

Who Primarily Regulates the Production of Oil and Gas?



Oil and Gas
Technology Program

REGULATORY FRAMEWORK

- Each state in which oil and gas is produced has one or more regulatory agencies that:
 - Permit wells, including their design, location, spacing, operation, and abandonment
 - Regulate environmental activities and discharges, including water management and disposal, waste management and disposal, air emissions, underground injection, wildlife impacts, surface disturbance
 - Worker health and safety.



Where did the legislation come from?

- Rules are created to fix something that “broke”



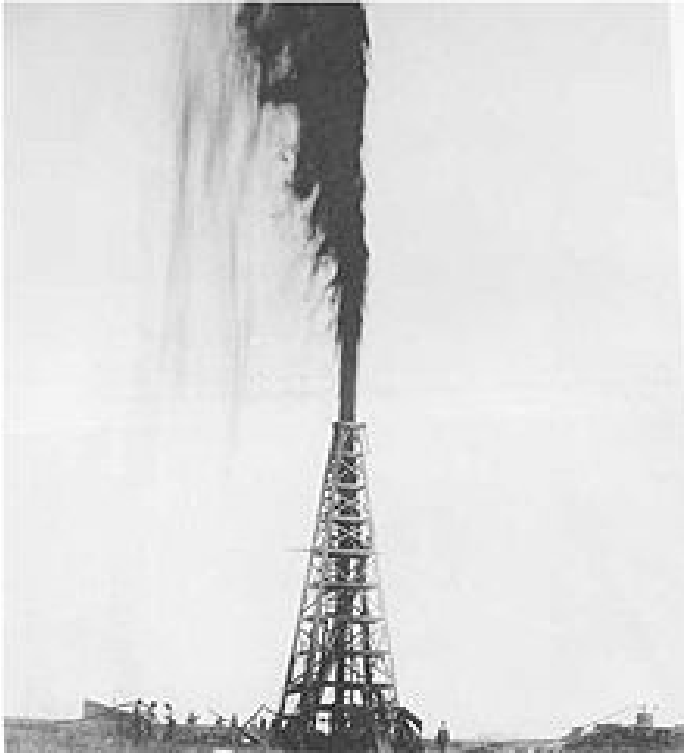
Early Oil Development

- Right of Capture Rule
- Operators not regulated
- No spacing rules
- Wells produced wide open
 - Field depressurizing to quickly
 - Price of Oil Crash



[www.quali...shers.com/
index.asp...rodID=305](http://www.quali...shers.com/index.asp...rodID=305)





The [Lucas](#) gusher at [Spindletop](#), the first major gusher in Texas Date 1901 (Wikipedia)

- No flow control
 - Oil soaking into ground & running into creeks
 - Open pits hastily built
 - Fire hazard created by closeness of operations
-
- Concerned with Waste, Safety , and Pollution



What State Agency has Primacy Over Oil and Gas Production in the State of Texas?



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Texas Rail Road Commission

The Railroad Commission of Texas was established in 1891 under a constitutional and legislative mandate to prevent discrimination in railroad charges and establish reasonable tariffs. It is the oldest regulatory agency in the state and one of the oldest of its kind in the nation.



TRRC – Currently Regulates

- Oil & Gas Production & Transportation
- Gas Utilities
- Liquefied Petroleum Gas
- Surface Mining & Reclamation
- Alternative Fuels Research
- Health, Safety, & Environmental Regulation

primarily related to the industries or actions already regulated

No Longer
Regulate
Railroad



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TRRC - Mission

Mission Statement

We serve Texas by:

- Our stewardship of natural resources and the environment
- Our concern for personal and community safety
- Our support of enhanced development and economic vitality for the benefit of Texans



TRRC – Oil & Gas Division

Regulates: Exploration, Production, Transportation, Oil Field Injection, and Disposal.

Statutory Role:

- (1) To prevent waste of the state's natural resources,
- (2) to protect the correlative rights of different interest owners,
- (3) to prevent pollution, and
- (4) to provide safety in matters such as hydrogen sulfide



TRRC – Oil & Gas Division

They permit and oversee all aspects of the Upstream Oil & Gas Development

- From permitting location, depth, construction, & product of the well
- To determining when and how much product can be produced
- How the product will be transported
- How the waste from producing the product will be handled, transported and disposed
- How the accidental spill or release of the product or associated material will be cleaned-up and disposed
- How the production of the well can be boosted
- When and how the well may be abandoned and plugged.

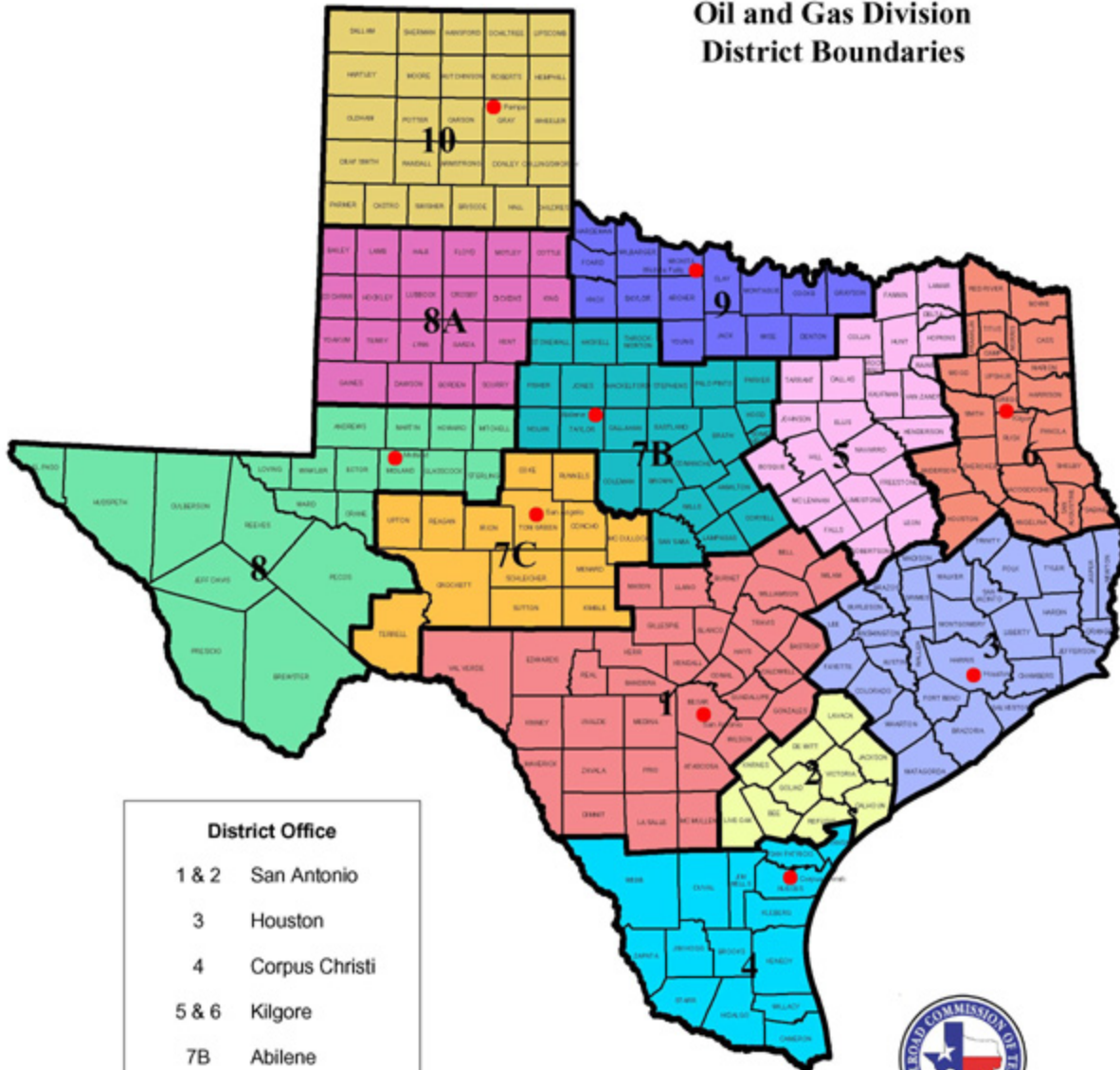
THEY DO NOT REGULATE AIR EMISSIONS

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Oil and Gas Division District Boundaries



District Office	
1 & 2	San Antonio
3	Houston
4	Corpus Christi
5 & 6	Kilgore
7B	Abilene
7C	San Angelo
8 & 8A	Midland
9	Wichita Falls
10	Pampa



RAILROAD COMMISSION of TEXAS
Oil and Gas Division



Texas Rail Road Commission

- The regulation of drilling and production is a cradle-to-grave approach.
- The TRRC have broad powers to regulate, permit, and enforce all activities:
 - The drilling and fracture of the well
 - Production operations
 - management and disposal of wastes
 - abandonment and plugging of the well.



Rules

Applicable rules are usually identified as a Rule number in the Texas Administrative Code (TAC) in

TITLE 16 ECONOMIC REGULATION

PART 1 RAILROAD COMMISSION OF TEXAS

CHAPTER 3 OIL AND GAS DIVISION

For example:

Rule 8, Water Protection – TAC 16 §3.8

Rule 36, Operation in H₂S areas – TAC 16 §3.36



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Prior to Any Operations

An organization must file with the state a report showing the following

- Legal identity
- Principal officers
- Addresses
- Prove financial security
- P-5 Form



Drilling



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Drilling Permit

- Require before an operator can drill, recomplete, or re-enter an oil or gas well.
- The application for this permit includes information about:
 - Well location
 - Construction
 - Operation



Drilling Permit

The permit application must include

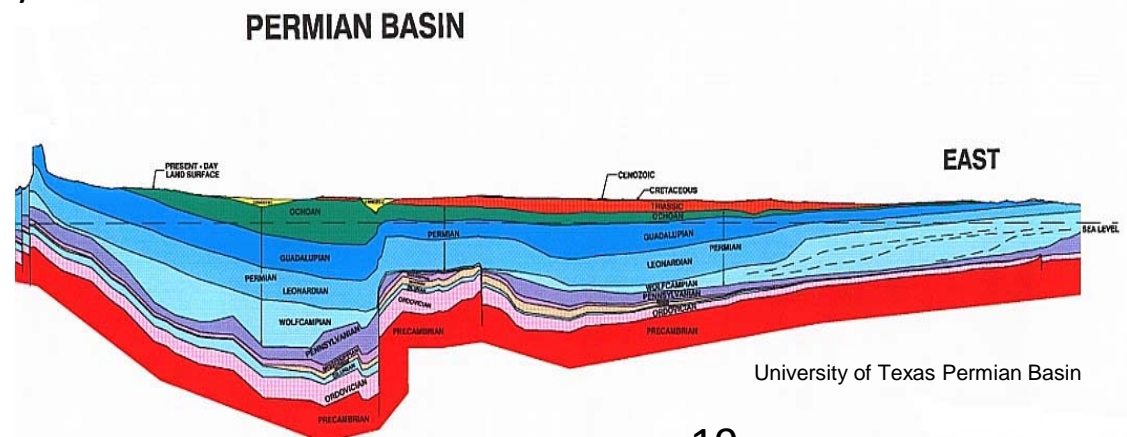
- W-1 Form
- Wellbore Profile
- Survey showing
 - Surface location of proposed drill site
 - For horizontals - Bottom hole location and zone penetration points
 - Distance to nearest lease line
 - Normally greater than 467 feet
 - Surface, bottom hole, and other locations
 - Distance to nearest well in lease or pool
 - Normally greater than 1,200 feet
 - Name of well, County, Legal Description,
 - Scale Bar
 - North Arrow



Drilling Permit

The permit application must include

- Identify the type of well it should be
 - Oil, Gas, Both
 - Injection / Disposal
 - Storage, Service, Water Supply, Cathodic Protection,
 - Exploratory test
- Lease & Survey Information
- Fields or zones of planned completion
 - Each zone is usually a field



University of Texas Permian Basin

**RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION**

FORM W-1 EFF 10/0

Drilling Permit Fee Based on Depth
 0'-2000' \$200 2001'-4000' \$
 4001'-9000' \$250 >9000'- \$
 Expedited Service Fee ADD \$150
 Rule 37/38 Exception Fee ADD \$200

APPLICATION FOR PERMIT TO DRILL, RECOMPLETE OR RE-ENTER

Enter if Assigned, API No.: 42-_____		
Drilling Permit No.: _____		
Rule 37/38 Case No.: _____		
1. RRC Operator No.:	2. Operator Name (as shown on P-5 Organization Report):	3. Operator Address (include street, city, state, zip):
4. Lease Name:	5. Well No.:	

GENERAL INFORMATION

6. Purpose of Filing (Mark ALL appropriate boxes):	<input type="checkbox"/> New Drill <input type="checkbox"/> Recompletion <input type="checkbox"/> Reclass <input type="checkbox"/> Field Transfer <input type="checkbox"/> Re-enter
	<input type="checkbox"/> Amended <input type="checkbox"/> Amended as Drilled (BHL) (Also File Form W-1D)
7. Wellbore Profile (Mark ALL appropriate boxes):	<input type="checkbox"/> Vertical <input type="checkbox"/> Horizontal (Also File Form W-1H) <input type="checkbox"/> Directional (Also File Form W-1D) <input type="checkbox"/> Sidetrack
8. Total Vertical Depth:	9. Do you have the right to develop minerals under any right of way? <input type="checkbox"/> Yes <input type="checkbox"/> No
	10. Is this well subject to Statewide Rule 36 (hydrogen sulfide area)? <input type="checkbox"/> Yes <input type="checkbox"/> No

SURFACE LOCATION AND ACREAGE INFORMATION

11. RRC District No:	12. County:	13. Surface Location: <input type="checkbox"/> Land <input type="checkbox"/> Bay/estuary <input type="checkbox"/> Inland waterway <input type="checkbox"/> Offshore
14. This well is to be located _____ miles in a _____ direction from _____, which is the nearest town in the county.		
15. Section:	16. Block:	17. Survey:
		18. Abstract No:
		19. Distance to nearest lease line:
		20. Number of contiguous acres in lease, pooled unit or unitized tract:
21. Lease Perpendiculars: _____ ft. from the _____ line and _____ ft from the _____ line.		
22. Survey Perpendiculars: _____ ft from the _____ line and _____ ft from the _____ line.		
23. Is this a pooled unit? <input type="checkbox"/> Yes <input type="checkbox"/> No	24. Unitization Docket No: _____	25. Are you applying for Substandard Acreage Field? <input type="checkbox"/> Yes (attach Form W-1A) <input type="checkbox"/> No

FIELD INFORMATION List all fields of anticipated completion including Wildcat. List one zone per line. Attach an additional Form W-1 if you require more space.

26. RRC District No.	27. Field No:	28. Field Name (exactly as shown in RRC records)	29. Well Type	30. Completion Depth	31. Distance to Nearest Well in this Lease & Reservoir	32. No. of Wells in this Lease in the Reservoir

BOTTOMHOLE LOCATION INFORMATION is required for DIRECTIONAL, HORIZONTAL, AND AMENDED AS DRILLED PERMIT APPLICATIONS – Attach FORM W-1D/FORM W-1H as appropriate.

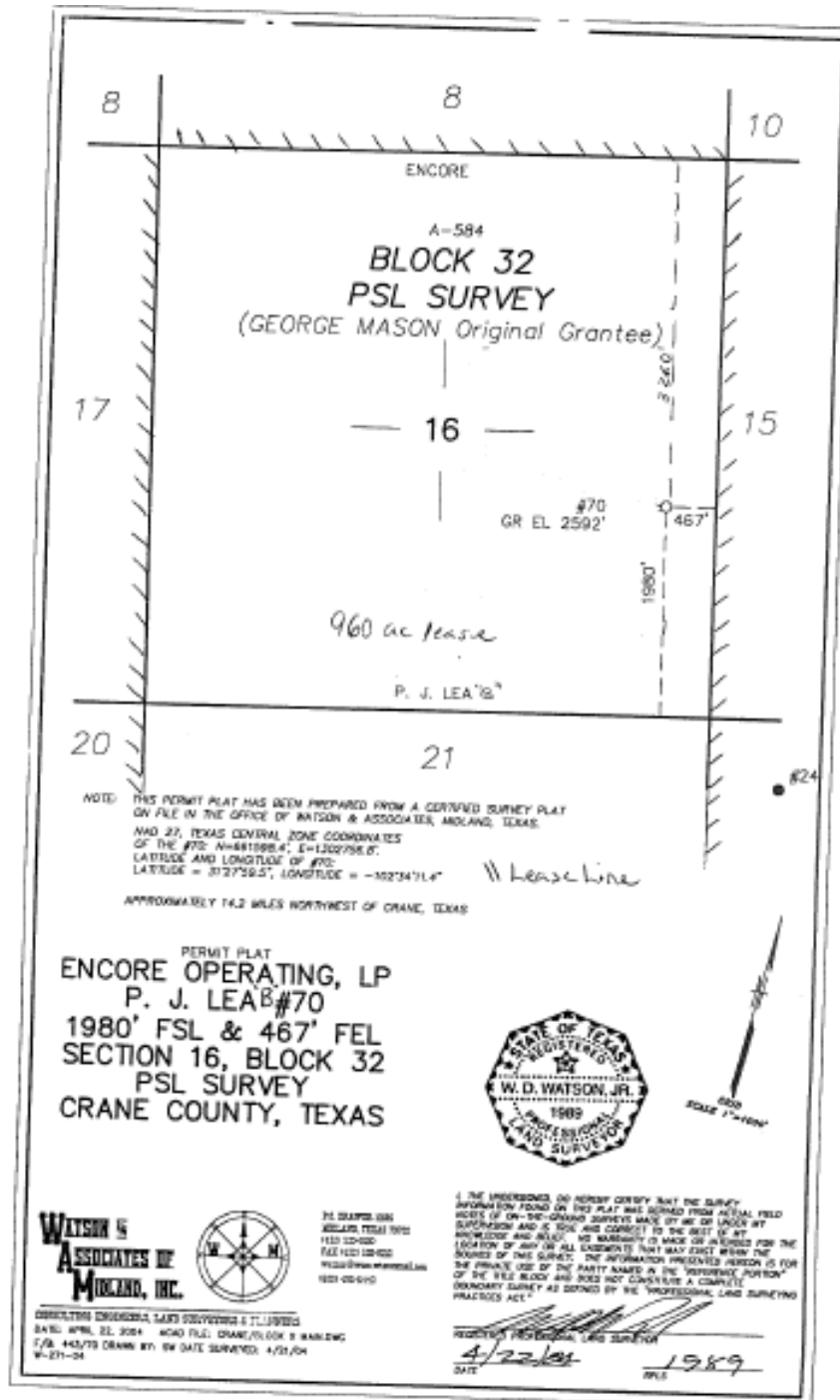
Remarks: _____

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

Name of Representative (Print) _____ Signature _____ Date (mm/dd/yy) _____



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Normal Location Spacing & Density

Rule 37

REGULAR locations are in accordance with either

- (1) statewide spacing minimums – 467’ from the nearest lease line and 1,200’ from the nearest well** (applied for, permitted or completed) on the same lease in the same reservoir and statewide density minimums – 40 acres;
- (2) spacing and density standards set out in special rules for the field. Field and County Regular rules are available on the Internet at www.rrc.state.tx.us.

Exceptions to the above may require Commissioners approval and public comment



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During Drilling & Completion

- Follow Water protection requirements for the area
- Construct drilling pits as required by Rule 8
- Comply with Rule 36 in Sour gas zones
 - TRRC: 100 ppm H₂S in gas
 - TCEQ: > 24 ppm H₂S
- Perform inclination determination and directional surveys as required
- Set and cement surface casing as planned
 - Notify District Office 8 hours prior
- Install and test blow-out preventer
- Install Wellhead
- Switch production to tanks



Completion Testing

Notify District Office prior to testing well

Oil Well

- File Form W-2: Oil Well Potential Test, Completion or Recompletion Report, and Log
 - Includes Oil, Gas, and Water Production
 - Number of producing wells and acres on lease
 - Drilling and completion information
 - Reservoir information

Gas Well

- File Form G-1: Gas Well Back Pressure Test, Completion or Recompletion Report, and Log
& Form G-5: Gas Well Classification Report
 - Includes information necessary for an oil well plus
 - Gas measurement data
 - Field Data and Pressure Calculations
- Form G-10: Deliverability Report if connected to sales line

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Operational Reports

- Monthly Production or Injection Reports
- Well test Reports
 - Oil Wells
 - Annually
 - Form W-10
 - Gas Wells
 - Semi-annually
 - Form G-10
 - Wells with production and deliverability less than 100 MCF per day gas exempt from testing unless commingled



Clean-up after Drilling / Recompletion

- Reserve & Mud Pits
 - Dewater and Backfill within 1 year of completing drill if Chloride Concentration \leq than 6,100 mg/L
 - If Chlorides $>$ 6,100 mg/L pits must be dewatered within 30 days and backfilled within 1 year.
- Completion Pits
 - Dewater within 30 days and backfill within 120 days



ACCIDENTS / BLOW-OUTS / H2S RELEASES

- Immediately notify District Office by phone
- File H-8 Form
 - Fire
 - Leak, Spill, or Break causing loss of 5 barrels of crude oil, gas well liquids, or products
 - Form explains where incident occurred and action taken



RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION
CRUDE OIL, GAS WELL LIQUIDS, OR ASSOCIATED PRODUCTS LOSS REPORT

Form H-8
(Eff. 6/4/70)

1. Field Name (as per current promotion schedule, including reservoir, if applicable)		2. RRC District	
3. Company		4. County	
Check appropriate block(s): <input type="checkbox"/> Producer <input type="checkbox"/> Transporter <input type="checkbox"/> Other			
5. Lease Name(s) and RCC Lease Number(s) (if applicable)			
6. Location where Liquid Hydrocarbon (crude oil, gas well liquids, or associated products) Loss occurred (Section, Block, & Survey)			
7. Description of Facility from which Liquid Hydrocarbon Loss Occurred			
8. Name of Landowner where Liquid Hydrocarbon Loss Occurred		9. Type of Liquid Hydrocarbon Loss	
		<input type="checkbox"/> Crude Oil <input type="checkbox"/> Gas Well Liquid <input type="checkbox"/> Other	
10. Date Liquid Hydrocarbon Loss Occurred		11. Date Liquid Hydrocarbon Loss Reported to RRC District Office by Telephone or Telegraph	
12. Total Barrels of Liquid Hydrocarbon Lost in Leak or Spill		13. Total Barrels of Liquid Hydrocarbon Recovered	14. Barrels of Liquid Hydrocarbon Unrecovered (Net Loss)
15. Did Liquid Hydrocarbon Loss Affect Inland or Coastal Water? (If yes, explain.)			
16. Cause of Liquid Hydrocarbon Loss (Explain.) (If additional space is required, attach page(s).)			
17. Remedial Measures Taken and How Successful (Explain.)			
18. Remarks			
I declare under penalties prescribed in Article 6036c, R. C. S., 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 _____	
Company _____		Name of Person (type or Print) _____	
Street Address or P.O. Box _____		Title of Person _____	
City, State _____ Zip Code _____		Telephone Area Code _____ Number _____	

(COMPANY MUST COMPLY WITH THE INSTRUCTIONS ON THE REVERSE SIDE HEREOF.) (OVER)

References:

- Ms. Becky J. Richards Power Point Slides, Environmental Compliance, Texas Christian University, 2006
- Dr, Douglas Capone, Power Point Slides, Oil & Gas Regulation, Navarro College, 2010
- Texas Rail Road Commission, Web site, 2010, <http://www.rrc.state.tx.us/>



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Helpful Links:

Texas Rail Road Commission Home Page:

<http://www.rrc.state.tx.us/>



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