





# Statewide Rule 101 and Form ST-1

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#### Overview



- Who we are
- What has been accomplished this year
- What is High Cost Gas Incentive and Statewide Rule (SWR) 101?
- How to Obtain Certification of High Cost Gas Production
  - Part I Area Designation Application
  - Part II Individual Well Certification (Form ST-1)

#### Who We Are



#### Oil & Gas Division

- Technical Permitting
  - Groundwater Advisory Unit (GAU)
  - Injection Permitting and Support
  - Environmental Permits and Support
  - Engineering Unit
- Note: processing of the ST-1 Application moved from the Engineering Unit to the Groundwater Advisory Unit in November 2019.

## Who is the GAU? (1 of 2)



- The Groundwater Advisory Unit (GAU) Team
  - 11 licensed Geologists and 4.6 Administrative staff
  - Includes 1 Manager and 3 Group Leads

 Rule 101 Area Designations and ST-1 Application

- Groundwater Determinations
  - Base of Usable Quality Water (BUQW)
  - Underground Source of Drinking Water (USDW)

#### Who is the GAU? (2 of 2)



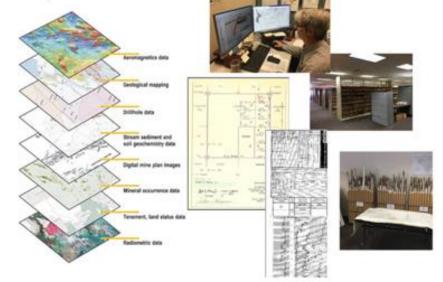
- Special Projects
  - Aquifer Exemption (AE) project
  - State Wide Complex Geology and Aquifer Mapping
  - UT BEG Surface Casing Web Site
  - Anything and everything else the Commission requires

#### **GAU Tools and Techniques**



- The GAU primarily uses Geographical Information Systems (GIS)
  - Operator Provided Information
  - Other Government and NGO Web Resources
  - Legacy Cloth Maps and Well Files

Self Generated Data and full time GIS Specialist & Licensed Geologist

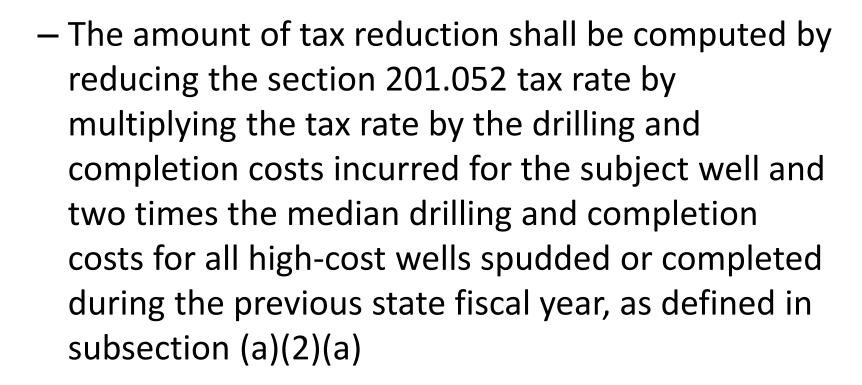


# What is a High Cost Gas Incentive? (1 of 2)

- Texas Tax Code 201.057(C) Gas Production Tax,
   Determining Value
  - Texas Administrative Code 16 TAC Part 1, §3.101

– Eligible high-cost gas "is entitled to a reduction of the tax imposed for the first 120 consecutive calendar months beginning on the first day of production, OR until the cumulative value of tax reduction equals 50 percent of drilling and completion costs, whichever occurs first.

# What is a High Cost Gas Incentive? (2 of 2)



 Note: The effective rate of tax may not be reduced below zero."

#### Statewide Rule 101



High Cost Gas is defined in SWR 101 as natural gas which the Commission finds to be:

- Produced from designated tight formations
- Produced as a result of production enhancement work
- Devonian shale
- Any gas well completion below 15,000 feet True Vertical Depth (TVD)
- Produced from geopressured brine
- Occluded natural gas produced from coal seams

#### **Area Designations**



- A tight gas formation is one that:
  - The in-situ (pre-stimulation) permeability (K) throughout the proposed formation or specific portion thereof is 0.1 millidarcies (md) or less, as determined by geometric mean or median analysis of available data from all wells that have either been tested or completed in the proposed formation within the requested area.
  - The geometric mean or median pre-stimulation stabilized production rate against atmospheric pressure (Q) for all wells does not exceed the rate in listed in the yardstick table within SWR 101.
  - No well drilled into the formation is expected to produce, without stimulation, more than 5 bbls crude oil per day.

## Area Designation Rule Requirements



- SWR 3.101 (f)(1) If ...the Application is based on a tight formation certification and the well is not located within a geographical area that has been previously certified... the operator shall first apply for a tight formation area designation
- Catalog of Existing Approved Tight Formations
   https://www.rrc.texas.gov/oil-gas/publications-and-notices/publications/ogtightgas/
- SWR 3.101 (f)(2) ... Submit a written request to the High-Cost Gas Severance Tax Section... (Forms and Format is undefined)

#### Area Designation Exhibits



- General Exhibits
  - Area Map, Notice of Application, etc.

- Geologic Exhibits
  - Structure Map, Logs, Description, etc.

- Engineering Exhibits
  - Table of Data, Calculations, etc.

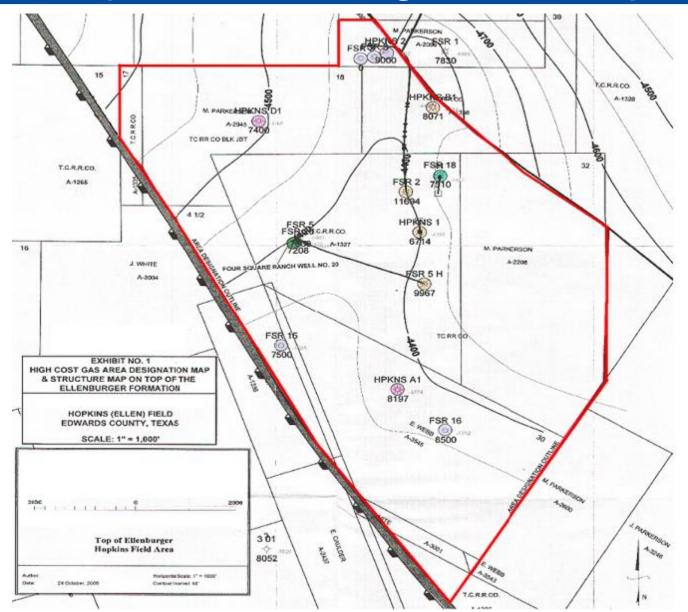
#### **Area Designations**



- Notice of Application
  - Notify all operators in all fields as listed on the proration schedule no more than a month prior to the application
  - Application may not be granted prior to 21 day protest period
- Form can be found at: <u>http://www.rrc.state.tx.us/media/2792/tightgasnotice.</u> <u>pdf</u>
  - Lists formation, field(s), surveys, and means of protesting the application
  - Include a copy of the Area Designation map

## **Example Area Designation Map**





# Area Designations – Area Map (1 of 2)

 SWR 101 does not strictly define the shape or size that an Area must take...there is great flexibility in the outline of the proposed Area.

- Please keep in mind:
  - No part of the Area may extend past a 2 ½ mile radius drawn from a data point well
  - All wells that have been tested or completed in the proposed formation must be included in the analysis

# Area Designations – Area Map (2 of 2)

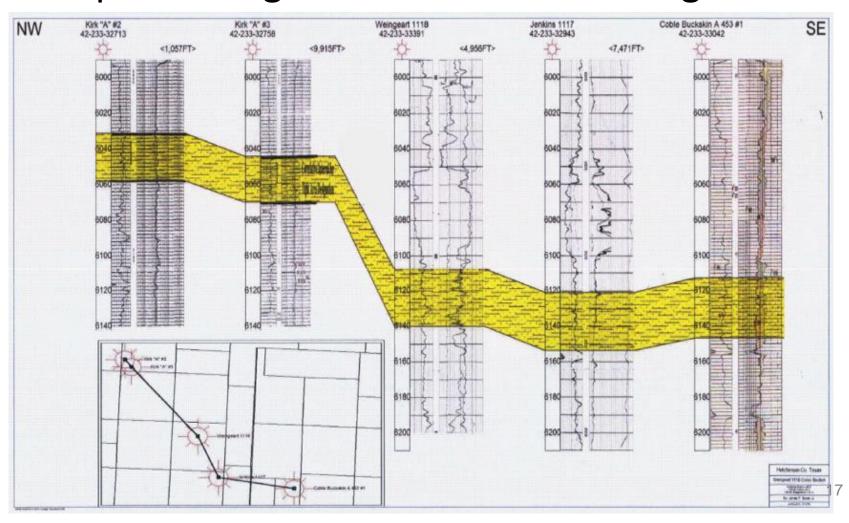
- Any sections of non-contiguous acreage must qualify on their own with respect to the permeability and flow rate requirements of SWR (101)
- Any non-contiguous acreage cannot be more than 2½ miles apart
- All data points must be located within the proposed area

 Potential data point wells cannot be excluded from the application by a "window"

#### **Example Cross-section**



# Submit with Application to Show Requested Tight-Gas Interval for Designation

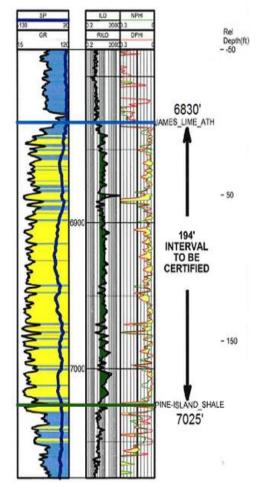


#### Include a Type Log



- Identify the well
- Show and Label Top and Base of proposed tight interval
- Include a large enough portion of log to show important markers
- The log must be legible and interpretable by all potential future users.
- This type log is what the RRC technical reviewer (and the operators applying for ST-1s) will use when defining the Area Designations.





# Engineering Calculations (1 of 2)



19

 If any wells that penetrate the proposed tight interval are not included in the analysis, please provide an explanation

 All data points must be completed within the proposed tight interval

 Demonstrate that no well drilled into the formation is expected to produce, without stimulation, more than 5 bbls crude oil per day

# Engineering Calculations (2 of 2)



- Identify the method you used to determine the permeability and production rate for each data point well, e.g. ONEPT, PROMAT, core data, pressure buildup analysis, etc.
  - Is the data pre-fracture stimulation or post?
  - Explain how the assumptions/variables used in the calculations were obtained, e.g. skin, thickness, etc.
  - Provide a copy of the calculations / modeling reports for permeability and flow rate for each data point well.

# Production Rate Yardstick Table



Top of Formation		Maximum Allowable	Top of F	Maximum Allowable Production Rate (MCF/D)	
Average Depth Range (ft)		Production Rate (MCF/D)	Average De		
0	1,000	44	8,000	8,500	388
1,000	1,500	51	8,500	9,000	449
1,500	2,000	59	9,000	9,500	519
2,000	2,500	68	9,500	10,000	600
2,500	3,000	79	10,000	10,500	693
3,000	3,500	91	10,500	11,000	802
3,500	4,000	105	11,000	11,500	927
4,000	4,500	122	11,500	12,000	1,071
4,500	5,000	141	12,000	12,500	1,238
5,000	5,500	163	12,500	13,000	1,432
5,500	6,000	188	13,000	13,500	1,655
6,000	6,500	217	13,500	14,000	1,913
6,500	7,000	251	14,000	14,500	2,212
7,000	7,500	290	14,500	and deeper	2,557
7,500	8,000	336			2

#### Completing the Area Designation Process



- If the application is complete:
  - The docket will be scheduled for the next available Railroad Commissioners' Conference
    - Staff's deadline for posting items to the Agenda is generally 1½ to 2 weeks prior to the conference.
  - After the Commissioners sign the Master Order, the drafted Area Designation Final Order will be emailed to the applicant
  - If the Tight Gas Area Designation cannot be administratively approved, the Applicant can appeal the decision by requesting a Hearing.

#### Form ST-1 Online Filing: Overview



How to Submit An ST-1 Online Application

Functionality of the ST-1 Online Application

Additional Resources for Applicants

Questions

#### Individual Well Certifications Form (1 of 2)



#### Form ST-1

- Things to Consider Before Filing an Application:
  - When you submit an ST-1 Online Application it is assigned a Docket Number and Received Date Stamp

 If the well is not located within an existing Area Designation, an Area Designation application must be applied for prior to submitting an application for certification of an individual well (Form ST-1)

#### Individual Well Certifications Form (2 of 2)



#### Form ST-1

 Things to Consider Before Filing an Application:

 ST-1's will be Denied if the Area Designation is denied, withdrawn, or dismissed

 You can check to see if a pre-existing severance tax exemption has been granted to your Gas ID / Lease ID by visiting the 'Texas Comptroller's Office website <a href="https://mycpa.cpa.state.tx.us/cong">https://mycpa.cpa.state.tx.us/cong</a>

#### Correlation



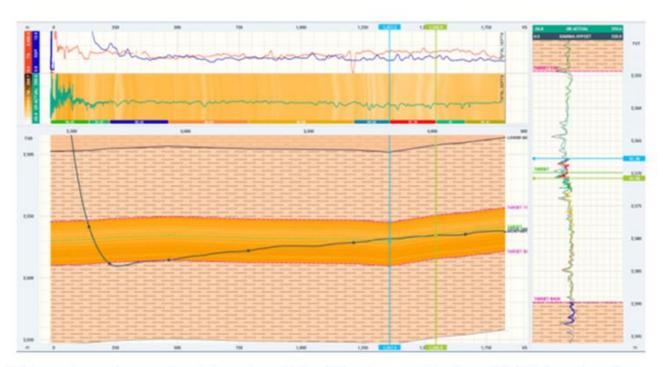
#### ST-1 Applications and Area Designations

- Is the well completed within the correlative tight interval?
  - Provide correlation log with sufficient coverage to identify formations/markers above and/or below tight interval
  - Log not required for Barnett Shale
  - For less common or geologically complex Areas/Formations, a cross-section correlated to the designated tight interval on type log may be helpful

# Geosteering "As Drilled" Cross-Section

Showing Wellbore in the Tight-Gas Area Designation Interval

(The RRC technical reviewer uses this log display to confirm that your wellbore is within the correlative interval of the Area Designation)



Although not required, having this Attachment in the ST-1 Application **greatly expedites** the technical review process.

#### Correlation



ST-1 Applications and Area Designations

- Is the well located within the designated correlative tight area?
  - Provide a copy of the map used to designate the area
  - Show the location of the well in that area
  - If the area consists of an entire county you don't need a copy of the map (most Eagleford Formation Area Designations)

#### Form ST-1 Data Requirements



# 'Tight' Gas Well Application Procedure SWR 101 (d):

 "... and any additional information deemed necessary by the Commission to clarify, explain and support the required attachments..."

#### Form ST-1 Tight Gas Severance Tax



#### Incentive Certifications for Individual Wells

- Things to Be Aware of:
  - A Hearing may be requested if for some reason your ST-1 Application is denied or if only a portion of the completion interval is given a severance tax incentive...(partial credit)
  - In some cases where a partial tax credit is determined, the amount of the allowable tax credit will be given in terms of a percentage.

#### **EXAMPLE**



"58 percent has been determined eligible by the Railroad Commission for the above referenced well."

(Tight Gas Producing Interval / Total Producing Interval) × 100%

#### **Current Implementation**



- Paper Submissions ended in midyear 2019
- ST-1 filings are only accepted through the RRC Online System.
- If you don't have the link talk to your organization's
   Online Administrator
- RRC Account Administration can be reached at 512-463-7229

Welcome to the RRC Online System

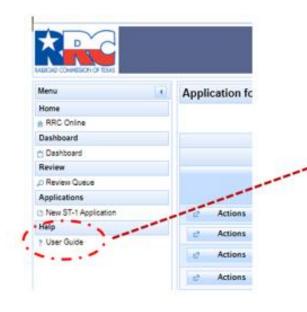
Home General Help About

# Account Administration Production Reports Drilling Permits (W-1) Completions Digital Well Log Submission Texas Severance Tax Incentive Certification (ST-1) Internal Applications

Remittance Mgmt System

# ST-1 Online: All You Need to Know







Application for Texas
Severance Tax Incentive
Certification (ST-1)

**User Guide** 

38 Page Users Guide with screen shots and annotations

Accessible at all times on the bottom right pane

Call the GAU if you have questions:

(512)463-2741

#### Filtering Search Results

After getting the results of your application or operator search, you can filter the results to show the information that you want to specify.

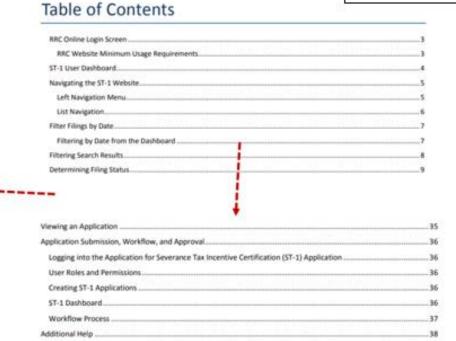


Click the text boxes under the column names and enter a full or partial word to filter the application list by strings that only contain the string you entered in the text box.

For example, if you enter "submitted" in the Filing Status text box, only results that have an application status of Submitted are displayed. Removing the text removes the filter and returns the list to its initial state.



NOTE: Filing status can be determined in any application list by looking at the Filing Status column in the list.



#### Online ST-1 Application Dashboard



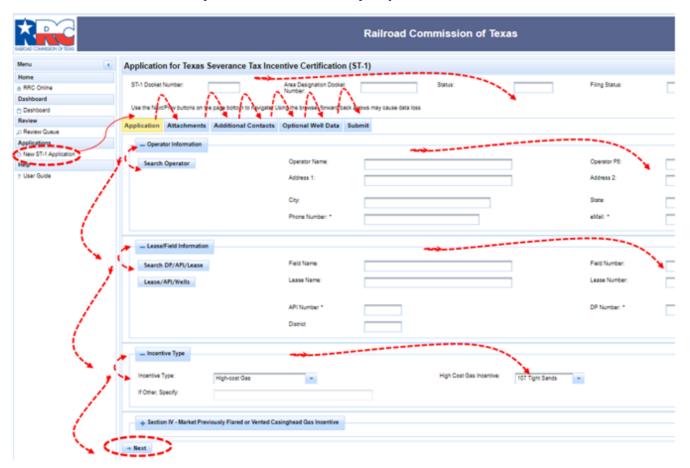
- The User Dashboard displays all dockets filed during the current log-in session:
- Dockets can be searched and filtered
- Left-hand navigation bar allows operators to access their dashboard and file new ST-1 applications



#### ST-1 Online Application Controls



- Data is entered from Top to Bottom, Left to right
- Toggle from the Left Tab to the Right Tab
  - Call the GAU if you have any questions 512-463-2741



## ST-1 Entry – Operator



Application for Texas Severan	ce Tax Incentive Certif	ication (ST-1)					
ST-1 Docket Number:	Area Designation Docket Number:	Status		Filing Status:	Filing Type:	New Application Submitted Date:	06/07/2019
Use the Next/Prev buttons on the page botto	m to navigate. Using the browser f	orward/back arrows may cause data loss					
Application Attachments Addition	nal Contacts Optional Wel	I Data Submit					
Operator Information							
Search Operator	Operator Name:			Operator P5:			
	Address 1:			Address 2:			
	City:			State:		Zip.	
	Phone Number: *			Mail: *			
Lease/Field Information							
Search DP/API/Lease	Field Name:			Field Number:			
	Lease Name:		L	ease Number:			
	API Number *		t	OP Number: *			
	District						
Incentive Type							
Incentive Type: High-cost Gas		High Cost Gas	107 Tight Sands		Area Designation		
If Other, Specify:		Incentive:	-		Docket: *		

Operator and Lease/Field Information is entered by clicking the search buttons at the right.

# ST-1 Entry Search Operator

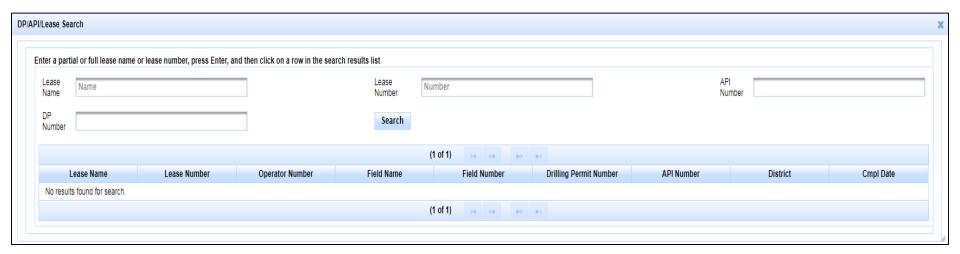


- Operator P-5 information pulls directly into your application.
- Phone number and email are entered separately.
- Operator Name can be searched with partial information
- Clicking a result will automatically port that information into your application.



## ST-1 Entry – Lease/Field Search





 Same as operator search, partial queries will return results for the name field.

 It is recommended to limit queries to one search parameter.

## Indicate the ST-1 Incentive Type



oplication for Texas Sev	verance Tax Incentive Certification	n (ST-1)						
ST-1 Docket Number:	Area Designation Docket Number:	Status:	Filing Statu	5	Filing Type:	New Application	Submitted Date:	06/07/2019
Use the Next/Prev buttons on the pa	ge bottom to navigate. Using the browser forward/	ack arrows may cause data loss						
plication Attachments A	dditional Contacts Optional Well Data	Submit						
Operator Information								
Search Operator	Operator Name:		Operator P	5:				
	Address 1:		Address 2:					
	City:		State:				Zip:	
	Phone Number: *		eMail: *					
_ Lease/Field Information								
Search DP/API/Lease	Field Name;		Field Numb	er:				
	Lease Name:		Lease Num	ber:				
	API Number *		DP Numbe					
	District							
_ Incentive Type								
Incentive Type: High-co	ost Gas	High Cost Gas Incentive:	107 Tight Sands		Area Designation Docket: *			
If Other, Specify:	_	incentive.			Docket.			

 Select appropriate category from drop-down menus, and manually enter Area Designation Docket Number. Use next button at bottom of screen to proceed.

## ST-1 Attachments (1 of 2)



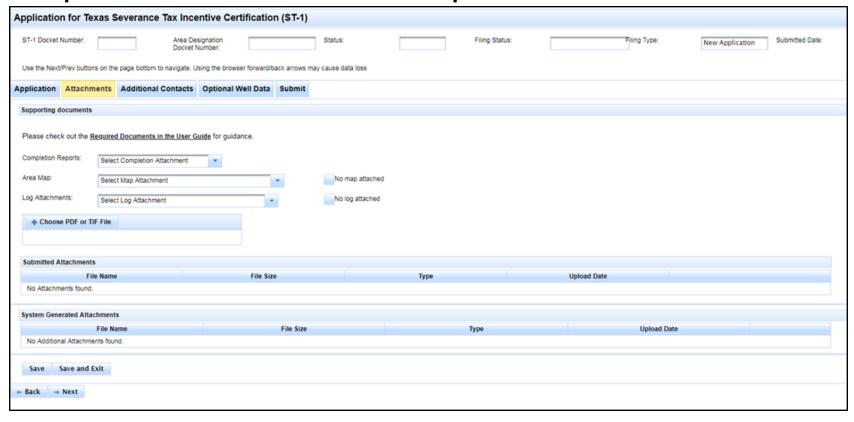
Each application requires a current form G-1

 Supplemental attachments include a map showing location of well inside an approved Tight Gas Designated Area & correlation well log(s). Accepted Formats: .LAS, .TIF (Prefer .LAS)

## ST-1 Attachments (2 of 2)

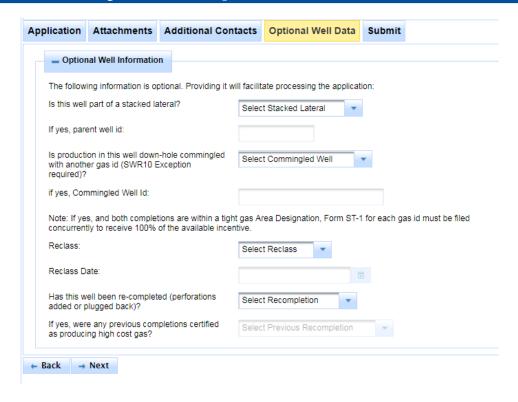


 For Horizontal Wells an "As-Drilled" Geosteering Screenshot showing the wellbore position within the Tight-Gas Designated Interval greatly expedites the ST-1 review process.



## ST-1 Entry – Optional Well Data





Information requested on this screen is optional.
 However, it may expedite completion of your application

Use your discretion.

## ST-1 Entry – Submit Screen



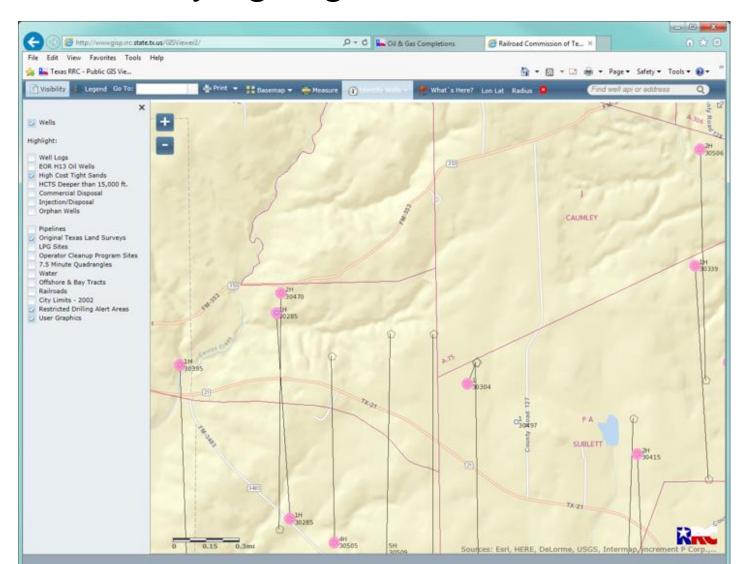
Application	Attachments	Additional Contacts	Optional Well Data	Submit					
Submit ST1 Application									
declare under penalties prescribed in TNRC §91.143 that I am authorized to make this application, that this application was prepared by me or under my supervision and direction, and that data and facts stated herein are true, correct and complete, to the best of my knowledge.  RRC Employee inputting from paper ST-1 Application, please input stamped submission date:  06/07/2019									
Submit Save v Subn									
← Back									

- A new ST-1 Application can be saved while you are in the process of entering your information (from the attachments screen onward).
- An application cannot be deleted after it has been submitted.

## Public GIS Map Viewer (1 of 3)



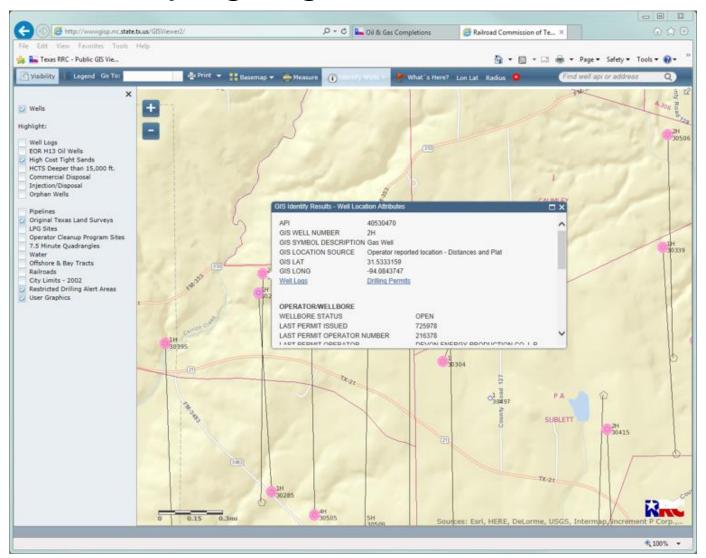
## Identifying High Cost Gas Wells



## Public GIS Map Viewer (2 of 3)



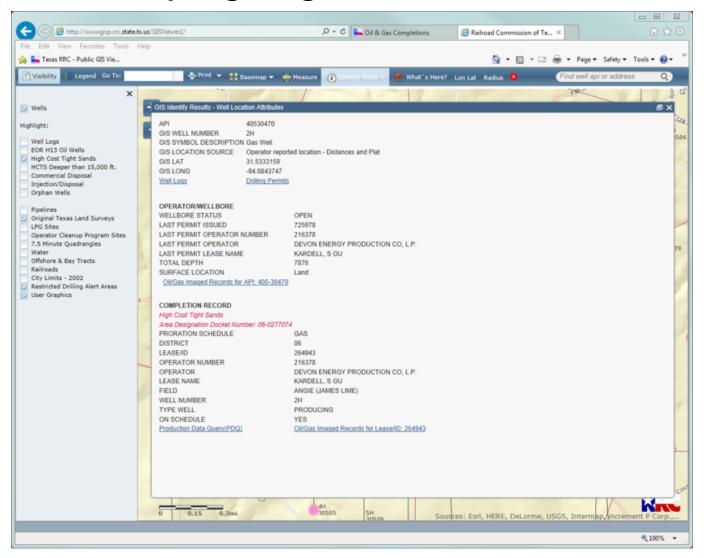
## Identifying High Cost Gas Wells



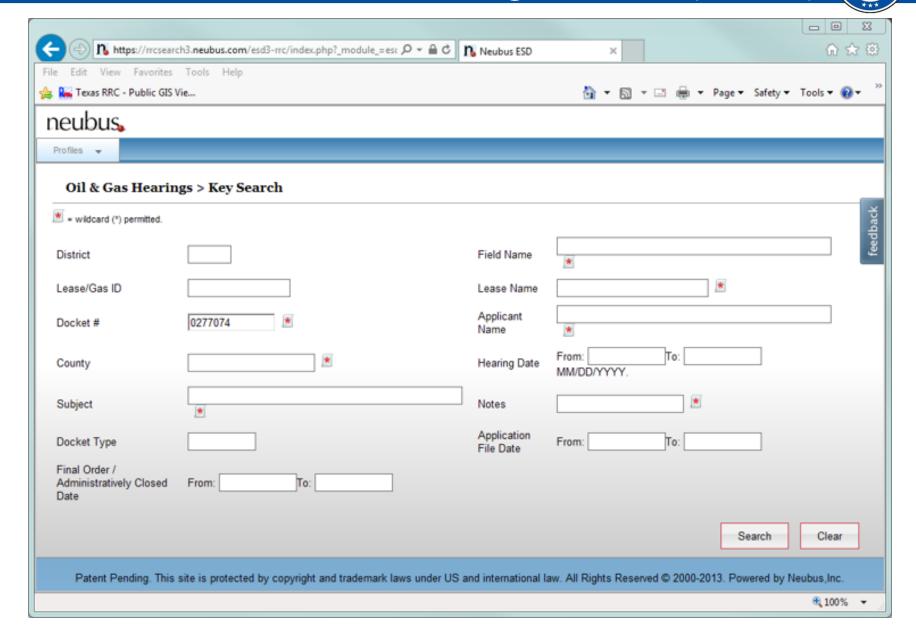
## Public GIS Map Viewer (3 of 3)



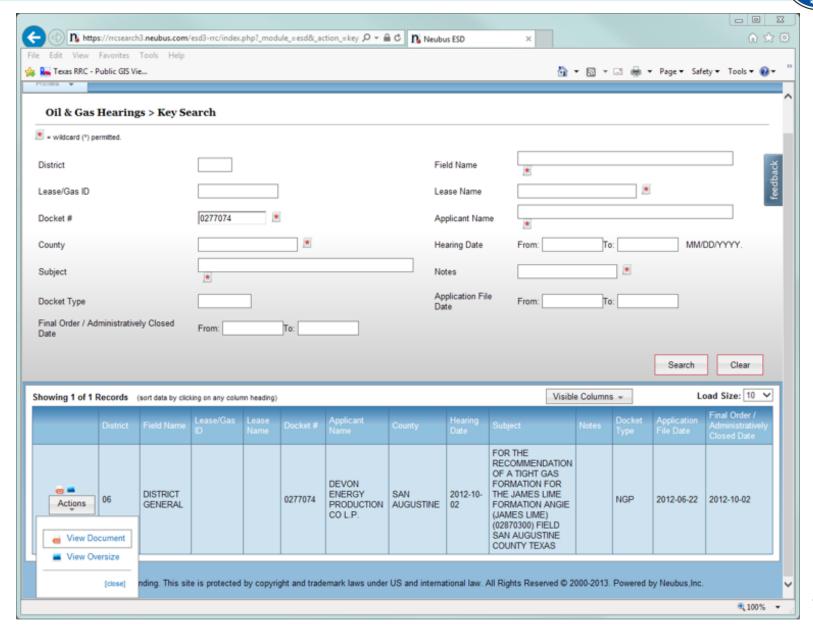
#### Identifying High Cost Gas Wells



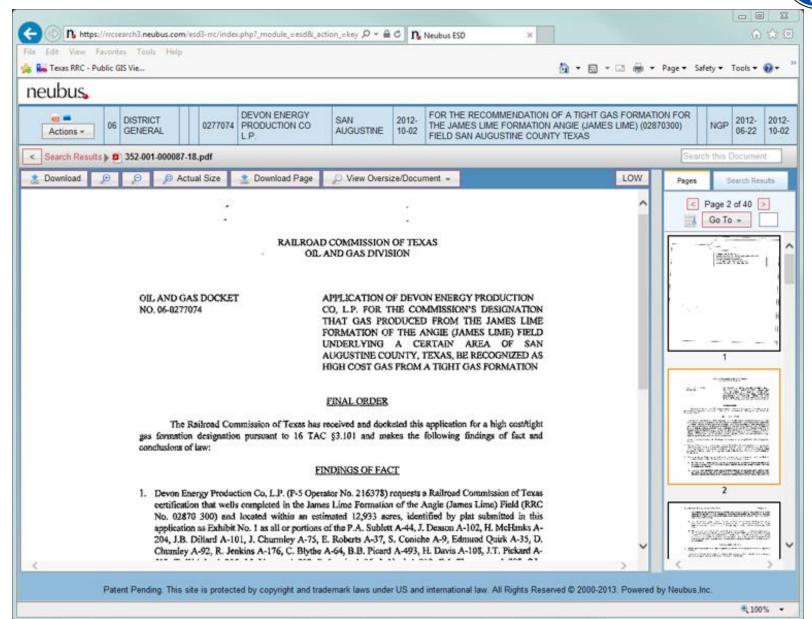
## Neubus – Scanned Hearing Search (1 of 3)



#### Neubus – Scanned Hearing Search (2 of 3)



## Neubus – Scanned Hearing Search (3 of 3)



## Information Sources (1 of 3)



 RRC Public GIS Map Viewer <u>http://wwwgisp.rrc.state.tx.us/GISViewer2/</u>

- RRC Online (Neubus)
   https://rrcsearch3.neubus.com/esd3-rrc/index.php
  - Oil & Gas Imaged Records Menu...
  - Oil & Gas Hearing Files...
  - Docket Type: NGP

## Information Sources (2 of 3)



Approved Tight Formation Listing
 https://www.rrc.texas.gov/oil-gas/publications-and-notices/publications/ogtightgas/

 Pre-existing severance tax exemptions at the Texas Comptroller's Office website <a href="https://mycpa.cpa.state.tx.us/cong">https://mycpa.cpa.state.tx.us/cong</a>

## Information Sources (3 of 3)



 Template for Notice of Application for Area Designation

RRC Data - Online Research Queries
 https://rrc.texas.gov/about-us/resource center/research/online-research-queries/

## Comptrollers Office



#### **Kaila Thomas**

Section Supervisor
Crude Oil & Natural Gas Section
Accounts Maintenance
Texas Comptroller of Public Accounts

 AP-180 Request for Approval of Reduced Tax Rate for High Cost Gas form with the Texas Comptroller

#### Contacts

# Area Designations & ST-1 Technical Permitting – GAU

- James Harcourt Manager
  - **-** 512-463-2980
  - james.harcourt@rrc.state.tx.us
- Heather Hesskew Administrative Lead Reviews
  - **-** 512-463-3184
  - Heather.hesskew@rrc.state.tx.us
- Bryce McKee, P.G.— Technical Lead (Area Designations & ST-1 Reviews)
  - **-** 512-463-2259
  - bryce.mckee@rrc.state.tx.us