

Submit 3 Copies
to Appropriate
District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO. 30-005-20993
5. Indicate Type of Lease STATE ☐ FEE ☐
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Cactus Queen Unit
8. Well No. 4
9. Pool name or Wildcat SE Chaves On Gas Area Assoc.

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. Type of Well:
OIL WELL ☐ GAS WELL ☐ OTHER Water Injection Well

2. Name of Operator
Yates Drilling Company

3. Address of Operator
105 South 4th Street, Artesia, NM 88210

4. Well Location
Unit Letter 0 : 660 Feet From The South Line and 1980 Feet From The East Line
Section 27 Township 12S Range 31E NMPM Chaves County
10. Elevation (Show whether DF, RKB, RT, GR, etc.)
4432' GL

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

PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	PLUG AND ABANDONMENT ☐
PULL OR ALTER CASING ☐		CASING TEST AND CEMENT JOB ☐	
OTHER: Request increase in Allowable Injection Pressure ☒		OTHER: ☐	

12. 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.

We recently authorized a step-rate test to be conducted on the subject well by John West Engineering Company of Hobbs, NM. This test was witnessed by Charlie Perrin of NMOCD. The results of this test are attached. We are requesting that our maximum allowed injection pressure be raised to a level justified by the test.

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

SIGNATURE John West TITLE Petroleum Engineer DATE 4-1-92

TYPE OR PRINT NAME:

TELEPHONE NO.

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____

CONDITIONS OF APPROVAL, IF ANY:

JOHN WEST ENGINEERING COMPANY

Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: Greenhill Petroleum Corporation

DATE: March 18, 1992

WELL NAME: Cactus Queen Unit Well No. 4
Chaves County, New Mexico

WO#: 92140408

MID-PERFS. = 2987 - 2993

PACKER DEPTH =

BHP GAUGE DEPTH = 2890

STEP NO. & REMARKS	TIME	(1) SURFACE TUBING PRESS. (psig)	(2) CUMULATIVE VOL. INJECTED (bbls)	(3) INJECTION RATE (bbls/day)	(4) FRICTION HEAD LOSS (psi)	(5) CORRECTED TUBING PRESS. (psi) (1)-(4)	(6) INJECTION RATE (gpm) (3)/34.2567	(7) MEASURED BHP (psi)
1	7:30	364.2				364.2		1657
	7:35	403.4	1.9	547.2	8.454	394.9	15.96	1688
	7:40	428.7	4.0	604.8	10.174	418.5	17.64	1713
	7:45	438.9	6.0	576.0	9.296	429.6	16.80	1733
2				576.0				
	7:50	513.5	9.8	1094.4	30.478	483.0	31.92	1779
	7:55	547.6	13.6	1094.4	30.478	517.1	31.92	1814
	8:00	571.7	17.5	1123.2	31.979	539.7	32.76	1845
3				1104.0				
	8:05	657.7	22.8	1526.4	56.403	601.3	44.52	1898
	8:10	695.6	28.2	1555.2	58.388	637.2	45.36	1939
	8:15	731.0	33.6	1555.2	58.388	672.6	45.36	1976
4				1545.6				
	8:20	832.2	40.7	2044.8	96.877	735.3	59.64	2035
	8:25	876.4	47.8	2044.8	96.877	779.5	59.64	2081
	8:30	915.6	55.0	2073.6	99.416	816.2	60.48	2121
5				2054.4				
	8:35	1026.9	63.8	2534.4	144.107	882.8	73.92	2183
	8:40	1071.2	72.5	2505.6	141.092	930.1	73.08	2234
	8:45	1115.6	81.2	2505.6	141.092	974.5	73.08	2279
6				2515.2				
	8:50	1254.9	91.8	3052.8	203.333	1051.6	89.04	2344
	8:55	1301.8	102.4	3052.8	203.333	1098.5	89.04	2394
	9:00	1346.2	113.0	3052.8	203.333	1142.9	89.04	2439
7				3052.8				
	9:05	1493.2	125.3	3542.4	267.742	1225.5	103.32	2500
	9:10	1536.4	137.6	3542.4	267.742	1268.7	103.32	2548
	9:15	1577.1	150.0	3571.2	271.783	1305.3	104.16	2587
				3552.0				

		(1)		(2)	(4)	(5)	(6)	(7)
STEP NO. 8		SURFACE TUBING PRESS	CUMULATIVE VOL. INJECTED	INJECTION RATE	FRICTION HEAD LOSS	CORRECTED TUBING PRESS	INJECTION RATE (gpm)	MEASURED BHP
REMARKS	TIME	(psig)	(bbls)	(bbls/day)	(psf)	(psf) (1) - (4)	(3)/34.2367	(psf)
8	9:20	1711.4	164.0	4032.0	340.196	1371.2	117.60	2636
	9:25	1741.8	178.0	4032.0	340.196	1401.6	117.60	2669
	9:30	1764.7	191.8	3974.4	331.260	1433.4	115.92	2695
9				4012.8				
	9:35	1895.2	207.5	4521.6	420.539	1474.7	131.88	2731
	9:40	1919.4	223.1	4492.8	415.597	1503.8	131.04	2754
10	9:45	1929.5	238.7	4492.8	415.597	1513.9	131.04	2770
				4502.4				
	9:50	2058.8	256.4	5097.6	524.980	1533.8	148.68	2796
10	9:55	2063.9	273.4	4896.0	487.217	1576.7	142.80	2812
	10:00	2072.8	290.6	4953.6	497.874	1574.9	144.48	2828
				4982.4				
Fall - Off	10:01	1501.8				1501.8		2801
	10:02	1482.8				1482.8		2787
	10:03	1470.2				1470.2		2773
	10:04	1458.8				1458.8		2760
	10:05	1444.9				1444.9		2744
	10:10	1403.2				1403.2		2703
	10:15	1366.5				1366.5		2667



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE
April 6, 1992

BRUCE KING
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88240
(505) 393-6161

OIL CONSERVATION DIVISION
P.O. BOX 2088
SANTA FE, NEW MEXICO 87504-2088

RE: APPLICATION FOR PRESSURE LIMIT INCREASE FOR DISPOSAL & INJECTION WELLS

Gentlemen:

I have examined the step rate test for the:

Yates Drilling Company	Cactus Queen Unit	#4-0	27-12-31
Operator	Lease & Well No.	Unit	S-T-R

(Request on attached C-103)

and my recommendations are as follows:

OK

Very truly yours

Jerry Sexton
Supervisor, District I

/bp

