Filing Completions for Oil & Gas

Jacquelyn Teseny
Miriam Borrego

May 2020

1

COMPLETIONS
OVERVIEW AND DISCUSSION

Form W-2/G-1

2

Class Synopsis

This presentation is a general overview of how to file Completion Reports utilizing the Railroad Commission of Texas Online Completion Filing System.

3

- By the end of this presentation you will understand how to properly file online completions for oil wells drilled in the State of Texas.
- During the presentation we will also review common problems that delay the processing and final approval of these filings.

Texas Administrative Code Rule 3.16

Completion Reports are **due**:

- within **90 days** after completion of the well
- or within **150 days** after the drilling operation is completed
- **whichever** is earlier.

4

- 3.16(b)(1) The operator of a well shall file with the Commission the appropriate completion report within **90 days after completion** of the well or within **150 days after** the date on which the **drilling operation** is completed, ***whichever is earlier***.
- Special Field Rules *always* supersede Statewide Rules
  - Check to see if the field has exception(s) to…
    SWR-16 Log and Completion or Plugging Report,
    SWR-51(a) Oil Potential Test Forms Required or
    SWR-28 Potential and Deliverability of Gas Wells to be Ascertained and Reported.
  - Please note many Special Field Rules are now mirroring SWR-16.

Rule 3.16 (cont'd)

Subsequent Completion Reports are due:

- within **30 days** of any *physical changes* made to wellbore structure
  - Adding new and/or squeezing perforations
  - Adding a liner
  - Adding tubing
  - Setting CIBP with/without cement

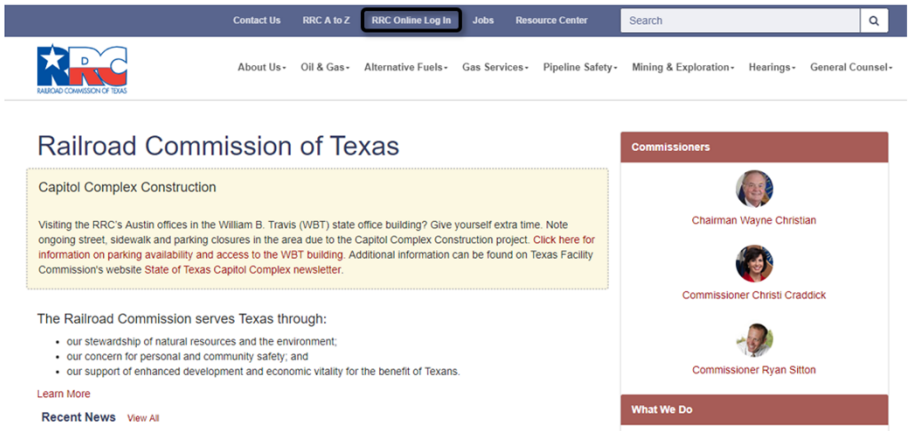
5

SWR-16(b)(2) The operator of a well shall file with the Commission an amended completion report within **30 days of any physical changes** made to the well, such as any change in perforations, or openhole or casing records.

- Example(s) when Completion Report is **NOT** required:
  - Tubing Leak Workover – simply repairing the tubing – same zone – same production setup
  - Tubing Leak Workover – depth of tubing is slightly different with packer set higher than before – same zone – same production setup
  - Changing from Gas Lift to Rod Pump – same zone – same production setup
- SWR-16 does not accommodate ***evaluation period*** of well.
  - Status cannot remain Open-Ended due to well not yet at Total Depth
  - Operator is encouraged to submit WRO W-2 adding Remark: "Leave Drilling Permit open pending further wellbore evaluation."
  - Once drilling operations resume, subsequent completion can be filed as an IP.
- Not reporting wellbore structure change may affect future plugging procedure. Prior to approving W-3A Intent to Plug and Abandon, if change to wellbore structure required cement, District Office will request W-15 Cementing Report.

Navigating to the Online System

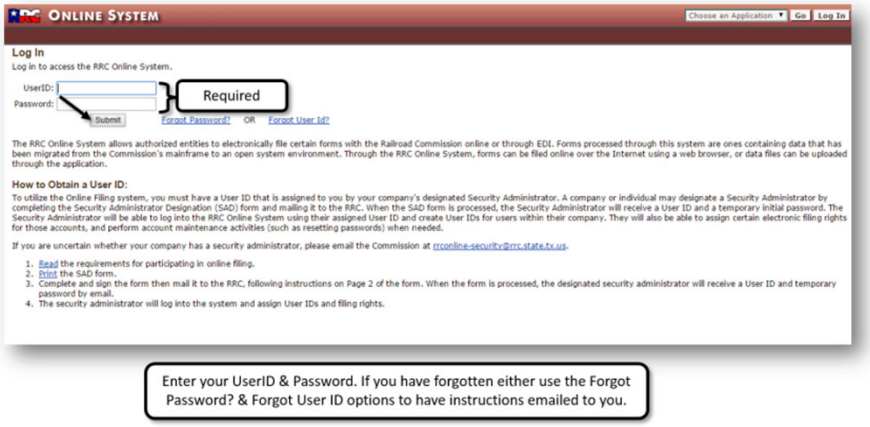
https://www.rrc.texas.gov/



6

- Start off by going to the Railroad Commission website by typing www.rrc.texas.gov.
- As of June of 2014 the website has changed, and you can now find the RRC Online Login at the top of your screen in the center of the page.

Log In

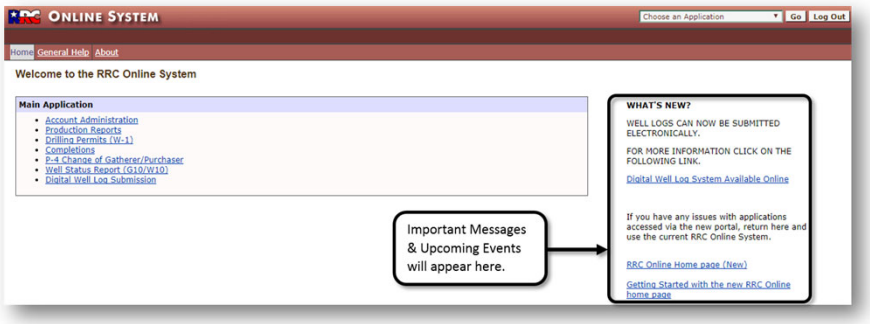


Enter your UserID & Password. If you have forgotten either use the Forgot Password? & Forgot User ID options to have instructions emailed to you.

7

- The User ID and Password are required fields.
- You can select *Forgot User ID* to have your User ID emailed to the registered email address.
- You can select *Forgot Password* to have a link to reset your login password emailed to your registered email address.
- <u>Security Administrators should not be filing</u>. You should have at least two different accounts, one for the security administrator and individual accounts for the filer(s).

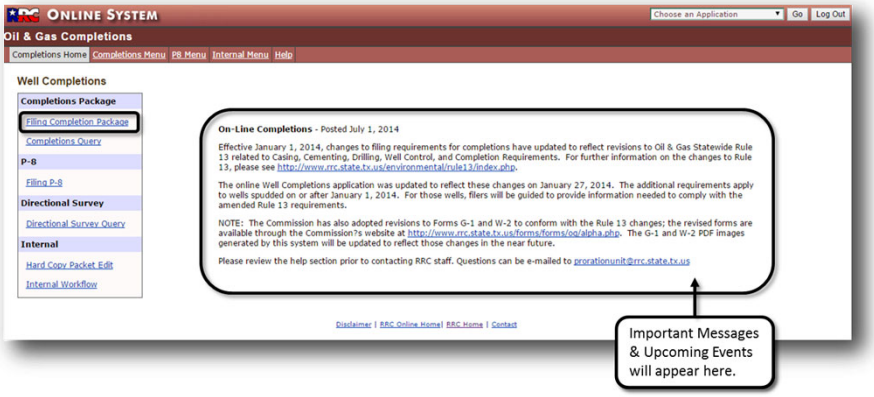
Online Applications



8

- The completions home screen is the first place you might see an important message about the RRC Online System.
- You might also get a notification regarding the expiration of your password between the *Welcome to the RRC Online System* greeting and *Main Application*.

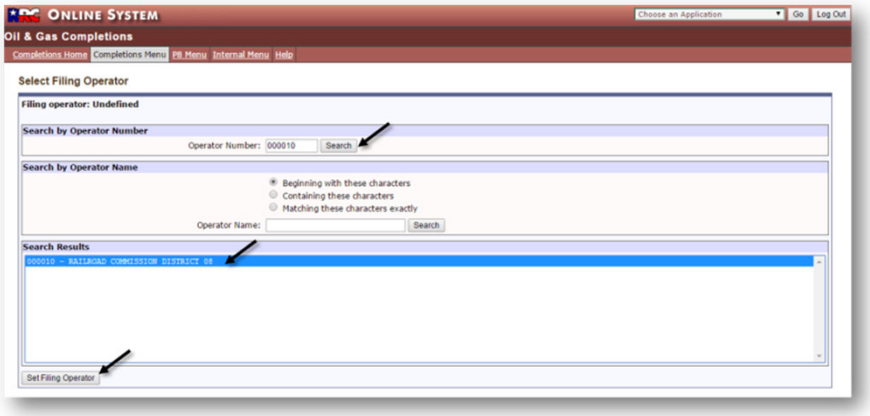
Completion Application



9

- We will be focusing on filing a new completion so you will be selecting the filing completion package option.
- Note that this is the second place you might see an important notification about changes to the online system or message about an upcoming event.

Select Filing Operator

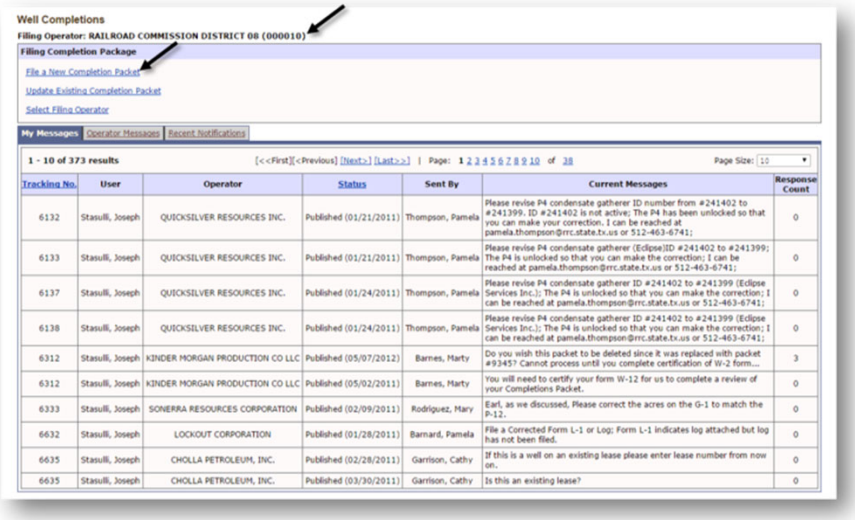


If you are filing as a Consultant/Agent you will need to enter the appropriate Operator information here. If you are filing as an Operator then the online system will automatically select your operator number.

10

- If you are filing as the operator you will not see this screen.
- If you are filing as a consultant, you will need to enter the operator number or name you are filing for in order to continue.

Filing Options



Well Completions

Filing Operator: RAILROAD COMMISSION DISTRICT 08 (000010)

Filing Completion Package

File a New Completion Packet

Update Existing Completion Packet

Select Filing Operator

My Messages | Operator Messages | Recent Notifications

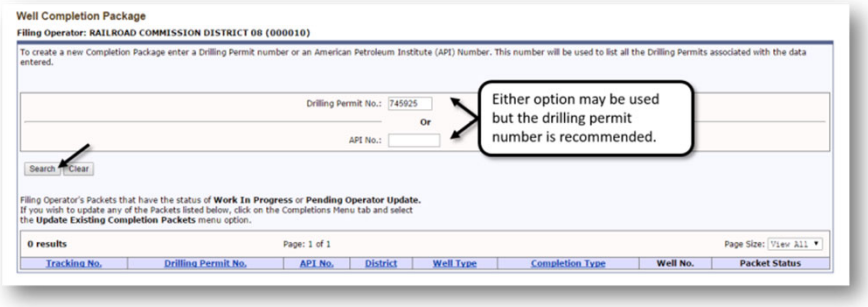
1 - 10 of 373 results [<<First][<Previous] [Next>] [Last>>] | Page: 1 2 3 4 5 6 7 8 9 10 of 38 Page Size: 10

Tracking No.	User	Operator	Status	Sent By	Current Messages	Response Count
6132	Stasulli, Joseph	QUICKSILVER RESOURCES INC.	Published (01/21/2011)	Thompson, Pamela	Please revise P4 condensate gatherer ID number from #241402 to #241399. ID #241402 is not active; The P4 has been unlocked so that you can make your correction. I can be reached at pamela.thompson@rrc.state.tx.us or 512-463-6741;	0
6133	Stasulli, Joseph	QUICKSILVER RESOURCES INC.	Published (01/21/2011)	Thompson, Pamela	Please revise P4 condensate gatherer (Eclipse)ID #241402 to #241399; The P4 is unlocked so that you can make the correction; I can be reached at pamela.thompson@rrc.state.tx.us or 512-463-6741;	0
6137	Stasulli, Joseph	QUICKSILVER RESOURCES INC.	Published (01/24/2011)	Thompson, Pamela	Please revise P4 condensate gatherer ID #241402 to #241399 (Eclipse Services Inc.); The P4 is unlocked so that you can make the correction; I can be reached at pamela.thompson@rrc.state.tx.us or 512-463-6741;	0
6138	Stasulli, Joseph	QUICKSILVER RESOURCES INC.	Published (01/24/2011)	Thompson, Pamela	Please revise P4 condensate gatherer ID #241402 to #241399 (Eclipse Services Inc.); The P4 is unlocked so that you can make the correction; I can be reached at pamela.thompson@rrc.state.tx.us or 512-463-6741;	0
6312	Stasulli, Joseph	KINDER MORGAN PRODUCTION CO LLC	Published (05/07/2012)	Barnes, Marty	Do you wish this packet to be deleted since it was replaced with packet #9345? Cannot process until you complete certification of W-2 form...	3
6312	Stasulli, Joseph	KINDER MORGAN PRODUCTION CO LLC	Published (05/02/2011)	Barnes, Marty	You will need to certify your form W-12 for us to complete a review of your Completions Packet.	0
6333	Stasulli, Joseph	SONERRA RESOURCES CORPORATION	Published (02/09/2011)	Rodriguez, Mary	Earl, as we discussed, Please correct the acres on the G-1 to match the P-12.	0
6632	Stasulli, Joseph	LOCKOUT CORPORATION	Published (01/28/2011)	Barnard, Pamela	File a Corrected Form L-1 or Log; Form L-1 indicates log attached but log has not been filed.	0
6635	Stasulli, Joseph	CHOLLA PETROLEUM, INC.	Published (02/28/2011)	Garrison, Cathy	If this is a well on an existing lease please enter lease number from now on.	0
6635	Stasulli, Joseph	CHOLLA PETROLEUM, INC.	Published (03/30/2011)	Garrison, Cathy	Is this an existing lease?	0

11

- Notice the operator name and number will be listed at the top of the screen.
- You will also notice that the system defaults to any pending messages under this operator number for the logged in user.
- If you want to see messages for this operator number, you can switch to *Operator Messages*.

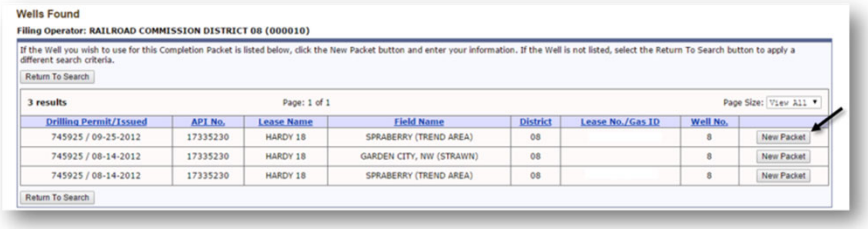
Identify the Well



12

- Enter your first identifier for the well.
- We suggest the drilling permit number be used over the API number as the system will auto fill some of the information for you based on the approved W-1.

Select the Field



Wells Found

Filing Operator: RAILROAD COMMISSION DISTRICT 08 (000010)

If the Well you wish to use for this Completion Packet is listed below, click the New Packet button and enter your information. If the Well is not listed, select the Return To Search button to apply a different search criteria.

Return To Search

3 results Page: 1 of 1 Page Size: View All

Drilling Permit/Issued	API No.	Lease Name	Field Name	District	Lease No./Gas ID	Well No.	
745925 / 09-25-2012	17335230	HARDY 18	SPRABERRY (TREND AREA)	08		8	New Packet
745925 / 08-14-2012	17335230	HARDY 18	GARDEN CITY, NW (STRAWN)	08		8	New Packet
745925 / 08-14-2012	17335230	HARDY 18	SPRABERRY (TREND AREA)	08		8	New Packet

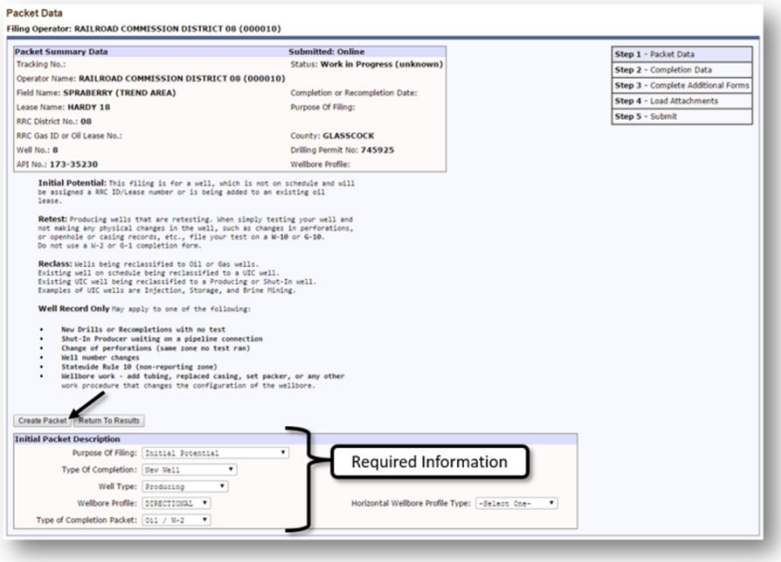
Return To Search

Select the field the well was completed in. If the well is downhole commingled you need to select the primary reporting field specified on your approved SWR-10 letter.

13

- Select *New Packet* next to the field this well was completed in or is producing from.
- If this well is downhole commingled, please make sure to check your approved SWR-10 letter for the reporting zone.
- In this case the well is in fact downhole commingled and the approval letter specified *Spraberry (Trend Area)* as the reporting zone.
- For UIC wells, the field that the well is completed in must match the field on the injection permit.

Initial Packet Description



- Once the field has been selected the system will prompt you to start filling out the packet data.
- The top portion of the page explains the different purpose of filing options available.
- You will need to select the *Purpose Of Filing, Type Of Completion, Well Type, Wellbore Profile* and *Type of Completion Packet*.
- Once you have completed the initial packet description section select the “Create Packet” button.
- The options for the wellbore profile will be limited based on the way the well was permitted.
- Once the packet is created as either a W-2 or a G-1 it can not be changed. If you selected the wrong type of completion packet you will actually need to delete the completion and start over.

Packet Description Options

Purpose Of Filing
Initial Potential
Retest
Reclass Oil to Gas
Reclass Gas to Oil
Reclass Injection to Producing
Reclass Producing to Injection
Well Record Only

PSA/Allocation Completion Type
PSA Allocation Not Applicable

Type of Completion
New Well
Deepening
Plug Back
Sidetrack
Re-entry
Other/Recompletion

Type of Completion Packet
Gas / G-1
Oil / W-2

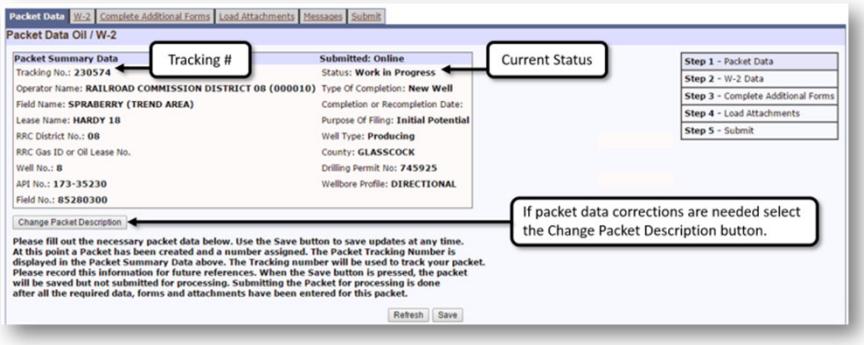
Well Type
Producing
Shut-In Producer
Active UIC
Shut-In UIC

Wellbore Profile
Horizontal
Directional
Vertical
Sidetrack

15

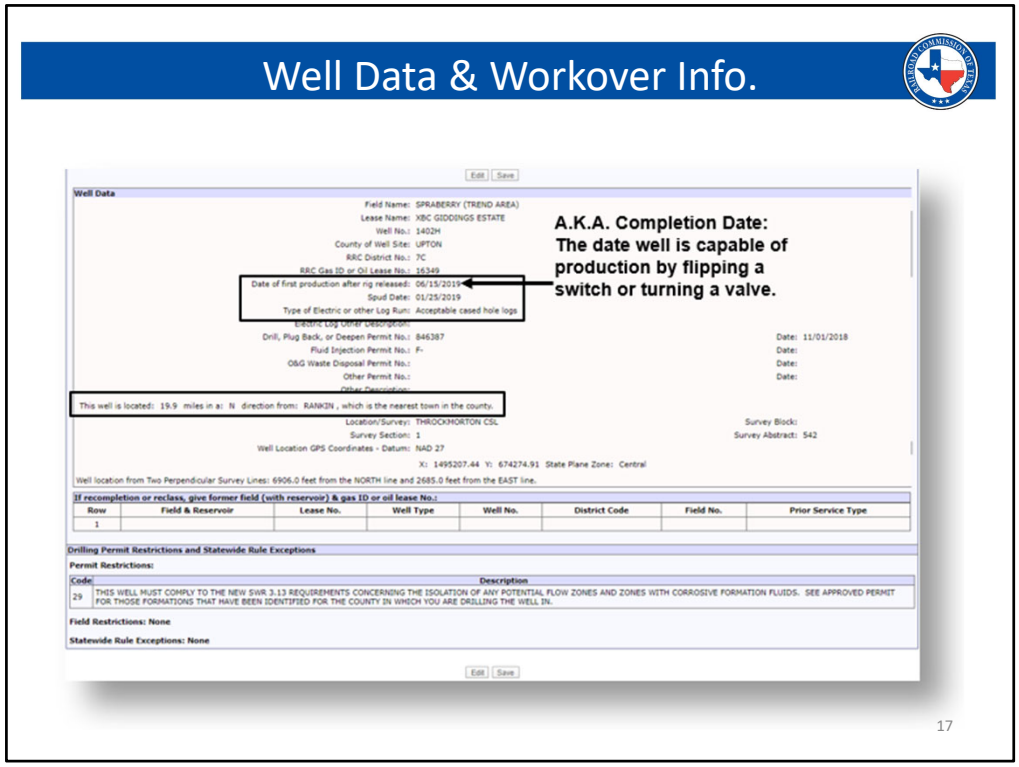
- Above you will find the available filing options.
- Because we are filing a new well with the first test, we have selected *New Well, Initial Potential, Producing*.
- For UIC Purpose of Filing, select “Reclass Injection to Producing” or “Well Record Only” for “New Well” and all others.
- For UIC, Type of Completion Packet Gas/G-1 is applicable for fields that allow gas completions by field rules.

Verify Packet Data



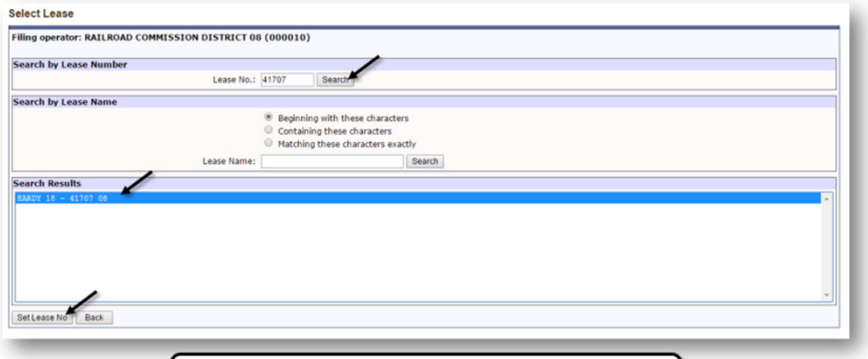
16

- Once you select the *Create Packet* button the system will assign your tracking number and show you that this tracking number is a work in progress.
- At this point you can verify that the information in your packet data is correct and choose to change the packet description if you need to make changes to the information on the right side of the *Packet Summary Data*.
- This page is continued on the next slide.



- **Required** Fields:
  - Date of first production after rig released
    - If the well is not completed, use the date the rig was released.
  - Spud Date
  - Type of Electric or other Log Run
  - Distance in miles and direction from nearest town in the county
- This page will allow you to make changes to the information on the left-hand side of the packet summary data.
- Don't forget to always save your work before moving on to the next page.
- Some of the information on this page will auto fill from your approved W-1.
- Well latitude & longitude are optional.
- For UIC, enter on the left side either the fluid injection permit no. after "F-", or the O&G waste disposal permit no. as on the injection permit.
- Enter on the right side the date of the injection permit.
- Definition of Spud:
  - Rule 16(a)(2): Drilling operation--A **continuous effort** to drill or deepen a wellbore for which the commission has issued a permit.
    - Run and cemented pipe…it's a permanent installation…well **has** been spud.
    - Set conductor casing to stabilize wellbore, *never cemented* then pulled once drilling resumed…simply prepping location…well **has not** been spud.
  - *Gentle Reminder:* If drilling on multi-well pad, please do not use date rig returned to resume drilling on next casing string as the spud date.
- FAILURE TO NOTIFY District Office drilling operations have commenced will result in Enforcement or Penalty Action.
  - District would like to witness cementing protecting freshwater strata.

Setting the Lease Number

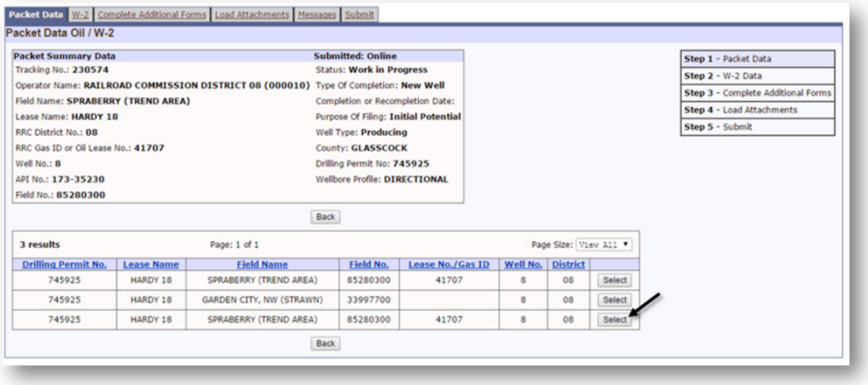


If this well is going onto an existing lease then you should be adding the lease number to the packet data at this time.

18

- If the lease number is known you should be adding it to the packet data prior to submittal of the W-2/G-1.
- Remembering to add the lease number will help prevent the creation of a second lease number causing a SWR-40 violation.

Search for Field & Reservoir

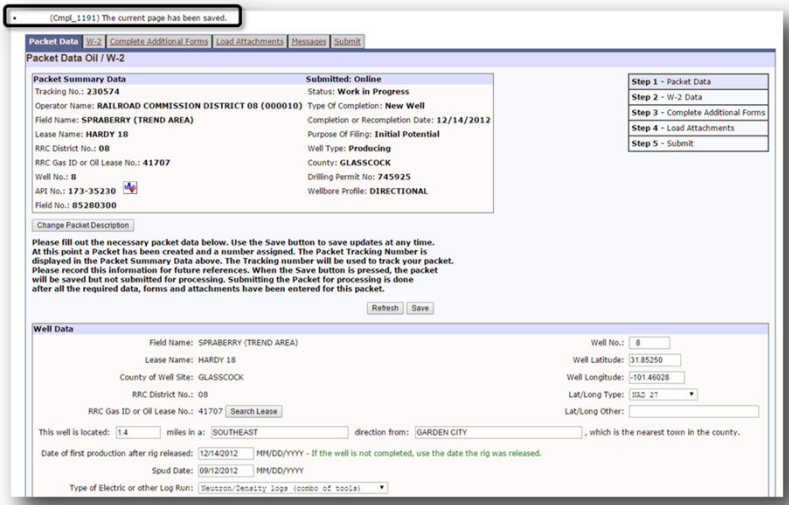


Always use the Search for Field & Reservoir button instead of manually keying the workover information. This will automatically fill in the workover information with the correct field number, well number etc.

19

- Selecting one of these lines will auto fill the workover section and avoid any typos.
- This prevents the analyst from having to go in and correct field numbers, well number spacing etc.

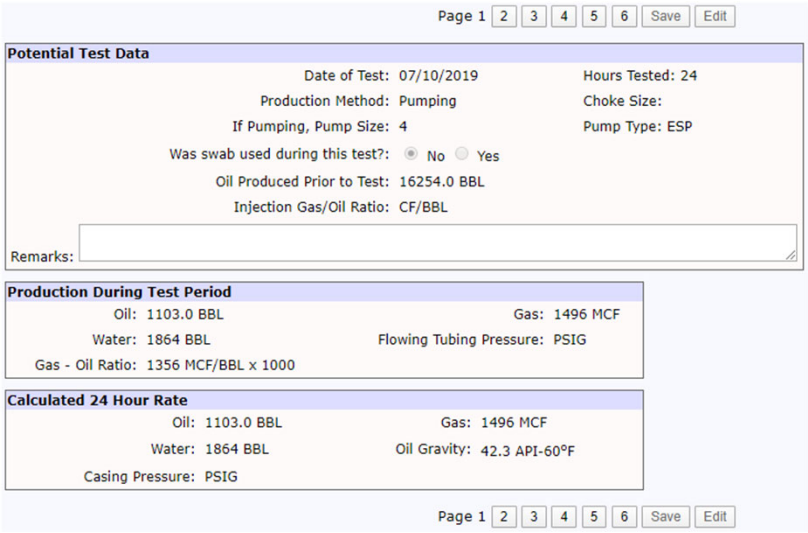
Packet Data Successfully Saved



20

- Once you have completed all the required information for the packet data you will get a message at the top of the screen that says, “The current page has been saved.”
    - Otherwise the system will prompt you with red messages requiring correction in order to continue.
- Please note that there is now a GIS link to the right of the API number.

W-2 Page 1 (Potential Test Data)



Page 1 2 3 4 5 6 Save Edit

Potential Test Data

Date of Test:	07/10/2019	Hours Tested:	24
Production Method:	Pumping	Choke Size:	
If Pumping, Pump Size:	4	Pump Type:	ESP
Was swab used during this test?:	No Yes		
Oil Produced Prior to Test:	16254.0 BBL		
Injection Gas/Oil Ratio:	CF/BBL		

Remarks:

Production During Test Period

Oil:	1103.0 BBL	Gas:	1496 MCF
Water:	1864 BBL	Flowing Tubing Pressure:	PSIG
Gas - Oil Ratio:	1356 MCF/BBL x 1000		

Calculated 24 Hour Rate

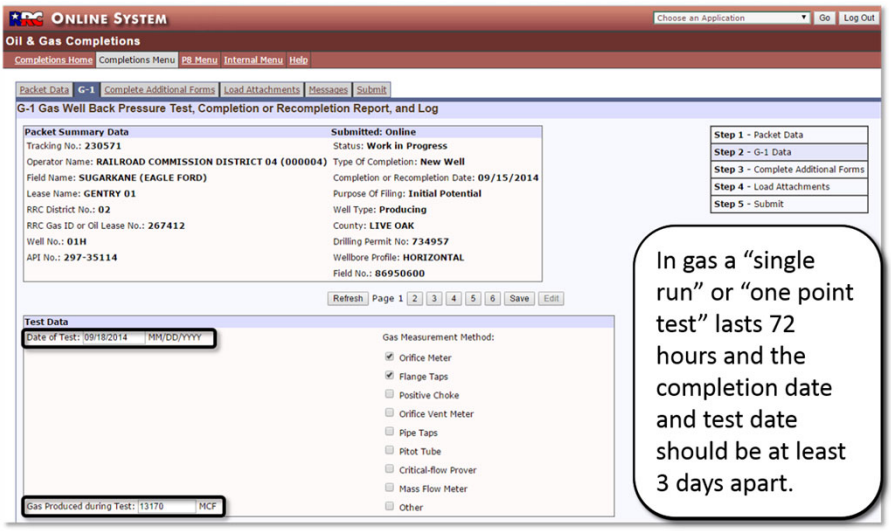
Oil:	1103.0 BBL	Gas:	1496 MCF
Water:	1864 BBL	Oil Gravity:	42.3 API-60°F
Casing Pressure:	PSIG		

Page 1 2 3 4 5 6 Save Edit

21

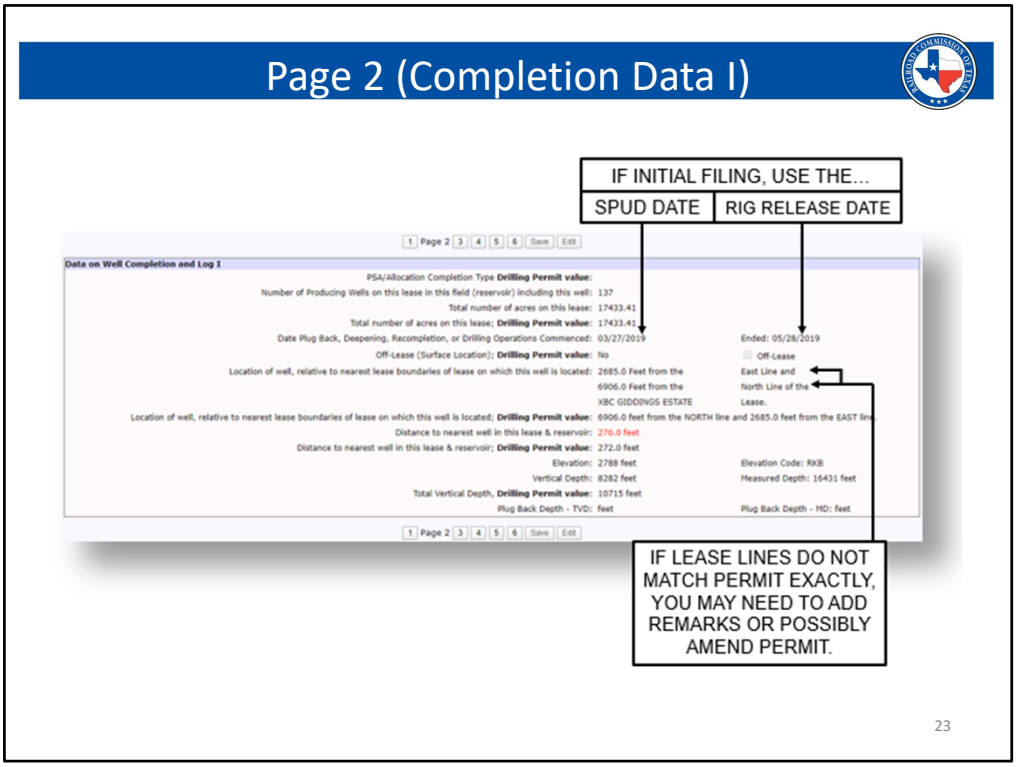
- The *Calculated 24-Hour Rate* must match the *Production During Test Period* if your potential test was a 24-hour test.
- Make sure to hit the save button on each page before continuing to the next.
- For UIC wells, no data is entered on page 1 of the W-2 or G-1.
- District will verify production method
  - If flowing, District will verify on Pg. 4 if tubing was installed.
    - If no tubing, please attach Rule 13 Exception.
- Exception on no tubing does not give an exception on not filing completion reports.
  - Ideally, we would like to see IP completion filed without tubing [attach R13Exc]; with subsequent filing as WRO showing tubing installed.
- Question *Was swab used during this test?*
  - Swabbing is not allowed during the test **without prior** District approval. Add Remark and attach R21 Exc. approval (Form W-21 handout attached Pg. 95).

Form G-1 Page 1 (Test Data)



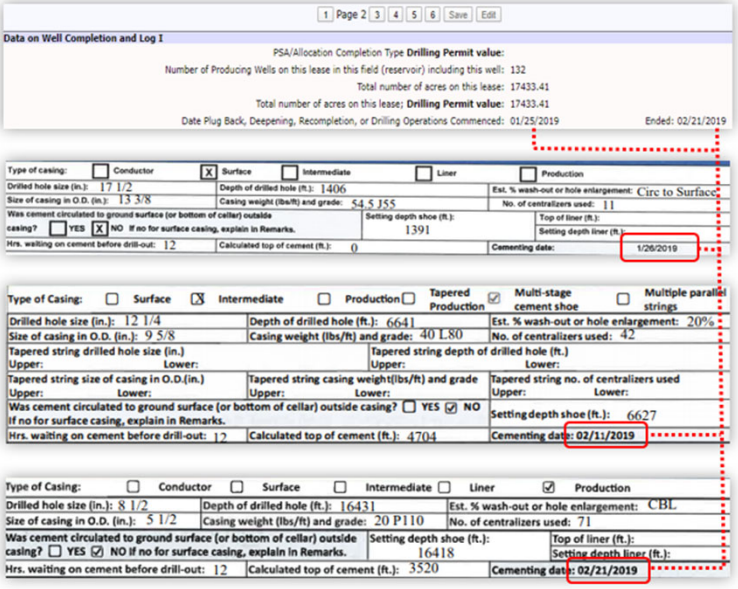
22

- Page 1 of the G-1 is the only page that differs from the W-2.
- If you are providing data for a single run on a G-1 then it will be a one-point test and should have been 72 hours.
- Please note that the date of the test should be 3 days (72 hours) after the *Completion Date.*
- For UIC wells, no data is entered on page 1 of the W-2 or G-1.



- You might get a warning if the number of producing wells is different than the number you listed on your drilling permit. That is ok as long as it doesn't cause a SWR-38 issue.
- We need to know the number of wells (including this one) holding acres in this field at the time of this completion.
- "The Packet agrees with the Drilling Permit (Total Depth, Density, and Field)." If you do not get this message you might need to obtain an amended drilling permit.
- If the total lease acreage on an existing lease has changed then a Well Record G-1/W-2 should be filed to update records with the commission per SWR-1(b).
- **SWR-1(b)** Record requirements. All entities who perform operations which are within the jurisdiction of the Commission shall keep books showing accurate records of the drilling, re-drilling, or deepening of wells, the volumes of crude oil on hand at the end of each month, the volumes of oil, gas, and geothermal resources produced and disposed of, together with records of such information on leases or property sold or transferred, and other information as required by Commission rules and regulations in connection with the performance of such operations, which books shall be kept open for the inspection of the Commission or its representatives, and shall report such information as required by the Commission to do so.
- TD is verified (cannot be shallower than deepest casing depth, deepest producing interval or tubing depth).
- PB is verified (cannot be above deepest producing interval; should be less than TD).

Page 2 (Drilling Operations)



1 Page 2 3 4 5 6 Save Edit

Data on Well Completion and Log I

PSA/Allocation Completion Type **Drilling Permit value:**
Number of Producing Wells on this lease in this field (reservoir) including this well: 132
Total number of acres on this lease: 17433.41
Total number of acres on this lease; **Drilling Permit value:** 17433.41
Date Plug Back, Deepening, Recompletion, or Drilling Operations Commenced: 01/25/2019 Ended: 02/21/2019

Type of casing: ☐ Conductor ☒ Surface ☐ Intermediate ☐ Liner ☐ Production
Drilled hole size (in.): 17 1/2 | Depth of drilled hole (ft.): 1406 | Est. % wash-out or hole enlargement: Circ to Surface
Size of casing in O.D. (in.): 13 3/8 | Casing weight (lbs/ft) and grade: 54.5 J55 | No. of centralizers used: 11
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.): 1391 | Top of liner (ft.): | Setting depth liner (ft.):
Hrs. waiting on cement before drill-out: 12 | Calculated top of cement (ft.): 0 | Cementing date: 1/26/2019

Type of Casing: ☐ Surface ☒ Intermediate ☐ Production ☐ Tapered Production ☑ Multi-stage cement shoe ☐ Multiple parallel strings
Drilled hole size (in.): 12 1/4 | Depth of drilled hole (ft.): 6641 | Est. % wash-out or hole enlargement: 20%
Size of casing in O.D. (in.): 9 5/8 | Casing weight (lbs/ft) and grade: 40 L80 | No. of centralizers used: 42
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 If no for surface casing, explain in Remarks. | Setting depth shoe (ft.): 6627
Hrs. waiting on cement before drill-out: 12 | Calculated top of cement (ft.): 4704 | Cementing date: 02/11/2019

Type of Casing: ☐ Conductor ☐ Surface ☐ Intermediate ☐ Liner ☑ Production
Drilled hole size (in.): 8 1/2 | Depth of drilled hole (ft.): 16431 | Est. % wash-out or hole enlargement: CBL
Size of casing in O.D. (in.): 5 1/2 | Casing weight (lbs/ft) and grade: 20 P110 | No. of centralizers used: 71
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.): 16418 | Top of liner (ft.): | Setting depth liner (ft.):
Hrs. waiting on cement before drill-out: 12 | Calculated top of cement (ft.): 3520 | Cementing date: 02/21/2019

24

- On New Drills, **Commenced/Ended** Dates are compared to Spud Date on Packet Data Tab and W-15 cementing reports date range.
- Only initial filing will show ***Drilling*** rig release date
  - Example shows W-15 dates agree with well's Drilling Operations ranging from 1/25/2019 to 2/21/2019.
    - As instructed on first two pages of Drilling Permit, it is very important field representative call in every casing size cemented during drilling operations.
      - Can possibly affect P-8 approvals when drilling notification is incomplete
- Subsequent filings will reflect date of Completion Rig operations such as perfs were added, tubing was installed, etc.

Page 3 (Rule 13 Excess Surface Casing)

1 2 Page 3 4 5 6 Save Edit

Data on Well Completion and Log II

GAU Groundwater Protection Determination Depth: 425.0

GAU Groundwater Protection Determination Date: 11/06/2018

For new drill or re-entry, surface casing depth determined by:

- [ ] GAU Groundwater Protection Determination
- [x] SWR 13 Exception — Depth: 1500.0

GAU LETTER

Purpose: New Production Well

Location: Survey-THROCKMORTON CSL; Abstract-542; Section-1; League-1

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

The base of usable-quality water-bearing strata is estimated to occur at a depth of 425 feet at the site of the referenced well.

SWR13 EXC

d. The casing and cement program shall adhere to the following specifications:

Set 1500 feet of surface casing and circulate cement from the shoe to the ground surface.

25

- GAU Determination Depth: Looking for deepest depth on GAU.
- SWR 13 Exception will be questioned by District if…
  - Item specifically instructs DVT installation to ensure cement will circulate to surface resulting in cement not circulating and DVT not opened.
  - Exceeding granted depth (*i.e.* R13Exc. for 1200 but set 1300) Rule of Thumb: No more than one joint of casing (30'-50')
  - *Example:*
    - GAU Depth 425'
    - Rule 13 Exception approved 1500' surface casing
    - Actual setting depth 1391' (not shown)
- Exception to SC deeper than 3500' is not an online option.
  - Request must be made by letter to District showing plans to maintain well control during drilling & ensure successful circulation of cement.
  - District's letter of authorization must be attached to completion.
  - Operator is still required to file online R13 Exc. for obviously exceeding 200' GAU recommendation.
- District may request R13 Exception be filed for a well drilling has been temporarily suspended; please select "YES" on question *if drilling is completed*, otherwise, system will require info on Intermediate and Production Casing(s).

Page 3 (Rule 13 Exception)

SWR 13 Exception Example: Short Surface Casing

Casing Record

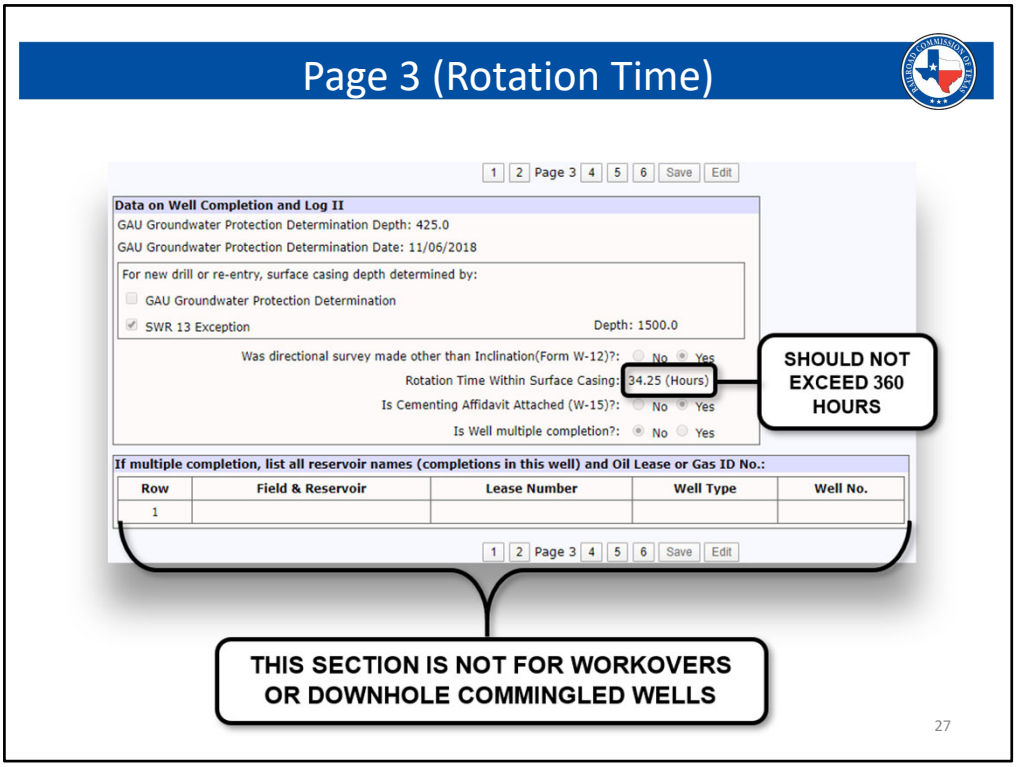
Row	Type of Casing	Hole Size (inches & fractions)	Casing Size - O.D. (inches & fractions)	Setting Depth (ft.)	Multi-Stage Tool Depth (ft.)	Multi-Stage Shoe Depth (ft.)	Cement Class	Cement Amount(sacks)	Slurry Volume (cu. ft.)	Top of Cement
1	Surface	17 1/2	13 3/8	2513			A	1585	3521.0	0
2	Intermediate	12 1/4	9 5/8	5290			A	1130	2445.0	0
3	Conventional Production	8 1/2	5 1/2	15780			H	2475	4227.0	0

The base of usable-quality water is estimated to occur at a depth of 5150 feet. Moreover, the interval from the land surface to a depth of 150 feet and the zone from a depth of 1300 feet to 2400 feet contains water of usable-quality which must be protected. Furthermore, the CARRIZO from 2700 feet to 3750 feet contains superior quality water which must be isolated from water in overlying and underlying beds.

26

SWR13 Exception Request Types

- Short Surface Casing
- Excess Surface Casing
- Single-String
- No Tubing/Tubing Only
    - *Example:*
        - GAU BUQW depth at 5150.
        - 13-3/8” surface casing set to 2513.
        - Although 9-5/8” intermediate casing set to 5290 circulated to surface, exception is required.



Rule 13(b)

(I) Mechanical integrity test of surface casing after drillout.

(i) If the surface casing is **exposed to more than 360 rotating hours** after reaching total depth or the depth of the next casing string, the operator shall verify the integrity of the surface casing by using a casing evaluation tool or conducting a mechanical integrity test or equivalent Commission approved casing evaluation method, unless otherwise approved by the district director.

- *Rotation Time* **is a required field** now and should not exceed 360 hours.
  - If it does, contact District Office & attach SC MIT for district technical review.
- Selecting Yes on the directional survey question will prompt engineering approval of the W-2.

Page 4 (Corresponding W-15)

The operator is reponsible for ensuring that the slurry volume, cement sacks, and casing information entered on this form matches the information reported on the corresponding Form W-15.

1 2 3 Page 4 5 6 Save Edit

The operator is reponsible for ensuring that the slurry volume, cement sacks, and casing information entered on this form matches the information reported on the corresponding Form W-15.

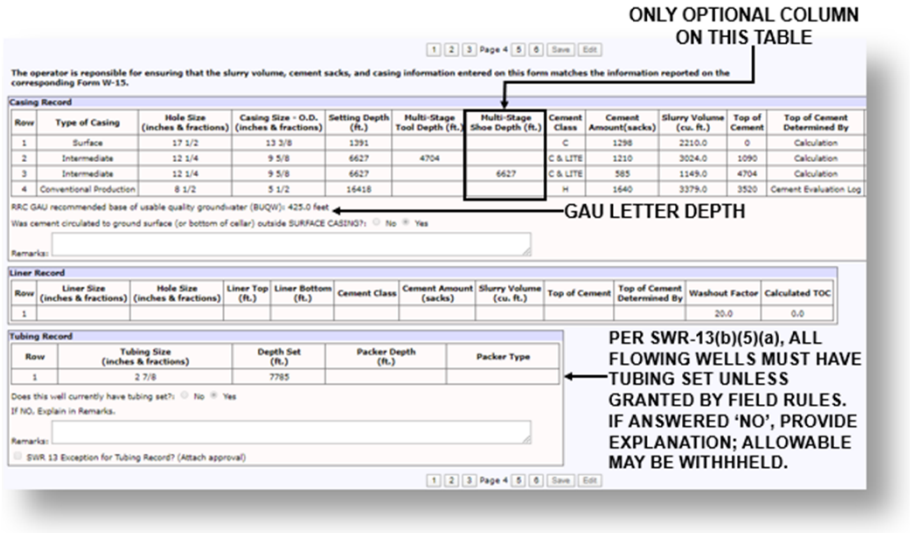
Casing Record

Row	Type of Casing	Hole Size (inches & fractions)	Casing Size - O.D. (inches & fractions)	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
1	Surface	17 1/2	13 3/8	1391			C	1298	2210.0	0

28

The operator is responsible for ensuring that the slurry volume, cement sacks, and casing information entered on this form matches the information reported on the corresponding Form W-15.

Page 4 (Casing, Liner & Tubing)



29

- Page 4 has been sectioned into three parts:
  - Casing Record
    - Should be entered from the surface to total depth of the wellbore in that order.
    - For *Casing Record* data, only the *Multistage Shoe Depth is* optional.
  - Liner Record
  - Tubing Record
    - Attach approved SWR 13 exception for tubing or if in field rules, add remark "allowed by field rules"
- For District audit, Rule 13 flags not visible to industry and not all flags are a violation.
- GAU depth is already listed on Pg. 3, why do I have to put it again on Pg. 4?
    - Pg. 4 has built-in formulas; calculations are not seen by industry (for example, District will message if cement doesn't look as high as operator shows).

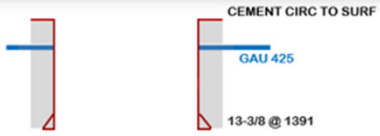
Page 4 (Surface Casing)

1 2 3 Page 4 5 6 Save Edit

The operator is reponsible for ensuring that the slurry volume, cement sacks, and casing information entered on this form matches the information reported on the corresponding Form W-15.

Casing Record

Row	Type of Casing	Hole Size (inches & fractions)	Casing Size - O.D. (inches & fractions)	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
1	Surface	17 1/2	13 3/8	1391			C	1298	2210.0	0



30

- If District cannot build wellbore schematic based on well completion information, Operator will be requested to provide wellbore schematic.
- *Example:*
  - GAU Depth at 425’
  - 13-3/8” surface casing set to 1391’
    - Cement circulated to surface
  - Rule 13 Exception attached

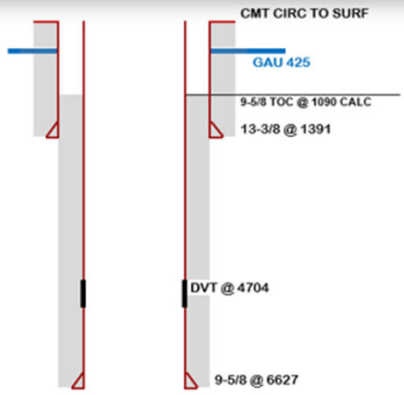
Page 4 (Intermediate Casing)

1 2 3 Page 4 5 6 Save Edit

The operator is reponsible for ensuring that the slurry volume, cement sacks, and casing information entered on this form matches the information reported on the corresponding Form W-15.

Casing Record

Row	Type of Casing	Hole Size (inches & fractions)	Casing Size - O.D. (inches & fractions)	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
1	Surface	17 1/2	13 3/8	1391			C	1298	2210.0	0
2	Intermediate	12 1/4	9 5/8	6627	4704		C & LITE	1210	3024.0	1090
3	Intermediate	12 1/4	9 5/8	6627		6627	C & LITE	585	1149.0	4704



31

- Not Required…Optional…to fill in Multi-Stage Shoe Depth (ft) Column; depth already appears in Setting Depth (ft) Column.
- Example:
  - 9-5/8” intermediate casing shoe set to 6627’
    - Cement circulated to DVTool at 4704’
    - From DVTool at 4704’ cement circulated to 1090’

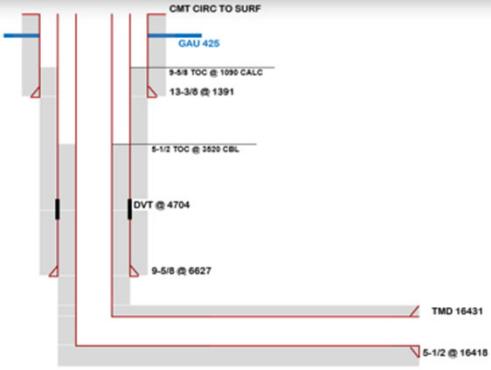
Page 4 (Production Casing)

1 2 3 Page 4 5 6 Save Edit

The operator is reponsible for ensuring that the slurry volume, cement sacks, and casing information entered on this form matches the information reported on the corresponding Form W-15.

Casing Record

Row	Type of Casing	Hole Size (inches & fractions)	Casing Size - O.D. (inches & fractions)	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
1	Surface	17 1/2	13 3/8	1391			C	1298	2210.0	0
2	Intermediate	12 1/4	9 5/8	6627	4704		C & LITE	1210	3024.0	1090
3	Intermediate	12 1/4	9 5/8	6627		6627	C & LITE	585	1149.0	4704
4	Conventional Production	8 1/2	5 1/2	16418			H	1640	3379.0	3520



32

Example:

- 5-1/2” production casing set to 16,418’
  - Per Cement Bond Log, cement circulated to 3520’
- Schematic shows continuous cement coverage from 5-1/2” Shoe to Surface in compliance with SWR13.

Page 4 (Tubing)

Tubing Record

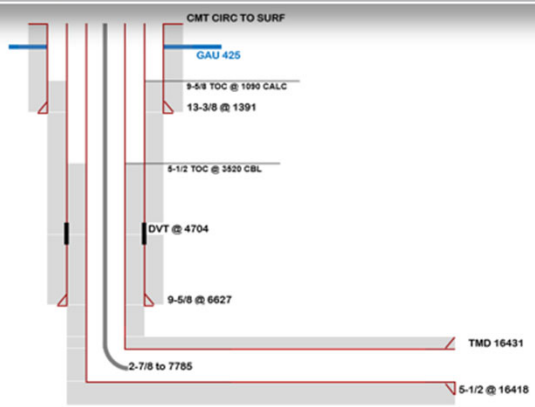
Row	Tubing Size (inches & fractions)	Depth Set (ft.)	Packer Depth (ft.)	Packer Type
1	2 7/8	7785		

Does this well currently have tubing set?: No Yes

If NO, Explain in Remarks.

Remarks:

SWR 13 Exception for Tubing Record? (Attach approval)



33

Example:

- 2-7/8” tubing set to 7785’
- Attach approved SWR 13 Exception for No Tubing
    - Exception for no tubing is granted for only **six months**
        - Subsequent completion will be required to be filed after tubing is set

Page 4 (Tapered Casing Example 1)

Crossover depth in Casing Record is **preferred**.

Casing Record

Row	Type of Casing	Hole Size (inches & fractions)	Casing Size - O.D. (inches & fractions)	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
1	Surface	13 1/2	10 3/4	4915			C	1665	2951.0	1309
2	Other	13 1/2	10 3/4	4915	1309		C	860	1539.0	0
3	Intermediate	9 7/8	7 5/8	11329			H	1720	3726.0	3915
4	Conventional Production	6 3/4	5 1/2	11297			H	830	988.0	9505
5	Tapered Production	6 3/4	4 1/2	15764			H	830	988.0	9505

Crossover depth shown here.

RRC GAU recommended base of usable quality groundwater (BUQW): 1200.0 feet

Was cement circulated to ground surface (or bottom of cellar) outside SURFACE CASING?: No Yes

Remarks:

Remarks not required..

34

Tapered Casing Example 1 – **District Preference**

- 5-1/2 to 11,297
- 4-1/2 to 15,764
- If crossover depth is shown in Casing Record, a Remark is not necessary
  - Both casing sizes show same cement sacks, slurry volume & TOC
- Optional - Type of Casing - showing 1st line as Conventional Production and 2nd line as Tapered Production

Page 4 (Tapered Casing Example)

Crossover depth shown in Remarks.

Casing Record

Row	Type of Casing	Hole Size (inches & fractions)	Casing Size - O.D. (inches & fractions)	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
1	Surface	13 1/2	10 3/4	5175			35:65 C	1825	3249.0	1277
2	Other	13 1/2	10 3/4	5175	1277		C	1000	1790.0	0
3	Intermediate	9 7/8	7 5/8	12186			50:50:10H+	1740	3657.0	4170
4	Tapered Production	6 3/4	5 1/2	16645			H	790	940.0	10419
5	Tapered Production	6 3/4	4 1/2	16645			H	790	940.0	10419

Same setting depth w/ different csg sizes.

RRC GAU recommended base of usable quality groundwater (BUQW): 1100.0 feet

Was cement circulated to ground surface (or bottom of cellar) outside SURFACE CASING?: No Yes

Remarks: THE 4 1/2 AND 5 1/2 PRODUCTION CASING IS A TAPERED STRING AND BOTH STRINGS SHARE THE SAME W-15 CEMENT JOB. (ATTACHED) CROSSOVER DEPTH FOR 5 1/2 X 4 1/2 IS AT 12117'

Crossover depth shown in Remarks.

35

Tapered Casing Example 2 –

- Same setting depth 16,645 for both 5-1/2 & 4-1/2 casings, same cement sacks, slurry volume and TOC
- Remarks show crossover depth @ 12117'.
- Optional - Lines 4 & 5 – Type of Casing – Tapered Production

System does not give option for tapered surface casing

- "Surface" should be listed twice

Page 4 (Tapered Hole Size)

If hole size is tapered, option to show on one line showing largest hole size.

- Tapered Hole size not offered on drop down.
- W-15 must reflect two different hole sizes.
- Remarks should show depth hole size tapered.

36

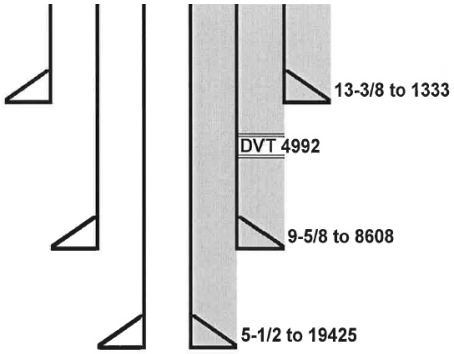
- Tapered hole size is not required to be divided into two lines
  - Hole size usually does not affect plugging recommendation unless casing is pulled or P&S; otherwise, same casing size all the way up.
- Remarks Example:
  - Production Hole crosses over from 8-3/4 to 8-1/2 at 9827.

Page 4 (Multi-Stage Example 1)

Order of Casing is **preferred**.

Casing Record

Row	Type of Casing	Hole Size (inches & fractions)	Casing Size - O.D. (inches & fractions)	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
1	Surface	17 1/2	13 3/8	1333			C	1246	2303.0	0
2	Intermediate	12 1/4	9 5/8	8608	4992		TXI & C	1242	3074.7	0
3	Intermediate	12 1/4	9 5/8	8608			TXI & C	856	2053.7	4992
4	Conventional Production	8 1/2	5 1/2	19425			H	2575	3965.5	450



37

Example 1 - Order of Casing - **District Preference**

Separate Shoe and Tool into two lines:

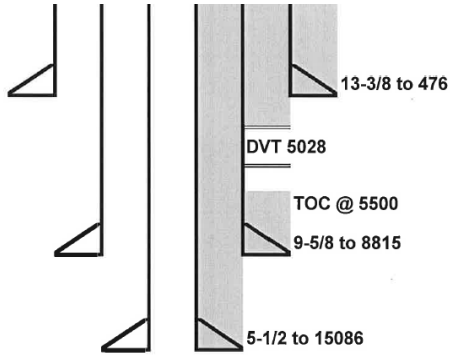
- 1st line – **Both** Shoe & Tool Depths, Cement Sacks, Top of Cement & Slurry Volume
- 2nd line – Shoe Depth **Only**, Cement Sacks, Top of Cement & Slurry Volume
- Most common is one DVT in hole; if two DVTs, separate into lines
- Per SWR13, Operator must indicate Top of Cement (TOC) in order to determine void
    - Order of Casing is preferred…easier to visually determine if there is no-cement gap working up from bottom.
    - FYI…**not required** to fill in M/S Shoe Depth Column.

Page 4 (Multi-Stage Example 2)

Order of Cementing

Casing Record

Row	Type of Casing	Hole Size (inches & fractions)	Casing Size - O.D. (inches & fractions)	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
1	Surface	17 1/2	13 3/8	476			C	450	594.0	0
2	Intermediate	12 1/4	9 5/8	8815			TXI	765	1783.8	5500
3	Intermediate	12 1/4	9 5/8	8815	5028		C	1129	2671.6	0
4	Conventional Production	8 1/2	5 1/2	15086			TXI H	2111	4136.9	0



38

Example 2 – Order of Cementing:

- 9-5/8 shows no-cement gap from 5028 to 5500 .
- 5-1/2 shows cement circulated to surface.

Page 4 (Multi-Stage Cementing)

If DVT did not open, include Tool depth in Casing Record:

- Combine cement sacks, including if perforated & squeezed, into **one line only**.
- Add Remark “DVT did not open”.
- Important to show depth of DVT as it might affect future plugging procedure; 100’ plug will have to be placed across tool.

Page 4 (Liner)

Liner with Cement:

- W-15 will be attached to completion.

Liner Record

Row	Liner Size (inches & fractions)	Hole Size (inches & fractions)	Liner Top (ft.)	Liner Bottom (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement
1	7	8 3/4	10492	10504	H	310	420.67	7832

Liner without Cement:

- Will **not** have W-15 attached to completion.

Liner Record

Row	Liner Size (inches & fractions)	Hole Size (inches & fractions)	Liner Top (ft.)	Liner Bottom (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement
1	3 1/2	6 1/8	3106	7216	N/A- NO CEMENT PUMPED			

40

- **Liner With Cement Example** –
  - Shows 12' of liner from 10492 to 10504 was cemented.
    - Question: *"Do I really have to report just 12 feet of liner?"*
    - Answer: Something had to have happened downhole:
      - First, for hole to require a liner
      - Second, requiring 310sx of cement be pumped for just 12 feet of liner.
- **Liner Without Cement Example** -
  - If liner was hung w/out cement, NO W-15 REQUIRED
  - Operator must add REMARK stating how was liner secured inside casing.

Page 5

1 2 3 4 Page 5 6 Save Edit

Producing/Injection/Disposal Interval (this completion) Indicate depth of perforation on open hole

Note: From and To are for Measured Depth for Horizontals.

Row	From (feet)	To (feet)	Bottom Hole Label	Lateral Label	Open Hole
1	8761	16383	Horizontal	Lateral 1	☐

Remarks:

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

Depth Interval	From (feet)	To (feet)	Amount and Kind of Material Used	Process
1	8761.0	16383.0	SEE FRAC FOCUS	Fracture

Remarks:

FORMATION RECORD (List depths of Principal Geological Markers and Formation Tops, including, but not limited to, all permitted Disposal/Injection formations within ¼ mile of the wellbore, Productive Zones, Potential Flow Zones, and Corrosive Formation Fluid Zones.)

Row	Principle Markers and Formation Tops	Encountered	Depth -TVD (feet)	Depth - MD (feet)	Isolated	Remarks
1	YATES	☑	2503.8	2525.0	☑	
2	GRAYBURG	☑	4294.9	4359.1	☑	
3	SAN ANDRES - SALTWATER FLOW	☑	4524.2	4593.2	☑	
4	SPRABERRY	☑	7382.4	7471.2	☑	
5	WOLFCAMP	☐			☐	WELL IS NOT DEEP ENOUGH
6	STRAWN	☐			☐	WELL IS NOT DEEP ENOUGH
7	DEVONIAN	☐			☐	WELL IS NOT DEEP ENOUGH
8	FUSSELMAN	☐			☐	WELL IS NOT DEEP ENOUGH
9	ELLENBURGER	☐			☐	WELL IS NOT DEEP ENOUGH

Data on Well Completion and Log I

Remarks: KOP ~ 7765'. DIGITAL WELL LOG # 18323 SUBMITTED ON 6.25.19. W-2 WRO TRACKING # 216455 SUBMITTED ON 7.23.19.

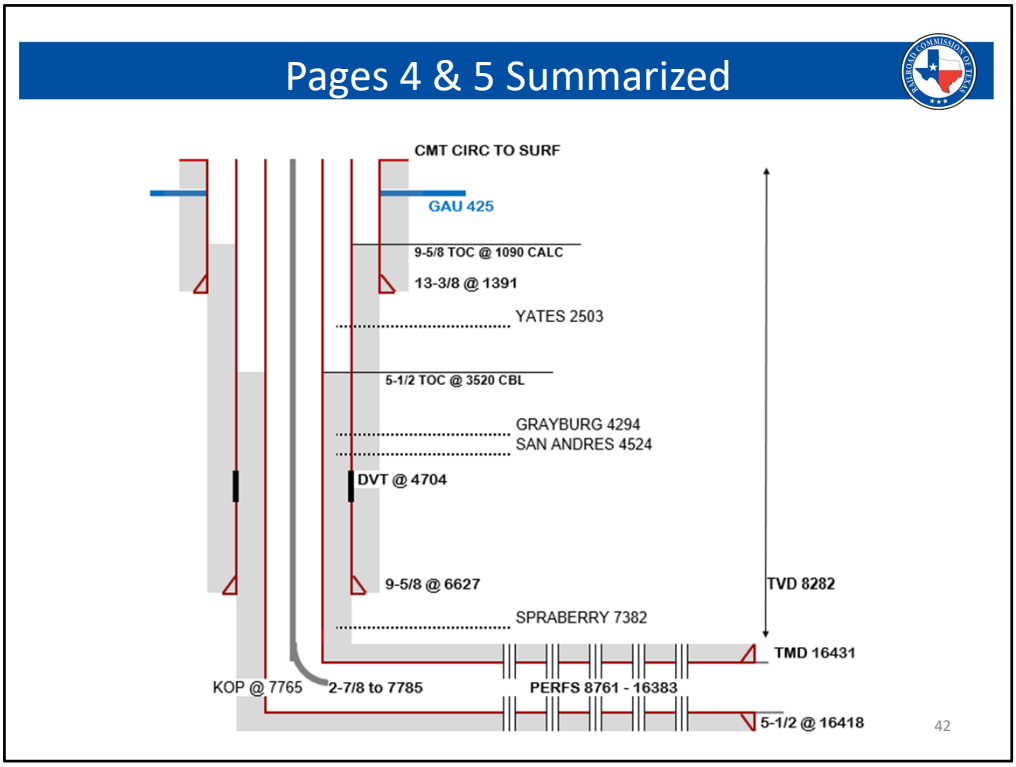
41

Three sections on Page 5:

- Producing/Injection/Disposal Interval
  - Producing interval cannot be deeper than total depth and PB depth cannot be above the deepest perforation.
    - If interval is a combination of both perforated and open hole, separate into two lines designating OH as the deeper interval.
- Acid, Fracture, Cement Squeeze, Cast Iron Bridge Plugs, Retainer, Etc.
- Formation Record
  - It is **not necessary** to add Remark in far-right column if formation is both encountered and isolated.
  - If well is either directional or horizontal, both TVD & TMD depths must be entered.
  - KOP is verified against formation top.
  - The formation record will prepopulate based on the county the well is associated with.
    - Operator is encouraged to add row showing principal geological marker relevant to well completion if not already listed.

There are three (3) REMARKS sections on Page 5 to assist in explaining current wellbore structure, for example:

- Kick Off Point
- Downhole issues requiring remedial work.
- Rule 10 Commingled Fields include perforated intervals.
- Docket No/Field Rule Exception especially if recent changes.
- If not enough space, an extra page can be attached.



Statewide Rule 13 compliance by bringing top of cement above formation top either by:

- 600’ by calculation
- 250’ per temperature survey
- 100’ per cement bond log

→ District is actively seeking no-cement gap between Formation Top and Top of Cement.

Page 5 (Broken Out Intervals)

OPTION 1

1 2 3 4 Page 5 6 Save Edit

Producing/Injection/Disposal Interval (this completion) Indicate depth of perforation on open hole

Note: From and To are for Measured Depth for Horizontals.

Row	From (feet)	To (feet)	Bottom Hole Label	Lateral Label	Open Hole	
1	7354	10056	Directional	-Select One-		Clear
2			-Select One-	-Select One-		Clear
3			-Select One-	-Select One-		Clear

Add Row

Remarks:

List all perforations that are currently open. If the well is open hole select open hole, if the well is horizontal or directional then use the appropriate lateral label.

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

Depth Interval	From (feet)	To (feet)	Amount and Kind of Material Used	Process	
1	7354.0	7568.0	72,000 GAL SLICK WATER, 42,500 GAL 10# X-LINK GEL, WITH 108,875# 20/40 WHITE SAN	Fracture	Clear
2	7594.0	7813.0	72,000 GAL SLICK WATER, 42,500 GAL 10# X-LINK GEL, WITH 108,875# 20/40 WHITE SAN	Fracture	Clear
3	7860.0	8192.0	83,000 GAL SLICK WATER, 48,000 GAL 10# X-LINK GEL, WITH 123,500# 20/40 WHITE SAN	Fracture	Clear
4	8233.0	8465.0	122,500 GAL USING 10# X-LINK & 76,750# 20/40 WHITE & 15,000# SLC SAND	Fracture	Clear
5	8489.0	8792.0	75,500 GAL USING 10# X-LINK & 72,500# 20/40 SLC SAND	Fracture	Clear
6	8838.0	9108.0	119,500 GAL USING 10# X-LINK & 59,063# 20/40 SLC SAND	Fracture	Clear
7	9505.0	9567.0	58,000 GALS.10# X-LINK GEL WITH 22,375# SLC 20/40 SAND	Fracture	Clear
8	9599.0	9783.0	43,000 GALS.10# X-LINK GEL WITH 16,500# SLC SAND	Fracture	Clear
9	9812.0	10056.0	43,000 GALS.10# X-LINK GEL WITH 16,500# SLC SAND	Fracture	Clear

Add Row

Remarks:

List any acidizing, fracturing, cement squeezes or CIBP's here with the affected depths. It is very important to list the old perforations and how they were isolated here if recompleting a well to prevent a SWR-10 violation.

43

OPTION 1 –

Same producing interval (7354-10056) with fractured intervals separated.

Producing/Injection/Disposal Intervals…

- If well has been Temporarily Abandoned maybe new well still be evaluated & set CIBP…perforation table **will be left blank.**
- In this example, Operator identified how intervals were stimulated/treated for production.
  - Fracture PROCESS has been selected from dropdown

Page 5 (Using a Reference)

OPTION 2

1 2 3 4 Page 5 6 Save Edit

Producing/Injection/Disposal Interval (this completion) Indicate depth of perforation on open hole

Note: From and To are for Measured Depth for Horizontals.

Row	From (feet)	To (feet)	Bottom Hole Label	Lateral Label	Open Hole
1	9950	14990	Horizontal	Lateral 1	☐

Remarks: KICK OFF POINT 8880'

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

Depth Interval	From (feet)	To (feet)	Amount and Kind of Material Used	Process
1	9950.0	14990.0	SEE FRAC FOCUS	Fracture

Remarks:

- SEE FRAC FOCUS…acceptable option
- KOP in Remarks
- Producing and Fractured intervals are the same.

44

OPTION 2 –

- Example SEE FRAC FOCUS
  - Statewide Rule 29 adopted January 2, 2012 (see below SWR29 in part)
  - If Frac Focus is running behind releasing report, this may not be an option if completion report is due.
- SWR **§3.29** adopted January 2, 2012:

Section (c) Required disclosures.

(1) Supplier and **service company disclosures**.

(A) As soon as possible, but not later than **15 days** following the completion of hydraulic fracturing treatment(s) on a well, the supplier or the service company must provide to the operator of the well the following information concerning each chemical ingredient intentionally added to the hydraulic fracturing fluid…

(2) **Operator disclosures**.

(A) **On or before the date the well completion report** for a well on which hydraulic fracturing treatment(s) was/were conducted is submitted to the Commission in accordance with §3.16(b) of this title…

Page 5 (Intervals Summarized)

OPTION 3

1 2 3 4 Page 5 6 Save Edit

Producing/Injection/Disposal Interval (this completion) Indicate depth of perforation on open hole

Note: From and To are for Measured Depth for Horizontals.

Row	From (feet)	To (feet)	Bottom Hole Label	Lateral Label	Open Hole
1	9351	19520	Horizontal	Lateral 1	

Remarks:

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

Depth Interval	From (feet)	To (feet)	Amount and Kind of Material Used	Process
1	9351.0	19520.0	STIMULATED USING 4,857 BBLS OF 15% HCL ACID, 14,581,690 LBS OF TOTAL PROPPANT IN 369,675 BBLS OF TOTAL FLUID.	Fracture

Remarks: TWO FRAC SLEEVES (1) @ 19,554'-19,558' (2) @ 19,569'-19,572'.

- Summarize Frac Stimulants
- Add any helpful Remarks

45

OPTION 3 –

Summarize Frac Stimulants

Page 5 (Encountered & Isolated)

* When to mark "encountered" in the formation record section?

The "encountered" checkbox must be marked if the formation/zone was penetrated by this wellbore.
If "encountered" is marked, the operator must enter a depth.
If the formation/zone was penetrated but not logged, the operator is expected to give a reasonable estimate based on existing available information. Please specify in remarks if the depth is an estimate.
If "encountered" is not marked, the operator must explain in remarks as to why the formation/zone was not encountered (e.g. pinched-out, well is not deep enough, etc.).

* When to mark "isolated" in the formation record section?

"Isolated" means that the formation/zone has been isolated by cemented casing pursuant to Statewide Rule 13(a)(4)(C), (b)(2)(A), and (b)(3)(B.
If the formation/zone was encountered by the wellbore, the operator must indicate whether that formation/zone was isolated by cemented casing pursuant to these requirements of Statewide Rule 13.
If the formation/zone is part of the completion interval, and is adequately confined by cemented casing, do mark isolated.
If the formation/zone was not encountered, the "isolated" checkbox will not be applicable.
If the formation/zone was encountered but is not isolated by cemented casing, do not mark isolated. In this case, the operator must explain in remarks as to why the formation/zone was not isolated.

Page 5 (Encountered)

When to mark to “encountered” in the formation record section?

- The “encountered” checkbox must be marked if the formation/zone was penetrated by this wellbore.
- If “encountered” is marked, the operator must enter a depth.
  - Approach staff geologist for assistance with depths.

Page 5 (Encountered Cont.)

- If the formation/zone was penetrated but not logged, the operator is expected to give a **reasonable estimate** based on existing available information. Please specify in remarks if the depth is an estimate.
  - Explanations such as “not logged, null, N/A or cement squeeze” are not valid explanations of why not logged.

48

- Estimated depth **is required** when not logged
- Make note ESTIMATED DEPTH in Remark

Page 5 (Not Encountered)

- If “encountered” is not marked, the operator must explain in remarks as to why the formation/zone was not encountered (e.g. pinched-out, well is not deep enough, etc.).
  - Also a good explanations
    - Does not exist in the immediate area
    - Not geologically present
  - Remark can be listed below productive formation
    - Below TD
    - Well not drilled deep enough vertically.

49

“Immediate area”…within a quarter-mile radius of the wellbore.

Page 5 (Isolated)

- When to mark "isolated" in the formation record section?
  - "Isolated" means that the formation/zone has been isolated by cemented casing pursuant to Statewide Rule 13(a)(4)(c), (b)(2)(A), and (b)(3)(B):
    - 600' Calculation or 200' inside next casing string
    - 250' Temperature Survey
    - 100' Cement Bond Log

50

- **SWR 13(a)(4)(c):**

  Casing shall be cemented across and above all formations permitted for injection under §3.9 of this title (relating to Disposal Wells) at the time the well is completed, or cemented immediately above all formations permitted for injection under §3.46 of this title (relating to Fluid Injection into Productive Reservoirs) at the time the well is completed, in a well within one-quarter mile of the proposed well location, as follows:

  (i) if the top of cement is determined through **calculation**, at least **600 feet** (measured depth) above the permitted formations;

  (ii) if the top of cement is determined through the performance of a **temperature survey** conducted immediately after cementing, **250 feet** (measured depth) above the permitted formations;

  (iii) if the top of cement is determined through the performance of a **cement evaluation log**, **100 feet** (measured depth) above the permitted formations;

  (iv) at least **200 feet into the previous casing** shoe (or to surface if the shoe is less than 200 feet from the surface); or

  (v) as otherwise approved by the district director.

- **SWR 13(b)(2)(A):**

  Intermediate casing requirements for land wells and bay wells.

  (A) Cementing method. Each intermediate string of casing shall be cemented from the shoe to a point at least 600 feet (measured depth) above the shoe. If any productive zone, potential flow zone, or zone with corrosive formation fluids is open to the wellbore above the casing shoe, the casing shall be cemented;

(i) if the top of cement is determined through calculation, from the shoe up to a point at least 600 feet (measured depth) above the top of the shallowest productive zone, potential flow zone, or zone with corrosive formation fluids;

(ii) if the top of cement is determined through performance of a temperature survey, from the shoe up to a point at least 250 feet (measured depth) above the top of the shallowest productive zone, potential flow zone, or zone with corrosive formation fluids;

(iii) if the top of cement is determined through performance of a cement evaluation log, from the shoe up to a point at least 100 feet (measured depth) above the top of the shallowest productive zone, potential flow zone, or zone with corrosive formation fluid; or

(iv) to a point at least 200 feet (measured depth) above the shoe of the next shallower casing string that was set and cemented in the well (or to surface if the shoe is less than 200 feet from the surface); or

(v) as otherwise approved by the district director.

- **SWR (b)(3)(B):**

  Cementing method. The production string of casing shall be cemented by the pump and plug method, or another method approved by the Commission, with sufficient cement to fill the annular space back of the casing to the surface or to a point at least 600 feet above the shoe. If any productive zone, potential flow zone and/or zone with corrosive formation fluids is open to the wellbore above the casing shoe, the casing shall be cemented in a manner that effectively seals off all such zones by one of the methods specified for intermediate casing in paragraph (2) of this subsection. A float collar or other means to stop the cement plug shall be inserted in the casing string above the shoe. Cement shall be allowed to stand under pressure for a minimum of eight hours before drilling the plug or initiating casing pressure tests. In the event that the distance from the casing shoe to the top of the shallowest productive zone, potential flow zone and/or zone with corrosive formation fluids make cementing, as required above, impossible or impractical, the multi-stage process may be used to cement the casing in a manner that will effectively seal off all such zones, and prevent fluid migration to or from such zones within the wellbore. Uncemented casing is allowable within a producing reservoir provided the production casing is cemented in such a manner to effectively isolate and seal off that zone from all other productive zones in the wellbore as required by §3.7 of this title (relating to Strata To Be Sealed Off).

Page 5 (Isolated Cont.)

– If the formation/zone was encountered by the wellbore, the operator must indicate whether that formation/zone was isolated by cemented casing pursuant to these requirements of Statewide Rule 13.

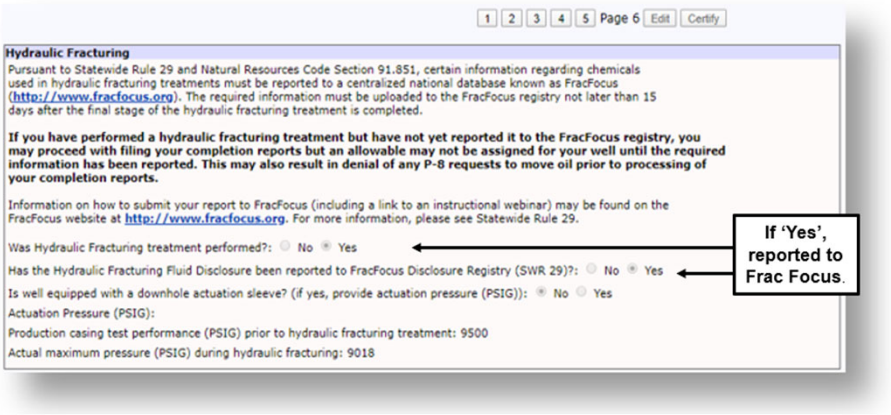
Page 5 (Not Isolated)

- If the formation/zone is part of the completion interval, and is adequately confined by cemented casing, **do mark isolated**.
  - Yes, mark “isolated” zone perforated!
- If the formation/zone was not encountered, the “isolated” checkbox will not be applicable.
  - Zone may be below TD.

Page 5 (Not Isolated Cont.)

- If the formation/zone was encountered but is not isolated by cemented casing, do not mark isolated. In this case, the operator must explain in remarks as to why the formation/zone was not isolated.
  - If formation is present but not productive in the immediate area [within quarter-mile radius of wellbore], add a Remark.

Page 6 (Hydraulic Fracturing)



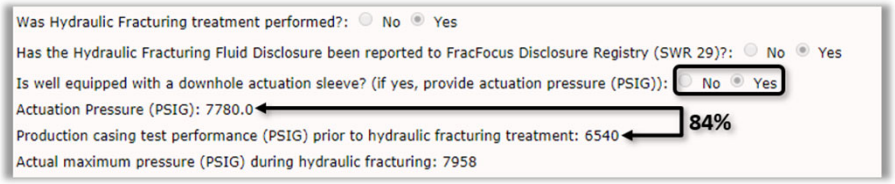
54

- Rule 29 does not make distinctions in well type (oil, gas, injection). If well was frac'd, it must be reported.
- If Process shows FRACTURE on Pg. 5, then we are going to be looking for ●YES to be bubbled on both questions on Pg. 6.

Page 6 (Actuation Pressure)

Is well equipped with a downhole actuation sleeve?

If **yes**, production casing test pressure has to be >= 80% of the actuation pressure.



55

Is well equipped with a downhole actuation sleeve?

- If YES, then the production casing test pressure must be >= 80% of the actuation pressure.
- If the above is not met, then the operator is in violation of SWR 13(a)(7)(B) unless they have documentation of approval from the district office.
  - Please attach documentation showing approval and add a REMARK.
  - Discrepancies in calculations are referred appropriate District Office for further direction and/or instructions to operator.
- In above example: 6540 is **84%** of 7780

Page 6 (Actual Maximum Pressure)

Is well equipped with a downhole actuation sleeve?

If **no** downhole actuation sleeve, Actual Maximum Pressure should be less than or equal to Production Casing Test Performance.

Was Hydraulic Fracturing treatment performed?: No Yes

Has the Hydraulic Fracturing Fluid Disclosure been reported to FracFocus Disclosure Registry (SWR 29)?: No Yes

Is well equipped with a downhole actuation sleeve? (if yes, provide actuation pressure (PSIG)): No Yes

Actuation Pressure (PSIG):

Production casing test performance (PSIG) prior to hydraulic fracturing treatment: 9500

Actual maximum pressure (PSIG) during hydraulic fracturing: 7065

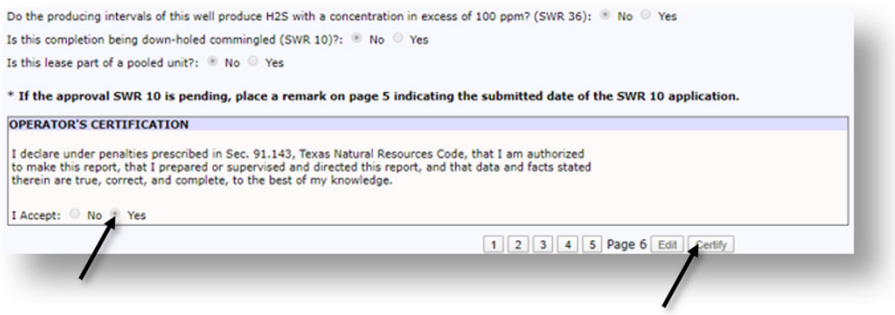
7065 ≤ 9500

56

Is the well equipped with a downhole actuation sleeve?

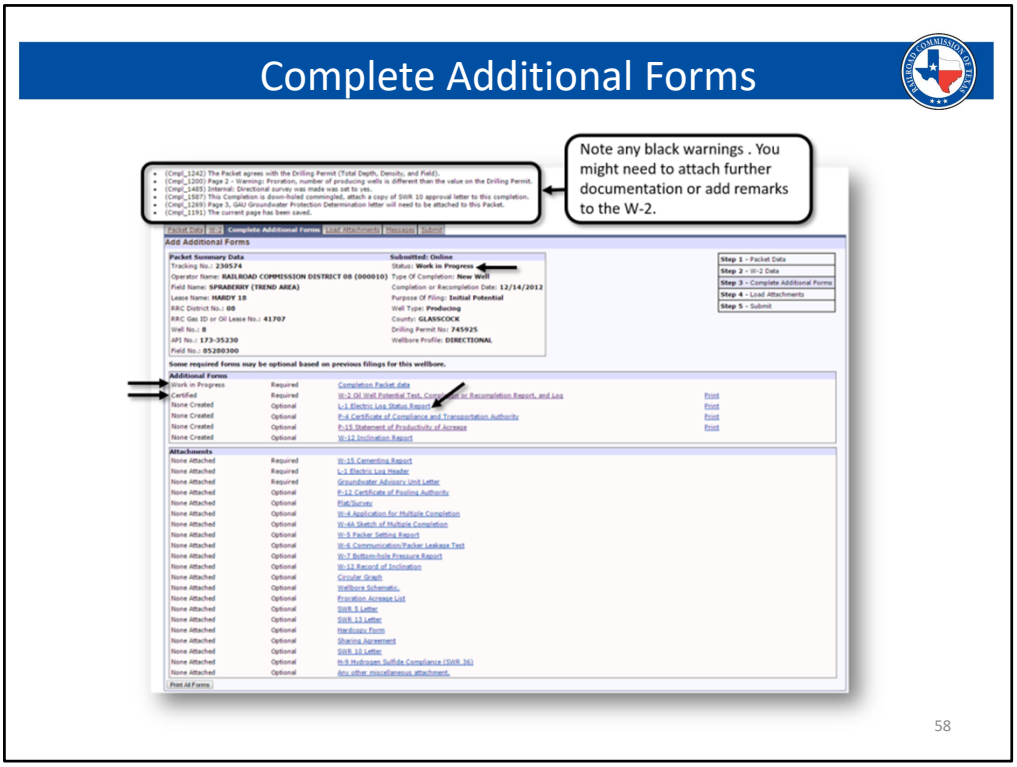
- If NO, then the production test pressure must be >= actual maximum pressure.
- If the above is not met, then the operator is in violation of SWR 13(a)(7)(B) unless they have documentation of approval from the district office.
    - Please attach documentation showing approval and add a REMARK.
    - Discrepancies in calculations are referred to appropriate District Office for further direction and/or instructions to operator.
- In above example: 7065<=9500

Page 6 (Certification)



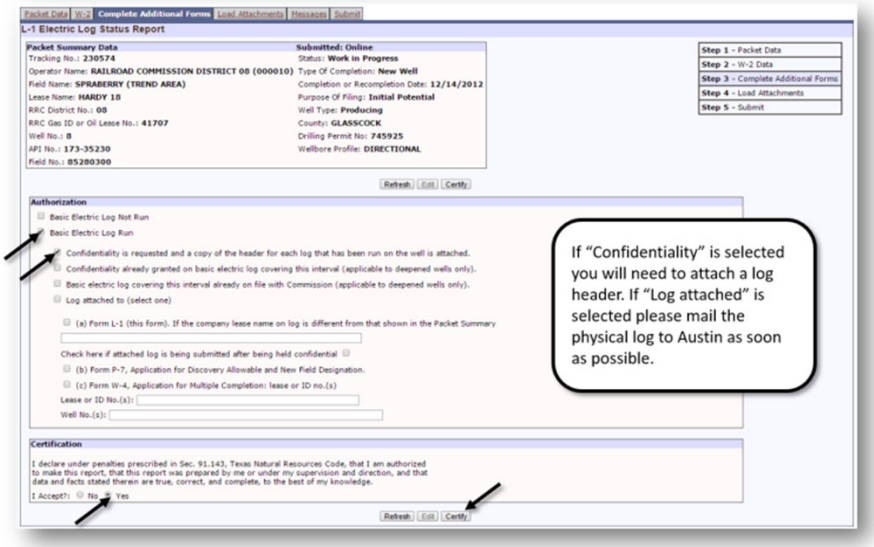
57

- Please review all questions on this page and answer appropriately:
  - *Do the producing intervals of this well produce H2S with a concentration in excess of 100 ppm? (SWR 36):*
    - If YES, operator will be required to file H-9 if first well on the lease.
    - If adding well to an existing lease, H-9 already be on file.
    - If NO, H-9 is not required.
  - *Is this completion being down-hole commingled (SWR 10)?*
    If this question is marked 'No" and there are no remarks indicating otherwise, the well may be processed incorrectly and the permit closed out.
  - *Is this lease part of a pooled unit?*
    If this question is marked 'Yes', a P-12 and lease plat are required.
- Click ●Yes to accept the certification before you hit the Certify button.
  - Notice that because this is the last page of the W-2 your *Save* button has switched to a *Certify* button.
- Falsification of a completion report will be referred to Legal Enforcement:
  Texas Natural Resources Code
  Sec. 91.143
  False Applications, Reports, and Documents and Tampering With Gauges
  (a) A person may not…
  (3) knowingly simulate or falsely or fraudulently execute or sign such an application, report, or other document;
- Once you hit the certify button you will be brought to the *Complete Additional Forms* tab.



- Note any black warnings at the top of the screen that might require you to attach further documentation or add remarks to the W-2.
- Also notice that the *Completion Packet Data* is still a work in progress (matches the status). It will remain so until the time the tracking number is submitted.
- The W-2 should by now reflect *Certified*. Click on the form you would like to fill out next.

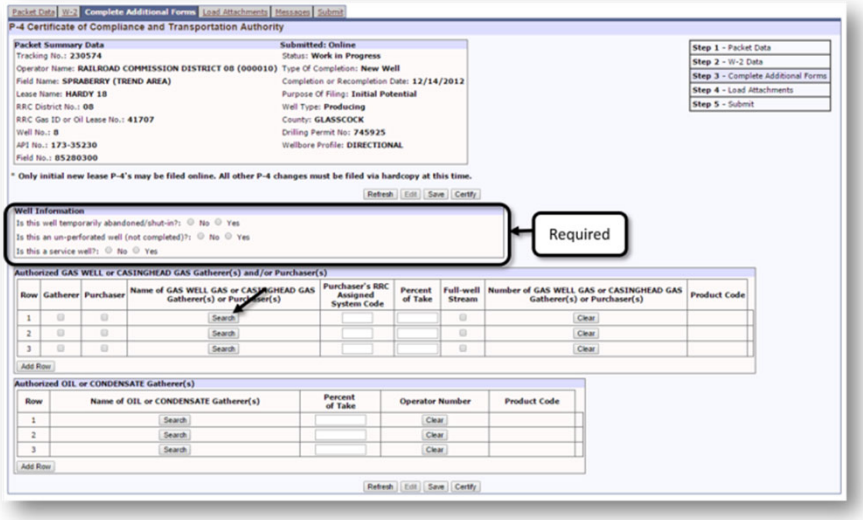
L-1 (Electric Log Status Report)



59

- If confidentiality is selected the L-1 Header will need to be attached to this completion packet.
- If you select Log Attached the log will need to be mailed to Austin as soon as possible or uploaded to the *Digital Well Log Submission* system.

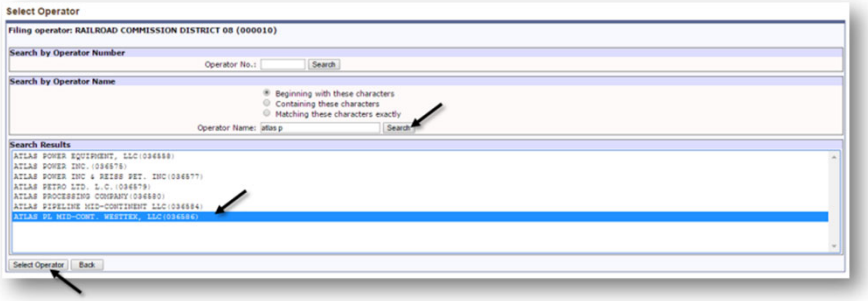
P-4 (Cert. of Compliance & Trans. Authority)



60

- The Online fillable P-4 isn't required for this filing because a lease number already exists but for demonstration, we will walk through completing the new lease P-4.
- Operators are required to answer the three questions at the top before the gatherer's & purchasers can be added.
  You will then add your purchasers & gatherer's by selecting the *Search* button.
- For UIC, answer "Yes" for "Is this a service well?"
- For UIC, typically leave purchasers & gatherers blank.

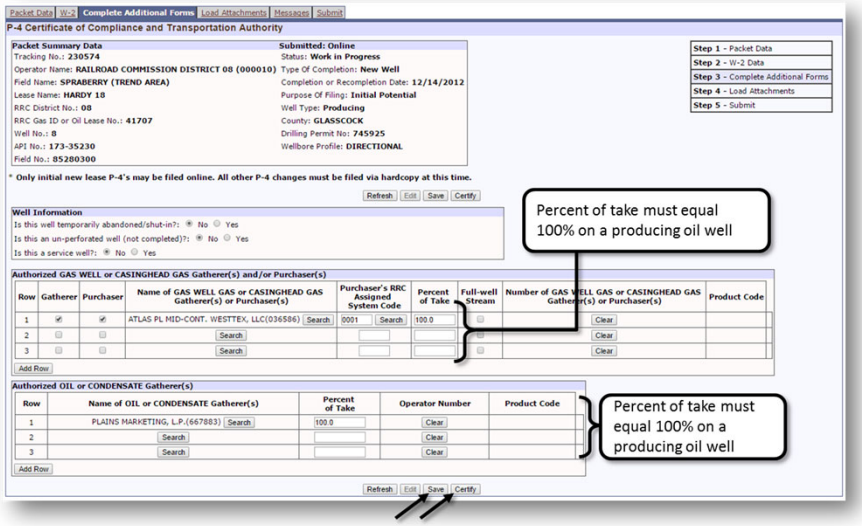
P-4 (Searching for Gatherer's & Purchasers)



61

- In this example we didn't know what the gatherer/purchaser's operator number was, but we knew their name, so we typed the beginning of the name and hit *Search*. Doing so will then display a list of gatherer/purchaser's that match the information keyed.
- You must select the gatherer/purchaser's you wish to use and then hit the *Select Operator* button.

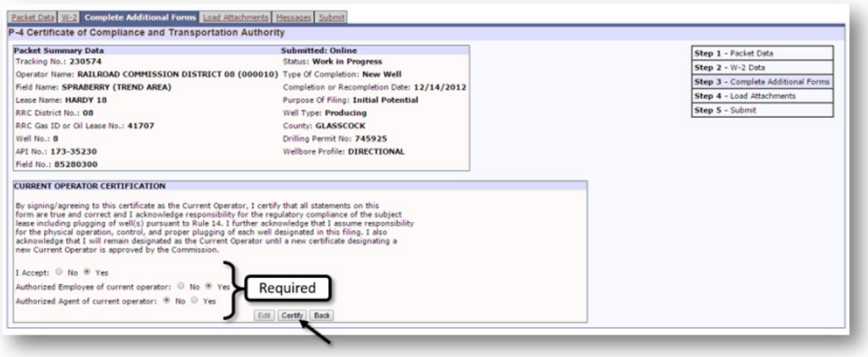
Certifying & Saving the P-4



62

- Repeat this process for the oil gatherer and remember that on a producing oil well you must at lease list one valid oil gatherer.
- If you list a casinghead gas gatherer you must also select a purchaser.
- If the oil well isn't producing casinghead gas, then no casinghead gas gatherer or purchaser is required.
- Click *Save* & then click the *Certify* button to be brought to the certification page for the P-4.

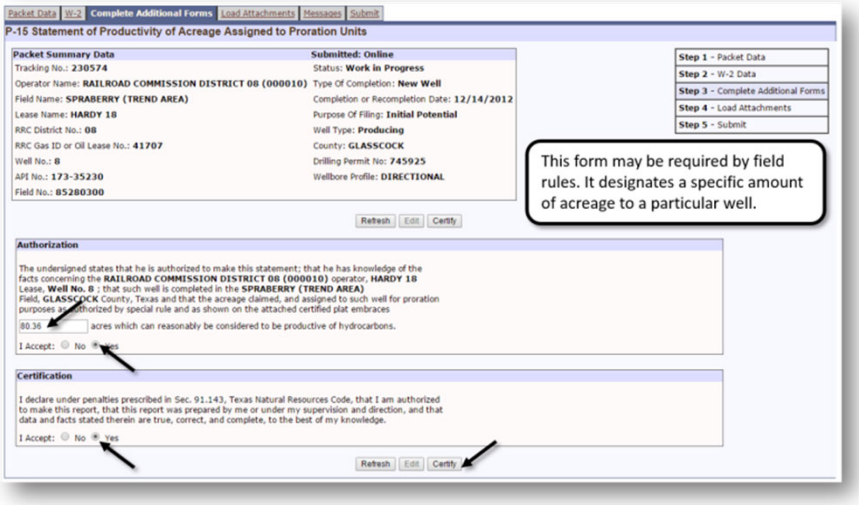
P-4 (Certification Page)



63

- You must answer all three questions and then hit certify for the P-4 to be certified.
- You should only be selecting authorized agent if you are listed on the P-5.

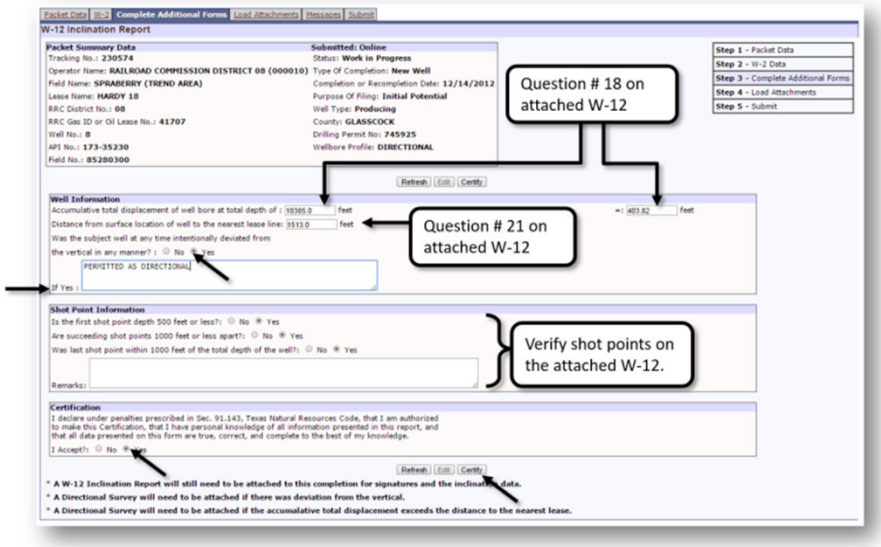
P-15 (Statement of Productivity of Acreage)



64

A P-15 is not required if the form P-16 is filed with the completion.

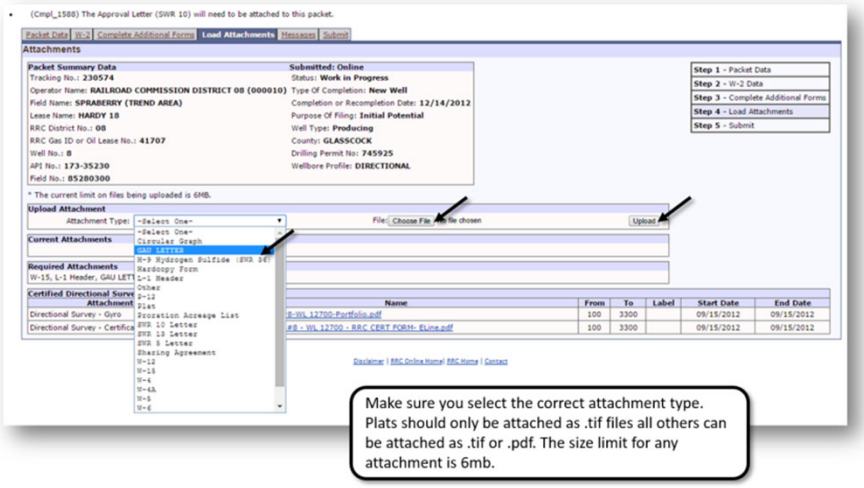
Online Fillable W-12 (Inclination Report)



65

- Answering the deviation question will require that you leave remarks and prompt engineering approval on the W-12.
- For UIC, the only exemption offered to SWR-11 is that the W-12 is waived for enhanced recovery wells that are re-entries of plugged wells.

Load Attachments



- Select the attachment type and then select the *Choose File* to browse for the file you would like to attach.
- Once the file path has been selected select the *Upload* button.
- Valid types are .tif and .pdf

GAU Letter (Date Issued)

GROUNDWATER PROTECTION DETERMINATION

Form GW-2

Groundwater Advisory Unit

Date Issued:	24 January 2017	**GAU Number:**	166089

Attention:	TRACKER RESOURCE DEV III, 1050 17TH STREET SUITE DENVER, CO 80265	**API Number:**	23536167
		County:	IRION
		Lease Name:	BARNHART 77S75
		Lease Number:	
Operator No.:	864047	**Well Number:**	3LM
		Total Vertical Depth:	7500
		Latitude:	31.242421
		Longitude:	-101.159951
		Datum:	NAD27

67

GAU Letter older than five years **requires** a new one be filed regardless of the *Purpose of Filing*.

GAU Letter (Applicable Radius)

Operator No.:	864047	**Lease Number:**	
		Well Number:	3LM
		Total Vertical Depth:	7500
		Latitude:	31.242421
		Longitude:	-101.159951
		Datum:	NAD27

Purpose: New Drill

Location: Survey-H&TC RR CO; Abstract-393; Block-14; Section-77

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 700 feet, must be protected.

This recommendation is applicable to all wells within a radius of 300 feet of this location.

68

- District does check for extended recommendations applicable to lease only, API only, section-section, half-section or quarter-section and radius:
  - 300 ft. = 0.12 mile
    - Using Radius Tool on RRC Public GIS Viewer.
  - Some recommendations are very specific…for example, *protection to a well's total depth* or *all wells drilled in this 537 ACRE LEASE*.
- District will query if well outside of GAU recommendation.

<u>Helpful Hint…</u>

- At times, radius is not as generous due to location of well; choose a happy middle, recommendation *might* extend its umbrella.
  - For example: Operator had group of wells to be Plugged & Abandoned and thought elevations would be the same, so last well in lease was selected as the filing well. Unfortunately, last well next to ravine. Verify well locations with your geologist.

GAU Letter (Subject Well Only)

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 700 feet, must be protected.

This recommendation is applicable to all wells within a radius of 300 feet of this location.

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 01/18/2017. 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

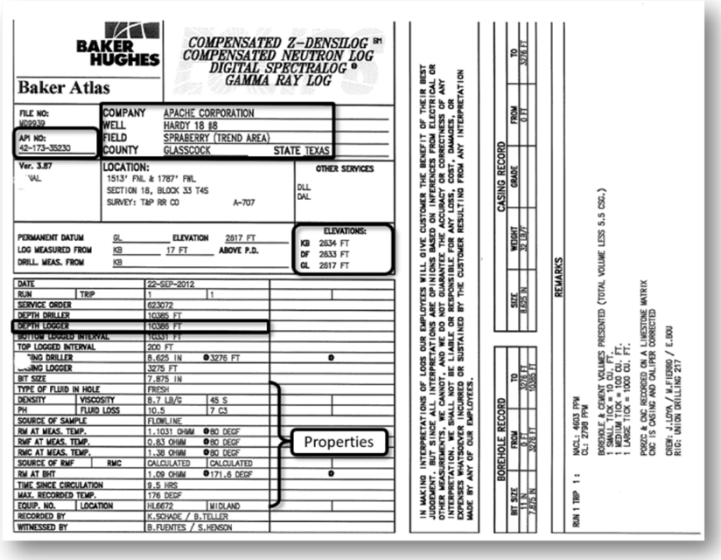
Form GW-2 Rev. 02/2014 P.O. Box 12967 Austin, Texas 78771-2967 512-463-2741 Internet address: www.rrc.texas.gov

69

Please **Note** verbiage:

- "UNLESS STATED OTHERWISE, this recommendation is intended to apply **only** to the subject well and not for area-wide use".
- District will not accept determination if recommendation is not extended to specific lease, section or radius.

L-1 Header



BAKER HUGHES

Baker Atlas

COMPENSATED Z-DENSILOG SM
COMPENSATED NEUTRON LOG
DIGITAL SPECTRALOG ®
GAMMA RAY LOG

FILE NO:	COMPANY	APACHE CORPORATION
109939	WELL	HARDY 18 88
API NO:	FIELD	SPRABERRY (TREND AREA)
42-173-35230	COUNTY	GLASSCOCK STATE TEXAS

Ver. 3.87
VAL

LOCATION:
1513' FNL & 1787' FWL
SECTION 18, BLOCK 33 T4S
SURVEY: T&P RR CO A-707

OTHER SERVICES
DLL
DAL

PERMANENT DATUM	GL	ELEVATION	2617 FT
LOG MEASURED FROM	KB	17 FT	ABOVE P.D.
DRILL. MEAS. FROM	KB		

ELEVATIONS:
KB 2634 FT
DF 2633 FT
GL 2617 FT

DATE		22-SEP-2012	
RUN	TRIP	1	1
SERVICE ORDER		623072	
DEPTH DRILLER		10385 FT	
DEPTH LOGGER		10386 FT	
BOTTOM LOGGED INTERVAL		10381 FT	
TOP LOGGED INTERVAL		200 FT	
CASING DRILLER		8.625 IN @3276 FT	@
CASING LOGGER		3275 FT	
BIT SIZE		7.875 IN	
TYPE OF FLUID IN HOLE		FRESH	
DENSITY	VISCOSITY	8.7 LB/G 45 S	
PH	FLUID LOSS	10.5 7 C3	
SOURCE OF SAMPLE		FLOWLINE	
RM AT MEAS. TEMP.		1.1031 OHM @80 DEGF	
RMF AT MEAS. TEMP.		0.83 OHM @80 DEGF	
RMC AT MEAS. TEMP.		1.38 OHM @80 DEGF	
SOURCE OF RMF	RMC	CALCULATED CALCULATED	
RM AT BHT		1.09 OHM @171.6 DEGF	@
TIME SINCE CIRCULATION		9.5 HRS	
MAX. RECORDED TEMP.		176 DEGF	
EQUIP. NO.	LOCATION	H1672 MIDLAND	
RECORDED BY		K.SCHADE / B.TELLER	
WITNESSED BY		B.FUENTES / S.HENSON	

Properties

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE CUSTOMER THE BENEFIT OF THEIR BEST JUDGMENT. BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS, WE CANNOT, AND WILL NOT, GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

BOREHOLE RECORD

BIT SIZE	FROM	TO
11.5 IN	0 FT	3276 FT
7.875 IN	3276 FT	10385 FT

CASING RECORD

SIZE	WEIGHT	GRADE	FROM	TO
8.625 IN	32.0 LB/F		0 FT	3276 FT

REMARKS

RUN 1 TRIP 1 :
MCL: 4603 FPM
CL: 2798 FPM

BOREHOLE & CEMENT VOLUMES PRESENTED (TOTAL VOLUME LESS 5.5 CSC.)
1 SMALL TICK = 10 CU. FT.
1 MEDIUM TICK = 100 CU. FT.
1 LARGE TICK = 1000 CU. FT.

PORO: N CNC RECORDED IN A LIMESTONE MATRIX
CNS: S CORRECTED FOR MUD WT. & LOGGED
CREW: J.LOYA / M.FUENTES / E.BOO
RIG: UNION DRILLING 257

70

A log header is required if confidentiality was requested on the L-1.

Log & Log Header Requirements

- Company Name
- Lease Name
- Well Number
- Field
- API number
- Elevations
- Fluid/Mud Properties
- Logger depth must cover the producing interval
- Log header must be legible for audit and scanning
- Log must be continuous

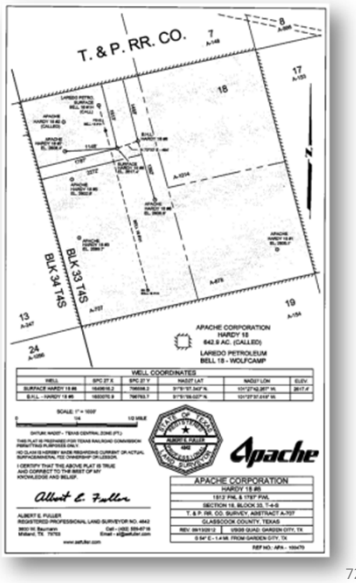
71

Please ensure that all of these items are listed on the log header prior to attaching it to the completion.

Plat

Proration Plat Example

Lease Plat Example



72

- Proration Plat: Please make sure the proration unit is clearly drawn around your well & the proration Acres are clearly labeled.
- Lease Plat: Please make sure the total lease acreage is clearly labeled and the lease line is easy to interpret.
- All Plats should have a north arrow, certification and scale.

Proration Acreage List

Oil Lease No./Gas Well ID No: 41707
Lease Name(s): HARDY 18
Operator(s): APACHE CORPORATION 027200

API No.	District	Lease No.	Lease Name	Well No.	Field No	Field Name	Acres
17333893	8	41707	HARDY 18	1	85280300	SPRABERRY (TREND AREA)	40.18
17333913	8	41707	HARDY 18	2	85280300	SPRABERRY (TREND AREA)	40.18
17334943	8	41707	HARDY 18	3	85280300	SPRABERRY (TREND AREA)	80.36
17334664	8	41707	HARDY 18	5	85280300	SPRABERRY (TREND AREA)	40.18
17334947	8	41707	HARDY 18	6	85280300	SPRABERRY (TREND AREA)	40.18
17335229	8	41707	HARDY 18	7	85280300	SPRABERRY (TREND AREA)	80.36
17335230	8	41707	HARDY 18	8	85280300	SPRABERRY (TREND AREA)	80.36
17335273	8	41707	HARDY 18	9	85280300	SPRABERRY (TREND AREA)	80.36
17335407	8	41707	HARDY 18	10	85280300	SPRABERRY (TREND AREA)	40
17335408	8	41707	HARDY 18	11	85280300	SPRABERRY (TREND AREA)	40.36
17335879	8	41707	HARDY 18	12	85280300	SPRABERRY (TREND AREA)	40.36
17335880	8	41707	HARDY 18	13	85280300	SPRABERRY (TREND AREA)	40
						ALLOCATED ACRES IN LEASE	642.88
						TOTAL ACRES IN LEASE	642.9
						UNALLOCATED ACRES IN LEASE	0.02

An acreage list may be required by field rules. It details each well on the lease in the specified field and the acres allocated to each well.

73

- Your proration acreage list should reflect the lease name & number along with a comprehensive list of the wells producing on schedule at the time of completion as well as the acreage being assigned to those wells.
- You will also need to list the total lease acreage and any unallocated acreage.
- Please remember a P-16 can be filed in lieu of the P-15 and Acreage List.

P-16 (Acreage Designation Section I & II)

RAILROAD COMMISSION OF TEXAS

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

Acreage Designation

Form P-16

Page 1
Rev. 05/2019

Filer is the owner or lessee, or has been authorized by the owner or lessee, of all or an undivided portion of the mineral estate under each tract for which filer is listed as operator below. For all leases operated by other entities, the number of assigned acres shown are reflected on current Commission records or the filer has been authorized by the current operator to change the assigned acreage of that operator as shown below.

SECTION I. OPERATOR INFORMATION			
Operator Name:		Operator P-5 No.:	
Operator Address:			

SECTION II. WELL INFORMATION				
District No.:		API No.:		Purpose of Filing:
Well No.:		Drilling Permit No.:		☐ Drilling Permit Application (Form W-1)
Lease Name:		RRC ID or Lease No.:		
Total Lease Acres:		Field Name:		☐ Completion Report (Form G-1/W-2)
Proration Acres:		Field No.:		
Wellbore Profile		Is this a UFT field?		
SL Record (Parent) Well Drilling Permit No.:		County:		

74

Example of a P-16 filed in lieu of a P-15 and Acreage List (continued on next slide).

P-16 (Acreage Designation Section III & IV)

SECTION III. LISTING OF ALL WELLS IN THE APPLIED-FOR FIELD ON THE SAME ACREAGE AS THE LEASE, POOLED UNIT, OR UNITIZED TRACT DESIGNATED IN SECTION II ABOVE BY FILER

RRC ID No. or Lease No.	Well No.	Profile	Lease Name	API No.	Acres Assigned	SWR 38 Except. (Y/N)	Operator Name and Operator No. (if different from filing operator)

A. Total Assigned Horiz. Acreage =
Total Remaining Horiz. Acreage =
B. Total Assigned Vert./Dir. Acreage =
Total Remaining Vert./Dir. Acreage =

C. Total Assigned Acreage =
Total Remaining Acreage =

SECTION IV. REMARKS - REQUIRED FOR PSA AND CO-DEVELOPMENT *(refer to instructions)*

Attach Additional Pages As Needed. ☐ No additional pages ☐ Additional Pages: ___ (No. of additional pages)

CERTIFICATION: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that this report was prepared by me or under my supervision or direction, that I am authorized to make this report, and that the information contained in this report is true, correct, and complete to the best of my knowledge.

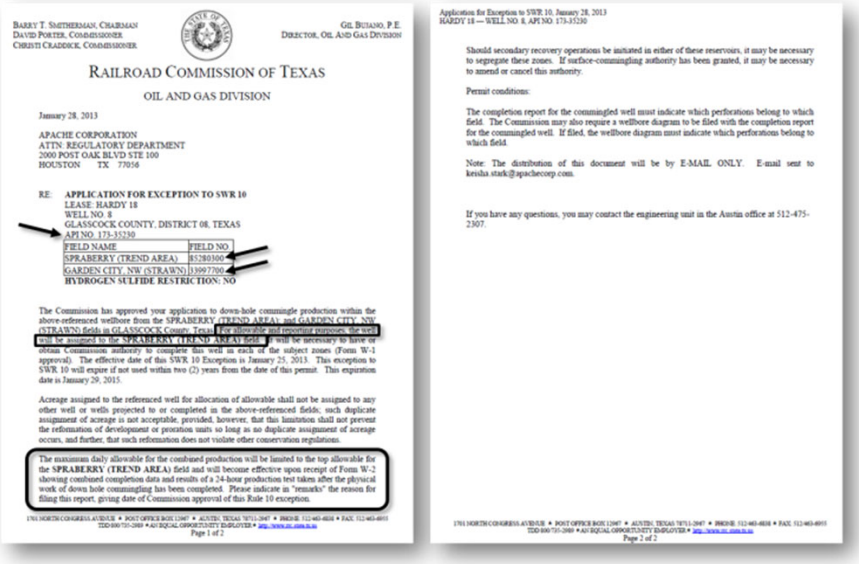
Signature | Name and title (type or print) | Email (Include email address only if you affirmatively consent to its public release)

Address City, State, Zip Code | Tel: Area Code Number | Date: mo. day yr.

75

- Section III needs to reflect any producing wells on this acreage in this field during the time this well was completed. Make sure you leave remarks in Section IV about what the P-16 was filled out for and sign the form.
- Part A & B of Section III are only required in fields with an exception to SWR-40.

SWR-10 Letter (Downhole Commingling)



BARRY T. SMITHERMAN, CHAIRMAN
DAVID PORTER, COMMISSIONER
CHRISTI CRADDICK, COMMISSIONER

GIL BUJANO, P.E.
DIRECTOR, OIL AND GAS DIVISION

RAILROAD COMMISSION OF TEXAS

OIL AND GAS DIVISION

January 28, 2013

APACHE CORPORATION
ATTN: REGULATORY DEPARTMENT
2000 POST OAK BLVD STE 100
HOUSTON TX 77056

RE: **APPLICATION FOR EXCEPTION TO SWR 10**
LEASE: HARDY 18
WELL NO. 8
GLASSCOCK COUNTY, DISTRICT 08, TEXAS
API NO. 173-35230

FIELD NAME	FIELD NO.
SPRABERRY (TREND AREA)	85280300
GARDEN CITY, NW (STRAWN)	33907200

HYDROGEN SULFIDE RESTRICTION: NO

The Commission has approved your application to down-hole commingle production within the above-referenced wellbore from the SPRABERRY (TREND AREA) and GARDEN CITY, NW (STRAWN) fields in GLASSCOCK County, Texas. For allowable and reportual purposes, the well will be assigned to the SPRABERRY (TREND AREA) field. It will be necessary to have or obtain Commission authority to complete this well in each of the subject zones (Form W-1 approval). The effective date of this SWR 10 Exception is January 25, 2013. This exception to SWR 10 will expire if not used within two (2) years from the date of this permit. This expiration date is January 29, 2015.

Acreage assigned to the referenced well for allocation of allowable shall not be assigned to any other well or wells projected to or completed in the above-referenced fields; such duplicate assignment of acreage is not acceptable, provided, however, that this limitation shall not prevent the reformation of development or proration units so long as no duplicate assignment of acreage occurs, and further, that such reformation does not violate other conservation regulations.

The maximum daily allowable for the combined production will be limited to the top allowable for the **SPRABERRY (TREND AREA)** field and will become effective upon receipt of Form W-2 showing combined completion data and results of a 24-hour production test taken after the physical work of down hole commingling has been completed. Please indicate in "remarks" the reason for filing this report, giving date of Commission approval of this Rule 10 exception.

1701 NORTH CONGRESS AVENUE • POST OFFICE BOX 12967 • AUSTIN, TEXAS 78711-2967 • PHONE: 512-463-6838 • FAX: 512-463-6931
TDD 800/735-2989 • AN EQUAL OPPORTUNITY EMPLOYER • http://www.rrc.state.tx.us
Page 1 of 2

Application for Exception to SWR 10, January 28, 2013
HARDY 18 — WELL NO. 8, API NO. 173-35230

Should secondary recovery operations be initiated in either of these reservoirs, it may be necessary to segregate these zones. If surface-commingling authority has been granted, it may be necessary to amend or cancel this authority.

Permit conditions:

The completion report for the commingled well must indicate which perforations belong to which field. The Commission may also require a wellbore diagram to be filed with the completion report for the commingled well. If filed, the wellbore diagram must indicate which perforations belong to which field.

Note: The distribution of this document will be by E-MAIL ONLY. E-mail sent to keisha.stark@apachecorp.com.

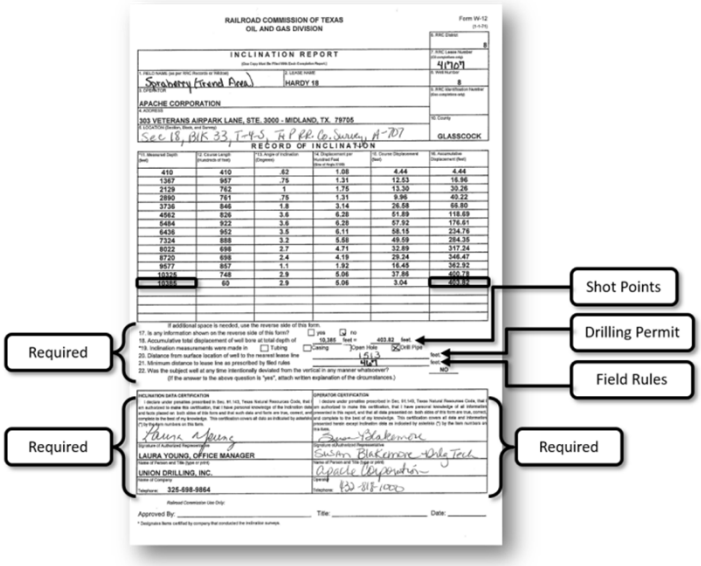
If you have any questions, you may contact the engineering unit in the Austin office at 512-475-2307.

1701 NORTH CONGRESS AVENUE • POST OFFICE BOX 12967 • AUSTIN, TEXAS 78711-2967 • PHONE: 512-463-6838 • FAX: 512-463-6931
TDD 800/735-2989 • AN EQUAL OPPORTUNITY EMPLOYER • http://www.rrc.state.tx.us
Page 2 of 2

76

- Example of a SWR-10 approval letter.
- Please read the letter carefully before filing your W-2 or G-1.
- The Well Compliance, District Office & the Engineering department verify the SWR-10 letter against the Pg. 5 Formation Record.
    - If perforated in zones other than permitted ones, district will query, and operator may be required to amend SWR-10 Application.

W-12 (Inclination Report)



RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

Form W-12

INCLINATION REPORT

1. FIELD NAME (as per RRC Records or Wildcat): Spraberry (Trend Area)
2. LEASE NAME: HARDY 18
3. WELL NUMBER: 4
4. API NUMBER: 42-173-31909
5. OPERATOR: APACHE CORPORATION
6. ADDRESS: 303 VETERANS AIRPARK LANE, STE. 3000 - MIDLAND, TX. 79705
7. LOCATION (Section, Block, and Survey): Sec 18, Blk 33, T-4-S, T&P R.R. Co. Survey, A-707
8. County: GLASSCOCK

RECORD OF INCLINATION

11. Measured Depth (feet)	12. Course Length (subtracts of feet)	13. Angle of Inclination (Degrees)	14. Displacement per Hundred Feet (See of Page 2/28)	15. Course Displacement (feet)	16. Accumulative Displacement (feet)
410	410	.62	1.08	4.44	4.44
1367	957	.75	1.31	12.53	16.96
2129	762	1	1.75	13.30	30.26
2890	761	.75	1.31	9.96	40.22
3736	846	1.8	3.14	26.58	66.80
4562	826	3.6	6.28	51.89	118.69
5484	922	3.6	6.28	57.92	176.61
6436	952	3.5	6.11	58.15	234.76
7324	888	3.2	5.58	49.59	284.35
8022	698	2.7	4.71	32.89	317.24
8720	698	2.4	4.19	29.24	346.47
9577	857	1.1	1.92	16.45	362.92
10325	748	2.9	5.06	37.86	400.78
10385	60	2.9	5.06	3.04	403.82

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 10,385 feet = 403.82 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 1513 feet
21. Minimum distance to lease line as prescribed by field rules 467 feet
22. Was the subject well at any time intentionally deviated from the vertical in any manner whatsoever? NO
(If the answer to the 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 authorized to make this report, and that this report was prepared by me or under my supervision and direction and that the data and facts stated therein are true, correct, and complete to the best of my knowledge. This certification covers all data as indicated by asterisks (*) in the item numbers and in the data.
Signature of Authorized Representative: Laura Young
Name of Person and Title (type or print): LAURA YOUNG, OFFICE MANAGER
Name of Company: UNION DRILLING, INC.
Telephone: 325-698-9864

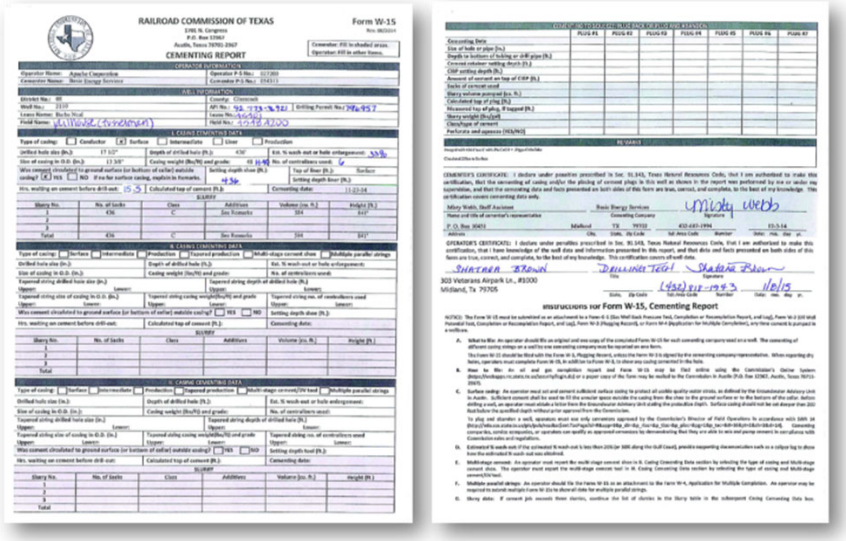
OPERATOR CERTIFICATION
I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, and that this report was prepared by me or under my supervision and direction and that the data and facts stated therein are true, correct, and complete 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 and in the data.
Signature of Authorized Representative: Bryan Blakemore
Name of Person and Title (type or print): Bryan Blakemore - Drlg Tech
Company: Apache Corporation
Telephone: 432-818-1000

Railroad Commission Use Only:
Approved By: _____ Title: _____ Date: _____
* Designate items certified by company that conducted the inclination surveys.

77

- Example of an Inclination Report (W-12).
- Please make sure that items 17-22 are answered and the W-12 is certified by both the inclination company as well as the operator.

W-15 (Cementing Report)



78

Instructions, front page top right corner, designate:

Cementer: Fill in shaded areas.

Operator: Fill in other items.

- Purpose of W-15
  - Any time cement is pumped in a wellbore there should be a W-15 attached certifying work:
    - cementing casing in a new drill
    - squeezing perfs
    - setting two sacks cement on top of CIBP for Plug Back
    - Temporarily Abandoning
    - casing repair
    - sidetracking maybe something got stuck in the hole
    - anything else changing wellbore structure,
- All information on W-15 **must correspond** with W-2/G-1 Completion Tab
  - Casing Record on Pg. 4 and/or
  - Acid, Shot, Fracture, Cement Squeeze, Etc. on Pg. 5.
- Electronic Form W-15 is now available!
  - Form can be uploaded as .pdf once completed.
  - Option to use fillable format still acceptable.

W-15 (Important Notes)

- Full and complete signatures from both operator and cementer are required.
  - Digital signatures are acceptable
  - Initials are not acceptable

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.

Jeremy Croxton/Cementer Josephine Kelno/Cementer	Crest Pumping Technologies	Jeremy Croxton	
Name and title of cementer's representative	Cementing Company	Signature	
P.O. Box 117 Jacksboro, TX 76458		940-567-3392	08/04/2018
Address City, State, Zip Code		Tel: Area Code Number	Date: mo. day yr.

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.

Jeremy Croxton/Cementer Enrique Vallejo/Cementer	Crest Pumping Technologies		
Name and title of cementer's representative	Cementing Company	Signature	
P.O. Box 117 Jacksboro, TX 76458		940-567-3392	08/15/2018
Address City, State, Zip Code		Tel: Area Code Number	Date: mo. day yr.

79

- Example shows two different signature styles for same representative.
- If Cementer's administrative staff has signature authorization for field representative, signature line must reflect both names:
  - Jane Doe
  - (for) John Smith
- Please Note: Same statute, Sec. 91.143 Texas Natural Resources Code, governing W-2 also applies to W-15.

W-15 (Changes)

Operator is not authorized to alter cementing information without Cementer's approval.

- If change was made, will need both Cementer and Operator representative's name authorizing change and date on W-15.
- If change was made without Cementer's approval, operator will be required to request/submit a new cementing report.

80

- On hard copy scanned image, white-out strip is very visible; we will be asking by who & when was change authorized.
- RRC does exercise the privilege to call the cementer.

W-15 (Well Information)

Packet Summary Data	Submitted: Online
Tracking No.: **185192**	Status: **Approved (04/26/2018)**
Operator Name: **APACHE CORPORATION (027200)**	Type Of Completion: **New Well**
Field Name: **SPRABERRY (TREND AREA) R 40 EXC**	Completion or Recompletion Date: **09/11/2017**
Lease Name: **SCHROCK, W.M. 2326**	Purpose Of Filing: **Well Record Only**
RRC District No.: **08**	Well Type: **Shut-In Producer**
RRC Gas ID or Oil Lease No.: **49796**	County: **MIDLAND**
Well No.: **9HA**	Wellbore Profile: **HORIZONTAL**
API No.: **329-41595**	Horiz WB Completion Type:
Drilling Permit No: **824312**	SL Record (Parent) Well Drilling Permit No.:
Field No.: **85280301**	Horizontal Depth Severance (feet): **8400**
Field Validated Date: **06/15/2018**	Unit No:
Submitted: **(01/03/2018)**	

MUST MATCH

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:	Apache Corporation	Operator P-5 No.:	027200
Cementer Name:	Basic Energy Services	Cementer P-5 No.:	054313

WELL INFORMATION					
District No.:	08	County:	Midland		
Well No.:	9 HA	API No.:	42-329-41595	Drilling Permit No.:	824312
Lease Name:	Schrock WM 2326	Lease No.:			
Field Name:	Spraberry (Trend Area) R40 Exc.	Field No.:	85280301		

81

- **Packet Summary Data** on completion packet is compared and must match **Well Information** header on W-15.
- Concrete identifier such as API# or DP# help verify correct W-15 has been uploaded to completion packet.
- District also verifies Lease Name and Well Number.

W-15 (Sec. I for Operator)

Casing Cementing Data -
Conductor, Surface, Intermediate, Liner & Production

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					

82

Operator identifies:

- Identify *Type of Casing*
- *Depth of drilled hole* not to be confused with *Setting depth shoe*.
- *Est. % wash-out or hole enlargement* baseline:
  - 20% across most of the state
  - 30% in coastal counties
  - If TOC was determined by TS or CBL, **not** calculation, note should be entered in washout factor box and/or comments section on Form W-15 and TOC Determined By column on Pg. 4.
- Rule 13 requires *No. of centralizers used* thru all usable-quality waters; primarily surface casing.
- *Hrs. waiting on cement before drill-out* primarily on surface and intermediate casings.
- It is the Operator's responsibility to fill in CALCULATED TOP OF CEMENT on W-15.

W-15 (Sec. I for Cementer)

RRC Approved Cementer fills out Shaded Areas:

Conductor, Surface, Intermediate, Liner & Production

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					

83

SHADED AREA is Cementer's responsibility:

- Cementer must certify question *Was cement circulated to ground surface (or bottom of cellar) outside casing?*
  - If question left unanswered, operator must request corrected W-15 from Cementer.
- If answered NO, district will verify it was notified and representative received topout instructions.
  - Include number of sacks used for top out in total cement sacks used.
- Discrepancy between operator and cementer answers (***i.e.*** W-15 shows cement **did not** circulate to surface and operator shows cement **did** circulate) will generate RRC query.
- On **New Wells**, D.O. uses W-15 cementing dates as a guide when verifying drilling commence/end dates on Page 2 of completion.

W-15 (Data for Sec. I)

Sec. I Casing Cementing Data - Intermediate or Production

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					

84

- Operator has option to fill out Intermediate or Production Casing information on either Sec. I or II Casing Cementing Data of W-15. [Example shows Sec. I]
- No. of Centralizers used –
  - Rule 13 requires centralizers thru all usable-quality waters especially if using 2nd string to protect deeper strata.
  - If GAU determination shows secondary depth, District will verify protection of freshwater strata.

W-15 (Data for Sec. II)

Sec. II Casing Cementing Data - Intermediate or Production

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					

85

- Operator has option to fill out Intermediate or Production Casing information on either Sec. I or II Casing Cementing Data of W-15. [Example Sec. II]
- No. of Centralizers used –
  - Rule 13 requires centralizers thru all usable-quality waters especially if using 2nd string to protect deeper strata.
  - If GAU determination shows secondary depth, District will verify protection of freshwater strata.

W-15 (Data for Tapered Hole or String)

Sec. II or III Casing Cementing Data - Tapered Hole or Tapered String

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					

86

- If cementing tapered string, select Tapered Production under Type of Casing on Pg. 4 from drop down and include cross over depth.
  - Please separate Tapered Casing into two lines.
- Tapered hole size is not offered on drop down selection on Page 4.
  - W-15 will reflect two different hole sizes and Pg. 4 Remarks will show depth hole size tapered.

W-15 (Multi-Stage Data for Sec. II)

Sec. II Casing Cementing Data - Multi-Stage Cement Shoe

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					

87

- If cement circulated from shoe, show Tool setting depth as Calculated Top Of Cement.
  - If TOC is listed way higher than tool depth, might give impression tool did not open; District will verify.
- District is actively looking for no-cement gaps; Top of Cement is necessary to determine if there is void requiring remedial cementing work.

W-15 (Multi-Stage Data for Sec. III)

Sec. III Casing Cementing Data - Multi-Stage Cement/DV Tool

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					

88

- If DVT did not open, important to show from where remedial (P&S) cementing began to Top Of Cement; add Remark DVT did not open to both Page 4 W-2/G-1 and W-15.
- District is actively looking for no-cement gaps; Top of Cement is necessary to determine if there is void requiring remedial cementing work.
    - If cement did not circulate and productive formation does not look isolated, District will ask to verify either TOC or top of formation.

W-15 (Plugs on Back of W-15)

Cementing to

- Squeeze
- Plug Back
- Plug And Abandon

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

89

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

- Both Operator or Cementer may include Remark to clarify cementing process.
  - *i.e.* Fish was lost in the hole requiring sidetrack.
- Operator must distinguish if squeeze job or plug was set.
  - If plug was set, **operator's responsibility to fill in if plug was tagged**.
- Some of the referenced remedial jobs are done during the completion timeline while others are done after the well has been completed.
  - Reasons for setting a cement plug:
    - Sidetrack
    - Directional drilling (whip stock plug as well)
    - Plug back zone
    - Lost circulation
    - Abandonment
    - Test Anchor
  - Reasons for a squeeze:
    - Primary Cement job repair
    - Unwanted Water Production
    - High Gas-Oil Ratio (GOR)
    - Casing Repair
    - Nonproductive/Depleted Zones
    - Alter injection profiles
    - Sustained casing pressure
    - Repair liner tops
    - Lost circulation zones
    - Microcannulas repair
    - Raise cement top

W-15 (Cement Squeeze)

If squeeze or plug back, recompletion information will appear under several completion tabs:

- W-15 is **required** to be attached for well to be removed from schedule.

• Packet Data Tab –

If recompletion or reclass, give former field (with reservoir) & gas ID or oil lease No.:

Row	Field & Reservoir	Lease No.	Well Type	Well No.	District Code	Field No.	Prior Service Type
1	BENEDUM (FUSSELMAN)	16562	Oil Well	4	7C	07109500	Producing

• Page 2 Plug Back Depth Changes –

Vertical Depth: 11969 feet
Total Vertical Depth, **Drilling Permit value**: 12000 feet
Plug Back Depth - TVD: 11000 feet

• Page 5 Completion Tab –

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

Depth Interval	From (feet)	To (feet)	Amount and Kind of Material Used	Process
1	7495.0	10617.0	1,771,746 SLICKWATER 15#BXL/1,041,780 20/40 WHITE SAND	Fracture
2	11020.0	11020.0	5 SACKS CLASS C CEMENT DUMPED ON CIBP	Cast Iron Bridge Plug

Remarks:

90

Supplemental Information:

- **Packet Data** Tab…let the system do the search for you…it will auto-fill!
- **Pg. 2 Completion Tab…**Plug Back Depth changes.
- **Pg. 5 Completion Tab**…show previous producing zone plus NEW producing interval.
  - In example, previous perfs 11772-11821 isolated by CIBP @ 11020 w/20' cement with new PB @ 11000
  - With new producing interval from 7495-10617
- District will add comment for Compliance to *REMOVE* well from schedule.
  - W-15 must be attached! Requirement for SWR14 Compliance.
- Question: Is there a "rule of thumb" for "enough cement" used to squeeze perfs to be considered permanent isolation?
  - Answer: In several sections, Statewide Rule 13 mentions pressure testing requirements verifying effectiveness of squeeze. If pressure does not hold (250 psi @ 30mins), more likely cement is not there.

W-21 (Application for Exc. to SWR-21)

Railroad Commission of Texas
Oil and Gas Division

Application for Exception to Statewide Rule 21 to Produce by Swabbing, Bailing, or Jetting

Form W-21

Operator Name		Operator No.
Address (Street, City, State and Zip Code)		
RRC District No.	County	
Lease Name	RRC Lease ID No.	Well No.
Field Name	RRC Field No.	
Location (Section, Block, Survey - Give perpendicular location from two designated survey lines.)		

Casing and Tubing Data

Name of String	Size	Weight	Hole Size	Setting Depth	Sacks Cement/Top of Cement	Top Determined By
Surface Casing						
Intermediate						
Long String						

Tubing (Size and Depth)	Is production by Swabbing Bailing Jetting Other (attach explanation)	Total Depth of Well
Perforated Interval Top Bottom	Is production through Tubing or Casing	Is the Wellbore subject to SWR 36? (H_2S) Yes or No
Date Well Drilled	Is production through Perforations or Open Hole	API No.
Depth to Base of Deepest Fresh Water Zone (Attach copy of Water Board Letter)	Is production to Tank Battery or Mobile Unit	Anticipated Monthly Production
Are there any other Wells producing by swabbing, bailing, or jetting in this Field? Yes or No	Wellhead Control (Type and Model No.)	
Names and Addresses of Surface Owners (attach list if necessary)		
Names and Addresses of Mineral Interest Owners of Record (attach list if necessary)		

Signature

Name of Person (Print) Title

Date Telephone

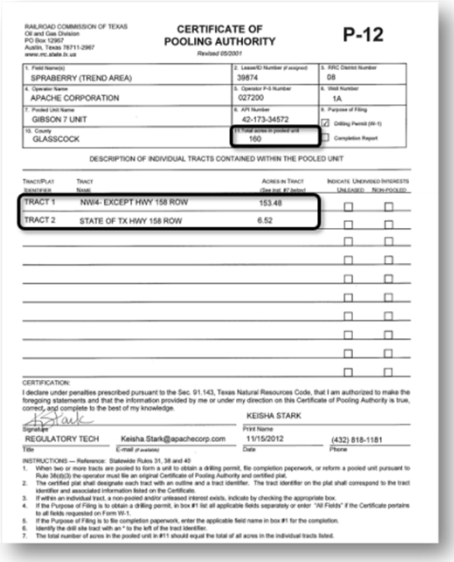
CERTIFICATE

I declare under penalties prescribed in Section 91.143, Texas Natural Resources Code, that I am authorized to make this application, that this application was prepared by me or under my supervision, and that the information stated herein is true, correct and complete, to the best of my knowledge

91

Form W-21 Application to Exception to Statewide Rule 21 to Produce by Swabbing, Bailing, or Jetting

P-12 (Certificate of Pooling Authority)



RAILROAD COMMISSION OF TEXAS
Oil and Gas Division
PO Box 12967
Austin, Texas 78711-2967
www.rrc.state.tx.us

CERTIFICATE OF POOLING AUTHORITY
Revised 05/2001

P-12

1. Field Name(s) SPRABERRY (TREND AREA)	2. Lease/ID Number (if assigned) 39874	3. RRC District Number 08
4. Operator Name APACHE CORPORATION	5. Operator P-5 Number 027200	6. Well Number 1A
7. Pooled Unit Name GIBSON 7 UNIT	8. API Number 42-173-34572	9. Purpose of Filing ☑ Drilling Permit (W-1)
10. County GLASSCOCK	11. Total acres in pooled unit 160	☐ Completion Report

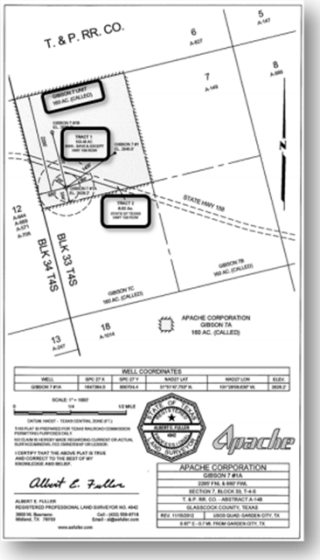
DESCRIPTION OF INDIVIDUAL TRACTS CONTAINED WITHIN THE POOLED UNIT

Tract/Plat Identifier	Tract Name	Acres in Tract (See Inst. #7 below)	Indicate Unleased Interests: Unleased	Non-Pooled
TRACT 1	NW/4- EXCEPT HWY 158 ROW	153.48	☐	☐
TRACT 2	STATE OF TX HWY 158 ROW	6.52	☐	☐

CERTIFICATION:
I declare under penalties prescribed pursuant to the Sec. 91.143, Texas Natural Resources Code, that I am authorized to make the foregoing statements and that the information provided by me or under my direction on this Certificate of Pooling Authority is true, correct, and complete to the best of my knowledge.

Signature: KEISHA STARK
Print Name: KEISHA STARK
Title: REGULATORY TECH
E-mail (if available): Keisha.Stark@apachecorp.com
Date: 11/15/2012
Phone: (432) 818-1181

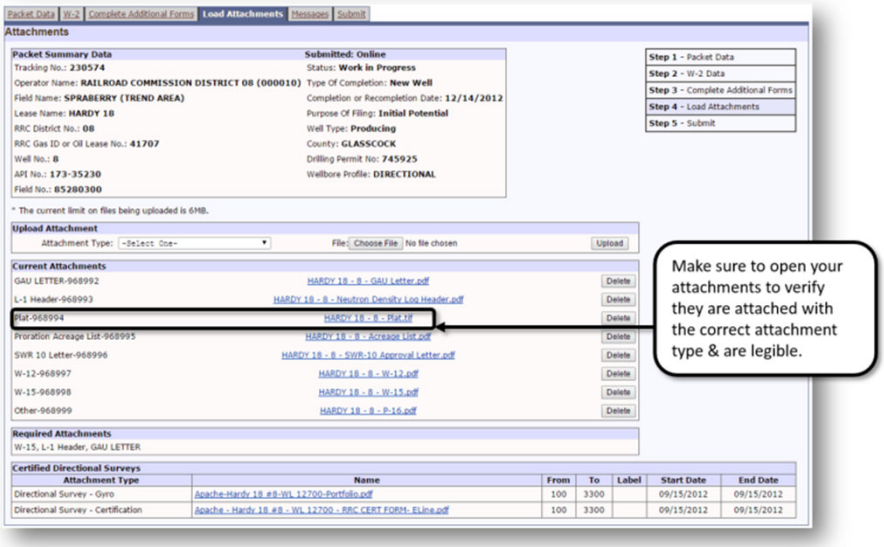
INSTRUCTIONS — Reference: Statewide Rules 31, 38 and 40
1. When two or more tracts are pooled to form a unit to obtain a drilling permit, file completion paperwork, or reform a pooled unit pursuant to Rule 38(d)(3) the operator must file an original Certificate of Pooling Authority and certified plat.
2. The certified plat shall designate each tract with an outline and a tract identifier. The tract identifier on the plat shall correspond to the tract identifier and associated information listed on the Certificate.
3. If within an individual tract, a non-pooled and/or unleased interest exists, indicate by checking the appropriate box.
4. If the Purpose of Filing is to obtain a drilling permit, in box #1 list all applicable fields separately or enter "All Fields" if the Certificate pertains to all fields requested on Form W-1.
5. If the Purpose of Filing is to file completion paperwork, enter the applicable field name in box #1 for the completion.
6. Identify the drill site tract with an * to the left of the tract identifier.
7. The total number of acres in the pooled unit in #11 should equal the total of all acres in the individual tracts listed.



92

- Only required if the acreage or configuration of the pooled unit changed from the time of permitting the wellbore.
- The total lease acreage on the P-12 should match page 2 of the W-2 and the tracts with corresponding acreage should match the supporting plat.

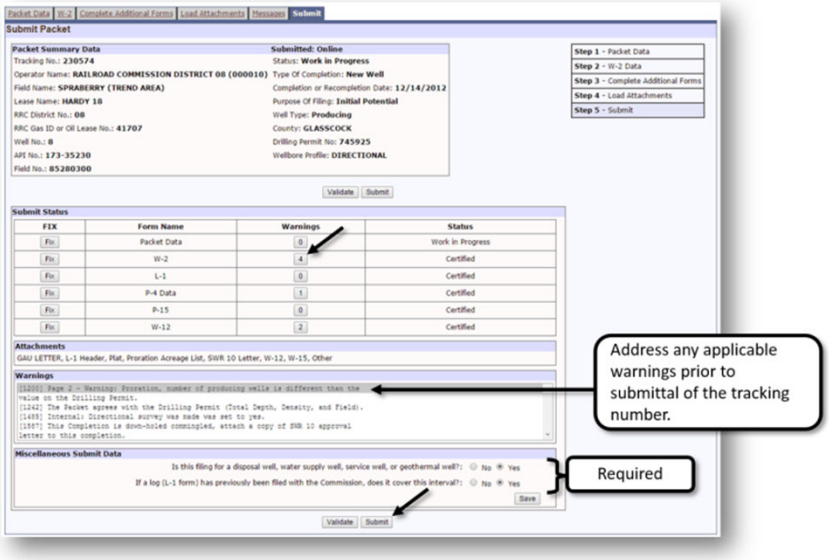
Verify Attachments



93

- Open each of your documents once they have been attached to verify that they display properly, were attached with the correct attachment type and the name is applicable to what the document is.
- Plats can only be attached in .tif format. If you had to attach your plat as “Other” it is most likely because the plat is in .pdf format and the system won’t accept it that way. We can’t approve the plat in that format.

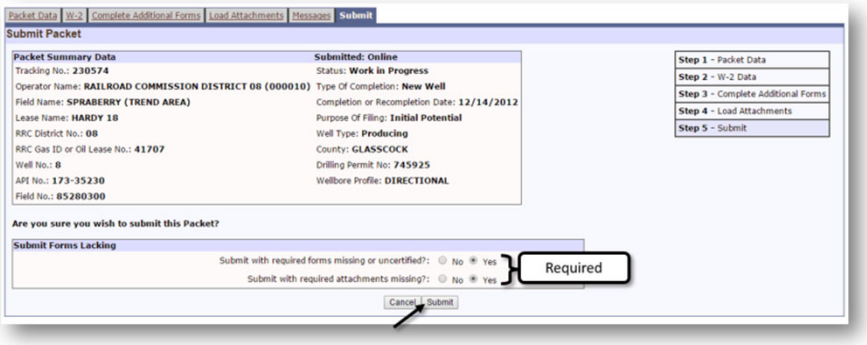
Submittal Page



94

- Review the warnings prior to submitting the W-2 or G-1.
- Please remember that these are just warnings if you know something isn't required then you should be able to submit the packet lacking that document.
- It is a good idea to leave a remark on page 5 of the W-2 for any applicable warnings.

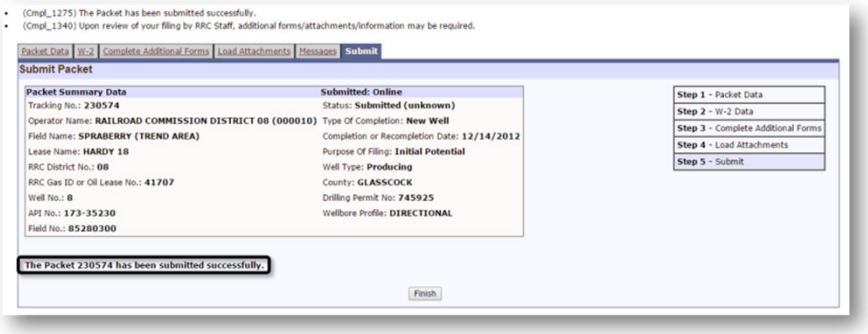
Submit Forms Lacking



95

Answer both questions and hit submit!

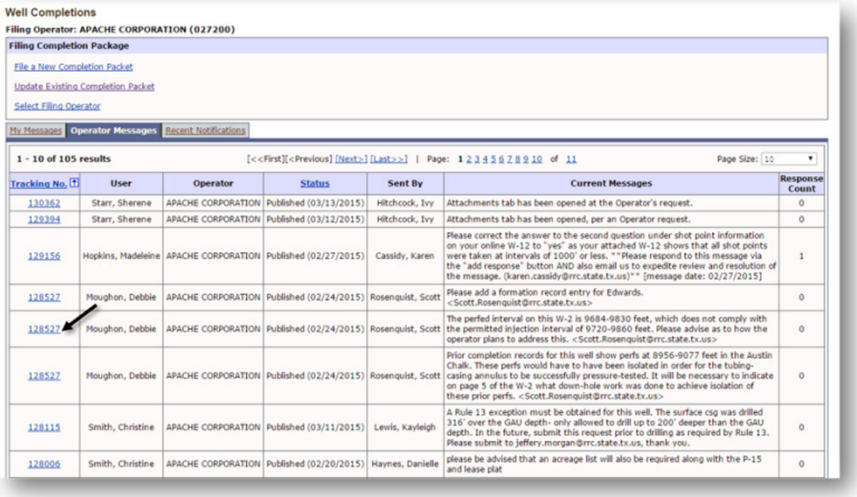
Finished



96

You will get the submitted successfully message if your packet has been Submitted.

Message Review



Well Completions

Filing Operator: APACHE CORPORATION (027200)

Filing Completion Package

File a New Completion Packet

Update Existing Completion Packet

Select Filing Operator

My Messages | Operator Messages | Recent Notifications

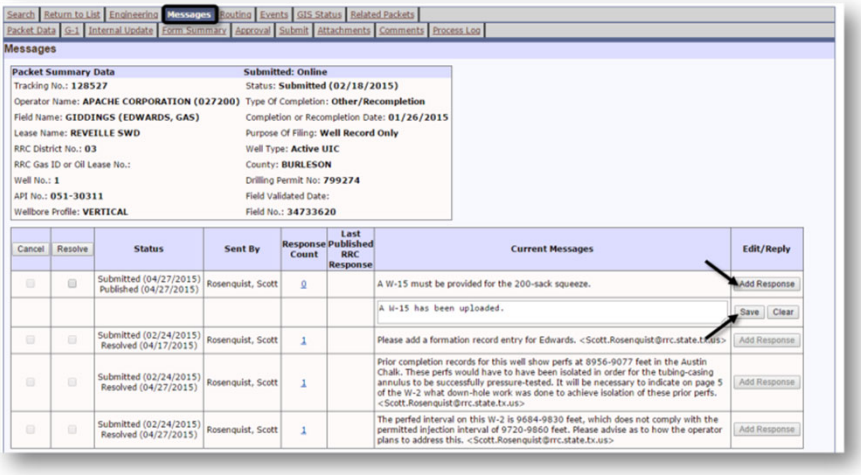
1 - 10 of 105 results [<<First][<Previous] [Next>] [Last>>] | Page: 1 2 3 4 5 6 7 8 9 10 of 11 Page Size: 10

Tracking No.	User	Operator	Status	Sent By	Current Messages	Response Count
130362	Starr, Sherene	APACHE CORPORATION	Published (03/13/2015)	Hitchcock, Ivy	Attachments tab has been opened at the Operator's request.	0
129394	Starr, Sherene	APACHE CORPORATION	Published (03/12/2015)	Hitchcock, Ivy	Attachments tab has been opened, per an Operator request.	0
129156	Hopkins, Madeleine	APACHE CORPORATION	Published (02/27/2015)	Cassidy, Karen	Please correct the answer to the second question under shot point information on your online W-12 to "yes" as your attached W-12 shows that all shot points were taken at intervals of 1000' or less. ""Please respond to this message via the "add response" button AND also email us to expedite review and resolution of the message. (karen.cassidy@rrc.state.tx.us)"" [message date: 02/27/2015]	1
128527	Moughon, Debbie	APACHE CORPORATION	Published (02/24/2015)	Rosenquist, Scott	Please add a formation record entry for Edwards. <Scott.Rosenquist@rrc.state.tx.us>	0
128527	Moughon, Debbie	APACHE CORPORATION	Published (02/24/2015)	Rosenquist, Scott	The perfed interval on this W-2 is 9684-9830 feet, which does not comply with the permitted injection interval of 9720-9860 feet. Please advise as to how the operator plans to address this. <Scott.Rosenquist@rrc.state.tx.us>	0
128527	Moughon, Debbie	APACHE CORPORATION	Published (02/24/2015)	Rosenquist, Scott	Prior completion records for this well show perfs at 8956-9077 feet in the Austin Chalk. These perfs would have to have been isolated in order for the tubing-casing annulus to be successfully pressure-tested. It will be necessary to indicate on page 5 of the W-2 what down-hole work was done to achieve isolation of these prior perfs. <Scott.Rosenquist@rrc.state.tx.us>	0
128115	Smith, Christine	APACHE CORPORATION	Published (03/11/2015)	Lewis, Kayleigh	A Rule 13 exception must be obtained for this well. The surface csg was drilled 316' over the GAU depth- only allowed to drill up to 200' deeper than the GAU depth. In the future, submit this request prior to drilling as required by Rule 13. Please submit to Jeffery.morgan@rrc.state.tx.us, thank you.	0
128006	Smith, Christine	APACHE CORPORATION	Published (02/20/2015)	Haynes, Danielle	please be advised that an acreage list will also be required along with the P-15 and lease plat	0

97

- Click on the tracking number that you want to correct.
- E-mail notifications are generated nightly after 5 p.m. and will be sent to the email address associated with your login.

Adding Responses



98

After you make your corrections make sure to switch to the messages tab and respond to the message by clicking the *Add Response* button, typing your response and selecting *Save*.

New SWR Changes

Recent changes were made to create avenues for horizontal development.

In the past this took place via hearings on a field level but these changes are now standard statewide.

3.5, 3.31, 3.38, 3.40, 3.45, 3.51, 3.52, 3.86

How Changes Affect Compliance

- Stacked Lateral Rules (now statewide)
  - No field rule hearing needed.
- Stacked laterals
  - All associated wellbores require a survey (G-10 / W-10) to be filed.
- P-16 is now considered a form not a data sheet
- P-16 must be filed for all horizontal wells

How Changes Affect Compliance (cont.)

- P-12 is **not** required upon completion if information has not changed from time of permit approval.
- SWR-51
  - Filing of a potential test has increased from 10 days to 30 (a 30-day rule exception)
- SWR-52
  - Operator may request overproduction be cancelled administratively if there is no protest from all other operators within the field

UFT Fields

Field #	Field Name	O/G	District
02252500	AMARILLO, NORTH (CANYON LIME)	O	10
02870300	ANGIE (JAMES LIME)	O&G	06
06476300	BEAR GRASS (COTTON VALLEY CONS)	G	05
06648500	BECKVILLE (COTTON VALLEY)	G	06
07527722	BETHANY (TRAVIS PEAK CONS.)	O&G	06
12018200	BRISCOE RANCH (EAGLEFORD)	O&G	01
13147285	BUFFALO WALLOW (GRANITE WASH)	O&G	10
16032174	CARTHAGE (COTTON VALLEY)	O&G	06
16032300	CARTHAGE (HAYNESVILLE SHALE)	G	06
16032928	CARTHAGE (TRAVIS PEAK 6400)	O&G	06
16039300	CARTHAGE, SE (CV)	G	06
18600250	CLARK MARTIN (GRANITE WASH)	O&G	10
28899166	EMMA (DEVONIAN)	O&G	08
31913800	FORD, WEST (WOLFCAMP)	O&G	08
33151200	FRYE RANCH (CONSOLIDATED)	O&G	10
33998500	GARDEN CITY, S. (WOLFCAMP)	O&G	08
34204200	GATES RANCH (EAGLE FORD SHALE)	G	04
34733600	GIDDINGS (BUDA)	O&G	03
34733610	GIDDINGS (EAGLEFORD)	O&G	03
34943300	GILMER (COTTON VALLEY SANDS)	O&G	06
35415300	GLENWOOD (COTTON VALLEY)	G	06
40311100	HEMPHILL (DOUGLAS)	O&G	10
40311200	HEMPHILL (GRANITE WASH.)	O&G	10
40356200	HENDERSON, E. (COTTON VALLEY)	G	06
41911500	HOEFS T-K (WOLFCAMP)	O	08
42341300	HOLT RANCH (CONSOLIDATED)	O&G	7C
43305666	HUGH FITZSIMMONS (SAN MIGUEL)	O&G	01
44510500	INDIO TANKS (PEARSALL)	O&G	01

Field #	Field Name	O/G	District
52019750	LARD RANCH (GRANITE WASH -C-)	O&G	10
53869270	LIPSCOMB (CLEVELAND)	O&G	10
53878250	LIPSCOMB, S.E. (CLEVELAND)	O&G	10
56599500	MADISONVILLE, W. (WOODBINE -A-)	O	03
58257300	MATHERS RANCH (GRANITE WASH)	G	10
60265500	MEG (GRANITE WASH)	G	10
60462500	MENDOTA, NW. (GRANITE WASH)	O&G	10
61691235	MILLS RANCH (GRANITE WASH CONS.)	O&G	10
61792111	MINDEN (COTTON VALLEY CONS.)	O&G	06
65280200	NEWARK, EAST (BARNETT SHALE)	O&G	09
66461275	OAK HILL (COTTON VALLEY)	O&G	06
67849150	OVERTON (COTTON VALLEY SAND)	O&G	06
67998500	OZONA, NE. (CANYON 7520)	O&G	7C
68735120	PAN PETRO (CLEVELAND)	O&G	10
70247666	PEERY (MARMATON)	O&G	10
71052900	PHANTOM (WOLFCAMP)	O&G	08
80544500	SANDBAR (BONE SPRING)	O&G	08
85280300	SPRABERRY (TREND AREA)	O&G	08
85279200	SPRABERRY (TREND AREA)	O&G	7C
85280301	SPRABERRY (TREND AREA) R 40 EXC	O&G	08
85279201	SPRABERRY (TREND AREA) R 40 EXC	O&G	7C
86125250	STILES RANCH (GRANITE WASH CONS)	G	10
95369160	WASKOM (COTTON VALLEY)	O&G	06
96537275	WEST PARK (GRANITE WASH)	G	10
96785300	WHEELER N.E. (GRANITE WASH)	O&G	10
96969150	WHITE OAK (COTTON VALLEY SAND)	G	06
98359800	WOLFBONE (TREND AREA)	O&G	08
98563083	WOODLAWN (COTTON VALLEY)	O&G	06

There are 56 known Unconventional Fracture Treated Fields as of 06/01/2018

UFT Field Definition

Unconventional Fracture Treated Field – is a field in which horizontal drilling and hydraulic fracturing must be used in order to recover resources from all or part of a field and which is developed using either vertical or horizontal techniques.

Important Note:

Special Field rules still override Statewide Rules.

UFT Field Key Points

- No maximum diagonal limit
- Daily allowable shall be 100 bbl. per acre, 600 mcf.
- Proration plats are not required for UFT fields.
- P-16 must be filed with completion
- Independent acreage assignment between horizontal and vertical wells

104

These changes were implemented to ease burden of SWR-40 issues

Contact Well Compliance

For immediate assistance please call the Well Compliance for producing or shut-in wells.

Phone: 512-463-6975

Fax: 512-463-6955

Email: prorationunit@rrc.texas.gov

Website: https://www.rrc.texas.gov/

Address: P.O. Box 12967, Austin, Texas 78711-2967

Contact the District Office

District: 01 & 02 112 E. Pecan Street, Suite 705 San Antonio, TX 78205 Phone: (210) 227-1313 Fax: (210) 227-4822	**District: 03** 1919 N Loop West, Suite 620 Houston, TX 77008 Phone: (713) 869-5001 Fax: (713) 869-9621
District: 04 10320 I-37 Corpus Christi, TX 78410 Phone: (361) 242-3113 Fax: (361) 242-9613	**District: 05 & 06** 2005 North State Highway 42 Kilgore, TX 75662 Phone: (903) 984-3026 Fax: (903) 983-3413
District: 7B & 8A 3444 North First St, Suite 600 Abilene, TX 79603 Phone: (325) 677-3545 Fax: (325) 677-7122	**District: 7C** 622 South Oakes St, Suite J San Angelo, TX 76903 Phone: (325) 657-7450 Fax: (325) 657-7455
District: 08 10 Desta Dr, Suite 500 E Midland, TX 79705 Phone: (432) 684-5581 Fax: (432) 684-6005	**District: 09** 5800 Kell Blvd, Suite 300 Wichita Falls, TX 76310 Phone: (940) 723-2153 Fax: (940) 723-5088
District: 10 200 West Foster, Room 300 Pampa, TX 79065 Phone: (806) 665-1653 Fax: (806) 665-4217	

Type or Print Only
(Online filing availabe at
http://www.rrc.texas.gov)

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

Form W-2
Rev. 01/2014

API No.: **42-**

7. RRC District No.

8. RRC Lease No.

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

1. Field Name (as per RRC Records or Wildcat)

2. Lease Name

9. Well No.

3. Operator's Name (exactly as shown on Form P-5, Organization Report)

RRC Operator No.

10. County

4. Operator's Address (include street, city, state, zip code)

11. Purpose of filing

A. Producers
- ☐ Initial potential
- ☐ Retest
- ☐ Reclass
- ☐ Well record only (explain in remarks)

B. Injection/Disposal/ Storage/Brine Mining
- ☐ Initial completion
- ☐ Reclass
- ☐ Well record only (explain in remarks)

5a. Location (section, block and survey)

5b. This well is located _____ miles in a _____ direction from _____, which is the nearest town in the county.

6. Well Latitude/Longitude (minimum five decimal places required):

Latitude/Longitude type:

12a. Spud date

12b. Date of first production after rig released

13. If recompletion or reclass, give former field (with reservoir) & Gas ID or Oil Lease No. If multiple completion, list all reservoir names (completions in this well) and Gas ID or Oil Lease No.

☐ Recompletion or reclass ☐ Multiple completion

Field & Reservoir	Gas ID or Oil Lease No.	Well No.	Prior Service Type (oil, gas, injection/disposal, other)

14. Type(s) of electric or other log(s) run

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION (leave blank if filed for another purpose)

IMPORTANT: Test should be for 24 hours unless otherwise specified in field rules

15. Date of test	16. No. of hours tested	17. Production method (flowing, gas lift, jetting, pumping - size & type of pump)			18. Choke size
19. Production during test period:	Oil (BBLS)	Gas (MCF)	Water (BBLS)	Gas - Oil Ratio	Flowing Tubing Pressure (PSIG)
20. Calculated 24-Hour Rate:	Oil (BBLS)	Gas (MCF)	Water (BBLS)	Oil Gravity - API - 60°	Casing Pressure (PSIG)

21. Was swab used during this test?
☐ **YES** ☐ **NO**

22. Oil produced prior to test (new & recompleted wells):

DATA ON WELL COMPLETION

23. Type of completion
- ☐ New well
- ☐ Re-entry
- ☐ Deepening
- ☐ Plug back
- ☐ Side track
- ☐ Recompletion
- ☐ Other (explain in remarks)

24. Permit to Drill, Plug Back, or Deepen — DATE — PERMIT NO.

Rule 37 Exception — DATE — CASE NO.

Fluid Injection Permit — DATE — PERMIT NO. F -

O&G Waste Disposal Permit — DATE — PERMIT NO.

Other (explain) — DATE — PERMIT NO.

25. Number of producing wells on this lease in this field (reservoir) including this well

26. Total number of acres in lease

27. Date of plug back, deepening, recompletion, or drilling operations — Commenced — Ended

28. Distance to nearest well in this lease & reservoir

29. Elevation (DF, RKB, RT, GR, etc.)

30. Was directional survey made other than inclination (Form W-12)?
☐ **YES** ☐ **NO**

31. Total Depth (ft.)		32. Plug Back Depth (ft.)	
TVD	MD	TVD	MD

33. For new drill or re-entry, surface casing depth determined by:
- ☐ GAU Groundwater Protection Determination — Depth: _____ Date: _____
- ☐ SWR 13 Exception — Depth: _____

34. Rotation time within surface casing (hours)

35. Is Cementing Affidavit (Form W-15) attached?
☐ **YES** ☐ **NO**

Form W-2

API No.: **42-**

36. CASING RECORD

Row	Type of Casing (conductor, surface, intermediate, conventional production, tapered production, or other)	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	Top of Cement Determined By
1											
2											
3											
4											

37. 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	Top of Cement Determined By
1									
2									

38. TUBING RECORD

Does this well currently have tubing set? ☐ **YES** ☐ **NO**
☐ **SWR 13 Exception (attach approval)**
(if NO & no SWR 13 Exception obtained, explain in remarks)

Size (in.)	Depth Set (ft.)	Packer Depth/Type

39. PRODUCING/INJECTION/DISPOSAL INTERVAL

Indicate top and bottom measured depths of completion interval(s) or open hole

From	To

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

40. Was hydraulic fracturing treatment performed? ☐ **YES** ☐ **NO**

41. Is well equipped with a downhole actuation sleeve? ☐ **YES** ☐ **NO**
If yes, provide actuation pressure (PSIG)

42. Production casing test pressure (PSIG) prior to hydraulic fracturing treatment

43. Actual maximum pressure (PSIG) during hydraulic fracturing

44. Has the hydraulic fracturing fluid disclosure been reported to FracFocus disclosure registry (SWR 29)? ☐ **YES** ☐ **NO**

Type of Operation (indicate acid, fracture, cement squeeze, cast iron bridge plug, retainer, etc.)	Amount and Kind of Material used	Depth Interval (ft.) From	To

45. FORMATION RECORD **(list depths of principal geological markers and formation tops, including, but not limited to, all permitted disposal/injection formations within 1/4-mile of the wellbore, productive zones, potential flow zones, and corrosive formation fluid zones)**

Principal Geological Markers and Formation Tops	Depth (ft.) TVD	Depth (ft.) MD	Indicate if formation is a permitted disposal/injection formation, productive zone, potential flow zone, and/or a zone with corrosive formation fluids	**Is formation isolated in this well? (YES/NO) (if NO, explain in remarks)**

46. Do the producing intervals of this well produce H_2S with a concentration in excess of 100 ppm (SWR 36)? ☐ **YES** ☐ **NO**

47. Is the completion being down-hole commingled (SWR 10)? ☐ **YES** ☐ **NO**

REMARKS:

OPERATOR'S CERTIFICATION: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that I prepared or supervised and directed this report, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge.

Signature: Operator's representative _____ Title _____ Tel: _____ Area Code Number

Printed Name _____ Date _____ Email (include email address *only* if you affirmatively consent to its public release) _____

W-10
Rev. 7/95
WWW-1

OPERATOR NAME AND ADDRESS, including city, state and zip

OIL WELL STATUS REPORT

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division
P.O. Box 12967
Austin, Texas 78711-2967

Reason For Filing
☐ Survey
☐ Retest

Operator P-5 Organization No.

RRC Dist. No.

Test Period:
Due Date:
Effective Date:

Page of

FIELD NAME * LEASE NAME	LEASE NO.	WELL NO.	F - FLOWING P - PUMPING G - GAS LIFT S - SWABBING	DATE TESTED MO/DAY/YR	**OIL** PRODUCED (BBL/DAY)	**WATER** PRODUCED (BBL/DAY)	**GAS** PRODUCED (MCF/DAY)	SHUT-IN X
					. BBL	. BBL	. MCF	
					. BBL	. BBL	. MCF	
					. BBL	. BBL	. MCF	
					. BBL	. BBL	. MCF	
					. BBL	. BBL	. MCF	
					. BBL	. BBL	. MCF	
					. BBL	. BBL	. MCF	
					. BBL	. BBL	. MCF	
					. BBL	. BBL	. MCF	
					. BBL	. BBL	. MCF	
					. BBL	. BBL	. MCF	
					. BBL	. BBL	. MCF	
					. BBL	. BBL	. MCF	
					. BBL	. BBL	. MCF	
					. BBL	. BBL	. MCF	
					. BBL	. BBL	. MCF	
					. BBL	. BBL	. MCF	
					. BBL	. BBL	. MCF	

CERTIFICATION: I declare under penalties prescribed in Texas Natural Resources Code, Sec. 91.143, 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 herein are true, correct, and complete to the best of my knowledge.

Signature: **Title:** **Phone:** **Date:**

* AN ASTERISK PREPRINTED ON A SURVEY IDENTIFIES WELL SUBJECT TO COMMINGLING TEST REQUIREMENTS

X AN X IS PLACED IN THE SHUT-IN BLOCK TO INDICATE THE WELL IS SHUT-IN

Form W-10
Oil Well Status Report

INSTRUCTIONS

References: Statewide Rules 26, 27, 52, 53

Purpose of Filing

The W-10 report advises the Commission of the production capability of the well and is the basis for calculating the gas-oil ratio of the well. It is also used to update the status of a well, including when a well is shut-in. File the W-10 survey of oil wells at the direction of the Railroad Commission when the W-10 is mailed to you with basic information pre-printed, including testing, filing and effective dates. The W-10 may also be filed at any time to report a retest.

Test Exemption

A producing well that is the only well on an oil lease is exempt from annual testing and will not be included on the pre-printed W-10 survey. NOTE: This exemption does not apply if the well is operating under any field rule or commingling exception that is in conflict with this exemption.

Conducting the Test

1. For a survey, test the well within the test period indicated at the top right of the survey form**.**
2. The person conducting this test must be qualified by training or experience to make such tests.
3. The test is to be carried out under normal operating conditions, at a stabilized rate.
4. Use gas measurement methods as described in the current Commission publication *Gas-Oil Ratio Calculation*, or methods of at least equal accuracy.
5. If the well being tested is a **top allowable** well or a **high gas-oil ratio (GOR)** well, test production over the applicable allowable or gas limit may need to be made up as overproduction.

Reporting The Test Results

1. Report oil production in barrels of up to **one** decimal place, casinghead gas production in **whole** MCF (thousand cubic feet), and water production in **whole** barrels.
2. Report casinghead gas volume in MCF measured at or corrected to a base pressure of 14.65 pounds per square inch absolute (psia) and a standard base temperature of 60 degrees Fahrenheit.
3. Report only the formation gas production on gas lift or jetting wells. Formation production is the **net** production which equals the total gas minus the gas lift gas.
   Do not report injected gas volumes.

Non-Producing Wells

If the well is shut-in, indicate this by placing an **X** in the shut-in block. If you receive a survey with a non-producing well type, such as "observation," pre-printed on the survey and you are returning the well to production, you are required to also file a Form W-2, *Oil Well Potential Test, Completion or Recompletion Report*, for the well. If a well printed on the survey has been plugged, a Form W-3 must be filed with the appropriate district office.

Filing the W-10 Report

A W-10 survey is due in Austin no later than the month indicated at the top right of the survey form. Field-wide W-10 surveys are due the first day of the month following the end of the test period. File the completed W-10 report (**original only**) with: RAILROAD COMMISSION OF TEXAS, OIL AND GAS DIVISION, P.O. BOX 12967, AUSTIN, TX 78711-2967

Type or Print Only
(Online filing availabe at
http://www.rrc.texas.gov)

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

Form G-1

Rev. 01/2014

API No.: **42-**

7. RRC District No.

GAS WELL BACK PRESSURE TEST, COMPLETION OR RECOMPLETION REPORT, AND LOG

8. RRC Gas ID No.

1. Field Name (as per RRC Records or Wildcat)

2. Lease Name

9. Well No.

3. Operator's Name (exactly as shown on Form P-5, Organization Report)

RRC Operator No.

10. County

4. Operator's Address (include street, city, state, zip code)

5a. Location (section, block and survey)

5b. This well is located _____ miles in a _____ direction from _____, which is the nearest town in the county.

6. Well Latitude/Longitude (minimum five decimal places required):

Latitude/Longitude type:

12a. Spud date

12b. Date of first production after rig released

14. Type(s) of electric or other log(s) run

13. If recompletion or reclass, give former field (with reservoir) & Gas ID or Oil Lease No. If multiple completion, list all reservoir names (completions in this well) and Gas ID or Oil Lease No.

☐ Recompletion or reclass ☐ Multiple completion

Field & Reservoir	Gas ID or Oil Lease No.	Well No.	Prior Service Type (oil, gas, injection/disposal, other)

11. Purpose of filing

A. Producers
- ☐ Initial potential
- ☐ Retest
- ☐ Reclass
- ☐ Well record only (explain in remarks)

B. Injection/Disposal/ Storage/Brine Mining
- ☐ Initial completion
- ☐ Reclass
- ☐ Well record only (explain in remarks)

GAS MEASUREMENT DATA

15. Date of test

16. Gas measurement method (check all that apply)
☐ Orifice meter ☐ Flange taps ☐ Positive choke ☐ Pitot tube ☐ Other (explain in remarks)
☐ Mass flow meter ☐ Pipe taps ☐ Orifice vent meter ☐ Critical flow prover

17. Gas production during test MCF

Run No.	Line Size	Orif. or Choke Size (in.)	24 hr. Coeff. Orif. or Choke (in.)	Static P_m or Choke (in.)	Diff. (^h_w)	Flow Temp. (°F)	Temp. (F_{tf})	Gravity (F_g)	Compress (F_{pv})	Volume (MCF/day)
1										
2										
3										
4										

Was the well preflowed for 48 hours? ☐ **YES** ☐ **NO**

FIELD DATA AND PRESSURE CALCULATIONS

18. Gravity (dry gas)

19. Gravity (liquid hydrocarbon) Deg. API

20. Gas-Liquid Hydro Ratio CF/Bbl

21. Gravity (mixture) G_{mix}=

22.Avg. shut-in temp. °F

23. Bottom hole temp. °F@ (Depth)

Run No.	Time of Run (Min.)	Choke Size (in.)	Wellhead Press. P_W (PSIA)	Wellhead Flow Temp. (°F)	Run No.	Time of Run (Min.)	Choke Size (in.)	Wellhead Press. P_W (PSIA)	Wellhead Flow Temp. (°F)
Shut-In					3				
1					4				
2					5				

DATA ON WELL COMPLETION

24. Type of completion
☐ New well ☐ Deepening ☐ Side track ☐ Other (explain in remarks)
☐ Re-entry ☐ Plug back ☐ Recompletion

25. Permit to Drill, Plug Back, or Deepen — DATE — PERMIT NO.

Rule 37 Exception — DATE — CASE NO.

Fluid Injection Permit — DATE — PERMIT NO. F-

O&G Waste Disposal Permit — DATE — PERMIT NO.

Other (explain) — DATE — PERMIT NO.

26. Number of producing wells on this lease in this field (reservoir) including this well

27. Total number of acres in lease

28. Date of plug back, deepening, recompletion, or drilling operations — Commenced — Ended

29. Distance to nearest well in this lease & reservoir

30. Elevation (DF, RKB, RT, GR, etc.)

31. Was directional survey made other than inclination (Form W-12)?
☐ **YES** ☐ **NO**

32. Total Depth (ft.)		33. Plug Back Depth (ft.)	
TVD	MD	TVD	MD

34. For new drill or re-entry, surface casing depth determined by:

☐ GAU Groundwater Protection Determination — Depth: — Date:

☐ SWR 13 Exception — Depth:

35. Rotation time within surface casing (hours)

36. Is Cementing Affidavit (Form W-15) attached?
☐ **YES** ☐ **NO**

Form G-1

API No.: **42-**

37. CASING RECORD

Row	Type of Casing (conductor, surface, intermediate, conventional production, tapered production or other)	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	Top of Cement Determined By
1											
2											
3											
4											

38. 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	Top of Cement Determined by
1									
2									

39. TUBING RECORD

Does this well currently have tubing set? ☐ **YES** ☐ **NO**

Size (in.)	Depth Set (ft.)	Packer Depth/Type

40. PRODUCING/INJECTION/DISPOSAL INTERVAL

Indicate top and bottom measured depths of completion interval(s) or open hole

From	To
From	To
From	To
From	To
From	To

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

41. Was hydraulic fracturing treatment performed? ☐ **YES** ☐ **NO**	**42. Is well equipped with a downhole actuation sleeve?** ☐ **YES** ☐ **NO** If yes, provide actuation pressure (PSIG)	**43. Production casing test pressure (PSIG) prior to hydraulic fracturing treatment**	44. Actual maximum pressure (PSIG) during hydraulic fracturing	**45. Has the hydraulic fracturing fluid disclosure been reported to FracFocus disclosure registry (SWR 29)?** ☐ **YES** ☐ **NO**

Type of Operation (indicate acid, fracture, cement squeeze, cast iron bridge plug, retainer, etc.)	Amount and Kind of Material Used	Depth Interval (ft.)
		From To
		From To
		From To

46. FORMATION RECORD **(list depths of principal geological markers and formation tops, including, but not limited to, all permitted disposal/injection formations within 1/4-mile of the wellbore, productive zones, potential flow zones, and corrosive formation fluid zones)**

Principal Geological Markers and Formation Tops	Depth (ft.) TVD	Depth (ft.) MD	Indicate if formation is a permitted disposal/injection formation, productive zone, potential flow zone, and/or a zone with corrosive formation fluids	**Is formation isolated in this well? (YES/NO) (if NO, explain in remarks)**

47. Do the producing intervals of this well produce H_2S with a concentration in excess of 100 ppm (SWR 36)? ☐ **YES** ☐ **NO**

48. Is the completion being down-hole commingled (SWR 10)? ☐ **YES** ☐ **NO**

REMARKS:

OPERATOR'S CERTIFICATION: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that I prepared or supervised and directed this report, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge.

Signature: Operator's representative _____ Title _____ Tel: _____ Area Code Number

Printed Name _____ Date _____ Email (include email address *only* if you affirmatively consent to its public release) _____

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

READ INSTRUCTIONS ON BACK

GAS WELL CLASSIFICATION REPORT

Form G-5

Rev. 01/01/86

www-1

1. OPERATOR NAME (Exactly as shown on Form P5 Organization Report	3. RRC DISTRICT NO.	4. OIL LEASE NO OR GAS WELL ID NO.
2. MAILING ADDRESS	5. WELL NO.	6. API NO. 42-
	7. COUNTY OF WELL SITE	

8. FIELD NAME (as per RRC Records)	9. LEASE NAME
10. LOCATION (Section, Block and Survey)	11. PIPELINE CONNECTION OR USE OF GAS

PRODUCTION TEST AT RATE ELECTED BY OPERATOR
(data on 24-hour basis)

A. Date of Test _____

B. Gas Volume _____ (Mcf)

C. Oil or Condensate Volume _____ (Bbl)

D. Water Volume _____ (Bbl)

E. Gas/Liquid Hydrocarbon Ratio _____ (Cf/Bbl)

F. Flowing Tubing Pressure _____ (psia)

G. Choke Size _____ (in.)

H. Casing Pressure _____ (psia)

1. Shut-in Wellhead Pressure--
Tubing _____ (psia)

J. Separator Operating Pressure _____ (psia)

K. Color of Stock Tank Liquid _____

L. Gravity of Separator Liquid _____ ^{0}API

M. Gravity of Stock Tank Liquid _____ ^{0}API

N. Specific Gravity of the Gas
(Air = 1) _____

A.S.T.M. DISTILLATION OF LIQUID SAMPLE. Distillation test is required for gas wells ONLY if the producing gas-liquid hydrocarbon ratio is less than 100,000 CF/barrel.

Date Liquid Sample Obtained _____

Where Obtained: ☐ Separator ☐ Stock Tank

% Over	Temp. (deg. F)	% Over	Temp. (deg. F)
Initial Boiling Temp.		60	
10		70	
20		80	
30		90	
40		95	
50		End Point	

Total Recovery _____ percent

Residue _____ percent

Loss _____ percent

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

NAME (Type or Print)

SIGNATURE

TITLE

CONTACT PERSON

PHONE NUMBER ( )

RRC USE ONLY

Instructions

Form G-5: Gas Well Classification Report

This report shall be filed **in duplicate** in the appropriate Railroad Commission District Office:

a. Upon completion of a gas well.
b. Upon reclassification of any well from oil to gas
c. Upon reclassification from gas to oil if the gas-oil ratio is more than 12,500 cubic feet per barrel and the oil gravity is more than 50 degrees API.
d. And upon subsequent requests by the Railroad Commission.

Production Tests: The production test data required on this form must reflect representative operating conditions if the well is connected to a sales line. If the well is not connected, the test must be at a stabilized rate. The volumes reported must be on a 24-hour basis.

Liquid Sample: The liquid hydrocarbon sample must be a fresh sample of stock tank liquid or a separator sample which has been flashed to atmospheric pressure and allowed to stabilize at the ambient temperature. If a separator sample is transported to the laboratory in a pressurized container, the sample must be flashed to atmospheric pressure and allowed to stabilize at 60 degrees Fahrenheit before measuring the API Gravity or commencing the distillation test.

NOTICE: NO CONDENSATE OR CRUDE PETROLEUM WILL BE CLEARED FROM A GAS WELL PRIOR TO THE ASSIGNMENT OF AN ALLOWABLE UNTIL THIS REPORT HAS BEEN PROPERLY PREPARED, EXECUTED, AND FILED ALONG WITH A FORM P-4 NAMING THE GATHERER OF THE CONDENSATE AND A REQUEST FOR CLEARANCE (FORM P-8) STATING THE AMOUNT OF CONDENSATE TO BE MOVED.

Reference: Statewide Rule 53

OPERATOR NAME AND ADDRESS including city, state and zip	GAS WELL STATUS REPORT RAILROAD COMMISSION OF TEXAS Oil and Gas Division P.O. Box 12967 Austin, Texas 78711-2967 Page _____ of _____	Reason for filing ☐ Survey ☐ Retest ☐ Initial Test ☐ Correction	Operator P-5 Organization No.	RRC Dist No.	G-10 REV. 09/2016
			Test Period : Due Date: Effective Date:		

Field Name *Lease Name	RRC IDENT. NO.	DATE TESTED MO/DAY/YEAR	GAS PRODUCED MCF/DAY **	CONDENSATE PRODUCED	WATER PROD BBL/DAY	***SIWH PRESSURE PSIA	If Calculated, Check Box
	WELL NO.	MARK X FOR SHUT-IN WELL	GRAVITY GAS SPEC.	CONDENSATE GRAVITY(API)	X BOTTOMHOLE PRESSURE PSIA	***FLOWING PRESSURE PSIA	N/A
			MCF	_ _ _ _ _ _ . _BBL	_ _ _ _ _ _ . _BBL		☐
			. _ _ _	_ _ . _			
			MCF	_ _ _ _ _ _ . _BBL	_ _ _ _ _ _ . _BBL		☐
			. _ _ _	_ _ . _			
			MCF	_ _ _ _ _ _ . _BBL	_ _ _ _ _ _ . _BBL		☐
			. _ _ _	_ _ . _			
			MCF	_ _ _ _ _ _ . _BBL	_ _ _ _ _ _ . _BBL		☐
			. _ _ _	_ _ . _			
			MCF	_ _ _ _ _ _ . _BBL	_ _ _ _ _ _ . _BBL		☐
			. _ _ _	_ _ . _			
			MCF	_ _ _ _ _ _ . _BBL	_ _ _ _ _ _ . _BBL		☐
			. _ _ _	_ _ . _			
			MCF	_ _ _ _ _ _ . _BBL	_ _ _ _ _ _ . _BBL		☐
			. _ _ _	_ _ . _			
			MCF	_ _ _ _ _ _ . _BBL	_ _ _ _ _ _ . _BBL		☐
			. _ _ _	_ _ . _			

CERTIFICATION: I declare under penalties prescribed in Texas Natural Resources Code, Sec. 91.143, 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 herein are true, correct, and complete to the best of my knowledge.

Signature: _____ **Title:** _____ **Phone:** _____ **Date:** _____

* AN ASTERISK PREPRINTED ON A SURVEY IDENTIFIES WELL SUBJECT TO COMMINGLING TEST REQUIREMENT
** GAS PRODUCTION RATE, IN MCF, IS TO BE REPORTED FULL-WELL STREAM, INCLUDING CONDENSATE
*** PRESSURE FOR THE TEXAS HUGOTON FIELD IS REPORTED IN PSIG
AN "X" PREPRINTED ON A SURVEY IN THE BOTTOMHOLE PRESSURE BOX INDICATES A BOTTOMHOLE PRESSURE MUST BE REPORTED FOR THE WELL

Purpose of Filing

File the Form G-10 survey at the direction of the Railroad Commission when the FormG-10 is mailed to you with basic information pre-printed, including testing, filing, and effective dates. The Form G-10 may also be filed at any time to report an initial test, a retest, or to correct information already filed. A Form G-10 must be filed on each new gas well after the well is connected to a sales line in order for an allowable to be assigned.

Conducting the Test

1. The person conducting this test must be qualified by training or experience to make such tests.
2. Use gas measurement methods as described in the current Commission publications *Gas-Oil Ratio Calculation* and *Back Pressure Test for Natural Gas Wells, State of Texas,* or methods of at least equal accuracy.
3. Perform the test with the same equipment used during normal operations.
4. The test to determine the daily deliverability volume is to be of 72 hours minimum duration; pre-flow the well a minimum of 48 hours to stabilize it at a daily rate not less than 75% of the producing rate observed during the final 24 hours of the test. The average producing rate during that initial minimum 48-hour stabilization period is the average of the producing rates during the two 24-hour component periods. If the well produces condensate, measure dry gas volume and condensate volume during each 24 hours of the overall test period.
5. The reported test rate, that is, the daily deliverability volume you will be reporting on the Form G-10, is the actual production during the final 24 hours of the overall test period.
6. Obtain prior approval from the district office before conducting a test of less than 72-hours duration. Under no circumstance is the deliverability test to be less than 24 hours with the hourly producing rate extrapolated to 24 hours to calculate a daily deliverability volume.
7. If the well produces full-well stream, conduct and report the test in accordance with Statewide Rule 55(b).

Reporting the Test Results

1. Report full-well stream deliverability volume in MCF (thousand cubic feet) measured at a base pressure of 14.65 pounds per square inch absolute (psia) and a standard base temperature of 60° Fahrenheit.
2. To obtain the full-well stream deliverability volume, add the gas equivalent of any condensate produced during the final 24 hours to the dry gas volume metered during the same time period. If the actual gas equivalent of the condensate has not been determined by laboratory analysis, use a value of 1.1 MCF per barrel.
3. For wells producing full-well stream to a plant or central facility, report the calculated condensate production in accordance with Statewide Rule 55(a).
4. Report liquid hydrocarbons or condensate, in barrels of 42 U.S. gallons at 60° Fahrenheit.

Filing the G-10

File the completed G-10 report **(original only)** with Austin no later than (15) days after the date the test is completed. Field-wide G-10 surveys are due the first day of the month following the end of the test period. File the G-10 with: RAILROAD COMMISSION OF TEXAS, OIL AND GAS DIVISION, P.O. BOX 12967, AUSTIN, TEXAS 78711-2967.

Various

TEST EXEMPTION. An initial deliverability test is required on a well with a deliverability of less than 100 MCF/day. If, however, deliverability and production remain at or less than 100 MCF/day, or, in fields without special field rules, at or less than 250 MCF/day, the well is exempt from further G-10 testing and will not be listed on the Commission computer-generated G-10 surveys. NOTE: this exemption does not apply if the well is operating under any field rule or commingling exception which is in conflict with this exemption.

BOTTOM HOLE PRESSURE. Report BHP for prorated wells which have BHP as a part of the allocation formula, in addition to filing Form W-7. Take the BHP during the same test period as the survey.

SHUT-IN WELLHEAD PRESSURE FOR PRODUCING WELLS. If the 24-hour shut-in wellhead pressure is determined at a time; other than during the deliverability test, report the date the measurement was made in the space directly below the date tested. If a previously determined shut-in pressure from the six-month period prior to the test is not available, record a shut-in pressure from immediately prior to or after the deliverability test in accordance with SWR 28(c) and report only the date tested.

The operator may estimate the Shut-In Wellhead Pressure (SIWP) by calculation. If this method is used, it must be accompanied by a letter from a professional engineer licensed in accordance with Chapter 1001 of the Texas Occupations Code.

SHUT-IN WELLS. Report the shut-in pressure, if any, in the SIWH Pressure block and, in the Shut-In block enter an "X" on all shut-in wells.

FIELD RULES. Operators are to observe all testing and reporting requirements as set out in applicable field rules.

RAILROAD COMMISSION OF TEXAS Oil and Gas Division	ELECTRIC LOG STATUS REPORT	FORM L-1 Rev. 01-2007

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

SEE REVERSE SIDE

SECTION I. IDENTIFICATION

Operator Name:	District No.	Completion Date:
Field Name	Drilling Permit No.	
Lease Name	Lease/ID No.	Well No.
County	API No. 42-	

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). _____

_____ Signature	_____ Title
_____ Name (print)	(____) _____ _____ Phone Date

-FOR RAILROAD COMMISSION USE ONLY-

Form L-1, Electric Log Filing Requirements

Rev. Effective 01-2007

As required by statute (Texas Natural Resources Code, Chapter 91, Subchapter M) and defined by Statewide Rule 16 (see below), a legible, unaltered final copy of a basic electric log run on a well must be filed with the completion report for that well (Form W2 and Form G-1) or the plugging report for that well if it is a dry hole (Form W-3). The electric log will become part of the public record.

You may, however, request a one-year period of confidentiality during which you will keep the log in your possession. Prior to the expiration of the initial period of confidentiality, you may request a renewal for a two-year period. Logs of wells drilled on land submerged in State water may be granted an additional two-year extension. At the end of the period(s) of confidentiality, a copy of the basic electric log must be filed with the Commission. The Commission will send you a notice prior to the expiration of the confidentiality period(s). NOTE: Electric logs submitted in conjunction with an application for multiple completion or a new field designation or tax exemptions/exclusions are considered part of the public records and confidentiality cannot be granted to them.

§3.16. Log and Completion or Plugging Report.

(a) Definitions. The following words and terms, when used in this section, shall have the following meanings, unless the context clearly indicates otherwise:

(1) Basic electric log--A density, sonic, or resistivity (except dip meter) log run over the entire wellbore.

(2) Drilling operation--A continuous effort to drill or deepen a wellbore for which the Commission has issued a permit.

(3) Operator--A person who assumes responsibility for the regulatory compliance of a well as shown by a form the person files with the Commission and the Commission approves.

(4) Well--A well drilled for any purpose related to exploration for or production or storage of oil or gas or geothermal resources, including a well drilled for injection of fluids to enhance hydrocarbon recovery, disposal of produced fluids, disposal of waste from exploration or production activity, or brine mining.

(b) Completion and plugging reports. The operator of a well shall file with the Commission the appropriate completion report within 30 days after completion of the well or within 90 days after the date on which the drilling operation is completed, whichever is earlier. The operator of a well shall file with the Commission an amended completion report within 30 days of any physical changes made to the well, such as any change in perforations, or openhole or casing records. If the well is a dry hole, the operator shall file with the Commission an appropriate plugging report within 30 days after the well is plugged.

(c) Basic electric logs. Except as otherwise provided in this section, not later than the 90th day after the date a drilling operation is completed, the operator shall file with the Commission a legible and unaltered copy of a basic electric log, except that where a well is deepened, a legible and unaltered copy of a basic electric log shall be filed if such log is run over a deeper interval than the interval covered by a basic electric log for the well already on file with the Commission. In the event a basic electric log, as defined in this section, has not been run, subject to the Commission's approval, the operator shall file a lithology log or gamma ray log of the entire wellbore. In the event no log has been run over the entire wellbore, subject to the Commission's approval, the operator shall file the log which is the most nearly complete of the logs run.

(d) Delayed filing based on confidentiality. Each log filed with the Commission shall be considered public information and shall be available to the public during normal business hours. If the operator of a well desires a log to be confidential, on or before the 90th day after the date a drilling operation is completed, the operator must submit a written request for a delayed filing of the log. When filing such a request, the operator must retain the log and may delay filing such log for one year beginning from the date the drilling operation was completed. The operator of such well may request an additional filing delay of two years, provided the written request is filed prior to the expiration date of the initial confidentiality period. If a well is drilled on land submerged in state water, the operator may request an additional filing delay of two years so that a possible total delay of five years may be obtained. A request for the additional two-year filing delay period must be in writing and be filed with the Commission prior to the expiration of the first two-year filing delay. Logs must be filed with the Commission within 30 days after the expiration of the final confidentiality period, except that an operator who fails to timely file with the Commission a written request under this subsection for an extension of the period of log confidentiality shall file the log with the Commission immediately after the conclusion of the period for filing the request.

(e) Sanctions. If an operator fails to file a completion report or log in accordance with the provisions of this section, the Commission may refuse to assign an allowable to a well, set the allowable for such well at zero, and/or initiate penalty action pursuant to the Texas Natural Resources Code, Title 3.

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

READ INSTRUCTIONS ON BACK

P-4

5/02—www-1

1. Field name exactly as shown on proration schedule	2. Lease name as shown on proration schedule			
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
8. Operator address including city, state, and zip code	9. Well no(s) (*see instruction E)*			
	10. Classification ☐ Oil ☐ Gas ☐ Other (*see instruction A)*		11. Effective Date	

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: ☐ oil lease ☐ gas well ☐ other well (specify)_____ **Due to:** ☐ 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

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

RRC USE ONLY

Reviewer's initials: _____

Approval date: _____

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) _____ Signature _____

Title _____ ☐ **Authorized Employee of current operator** ☐ **Authorized agent of current operator** *(see instruction G)*

E-mail Address (optional) _____ Date _____ Phone with area code _____

INSTRUCTIONS

P-4: *Certificate of Compliance and Transportation Authority*

Reference. Statewide Rule 58, *Oil, Gas or Geothermal Resource Operator's Report; Statewide* Rule 14, *Plugging;* Statewide Rule 78, *Fees, Performance Bonds and Alternate Forms of Financial Security Required To Be Filed;* and Statewide Rule 1, *Organization Reports, Retention of Records, Notice Requirements.*

A. Who Files: operator of the **oil** lease or **gas** well (producing or non-producing), or **other** well (injection/disposal, water source, hydrocarbon storage, observation, brine mining, geothermal, etc.).

B. Purpose of filing: 1) establish the operator of an oil lease, gas well, or other well, 2) certify responsibility for regulatory compliance, including plugging the well(s) in accordance with Statewide Rule 14, *Plugging*, and 3) identify gatherers, purchasers, and purchasers' RRC-assigned system codes authorized for each producing well or lease.

C. When to File: for a 1) new oil lease, gas well, or other well, 2) recompletion, 3) reclassification from oil to gas or gas to oil, 4) consolidation, unitization or subdivision, or 5) change of gatherer, gas purchaser, gas purchaser system, operator, field name or lease name.

D. Where and What to File: original P-4 only with the Commission's Oil and Gas Division in Austin. Additional documents may be required with some P-4 filings.

E. Requirements for Operator Change: signature of previous operator in Item 15 and of new/receiving operator in Item 16. NOTE: regulatory responsibility for wells does not transfer until the P-4 has been approved by the RRC. All entities listed on the P-4 will receive written notification upon approval.

The Commission shall not approve a transfer of operatorship submitted for any well or lease unless the operator acquiring the well or lease has on file with the Commission one of the following approved forms of financial security in an amount sufficient to cover its current operations and the wells being transferred: 1) an individual performance bond, letter of credit or cash deposit; or 2) a blanket performance bond, letter of credit or cash deposit.

H_2S (Hydrogen Sulfide) Certification. The new operator must immediately comply with Statewide 36 if applicable. The Form H-9, *Certificate of Compliance, Statewide Rule 36,* is not transferable.

Oil Lease Change-of-Operator. The new oil lease operator may take responsibility for either:

1) <u>All Wells on Lease</u>. Leave ***Item 9*** blank or write "all". If you leave this item blank or write "all", you are specifically identifying all wells listed for the lease on the RRC Oil Proration Schedule as of the time the P-4 is approved by the Commission as wells for which you are assuming plugging responsibility. Upon approval of the P-4, the new operator will be responsible for regulatory compliance of each of the wells.

<u>OR</u>

<u>Some Wells on Lease</u>. Indicate the well numbers being transferred to the new operator in ***Item 9*** or attach a separate list of well numbers and write "see attached" in ***Item 9***. N**ote:** When only some of the wells on an existing lease are being transferred, a Form P-6 *Request for Permission to Subdivide or Consolidate Oil Lease(s)* must be filed with the P-4 along with plats showing the lease and wells before and after the subdivision.

Wells listed for a lease on the Oil Proration Schedule can be viewed through an inquiry at any RRC district office, in the Austin office, or on the web at *www.rrc.texas.gov*. Printouts of an inquiry may be obtained through the Commission's Oil and Gas Division Proration Unit at (512) 463-6838. NOTE: information listed on a printout is not protected and could change at any time; therefore, it cannot be used as part of a P-4 change-of-operator, subdivision, or consolidation filing.

F. Revocation. This certification of compliance may be revoked by the Commission at any time for failure to comply with the oil and gas laws of the State of Texas and the rules, regulations, and orders of the Railroad Commission of Texas. Revocation of the certificate will not relieve the designated operator of its responsibility to maintain the leases and wells in compliance with Statewide Rules.

G. Detailed Instructions. NOTE: When filing a P-4 for changes, the form must be completed in its entirety, not just the areas being changed. Failure to include information in items 13 and 14 may result in deletion of gatherer and purchaser information and in loss of allowable.

Items 1 and 2. *Field and Lease Name*. If the P-4 is being filed to change the field name or lease name, show the proposed new name in Item 1 or 2.

Item 5. A separate P-4 is required for each RRC Oil Lease/ Gas ID Number in a multiple completion.

Item 11. *Effective Date*. The effective date is the date the change or acquisition actually takes place.

Item 13. *Gas Well Gas or Casinghead Gas.* List all active gatherers and purchasers. An RRC-assigned system code must be given for each purchaser. If there is a change of system codes under the same purchaser, attach a letter of explanation from the purchaser to the P-4. If selling gas on the spot market, you may list your company as purchaser if the spot market contract is for 60 days or less. An operator that lists itself as purchaser must request, by separate letter, a purchaser's system code number in accordance with Statewide Rule 34. For split connections, percentages of take must be given to no more than two decimal points. Combined percentages for gas gatherers must equal 100 percent. Combined percentages for gas purchasers must equal 100 percent. If gas is going full-well stream to a processing plant, place an "X" in the last column on the line identifying a gatherer. Full-well stream is the combined production of gas and condensate before the condensate has been separated from the gas.

Items 15 and 16. *Certifications.* A P-4 must be signed by a duly authorized individual in accordance with Statewide Rule 1.

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

CERTIFICATE OF POOLING AUTHORITY

Revised 05/2001

P-12

1. Field Name(s)	2. Lease/ID Number *(if assigned)*	3. RRC District Number
4. Operator Name	5. Operator P-5 Number	6. Well Number
7. Pooled Unit Name	8. API Number	9. Purpose of Filing ☐ Drilling Permit (W-1) ☐ Completion Report
10. County	11.Total acres in pooled unit	

DESCRIPTION OF INDIVIDUAL TRACTS CONTAINED WITHIN THE POOLED UNIT

TRACT/PLAT IDENTIFIER	TRACT NAME	ACRES IN TRACT *(See inst. #7 below)*	INDICATE UNDIVIDED INTERESTS UNLEASED	NON-POOLED
			☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐

CERTIFICATION:

I declare under penalties prescribed pursuant to the Sec. 91.143, Texas Natural Resources Code, that I am authorized to make the foregoing statements and that the information provided by me or under my direction on this Certificate of Pooling Authority is true, correct, and complete to the best of my knowledge.

Signature _____ Print Name _____

Title _____ E-mail *(if available)* _____ Date _____ Phone _____

INSTRUCTIONS — Reference: Statewide Rules 31, 38 and 40

1. When two or more tracts are pooled to form a unit to obtain a drilling permit, file completion paperwork, or reform a pooled unit pursuant to Rule 38(d)(3) the operator must file an original Certificate of Pooling Authority and certified plat.
2. The certified plat shall designate each tract with an outline and a tract identifier. The tract identifier on the plat shall correspond to the tract identifier and associated information listed on the Certificate.
3. If within an individual tract, a non-pooled and/or unleased interest exists, indicate by checking the appropriate box.
4. If the Purpose of Filing is to obtain a drilling permit, in box #1 list all applicable fields separately or enter "All Fields" if the Certificate pertains to all fields requested on Form W-1.
5. If the Purpose of Filing is to file completion paperwork, enter the applicable field name in box #1 for the completion.
6. Identify the drill site tract with an * to the left of the tract identifier.
7. The total number of acres in the pooled unit in #11 should equal the total of all acres in the individual tracts listed.

Form P-15
(5-5-71)

STATEMENT OF PRODUCTIVITY OF ACREAGE ASSIGNED TO PRORATION UNITS

The undersigned states that he is authorized to make this statement; that he has knowledge of the facts concerning the _____ (OPERATOR), _____ (LEASE), No. _____ (WELL); that such well is completed in the _____ Field, _____ 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 _____ _____ 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 _____ Signature _____

Telephone _____ (AREA CODE) _____ Title _____

RAILROAD COMMISSION OF TEXAS

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

Form P-16

Rev. 09/2019

Acreage Designation

Filer is the owner or lessee, or has been authorized by the owner or lessee, of all or an undivided portion of the mineral estate under each tract for which filer is listed as operator below. For all leases operated by other entities, the number of assigned acres shown are reflected on current Commission records or the filer has been authorized by the current operator to change the assigned acreage of that operator as shown below.

SECTION I. OPERATOR INFORMATION			
Operator Name:		Operator P-5 No.:	
Operator Address:			

SECTION II. WELL INFORMATION				
District No.:		API No.:		Purpose of Filing:
Well No.:		Drilling Permit No.:		
Lease Name:		RRC ID or Lease No.:		☐ Drilling Permit Application (Form W-1)
Total Lease Acres:		Field Name:		
Proration Acres:		Field No.:		☐ Completion Report (Form G-1/W-2)
Wellbore Profile		Is this a UFT field?		
SL Record (Parent) Well Drilling Permit No.:		County:		

SECTION III. LISTING OF ALL WELLS IN THE APPLIED-FOR FIELD ON THE SAME ACREAGE AS THE LEASE, POOLED UNIT, OR UNITIZED TRACT DESIGNATED IN SECTION II ABOVE BY FILER

RRC ID No. or Lease No.	Well No.	Profile	Lease Name	API No.	Acres Assigned	SWR 38 Except. (Y/N)	Operator Name and Operator No. (if different from filing operator)

A. Total Assigned Horiz. Acreage =		C. Total Assigned Acreage =	
Total Remaining Horiz. Acreage =		Total Remaining Acreage =	
B. Total Assigned Vert./Dir. Acreage =			
Total Remaining Vert./Dir. Acreage =			

SECTION IV. REMARKS - REQUIRED FOR PSA AND CO-DEVELOPMENT *(refer to instructions)*

Attach Additional Pages As Needed. ☐ **No additional pages** ☐ **Additional Pages:** ____ **(No. of additional pages)**

CERTIFICATION: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that this report was prepared by me or under my supervision or direction, that I am authorized to make this report, and that the information contained in this report is true, correct, and complete to the best of my knowledge.

Signature **Name and title (type or print)** **Email**
(include email address *only* if you affirmatively consent to its public release)

Address **City,** **State,** **Zip Code** **Tel:** **Area Code** **Number** **Date:** **mo. day yr.**

RAILROAD COMMISSION OF TEXAS

Form P-16

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

Page 2
Rev. 09/2019

Acreage Designation

Filer is the owner or lessee of all or an undivided portion of the minerals under each tract listed below and has the legal right to drill on each tract traversed by the well that will have perforations or other take points open in the interval of the applied-for field(s). All tracts listed will actually be traversed by the wellbore or the filer has pooling authority or other contractual authority, such as a production sharing agreement, authorizing inclusion of the non-drill site tract in the acreage assigned to the well.

SECTION V. LISTING OF ALL TRACTS CONTRIBUTING ACREAGE TO AN RRC DESIGNATED DEVELOPMENTAL UNIT THAT IS NOT A SINGLE LEASE, POOLED UNIT, OR GROUP OF TRACTS UNITIZED BY CONTRACT FOR PURPOSES OF SECONDARY RECOVERY

	RRC ID No., Lease No. or Tract ID	Lease Name	Beginning Lease Acres	Allocated Lease Acres	Ending Lease Acres	Operator Name and Operator No. (if different from filing operator)
A						
B						
C						
D						
E						
F						
G						
H						
		Total Acreage =				

Filer is the owner or lessee, or has been authorized by the owner or lessee, of all or an undivided portion of the mineral estate under each tract for which filer is listed as operator below. For all leases operated by other entities, the number of assigned acres shown are reflected on current Commission records or the filer has been authorized by the current operator to change the assigned acreage of that operator as shown below.

SECTION VI. LISTING OF ALL WELLS IN THE APPLIED FOR REGULATORY FIELD AS LISTED IN SECTION II, AND ALLOCATING ACREAGE FROM ANY OR ALL TRACTS LISTED IN SECTION V BY FILER

RRC ID No. or Lease No.	Lease Name	API No.	Well No.	Profile	SWR 38 Except. (Y/N)	*Total Acres Assigned	Acres From	Acres From	Acres From	Acres From	Acres From	Acres From	Acres From	Acres From
						A. Total Assigned Acreage =								
						B. Total Assigned Horiz. Acreage =								
						C. Total Assigned Vert./Dir. Acreage =								

***A revised P-16 is required if increasing the proration acreage on an existing Allocation or PSA well utilizing acreage from a regulatory lease or undeveloped tract not listed in Section V.**
(refer to instructions)

RAILROAD COMMISSION OF TEXAS

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

Form P-16
Attachment
Page 1A
Rev. 09/2019

Acreage Designation

Filer is the owner or lessee, or has been authorized by the owner or lessee, of all or an undivided portion of the mineral estate under each tract for which filer is listed as operator below. For all leases operated by other entities, the number of assigned acres shown are reflected on current Commission records or the filer has been authorized by the current operator to change the assigned acreage of that operator as shown below.

SECTION III (CONTINUED). LISTING OF ALL WELLS IN THE APPLIED-FOR FIELD ON THE SAME ACREAGE AS THE LEASE, POOLED UNIT, OR UNITIZED TRACT DESIGNATED IN SECTION II ABOVE BY FILER

RRC ID No. or Lease No.	Well No.	Profile	Lease Name	API No.	Acres Assigned	SWR 38 Except. (Y/N)	Operator Name and Operator No. (if different from filing operator)

A. Total Assigned Horiz. Acreage =
Total Remaining Horiz. Acreage =
B. Total Assigned Vert./Dir. Acreage =
Total Remaining Vert./Dir. Acreage =

C. Total Assigned Acreage =
Total Remaining Acreage =

RAILROAD COMMISSION OF TEXAS

Form P-16
Attachment
Page 2A
Rev. 09/2019

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

Acreage Designation

Filer is the owner or lessee of all or an undivided portion of the minerals under each tract listed below and has the legal right to drill on each tract traversed by the well that will have perforations or other take points open in the interval of the applied-for field(s). All tracts listed will actually be traversed by the wellbore or the filer has pooling authority or other contractual authority, such as a production sharing agreement, authorizing inclusion of the non-drill site tract in the acreage assigned to the well.

SECTION VI (CONTINUED). LISTING OF ALL WELLS IN THE APPLIED FOR REGULATORY FIELD AS LISTED IN SECTION II, AND ALLOCATING ACREAGE FROM ANY OR ALL TRACTS LISTED IN SECTION V BY FILER

RRC ID No. or Lease No.	Lease Name	API No.	Well No.	Profile	SWR 38 Except. (Y/N)	*Total Acres Assigned	Acres From	Acres From	Acres From	Acres From	Acres From	Acres From	Acres From	Acres From

A. Total Assigned Acreage =								
B. Total Assigned Horiz. Acreage =								
C. Total Assigned Vert./Dir. Acreage =								

A revised P-16 is required if increasing the proration acreage on an existing Allocation or PSA well utilizing acreage from a regulatory lease or undeveloped tract not listed in Section V.
(refer to instructions)

RAILROAD COMMISSION OF TEXAS

Oil & Gas Division

Form P-16 Instructions and Guidelines

For Completion Report

(Form G-1 or W-2)

September 2019

CONTENTS

GENERAL 2
PURPOSE OF FILING: 2
WHO FILES: 2
WHEN TO FILE: 2
SECTION I. 2
SECTION II. 2
SECTION III. 3
FOR NON UFT FIELDS: 3
FOR UFT FIELDS: 3
SECTION IV. 4
SECTION V. 4
SECTION VI. 5
SECTION VI TOTALS: ITEMS A, B, AND C 5
FOR NON UFT FIELDS: 5
FOR UFT FIELDS: 6
TERMS 6
WELLBORE PROFILES AND TYPES 6

REVIEW AND UNDERSTAND STATEWIDE RULES 38, 40 & 86 AND FIELD RULES BEFORE FILING FORM P-16.

GENERAL

PURPOSE OF FILING:

The *Form P-16 (Acreage Determination)* is to be filed for the determination of acreage credit in connection with the filing of a *Form W-1, (Application for Permit to Drill, Recomplete, or Re-Enter)* or Completion Report. *(Form G-1, Gas Well Back Pressure Test, Completion or Recompletion Report, and Log, or a Form W-2, Oil Well Potential Test, Completion or Recompletion Report, and Log*) The Commission recognizes that a *Form P-16* can be filed in lieu of a *Form P-15* and *Acreage List*.

WHO FILES:

The Form P-16 shall be filed by the operator of the subject lease as listed on the most current *Form P-4 (Producer's Transportation Authority and Certificate of Compliance),* who assumes responsibility for the physical operation, control, and proper plugging of the well listed in Section II of the *Form P-16* being filed or by an operator who has authority to make changes to the lease due to co-development.

WHEN TO FILE:

The Form P-16 shall be filed in conjunction with each *Form W-1 (refer to the W-1 P-16 instructions)* and each *Form G-1 or W-2* for all horizontal, Production Sharing Agreement (PSA) and Allocation wells, for all wells in designated Unconventional Fracture Treated (UFT) fields, and for all co-development scenarios. In addition, the *Form P-16* may also be filed independently to adjust proration and lease acreage designation for existing leases or wells as permitted by special field rules and Statewide Rules (SWR). An individual *Form P-16* will be required for each field if a wellbore is perforated in a regulatory field in conjunction with a SWR-40 exception field.

Additional information may be required at the Commission's discretion as provided per statewide rules and regulatory field rules; such as lease and/or proration plats.

Underlined terms throughout this document indicate column or row headers as they appear on the *Form P-16*, and Italicized words indicate RRC form names. Refer to the end of these instructions for definitions of important terms and wellbore profile types.

SECTION I. OPERATOR INFORMATION

The filer's Operator P-5 No. and Operator Address shall be completed with the information matching Commission records.

SECTION II. WELL INFORMATION

When filing a *Form P-16* in addition to the *Form G-1 or W-2*, the well information section should be completed with the data that pertains to the specific well for which the completion report is being filed.

The Proration Acres field in this section is for the applied for well only and should not be reported as a cumulative lease total.

When filing a *Form P-16* independently to update acreage designation to an existing lease, the well information section can be completed with the data that pertains to any well on the subject lease as selected by a filer. When updating total lease acreage, a *Form P-16* and lease plat is required for each RRC ID No. or Lease No. If an Allocation or PSA well is effected by these changes then updated *Form P-16*s and lease plats will be required.

STACKED LATERALS:

If the Wellbore Profile is listed as a Stacked Lateral, Stacked Lateral Allocation or Stacked Lateral PSA, list the Permit No. of the Parent wellbore in the field labeled SL Record (Parent) Well Drilling Permit No.

All stacked lateral wells must have the same associated Parent wellbore drilling permit number. If any changes are made to a Stacked Lateral set, then amended *Form W-1s* and Well Record Only *Form G-1s* or *W-2s* will be required to update the associated Parent wellbore drilling permit number.

SECTION III. LISTING OF ALL WELLS IN THE APPLIED-FOR FIELD ON THE SAME ACREAGE AS THE LEASE, POOLED UNIT, OR UNITIZED TRACT DESIGNATED IN SECTION II ABOVE BY FILER

This section should only be utilized for completed wells on a single lease, pooled unit, or unitized tract designated by the Commission or where multiple operators develop minerals on the same tract in the same regulatory field due to co-development.

If the number of wells exceeds the number of rows provided, continue the list on the *Form P-16 Attachment 1A.*

FOR NON UFT FIELDS:

1. List all completed wells in the same acreage and regulatory field as the well listed in Section II. Include any Allocation or PSA wells that have been assigned acreage from the same tract as the well listed in Section II. **Service wells, including injection wells, should not be listed.**
2. Provide the RRC ID No. or Lease No., if a lease number has not been assigned enter the Drilling Permit number in the RRC ID No. or Lease No. column.
3. List the well number as it appears on the RRC Proration Schedule in the Well No. column.
4. Enter the wellbore profile in the Profile column.
5. List the lease name as it appears on the RRC Proration Schedule in the Lease Name column.
6. List the API number in the API No. column.
7. List the proposed or currently assigned proration acreage in the Acres Assigned column.
8. If a well has an approved exception to SWR-38, list "Y" in the SWR 38 Except. column.
9. The Operator Name and Operator No. (if different from filing operator) should reflect the names and numbers of any operators who have co-development agreements with the filing operator reflected in Section I or retain any amount of mineral or operating rights.

Item A. Not required for non-UFT fields or fields without an exception to SWR-40.
Item B. Not required for non-UFT fields or fields without an exception to SWR-40.
Item C. Total assigned acreage and total remaining acreage.

FOR UFT FIELDS:

1. If the proposed regulatory field is classified as a UFT field or has special field rules that allow for separate acreage assignment based on wellbore profile, then provide a profile-specific listing of all completed wells in the same acreage and regulatory field as the well listed in Section II. **Service Wells, including injection wells, should not be listed.**
2. Provide the RRC ID No. or Lease No. If a lease number has not been assigned, enter the Drilling Permit number in the RRC ID No. or Lease No. column.
3. List the well number as it appears on the RRC Proration Schedule in the Well No. column.
4. Enter the wellbore profile in the Profile column.
5. List the lease name as it appears on the RRC Proration Schedule in the Lease Name column.
6. List the API number in the API No. column.
7. List the proposed or currently assigned proration acreage in the Acres Assigned column.
8. If well has an approved exception to SWR-38 list "Y" in the SWR 38 Except. column.

9. Operator Name and Operator No. (if different from filing operator) should list the names of any operators who retain mineral rights in the same regulatory field as designated in Section II, or retain mineral rights due to any development agreement that may exist with the filing operator designated in Section I.

Item A. Total acreage assigned to horizontal wells and total remaining acreage.
Item B. Total acreage assigned to vertical and directional wells and total remaining acreage.
Item C. Total assigned acreage and total remaining acreage.

SECTION IV. REMARKS (REQUIRED FOR PSA AND CO-DEVELOPMENT)

1. For completed PSA wells, provide the percentage of both the MINERAL and WORKING interest Owners who have signed an agreement from EACH TRACT that is being used in the developmental acreage.
2. If multiple Operators are listed in Section III or Section V due to the method of development, please explain the method of development per SWR-40.
3. When submitting a *Form P-16* independently, indicate any information pertaining to the purpose of filing or any detailed supplementary information to aid in the processing of this form.
4. **If additional space is required, supplement with an attachment.**

SECTION V. LISTING OF ALL TRACTS CONTRIBUTING ACREAGE TO AN RRC DESIGNATED DEVELOPMENTAL UNIT THAT IS NOT A SINGLE LEASE, POOLED UNIT, OR GROUP OF TRACTS UNITIZED BY CONTRACT FOR THE PURPOSE OF SECONDARY RECOVERY

Complete this section when the well is completed as either a PSA or Allocation wellbore, and/or the assigned acreage for the proposed well is being adjusted from two or more leases or undeveloped tracts in order to create a new RRC ID No. or Lease No.

List the following:

1. The individual tracts that comprise the developmental acreage.
2. RRC ID No., Lease No. or Tract ID: If there is an established lease number, enter it in this column for the tract being represented. If allocating acreage from an undeveloped tract; use the tract identifier as shown on the plat.
3. The Lease Name is the name of the pooled or unitized acreage, lease acreage, or undeveloped tract that is being represented.
4. The Beginning Lease Acreage should reflect the overall size of the individual tract being represented. The lease acreage reported for any RRC ID No., Lease No. or Tract ID should match the most recent *Form G-1 or W-2* on file. If lease acreage differs, then a well record *Form G-1 or W-2* with supporting lease plat is required to be filed.
5. The Allocated Lease Acreage should reflect the number of lease acres from each tract that are being allocated to the applied for well listed in Section II.
6. The Ending Lease Acreage should reflect the remaining unassigned lease acreage after the applied for well acreage has been subtracted from the beginning acreage of the tract.
7. Operator Name and Operator No. (if different from filing operator), should reflect the names of any operators who are co-developing the acreage with the filing operator reflected in Section I or who retain any amount of mineral or operating rights. If any Joint Operating Agreements are in effect for this tract, the other Operator's Name and Operator P-5 No. should be listed.

IMPORTANT:

1. For a wellbore to be administratively approved as an Allocation wellbore, the well must produce from/be perforated in each lease and/or undeveloped tract that is being used to create the developmental acreage. If the well is not perforated in/producing from a specific tract listed in this section, the tract will not be eligible for use in the developmental acreage

and should not be represented on the plat or the *Form P-16*. (PSA wellbores may be administratively approved without production from/perforations in each lease and/or undeveloped tract as long as there is production from at least one of the leases and/or undeveloped tracts being used for the developmental acreage and at least 65% of the mineral and working interest owners from each tract being used in the developmental acreage have signed a production sharing agreement.)

2. In addition, a plat showing the full areal extent of the developmental acreage must be included with the *Form G-1 or W-2* filing.

SECTION VI. LISTING OF ALL WELLS IN THE APPLIED FOR REGULATORY FIELD AS DESIGNATED IN SECTION II AND ALLOCATING ACREAGE FROM ANY OR ALL TRACTS LISTED IN SECTION V

Section VI should only be utilized if the well for which the *Form P-16* is submitted is an Allocation or PSA wellbore.

Complete Section VI as follows:

1. Use the rows to list all wells that exist in the leases or tracts included in Section V and are in the same field as the well specified in Section II. The RRC ID No. or Lease No., Lease Name, API No., Well No., Profile and Total Acres Assigned are required.
   a. Include all producing, shut-in, and unperforated gas and oil wells,[1] from the base leases or undeveloped tracts included in Section V. **Service Wells, including injection wells, should not be listed.**
   b. Completed wells should list the proposed or currently assigned proration acreage. If the well is to be completed as a stacked lateral, then zero acres should be assigned.
   c. Also include any completed Allocation or PSA wells on any leases or tracts listed in Section V.
   d. If the Lease No. has not yet been assigned, use the Drilling Permit Number in the RRC ID No. or Lease No. column.
   e. Use the *Form P-16 Attachment 2A* if additional rows are required.
2. To show the acres assigned to each well in Section VI, complete the Acres From column headings by filling in the letter (i.e., A, B, C, etc.) and the RRC ID No. or Lease No. (if assigned) from the corresponding row in Section V. For each well listed in Section VI, use the Acres From column to indicate the amount of acres assigned to the well from each tract listed in Section V.
3. If a recently filed *Form G-1* or *W-2* has adjusted the acreage on completed wells, please reference the *Form G-1* or *W-2* Tracking Number with a comment in Section IV.

IMPORTANT: If the well listed in Section II results in a proration acreage increase for an existing Allocation or PSA well, list the updated proration acreage in Section VI so that the Total Acres Assigned column reflects the update. However, a revised *Form P-16* must be filed for any wells holding acreage on regulatory leases or undeveloped tracts not listed in Section V. This is required to show how the new acreage is allocated. Proration Acreage for lease wells will be updated to reflect the number of acres in the Total Acres Assigned column. Refer to the regulatory field rules for lease plat requirements.

SECTION VI TOTALS: ITEMS A, B, AND C

FOR NON UFT FIELDS:

If the proposed regulatory field does not have any special field rules for acreage assignments based off the wellbore profile, then provide the following:

Item A. Represent the total acreage assigned to wells and total remaining acreage for each lease or tract listed in Section V.
Item B. Not required for non-UFT fields or fields without an exception to SWR-40.
Item C. Not required for non-UFT fields or fields without an exception to SWR-40.

[1] For UFT Fields, only include wells with the same profile as the well listed in Section II.

FOR UFT FIELDS:

If the proposed regulatory field is classified as a UFT or has special field rules that allow for separate acreage assignment based on the wellbore profile, then provide a profile-specific listing of all completed wells in the regulatory field and acreage, based on the profile of the well listed in Section II, and complete Items A, B, and C as follows:

Item A. Total acreage assigned to wells and total remaining acreage for each lease or tract listed in Section V.
Item B. Total acreage assigned to horizontal wells for each lease or tract listed in Section V.
Item C. Total acreage assigned to vertical and directional wells for each lease or tract listed in Section V.

TERMS

ACRES ASSIGNED: Indicate the number of acres being assigned to a well for proration acreage designation.

CO-DEVELOPMENT: Where multiple operators develop minerals on the same tract in the same regulatory field.

COMPLETED: Any well that has been drilled to completion. Completed wells do not necessarily need to be producing to be considered completed.

DISTRICT: Commission designated number for specific group of counties.

PROPOSED FIELD: Any regulatory field(s) that are being applied for on the current proposed application.

PROPOSED WELL: Any well that has been permitted and/or applied for prior to the current working application, but not yet completed.

RRC ID NO. OR LEASE NO.: A regulatory number issued by the Commission to each oil lease or individual gas well.

TRACT: Lease, pooled unit, unitized acreage, or undeveloped acreage being assigned for production.

TRACT IDENTIFIER (Tract ID): The label or name of the tract that is shown on the plat.

UFT: Unconventional Fracture Treated field, A regulatory field designated by the Commission for which horizontal well development and hydraulic fracture treatment (as defined in SWR-29(a)(15) and (16) relating to Hydraulic Fracturing Chemical Disclosure Requirements) must be used in order to recover resources from all or a part of the regulatory field and which may include the drilling of vertical wells along with the drilling of horizontal wells.

WELL NO.: The number of the well as listed on the Commission proration schedule or drilling permit. (Ex: 1H, 201H, 42D)

WELLBORE PROFILES AND TYPES

The underlined terms indicate Wellbore Profiles that should be used when filing the *Form P-16*.

<u>VERT.</u> (VERTICAL WELLBORE): A wellbore drilled as nearly vertical as possible by normal, prudent, practical drilling operations under a permit indicating a surface location only and without intentional deviation from the vertical in accordance with the provisions of SWR-11 (a) and (b).

<u>DIREC.</u> (DIRECTIONAL WELLBORE): The intentional deviation of a wellbore from vertical. Although wellbores are normally planned to be drilled vertically, many occasions arise when it is necessary or advantageous to drill at an angle from the vertical.

<u>HORIZ.</u> (HORIZONAL WELLBORE): Any well that is developed with one or more horizontal drain holes drilled in the correlative interval between the penetration point and the terminus. The horizontal displacement will be calculated from the first take point to the last point and will be at least 100 feet.

ALLOC. (ALLOCATION WELLBORE): For purposes of this document, a horizontal wellbore crossing two or more tracts/leases and for which the operator allocates production among the tracts/leases crossed. The operator has made a good-faith claim that it holds leases covering each tract included in the developmental unit. For an allocation well to be administratively approved, the developmental unit can only include tracts where the wellbore is perforated/from which it is producing.

PSA (PRODUCTION SHARING AGREEMENT WELLBORE): For purposes of this document, a horizontal wellbore crossing two or more tracts/leases and for which the operator certifies that at least 65% of the MINERAL and WORKING interest owners from each tract within the developmental unit have signed an agreement as to how proceeds will be divided. The wellbore need not be perforated within each tract of the developmental unit.

RECORD WELLBORE: The well of record for any set of stacked lateral wells. This well will hold the acreage on the Proration Schedule and will be designated on the *Form W-1* application for any stacked lateral well associated with it.

PARENT WELLBOREBORE: Commonly used term to describe the Record wellbore for a Stacked Lateral set.

SL (STACKED LATERAL WELLBORE): Commonly referred to as a Child wellbore; applies only to wells that have been stacked to a Record or Parent wellbore.

CHILD WELLBORE: Commonly referred to as a Stacked Lateral Wellbore, applies only to wells that have been stacked to a Record or Parent wellbore.

ALLOC.-SL (STACKED LATERAL ALLOCATION WELLBORE): A Stacked Lateral or Child wellbore associated with a Parent or Record wellbore that is classified as Allocation. The tract configuration listed in Section V must match the Parent or Record wellbore.

PSA-SL (STACKED LATERAL PSA WELLBORE): A Stacked Lateral or Child wellbore associated with a Parent or Record wellbore that is classified as PSA. The tract configuration listed in Section V must match the Parent or Record wellbore.

SERVICE WELLS: Any well that is not a producer or shut-in producer: Injection, Disposal, SWD, Cathodic Protection, Exploratory Test, Monitor, Water Supply etc. These well types are not assigned proration acres.

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

Form W-12
(1-1-71)

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

1. FIELD NAME (as per RRC Records or Wildcat)	2. LEASE NAME
3. OPERATOR	
4. ADDRESS	
5. LOCATION (Section, Block, and Survey)	

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

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 X100)	15. Course Displacement (feet)	16. Accumulative Displacement (feet)

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 _____ feet = _____ 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 _____ feet.
21. Minimum distance to lease line as prescribed by field rules _____ feet.
22. Was the subject well at any time intentionally deviated from the vertical in any manner whatsoever? _____
(If the answer to the 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 authorized to make this certification, that I have personal knowledge of the inclination data and facts placed on both sides 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

Name of Person and Title (type or print)

Name of Company

Telephone: _____ 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 presented on both sides of this form 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

Name of Person and Title (type or print)

Operator

Telephone: _____ 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 X100)	15. Course Displacement (feet)	16. Accumulative Displacement (feet)

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

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:	Operator P-5 No.:
Cementer Name:	Cementer P-5 No.:

WELL INFORMATION		
District No.:	County:	
Well No.:	API No.:	Drilling Permit No.:
Lease Name:	Lease No.:	
Field Name:	Field No.:	

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							
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

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.

Name and title of cementer's representative _____ Cementing Company _____ Signature _____

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.

Typed or printed name of operator's representative _____ Title _____ Signature _____

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.

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.texas.gov/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
Oil and Gas Division

Application for Exception to Statewide Rule 21 to Produce by Swabbing, Bailing, or Jetting

Form W-21

Operator Name		Operator No.
Address (Street, City, State and Zip Code)		
RRC District No.	County	
Lease Name	RRC Lease ID No.	Well No.
Field Name	RRC Field No.	
Location (Section, Block, Survey - Give perpendicular location from two designated survey lines.)		

Casing and Tubing Data

Name of String	Size	Weight	Hole Size	Setting Depth	Sacks Cement/Top of Cement	Top Determined By
Surface Casing						
Intermediate						
Long String						

Tubing (Size and Depth)	Is production by Swabbing Bailing Jetting Other (attach explanation)	Total Depth of Well
Perforated Interval Top Bottom	Is production through Tubing or Casing	Is the Wellbore subject to SWR 36? (H_2S) Yes or No
Date Well Drilled	Is production through Perforations or Open Hole	API No.
Depth to Base of Deepest Fresh Water Zone (Attach copy of Water Board Letter)	Is production to Tank Battery or Mobile Unit	Anticipated Monthly Production
Are there any other Wells producing by swabbing, bailing, or jetting in this Field? Yes or No	Wellhead Control (Type and Model No.)	
Names and Addresses of Surface Owners (attach list if necessary)		
Names and Addresses of Mineral Interest Owners of Record (attach list if necessary)		

Signature	
Name of Person (Print)	Title
Date	Telephone

CERTIFICATE

I declare under penalties prescribed in Section 91.143, Texas Natural Resources Code, that I am authorized to make this application, that this application was prepared by me or under my supervision, and that the information stated herein is true, correct and complete, to the best of my knowledge

Railroad Commission of Texas Groundwater Advisory Unit
Groundwater Protection Determination Request Form

Form GW-1

The information requested is essential in order for this agency to provide an appropriate response. Fill in the required fields(*)as well as the location information that apply to this well. SWR 78 requires that you remit $250 (application fee plus surcharge) for each application and an additional $187.50 (fee plus surcharge) for each request to expedite the application. Allow 1 to 4 working days for expedited letters and up to two weeks for non-expedited letters. Contact us at 512-463-2741 or email us at <**gau@rrc.texas.gov** > if you have any questions.

Name of person preparing this request

*Name

*Phone No.

Fax No.

email

Email address is required if requesting return by email of completed Groundwater Protection Determination in PDF format.

*Operator Name

*Address 1

Address 2

*City

*State TX

*Operator ID

*Zip Code

You may submit this form by email, **along with a digital location map** (and well log if available), to < **gau@rrc.texas.gov** >.
The form will be checked for completeness and you will be notified if additional data is needed.

Mailing address: Railroad Commission of Texas Groundwater Advisory Unit PO Box 12967 Austin, Texas 78711-2967

*County Name <SELECT ONE>

*Lease Name

*Well No.

*Survey Name

Abstract No. A-

Lease No.

Block No.

Township

Section

Share

Lot No.

League

Labor

Tract

Porcion

*Distances in feet, and direction, measured at right angles from SURVEY Lines (NOT LEASE LINES)

feet from W line and feet from N Line.

API No.

RRC Dist No.

*Map Image Name

***GPS or X-Y State Plane Feet Coordinates (One set of coordinates is required for this application)**

Degrees Minutes Seconds Format:

LAT: Lat Deg Lat Min Lat Sec LAT(DD)

Datum 83 LONG: Long Deg Long Min Long Sec LONG(DD)

X-Y State Plane X-Coord Y-Coord SP Zone SP Datum 27

Elevation *Total Depth Formation at TD ***Expedite Y/N?** N

*Purpose of Request ND ---> Other [Specify] Previous SC or GAU No. for this well

Remarks

Form GW-1 (2/1/2016)