

ROBERT L. BAYLESS

P. O. BOX 168
FARMINGTON, NM 87499

FAX NO
(505) 326-6911

CLERK OF DISTRICT COURT
FARMINGTON, NM

OFFICE NO.
(505) 326-2659

RELEASE 9-18-92

September 3, 1992

Ms. Diana Fairhurst
Oil Conservation Division
1000 Rio Brazos
Aztec, NM 87410

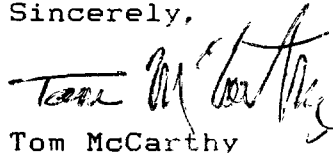
Mr. David Catanach
Oil Conservation Division
310 Old Santa Fe Trail, Room 206
Santa Fe, NM 87504

RE: Expansion of Waterflood
Miguel Creek Field
McKinley County, New Mexico

Please refer to my letter dated August 14, 1992, and my subsequent conversations with Ms. Fairhurst. Attached is a completed form C-108 for the proposed additional injectors and related supplemental information. A tabulation of wells within the area of review is represented by copies of each well's completion report. Proof of Notice is also attached.

Please advise if any additional information is required.

Sincerely,



Tom McCarthy

TM/tls

Attachments

OCD Form C-108

Application for Authorization to Inject
Expansion of Miguel Creek Field Waterflood
Conversion of SFPRR Nos. 24, 26, 39, 41, 51, 52, 53 to Injection

Answers to General Questions

- VI. Well completion reports for all wells in the area of review are attached. They list all aspects of the construction of these wells. A schematic of every plugged and abandoned well in the area is attached.
- VII. 1. A maximum rate of 40 BWIPD is expected for each injection well, with an average rate of 33 BWIPD.
2. The system is closed.
3. The average injection pressure is expected to be 400 psi, with a maximum injection pressure pursuant to Order No. R-4875 of 750 psi.
4. Injected water is fresh, and is both produced and makeup water. The produced water is from the Gallup oil zone. The makeup water is from the regressive Gallup zone. A water analysis from each zone is attached.
5. Not applicable.
- VIII. The producing injection interval is the Cretaceous Hospah Gallup Sandstone. It's depth is 700 to 750', and has an average thickness of 8 feet. No known oil, gas, or water zones exist above the Hospah Zone. The Massive Regressive Gallup Sandstone is about 60' below the Hospah Sandstone and is a fresh water zone.
- IX. No stimulation program is planned.
- X. Not applicable.
- XI. Massive Regressive Gallup water analysis is attached.
- XII. Not applicable.
- XIII. Proofs of Notice are attached.

III. Well Data

A. See wellbore diagrams.

B.1. Gallup Hospah Sandstone. Miguel Creek Gallup Field.

B.2. Both perforated and open hole completions are used on the proposed wells. See wellbore diagrams.

B.3. All wells were drilled for production of oil.

B.4. No additional zones are perforated.

B.5. No known oil or gas zones exist above or below the Hospah Sandstone in this field.

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NEW MEXICO OIL CONSERVATION COMMISSION

ILLEGIBLE

Form C-103
Supersedes O's
C-102 and C-101
Effective 1-1-83

SUNDRY NOTICES AND REPORTS ON WELLS

DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO RE-DRILL OR TO ABANDON EXISTING WELLS

2. ☒ WELL ☐ OTHER

Capital Oil and Gas Corporation

Address of Operator

P. O. Box 2130, Kilgore, Texas 75662

Location of Well

IN LETTER P 466 N/A FEET FROM THE N/A LINE AND N/A FEET FROM

THE N/A LINE, SECTION 20 TOWNSHIP 16N RANGE 6W

15. Elevation (Show whether DF, RT, GR, etc.)

6410' GL

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data
NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐
REPAIR OR ABANDON ☐
WELL OR ALTER CASING ☐
OTHER ☐

PLUG AND ABANDON ☒
CHANGE PLANS ☐
OTHER ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐
COMMENCE DRILLING OPERATIONS ☐
CASING TEST AND CEMENT JOBS ☐
OTHER ☐
ALTERING CASING ☐
PLUG AND ABANDONMENT ☐

7. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1133.

1. R.U. - RIH w/2-3/8" tubing and tag total depth.
2. Set ~~10~~ sx w/2% Cal. Cement plug ~~at 740'~~ from TO to 140'
3. Set 10 sx cement plug at surface.
4. Set iron pipe marker.
5. Rig down and clean location. There are no pits at this location.

RECEIVED

FEB 22 1983

OIL CON. DIV.
DIST. 3

*See attached well data from Sinclair Oil Company.

8. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

10467 Darryl Blank TITLE Vice President DATE 2/17/83

Original Signed by Jeff Edmister

DEPUTY OIL & GAS INSPECTOR, DIST. #3

DATE FEB 22 1983

9. OTHER COMMENTS OR APPROVAL, IF ANY:

Note change in bottom cement plug

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ILLEGIBLE

Form C-103
Supersedes C-101
C-102 and C-104
Effective 1-1-55

SUNDRY NOTICES AND REPORTS ON WELLS

DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO REOPEN OR PLUG DATA TO A DIFFERENT RESERVOIR OR
TO CHANGE THE LOCATION OF THE WELL OR TO CHANGE THE LOCATION OF THE SURFACE MARKER

WELL ☒ GAS WELL ☐ OTHER ☐

Capital Oil and Gas Corporation

P. O. Box 2130, Kilgore, Texas 75662

NAME OF WELL

UNIT LETTER J 1980 FEET FROM THE South LINE AND 2310

THE East LINE, SECTION 21 TOWNSHIP 16N RANGE 6W

15. Elevation (Show whether DF, RT, GR, etc.)

6391' GL

5a. Indicate Type of Lease
State ☐ Fee ☒

5. State Oil & Gas Lease No.
N/A

7. Unit Agreement Name
Miguel Creek

8. Farm or Lease Name
Fernandez

9. Well No.
1

10. Field and Pool, or Acreage
Miguel Creek-Gallup

12. County
McKinley

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK ☐
TEMPORARILY ABANDON ☐
PULL OR ALTER CASING ☐

PLUG AND ABANDON ☒
CHANGE PLANS ☐

REMEDIAL WORK ☐
COMMENCE DRILLING OPERATIONS ☐
CASING TEST AND CEMENT LOGS ☐

ALTERING CASING ☐
PLUG AND ABANDONMENT ☐

OTHER ☐

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

As noted on C-103 filed on 5/10/82, 5-1/2" casing was set to 990'. There has been no attempt to complete this well. T.D. 992', PBTD 990'.

1. R.U. and tag T.D. w/2-3/8" tubing.
2. Pump 20 sx plug from 860-760'.
3. Pull up and set 10 sx plug at surface.
4. P.O.O.H. w/2-3/8".
5. Back fill pit & clean location.
6. Set perm. marker.

RECEIVED
FEB 22 1983
OIL CON. DIV.
DIST. 3

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED Darryl Z. Blum TITLE Vice President DATE 2/17/83

Original Signed by CHARLES GHOLSON

DEPUTY OIL & GAS COMMISSIONER, DIST. #3

SEP 29 1983

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION

FORM C-103
(Rev 3-55)

MISCELLANEOUS REPORTS ON WELLS

(Submit to appropriate District Office as per Commission Rule 1106)

Name of Company Carr, Lauth & Brown		Address P.O. Box 3311, Durango Colorado			
Lease Santa Fe	Well No. 1	Unit Better	Section 28	Township 16N	Range 6W
Date Work Performed 1/8/61	Pool undesignated		County McKinley		

THIS IS A REPORT OF: (Check appropriate block)

- ☒ Beginning Drilling Operations
 ☐ Casing Test and Cement Job
 ☐ Other (Explain):
☐ Plugging
 ☐ Remedial Work

Detailed account of work done, nature and quantity of materials used, and results obtained.

Set 5½ plug in 4 3/4" ~~hole~~ open hole @ 738' and cemented to surface with 112 sacks regular cement. Wt. of slurry 16 #; volume, 125 cu ft. Water flow from 795-840 shut off and vertical separation obtained between lower Hosta porous sands and the Gallup sands.



Witnessed by <i>WELarr</i>	Position Agent	Company Carr, Lauth & Brown
----------------------------	-----------------------	--

FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY

ORIGINAL WELL DATA

D F Elev.	T D	P B T D	Producing Interval	Completion Date
Tubing Diameter	Tubing Depth	Oil String Diameter	Oil String Depth	
Perforated Interval(s)				
Open Hole Interval		Producing Formation(s)		

RESULTS OF WORKOVER

Test	Date of Test	Oil Production BPD	Gas Production MCFPD	Water Production BPD	GOR Cubic feet/Bbl	Gas Well Potential MCFPD
Before Workover						
After Workover						

OIL CONSERVATION COMMISSION		I hereby certify that the information given above is true and complete to the best of my knowledge.	
Approved by Original Signed Emery C. Arnold		Name <i>WELarr</i>	
Title Supervisor Dist # 3		Position Agent	
Date JAN 9 1961		Company Carr, Lauth & Brown	

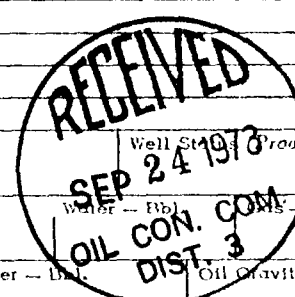
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OPERATOR	1

Form C-105
Revised 1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5a. Indicate Type of Lease	State <input type="checkbox"/> Fed <input checked="" type="checkbox"/>
5. State Oil & Gas Lease No.	

13. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>						7. Unit Agreement Name	
14. TYPE OF COMPLETION NEW WELL <input type="checkbox"/> WORK OVER <input type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> OTHER <input type="checkbox"/>						8. Form or Lease Name SFPRR	
2. Name of Operator Northern Minerals, Inc.						9. Well No. 6-Y	
3. Address of Operator Box 2182, Santa Fe, New Mexico 87501						10. Field and Pool, or Wildcat Wildcat	
4. Location of Well UNIT LETTER <u>G</u> LOCATED <u>2013</u> FEET FROM THE <u>North</u> LINE AND <u>2003</u> FEET FROM <u>East</u> LINE OF SEC. <u>29</u> TWP. <u>16N</u> RGE. <u>6W</u> NMPM						12. County McKinley	
15. Date Spudded 8-2-73		16. Date T.D. Reached 8-4-73		17. Date Compl. (Ready to Prod.) 8-17-73		18. Elevations (DF, RKB, RT, GR, etc.) 6428' G. L.	
19. Elev. Casinghead 6430'		20. Total Depth 748'		21. Plug Back T.D.		22. If Multiple Compl., How Many	
23. Intervals Drilled By Rotary-All		24. Producing Interval(s), of this completion - Top, Bottom, Name		25. Was Directional Survey Made No		26. Type Electric and Other Logs Run Spontaneous Potential, Resistivity and Gamma Ray	
27. Was Well Cored No		28. CASING RECORD (Report all strings set in well)					
CASING SIZE 4 1/2"		WEIGHT LB./FT. 9		DEPTH SET 733.4'		HOLE SIZE 6-3/4"	
CEMENTING RECORD Cement Circulated		AMOUNT PULLED None					
29. LINER RECORD				30. TUBING RECORD			
SIZE		TOP		BOTTOM		SACKS CEMENT	
SCREEN		SIZE		DEPTH SET		PACKER SET	
31. Perforation Record (Interval, size and number)				32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.			
DEPTH INTERVAL				AMOUNT AND KIND MATERIAL USED			
33. PRODUCTION				34. Disposition of Gas (Sold, used for fuel, rented, etc.)			
Date of First Production		Production Method (Flowing, gas lift, pumping - Size and type pump)		Well Status (Prod. or Shut-in)		Oil Gravity - API (Corr.)	
Date of Test		Hours Tested		Choke Size		Flowing Pressure	
Casing Pressure		Calculated 24-Hour Rate		Oil - Bbl.		Gas - MCF	
Water - Bbl.		Oil Ratio		Test Witnessed By			
35. List of Attachments							



I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED Lloyd Amundson

TITLE President

DATE 8-27-73

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

Northwestern New Mexico

T. Auby	T. Canyon	T. Ojo Alamo	T. Penn. "B"
T. Balt	T. Strawn	T. Kirtland Fruitland	T. Penn. "C"
B. Salt	T. Atoka	T. Pictured Cliffs	T. Penn. "D"
T. Yates	T. Miss	T. Cliff House	T. Leadville
T. 7 Rivers	T. Devonian	T. Menefee	T. Madison
T. Queen	T. Silurian	T. Point Lookout	T. Elbert
T. Grayburg	T. Montoya	T. Mancos	T. McCracken
T. San Andres	T. Simpson	T. Gallup	T. Ignacio Qtzte
T. Glorieta	T. McKee	Base Greenhorn	T. Granite
T. Paddock	T. Ellenburger	T. Dakota	T.
T. Blaineby	T. Gr. Wash	T. Morrison	T.
T. Tubb	T. Granite	T. Todillo	T.
T. Drinkard	T. Delaware Sand	T. Entrada	T.
T. Abo	T. Bone Springs	T. Wingate	T.
T. Wolfcamp	T.	T. Chinle	T.
T. Penn.	T.	T. Permian	T.
T. Cisco (Bough C)	T.	T. Penn. "A"	T.

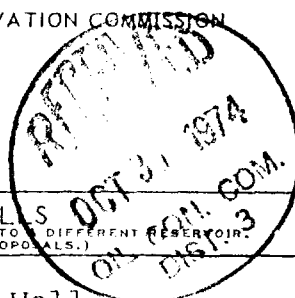
FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
Surface	230	230	Hosta				
230	482	252	Dalton				
734	748	14	Hospah				
748	Total	Depth					

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NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65



5a. Indicate Type of Lease	
State <input type="checkbox"/>	Fed <input checked="" type="checkbox"/>
5. State Oil & Gas Lease No.	

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

1. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER- Water Injection Well		7. Unit Agreement Name
2. Name of Operator Northern Minerals, Inc.		8. Farm or Lease Name SPPRR
3. Address of Operator P. O. Box 2182, Santa Fe, New Mexico 87501		9. Well No. 6-Y
4. Location of Well UNIT LETTER <u>G</u> <u>2013</u> FEET FROM THE <u>North</u> LINE AND <u>2003</u> FEET FROM THE <u>East</u> LINE, SECTION <u>29</u> TOWNSHIP <u>16N</u> RANGE <u>6W</u> NMPM.		10. Field and Pool, or Wildcat Miguel Creek-Gallup
15. Elevation (Show whether DF, RT, GR, etc.) 6428' G. L.		12. County McKinley

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	OTHER <u>Conversion to Injection Well</u> <input type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Upon temporary authorization granted by letter from the District Office of the New Mexico Oil Conservation Commission dated September 28, 1973, Northern Minerals, Inc. began injecting water through casing into the Hospah sand, 734' to 744'. Water was taken from a water well completed in the Massive Gallup and located 40' northwest of the 6-Y well. Under order No. R-4649 of the Commission, dated November 6, 1973, this injection procedure was continued. Order No. R-4875 in case No. 5321, dated October 22, 1974, made permanent, subject to limitations, the terms of order No. R-4649.

To October 1, 1974, there had been injected into the 6-Y well, 60,066 barrels water at pressures never exceeding 700 PSI. There has been no failure of the casing or leakage of water or oil.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED <u>David Davidson</u>	TITLE <u>President</u>	DATE <u>10-24-74</u>
APPROVED BY <u>George C. Curren</u>	TITLE <u>SUPERVISOR DIST. #3</u>	DATE <u>OCT 31 1974</u>
CONDITIONS OF APPROVAL, IF ANY:		