Well No.: 1SWD	API No.: 42-495-34045
Lease Name: University 21-21	Drilling Permit No.: 835300
Field Name: War-Wink, E. (7000)	Lease No.:
	Field No.: 95123875

I. CASING CEMENTING DATA					
Type of Casing: <input type="checkbox"/> Conductor <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Liner <input type="checkbox"/> 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? <input type="checkbox"/> YES <input type="checkbox"/> NO If no for surface casing, explain in Remarks.	Setting depth shoe (ft.):	Top of 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: <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input checked="" type="checkbox"/> Tapered production <input type="checkbox"/> Multi-stage cement slurry <input type="checkbox"/> Multiple parallel strings					
Drilled hole size (in.): 8 3/4"	Depth of drilled hole (ft.): 6587	Est. % wash-out or hole enlargement: 20%			
Size of casing in O.D. (in.): 7"	Casing weight (lbs/ft) and grade: 26# L-80	No. of centralizers used: 48			
Tapered string drilled hole size (in.)	Tapered string depth of drilled hole (ft.)				
Upper:	Lower:	Upper:	Lower:		
Tapered string size of casing in O.D. (in.)	Tapered string casing weight (lbs/ft) and grade	Tapered string no. of centralizers used			
Upper:	Lower:	Upper:	Lower:		
Was cement circulated to ground surface (or bottom of cellar) outside casing? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Setting depth shoe (ft.): 6572'				
Hrs. waiting on cement before drill-out: —	Calculated top of cement (ft.): 5079'	Cementing date: 4/15/2018			
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	200	TRANS-TEX MULTI "H"	SEE REMARKS	456	3057
2	200	CLASS "H"	SEE REMARKS	236	1570
3					
Total	400			692	4603

III. CASING CEMENTING DATA					
Type of casing: <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input checked="" type="checkbox"/> Tapered production <input type="checkbox"/> Multi-stage cement/DV <input type="checkbox"/> Multiple parallel strings					
Drilled hole size (in.): 8 3/4"	Depth of drilled hole (ft.): 6587'	Est. % wash-out or hole enlargement: 20%			
Size of casing in O.D. (in.): 7"	Casing weight (lbs/ft) and grade: 26# L-80	No. of centralizers used: 48			
Tapered string drilled hole size (in.)	Tapered string depth of drilled hole (ft.)				
Upper:	Lower:	Upper:	Lower:		
Tapered string size of casing in O.D. (in.)	Tapered string casing weight (lbs/ft) and grade	Tapered string no. of centralizers used			
Upper:	Lower:	Upper: 400	Lower:		
Was cement circulated to ground surface (or bottom of cellar) outside casing? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Setting depth shoe (ft.): 5079'				
Hrs. waiting on cement before drill-out: —	Calculated top of cement (ft.): Surface	Cementing date: 4/15/2018			
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	770	TRANS-TEX MULTI "C"	SEE REMARKS	1863	12395
2	170	CLASS "C"	SEE REMARKS	226	1503
3					
Total	940			2089	13898

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

7%GEL, + 3%SALT, + .2% CR-1, + .3% CFL-1, + .2% CR-1, + .3% CFL-1, +.1% CFR-1, +2# GILS, + .25# CF
 3%CFR-1, + .4CFL-1 +.1%CR-1 /// CIRCULATE CEMENT TO SURFACE 66 BBLs OR 162 SKS ON 1ST STG
 10%GEL, + 3%SALT, + .25# CELOFLAKE + .3%CFL-1, + .2%CR-1
 .2%CR-1, +.3%CFR 1, + .3%CFL-1, .25# CELLOFLAKE CIRCULATE CEMENT TO SURFACE ON 2ND STG 125 BBLs OR 290 SKS

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.

Jose Reynoso cementer

Name and title of cementer's representative

TRANS TEX CEMENTING

Cementing Company

Jose L. Reynoso
Signature

5019 BASIN ST

MIDLAND, TX 79703

432-694-4900

4/15/2018

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.

David Gjoivig

Typed or printed name of operator's representative

CO Man

Title

[Signature]
Signature

Crosby ND 58730

Address

City, State, Zip Code

701-965-4329

Tel: Area Code Number

4-15-18
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 78712967).

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?i=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14](http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?i=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.

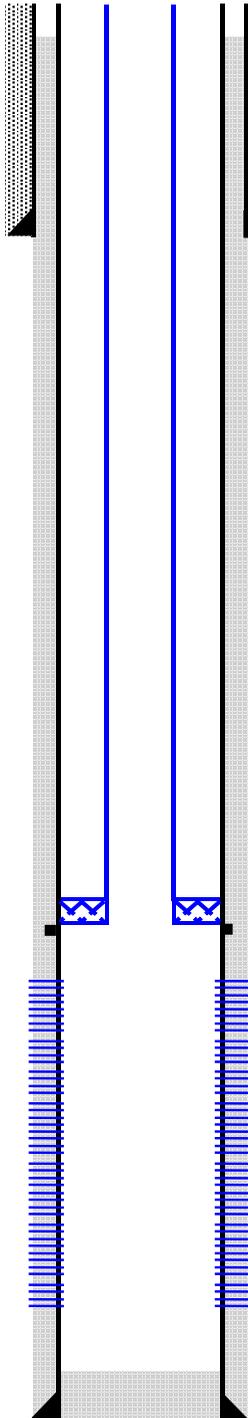
D. **Estimated % wash-out:** If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.

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.

SWD Wellbore Schematic



TOC (7") @ 132' (CBL)
 TOC (9.875) @ Surface (circ.)

9.875 Surf Csg @ 840'

4 1/2" 12.75# L-80 IPC Coated Tbg
 Injection Packer @ 5042.23'
 DV Tool @ 5079'

Cherry Canyon Top Perf @ 5114'

Cherry Canyon Bottom Perf @ 6494'

PBTD: @ 6524'
 7" Production Csg @ 6572'

PIPE RECORD		HOLE DATA				CEMENT DATA									
	OD	GRADE	THD	WEIGHT (ppf)	TOP	BTM	# JTS	BIT SIZE	DEPTH	SX	YIELD (cu ft/sk)	Wt. (ppg)	Lead Class	TOC	
Surf Csg	9.875"	J55	LTC	36#	0'	840'		12.250"	845'	230	1.85	12.9	Lead Class C	Surface (circ.)	
Production Csg	7"	L-80	LTC	26#	0'	6572'		8 3/4"	6587'	770	2.42	11.8	Lead Class C	132' (CBL)	
					DV Tool	5079'				170	1.33	14.8	Tail Class C		
										200	2.28	11.9	Lead Class H	DV Tool (circ.)	
										200	1.18	15.6	Tail Class H		
Tubing	4 1/2"	L-80	EUE	12.75#	0'	5042'									
Formation	Top Perf	Btm Perf	Net Feet	JSPF	Holes	Top Perf	Btm Perf	Net Feet	JSPF	Holes	Top Perf	Btm Perf	Net Feet	JSPF	Holes
Bell-Cherry Canyon	5114	5139	25	6	150	6388	6418	30	6	180				6	
Bell-Cherry Canyon	5150	5170	20	6	120	6440	6460	20	6	120				6	
Bell-Cherry Canyon	5180	5216	36	6	216	6465	6480	15	6	90				6	
Bell-Cherry Canyon	5222	5257	35	6	210	6484	6494	10	6	60				6	
Bell-Cherry Canyon	5262	5272	10	6	60				6					6	
Bell-Cherry Canyon	5281	5316	35	6	210				6					6	
Bell-Cherry Canyon	5320	5340	20	6	120				6					6	
Bell-Cherry Canyon	5351	5411	60	6	360				6					6	
Bell-Cherry Canyon	5418	5488	70	6	420				6					6	
Bell-Cherry Canyon	5512	5582	70	6	420				6					6	
Bell-Cherry Canyon	5592	5627	35	6	210				6					6	
Bell-Cherry Canyon	5649	5674	25	6	150				6					6	
Bell-Cherry Canyon	5682	5712	30	6	180				6					6	
Bell-Cherry Canyon	5726	5791	65	6	390				6					6	
Bell-Cherry Canyon	5806	5826	20	6	120				6					6	
Bell-Cherry Canyon	5866	5881	15	6	90				6					6	
Bell-Cherry Canyon	5919	5934	15	6	90				6					6	
Bell-Cherry Canyon	5939	5974	35	6	210				6					6	
Bell-Cherry Canyon	6026	6051	25	6	150				6					6	
Bell-Cherry Canyon	6084	6104	20	6	120				6					6	
Bell-Cherry Canyon	6112	6142	30	6	180				6					6	
Bell-Cherry Canyon	6162	6177	15	6	90				6					6	
Bell-Cherry Canyon	6194	6214	20	6	120				6					6	
Bell-Cherry Canyon	6268	6278	10	6	60				6					6	
Bell-Cherry Canyon	6302	6342	40	6	240				6					6	
Bell-Cherry Canyon	6358	6378	20	6	120				6					6	0
Totals =	801	4806	Totals =	75	450	Totals =	0	Grand Total Net Ft of Perfs =	876	Grand Total Number of Perf Holes =	5256				0
TUBING/BHA Detail as of TBD		ID (in)	OD (in)	Jts	Length (ft)	Depth (ft)									
KB Correction					13.00	13.00									
Tbg Hangger					0.8	13.80									
4-1/2" 12.75# L-80 IPC EUE 8rd Sub (pin x pin)		3.958	4.500		1	14.80									
4-1/2" 12.75# L-80 IPC EUE 8rd (1', 4', 8')		3.958	4.500		13	27.80									
4-1/2" 12.75# L-80 IPC Coated EUE 8rd		3.958	4.500	155	5012.73	5040.53									
3.750" Baker Model F Stainless Profile Nipple		3.750	4.500		0.80	5041.33									
4-1/2" 12.75# L-80 IPC Coated EUE 8rd		3.958	4.500		0.90	5042.23									
7" X 4 1/2" T-2 On/Off Tool NC w/ Stainless 2.812 "X"		3.750	5.887		6.00	5048.23									
7" X 3 1/2" 26-32# AS1-X Nickel Plated w/ Carbides NC		3.000	5.887		1.77	5050.00									
4 ft. X 3 1/2" EUE Nickel Coated Sub		3.958	4.500		8.00	5058.00									
2.750" XN Stainless Profile Nipple w/ 2.62" No Go		3.750	5.625		6.23	5064.23									
4 1/2" Aluminum Pump-out plug w/ WL entry guide		2.992	5.550		0.90	5065.13									
						5065.13									
EOT (KB)						5065.13									

Updated by: M. Peterson
 5-14-18

GROUNDWATER PROTECTION DETERMINATION

Form GW-2



Groundwater Advisory Unit

Date Issued:	09 February 2018	GAU Number:	187229
Attention:	FELIX WATER, LLC % FELIX ENERGY DENVER, CO 80202	API Number:	49500000
Operator No.:	265326	County:	WINKLER
		Lease Name:	University 21-21
		Lease Number:	
		Well Number:	1
		Total Vertical Depth:	9000
		Latitude:	31.728576
		Longitude:	-103.235169
		Datum:	NAD27

Purpose: Injection into Producing Zone (H1)
Location: Survey-UL; Block-21; Section-21

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 Allurosa, which is estimated to occur at a depth of 700 feet, must be protected.

The BASE OF UNDERGROUND SOURCES OF DRINKING WATER (USDW) is estimated to occur at a depth of 1250 feet at the site of the referenced well.

In addition, the Capitan Reef must be protected if it is penetrated.

This recommendation is applicable to all wells within a radius of 500 feet of this location.

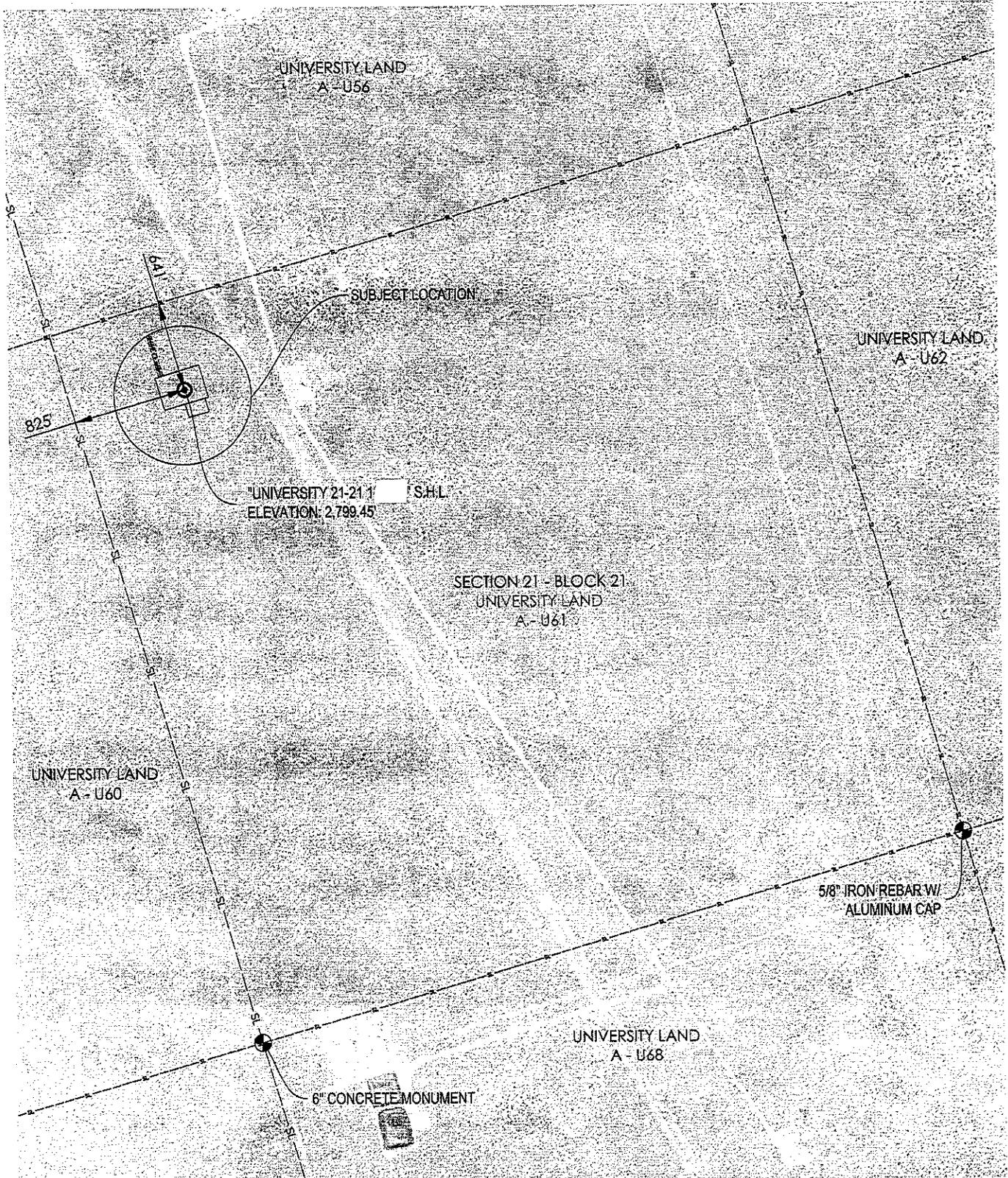
Please send Gamma/Porosity log of this well when it is available.

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

This determination is based on information provided when the application was submitted on 02/08/2018. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division

SWD PAD LOCATION OVERVIEW

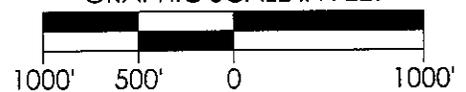


REFERENCE	ELEVATION	NAD83 (1986)		NAD27	
		STATE PLANE TEXAS CENTRAL (2277)	GEOGRAPHIC (4269)	STATE PLANE TEXAS CENTRAL (32039)	GEOGRAPHIC (4267)
S. H. L.	2,799.45'	N: 10604252.60 E: 1394326.22	LAT: 31.72870548° LONG: -103.23561495°	N: 761676.20 E: 1097861.33	LAT: 31.72857646° LONG: -103.23516852°

CALLS FROM SECTION LINE

S.H.L.	641' FNL, 825' FWL (SEC. 21)
--------	------------------------------

GRAPHIC SCALE IN FEET



REVISION	"UNIVERSITY 21-21 1		
---	SECTION 21, BLOCK 21 PROPOSED PAD AND ACCESS EASEMENT SURVEY WINKLER COUNTY, TEXAS		
---	SCALE: 1" = 1000' PLOT DATE: 01-15-2018	CHECKED BY: JWB DRAWN BY: MF	