

RAILROAD COMMISSION OF TEXAS  
OIL AND GAS DIVISION

Form H-1  
05/2004

APPLICATION TO INJECT FLUID INTO A RESERVOIR PRODUCTIVE OF OIL OR GAS

1. Operator name L.C.S. Production Company 2. Operator P-5 No. 479574  
(as shown on P-5, Organization Report)

3. Operator Address PO Box 6663 Abilene, TX 79608-6663

4. County Fisher 5. RRC District No. 7B

6. Field Name Raven Creek (Strawn 4980) 7. Field No. 74863800

8. Lease Name Carter A 9. Lease/Gas ID No. N/A

10. Check the Appropriate Boxes: New Project  Amendment   
If amendment, Fluid Injection Project No: F- \_\_\_\_\_  
Reason for Amendment: Add wells  Add or change types of fluids  Change pressure   
Change volume  Change interval  Other (explain) \_\_\_\_\_

RESERVOIR DATA FOR A NEW PROJECT

11. Name of Formation Cisco, Crystal Falls, Canyon Sand, Canyon Reef, Palo Pinto Reef & Strawn Lime 12. Lithology Sand & Limestone  
(e.g., dolomite, limestone, sand, etc.)

13. Type of Trap Structure Stratigraphic 14. Type of Drive during Primary Production Solution Gas  
(anticline, fault trap, stratigraphic trap, etc.)

15. Average Pay Thickness 65' 16. Lse/Unit Acreage 106.67 17. Current Bottom Hole Pressure (psig) 800

18. Average Horizontal Permeability (mds) 1 md 19. Average Porosity (%) 12%

INJECTION PROJECT DATA

20. No. of Injection Wells in this application 1

21. Type of Injection Project: Waterflood  Pressure Maintenance  Miscible Displacement  Natural Gas Storage   
Steam  Thermal Recovery  Disposal  Other \_\_\_\_\_

22. If disposal, are fluids from leases other than the lease identified in Item 9? Yes  No

23. Is this application for a Commercial Disposal Well? Yes  No

24. If for commercial disposal, will non-hazardous oil and gas waste other than produced water be disposed? Yes  No

25. Type(s) of Injection Fluid:  
Salt Water  Brackish Water  Fresh Water  CO<sub>2</sub>  N<sub>2</sub>  Air  H<sub>2</sub>S  LPG  NORM   
Natural Gas  Polymer  Other (explain) \_\_\_\_\_

26. If water other than produced salt water will be injected, identify the source of each type of injection water by formation, or by aquifer and depths, or by name of surface water source:

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 the data and facts stated therein are true, correct, and complete, to the best of my knowledge.

Bonnie Burkland 2/08/2020  
Signature Date

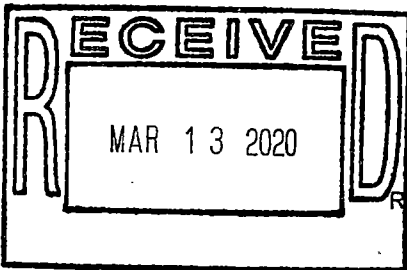
Bonnie Burkland  
Name of Person (type or print)  
(bonnieburklund@gmail.com)

Phone 512-799-4057 Fax \_\_\_\_\_

For Office Use Only

Register No.

Amount \$



RAILROAD COMMISSION OF TEXAS -- OIL AND GAS DIVISION

Form H-1A

INJECTION WELL DATA (attach to Form H-1)

1. Operator Name (as shown on P-5) <b>L.C.S. Production Company</b>					2. Operator P-5 No. <b>479574</b>				
3. Field Name <b>Raven Creek (Strawn 4980)</b>					4. Field No. <b>74863800</b>				
5. Current Lease Name <b>Carter A</b>					6. Lease/Gas ID No. <b>N/A</b>				
7. Lease is <b>7</b> miles in a <b>NE</b> direction from <b>Eskota, TX</b> (center of nearest town).									
8. Well No. <b>1WI</b>	9. API No. <b>151-00343</b>	10. UIC No.	11. Total Depth <b>5,300'</b>	12. Date Drilled <b>07/21/1957</b>	13. Base of Usable Quality Water (ft) <b>100'/USDW 600'</b>				
14. (a) Legal description of well location, including distance and direction from survey lines: <b>Blk 19, T &amp; P RR Co., A-1724</b>									
(b) Latitude and Longitude of well location, if known (optional) Lat. <b>32.594281</b> Long. <b>-100.182007</b>									
15. New Injection Well <input checked="" type="checkbox"/> or Injection Well Amendment <input type="checkbox"/>					Reason for Amendment: Pressure <input type="checkbox"/> Volume <input type="checkbox"/> Interval <input type="checkbox"/> Fluid Type <input type="checkbox"/>				
Other (explain) _____									
Casing	Size	Setting Depth	Hole Size	Casing Weight	Cement Class	# Sacks of Cement	Top of Cement	Top Determined by	
16. Surface	<b>10-3/4</b>	<b>150'</b>	<b>14-1/2</b>	<b>45#/ft</b>	<b>Reg</b>	<b>110</b>	<b>Surface</b>	<b>Calculation</b>	
17. Intermediate									
18. Long string	<b>4-1/2</b>	<b>5,300'</b>	<b>7-7/8</b>	<b>10.5#/ft</b>	<b>C&amp;C lite</b>	<b>735</b>	<b>Surface</b>	<b>Calculation</b>	
19. Liner									
20. Tubing size <b>2-3/8"</b>	21. Tubing depth <b>2,900'</b>		22. Injection tubing packer depth <b>2,900'</b>			23. Injection interval <b>3,000'</b> to <b>5,200'</b>			
24. Cement Squeeze Operations (List all)			Squeeze Interval (ft)		No. of Sacks		Top of Cement (ft)		
<b>Proposed: Drill out plug</b>									
25. Multiple Completion? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			26. Downhole Water Separation? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			NOTE: If the answer is "Yes" to Item 25 or 26, provide a Wellbore Sketch			
27. Fluid Type <b>Salt Water</b>			28. Maximum daily injection volume for each fluid type (rate in bpd or mcf/d) <b>5,000 bpd</b>			29. Estimated average daily injection volume for each fluid type (rate in bpd or mcf/d) <b>3,000 bpd</b>			
30. Maximum Surface Injection Pressure: for Liquid <b>1,500</b> psig for Gas _____ psig.									
8. Well No.	9. API No.	10. UIC No.	11. Total Depth	12. Date Drilled	13. Base of Usable Quality Water (ft)				
14. (a) Legal description of well location, including distance and direction from survey lines:									
(b) Latitude and Longitude of well location, if known (optional) Lat. _____ Long. _____									
15. New Injection Well <input type="checkbox"/> or Injection Well Amendment <input type="checkbox"/>					Reason for Amendment: Pressure <input type="checkbox"/> Volume <input type="checkbox"/> Interval <input type="checkbox"/> Fluid Type <input type="checkbox"/>				
Other (explain) _____									
Casing	Size	Setting Depth	Hole Size	Casing Weight	Cement Class	# Sacks of Cement	Top of Cement	Top Determined by	
16. Surface									
17. Intermediate									
18. Long string									
19. Liner									
20. Tubing size	21. Tubing depth		22. Injection tubing packer depth			23. Injection interval _____ to _____			
24. Cement Squeeze Operations (List all)			Squeeze Interval (ft)		No. of Sacks		Top of Cement (ft)		
25. Multiple Completion? Yes <input type="checkbox"/> No <input type="checkbox"/>									
26. Downhole Water Separation? Yes <input type="checkbox"/> No <input type="checkbox"/>			NOTE: If the answer is "Yes" to Item 25 or 26, provide a Wellbore Sketch						
27. Fluid Type			28. Maximum daily injection volume for each fluid type (rate in bpd or mcf/d)			29. Estimated average daily injection volume for each fluid type (rate in bpd or mcf/d)			
30. Maximum Surface Injection Pressure: for Liquid _____ psig for Gas _____ psig.									

Proposed