

**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 Harvey -3- 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 Canyon Sand, Palo Pinto Reef & Strawn 12. Lithology Sand & Limestone
Lime (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 320 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 CO₂ N₂ Air H₂S LPG NORM

Natural Gas Polymer Other (explain) RCRA Exempt Waste

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.

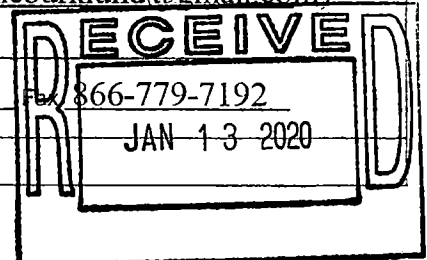
Bonnie Burkland 12/06/2019
Signature Date
Bonnie Burkland (bonnieburklund@gmail.com)
Name of Person (type or print)

Phone 512-799-4057 Fax 866-779-7192

For Office Use Only Register No. _____

Amount \$ _____

See Reverse Side for Required Attachments



RAILROAD COMMISSION OF TEXAS -- OIL AND GAS DIVISION

05/2004

Form H-1A

INJECTION WELL DATA (attach to Form H-1)

1. Operator Name (as shown on P-5) L.C.S. Production Company					2. Operator P-5 No. 479574			
3. Field Name Raven Creek (Strawn 4980)					4. Field No. 74863800			
5. Current Lease Name Harvey -3-					6. Lease/Gas ID No. N/A			
7. Lease is 7 miles in a Northeast direction from Eskota (center of nearest town).								
8. Well No. 1WI	9. API No. 151-00641	10. UIC No.	11. Total Depth 5,300'	12. Date Drilled 05/08/1957	13. Base of Usable Quality Water (ft) 100' USDW 600'			
14. (a) Legal description of well location, including distance and direction from survey lines: 730' FWL & 330' FSL of Sec. 3, Blk 19, T & P RR Co., A-392								
(b) Latitude and Longitude of well location, if known (optional) Lat. 32.6025500 Long. -100.1943600								
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	10-3/4"	64'	4-1/2"	45#/ft	Reg	60	Surface	Calculation
17. Intermediate								
18. Long string	4-1/2"	4,942'	7-7/8"	11.6#/ft	C	450	3,084'	Calculation
19. Liner								
20. Tubing size 2-3/8"	21. Tubing depth 4,200'		22. Injection tubing packer depth 4,200'		23. Injection interval 4,300' to 5,200'			
24. Cement Squeeze Operations (List all)			Squeeze Interval (ft)	No. of Sacks	Top of Cement (ft)			
This well will be re-entered in such a manner there will not be more than 100' of rat hole below the permitted bottom injection interval. All plugs will be drilled out.								
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 Salt Water & RCRA Exempt			28. Maximum daily injection volume for each fluid type (rate in bpd or mcf/d) 5,000 bpd		29. Estimated average daily injection volume for each fluid type (rate in bpd or mcf/d) 3,000 bpd			
30. Maximum Surface Injection Pressure: for Liquid 2,150 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.								

