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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 (as shown on P-5, Organization Report) 2. Operator P-5 No. 479574

3. Operator Address P O Box 6663 Abilene, TX 79608-6663

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

6. Field Name Raven Creek (Canyon Sand) 7. Field No. 74863200

8. Lease Name Welch 9. Lease/Gas ID No.

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 Lime 12. Lithology Sand & Limestone (e.g., dolomite, limestone, sand, etc.)

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

15. Average Pay Thickness 65' 16. Lse/Unit Acreage 493.33 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_2 ☐ N_2 ☐ Air ☐ H_2S ☐ 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:

Water will be coming from the Canyon Sand formation.

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 Burklund 07/25/2022
Signature Date

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

Phone 512-799-4057 Fax

For Office Use Only	*Register No.*	*Amount $*

See Reverse Side for Required Attachments

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): L.C.S. Production Company — 2. Operator P-5 No.: 479574

3. Field Name: Raven Creek (Canyon Sand) — 4. Field No.: 74863200

5. Current Lease Name: Welch — 6. Lease/Gas ID No.:

7. Lease is 7 miles in a Northeast direction from Eskota (center of nearest town).

8. Well No.	9. API No.	10. UIC No.	11. Total Depth	12. Date Drilled	13. Base of Usable Quality Water (ft)
22WI	151-33271		5,800'	TBD	

14. (a) Legal description of well location, including distance and direction from survey lines: 789' FNWL & 1,667' FNEL of T&P RR Co./Walling, J R, Abstract 1778

(b) Latitude and Longitude of well location, if known (optional) Lat. 32.6023789 Long. -100.1793876 Nad 27

15. New Injection Well ☒ or Injection Well Amendment ☐ — Reason for Amendment: Pressure ☐ Volume ☐ Interval ☐ Fluid Type ☐

All Information Below is Proposed: — Other (explain)

Casing	Size	Setting Depth	Hole Size	Casing Weight	Cement Class	# Sacks of Cement	Top of Cement	Top Determined by
16. Surface	8-5/8"	133'	12-1/4"	24#	C	100	Surface	Circculation
17. Intermediate								
18. Long string	4-1/2"	5,750'	7-7/8"	10.5#	C & C lite	735	Surface	Calculation
19. Liner								

20. Tubing size	21. Tubing depth	22. Injection tubing packer depth	23. Injection interval
2-3/8"	3,900'	3,900'	4,000' to 5,200'

24. Cement Squeeze Operations (List all)	Squeeze Interval (ft)	No. of Sacks	Top of Cement (ft)
This well will be completed in such a manner that there will be no more than 100' of rat hole below the the bottom permitted injection interval.			

25. Multiple Completion? Yes ☐ No ☒

26. Downhole Water Separation? Yes ☐ No ☒

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)
Salt Water	5,000 bpd	3,000 bpd

30. Maximum Surface Injection Pressure: for Liquid 2,000 psig for Gas _____ psig.

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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 ☐ or Injection Well Amendment ☐ — Reason for Amendment: Pressure ☐ Volume ☐ Interval ☐ Fluid Type ☐

Other (explain) _____

Casing	Size	Setting Depth	Hole Siz	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 ☐ No ☐

26. Downhole Water Separation? Yes ☐ No ☐

NOTE: If the answer is "Yes" to Item 25 or 26, provide a Wellbore Sketch

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30. Maximum Surface Injection Pressure: for Liquid _____ psig for Gas _____ psig.