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TELEPHONE: (505) 988-4421

November 11, 1992 TELECOPIER: (505) 983-6043

HAND-DELIVERED

William J. LeMay, Director Oil Conservation Division New Mexico Department of Energy, Minerals and Natural Resources State Land Office Building Santa Fe, New Mexico 87503

case 1064! OIL CONSERVATION DIVISION

Re:

Application of Yates Drilling for Expansion of its Cactus Queen (Voluntary) Unit Waterflood Project and for Qualification of the Expansion Area for the Recovered Oil Tax Rate Pursuant to the "New Mexico Enhanced Oil Recovery Act", Chaves County, New Mexico

Dear Mr. LeMay:

Enclosed are two copies of the application of Yates Drilling Company in the abovereferenced case on Oil Conservation Division Form C-108. A copy of this application with all attachments is being mailed today to the Hobbs District Office pursuant to the requirements of Oil Conservation Division Rules.

Yates Drilling Company requests that you treat this as its written application in the abovereferenced case which also includes Yates request for qualification of the expansion area covered by this application for the Recovered Oil Tax Rate pursuant to the New Mexico Enhanced Oil Recovery Act.

Your attention to this matter is appreciated.

Mery truly yours,

WILLIAM F. CARR

ATTORNEY FOR YATES DRILLING

WFC:mlh Enclosures

cc w/o enc.: Mr. Doug Hurlbut

Yates Drilling Company 105 South Fourth Street Artesia, New Mexico 88210

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT

DIL CONSERVATION DIVISION

POST OFFICE BOX 2018
STATE LAND OFFICE BUILDING
GANTA FE, NEW MEXICO B/501

RECEIVED

FORM C-108 Revised 7-1-81

Ι.	Purpose: X Secondary Recovery Pressure depoiseRVATED Disposal Storage Application qualifies for administrative approvals RVATED EXTENSION NO.
II.	Operator: Yates Drilling Company
	Address: 105 South 4th Street, Artesia, NM 88210
	Contact party: Tobin L. Rhodes Phone: (505) 748-1471
111.	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? X yes no no If yes, give the Division order number authorizing the project R-9075
٧.	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 whi 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:
	 Proposed average and maximum daily rate and volume of fluids to be injected; Whether the system is open or closed; Proposed average and maximum injection pressure; Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and 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.).
111.	Attach appropriate geological data on the injection zone including appropriate litholog 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.
х.	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.
III.	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 correto the best of my knowledge and belief.
	Name:Tobin L. RhodesTitlePetroleum Engineer
	Signature: Date: 11-9-92

III. WELL DATA

- A. The following well data must be submitted for each injection well covered by this application.
 The data must be both in tabular and schematic form and shall include:
 - (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
 - (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
 - (3) A description of the tubing to be used including its size, lining material, and setting depth.
 - (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.
 - (1) The name of the injection formation and, if applicable, the field or pool name.
 - (2) The injection interval and whether it is perforated or open-hole.
 - (3) State if the well was drilled for injection or, if not, the original purpose of the well.
 - (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
 - (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

OIL CONSERVATION DIVISION FORM C-108 (SUPPLEMENT)

I. Purpose:

Application is made by Yates Drilling Company for authorization to inject water into the Queen formation underlying the boundaries of the proposed expansion area of the Cactus Queen Unit. The proposed expansion area consists of 320 acre, more or less, of Federal lands (Federal minerals, private surface) in units E, F, G, J, K, L, M and N (W/2, SW/4 of NE/4, NW/4 of SE/4) of Section 34, Township 12 South, Range 31 East, Chaves County, New Mexico. This project will be an expansion of the existing secondary recovery project with the objective of recovering hydrocarbons that will not and can not be recovered by primary means.

All of the wells in the expansion area are primary depleted or very near primary depletion. Our studies show that the injection of water into selected wells will result in the recovery of oil in economic quantities not otherwise recoverable. This project should provide economic benefits to all parties holding any type of interest in the expansion acreage.

II Operator:

Yates Drilling Company 105 South Fourth Street Artesia. New Mexico 88210 Phone Number: (505) 748-1471

Contact: Tobin L. Rhodes

III. Injection Well Data:

A well data sheet and schematic is included for each of the the schematic demonstrates how the injection well will be configured if this application is approved

IV. Existing Project:

The proposed project is an expansion of the Cactus Queen Unit. Formation of the Cactus Queen Unit was approved by the New Mexico Oil Conservation Division December 14, 1989 by authority of order R-9075A. Permission to inject into selected wells within the Cactus Queen Unit was granted March 15, 1990 by authority of order R-9075B.

V. Ownership:

A lease ownership map is attached which identifies all wells and lease ownership within two miles of any of the five proposed injection wells. On this map the area of review has been identified by drawing a one half mile circle around each injection well.

VI. Well Data:

There are presently twelve wells, including the proposed injection wells that fall within the boundaries of the expansion area or within the area of review. There are no wells within the area of review that have been plugged and abandoned. There are three wells within the area of review that are active injecting wells, injecting water into the Queen formation. There are ten wells that are active producing oil wells, producing from the Queen formation. Available data for each of these wells is included in a well data sheet.

VII. Project Data:

- 1. The proposed daily average water injection rate is expected to be approximately 200 barrels per day for each of the five proposed injection wells. The maximum injection rate for any well will be based on fracture pressures as determined by step-rate pressure tests to be conducted on each injection well. The maximum injection rate is expected to be less than 400 barrels per day.
- 2. Unit produced water and fresh water from the supply well will be stored in covered fiberglass storage tanks. There is no immediate plan to accept water from any other sources.
- 3. Initially, injection wells may take water on a vacuum, but as the reservoir fills a positive surface injection pressure will be required to inject water. The maximum injection pressure will also be determined by the planned step-rate pressure tests. At no time prior to the step-rate tests will the injection pressure exceed a pressure limitation of 0.2 PSIG per foot of depth to the top of the injection interval.
- 4. The source of injection fluid will be produced water from producing wells within the unit and fresh water from the our fresh water well producing from the Ogollala Aquifer

5. The Ogollala has been the source of water for many Queen waterfloods for many years without significant compatibility problems. We have had compatibility tests run with no compatibility problems observed.

VIII. Geologic Data:

The Cactus Queen Unit and the proposed expansion area produce from the upper sandstone member of the Queen formation, upper Guadalupian series, Permian system. The average producing depth in the field is approximately 2990 feet.

The productive/injection interval, as indicated from a whole core analysis on the Cactus Queen Unit #6 (330' FNL & 1980' FEl, 34-12S-31E, Chaves County, New Mexico) and from sidewall cores from numerous wells, is fine grained, friable, gray, quartz sandstone. The grains are subangular to subrounded and well sorted. The cementing materials are anhydrite and dolomite. The exact depositional environment is unknown. Porosity and permeability are intergrandular in nature. The sandstone is not naturally fractured.

The Cactus Queen Unit reservoir is a stratigraphic trap. Cementation of the sandstone results in the loss of porosity and permeability, creating a barrier on all sides with the exception of the east. An oil/water contact has been established on the eastern edge of the reservoir.

The primary source of fresh water in this area is the Ogollala formation of Tertiary age, the base of which is estimated to be 300 feet below the surface. This aquifer is protected behind the surface casing and cement of all the unit wells and proposed unit wells. The Chinlee formation is also a fresh water aquifer which immediately underlies the Ogollala formation. The base of the Chinlee is estimated to be approximately 500 feet below the surface in the unit area. The Chinlee is behind the surface casing of all existing wells in the area.

IX. Stimulation Program:

Each of the currently producing wells has previously received a fracture treatment. The details of these treatments are outlined in the data sheet for each individual well. There are no plans to stimulate any of the existing wells which will be producing wells in this project.

The wells which will be injection wells may require a small clean-up acid treatment prior to injection. We plan to treat each of the proposed injection wells with 500 to 1000 gallons of 7-1/2% hydrochloric acid. This treatment should insure that existing perforations are open and that each well will accept water at the lowest possible pressure.

X. Well Logs:

Well logs for each of the existing wells in the proposed expansion area have previously been submitted to the Hobbs office of the NMOCD.

XI. Fresh Water:

The office of the State Engineer in Roswell has a record of seven wells within one mile of the proposed unit expansion area. The exact total depth of all of the wells is unknown, however all wells are assumed to be producing from the Ogollala formation. Analysis reports from three of the wells are attached.

XII. <u>Injection Zone Isolation:</u>

Available engineering and geologic data has been examined and no evidence of open faulting or any other hydrologic connection between the injection zone and any underground source of drinking water has been found.

XIII. Proof of Notice:

A listing of off-set leasehold operators within one half mile of any proposed injection well and the surface owner(s) that have received a copy of this application by certified mail is attached.

XIV. Certification:

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

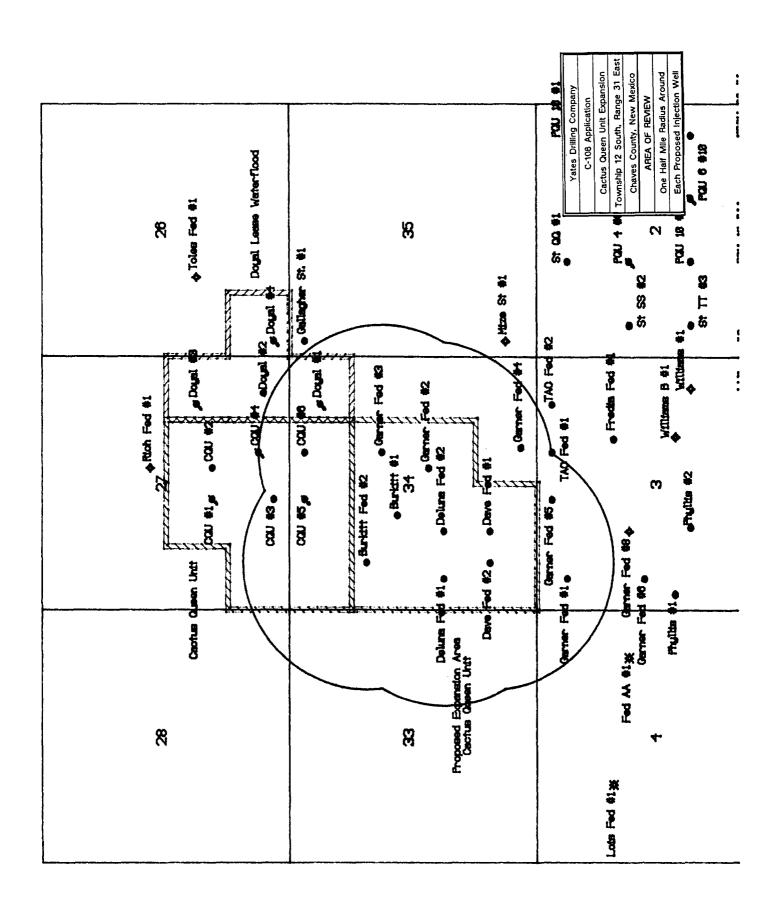
Tobin L. Rhodes

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Petroleum Engineer

November 9, 1992

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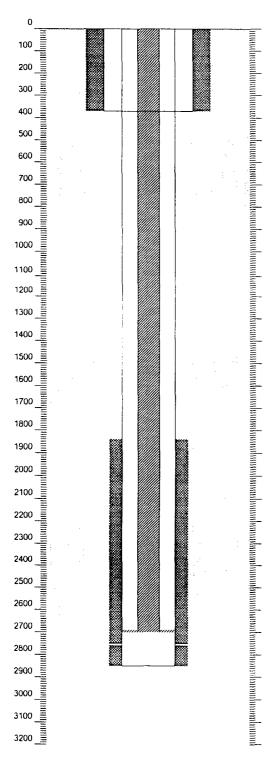


	OPERATOR; Yates Drilling Company		
	LEASE: Burkitt Federal		
	FOOTAGE; 2310' fnl & 1980' fel	· · · · · · · · · · · · · · · · · · ·	
SEC-TWN-R	NG, COUNTY, STATE: 34-12S-34E, Chaves County, New Mexico SPUD DATE: 23-Mar-84	<u> </u>	
	COMPLETION DATE: 7-Apr-84		
	CURRENT STATUS: Active producing well - Queen PROPOSED STATUS: Active producing well - Queen		
	PHOPOSED STATOS. Active producing wen - queen		
			
SUF	RFACE CASING	PRODUCTION CASING	
			F 700 11101170
Ì	CASING SIZE: 8.625 INCHES CASING WEIGHT: 24.000 POUNDS/FOOT	CASING SIZE: CASING WEIGHT:	14.000 POUNDS/FOOT
	CASING GRADE: J-55 DEPTH SET: 450 CEMENTED USED: 300 SACKS	CASING GRADE:	J-55_
ļ	CEMENTED USED: 300 SACKS	DEPTH SET: CEMENTED USED:	3,080 FEET
	TOP OF CEMENT: 0 FEET	TOP OF CEMENT:	1,650 FEET
	DETERMINED BY: <u>circulate</u>	DETERMINED BY: ten	np. survey
1	HOLE SIZE: 12.250 INCHES	HOLE SIZE:	7.875 INCHES
		TOTAL DEPTH: PLUGGED BACK TD:	3,700 FEET
		, coods s.i.i.	
ILNI	ECTION OR PRODUCING INTERVAL		-
	INTERVAL TOP: 2,874 FEET	INTERVAL BOTTOM:	2,882_FEET
P	COMMENTS: Perforated REVIOUS STIMULATION: 750 gallons 15% HCL acid plus 20,000 gr	allons gelled water, 25% CO2,	·
Ì	16,500 pounds of 20/40 sand, 6000 poun		
P	ROPOSED STIMULATION: None		
INJ	ECTION TUBING (if an injection well)		
	TUBING SIZE: NA INCHES	LINING: NA	
	PACKER: NA	DEPTH TO BE SET: NA	FEET
ОТН	HER DATA		
1.	Name of injection or producing interval. Queen		
2.	Name of field or pool (if applicable). SE Chaves Queen		····
3.	Is this a new well drilled for injection?		
	If no, for what purpose was the well originally drilled? This well was originally drilled as a Queen producing well.		
4.	Has well ever been perforated in any other zones?		
	List all such perforated intervals and give plugging details (sack None	s of cement or bridge plug(s) used).	
5.	Give depth to and name of any overlying and/or underlying oil or There has never been any production from any formation other this well.		
6	If well is plugged and abandoned, list details of plugging and atta	ach schematic.	
	Not applicable.		

					
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		Yates Drilling Company			
1		Burkitt Federal			
l		2 1650' fnl & 990' fwl			
SEC-1		34-12S-34E, Chaves County, New Mexic			
320.		5-May-84			
	COMPLETION DATE:	10-Jul-84			
H		Active producing well - Queen			
1		Active injection well - Queen			
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<u> </u>					
1	SURFACE CASING		PRODUCTION CASING		
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ļį	CASING SIZE:	8.625 INCHES	CASING SIZE:	5.500 INCHES	
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il .	CASING GRADE:		CASING GRADE:		
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II.	HOLE SIZE:	12.250 INCHES	HOLE SIZE:	7.875 INCHES	
	HOLE SIZE	12.230 1101123	TOTAL DEPTH:		
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	INJECTION OR PRODUCING	INTERVAL			
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ll .	INTERVAL TOP		INTERVAL BOTTOM:	2.760 FEET	
	COMMENTS				
	PREVIOUS STIMULATION:	750 gallons 15% HCL acid plus 15,000	gallons gelled water, 5,000 gallons CO2,		
1		14,500 pounds of 20/40 sand, 2,500 poi	unds of 12/20 sand		
	PROPOSED STIMULATION	500-1000 gallons of 7-1/2% HCL acid to	clean perforations		
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II	INJECTION TUBING (if an in	niection well)			
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ll .	PACKER	Nickel plated tension packer	DEPTH TO BE SET:	2,704 FEET	
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	OTHER DATA				
11					
	 Name of injection or presented. 	oducing interval.			
II.	Queen		· · · · · · · · · · · · · · · · · · ·		
l					
	2. Name of field or pool	if applicable).			
!	SE Chaves Queen		······································		
1	3. Is this a new well drille	d for injection?			
	No.	a for injection			
1					
11	If no, for what purpose	was the well originally drilled?			
ll		y drilled as a Queen producing well.			
1					
H		forated in any other zones?			
ll .	No				
	tick off over a of conta	d (manufacture and a true and a t	la af a sand on halder wheels and		
li .		d intervals and give plugging details (sac	ks of cement or bridge plug(s) used).		
	None				
ll					
1	5. Give depth to and nam	e of any overlying and/or underlying oil o	or gas zones (pools) in this area.		
		any production from any formation other			
II.	this well.				
li .					
		abandoned, list details of plugging and at	ttach schematic.		
	Not applicable.				
11					
- 11					

BURKITT FEDERAL #2

E34-12S-31E CHAVES COUNTY, NM



370', 8-5/8" 24# J-55 CASING, CEMENTED WITH 375 SACKS, CIRCULATED

1840', TOP OF CEMENT AS DETERMINED BY TEMPERATURE SURVEY

2704', APPROXIMATE INJECTION PACKER DEPTH

2754'-2760', PERFORATIONS, 12 HOLES

2850', TD, 5-1/2" 14&15.5# J-55 CASING @ 2840', CEMENTED WITH 250 SACKS

		- 			
J.					
		Yates Drilling Company			
ĮĮ.		Cactus Queen Unit			
		3			
SEC-TWN-D	FOUTAGE;	1650' fsl & 2310' fel 27-12S-34E, Chaves County, New Mexi-			
300 111111		29-Jul-85			
11	COMPLETION DATE:	23-Aug-85			
1		Active producing well - Queen			
	PROPOSED STATUS:	Active producing well - Queen			
<u> </u>					
SUF	RFACE CASING		PRODUCTION CASING		
1					
	CASING SIZE:	8.625 INCHES	CASING SIZE:	405.000 INCHES	
1	CASING WEIGHT:	24.000 POUNDS/FOOT	CASING WEIGHT:	10.500 POUNDS/FOOT	'
]	CASING GHADE:	J-55	CASING GRADE: DEPTH SET:	J-55	
11	CEMENTED USED:	250 SACKS	CEMENTED USED:	575 SACKS	'
	TOP OF CEMENT:	J-55 454 FEET 250 SACKS 0 FEET circulate	CEMENTED USED: TOP OF CEMENT: DETERMINED BY:	254 FEET	
1	DETERMINED BY:	circulate	DETERMINED BY:	CBL	
	HOLE SIZE:	12.250 INCHES	HOLE SIZE:	7.875 INCHES	
<u> </u>			TOTAL DEPTH:	3,150 FEET	
			PLUGGED BACK TD:	3,150 FEET	
II.					
				- 	
ILNI	ECTION OR PRODUCING	INTERVAL			
II.					
		2,984 FEET	INTERVAL BOTTOM:	2,991 FEET	
∥ _		Perforated 1000 000			
1 '	HEVIOUS STIMULATION:	12,000 gallons gelled water, 4,000 COG 12/20 sand	9, 10,500 pounds 20/40 sand and 10,000	pounds	
pr	ROPOSED STIMULATION:				
	HOLOSED STIMODATION	Hone			
IL			_		
	5077011 TURMO #				
III	ECTION TUBING (if an ir	njection well)			
İ	TUBING SIZE	NA INCHES	LINING: NA		
l)	PACKER	: NA	DEPTH TO BE SET: NA	FEET	
					
<u> </u>					
)) OTI	HER DATA				
0,,	TER DATA				
1.	Name of injection or pr	oducing interval,			
Ħ	Queen				
}					
2.	Name of field or pool	(if applicable).			
- 15	SE Chaves Queen				
	la thia a navy wall drilla	ed for injection?			
J. 3.	Is this a new well drille No.	d for injection?			
ll.	110.				
Į.	If no, for what purpose	was the well originally drilled?			
		y drilled as a Queen producing well.			
N.					
4.		forated in any other zones?			
İ	No				
	List all such perforate	d intervals and give plugging details (sac	cks of cement or bridge plug(s) used)		
H	None	3.11 bio333 across (acr	1. James at allege biggles and it		
1					
11			-		
] 5.		e of any overlying and/or underlying oil			
H		any production from any formation other	er than the Queen in the area surrounding		
1	this well.				
1					
					
6.		abandoned, list details of plugging and a	attach schematic.		
	Not applicable.				
! !					

SEC-TWN-RN				
SEC-TWN-RN				
SEC-TWN-RN	LEACE, CA	ates Drilling Company		
SEC-TWN-RN		actus Queen Unit		
SEC-TWN-RN	WELL #:	4 60' fsl & 1980' fel		
SEC TYNY		7-12S-34E, Chaves County, New Mexic	50	
	SPUD DATE:	14-Oct-84		
	SPUD DATE:	30-Oct-84		
	CURRENT STATUS: A	ctive injection well - Queen		
		ctive injection well - Queen		
				
				
SURF	ACE CASING		PRODUCTION CASING	
	CASING SIZE:	8.625 INCHES	CASING SIZE:	5.500 INCHES
	CASING WEIGHT	24 DOD BOLINDS/EDOT	CASING WEIGHT:	14.000 POUNDS/FOOT
	CASING GRADE:		CASING GRADE:	J-55
	DEPTH SET:	25.00 POINTS FEET 250 SACKS 0 FEET circulate 12.050 NOUTE 12.050 NOUT	DEPTH SET:	3,099 FEET
	CEMENTED USED:	250 SACKS	CEMENTED USED:	<u>270</u> SACKS
	TOP OF CEMENT:	O FEET	TOP OF CEMENT:	1,900 FEET
	DETERMINED BY:	CIRCUIATE	DETERMINED BY: te	emp survey
	HOLE SIZE: _	12.250 INCHES	HULE SIZE:	7.875 INCHES
			TOTAL DEPTH: PLUGGED BACK TD:	3,000 FEET
			FEOGGED BACK TO.	
				
INJEC	CTION OR PRODUCING IN	TERVAL		
		2,987 FEET	INTERVAL BOTTOM:	2,993 FEET
	COMMENTS: P			·
PR	EVIOUS STIMULATION: 7	50 gallons of 15 % HCL plus 15,000 c	gallons of gelled water, 1,000 SCF/BBL of	CO2,
DD(3,000 pounds of 20/40 sand and 9,000	U pounds of 20/40 sand	
PAC	oposed stimulation: <u>N</u>	one		
INJEC	CTION TUBING (if an injec	ction well)		
	TUDING SIZE	2.375 INCHES	LINING	da.
	PACKER: ni	ickel plated tension packer	UNING: <u>plast</u> DEPTH TO BE SET:	
	THOREM.	oner pared tension packer		
отне	EFI DATA			
	taman ad to to set	turing teater of		
	lame of Injection or prod Queen	ucing interval.		
	lame of field or pool (if a	applicable).		
2. N	SE Chaves Queen			
				<u> </u>
3. Is	this a new well drilled	for injection?		
3. Is	this a new well drilled No.	·		
3. Is 	s this a new well drilled to No. If no, for what purpose well are to the purpose well are to the total to th	vas the well originally drilled?		
3. Is 	s this a new well drilled to No. If no, for what purpose well are to the purpose well are to the total to th	·		
3. ts	s this a new well drilled No. f no, for what purpose which well was originally continuous control or the control of the contr	vas the well originally drilled? drilled as a Queen producing well.		
3. Is !! - - 4. H	s this a new well drilled No. f no, for what purpose which well was originally continuous to the state of th	vas the well originally drilled?		
3. Is	s this a new well drilled to No. If no, for what purpose we well was originally contained to the thing well ever been performed.	vas the well originally drilled? drilled as a Queen producing well. rated in any other zones?		
3. Is	s this a new well drilled to No. If no, for what purpose we was originally contained to the term of t	vas the well originally drilled? drilled as a Queen producing well. rated in any other zones?	cks of cement or bridge plug(s) used).	
3. Is	s this a new well drilled to No. If no, for what purpose we well was originally contained to the thing well ever been performed.	vas the well originally drilled? drilled as a Queen producing well. rated in any other zones?	cks of cement or bridge plug(s) used).	
3. Is	s this a new well drilled to No. If no, for what purpose we was originally contained to the contained to th	vas the well originally drilled? drilled as a Queen producing well. rated in any other zones? intervals and give plugging details (sad		
3. Is	s this a new well drilled to No. If no, for what purpose we the norm of the n	vas the well originally drilled? drilled as a Queen producing well. rated in any other zones? intervals and give plugging details (sac	or gas zones (pools) in this area.	
3. Is	s this a new well drilled to No. If no, for what purpose we the norm of the n	vas the well originally drilled? drilled as a Queen producing well. rated in any other zones? intervals and give plugging details (sac		
3. Is	s this a new well drilled to No. If no, for what purpose we was originally contained to the contained to th	vas the well originally drilled? drilled as a Queen producing well. rated in any other zones? intervals and give plugging details (sac	or gas zones (pools) in this area.	
3. Is	s this a new well drilled to No. If no, for what purpose we was originally contained to the contained to th	vas the well originally drilled? drilled as a Queen producing well. rated in any other zones? intervals and give plugging details (sac	or gas zones (pools) in this area.	
3. Is	s this a new well drilled to No. If no, for what purpose we was originally contained to the contained to th	vas the well originally drilled? drilled as a Queen producing well. rated in any other zones? intervals and give plugging details (sac	or gas zones (pools) in this area. or than the Queen in the area surrounding	

OPERATOR; <u>Yates Drilling Company</u> LEASE: <u>Cactus Queen Unit</u> WELL #: 5		
FOOTAGE: 330' fml & 2310' fml SEC-TWN-RNG, COUNTY, STATE: 34-125-34E, Chaves County, New Mexico SPUD DATE: 9-Aug-85 COMPLETION DATE: 1-Oct-85 CURRENT STATUS: Active injection well - Queen	D	
PROPOSED STATUS: <u>Active injection well - Queen</u>	······································	
SURFACE CASING	PRODUCTION CASING	
CASING SIZE: 8.625 INCHES CASING WEIGHT: 24.000 POUNDS/FOOT CASING GRADE: J-55 DEPTH SET: 424 FEET CEMENTED USED: 270 SACKS TOP OF CEMENT: 0 FEET DETERMINED BY: circulate HOLE SIZE: 12.250 INCHES	CASING SIZE: CASING WEIGHT: CASING GRADE: DEPTH SET: CEMENTED USED: TOP OF CEMENT: DETERMINED BY: HOLE SIZE: TOTAL DEPTH: PLUGGED BACK TD:	14.000 POUNDS/FOOT J-55 3,083 FEET 260 SACKS 1,640 FEET mp survey
INJECTION OR PRODUCING INTERVAL		
INTERVAL TOP: 2,988 FEET COMMENTS: Perforated PREVIOUS STIMULATION: 750 gallons of 15% HCL acid plus 15,00 12,000 pounds of 20/40 sand and 7,000	INTERVAL BOTTOM:	
PROPOSED STIMULATION: None		
INJECTION TUBING (if an injection well) TUBING SIZE: 2.375 INCHES PACKER: Aluminum bronze tension packer	UNING: plasti DEPTH TO BE SET:	cFEET
OTHER DATA		
Name of injection or producing interval. Queen		
Name of field or pool (if applicable). SE Chaves Queen		
Is this a new well drilled for injection? No.		
If no, for what purpose was the well originally drilled? This well was originally drilled as a Queen producing well.		
Has well ever been perforated in any other zones? No		
List all such perforated intervals and give plugging details (sack None	s of cement or bridge plug(s) used).	
Give depth to and name of any overlying and/or underlying oil o There has never been any production from any formation other this well.		
If well is plugged and abandoned, list details of plugging and att Not applicable.	lach schematic.	

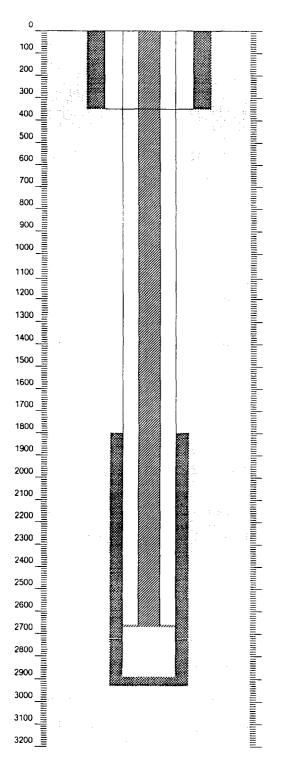
LEASE WELL # FOOTAGE SEC-TWN-RN3, COUNTY, STATE SPUD DATE COMPLETION DATE CURRENT STATUS	330' fnl & 1980' fel 34-125-34E, Chaves County, New Mexico 11-Feb-85		
SURFACE CASING CASING SIZE CASING WEIGHT	8.625 INCHES 24.000 POUNDS/FOOT	PRODUCTION CASING CASING SIZE: CASING WEIGHT:	5.500 INCHES
CASING GRADE DEPTH SET CEMENTED USED TOP OF CEMENT DETERMINED BY	24.00 POUNDS/PCOT 3-55 433 FEET 300 SACKS 0 FEET circulate 12.250 INCHES	CASING WEIGHT: CASING GRADE: DEPTH SET: CEMENTED USED: TOP OF CEMENT: DETERMINED BY: HOLE SIZE: TOTAL DEPTH: PLUGGED BACK TD:	3,094 FEET 410 SACKS 1,900 FEET CBL 7.875 INCHES 3,100 FEET
COMMENTS	2,987 FEET: Perforated: 750 gallons of 15% HCL acid plus 15,000 13,000 pounds of 20/40 sand and 10,000	INTERVAL BOTTOM:	
INJECTION TUBING (if an i TUBING SIZE PACKER	njection well) : NA INCHES : NA	Lining: <u>Na</u> Depth to be set: <u>Na</u>	FEET
OTHER DATA 1. Name of injection or p	roducing interval.		
Queen 2. Name of field or pool SE Chaves Queen	(if applicable).		
	ed for injection? e was the well originally drilled? ly drilled as a Queen producing well.		
<u>No</u>	rforated in any other zones?	of cement or bridge plug(s) used).	
	ne of any overlying and/or underlying oil or any production from any formation other t		
6. If well is plugged and Not applicable.	abandoned, list details of plugging and atta	ch schematic.	

12	E: Dave Federal		
WELL			
SEC TAVAL GAIG COLLAITY STAT	E; 990' fsl & 990' fwl E: 34-12S-34E, Chaves County, New M	Aovino	
SEC-1WIN-HING, COUNTY, STAT	E: 21-Jan-84	lexico	
COMPLETION DAT			
	S: Active producing well - Queen		
	S: Active producing well - Queen	· · · · · · · · · · · · · · · · ·	
	Transport of the second		
<u> </u>			
SURFACE CASING		PRODUCTION CASING	
CASING SIZ	75. 9.625 INCHES	CACINIC SIZE	E EOO INCHES
CASING WEIGH	E: 8.625 INCHES IT: 24.000 POUNDS/FOOT	CASING SIZE: CASING WEIGHT:	14.000 POUNDS/FOOT
CASING GRAD	F:	CASING WEIGHT:	
DEPTH SE	T: 368 FEET	DEPTH SET:	
CEMENTED USE	E: J-55 TT: 368 FEET D: 265 SACKS TT: 0 FEET	CEMENTED USED:	
TOP OF CEMEN	IT: 0 FEET	TOP OF CEMENT:	1,800 FEET
II DETERMINED B	Y:circulate	DETERMINED BY: Ten	
HOLE SIZ	E: 12.250 INCHES	HOLE SIZE:	7.875 INCHES
		TOTAL DEPTH:	
		PLUGGED BACK TD:	2,925 FEET
INJECTION OR PRODUCIN	G INTERVAL		
	<u>_</u>		
INTERVAL TO	P: 2,723 FEET	INTERVAL BOTTOM:	2,730 FEET
	S: Perforated		
PREVIOUS STIMULATIO	N: 750 gallons 15% HCL acid plus 15,0	000 gallons gelled water, 5,000 pounds CO2,	
	16,500 pounds of 20/40 sand, 6,000	pounds of 12/20 sand	· · · · · · · · · · · · · · · · · · ·
PROPOSED STIMULATIO	N: 500-1000 gallons of 7-1/2% HCL to	clean perforations	
			
INJECTION TUBING (if an	injection well)		
11020 1011 1001110 (11 011	ingconori vveny		
TUBING SIZ	ZE: 2.375 INCHES	UNING: plastic	1
	R: Nickel plated tension packer		
			
			
OTHER DATA			
1. Name of injection or	needucing interval		
Name of injection or Queen	producing interval.		
<u> </u>		······································	
2. Name of field or poor	it (if applicable).		
SE Chaves Queen	(The		
			· · · · · · · · · · · · · · · · · · ·
3. Is this a new well dr	illed for injection?		
No.			
	se was the well originally drilled?		
This well was origin	ally drilled as a Queen producing well.		
<u> </u>			
4 Han well aver been s	perforated in any other zones?		
No	Perforated in any other Zones?		
<u> </u>			
List all such perfora	ted intervals and give plugging details	(sacks of cement or bridge plug(s) used).	
None	,	(
	ame of any overlying and/or underlying		
	an any production from any formation of	other than the Queen in the area surrounding	
this well.			
			
6 If well is plugged and	d abandoned, list details of plugging an	nd attach schematic	
Not applicable.	. additioning, not octain or plugging an	a action continues.	
			

	OPERATOR:	Yates Drilling Company		
		Dave Federal		·
		2		
SEC-TWN-R		990' fsl & 990' fwl 34-12S-34E, Chaves County, New I	Mexico	
	SPUD DATE:	21-Jan-84		
	COMPLETION DATE: CURRENT STATUS:	9-Feb-84 Active producing well - Queen		
		Active producing well - Queen		
	==			
SUF	RFACE CASING		PRODUCTION CASING	
	CASING SIZE	8.625 INCHES 24.000 POUNDS/FOOT	CASING SIZE:	5.500 INCHES
	CASING WEIGHT:	24.000 POUNDS/FOOT	CASING WEIGHT:	5.500 INCHES 14.000 POUNDS/FOOT
ii I	CASING GRADE. DEPTH SET:	: J-55 : 368 FEET	DEPTH SET:	2.925 FEET
	CEMENTED USED	: 368 FEET : 265 SACKS	CASING GRADE: DEPTH SET: CEMENTED USED: TOP OF CEMENT:	250 SACKS
l)	TOP OF CEMENT	: 0 FEET : circulate : 12.250 INCHES	TOP OF CEMENT:	1,800 FEET
	HOLE SIZE	: circulate · 12.250 INCHES	DETERMINED BY:Ter	mp. survey 7.875 INCHES
11	110=4 5:==	12200 1101/20	TOTAL DEPTH:	2,925 FEET
			TOTAL DEPTH: PLUGGED BACK TD:	2,925 FEET
1				
ILNI	ECTION OR PRODUCING	INTERVAL		
				
ľ		: 2,723 FEET	INTERVAL BOTTOM:	2,730 FEET
۾ ا		: Perforated : 750 gallons 15% HCL acid plus 15.	,000 gallons gelled water, 5,000 pounds CO2,	
j		16,500 pounds of 20/40 sand, 6,00	0 pounds of 12/20 sand	
P	ROPOSED STIMULATION	: 500-1000 gallons of 7-1/2% HCL to	clean perforations	
L				
ILMI	ECTION TUBING (if an in	niection well)		
	·	•		
	TUBING SIZE	: 2.375 INCHES : Nickel plated tension packer	LINING: <u>plasti</u> DEPTH TO BE SET:	2 573 5557
	FRONE	. Nicker plated tension packer	DEFIN TO BE SET.	<u> </u>
ОТН	HER DATA			
1	Name of injection or p	roducina interval		
"	Queen	Toddenig interval.		
	Name of field or pool	(if applicable)		
2.	SE Chaves Queen	(ii applicable).		
3.	Is this a new well drille No.	ed for injection?		
11				
		e was the well originally drilled?		
	This well was original	y drilled as a Queen producing well.		
-		· · · · · · · · · · · · · · · · · · ·		
4.	· ·	rforated in any other zones?		
II.	No			
	List all such perforate	ed intervals and give plugging details	(sacks of cement or bridge plug(s) used).	
li .	None			
ľ				
5.			oil or gas zones (pools) in this area.	
	There has never been this well.	any production from any formation	other than the Queen in the area surrounding	
\\	uus wen.		·	
	If well is plugged and	abandoned, list details of plugging a	nd attach schematic	
J	Not applicable.		attach Schemate.	

DAVE FEDERAL #2

M34-12S-31E CHAVES COUNTY, NM



265', 8-5/8" 24# J-55 CASING, CEMENTED WITH 265 SACKS, CIRCULATED

1800'. TOP OF CEMENT AS DETERMINED BY TEMPERATURE SURVEY

2673', APPROXIMATE INJECTION PACKER DPETH

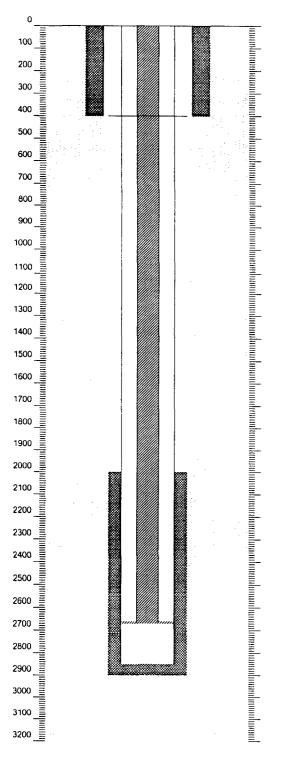
2723'-2730', PERFORATIONS, 14 HOLES

2925', TD, 5-1/2"14.5# J-55 CASING, CEMENTED WITH 250 SACKS

					
1	OPERATOR:	Yates Drilling Company			}
1		DeLuna Federal			
l .	WELL #:	11			· · · · · · · · · · · · · · · · · · ·
		1980' fsl & 660' fwl		·	
SEC-TWN-P		34-12S-34E, Chaves County, New M	exico		
1	SPUD DATE:	2-Jul-82			Ì
I	COMPLETION DATE:	1-Sep-82			- 1
		Active producing well - Queen			ļ
	PHOPOSED STATUS:	Active Injection well - Queen			
					
SUF	RFACE CASING		PRODUCTION CASING		
l l	CASING SIZE	: 8.625 INCHES : 24.000 POUNDS/FOOT	CASING SIZE:	4.500 INCHES	
	CASING WEIGHT	24.000 POUNDS/FOOT	CASING WEIGHT:	4.500 INCHES 10.500 POUNDS/FOOT	
ĮĮ.	CASING GRADE	: J-55 400 FEET 240 SACKS 0 FEET circulate	CASING GRADE: DEPTH SET:	J-55	
l	DEPTH SET	:	DEPTH SET:	2,900 FEET	
	CEMENTED USED	: <u>240</u> SACKS	CEMENTED USED:	<u>250</u> SACKS	
]]	DETERMINED BY	. O FEE!	TOP OF CEMENT: DETERMINED BY:		
	DETERMINED BY	:	DETERMINED BY:	7 875 INCHES	
 	HULE SIZE		HOLE SIZE:	2 900 FFFT	
[PLUGGED BACK TO	2,300 FEET	
ll			LEGGGED BACK TD.	LL1	
l					
Ĭ					
ll ln1	ECTION OR PRODUCING	INTERVAL			
H			_		
		: <u>2,718</u> FEET	INTERVAL BOTTOM:	2,724 FEET	
1		: Perforated			
]]	PHEVIOUS STIMULATION		000 gailons gelled water, 5,000 scf CO2,		
-	DODOCED CTIMU ATION	7,000 pounds of 20/40 sand, 6,800 p			
∦ P	HOMOSED STIMULATION	: 500-1000 gallons of 7-1/2% HCL acid	to clean perforations		
<u> </u>					
ll					
lui	ECTION TUBING (if an in	niection well)			
		-			
!		: 2.375 INCHES	LINING: plasti	ic	
	PACKER	: Nickel plated tension packer	DEPTH TO BE SET:	2,668 FEET	
			·		
<u> </u>					
			· -		
	UES DATA				
)) OT	HER DATA				
1	Name of injection or -	roducing interval			
{{ '`	Name of injection or p Queen	roducing interval.			
II.	CHUCCH				
. 2	Name of field or pool	(if applicable).			
II	SE Chaves Queen	7			
H					
3.	Is this a new well drille	ed for injection?			
1	No.				
II.					
	If no, for what purpos	e was the well originally drilled?			
		y drilled as a Queen producing well.			
11					
					
4.	·	rforated in any other zones?			
]]	No				
	Liet all auch	ad intervals and aire alreading details (encks of coment or bridge strate)		
	None	tu intervals and give plugging betails (sacks of cement or bridge plug(s) used).		
1	HORE				
H					
5	Give depth to and nam	ne of any overlying and/or underlying of	oll or gas zones (pools) in this area.		
11			ther than the Queen in the area surrounding		
H	this well.				
li .					
11					
6.		abandoned, list details of plugging and	d attach schematic.		
6.	If well is plugged and Not applicable.	abandoned, list details of plugging and	d attach schematic.		
6.		abandoned, list details of plugging and	d attach schematic.		

DELUNA FEDERAL #1

L34-12S-31E CHAVES COUNTY, NM



400', 8-5/8" 24# J-55 CASING, CEMENTED WITH 240 SACKS, CIRCULATED

2000', TOP OF CEMENT AS ESTIMATED

2668', APPROXIMATE INJECTION PACKER DPETH

2718'-2724', PERFORATIONS, 14 HOLES

2900', TD, 4-1/2"10.5# J-55 CASING, CEMENTED WITH 250 SACKS

		Yates Drilling Company			
	LEASE:	DeLuna Federal			
	WELL #: FOOTAGE;	2 1980' fsl & 1650' fwl			
SEC-TWN-F	RNG, COUNTY, STATE:	34-12S-34E, Chaves County, New M	1exico		Í
		7-Feb-84			
	COMPLETION DATE: CURRENT STATUS:	1-Mar-84 Active producing well - Queen			
		Active producing well - Queen			
					
II.					
sur	RFACE CASING		PRODUCTION CASING		
Į.	CASING SIZE	:	CASING SIZE:	5.500 INCHES	
	CASING WEIGHT:	: 24.000 POUNDS/FOOT	CASING WEIGHT:	14.000 POUNDS/FOOT	
	CASING GRADE:	. J-55	CASING GRADE:	J-55	
	DEPTH SET: CEMENTED LISED.	: 374 FEET : 275 SACKS	DEPTH SET: CEMENTED USED:	2,915 FEET	
		0 FEET	TOP OF CEMENT:	1,775 FEET	
]]	DETERMINED BY:	: circulate	DETERMINED BY:Tem	p. survey	
	HOLE SIZE:	: 12.250 INCHES	HOLE SIZE:	7.875 INCHES	
			TOTAL DEPTH: PLUGGED BACK TD:	2,925 FEET	
			. Stadeb and (D		
<u> </u>					
INJ	ECTION OR PRODUCING	INTERVAL			
1	INITEDIAL TOT	9 770 FFET	INTERIM POTTO:	9 704 FFFT	
		: 2,773 FEET	INTERVAL BOTTOM:	<u>2,101</u> FEE1	
F		: 750 gallons 15% HCL acid plus 20,0			
		16,000 pounds of 20/40 sand, 6,000			
∥ P	ROPOSED STIMULATION:	Molis			
<u></u>					
					
IN.	ECTION TUBING (if an ir	njection well)			
1	·	•			
1	TUBING SIZE: PACKER:	: NA INCHES	LINING: NA		
	PACKER		DEPTH TO BE SET: NA	FEET	
<u></u>					
[· · · · · · · · · · · · · · · · · · ·			
ОТ	HER DATA				
11					
1.	Name of injection or pr Queen	roducing interval.			
11	GGCEII				
2.	Name of field or pool ((if applicable).			
ll .	SE Chaves Queen				
3	Is this a new well drille	ed for injection?			
III .	No.				
) lung the			
		e was the well originally drilled? ly drilled as a Queen producing well,			
	wer was original	, as a gasen producing well,			
4.					
4.	•	rforated in any other zones?			
	No				
		ed intervals and give plugging details	(sacks of cement or bridge plug(s) used).		
	None				
11					
5.			oil or gas zones (pools) in this area.		
1	There has never been		other than the Queen in the area surrounding		
	this well.				
6.	If well is plugged and a Not applicable.	abandoned, list details of plugging an	nd attach schematic.		
	.tot applicable.				
11					

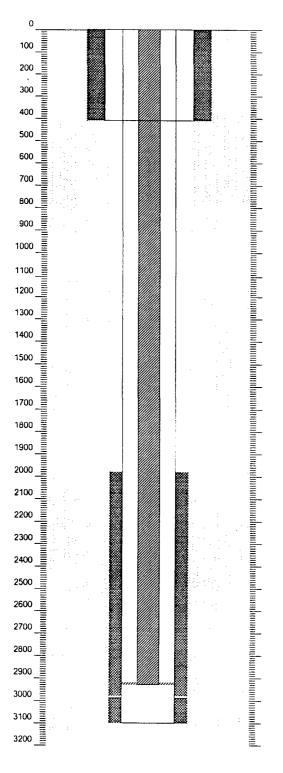
					
ll					
		Yates Drilling Company			
		Doyal 1			
ļļ.		660' fni & 990' fel			
SEC-TWN-F	RNG, COUNTY, STATE:	34-12S-34E, Chaves County, New M	lexico		
	SPUD DATE:	31-Jui-84			
	COMPLETION DATE:	25-Aug-84 Active injection well - Queen			i
		Active injection well - Queen		·	
i					
sui	RFACE CASING		PRODUCTION CASING		
	CASING SIZE:	8.625 INCHES 24.000 POUNDS/FOOT	CASING SIZE:	5.500 INCHES	
11	CASING WEIGHT:	24.000 POUNDS/POOT	CASING WEIGHT:	14.000 POUNDS/FOOT	
	DEPTH SET:	409 FEET	CASING GRADE: DEPTH SET:	3,098 FEET	
	CEMENTED USED:	J-55 409 FEET 250 SACKS 0 FEET	DEPTH SET:CEMENTED USED:	250 SACKS	
Ï	TOP OF CEMENT:	O FEET	TOP OF CEMENT:	2,200 FEET	
	DETERMINED BY:	circulate 12.250 INCHES	DETERMINED BY: tel	mp survey	
	HOLL SIZE.	12.230 INC/1E3	TOTAL DEPTH:	7.875 INCHES 3.100 FEET	
			TOTAL DEPTH: PLUGGED BACK TD:	3,098 FEET	
1					
<u> </u>	==				_
LNI	ECTION OR PRODUCING	INTERVAL			
\\					
		2,982 FEET	INTERVAL BOTTOM:	2,989 FEET	
		Perforated	gallons of gelled water, 5,000 SCF per barre	of NO	
1	TICALOGO STILATOR	10,900 pounds 20/40 sand and 4,200	0 pounds of 20/40 sand	3 142,	
P	ROPOSED STIMULATION				
					_
INJ	ECTION TUBING (if an in	njection well)			
l	TURNO SIZE	: 2.375 INCHES			
	PACKER:	nickie plated tension packer	LINING: <u>plasti</u> DEPTH TO BE SET:	2 913 FFFT	
		mondo pracas terroren paene.		2,515	
<u></u>					_
от	HER DATA				
1.	Name of injection or pr	roducing interval,			
	Queen	. 		-·	
	Name of field or pool ((if applicable)			
-	SE Chaves Queen				
3.	Is this a new well drille	ed for injection?			
1	No.				
	If no, for what purpose	e was the well originally drilled?			
1	This well was originall	y drilled as a Queen producing well.			
	Has well ever been no	rforated in any other zones?			
"	No	florated in any other zones?			
1					
H		d intervals and give plugging details ((sacks of cement or bridge plug(s) used).		
	None				
					
[] 5.	Give depth to and nam	e of any overlying and/or underlying	oil or gas zones (pools) in this area.		
	There has never been		other than the Queen in the area surrounding		
2. 3. 4. 5.	this well.				
1					
1					
6.		abandoned, list details of plugging and	d attach schematic.		
11	Not applicable.	· · · · · · · · · · · · · · · · · · ·			
					
11					

				
OPERATOR	R; Yates Drilling Company			
LEASE	: Garner Federal			
	: <u>1</u> ; 660' fnl & 660' fwl			
SEC-TWN-RNG. COUNTY. STATE	: 3-13S-34E, Chaves County, New Me	exico		
SPUD DATE	: 14-Feb-84			
COMPLETION DATE	: <u>1-Mar-84</u>			
	5: Active producing well - Queen 5: Active producing well - Queen			
PROPOSED STATUS	Active producing well - Queen			
<u> </u>				
SURFACE CASING		PRODUCTION CASING		
		THE STATE OF THE S		
CASING SIZE	E: <u>8.625</u> INCHES T: <u>24.000</u> POUNDS/FOOT	CASING SIZE:	5.500 INCHES	
CASING WEIGHT	7:	CASING WEIGHT:	14.000 POUNDS/FOOT	
DEPTH SE	Γ: 374 FEET	CASING GRADE: DEPTH SET:	2.920 FEET	
CEMENTED USED	: J-55 : 374 FEET : 300 SACKS : 0 FEET : circulate	CEMENTED USED:	230 SACKS	
TOP OF CEMEN	. O FEET	TOP OF CEMENT:	2,000 FEET	
DETERMINED BY	r:circulate E:12.250 INCHES	DETERMINED BY: Ter	np. survey 7.875 INCHES	
11000 3121	12.230 Men E3	TOTAL DEPTH:	2.925 FEET	
		PLUGGED BACK TD:	2,920 FEET	
			 	
				_
INJECTION OR PRODUCING	i INTERVAL			
INTERVAL TO	P: 2,695 FEET	INTERVAL BOTTOM:	2 701 FEET	
	S: Perforated		2,701	
PREVIOUS STIMULATION	N: 750 gallons 15% HCL acid plus 30,0			
PROPOSED STIMULATION	24,000 pounds of 20/40 sand, 12,50	0 pounds of 12/20 sand		
I Nor odeb Stillionalis	. None			
INJECTION TUBING (if an	injection well)			
	,			
	E: NA INCHES	LINING: NA		
PACKE	R: NA	DEPTH TO BE SET: NA	FEET	
L				
OTHER DATA				
¥				
1. Name of injection or	producing interval.			
Queen				
2. Name of field or pool	(if applicable).			
SE Chaves Queen				
 Is this a new well drill No. 	ed for injection?			
110.		· · · · · · · · · · · · · · · · · · ·		
	se was the well originally drilled?			
This well was origina	lly drilled as a Queen producing well.		-	
				
4. Has well ever been p	erforated in any other zones?			
No				
List all such porfers	and intervals and sive plugging details	(sacks of cement or bridge plug(s) used).		
None Ust all such perioral	eo intervais and give plugging details (takens of cement of blidge bidg(s) used).		
	me of any overlying and/or underlying on any production from any formation of	oil or gas zones (pools) in this area. other than the Queen in the area surrounding		
this well.	processor is any formation of	and the description and server surrounding		
6. If well is plugged and	abandoned, list details of plugging and	d attach schematic.		
Not applicable.				
II				

		Yates Drilling Company				
		Garner Federal				
		2				
C TOWN C		2310' fsl & 2310' fel 34-12S-34E, Chaves County,	Nov. Marias			
C-IWN-F			New Mexico			
	COMPLETION DATE:	29-Apr-84				
		Active producing well - Queer	n			
		Active injection well - Queen				
	THO COLD STATES.	Tiente injection ven decen				
						_
SU	RFACE CASING			PRODUCTION CASING		
	CASING SIZE	8 625 INCHES		CACINO CIZE	E EOO INOLIEC	
	CASING MEIGHT	8.625 INCHES 24.000 POUNDS/FOO	7 T	CASING SIZE: CASING WEIGHT:	5.500 INCHES	
	CASING WEIGHT.	24.000 POUNDS/FOC	J1	CASING WEIGHT:		
	OFFTH SET	410 FFFT			3,098 FEET	
	CEMENTED USED:	J-55 410 FEET 250 SACKS 0 FEET circulate		CEMENTED USED:	550 SACKS	
	TOP OF CEMENT:	0 FFFT		TOP OF CEMENT:	1,992 FEET	
	DETERMINED BY:	circulate		DETERMINED BY:		
	HOLE SIZE:	12.250 INCHES		HOLE SIZE:	7.875 INCHES	
				TOTAL DEPTH:		
				PLUGGED BACK TD:	3,098 FEET	
					_=	
LNI	ECTION OR PRODUCING	INTERVAL				
		2,982 FEET		INTERVAL BOTTOM:	2,990_FEET	
_	COMMENTS:					
F	PREVIOUS STIMULATION:	750 gallons 15% HCL acid pl	luc 25 000 nations			
_						
	DODOCCO CTIMULATIONS		d, 1,700 pounds c			
Р	ROPOSED STIMULATION:	500-1000 gallons of 7-1/2% h	d, 1,700 pounds c			
P	ROPOSED STIMULATION:		d, 1,700 pounds c			
	ROPOSED STIMULATION:		d, 1,700 pounds c			•
		500-1000 gallions of 7-1/2% h	d, 1,700 pounds c			· ·
	ROPOSED STIMULATION:	500-1000 gallions of 7-1/2% h	d, 1,700 pounds c			· -
	ECTION TUBING (if an in	500-1000 gallons of 7-1/2% i	d, 1,700 pounds c	prations	stic	•
	ECTION TUBING (if an in	500-1000 gallons of 7-1/2% is specified well) 2.375 INCHES	d. 1,700 pounds of HCL to clean perf	orations LINING: pla		•
	ECTION TUBING (if an in	500-1000 gallons of 7-1/2% i	d. 1,700 pounds of HCL to clean perf	prations		
	ECTION TUBING (if an in	500-1000 gallons of 7-1/2% is specified well) 2.375 INCHES	d. 1,700 pounds of HCL to clean perf	orations LINING: pla		
INJ	ECTION TUBING (if an in TUBING SIZE: PACKER:	500-1000 gallons of 7-1/2% is specified well) 2.375 INCHES	d. 1,700 pounds of HCL to clean perf	orations LINING: pla		
INJ	ECTION TUBING (if an in	500-1000 gallons of 7-1/2% is specified well) 2.375 INCHES	d. 1,700 pounds of HCL to clean perf	orations LINING: pla		•
LNI	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA	500-1000 gallons of 7-1/2% in specific	d. 1,700 pounds of HCL to clean perf	orations LINING: pla		•
LNI	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or pr	500-1000 gallons of 7-1/2% in specific	d. 1,700 pounds of HCL to clean perf	orations LINING: pla		•
LNI	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA	500-1000 gallons of 7-1/2% in specific	d. 1,700 pounds of HCL to clean perf	orations LINING: pla		
OTI	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or pr	ijection well) 2.375 INCHES Nickel plated tension packer	d. 1,700 pounds of HCL to clean perf	orations LINING: pla		-
OTI	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or pr	ijection well) 2.375 INCHES Nickel plated tension packer	d. 1,700 pounds of HCL to clean perf	orations LINING: pla		•
OTI	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or producen	ijection well) 2.375 INCHES Nickel plated tension packer	d. 1,700 pounds of HCL to clean perf	orations LINING: pla		
OT: 1. 2.	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or producen	500-1000 gallons of 7-1/2% is specified well) 2.375 INCHES Nickel plated tension packer roducing interval.	d. 1,700 pounds of HCL to clean perf	orations LINING: pla		-
OT: 1. 2.	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or pr Queen Name of field or pool (SE Chaves Queen	500-1000 gallons of 7-1/2% is specified well) 2.375 INCHES Nickel plated tension packer roducing interval.	d. 1,700 pounds of HCL to clean perf	orations LINING: pla		
OT: 1. 2.	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or producen Name of field or pool (SE Chaves Queen) Is this a new well drille No.	ijection well) 2.375 INCHES Nickel plated tension packer roducing interval. if applicable).	d, 1,700 pounds of	orations LINING: pla		
OT: 1. 2.	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or producen Name of field or pool (SE Chaves Queen Is this a new well drille No. If no, for what purpose	ijection well) 2.375 INCHES Nickel plated tension packer coducing interval. if applicable). d for injection?	d, 1,700 pounds of HCL to clean perf	orations LINING: pla		-
OT: 1. 2.	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or producen Name of field or pool (SE Chaves Queen Is this a new well drille No. If no, for what purpose	ijection well) 2.375 INCHES Nickel plated tension packer roducing interval. if applicable).	d, 1,700 pounds of HCL to clean perf	orations LINING: pla		-
OT: 1. 2.	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or producen Name of field or pool (SE Chaves Queen Is this a new well drille No. If no, for what purpose	ijection well) 2.375 INCHES Nickel plated tension packer coducing interval. if applicable). d for injection?	d, 1,700 pounds of HCL to clean perf	orations LINING: pla		
OTI 1. 2. 3.	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or producen Name of field or pool (SE Chaves Queen) Is this a new well drille No. If no, for what purpose This well was originally	ijection well) 2.375 INCHES Nickel plated tension packer oducing interval. if applicable). d for injection? was the well originally drilled y drilled as a Queen producing	d, 1,700 pounds of HCL to clean perf	orations LINING: pla		-
OTI 1. 2. 3.	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or producen Name of field or pool (SE Chaves Queen) Is this a new well drille No. If no, for what purpose This well was originally that well ever been per	ijection well) 2.375 INCHES Nickel plated tension packer coducing interval. if applicable). d for injection?	d, 1,700 pounds of HCL to clean perf	orations LINING: pla		· · · · · · · · · · · · · · · · · · ·
OTI 1. 2. 3.	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or producen Name of field or pool (SE Chaves Queen) Is this a new well drille No. If no, for what purpose This well was originally	ijection well) 2.375 INCHES Nickel plated tension packer oducing interval. if applicable). d for injection? was the well originally drilled y drilled as a Queen producing	d, 1,700 pounds of HCL to clean perf	orations LINING: pla		-
OTI 1. 2. 3.	TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or producen Name of field or pool (SE Chaves Queen) Is this a new well drille No. If no, for what purpose This well was originally that well ever been per No.	ijection well) 2.375 INCHES Nickel plated tension packer roducing interval. if applicable). d for injection? was the well originally drilled y drilled as a Queen producing	d, 1,700 pounds of HCL to clean performance of the clean performance of	UNING: pla: DEPTH TO BE SET:		-
OTI 1. 2. 3.	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or producen Name of field or pool (SE Chaves Queen) Is this a new well drille No. If no, for what purpose This well was originally that well ever been per No List all such perforate	ijection well) 2.375 INCHES Nickel plated tension packer roducing interval. if applicable). d for injection? was the well originally drilled y drilled as a Queen producing	d, 1,700 pounds of HCL to clean performance of the clean performance of	orations LINING: pla		•
OTI 1. 2. 3.	TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or producen Name of field or pool (SE Chaves Queen) Is this a new well drille No. If no, for what purpose This well was originally that well ever been per No.	ijection well) 2.375 INCHES Nickel plated tension packer roducing interval. if applicable). d for injection? was the well originally drilled y drilled as a Queen producing	d, 1,700 pounds of HCL to clean performance of the clean performance of	UNING: pla: DEPTH TO BE SET:		
OTI 1. 2. 3.	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or producen Name of field or pool (SE Chaves Queen) Is this a new well drille No. If no, for what purpose This well was originally that well ever been per No List all such perforate	ijection well) 2.375 INCHES Nickel plated tension packer roducing interval. if applicable). d for injection? was the well originally drilled y drilled as a Queen producing	d, 1,700 pounds of HCL to clean performance of the clean performance of	UNING: pla: DEPTH TO BE SET:		
OTI 1. 2. 3.	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or producen Name of field or pool (SE Chaves Queen) Is this a new well drille No. If no, for what purpose This well was originally was originally that well ever been per No List all such perforate None Give depth to and name	ijection well) 2.375 INCHES Nickel plated tension packer coducing interval. if applicable). d for injection? was the well originally drilled y drilled as a Queen producing forated in any other zones? d intervals and give plugging of the producing of the plugging	d, 1,700 pounds of HCL to clean performance of the clean performance of	Cement or bridge plug(s) used).	2,932 FEET	
OTI 1. 2. 3.	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or producen Name of field or pool (SE Chaves Queen) Is this a new well drille No. If no, for what purpose This well was originally that well ever been per No List all such perforate None Give depth to and nam There has never been	ijection well) 2.375 INCHES Nickel plated tension packer coducing interval. if applicable). d for injection? was the well originally drilled y drilled as a Queen producing forated in any other zones? d intervals and give plugging of the producing of the plugging	d, 1,700 pounds of HCL to clean performance of the clean performance of	DEPTH TO BE SET:	2,932 FEET	-
OTI 1. 2. 3.	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or producen Name of field or pool (SE Chaves Queen) Is this a new well drille No. If no, for what purpose This well was originally was originally that well ever been per No List all such perforate None Give depth to and name	ijection well) 2.375 INCHES Nickel plated tension packer coducing interval. if applicable). d for injection? was the well originally drilled y drilled as a Queen producing forated in any other zones? d intervals and give plugging of the producing of the plugging	d, 1,700 pounds of HCL to clean performance of the clean performance of	Cement or bridge plug(s) used).	2,932 FEET	
OTI 1. 2. 3.	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or producen Name of field or pool (SE Chaves Queen) Is this a new well drille No. If no, for what purpose This well was originally that well ever been per No List all such perforate None Give depth to and nam There has never been	ijection well) 2.375 INCHES Nickel plated tension packer coducing interval. if applicable). d for injection? was the well originally drilled y drilled as a Queen producing forated in any other zones? d intervals and give plugging of the producing of the plugging	d, 1,700 pounds of HCL to clean performance of the clean performance of	Cement or bridge plug(s) used).	2,932 FEET	
OTI 1. 2. 3.	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or producen Name of field or pool (SE Chaves Queen) Is this a new well drille No. If no, for what purpose This well was originally that well ever been per No List all such perforate None Give depth to and nam There has never been	ijection well) 2.375 INCHES Nickel plated tension packer coducing interval. if applicable). d for injection? was the well originally drilled y drilled as a Queen producing forated in any other zones? d intervals and give plugging of the producing of the plugging	d, 1,700 pounds of HCL to clean performance of the clean performance of	Cement or bridge plug(s) used).	2,932 FEET	
OTI 1. 2. 3.	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or producen Name of field or pool (SE Chaves Queen) Is this a new well drille No. If no, for what purpose This well was originally was originally that well ever been per No List all such perforate None Give depth to and nam There has never been this well.	spection well) 2.375 INCHES Nickel plated tension packer coducing interval. if applicable). d for injection? e was the well originally drilled y drilled as a Queen producing forated in any other zones? d intervals and give plugging of the production of the	d, 1,700 pounds of HCL to clean performance of HCL to clea	Cement or bridge plug(s) used). zones (pools) in this area. the Queen in the area surroundir	2,932 FEET	
OTI 1. 2. 3.	ECTION TUBING (if an in TUBING SIZE: PACKER: HER DATA Name of injection or producen Name of field or pool (SE Chaves Queen) Is this a new well drille No. If no, for what purpose This well was originally was originally that well ever been per No List all such perforate None Give depth to and nam There has never been this well.	ijection well) 2.375 INCHES Nickel plated tension packer coducing interval. if applicable). d for injection? was the well originally drilled y drilled as a Queen producing forated in any other zones? d intervals and give plugging of the producing of the plugging	d, 1,700 pounds of HCL to clean performance of HCL to clea	Cement or bridge plug(s) used). zones (pools) in this area. the Queen in the area surroundir	2,932 FEET	

GARNER FEDERAL #2

J34-12S-31E CHAVES COUNTY, NM



410', 8-5/8" 24# J-55 CASING, CEMENTED WITH 250 SACKS, CIRCULATED

1980', TOP OF CEMENT AS DETERMINED BY TEMPERATURE SURVEY

2932', APPROXIMATE INJECTION PACKER DPETH

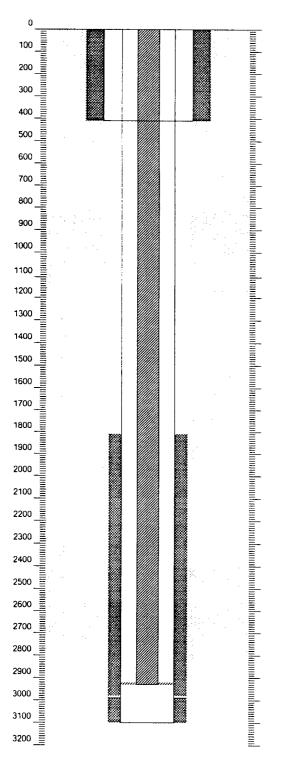
2982'-2990', PERFORATIONS, 17 HOLES

3100', TD, 5-1/2"14#&15.5# J-55 CASING, CEMENTED WITH 550 SACKS

		Yates Drilling Company			
		Garner Federal 3			
	FOOTAGE;	1980' fnl & 1980' fel			
SEC-TWN-F		34-125-34E, Chaves County, New N	Mexico		
 	COMPLETION DATE:	2-Jul-84 12-Aug-84			
		Active producing well - Queen			
	PHOPOSED STATUS:	Active injection well - Queen			
<u></u>	_, ==				
SUI	RFACE CASING		PRODUCTION CASING		
 	CASING SIZE:	8.625 INCHES 24.000 POUNDS/FOOT	CASING SIZE:	5.500 INCHES	
1	CASING WEIGHT:	24.000 POUNDS/FOOT 	CASING WEIGHT:	14.000 POUNDS/FOOT	
	DEPTH SET:	408 FEET	CASING GRADE:	3,100 FEET	
Ì	CEMENTED USED:	408 FEET 225 SACKS 0 FEET	CEMENTED USED:	250 SACKS	
	TOP OF CEMENT:	0 FEET	TOP OF CEMENT:	1,810 FEET	
	HOLE SIZE:	circulate 12.250 INCHES	DETERMINED BY: temp	7 875 INCHES	
	HOLE SIZE.	12:230 (1101)23	HOLE SIZE: TOTAL DEPTH: PLUGGED BACK TD:	3,100 FEET	
			PLUGGED BACK TD:	3,100 FEET	
INJ	ECTION OR PRODUCING	INTERVAL 2,981 FEET	INTERVAL POTTOM	0.000 5557	<u>-</u>
	COMMENTS:		INTERVAL BOTTOM:		
F		750 gallons 15% HCL acid plus 15,0	000 gallons gelled water, 5,000 scf CO2,		
_	DODGOED 070000 17000	15,000 pounds of 20/40 sand, 1,700			
	ROPOSED STIMULATION:	500-1000 gallons of 7-1/2% HCL ac	id to clean perforations		
INJ	ECTION TUBING (if an ir	njection well)			
	TUBING SIZE	2.375 INCHES	LINING: plastic		
	PACKER:	Nickel plated tension packer	DEPTH TO BE SET:	2,931 FEET	
Ĺ				·· <u>·</u> ·······	
	- · · · · · · · · · · · · · · · · · · ·				
от	HER DATA				
1.	Name of injection or pr	oducing interval.			
	Queen				
2.	Name of field or pool (if applicable).			
1	SE Chaves Queen				
3.	Is this a new well drille	d for injection?			
	No.				
		was the well originally drilled?			
	This well was original	y drilled as a Queen producing well.			
4.		forated in any other zones?			
	No				
	List all such perforate	d intervals and give plugging details	(sacks of cement or bridge plug(s) used).		
3.	None				
			oil or gas zones (pools) in this area.		
1	There has never been this well.	any production from any formation of	other than the Queen in the area surrounding		
	If well is plugged and	abandoned, list details of plugging an	nd attach schematic		
. .	Not applicable.	Time, are detailed of progging an			
1					
III					

GARNER FEDERAL #3

G34-12S-31E CHAVES COUNTY, NM



409', 8-5/8" 24# J-55 CASING, CEMENTED WITH 225 SACKS, CIRCULATED

1810', TOP OF CEMENT AS DETERMINED BY TEMPERATURE SURVEY

2931', APPROXIMATE INJECTION PACKER DPETH

2981'-2986', PERFORATIONS, 12 HOLES

3100', TD, 5-1/2"14# J-55 CASING, CEMENTED WITH 250 SACKS

		Yates Drilling Company Garner Federal			
		4			1
	FOOTAGE:	330' fsl & 1980' fel			
SEC-TWN-RN	IG, COUNTY, STATE:	34-12S-34E, Chaves County, New Me	xico		1
1	COMPLETION DATE:	24-Jun-84 1-Aug-84			١
		Inactive producing well - Queen			
	PROPOSED STATUS:	Inactive producing well - Queen			
					-
SURF	FACE CASING		PRODUCTION CASING		
	CASING SIZE:	8.625 INCHES	CASING SIZE:	5.500 INCHES	
	CASING WEIGHT:	8.625 INCHES 24.000 POUNDS/FOOT	CASING SIZE:	14.000 POUNDS/FOOT	
	CASING GRADE:	J-55	CASING GRADE:	J-55	
	CEMENTED USED:	408 FEET 250 SACKS 0 FEET	CASING GRADE: DEPTH SET: CEMENTED USED: TOP OF CEMENT:	3,108 FEET	
	TOP OF CEMENT:	O FEET	TOP OF CEMENT:	1,940 FEET	
	DETERMINED BA:	circulate	DETERMINED BY:Tem	p. survey	
	HOLE SIZE:	12.250 INCHES	HOLE SIZE:	7.875 INCHES	
			TOTAL DEPTH: PLUGGED BACK TD:	3,108 FEET	
			reduced briok 15.	0,100 1 221	
ļ					
INJEC	CTION OR PRODUCING	INTERVAL			
ľ		2,989 FEET	INTERVAL BOTTOM:	2,997_FEET	
PE		Perforated 1000 gallons 15% HCL acid plus 35,0	00 gallons gelled water 25% CO2		
	LEVICOS STITUSBATION.	43,000 pounds of 20/40 sand, 22,000			
PRO	OPOSED STIMULATION:				
II INJE	CTION TUBING (if an in	njection well)			
INJE	•		LINING: NA		
inje(TUBING SIZE:	NA INCHES	LINING: <u>NA</u> DEPTH TO BE SET: <u>NA</u>	FEET	
inse	TUBING SIZE:	NA INCHES		FEET	
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OTHE 1. N - 2. N	TUBING SIZE: PACKER: ER DATA Name of injection or pr Queen Name of field or pool (NA INCHES NA Toducing interval.		FEET	
OTHE 1. N - 2. N	TUBING SIZE: PACKER: ER DATA Name of injection or producen	NA INCHES NA Toducing interval.		FEET	
OTHE 1. N - 2. N	TUBING SIZE: PACKER: ER DATA Name of injection or producen Name of field or pool (SE Chaves Queen s this a new well drille	NA INCHES NA roducing interval. (if applicable).		FEET	=
OTHE 1. N - 2. N	TUBING SIZE: PACKER: ER DATA Name of injection or pr Queen Name of field or pool (SE Chaves Queen	NA INCHES NA roducing interval. (if applicable).		FEET	==-
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OTHE 1. N - 2. N	TUBING SIZE: PACKER: ER DATA Name of injection or pr Queen Name of field or pool (SE Chaves Queen s this a new well drille No. If no, for what purpose	NA INCHES NA roducing interval. (if applicable).		FEET	
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OTHE 1. N - 2. N	TUBING SIZE: PACKER: ER DATA Name of injection or pr Queen Name of field or pool (SE Chaves Queen s this a new well drille No. If no, for what purpose This well was originally	NA INCHES roducing interval. if applicable). d for injection? e was the well criginally drilled? y drilled as a Queen producing well.		FEET	
OTHE 1. N - 2. N	TUBING SIZE: PACKER: ER DATA Name of injection or pr Queen Name of field or pool (SE Chaves Queen s this a new well drille No. If no, for what purpose This well was originally	NA INCHES roducing interval. if applicable). d for injection?		FEET	===
OTHE 1. N - 2. N	TUBING SIZE: PACKER: PACKER: ER DATA Name of injection or producen Name of field or pool (SE Chaves Queen s this a new well drille No. If no, for what purpose This well was originally Has well ever been per No	noducing interval. If applicable). If of injection? If was the well criginally drilled? If drilled as a Queen producing well. If orated in any other zones?	DEPTH TO BE SET: NA	FEET	
OTHE 1. N - 2. N	TUBING SIZE: PACKER: ER DATA Name of injection or producen Name of field or pool (SE Chaves Queen s this a new well drille No. If no, for what purpose This well was originally thas well ever been per No List all such perforate	noducing interval. If applicable). If of injection? If was the well criginally drilled? If drilled as a Queen producing well. If orated in any other zones?		FEET	
OTHE 1. N - 2. N	TUBING SIZE: PACKER: PACKER: ER DATA Name of injection or producen Name of field or pool (SE Chaves Queen s this a new well drille No. If no, for what purpose This well was originally Has well ever been per No	noducing interval. If applicable). If of injection? If was the well criginally drilled? If drilled as a Queen producing well. If orated in any other zones?	DEPTH TO BE SET: NA	FEET	-
OTHE 1. N - 2. N	TUBING SIZE: PACKER: ER DATA Name of injection or producen Name of field or pool (SE Chaves Queen s this a new well drille No. If no, for what purpose This well was originally thas well ever been per No List all such perforate	noducing interval. If applicable). If of injection? If was the well criginally drilled? If drilled as a Queen producing well. If orated in any other zones?	DEPTH TO BE SET: NA	FEET	
OTHE 1. N - 2. N	TUBING SIZE: PACKER: PACKER: ER DATA Name of injection or producen Name of field or pool (SE Chaves Queen s this a new well drille No. If no, for what purpose This well was originally thas well ever been per No List all such perforate None Give depth to and name	NA INCHES NA INCHES roducing interval. If applicable). If applicable). If was the well criginally drilled? Y drilled as a Queen producing well. If orated in any other zones? If intervals and give plugging details (see of any overlying and/or underlying or	acks of cement or bridge plug(s) used).	FEET	
OTHE 1. N - 2. N	TUBING SIZE: PACKER: ER DATA Name of injection or pr Queen Name of field or pool (SE Chaves Queen s this a new well drille No. If no, for what purpose This well was originally Has well ever been per No List all such perforate None Give depth to and nam There has never been	NA INCHES NA INCHES roducing interval. If applicable). If applicable). If was the well criginally drilled? Y drilled as a Queen producing well. If orated in any other zones? If intervals and give plugging details (see of any overlying and/or underlying or	acks of cement or bridge plug(s) used).	FEET	
OTHE 1. N - 2. N	TUBING SIZE: PACKER: PACKER: ER DATA Name of injection or producen Name of field or pool (SE Chaves Queen s this a new well drille No. If no, for what purpose This well was originally thas well ever been per No List all such perforate None Give depth to and name	NA INCHES NA INCHES roducing interval. If applicable). If applicable). If was the well criginally drilled? Y drilled as a Queen producing well. If orated in any other zones? If intervals and give plugging details (see of any overlying and/or underlying or	acks of cement or bridge plug(s) used).	FEET	
OTHE 1. N - 2. N	TUBING SIZE: PACKER: ER DATA Name of injection or pr Queen Name of field or pool (SE Chaves Queen s this a new well drille No. If no, for what purpose This well was originally Has well ever been per No List all such perforate None Give depth to and nam There has never been	NA INCHES NA INCHES roducing interval. If applicable). If applicable). If was the well criginally drilled? Y drilled as a Queen producing well. If orated in any other zones? If intervals and give plugging details (see of any overlying and/or underlying or	acks of cement or bridge plug(s) used).	FEET	
OTHE 1. N 2. N 3. II	TUBING SIZE: PACKER: PACKER: ER DATA Name of injection or producen Name of field or pool (SE Chaves Queen s this a new well drille No. If no, for what purpose This well was originally thas well ever been per No List all such perforate None Give depth to and nam There has never been this well.	NA INCHES NA INCHES Toducing interval. If applicable). If applicable). If was the well criginally drilled? Y drilled as a Queen producing well. If orated in any other zones? If intervals and give plugging details (some of any overlying and/or underlying of any production from any formation of	acks of cement or bridge plug(s) used). If or gas zones (pools) in this area, her than the Queen in the area surrounding	FEET	
OTHE 1. N 2. N 3. II 4. H 5. G	TUBING SIZE: PACKER: ER DATA Name of injection or pr Queen Name of field or pool (SE Chaves Queen s this a new well drille No. If no, for what purpose This well was originally Has well ever been per No List all such perforate None Give depth to and nam There has never been this well.	NA INCHES NA INCHES roducing interval. If applicable). If applicable). If was the well criginally drilled? Y drilled as a Queen producing well. If orated in any other zones? If intervals and give plugging details (see of any overlying and/or underlying or	acks of cement or bridge plug(s) used). If or gas zones (pools) in this area, her than the Queen in the area surrounding	FEET	
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LE WEL FOOT. SEC-TWN-RNG, COUNTY, ST SPUD D COMPLETION D CURRENT STA	TOR: Yates Drilling Company ASE: Garner Federal L #: 5 AGE: 330' fnl & 2310' fwl ATE: 3-135-34E, Chaves County, New Mex ATE: 25-Jul-84 TUS: Active producing well - Queen TUS: Active producing well - Queen	ico	
II CASING WEI	SIZE: 8.625 INCHES GHT: 24.000 POUNDS/FOOT ADE: J-55 SET: 371 FEET SED: 230 SACKS ENT: 0 FEET 0 BY: circulate SIZE: 12.250 INCHES	CASING GRADE: DEPTH SET: CEMENTED USED: TOP OF CEMENT: DETERMINED BY: Ten	14.000 POUNDS/FOOT J-55 2,891 FEET 235 SACKS 1,810 FEET mp. survey 7.875 INCHES 2,900 FEET
COMME	TOP: 2,773 FEET NTS: Perforated TION: 1500 gallons 15% HCL acid plus 30,0 14,500 pounds of 20/40 sand, 13,500		
	an injection well) SIZE: <u>NA</u> INCHES :KER: <u>NA</u>	Lining: <u>Na</u> Depth to be set: <u>Na</u>	FEET
This well was original was orig	ool (if applicable). drilled for Injection? pose was the well originally drilled? ginally drilled as a Queen producing well. In perforated in any other zones? porated intervals and give plugging details (s		
There has never I	name of any overlying and/or underlying oi been any production from any formation of other and any formation of and abandoned, list details of plugging and	her than the Queen in the area surrounding	

OPERATOR; Yates LEASE: Tao F WELL #: FOOTAGE; 330' f SEC-TWN-RNG, COUNTY, STATE: 3-135- SPUD DATE: COMPLETION DATE: CURRENT STATUS: Active PROPOSED STATUS: Active	ederal 1 1 18 1980 fel -34E, Chaves County, New Mexico 22-May-84 9-Jun-84 producing well - Queen		
CASING GRADE: DEPTH SET: CEMENTED USED:	? POUNDS/FOOT ? 566 FEET 225 SACKS	CASING GRADE: DEPTH SET: CEMENTED USED: _	? POUNDS/FOOT ? 3,114 FEET 252 SACKS
TOP OF CEMENT: DETERMINED BY: HOLE SIZE:	? FEET	TOP OF CEMENT: DETERMINED BY: HOLE SIZE: TOTAL DEPTH: PLUGGED BACK TD:	? FEET
	2,983 FEET rated pallons 15% HCL acid plus 20,000 ga 0 pounds of sand,	INTERVAL BOTTOM:allons gelled water,	
INJECTION TUBING (if an Injection TUBING SIZE: <u>NA</u> PACKER: <u>NA</u>	•	UNING: <u>NA</u> DEPTH TO BE SET: <u>NA</u>	FEET
OTHER DATA			
Name of injection or producin Queen			
Name of field or pool (if appli SE Chaves Queen			
3. Is this a new well drilled for in No. If no, for what purpose was a This well was originally drilled. 4. Has well ever been perforated.			
No No		s of cernent or bridge plug(s) used).	
	ny overlying and/or underlying oil or roduction from any formation other to	gas zones (pools) in this area. than the Queen in the area surrounding	
If well is plugged and abando Not applicable.	oned, list details of plugging and atta	ich schematic.	

Wate	er Well	S						
SEC	! ! TWN	! ! RNG	! !UNIT ! LTR	QTR OF UNIT	 	מד	: : : TYPE	i :
24 26 26 26 26 27 35 35	125 125 125 125 125 125 125 125 125 135	(31E (31E (31E (31E (31E (31E (31E (31E	:K :P :E :O :O :H :F :IJOP	? ? ? ? ? W ! ? E L	7	160 166 198 198 160 55	IDOM. IDOM. IDOM. IDOM. & STK IIRR. ICOM. (OIL & GAS ICOM DOM. & ST IDOM. & STK IDOM. & STK IDOM.	FK1L6749 1L6650 1L4170 1L2932 1L3460
	138	31E 31E 31E 31E 31E 31E 31E 31E	IP IM IH IH IH IH IH IH IH IH IH IH IH IH IH	50000000000000000000000000000000000000		165	IWF ICOM. & STK ICOM. & STK IDEC. IWF ISRO IDEC. I? ISRO IOWD IIND. IDOM.	L3461 L3837X L3837 L3834 L4295 L3914 L3835 L3806 L2745 L3460 L2933 L3914 L2849

TRETOLITE

Chemicals and Services

16010 Barker's Point Lane • Houston, Texas 77079 713 558-5200 • Telex: 4620346 • FAX: 713 589-4737

Reply to: P.O. Box FF Artesia, New Mexico 88210 (505) 746-3588 Phone (505) 746-3580 Fax

WATER ANALYSIS REPORT

Company : YATES DRILLING
Address : ARTESIA, NEW MEXICO
Lease : WILLIAMS RANCH
Well : RANCH HOUSE
Sample Pt. : TAP Date : 11/09/92 Date Sampled : 11/06/92 Analysis No. : 215

	ANALYSIS		mg/L		* meq/L
1.	рН 6.8				
2.	H2S 0				
3.	Specific Gravity 1.00	00			
4.	Total Dissolved Solids		409.9		
5.	Suspended Solids		NR		
6.	Dissolved Oxygen		NR		
7.	Dissolved CO2		NR		
8.	Oil In Water		NR		
9.	Phenolphthalein Alkalinity				
10.	Methyl Orange Alkalinity				
11.	Bicarbonate	HCO3	170.0	HCO3	2.8
12.	Chloride	Cl	106.0	Cl	3.0
13.	Sulfate	S04	25.0	SO4	0.5
14.	Calcium	Ca	96.0	Ca	4.8
15.	Magnesium	Mg	24.4	Mg	2.0
16.	Sodium (calculated)	Na	-11.4	Na	-0.5
17.	Iron	Fe	0.0		
18.	Barium	Ba	0.0		
19.	Strontium	Sr	0.0		
20.	Total Hardness (CaCO3)		340.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound Equiv wt $X \text{ meq/L} = \text{mg/L}$
5 *Ca < *HCO3 3	Ca(HCO3)2 81.0 2.8 226 CaSO4 68.1 0.5 35
2 *Mg> *SO4 1 / -0 *Na> *C1 3	CaCl2 55.5 1.5 82 Mg(HCO3)2 73.2 MgSO4 60.2
++ Saturation Values Dist. Water 20 C CaCO3 13 mg/L CaSO4 * 2H2O 2090 mg/L BaSO4 2.4 mg/L	MgCl2 47.6 1.5 72 NaHCO3 84.0 Na2SO4 71.0 NaCl 58.4

REMARKS:

----- L. MALLETT / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted, STEVE TIGERT



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WATER ANALYSIS REPORT

Company : YATES DRILLING
Address : ARTESIA, NEW MEXICO
Lease : TIVIS RANCH
Well : RANCH HOUSE
Sample Pt. : TAP Date : 11/09/92 Date Sampled : 11/06/92 Analysis No. : 216

	ANALYSIS		mg/L		* meq/L
1.	рн 7.0	າ			
2.	H2S 0				
3.		000			
4.	Total Dissolved Solids		334.8		
5.	Suspended Solids		NR		
6.	Dissolved Oxygen		NR		
7.	Dissolved CO2		NR		
8.	Oil In Water		NR		
9.	Phenolphthalein Alkalinit				
10.	Methyl Orange Alkalinity				
11.	Bicarbonate	HCO3	146.0	HCO3	2.4
12.	Chloride	Cl	85.0	Cl	2.4
13.	Sulfate	SO4	25.0	SO4	0.5
14.	Calcium	Ca	88.0	Ca	4.4
15.	Magnesium	Mg	34.1	Mg	2.8
16.	Sodium (calculated)	Na	-43.3	Na	-1.9
17.	Iron	Fe	0.0		
18.	Barium	Ba	0.0		
19.	Strontium	Sr	0.0		
20.	Total Hardness (CaCO3)		360.0		

PROBABLE MINERAL COMPOSITION _______

*milli equivalents per Liter	Compound Equiv wt X meq/L = m	g/L
4 *Ca < *HCO3 2 /> 3 *Mg> *SO4 1	CaSO4 68.1 0.5 CaCl2 55.5 1.5	94 35 82
/	Mg(HCO3)2 73.2 MgSO4 60.2 MgCl2 47.6 0.9	44
Saturation Values Dist. Water 20 C CaCO3 13 mg/L CaSO4 * 2H2O 2090 mg/L BaSO4 2.4 mg/L	NaHCO3 84.0 Na2SO4 71.0 NaCl 58.4	

REMARKS:

---- L. MALLETT / FILE

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WATER ANALYSIS REPORT

Company : YATES DRILLING
Address : ARTESIA, NEW MEXICO
Lease : GRAHAM
Well : WINDMILL
Sample Pt. : WELL Date : 11/09/92 Date Sampled : 11/06/92 Analysis No. : 217

	ANALYSIS		mg/L		* meq/L
1.	pH 7.0				
2.	H2S 0				
3.	Specific Gravity 1.000				
4.	Total Dissolved Solids		433.3		
5.	Suspended Solids		NR		
6.	Dissolved Oxygen		NR		
7.	Dissolved CO2		NR		
8.	Oil In Water		NR		
9.	Phenolphthalein Alkalinity (CaCO3)			
10.	Methyl Orange Alkalinity (Ca				
11.	Bicarbonate	HĆO3	170.0	HCO3	2.8
12.	Chloride	Cl	127.0	Cl	3.6
13.	Sulfate	SO4	25.0	SO4	0.5
14.	Calcium	Ca	128.0	Ca	6.4
15.	Magnesium	Mg	31.7	Mq	2.6
16.	Sodium (calculated)	Na	-48.3	Ná	-2.1
17.	Iron	Fe	0.0		
18.	Barium	Ba	0.0		
19.	Strontium	Sr	0.0		
20.	Total Hardness (CaCO3)		450.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter					
++	-	++			
6	*Ca < *HCO3	3			
	/>				
3	*Mg> *SO4	1			
	</td <td> </td>				
-2	*Na> *Cl	4			
++	-	++			

	</th <th></th>				
-2	*Na> *Cl'	4			
+	⊦	++			
Saturation Values Dist. Water 20 C					
CaC	D3 13	mg/L			
CaS	04 * 2H2O 2090	mg/L			
BaSC	2.4	mg/L			

Compound	Equiv wt	X meq/L	= mg/L
Ca (HCO3)2 CaSO4	81.0 68.1	2.8	226 35
CaCl2	55.5	3.1	171
Mg (HCO3)2 MgSO4	73.2 60.2		
MgCl2 NaHCO3	47.6 84.0	0.5	24
Na2SO4 NaCl	71.0 58.4		

REMARKS:

----- L. MALLETT / FILE

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WATER ANALYSIS REPORT

Company : YATES DRILLING
Address : ARTESIA, NEW MEXICO
Lease : DAVE FEDERAL
Well : BATTERY Date : 11/09/92 Date Sampled : 11/06/92 Analysis No. : 218

Sample Pt. : GUN BARREL

	ANALYSIS		mg/L		* meq/L
1.	рН 7.0				
2.	H2S 1 PPM				
3.	Specific Gravity 1.025				
4.	Total Dissolved Solids		34942.6		
5.	Suspended Solids		NR		
6.	Dissolved Oxygen		NR		
7.	Dissolved CO2		NR		
8.	Oil In Water		NR		
9.	Phenolphthalein Alkalinity (C.	aCO3)			
10.	Methyl Orange Alkalinity (CaC				
11.	Bicarbonate	HCO3	146.0	HCO3	2.4
12.	Chloride	Cl	21303.0	Cl	600.9
13.	Sulfate	S04	1750.0	SO4	36.4
14.	Calcium	Ca	2480.0	Ca	123.8
15.	Magnesium	Mg	2916.2	Mg	239.9
16.	Sodium (calculated)	Na	6347.4	Na	276.1
17.	Iron	Fe	0.0		
18.	Barium	Ва	0.0		
	Strontium	Sr	0.0		
20.	Total Hardness (CaCO3)		18200.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound F	Equiv wt	X meq/L	= mg/L
124 *Ca < *HCO3 2 /> 240 *Mg> *SO4 36 /	Ca (HCO3) 2 CaSO4 CaCl2 Mg (HCO3) 2	81.0 68.1 55.5 73.2	2.4 36.4 84.9	194 2480 4712
276 *Na> *Cl	MgSO4 MgCl2 NaHCO3	60.2 47.6 84.0	239.9	11421
CaCO3 13 mg/L CaSO4 * 2H2O 2090 mg/L BaSO4 2.4 mg/L	Na2SO4 NaCl	71.0 58.4	276.1	16135

REMARKS:

----- L. MALLETT / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted, STEVE TIGERT



SCALE TENDENCY REPORT

Company : YATES DRILLING
Address : ARTESIA, NEW MEXICO
Lease : DAVE FEDERAL
Well : BATTERY : 11/09/92 Date
Date Sampled: 11/06/92
Analysis No.: 218
STEVE TI

Analyst : STEVE TIGERT

Sample Pt. : GUN BARREL

STABILITY INDEX CALCULATIONS (Stiff-Davis Method) CaCO3 Scaling Tendency

0.3 at 80 deg. F or 27 deg. C 0.4 at 100 deg. F or 38 deg. C 0.5 at 120 deg. F or 49 deg. C 0.5 at 140 deg. F or 60 deg. C 0.6 at 160 deg. F or 71 deg. C s.i. =s.i. =S.I. = s.i. =S.I. =

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS (Skillman-McDonald-Stiff Method) Calcium Sulfate

S = 3262 at 80 deg. F or 27 deg C S = 3375 at 100 deg. F or 38 deg C S = 3407 at 120 deg. F or 49 deg C S = 3419 at 140 deg. F or 60 deg C S = 3352 at 160 deg. F or 71 deg C

Petrolite Oilfield Chemicals Group

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WATER ANALYSIS REPORT

Company : YATES DRILLING
Address : ARTESIA, NEW MEXICO
Lease : DELUNA FEDERAL
Well : BATTERY
Sample Pt. : GUN BARREL Date : 11/09/92 Date Sampled : 11/06/92 Analysis No. : 219

	ANALYSIS		mg/L		* meq/L
1.	рН 7.	1			
2.	-	PPM			
3.	Specific Gravity 1.	040			
4.	Total Dissolved Solids		62813.1		
5.	Suspended Solids		NR		
6.	Dissolved Oxygen		NR		
7.	Dissolved CO2		NR		
8.	Oil In Water		NR		
9.	Phenolphthalein Alkalini				
10.	Methyl Orange Alkalinity	(CaCO3)			
11.	Bicarbonate	HCO3	244.0	HCO3	4.0
12.	Chloride	Cl	37275.0	Cl	1051.5
13.	Sulfate	S04	1875.0	SO4	39.0
14.	Calcium	Ca	1400.0	Ca	69.9
15.	Magnesium	Mg	1725.4	Mg	141.9
16.	Sodium (calculated)	Na	20293.7	Na	882.7
17.	Iron	Fe	0.0		
18.	Barium	Ba	0.0		
19.	Strontium	Sr	0.0		
20.	Total Hardness (CaCO3)		10600.0		

PROBABLE MINERAL COMPOSITION -----

*milli equivalents per Liter	Compound	Equiv wt	X meq/L	= mg/L
70 *Ca < *HCO3 /> 142 *Mg> *SO4 883 *Na *Cl	4 Ca(HCO3)2 CaSO4 39 CaCl2 Mg(HCO3)2 051 MgSO4	68.1 55.5	4.0 39.0 26.8	324 2657 1488
++ Saturation Values Dist. Water 2	+ MgCl2 0 C NaHCO3	47.6 84.0	141.9	6757
CaCO3 13 mg/L CaSO4 * 2H2O 2O90 mg/L BaSO4 2.4 mg/L	Na2SO4 NaCl	71.0 58.4	882.7	51586

REMARKS:

----- L. MALLETT / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted, STEVE TIGERT



SCALE TENDENCY REPORT

Company : YATES DRILLING
Address : ARTESIA, NEW MEXICO
Lease : DELUNA FEDERAL
Well : BATTERY
Sample Pt. : GUN BARREL : 11/09/92 Date
Date Sampled: 11/06/92
Analysis No.: 219 Date

Analyst : STEVE TIGERT

STABILITY INDEX CALCULATIONS (Stiff-Davis Method) CaCO3 Scaling Tendency

S.I. = 0.3 at 80 deg. F or 27 deg. C S.I. = 0.4 at 100 deg. F or 38 deg. C S.I. = 0.5 at 120 deg. F or 49 deg. C S.I. = 0.6 at 140 deg. F or 60 deg. C S.I. = 0.7 at 160 deg. F or 71 deg. C

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS (Skillman-McDonald-Stiff Method) Calcium Sulfate

```
S = 5336 at 80 deg. F or 27 deg C
S = 5501 at 100 deg. F or 38 deg C
S = 5556 at 120 deg. F or 49 deg C
S = 5585 at 140 deg. F or 60 deg C
S = 5517 at 160 deg. F or 71 deg C
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Petrolite Oilfield Chemicals Group

Respectfully submitted, STEVE TIGERT

TRETOLITE

Chemicals and Services

16010 Barker's Point Lane • Houston, Texas 77079 713 558-5200 • Telex: 4620346 • FAX: 713 589-4737

Reply to: P.O. Box FF Artesia, New Mexico 88210 (505) 746-3588 Phone (505) 746-3580 Fax

WATER ANALYSIS REPORT

Company : YATES DRILLING Date : 11/09/92
Address : ARTESIA, NEW MEXICO Date Sampled : 11/06/92
Lease : BURKETT FEDERAL Analysis No. : 220
Well : BATTERY

Sample Pt. : GUN BARREL

	ANALYSIS		mg/L		* meq/L
1.	рН 7.0				
2.	H2S 1 PPM				
3.	Specific Gravity 1.030				
4.	Total Dissolved Solids		46894.5		
5.	Suspended Solids		NR		
6.	Dissolved Oxygen		NR		
7.	Dissolved CO2		NR		
8.	Oil In Water		NR		
9.	Phenolphthalein Alkalinity	(CaCO3)			
10.	Methyl Orange Alkalinity (Ca				
11.	Bicarbonate	HĆO3	146.0	HCO3	2.4
12.	Chloride	Cl	28116.0	Cl	793.1
13.	Sulfate	S04	1750.0	SO4	36.4
14.	Calcium	Ca	2000.0	Ca	99.8
15.	Magnesium	Mq	2187.3	Mg	179.9
16.	Sodium (calculated)	Nā	12695.2	Ná	552.2
17.	Iron	Fe	0.0		
18.	Barium	Ba	0.0		
19.	Strontium	Sr	0.0		
20.	Total Hardness (CaCO3)		14000.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound Equiv wt	X meq/L	= mg/L
100 *Ca < *HCO3 2 /> 2 180 *Mg> *SO4 36 793</td <td>Ca(HCO3)2 81.0 CaSO4 68.1 CaCl2 55.5 Mg(HCO3)2 73.2 MgSO4 60.2</td> <td>2.4 36.4 61.0</td> <td>194 2480 3383</td>	Ca(HCO3)2 81.0 CaSO4 68.1 CaCl2 55.5 Mg(HCO3)2 73.2 MgSO4 60.2	2.4 36.4 61.0	194 2480 3383
Saturation Values Dist. Water 20 C CaCO3 13 mg/L	MgCl2 47.6 NaHCO3 84.0 Na2SO4 71.0	179.9	8566
CaSO4 * 2H2O 2090 mg/L BaSO4 2.4 mg/L	NaCl 58.4	552.2	32271

REMARKS:

----- L. MALLETT / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted, STEVE TIGERT



SCALE TENDENCY REPORT

Company : YATES DRILLING
Address : ARTESIA, NEW MEXICO
Lease : BURKETT FEDERAL
Well : BATTERY
Sample Pt. : GUN BARREL Date : 11/09/92 Date Sampled : 11/06/92 Analysis No. : 220 Analyst : STEVE TIGERT

STABILITY INDEX CALCULATIONS (Stiff-Davis Method) CaCO3 Scaling Tendency

S.I. = 0.2 at 80 deg. F or 27 deg. C S.I. = 0.3 at 100 deg. F or 38 deg. C S.I. = 0.3 at 120 deg. F or 49 deg. C S.I. = 0.4 at 140 deg. F or 60 deg. C S.I. = 0.5 at 160 deg. F or 71 deg. C

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS (Skillman-McDonald-Stiff Method) Calcium Sulfate

S = 4073 at 80 deg. F or 27 deg C S = 4208 at 100 deg. F or 38 deg C S = 4248 at 120 deg. F or 49 deg C S = 4265 at 140 deg. F or 60 deg C S = 4195 at 160 deg. F or 71 deg C

Petrolite Oilfield Chemicals Group

Respectfully submitted, STEVE TIGERT

Cactus Queen Leasehold Ownership

1. SWNW of Section 35, T12 S-R31E, B-10420

C.R. Gallagher, Jr. P.O. Box 628 Pass Christian, MS 39571

Delfern Operating Account 1005 Texas Commerce Bank Bldg. 1208 14th Street Lubbock, Texas 79401

- 2. NWSW of Section 35, T12S-R31E, B-9359 Great Western Drilling Company P.O. Box 1659 Midland, Texas 79702
- 3. SWSW of Section 35, T12S-R31E Unleased State Lands
- 4. SESE of Section 28, T12S-R31E
 Burk Royalty Company
 P.O. Box BRC
 Wichita Falls, Texas 76307

Dalport Petroleum Corporation 1401 Elm Street Dallas, Texas 75202

F. Frank Stringer
Dr. James Womack
Edwin S. Mayer, Jr.
J.A. March III
Guy A. Swartz
P.O. Box 3037
San Angelo, Texas 76901

Eurampex 12001 NW Expressway, Suite 1150 Dallas, Texas 75243

Ramco- NYL 1987 LTD Partnership 100 NW 63rd St., Suite 300 Oklahoma City, Oklahoma 73116

R.B. Operating Company 3100 Mid-Continent Tower Tulsa, OK 74103

Pacific Enterprises Oil Company 5 Greenway Plaza, Suite 300 Houston, Texas 77046

TXO Production Corporation Fidelty Union Tower Dallas, Texas 75201

5. N/2NE/4 of Section 3, T13S-R31E Circle Ridge Production, Inc. 300 East North Side Drive Fort Worth, Texas 76106

<u>Cactus Queen</u> Surface Ownership

1. SW/4, S/2NW/4, SW/4NE/4 of Section 34, T12S-R31E:

W.T. Tivis, Jr. and wife Wilberta P.O. Box 1614 Eunice, New Mexico 88231

2. NW/4SE/4 of Section 34, T12S-R31E:

U.S.A. (surface)