

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no
- II. Operator: Hicks Oil & Gas, Inc.
Address: P.O. Drawer 3307, Farmington, New Mexico 87499
Contact party: Mike Hicks Phone: 505/327-4902
- III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? ☐ yes ☒ no
If yes, give the Division order number authorizing the project _____.
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification
- I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- Name: Mike Hicks Title: President
Signature: *Mike Hicks* Date: 1/17/85
- If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.

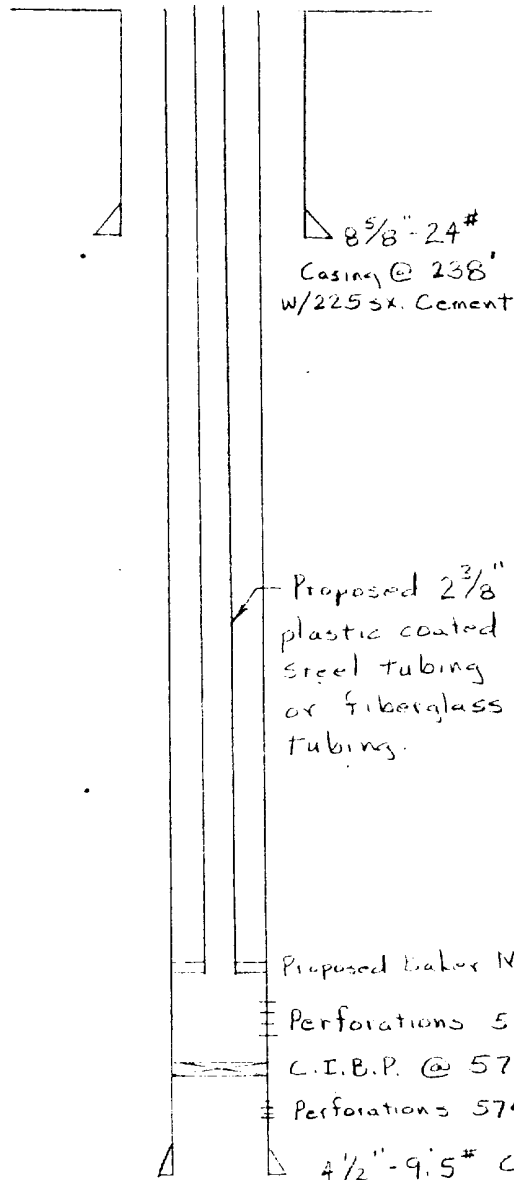
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INJECTION WELL DATA SHEET

OPERATOR Hicks Oil & Gas, Inc. S.E. Cha Cha Unit
 CLASS 1145L

16 1980' FNL & 660' FEL 17 28N 13W
 WELL NO. FOOTAGE LOCATION SECTION TOWNSHIP RANGE

Schematic



Tabular Data

Surface Casing

Size 8 5/8" - 24# " Cemented with 225' sx.

IOC Surface feet determined by Circulation

Hole size 12 1/4"

Intermediate Casing

Size " Cemented with sx.

IOC feet determined by

Hole size

Long string

Size 4 1/2" - 9.5# " Cemented with 175 sx.

IOC 4350' feet determined by temperature Survey

Hole size 7 7/8"

Total depth 5825'

Injection interval

5684' feet to 5706' feet
 (perforated or open-hole, indicate which)

Proposed Baker Model 'D' Packer @ 5600'

Perforations 5684'-5706' Gallup

C.I.B.P. @ 5725

Perforations 5748-64' Gallup

4 1/2" - 9.5# Casing at 5824' with 175 sx. Cement

Tubing size 2 3/8" lined with plastic or fiberglass set in a
 (material)

Baker Model D packer at 5600' feet.
 (brand and model)

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Gallup

2. Name of field or Pool (if applicable) S.E. Cha Cha

3. Is this a new well drilled for injection? ☒ Yes ☒ No

If no, for what purpose was the well originally drilled? Oil Production, converted
to injection well for pressure maintenance project.

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) Gallup 5748-64'

Cast iron bridge plug at 5725'.

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Picture bluff gas zone approximately 3800' above. Dakota gas zone
approximately 1500' below.

Hicks Oil & Gas, Inc.

1/17/85

P. O. DRAWER 3307
FARMINGTON, NM 87499
505-327-4902

APPLICATION FOR SALT WATER DISPOSAL

S.E. CHA CHA UNIT WELL #16

VII

1. Lease production currently averages 90 BWPD and this volume would be split between other injection wells. Also, we are planning to operate the injection well for commercial salt water disposal. At this time, it is estimated that we will be disposing of 100 bbls of water per day from wells off the lease. We do anticipate this volume to increase as the NMOCD revises it's rules concerning disposal of produced water in unlined pits. From injection records of wells in the field when the unit was actively water flooded it is estimated that 750 BWPD could be injected at 1000 psi.
2. The system will be an open system.
3. Average injection pressure 500 psi. Maximum injection pressure 1000 psi.
4. Sources of injected water.
 1. Produced water from the lease. Water analysis attached.
 2. Produced water from San Juan Basin oil and gas wells. Typical water analysis attached.

IX Stimulation treatment will consist of 500-1000 gallons of 15% Iron Sequestering HCL acid. If necessary the well may be frac treated with approximately 30,000 gallons of gelled water and 30,000# of 20/40 sand.

X Well logs on file with NMOCD.

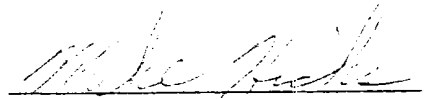
XI S.E. Cha Cha water supply well #1, 910' FNL & 1850' FEL,
S16, T28N, R13W
Completed in Mesa Verde 2630'-4383'
Completed in Morrison 6573'-7122'
Well is not producing and no water samples are available.
Well bore schematic attached.

Hicks Oil & Gas, Inc.

P. O. DRAWER 3307
FARMINGTON, NM 87499
505-327-4902

XII Affirmative Statement

I, Mike Hicks, have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

A handwritten signature in cursive script, appearing to read "Mike Hicks", is written over a horizontal line.

Mike Hicks
President
Hicks Oil & Gas, Inc.

TABULATION OF WELLS
WITHIN ½ MILE RADIUS
OF PROPOSED SALT WATER DISPOSAL WELL
S.E. CHA CHA UNIT WELL # 16

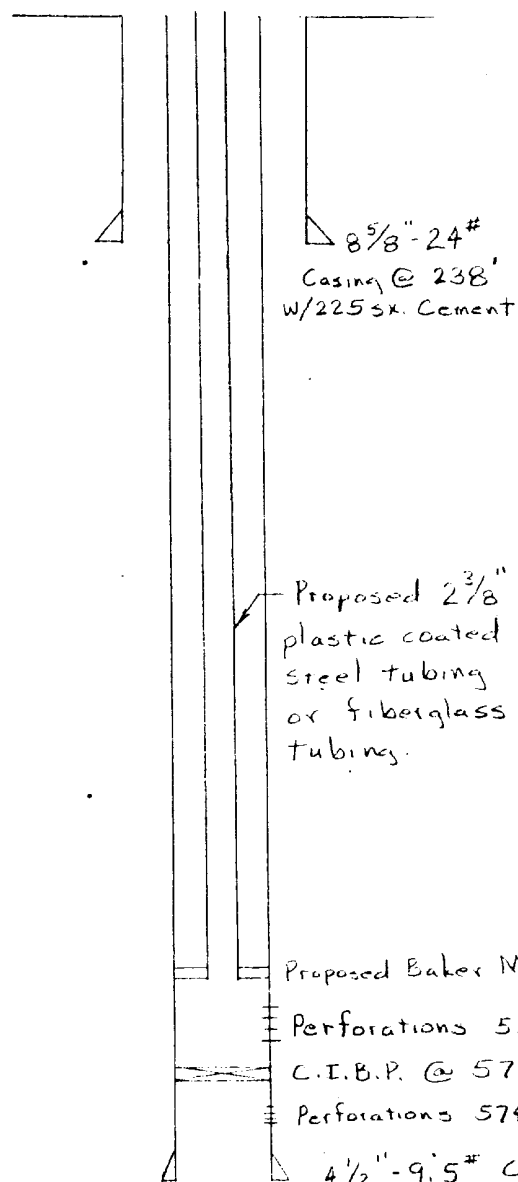
SURFACE CASING	CEMENT	T.O.C.	PRODUCTION CASING	CEMENT	T.O.C.	PRODUCING INTERVAL	TD	LINER
8 5/8 @202'	200sx	surface	4½ @5819'	225sx	unknown	Gallup 5678-5750	5824	
3 8 5/8 @272'	235sx	surface	4½ @5821	175sx sq.600sx	4260' 2750'	Gallup 5684-5754	5824	3½ @4582 w/75sx toc-unk.
3 8 5/8 @224'	175 sx	surface	4½ @5866	200sx	unknown	Gallup 5707-5779	5875	
3 8 5/8 @254'	200sx	surface	4½ @5748	175sx sq200sx	4450' 3650'	Gallup 5618-26	5748	3½ @4502 w/115sx toc-surface
3 8 5/8 @208	135 sx	surface	4½ @5884	200sx	unknown	Gallup 5729-5796	5886	
3 8 5/8 @229	200sx	surface	5½ @5721'	175sx	unknown	Gallup 5623-5676	5772	
3 8 5/8 @214	175sx	surface	4½ @5856	225sx	unknown	Gallup 5683-90	5860	

INJECTION WELL DATA SHEET

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 LEASE
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