ENERGY	AND MINERALS DEPARTMENT POST OFFICE BOX 2018 ETATE LAND DEFICE BUILDING ETATE LAND DEFICE BUILDING EANTA FE, NEW MEXICON PERE VED
APPLICAT	ION FOR AUTHORIZATION TO INJECT NOV 1
Ι.	Purpose: X Secondary Recovery Pressure Maintenance Disposal Storage Application qualifies for administrativeOMSERVAYRN ² Division yes X no
11.	Operator: Yates Drilling Company
	Address: 105 South 4th Street, Artesia, NM 88210
	Contact party:Tobin L. Rhodes Phone: (505) 748-1471
III.	Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
IV.	Is this an expansion of an existing project? X yes no If yes, give the Division order number authorizing the project <u>R-9075</u> .
۷.	Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
* VI.	Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
VII.	Attach data on the proposed operation, including:
	 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.).
*VIII.	Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.
IX.	Describe the proposed stimulation program, if any.
• X.	Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
* XI.	Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
XII.	Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal force and any underground the source of drinking water.
XIII.	Applicants must complete the "Proof of Notice" section on the reverse side of this form.
XIV.	Certification
	I hereby certify that the information submitted with the information formation $f_{\rm the plication}$ is true and correct to the best of my knowledge and belief.
•	Name: Tobin L. Rhodes Title Fetroleum Engineer
	Signature: Date: 11-9-92
submi	e information required under Sections VI, VIII, X, and XI above has been previously tted, it need not be duplicated and resubmitted. Please show the date and circumstance e carlier submittal.

OIL CONSERVATION DIVISION FORM C-108 (SUPPLEMENT)

I. <u>Purpose:</u>

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 <u>Operator:</u>

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

III. Injection Well Data:

A well data sheet and schematic is included for each of the five proposed water injection wells. Each 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. <u>Ownership:</u>

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. <u>Well_Data:</u>

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' FEI, 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. <u>Stimulation Program</u>:

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. <u>Well Logs:</u>

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. Injection Zone Isolation:

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. <u>Certification:</u>

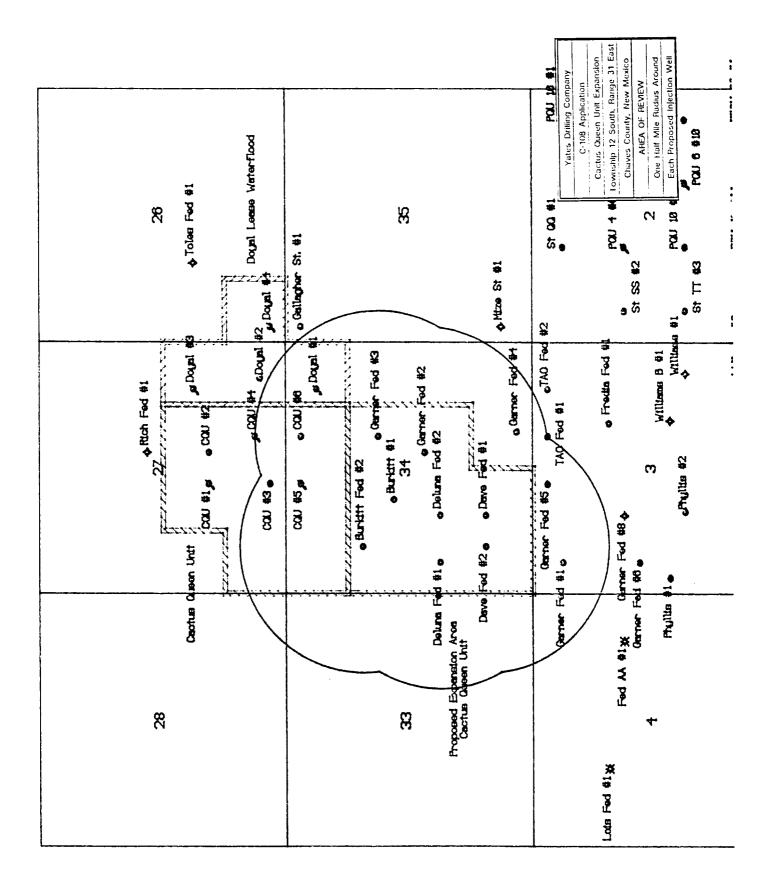
I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Tobin L. Rhodes Tel: 1. Rhodes

Petroleum Engineer

November 9, 1992

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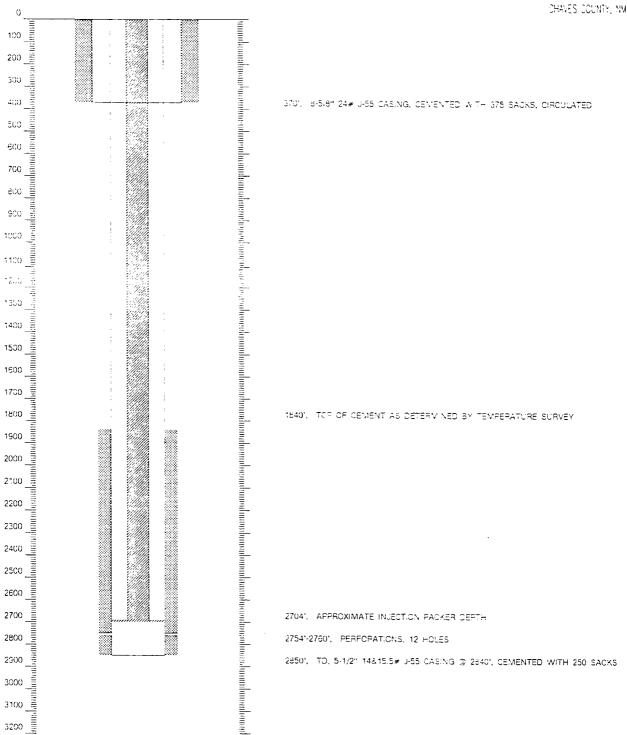


OPERATOR: Yates Drilling Company LEASE: Burkitt Federal WELL #: FOOTAGE: 2310' fnl & 1980' fel SEC-TWN-RNG, COUNTY, STATE: 34-125-34E, Chaves County, New Mexico SPUD DATE: 23-Mar-84 COMPLETION DATE: 7-Apr-84 CURRENT STATUS: Active producing well - Queen PEOPOSED STATUS: Active producing well - Queen	
SURFACE CASING CASING S.ZE: 8.625 INCHES DASING WEIGHT: 24.000 POUNDS.FOOT CASING BRADE: J-55 DEPTH SET: 450 FEET CEMENTED USED: 300 SACKS TOP OF DEVENT: 0 FEET DETERMINED SY: circulate -OLE S ZE: 12.250 INCHES	PRODUCTION CASING CASING SIZE: 5.500 INCHES CASING WEIGHT: 14.000 POUNDS FOOT CASING GRADE: J-55 DEPTH SET: 3.050 FEET CEMENTED USED: 320 SACKS TOP OF CEMENT: 1.550 FEET DETERMINED BY: temp. survey HOLE SIZE: 7.375 NOHES TOTAL DEPTH: 3.100 FEET PLUGGED BACK TD: 3.050 FEET
INJECTION OR PRODUCING INTERVAL NTERVAL TOP: 2,874 FEET DOMMENTS: Perforated PREVIOUS STIMULATION: 750 gallens 15% HCL acid plus 20,000 gallen 16,500 pounds of 20/40 saind, 6000 bounds PROPOSED STIMULATION: None INJECTION TUBING (if an injection well) TUBING SIZE: NA INCHES PACKER: NA	s of 12/20 sand
OTHER DATA 1. Name of injection or producing interval. Queon 2. Name of field or pool (if applicable). SE Chaves Queen 3. 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. 4. Has well ever been perforated in any other zones? No.	
List all such perforated intervals and give blugging details (sacks None 5. Give depth to and name of any overlying and/or underlying oil or of There has never been any production from any formation other the this weil. 6. If well is plugged and abandoned, list details of plugging and attact Not applicable.	gas zones (pools) in this area. han the Queen in the area surrounding

CPERATOR: <u>Yates Drilling Company</u> LEASE: Burkitt Federal	
WELL #: 2 FOOTAGE: 1650' fml & 990' fwl SED-TWN-RNG, COUNTY, STATE: 34-125-34E, Chaves County, New Mexico SPUD DATE: 5-May-84	
COMPLETION DATE: 10-Jul-84 CUFRENT STATUS: Active producing well - Gueen PROPOSED STATUS: Active injection well - Gueen	
SURFACE CASING CASING SIZE: <u>8.625</u> NCHES	PRODUCTION CASING
CASING GRADE: 0.020 RUNDS-FOOT CASING GRADE: 1-55 DEPTH SET: 370 FEET CEMENTED USED: 375 SACAS	CASING SIZE: 5,500 INCHES CASING WEIGHT: 14.000 PCUNDS,FCOT CASING GRADE: J-55 DEPTH SET: 2,345 FEET
CEMENTED OSEDI	CEMENTED USED: <u>250</u> SACKS TOP OF CEMENT: <u>1.678</u> FEET DETERMINED BY: <u>CBL</u> HOLE SIZE: <u>7.375</u> INCHES
	TOTAL DEPTH: <u>2,850</u> FEET PLUGGED BACK TD: <u>2,945</u> FEET
INJECTION OR PRODUCING INTERVAL	
NTERVAL TOP: 2,754 FEET CCMMENTS: Perforated PREVICUS STIMULATION: 750 callons 15% HCL acid bius 15,000 da	INTERVAL BOTTOM: 2.750 FEET
14,500 pounds of 20/40 sand, 2,500 bound PROPOSED STIMULATION: 500-1000 gailons of 7-1/2% HCL acid to c	ds of 12/20 sand
INJECTION TUBING (if an injection well)	
TUBING SIZE: 2.375 INCHES PACKER: Nickel plated tension packer	UNING: clastic DEPTH TO BE SET: 2,704 FEET
OTHER DATA	
 Name of injection or producing interval, <u>Queen</u> 	
2. Name of field or pool (if applicable). SE Chaves Gueen	
 Is this a new well drilled for injection? <u>No.</u> 	
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? No	
List all such perforated intervals and give blugging details (cacks None	; of cement or bridge plug(s) used).
 Give depth to and name of any overlying and/or underlying oil or <u>There has never been any production from any formation other t</u> <u>this well.</u> 	
 If well is plugged and abandoned, list details of plugging and atta Not applicable. 	ch schematic.
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BURKITT FEDERAL #2

E34-125-31E



PROPOSED INJECTION CONFIGURATION

LEA WELL FCOTA SEC-TWN-RNG, COUNTY, STA SPUD DA COMPLETION DA CURRENT STAT	CR: Yates Drilling Company SE: Cactus Queen Unit = 3 GE: 1650' fsl & 2310' fel TE: 27-125-34E. Chaves County, New TE: 29-Jul-d5 TE: 23-Aug-d5 US: Active producing well - Queen US: Active producing well - Queen	Mexico	
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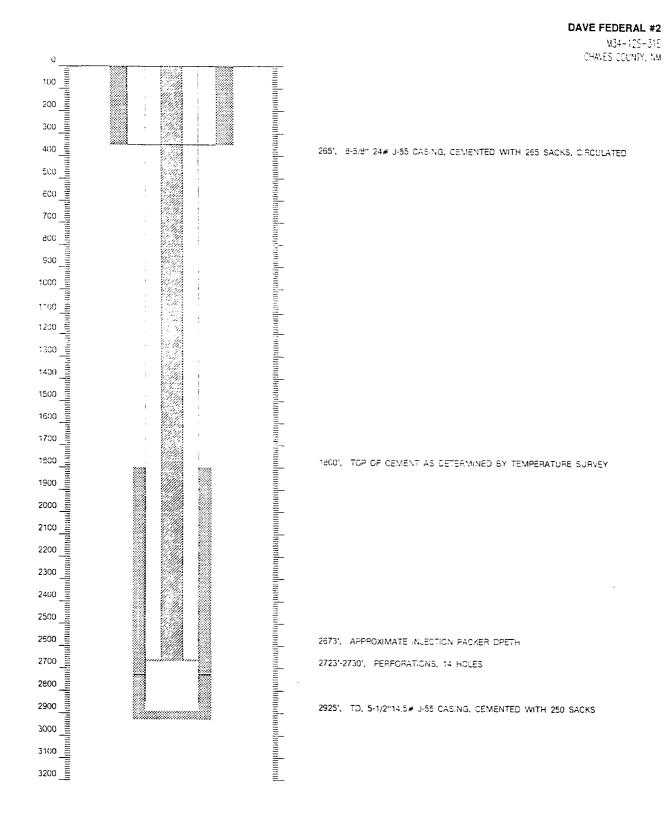
	OPERATOR:	Yates Drilling Company		
	LEASE:	Cactus Gueen Unit		
		4 660' fsl & 1980' fel		
SEC-TWN-F		27-125-34E, Chaves County, New	Mexico	
	SPUD DATE:	14-Oct-84		
	COMPLETION DATE:			
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			HOLE SIZE: TOTAL DEPTH: PLUGGED BACK TD:	3,100 FEET
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IN.	JECTION OR PRODUCING	INTERVAL		
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		: 2,987 FEET	INTERVAL BOTTOM:	2.993 FEET
		: 750 gailons of 15 % HCL plus 15	.000 gallons of gelied water. 1.000 SCF/BBL o	t CO2.
	PROPOSED STIMULATION	13,000 pounds of 20/40 sand and	9,000 pounds of 20/40 sand	
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IN	JECTION TUBING (if an i	njection well)		
	TUBING SIZE	2.375 INCHES	UNING: plas	lic
		: nickel plated tension packer	LINING: <u>plas</u> DEPTH TO BE SET:	2,936 FEET
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	THER DATA			
1.	Name of injection or p	roducing interval.		
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3	Is this a new well drill	ed for injection?		
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5.			ig oil or gas zones (pools) in this area. In other than the Queen in the area surroundini	2
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6.	. If well is plugged and	abandoned. Ist details of plugging	and attach schematic.	<u> </u>
ll.	Not applicable.			·
11				

		Yates Drilling Company			
	VELL #:	Cactus Queen Unit			
	FOOTAGE: 3	330' fni & 2310' fwi			ļ
SEC-TWN-P		34-12S-34E. Chaves County, New	Мехісо		
	SPLD DATE: COMPLETION DATE:	9-Aud-c5 1-Oct-#5			ļ
		Active injection well - Queen			
:	PROPOSED STATUS: 7	Active injection well - Queen			
					=====
SUI	RFACE CASING		PRODUCTION CASING		
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	DASING GFADE: _ DEDT_ SET.	J-55	CASING GRADE:	J-55 3.033 FEE	
	CEVENTED LSED:	<u>J-55</u> <u>424</u> FEET <u>270</u> SACKS <u>0</u> FEET	CEMENTED USED:	3.033_FEE 7E0_34085	
1	TOP OF CEMENT:	<u> </u>	TOP OF CEMENT:	250 3A 0A3 1.540 FEE	
	DEFERMINED BY:	circulate	DEREAMINED BY:	temp survev	
	HOLE SILE: -	12.250 NCHES	HOLE SIZE: Tota: ceptu:	7.875 NO-ES	
			FLUGGED BACK TD:	3.100 FEET 3.083 FEET	
ł.					
IN.	ECTION OR PRODUCING I	NTERVAL			
	ANTERNAL TOP	2.988 FEET	NTERVAL BOTTOM:	2.992 ===	
	COMMENTS: 1	Perforated			
	PREVIOUS STANULATION:	750 callons of 15% HCL ucid plu 12,000 bounds of 20/40 sand un	s 15,000 cullons of galled water, 24 tons	of CO2.	i
p	ROPOSED STIMULATION:		17,500 bounds of 2.20 sand		
	- · · · · · · · ·				
11					
11					
IN.	JECTION TUBING (if an inji	ection well)			
IN.					
IN.			UNING DEPTH TO BE SET	<u>plastic</u>	
IN.			UNING DEPTH TO BE SET	: <u>plastic</u> 2.921_FEE_	
IN.			UNING DEPTH TO BE SET	: <u>plastic</u> 2. <u>921</u> FEE	
IN.			UNING DEPTH TO BE SET	<u>2.921</u> _FEE	
			UNING DEPTH TO BE SET	<u>plastic</u> 2.921_FEE	
то	TUBING S 2E: PACKER: HER DATA	2.375 INCHES Aluminum bronze tencion pucker	UNING DEPTH TO BE SET	<u>plastic</u> 2.921 FEE	
то	TUBING S 2E: PACKER: HER DATA	2.375 INCHES Aluminum bronze tencion pucker		<u>plastic</u> 2 <u>921</u> FEE	
то	TUBING S 2E: PACKER: HER DATA	2.375 INCHES Aluminum bronze tencion pucker	UNING DEPTH TO BE SET	<u>plastic</u> 2.921 FEE	
от 1.	TUBING SIZE: PACKER: HER DATA Name of restor or pro Queen Name of tees or post of	2.375 INCHES Aluminum bronze tension bucker	UNING DEPTH TO BE SET	: <u>plastic</u>	
от 1.	TUBING SIZE: PACKEP: HERIDATA Name of rightor or pro Queen	2.375 INCHES Aluminum bronze tension bucker	UNING DEPTH TO BE SET	: <u>plastic</u> 2.921 FEE	
OT 1. 2.	TUBING SIZE: PACKER: HER DATA Name of restor or pro Queen Name of tees or post of	2.375 INCHES Aluminum bronze tension bucker boucing interval.	LINING DEPTH TO BE SET	: <u>plastic</u> <u>2.921</u> FEE	
OT 1. 2.	TUBING 8 22: PACKEP: HER DATA Name of rightor or pro Queen Name of tees or pool of SE Chaves Queen	2.375 INCHES Aluminum bronze tension bucker boucing interval.	UNING DEPTH TO SE SET	: <u>plastic</u> <u>2.921</u> FEE	
OT 1. 2.	TUBING SIZE: PACKER: HER DATA Name of injection or pro Queen Name of tees or pool of <u>SE Chaves Queen</u> Is this a new well aniled No.	2.375 INCHES Aluminum bronze tension bucker boucing interval. f applicable).	UNING DEPTH TO BE SET	: <u>plastic</u> <u>2.921</u> FEE	
OT 1. 2.	TUBING SIZE: PACKEPT HER DATA Name of right or pro- Queen Name of test or poth of <u>SE Chaves Queen</u> Is this a new well antibut No.	2.375 INCHES Aluminum bronze tension bucker boucing interval.		: <u>plastic</u> <u>2.921</u> FEE	
OT 1. 2.	TUBING SIZE: PACKEPT HER DATA Name of right or pro- Queen Name of test or poth of <u>SE Chaves Queen</u> Is this a new well antibut No.	2.375 INCHES Aluminum bronze tension backer boucing interval. f approacie). d for injection? was the well originally onced?		: <u>plastic</u> <u>2.921</u> FEET	
OT 1. 2. 3.	TUBING SIZE: PACKEP: HERIDATA Name of restor or pro Queen Name of tees or pool of SE Chaves Queen Is this a new well antied No. If no, for what purpose This well was priginally	2.375 INCHES Aluminum bronze tension backer boucing interval. f approaple). d for injection? was the well originally onded? drilled as a Queen producing with		: <u>plastic</u> <u>2.921</u> FEET	
OT 1. 2. 3.	TUBING SIZE: PACKEP: HERIDATA Name of restor or pro Queen Name of tees or pool of SE Chaves Queen Is this a new well antied No. If no, for what purpose This well was priginally	2.375 INCHES Aluminum bronze tension backer boucing interval. f approacie). d for injection? was the well originally onced?		: <u>plastic</u> <u>2.921</u> FEET	
OT 1. 2. 3.	TUBING SIZE: PACKEPT HER DATA Name of injector or pro Queen Name of besi or post of <u>SE Chaves Queen</u> Is this a new well aniled <u>No.</u> If no, for what purpose <u>This well ever prior perform</u>	2.375 INCHES Aluminum bronze tension backer boucing interval. f approable). f for injection? was the well originally onced? drilled as a Queen producing we oratiid in any other zones?			
OT 1. 2. 3.	TUBING SIZE: PAOKER: HERIDATA Name of injection or pro- Queen Name of teed or pool of <u>SE Chaves Queen</u> Is this a new well artilled <u>No.</u> If no, for what purpose <u>This well ever prein performance</u> No.	2.375 INCHES Aluminum bronze tension backer boucing interval. f approable). f for injection? was the well originally onced? drilled as a Queen producing we oratiid in any other zones?			
OT 1. 2. 3.	TUBING SIZE: PACKEPT HER DATA Name of injector or pro Queen Name of besi or post of <u>SE Chaves Queen</u> Is this a new well aniled <u>No.</u> If no, for what purpose <u>This well ever prior perform</u>	2.375 INCHES Aluminum bronze tension backer boucing interval. f approable). f for injection? was the well originally onced? drilled as a Queen producing we oratiid in any other zones?			
OT 1, 2, 3, 4,	TUBING SIZE: PACKEPT HER DATA Name of registrar or pro Queen Name of trea or post of <u>SE Chaves Queen</u> Is this a new well antilad No. If no, for what purpose This well ever prien perf No List all oush perforated None	2.375 INCHES Aluminum bronze tencion backer boucing interval. f approable). d for injection? was the well originally onced? drilled as a Queen producing wr orated in any other zones?	n. 10 (cacks of cement or orlage plug(c) us		
OT 1. 2. 3. 4.	TUBING SIZE: PACKER: HERIDATA Name of injector or pro Queen Name of test or pool of <u>SE Chaves Queen</u> Is this a new well artist No. If no, for what purpose <u>This well ever preniperformated</u> No. List all push performed <u>Nong</u>	2.375 INCHES Aluminum bronze tension backer boucing interval. f approable). d for injection? was the well originally orded? drilled as a Queen producing we orated in any other zones? Fintervals and give plugging deta is of any overlying and/or underlying	II. IS (Sacks of certaint or orlage plug(s) us ng oll or gas zones focois) in this area.	ed).	
OT 1. 2. 3. 4.	TUBING SIZE: PAOKEP: HERIDATA Name of rejector or pro Queen Name of tees or pool of SE Chaves Queen Is this a new well anded No. If no, for what purpose This well ever onen performance List all push performed No.	2.375 INCHES Aluminum bronze tension backer boucing interval. f approable). d for injection? was the well originally orded? drilled as a Queen producing we orated in any other zones? Fintervals and give plugging deta is of any overlying and/or underlying	n. 10 (cacks of cement or orlage plug(c) us	ed).	
OT 1. 2. 3. 4.	TUBING SIZE: PACKER: HERIDATA Name of injector or pro Queen Name of test or pool of <u>SE Chaves Queen</u> Is this a new well artist No. If no, for what purpose <u>This well ever preniperformated</u> No. List all push performed <u>Nong</u>	2.375 INCHES Aluminum bronze tension backer boucing interval. f approable). d for injection? was the well originally orded? drilled as a Queen producing we orated in any other zones? Fintervals and give plugging deta is of any overlying and/or underlying	II. IS (Sacks of certaint or orlage plug(s) us ng oll or gas zones focois) in this area.	ed).	
OT 1. 2. 3. 4.	TUBING SIZE: PAOKEP: HERIDATA Name of rejector or pro Queen Name of tees or pool of SE Chaves Queen Is this a new well anded No. If no, for what purpose This well ever onen performance List all push performed No.	2.375 INCHES Aluminum bronze tension backer boucing interval. f approable). d for injection? was the well originally orded? drilled as a Queen producing we orated in any other zones? Fintervals and give plugging deta is of any overlying and/or underlying	II. IS (Sacks of certaint or orlage plug(s) us ng oll or gas zones focois) in this area.	ed).	
OT 1. 2. 3. 4. 5.	TUBING SIZE: PAOKER: HERIDATA Name of injector or pro Queen Name of teed or pool of <u>SE Chaves Queen</u> Is this a new well artiled <u>No.</u> If no, for what purpose <u>This well ever onen perforated</u> <u>Nong</u> List all oush perforated <u>Nong</u> Give depth to and name <u>There has never been a</u> <u>this well.</u>	2.375 INCHES Aluminum bronze tension backer boucing interval. f approable). d for injection? was the well originally onced? drilled as a Queen producing we orated in any other zones?	II. IS (Sacks of demant or origge prog(d) us ag all or gas zones (books) in this area. In other thun the Gueen in the area surro	ed).	
OT 1. 2. 3. 4. 5.	TUBING SIZE: PAOKER: HERIDATA Name of injector or pro Queen Name of teed or pool of <u>SE Chaves Queen</u> Is this a new well artiled <u>No.</u> If no, for what purpose <u>This well ever onen perforated</u> <u>Nong</u> List all oush perforated <u>Nong</u> Give depth to and name <u>There has never been a</u> <u>this well.</u>	2.375 INCHES Aluminum bronze tension backer boucing interval. f approable). d for injection? was the well originally orded? drilled as a Queen producing we orated in any other zones? Fintervals and give plugging deta is of any overlying and/or underlying	II. IS (Sacks of demant or origge prog(d) us ag all or gas zones (books) in this area. In other thun the Gueen in the area surro	ed).	
OT 1. 2. 3. 4. 5.	TUBING SIZE: PACKEP: PACKEP: HER DATA Name of rejector or pro Queen Name of teed or pool of SE Chaves Queen Is this a new well anded No. If no, for what purpose This well ever onen perfor No. List all oush perforated Nong Cive depth to and halfe There has never been a this well.	2.375 INCHES Aluminum bronze tension backer boucing interval. f approable). d for injection? was the well originally onced? drilled as a Queen producing we orated in any other zones?	II. IS (Sacks of demant or origge prog(d) us ag all or gas zones (books) in this area. In other thun the Gueen in the area surro	ed).	
OT 1. 2. 3. 4. 5.	TUBING SIZE: PACKEP: PACKEP: HER DATA Name of rejector or pro Queen Name of teed or pool of SE Chaves Queen Is this a new well anded No. If no, for what purpose This well ever onen perfor No. List all oush perforated Nong Cive depth to and halfe There has never been a this well.	2.375 INCHES Aluminum bronze tension backer boucing interval. f approable). d for injection? was the well originally onced? drilled as a Queen producing we orated in any other zones?	II. IS (Sacks of demant or origge prog(d) us ag all or gas zones (books) in this area. In other thun the Gueen in the area surro	ed).	

	LEASE: WELL #: FOOTAGE;	330' fnl & 1980' fei		
SEC-1WN-H	SPUD DATE: COMPLETION DATE: CURRENT STATUS:	34-12S-34E, Chaves County, New N 11-Feb-85 20-Mar-85 Active producing well - Cueen Active producing well - Cueen		
SUR	FACE CASING		PRODUCTION CASING	
	CASING WEIGHT: CASING GRADE: DEPTH SET: CEMENTED USED: TOP OF CEMENT: DETERMINED BY:	8.625 INCHES 24.000 POUNDS/FOOT J-55 433 FEET 300 SACKS 0 FEET circulate 12.250 INCHES	CASING SIZE: CASING WEIGHT: CASING GPADE: DEPTH SET: CEMENTED USED: TOP OF CENIENT: DETERMINED BY: HOLE SIZE: TOTAL DEPTH: PLUGGED BACK TO:	14.000 POUNDS.FCOT J-55 3.094 FEET 410 SACKS 1.900 FEET CBL 7.975 INCHES 3.100 FEET
JLNI	CTION OR PRODUCING			
p	COMMENTS:	2.987 FEET Perforated 750 gallons of 15% HCL acid plus	INTERVAL BOTTOM:	
	OPOSED STIMULATION:	13,000 bounds of 20/40 sand and		
JLNI	ECTION TUBING (if an in TUBING SIZE: PACKER:	NA INCHES	LINING: NA DEPTH TO BE SET: NA	
		··· <u>·</u> ································	<u> </u>	
	Name of njection or pr	oducing interval.		
2.	Name of field or pool (SE Chaves Gueen	if applicable).		
3.	Is this a new well drille No.	a for injection?		
		was the well originally drilled? y drilled as a Queen producing well.		
4.	Has well ever been par No	forated in any other zones?		<u> </u>
	List all such perforate None	d intervals and give plugging details	(sacks of cement or bridge plug(s) used).	
5.			oil or gas zones (pools) in this area. other than the Queen in the area surrounding	<u></u>
6.	If well is plugged and a Not applicable.	abandoned, list details of plugging a	nd attach schematic.	

	OPERATOR: Votes Delling Computer		
	OPERATOR: Yates Drilling Company LEASE: Dave Federal	···· ·· ··· ··· ··· ··· ··· ··· ··· ··	
	WELL #:1		
S=0.TMN-R	FOOTAGE: 990' fst & 990' fm ING, COUNTY, STATE: 34-125-34E, Chaves County, New Mexico		
525 (1111)	SPUD DATE: 21-Jan-84		
	COMPLETION DATE: <u>9-Feb-84</u>		
	CURRENT STATUS: Active producing well - Queen PRCPOSED STATUS: Active producing well - Queen		
	Active producing weil added		
SUF	RFACE CASING	PRODUCTION CASING	
	CASING SIZE: <u>8.625</u> INCHES CASING WEIGHT: <u>24.000</u> POUNDS/FOOT	CASING SIZE: CASING WEIGHT:	14 COL ROUNDS-ECOT
	CASING GRADE:J-55	CASING GRADE: CASING GRADE: DEPTH SET: CEMENTED USED:	
	DEPTH SET: 368 FEET	DEPTH SET:	2.925 FEET
	CASING GRADE: J-55 DEPTH SET: 368 FEET CEMENTED USED: 265 SACKS TOP OF CEMENT: 0 FEET DEFENSIVED BY: COMPARENT	CEMENTED USED:	250 SACKS
	DETERMINED BY:Circulate	DETERMINED BY: Tor	
	HOLE SIZE: 12.250 NCHES	HOLE SIZE: TOTAL DEPTH: PLUGGED SACK TD:	7.875 INCHES
		TOTAL DEPTH:	2.925 FEET
		PLUGGED BACK (D:	2.925_FEE!
L			
F			
ILNI	ECTION OF PRODUCING INTERVAL		
	INTERVAL TCP: 2,723 FEET COMMENTS: Perforated	INTERVAL BOTTOM:	2,730 FEET
E F	PREVIOUS STIMULATION: 750 gailons 15% HCL acid blus 15,000 c	allons delled water, 5,000 pounds CC2.	
	16,500 pounds of 20/40 sand, 6,000 pou	inds of 12/20 sand	
PI	RCPOSED STIMULATION: 500-1000 guillons of 7-1/2% HCL to clear	n perforations	
1			
	TUBING SIZE: 2.375 INCHES PACKER: Nicket plated tension packer	UNING: <u>plasti</u> DEPTH TO BE SET:	2.673 FEET
 			
	HER DATA		
1.	Name of injection or producing interval. Queen		
2	Name of field or pool (if applicable).		
2.	SE Chaves Queen		
3.	Is this a new well drilled for injection?		
1	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?		
	No		
	List all such perfected inturusis and give process details (anal	ka of pompet or bridge plug(c) used)	
1	List all such perforated intervals and give prugging details (sach None	is or cement or proge plug(5) used).	
-			
il ^{5.}	 Give depth to and name of any overlying and/or underlying oil o There has never been any production from any formation other 		
1	thus well.		
6.	If well is plugged and abandoned, list details of plugging and at	tach schematic.	······
(Not applicable.		
	- <u></u>		

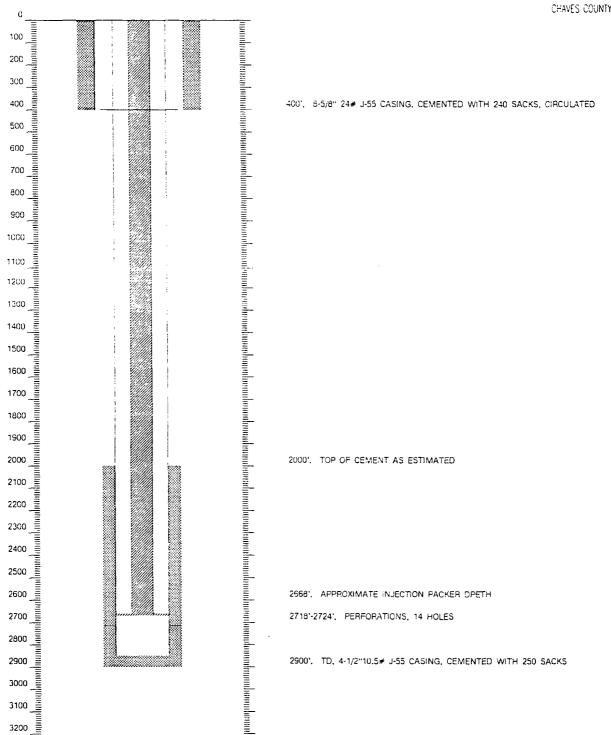
		Dave Federal			
	WELL #:	2 990' fsl & 990' fwl			
TWN-RN	G. COUNTY. STATE:	34-12S-34E, Chaves County,	New Mexico	· · · · · · · · · · · · · · · · · · ·	
	SPUD DATE:	21-Jan-84			
	COMPLETION DATE:	Active producing well - Cued	יח		
		Active producing well - Quee			
e1105					
3046		0.005 (1)01/52			
	CASING SIZE: CASING WEIGHT:	8.625 INCHES 24.000 POUNDS;FC	от	CASING SIZE:	5.500 INCHES 14.000 PCUNDS/FOOT
	CASING GRADE:		-	CASING GRADE:	J-55
	DEPTH SET:	368 FEET		CASING GRADE: CEPTH SET:	2.925 FEET
	CEMENTED USED:	265_SACh3		CEMENTED USED:	250 SACKS
	DETERMINED BY:			OFTERMINED BY: TO	mo survev
	HOLE SIZE:	12.250 INCHES		-OLE SIZE:	
				HOLE BIZE:	2,925 FEET
				PLUGGED BACK TO:	2,925 FEET
INJE		INTERVAL			
	INTERVAL TOP:	2.723 FEET		INTERVAL BOTTOM:	2.730 FEET
	COMMENTS:	Perforated			
PA	EVIOUS STIMULATION:			elled water, 5.000 pounds CO2	
PR	POSED STIMULATION	16,500 pounds of 20/40 sar 500-1000 gallons of 7-1/2%			
INJE	CTION TUBING (if an ir TUBING SiZE)	2.375 INCHES		UNING: clas	itic
INJE	TUBING SIZE	njection well) : <u>2.375</u> INCHES : <u>Nickel plated tension packe</u>	r	UNING: <u>clas</u> DEPTH TO SE SET:	tic2,573_FEET
<u> </u>	TUBING SIZE PACKER	2.375 INCHES	r	UNING: <u>clas</u> Depth to be set:	ticFEET
<u> </u>	TUBING SIZE	2.375 INCHES	<u> </u>	UNING: <u>clas</u> DEPTH TO BE SET:	IticFEET
отні 1. М	TUBING SIZE PACKER	2.375 INCHES Nickel plated tension packe	<u> </u>	UNING: <u>clas</u> CEPTH TO SE SET:	ntic2,673_FEET
отні 1. М	TUBING SIZE: PACKER: ER DATA Name of injection or pi	2.375 INCHES Nickel pluted tension pucke roducing interval.	r	UNING: <u>clas</u> DEPTH TO BE SET:	itic2.673 FEET
OTHI 1. M 	TUBING SIZE: PACKER: ER DATA Name of injection of pr Queen	2.375 INCHES Nickel pluted tension pucke roducing interval.	······	UNING: <u>clas</u> DEPTH TO EE SET:	ntic 2,873 FEST
OTHI 1. M 2. M 3. I	TUBING SIZE PACKER: ER DATA Name of injection or pr Gueen	2.375 INCHES Nickel plated tension backer roducing interval.	· · · · · · · · · · · · · · · · · · ·		tic2,573_FEET
OTHI 1. f 2. f 3. i	TUBING SIZE: PACKER: ER DATA Name of injection or pr Gueen Name of field or pool f SE Chaves Gueen s this a new well drille No.	2.375 INCHES <u>Nickel plated tension backer</u> roducing interval. (if applicable). ed for injection? e was the well originally grille	10?		tic2,573_FEET
OTHI 1. f 2. f 3. i	TUBING SIZE: PACKER: ER DATA Name of injection or pr Gueen Name of field or pool f SE Chaves Gueen s this a new well drille No.	2.375 INCHES <u>Nickel pluted tension packe</u> roducing interval. (if applicable). ed for injection?	10?		itic2,673_FEET
OTHI 1. M 2. M 3. I	TUBING SIZE: PACKER: ER DATA Name of injection or pr Queen Name of field or pool to SE Chaves Queen s this a new well drille No. f no, for what purpose This well was original	2.375 INCHES <u>Nickel plated tension backer</u> roducing interval. (if applicable). ed for injection? e was the well originally grille	10?		itic2,673 FEET
OTHI 1. M 2. M 3. I	TUBING SIZE: PACKER: PACKER: ER DATA Name of injection or pr <u>Queen</u> Name of field or pool in <u>SE Chaves Queen</u> is this a new well drille <u>No.</u> If no, for what purpose This well was originall Has well ever been cell No.	2.375 INCHES Nickel pluted tension packer roducing interval. (if applicable). ed for injection? e was the well originally drifte y drilled as a Queen producin rforated in any other zones?	id? ng wall.	UNING: clas DEPTH TO BE SET:	itic2.673_FEET
OTHI 1. M 2. M 3. I 4. H	TUBING SIZE: PACKER: PACKER: ER DATA Name of injection or pr Queen Name of field or pool i SE Chaves Queen s this a new well drille No. f no, for what curpose This well was original tas well ever been cer No List all such perforate None	2.375 INCHES Nickel pluted tension packer roducing interval. (if applicable). ed for injection? e was the well originally critic y drilled as a Queen producir rforated in any other zones? ed intervals and give plugging the of any overlying ang/or un	details (sacks of cer gerlying oil or gas zo	DEPTH TO BE SET:	2.673 FEET
OTHI 1. M 2. M 3. I 4. H	TUBING SIZE: PACKER: PACKER: ER DATA Name of injection or pr Queen Name of field or pool i SE Chaves Queen s this a new well drille No. f no, for what curpose This well was original tas well ever been cer No List all such perforate None	2.375 INCHES Nickel pluted tension packer roducing interval. (if applicable). ed for injection? e was the well originally critic y drilled as a Queen producir rforated in any other zones? ed intervals and give plugging the of any overlying ang/or un	details (sacks of cer gerlying oil or gas zo	DEPTH TO BE SET:	2.673 FEET
OTHI 1. M 2. M 3. I 4. H	TUBING SIZE: PACKER: PACKER: ER DATA Name of injection or pr Queen Name of field or pool if SE Chaves Queen s this a new well drille No. f no, for what curpose This well was original tas well ever been cer No List all such perforate None	2.375 INCHES Nickel pluted tension packer roducing interval. (if applicable). ed for injection? e was the well originally critic y drilled as a Queen producir rforated in any other zones? ed intervals and give plugging the of any overlying ang/or un	details (sacks of cer gerlying oil or gas zo	DEPTH TO BE SET:	2.673 FEET
OTHI 1. 1 2. 1 3. 1 4. 1 5. 4	TUBING SIZE: PACKER: PACKER: ER DATA Name of injection or pr Queen Name of field or pool i SE Chaves Queen s this a new well drille No. f no, for what curpose This well was original tas well ever been cer No List all such perforate None Give depth to and nam There has never been this well.	2.375 INCHES Nickel pluted tension packer roducing interval. (if applicable). ed for injection? e was the well originally critic y drilled as a Queen producir rforated in any other zones? ed intervals and give plugging the of any overlying ang/or un	details (sacks of cer aerlying oil or gas zo mation other than the	DEPTH TO BE SET:	2.673 FEET



	LEASE	DeLuna Federal			
	WELL #:				
		1980' fsl & 660' fwl			
TWN-RN		34-12S-34E. Chaves County,	New Mexico		
	SPUD DATE: COMPLETION DATE:	2-Jul-82			
		Active producing well - Quee	·0		
		Active intection well - Queen			
				······································	
SURF	FACE CASING			PRODUCTION CASING	
	CASING SIZE:	8.625 INCHES		CASING SIZE:	4.500 INCHES
	CASING WEIGHT:	24.000_POUNDS/FC	от	CASING WEIGHT:	10.500 POUNDS/FOOT
	CASING GRADE:	7-22		CASING GRADE:	J-55 2.900 FEET
	DEPTH SET:	400 FEET		DEPTH SET:	2.900 FEET
	TOP OF OSMENTS	400 FEET 240 SACKS 0 FEET		TOP OF OFMENT	250 SACKS
	DETERMINED BY:	circulate		TOP OF CEMENT:	?
	HOLE SIZE:	12.250 INCHES		HOLE SIZE:	7.875 INCHES
				TOTAL DEPTH:	2.900 FEET
				DETERMINED BY: HOLE SIZE: TOTAL DEPTH: FLIGGED BACK TD:	2,900 FEET
					-
INJE	CTION OR PRODUCING	INTERVAL			
				A-220,014 - 200701-	
		2.718 FEET		INTERVAL BOTTOM:	2.724 ===
p	COMMENTS: EVICUS STIMULATION:		rius 10.000 galler	s deiled water, 5,000 scf CO2,	
- F	LANGUS SHIVIULATION:	7,000 bounds of 20/40 sand			
PR	OPOSED STIMULATION:	500-1000 gallons of 7-1/2%			
INJE	CTION TUBING (if an in TUBING SIZE:	2.375 INCHES			lastic
JLNI	TUBING SIZE:	jection well) 2.375 INCHES Nickel plated tension cacket			lastic2.568_FEET
JUL I	TUBING SIZE:	2.375 INCHES		LINING: p	lastic2.568_FEET
JLNI	TUBING SIZE:	2.375 INCHES		LINING: p	lastic 2.558_FEET
	TUBING SIZE:	2.375 INCHES		LINING: p	lastic 2.688 FEET
отн	TUBING SIZE: PACKER: ER DATA	2.375 INCHES Nickel plated tension cacker		LINING: p	lastic 2.568_FEET
отн 1. 1	TUBING SIZE: PACKER:	2.375 INCHES Nickel plated tension cacker		LINING: p	lastic 2.688 FEET
отн 1. 1	TUBING SIZE: PACKER: ER DATA Name of sejection or pr Queen	2.375 INCHES Nickel pluted tension cacked coucing interval.		LINING: p	lastic 2.558 FEET
отн 1. 1 2. 1	TUBING SIZE: PACKER: ER DATA Name of injection or pr	2.375 INCHES Nickel pluted tension cacked coucing interval.		LINING: p	lastic 2.588_FEET
отн 1. н 2. 1	TUBING SIZE: PACKER: ER DATA Name of injection or pr Queen Name of field or pool (SE Chaves Queen	2.375 INCHES Nickel pluted tension cacker coucing interval.		LINING: p	lastic 2.688 FEET
отн 1. н 2. 1	TUBING SIZE: PACKER: ER DATA Name of injection or pr Queen Name of field or pool (2.375 INCHES Nickel pluted tension cacker coucing interval.		LINING: p	lastic 2.588 FEET
OTH 1. 1 2. 1 3. 1	TUBING SIZE: PACKER: ER DATA Name of injection or pr Queen Name of field or pool (<u>SE Chaves Queen</u> s this a new weil drille No.	2.375 INCHES Nickel plated tension packer occucing interval. if applicable). d for injection?		LINING: p	lastic 2.568 FEET
OTH 1. 1 2. 1 3. 1	TUBING SIZE: PACKER: ER DATA Name of injection or pr Queen Name of field or pool (<u>SE Chaves Queen</u> s this a new well drille No.	2.375 INCHES Nickel pluted tension packet coucing interval. if applicable). d for injection?		LINING: p	lastic 2.688 FEET
OTH 1. 1 2. 1 3. 1	TUBING SIZE: PACKER: ER DATA Name of injection or pr Queen Name of field or pool (<u>SE Chaves Queen</u> s this a new well drille No.	2.375 INCHES Nickel plated tension packer occucing interval. if applicable). d for injection?		LINING: p	lastic 2.688 FEET
OTH 1. 1 2. 1 3. 1	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	2.375 INCHES Nickel plated tension cacked coucing interval. if applicable). d for injection? was the well originally drille y drilled as a Queen producir		LINING: p	lastic 2.688 FEET
OTH 1. 1 2. 1 3. 1	TUBING SIZE: PACKER: ER DATA Name of injection or pr Queen Name of field or pool (<u>SE Chaves Queen</u> is this a new well drille <u>No.</u> If no, for what purpose This well was originally Has well ever been per	2.375 INCHES Nickel pluted tension packet coucing interval. if applicable). d for injection?		LINING: p	lastic 2.688 FEET
OTH 1. 1 2. 1 3. 1	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	2.375 INCHES Nickel plated tension cacked coucing interval. if applicable). d for injection? was the well originally drille y drilled as a Queen producir		LINING: p	lastic 2.688 FEET
OTH 1. 1 2. 1 3. 1	TUBING SIZE: PACKER: PACKER: ER DATA Name of injection or pr Queen Name of field or pool (<u>SE Chaves Queen</u> s this a new well drille <u>No.</u> If no, for what purpose This well was originally Has well ever been per <u>No.</u>	2.375 INCHES Nickel pluted tension cacker coucing interval. if applicable). d for injection? : was the well originally drille y drilled as a Queen producin forated in any other zones?	d? ng well.	LINING: p DEPTH TO BE SET:	2.568 FEET
OTH 1. 1 2. 1 3. 1	TUBING SIZE: PACKER: PACKER: ER DATA Name of injection or pr Queen Name of field or pool (<u>SE Chaves Queen</u> s this a new well drille <u>No.</u> If no, for what purpose This well was originally Has well ever been per <u>No.</u>	2.375 INCHES Nickel pluted tension cacker coucing interval. if applicable). d for injection? : was the well originally drille y drilled as a Queen producin forated in any other zones?	d? ng well.	LINING: p	2.568 FEET
OTH 1. 1 2. 1 3. 1	TUBING SIZE: PACKER: PACKER: ER DATA Name of injection or pr Queen Name of field or pool (<u>SE Chaves Queen</u> s this a new well drille <u>No.</u> If no, for what purpose This well was originally Has well ever been per <u>No.</u> List all such perforate	2.375 INCHES Nickel pluted tension cacker coucing interval. if applicable). d for injection? : was the well originally drille y drilled as a Queen producin forated in any other zones?	d? ng well.	LINING: p DEPTH TO BE SET:	2.568 FEET
OTH 1. 1 2. 1 3. 1 4.	TUBING SIZE: PACKER: PACKER: ER DATA Name of injection or pr Queen Name of field or pool (<u>SE Chaves Queen</u> s this a new well drille <u>No.</u> If no, for what purpose This well was originally Has well ever been per <u>No</u>	2.375 INCHES Nickel pluted tension cacker coucing interval. if applicable). d for injection? was the well originally drille y drilled as a Queen producir forated in any other zones? d intervals and give plugging	id? ng well. details (sacks of o	LINING: p CEPTH TO BE SET:	2.568 FEET
OTH 1. 1 2. 1 3. 1 4.	TUBING SIZE: PACKER: PACKER: ER DATA Name of injection or pr Queen Name of field or pool (<u>SE Chaves Queen</u> s this a new well drille <u>No.</u> If no, for what purpose This well ever been per <u>No.</u> List all such perforate <u>None</u> Give depth to and nam	2.375 INCHES Nickel pluted tension cacker coucing interval. if applicable). d for injection? e was the well originally drille y drilled as a Queen producin forated in any other zones? d intervals and give plugging e of any overlying ang/or un	d? ig well. details (sacks of d derlying oil or gas	LINING: p DEPTH TO BE SET:	2.588 FEET
OTH 1. 1 2. 1 3. 1 4.	TUBING SIZE: PACKER: 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 ever been per No. List all such perforate None Give depth to and nam There has never been	2.375 INCHES Nickel pluted tension cacker coucing interval. if applicable). d for injection? e was the well originally drille y drilled as a Queen producin forated in any other zones? d intervals and give plugging e of any overlying ang/or un	d? ig well. details (sacks of d derlying oil or gas	LINING: p CEPTH TO BE SET:	2.588 FEET
OTH 1. 1 2. 1 3. 1 4.	TUBING SIZE: PACKER: PACKER: ER DATA Name of injection or pr Queen Name of field or pool (<u>SE Chaves Queen</u> s this a new well drille <u>No.</u> If no, for what purpose This well ever been per <u>No.</u> List all such perforate <u>None</u> Give depth to and nam	2.375 INCHES Nickel pluted tension cacker coucing interval. if applicable). d for injection? e was the well originally drille y drilled as a Queen producin forated in any other zones? d intervals and give plugging e of any overlying ang/or un	d? ig well. details (sacks of d derlying oil or gas	LINING: p DEPTH TO BE SET: 	2.588 FEET
OTH 1. 1 2. 1 3. 1 4.	TUBING SIZE: PACKER: 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 ever been per No. List all such perforate None Give depth to and nam There has never been	2.375 INCHES Nickel pluted tension cacker coucing interval. if applicable). d for injection? e was the well originally drille y drilled as a Queen producin forated in any other zones? d intervals and give plugging e of any overlying ang/or un	d? ig well. details (sacks of d derlying oil or gas	LINING: p DEPTH TO BE SET: 	2.588 FEET
OTH 1. 1 2. 1 3. 1 4.	TUBING SIZE: PACKER: 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 ever been per No. List all such perforate None Give depth to and nam There has never been	2.375 INCHES Nickel pluted tension cacker coucing interval. if applicable). d for injection? e was the well originally drille y drilled as a Queen producin forated in any other zones? d intervals and give plugging e of any overlying ang/or un	d? ig well. details (sacks of d derlying oil or gas	LINING: p DEPTH TO BE SET: 	2.588 FEET
отн 1. 1 2. 1 3. 1 4. 5.	TUBING SIZE: PACKER: 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.	2.375 INCHES Nickel pluted tension cacker coucing interval. if applicable). d for injection? e was the well originally drille y drilled as a Queen producin forated in any other zones? d intervals and give plugging e of any overlying ang/or un	d? g well. details (sacks of o derlying oil or gas mation other than	LINING: p DEPTH TO BE SET:	2.588 FEET
отн 1. 1 2. 1 3. 1 4. 5.	TUBING SIZE: PACKER: PACKER: ER DATA Name of injection or pr Queen Name of field or pool (<u>SE Chaves Queen</u> is this a new well drille <u>No.</u> If no, for what burpose This well was originally Has well ever been per <u>No</u> List all such perforate <u>None</u> Give death to and nam There has never been this well.	2.375 INCHES Nickel pluted tension cacker coucing interval. if applicable). d for injection? e was the well originally drille y drilled as a Queen producin forated in any other zones? d intervals and give plugging e of any overlying ang/or un any production from any for	d? g well. details (sacks of o derlying oil or gas mation other than	LINING: p DEPTH TO BE SET:	2.588 FEET

DELUNA FEDERAL #1

L34-12S-31E CHAVES COUNTY, NM



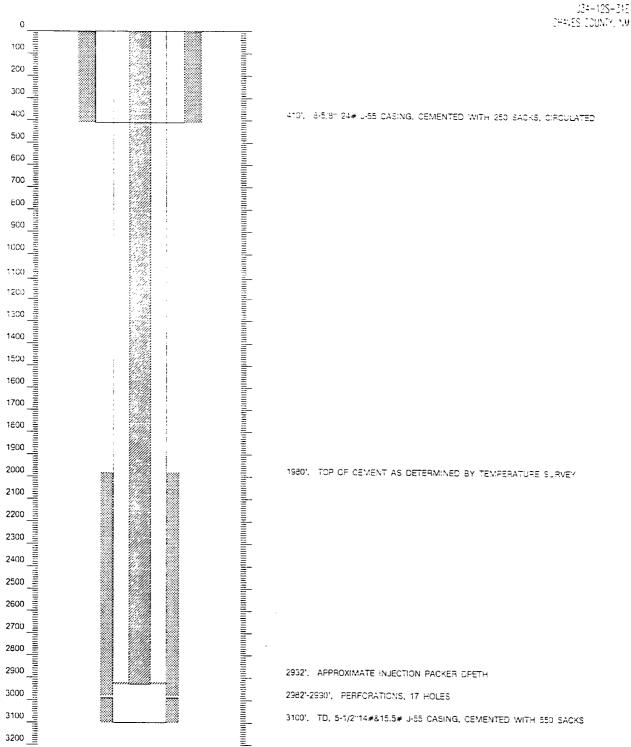
PROPOSED INJECTION CONFIGURATION

		Yates Drilling Company		
		DeLuna Federal		
		2 1980' fsl & 1650' fwl		
SEC-TWN-RM		34-12S-34E, Chaves County, New	/ Mexico	
	SPUD DATE:	7-Feb-84		
	COMPLETION DATE:			
		Active producing well - Queen Active producing well - Queen		
	THOI DEED OTRIDU.	Active breadening went added		
Ľ				
SUB	FACE CASING		PRODUCTION CASING	
	CASING SIZE	8.625 INCHES	CASING SIZE:	5.500 INCHES 14.600 PCUNDS/FOOT 355
	CASING WEIGHT	24.000 FOUNDS, FOOT	CASING WEIGHT:	14.000 PCUNDS/FOOT
	CASING GRADE	J-55		
	CEMENTED USED	374 FEET 275 SACKS 0 FEET		<u></u>
	TOP OF CEMENT	0 FEET	CEMENTED USED: TOP OF CEMENT:	1.775 FEET
	DETERMINED BY	c:rculate 12.250 INCHES	DETERMINED BY: Te	mo, survey
	HOLE SIZE	: <u>12.250</u> INCHES	HOLE SIZE:	7.875 NCHES
			TOTAL DEPTH: PLUGGED BACK TO:	
			PLUGGED BACK TO.	2.913
L	····			
INIF	CTION OR PRODUCING	INTERVAL		
		2,773 FEET	INTERVAL BOTTOM:	2.781 ====
		Perforated		
PE	REVICUS STIMULATION	: 750 gailons 15% HCL acid clus 2 16,000 pounds of 20/40 sand, 6,0	20.000 gallons gelled water, 25% CO2.	
PR	OPOSED STIMULATION			
			·	
L				
INJE	CTION TUBING (if an i	njection well)		
	TUBING SIZE	: NA INCHES	LINING: NA	
	FAUNER		CEPTH TO BE SET: NA	7221
L				
OTH	ER DATA			
1.	Name of injection or p	roducing interval.		
ll.	Queen			·
2	Name of field or pool	(if applicable)		
2.	SE Chaves Queen	(n applicable).		
1				
3.	Is this a new well drill	ed for injection?		
	<u>No.</u>	· · · · · · · · · · · · · · · · · · ·		
l.	It no, for what purpos	e was the well originally drilled?		
		ly drilled as a Queen producing we	sil,	
		forstad in the state		
4.	No Has well ever been be	rforated in any other zones?		
		ed intervals and give plugging detai	ils (sacks of cement or bridge plug(s) used).	
	None		<u> </u>	<u> </u>
5.			ng oil or gas zones (pools) in this area.	
	There has never been		on other than the Gueen in the area surrounding	ç
	this well.			
				······································
6.		abandoned, list details of plugging	and attach schematic.	· · · · · · · · · · · · · · · · · · ·
	Not applicable.			·····
18				

	OPERATOR;	Yates Drilling Company		
	LEASE:			
		1 		
SEC-TWN-I	RNG, COUNTY, STATE:	34-12S-34E, Chaves County, New I	Mexico	
	SPUD DATE:	31-Jul-84		
	COMPLETION DATE:			
		Active injection well - Queen		
	THOROGED STATUS.	Active injection were gated		
ຣບ	RFACE CASING		PRODUCTION CASING	
	040000 0175	A CRE NICHES		
	CASING SIZE: CASING WEIGHT:	8,625 INCHES 24,000 POUNDS/FCOT	CASING SIZE:	5.500 INCHES 14.000 POUNDS/FCOT
	CASING GRADE:	J-55	CASING GPADE:	J-55
	DEPTH SET:	409 FEET 250 SACKS 0 FEET	CASING GFADE:	3,098 FEET
	CEMENTED USED:	250 SACKS	CEMENTED USED: TOP OF CEMENT: DETERMINED BY: 10	250 SACKS
	TCP OF CEMENT:		TCP OF CEMENT:	2.200 FEET
	DETERMINED BY:	circulate 12,250 INCHES	CETERMINED BY: te	mp survey
	HULE 312E.	12,200 MCHES	HOLE SIZE:	
			HOLE SIZE: TOTAL DEPTH: PLUGGED BACK TO:	3.098 FEET
<u> </u>				
IN.	JECTION OR PRODUCING	INTERVAL		
		: 2,982 FEET	INTERVAL BOTTOM:	2,989 FEET
			0 gallons of gelled water, 5.000 SCF per barri	el N2
		10,900 pounds 20/40 sand and 4,2		
F	PROPOSED STIMULATION	: None		
<u></u>				
11				
1				
iN	JECTION TUBING (if an ir	njection well)		
iN				
IN			LINING: <u>plasti</u> DESTLI TO BE SET.	C2 913 FFFT
iN			LINING: <u>plast</u> CEPTH TO BE SET:	c 2,913 FEET
iN			LINING: <u>plasti</u> CEPTH TO BE SET:	c 2.913 FEET
IN			LINING: <u>plasti</u> CEPTH TO BE SET:	<u>c</u> 2.913 FEET
	TUBING SIZE PACKER		LINING: <u>plasti</u> CEPTH TO BE SET:	c 2.913 FEET
			LINING: <u>plasti</u> CEPTH TO BE SET:	c 2.913 FEET
01	TUBING SIZE PACKER	2,375 INCHES i nickle plated tension packer	LINING: <u>plasti</u> DEPTH TO BE SET:	c2.913_FEET
01	TUBING SIZE PACKER	2,375 INCHES i nickle plated tension packer	LINING: <u>plasti</u> CEPTH TO BE SET:	c2.913_FEET
от 1.	TUBING SIZE PACKER THER DATA Name of injection or p <u>Gueen</u>	2.375 INCHES nickle plated tension packer reducing interval.	LINING: <u>plasti</u> CEPTH TO BE SET:	c2.913_FEET
от 1.	TUBING SIZE PACKER THER DATA Name of injection or p <u>Gueen</u> Name of field or pool	2.375 INCHES nickle plated tension packer reducing interval.	LINING: <u>plasti</u> CEPTH TO BE SET:	c2.913_FEET
01	TUBING SIZE PACKER THER DATA Name of injection or p <u>Gueen</u> Name of field or pool <u>SE Chaves Gueen</u>	: 2.375 INCHES nickle pluted tension packer roducing interval. (if applicable).	LINING: <u>plasti</u> CEPTH TO BE SET:	c 2.913 FEET
01	TUBING SIZE PACKER THER DATA Name of injection or p <u>Gueen</u> Name of field or poot <u>SE Chaves Gueen</u> Is this a new well drille	: 2.375 INCHES nickle pluted tension packer roducing interval. (if applicable).	LINING: plast CEPTH TO BE SET:	c 2.913 FEET
01 1. 2.	TUBING SIZE PACKER THER DATA Name of injection or p <u>Gueen</u> Name of field or pool <u>SE Chaves Gueen</u>	: 2.375 INCHES nickle pluted tension packer roducing interval. (if applicable).	LINING: plasti	c 2.913 FEET
01 1. 2.	TUBING SIZE PACKER THER DATA Name of injection or pi <u>Gueen</u> Name of field or pool <u>SE Chaves Gueen</u> Is this a pr-w well drille <u>No.</u>	: 2.375 INCHES nickle pluted tension packer roducing interval. (if applicable).		c FEET
01 1. 2.	TUBING SIZE PACKER THER DATA Name of injection or p <u>Queen</u> Name of field or poot <u>SE Chaves Queen</u> Is this a n-w well drille <u>No.</u> if no, for what purposit	2.375 INCHES mickle pluted tension packer reducing interval. (if applicable). ed for injection?		c FEET
01 1. 2.	TUBING SIZE PACKER THER DATA Name of injection or p <u>Queen</u> Name of field or poot <u>SE Chaves Queen</u> Is this a n-w well drille <u>No.</u> if no, for what purposit	2.375 INCHES inickle pluted tension packer roducing interval. (if applicable). ed for injection? e was the well originally drilled?		c FEET
01 1. 2. 3.	TUBING SIZE PACKER THER DATA Name of injection or p <u>Cucen</u> Name of field or pool <u>SE Chaves Queen</u> Is this a n-w well drille <u>No.</u> If no, for what purpose This well was original	2.375 INCHES inickle plated tension packer reducing interval. (if applicable). ed for injection? e was the well originally drilled? by drilled as a Queen producing well.		c PEET
01 1. 2. 3.	TUBING SIZE PACKER THER DATA Name of injection or pi <u>Gueen</u> Name of field or pool <u>SE Chaves Queen</u> Is this a n-w well drille <u>No.</u> If no, for what purpose This well was original Has well ever been pe	2.375 INCHES inickle pluted tension packer roducing interval. (if applicable). ed for injection? e was the well originally drilled?		c PEET
01 1. 2. 3.	TUBING SIZE PACKER THER DATA Name of injection or p <u>Cucen</u> Name of field or pool <u>SE Chaves Queen</u> Is this a n-w well drille <u>No.</u> If no, for what purpose This well was original	2.375 INCHES inickle plated tension packer reducing interval. (if applicable). ed for injection? e was the well originally drilled? by drilled as a Queen producing well.		c PEET
01 1. 2. 3.	TUBING SIZE PACKER THER DATA Name of injection or p <u>Gueen</u> Name of field or poot <u>SE Chaves Gueen</u> Is this a new well drille <u>No.</u> If no, for what purpose <u>This well was original</u> Has well ever been ce <u>No.</u>	2.375 INCHES inickle pluted tension packer reducing interval. (if applicable). ed for injection? e was the well originally drilled? y drilled as a Queen producing well. rforated in any other zones?		c PEET
01 1. 2. 3.	TUBING SIZE PACKER THER DATA Name of injection or p <u>Gueen</u> Name of field or poot <u>SE Chaves Gueen</u> Is this a new well drille <u>No.</u> If no, for what purpose <u>This well was original</u> Has well ever been ce <u>No.</u>	2.375 INCHES inickle pluted tension packer reducing interval. (if applicable). ed for injection? e was the well originally drilled? y drilled as a Queen producing well. rforated in any other zones?		c PEET
01 1. 2. 3.	TUBING SIZE PACKER THER DATA Name of injection or p <u>Gueen</u> Name of field or poot <u>SE Chaves Gueen</u> Is this a n-w well drille <u>No.</u> If no, for what purpose <u>This well was original</u> Has well ever been pe <u>No</u> List all such perforate	2.375 INCHES inickle pluted tension packer reducing interval. (if applicable). ed for injection? e was the well originally drilled? y drilled as a Queen producing well. rforated in any other zones?		c FEET
01 1. 2. 3. 4.	TUBING SIZE PACKER THER DATA Name of injection or p <u>Gueen</u> Name of field or pool <u>SE Chaves Gueen</u> Is this a new well drille <u>No.</u> If no, for what purpose This well was original Has well ever been pe <u>No</u> List all such perforate <u>None</u>	2.375 INCHES inickle pluted tension packer roducing interval. (if applicable). ed for injection? e was the well originally drilled? by drilled as a Queen producing well. rforated in any other zones? ed intervals and give plugging details	(sacks of cement or pridge plug(s) used).	c FEET
01 1. 2. 3. 4.	TUBING SIZE PACKER THER DATA Name of injection or p <u>Gueen</u> Name of field or poot <u>SE Chaves Gueen</u> Is this a n-w well drille <u>No.</u> If no, for what purpose <u>This well was original</u> Has well ever been pe <u>No.</u> List all such perforate <u>None</u>	2.375 INCHES inickle pluted tension packer reducing interval. (if applicable). ed for injection? e was the well originally drilled? by drilled as a Queen producing well. rforated in any other zones? ed intervals and give plugging details he of any overlying and/or underlying		
01 1. 2. 3. 4.	TUBING SIZE PACKER THER DATA Name of injection or p <u>Gueen</u> Name of field or poot <u>SE Chaves Gueen</u> Is this a n-w well drille <u>No.</u> If no, for what purpose <u>This well was original</u> Has well ever been pe <u>No.</u> List all such perforate <u>None</u>	2.375 INCHES inickle pluted tension packer reducing interval. (if applicable). ed for injection? e was the well originally drilled? by drilled as a Queen producing well. rforated in any other zones? ed intervals and give plugging details he of any overlying and/or underlying	(sacks of cement or pridge plug(s) used).	
01 1. 2. 3. 4.	TUBING SIZE PACKER THER DATA Name of injection or p <u>Gueen</u> Name of field or pool <u>SE Chaves Queen</u> Is this a nw well drille <u>No.</u> If no, for what purposs This well was original Has well ever been pe <u>No.</u> List all such perforate <u>None</u> Give depth to and name	2.375 INCHES inickle pluted tension packer reducing interval. (if applicable). ed for injection? e was the well originally drilled? by drilled as a Queen producing well. rforated in any other zones? ed intervals and give plugging details he of any overlying and/or underlying	(sacks of cement or pridge plug(s) used).	
01 1. 2. 3. 4.	TUBING SIZE PACKER THER DATA Name of injection or p <u>Gueen</u> Name of field or pool <u>SE Chaves Queen</u> Is this a nw well drille <u>No.</u> If no, for what purposs This well was original Has well ever been pe <u>No.</u> List all such perforate <u>None</u> Give depth to and name	2.375 INCHES inickle pluted tension packer reducing interval. (if applicable). ed for injection? e was the well originally drilled? by drilled as a Queen producing well. rforated in any other zones? ed intervals and give plugging details he of any overlying and/or underlying	(sacks of cement or pridge plug(s) used).	
01 1. 2. 3. 4. 5.	TUBING SIZE PACKER THER DATA Name of injection or p <u>Gueen</u> Name of field or poot <u>SE Chaves Gueen</u> Is this a new well drille <u>No.</u> If no, for what purpose <u>This well was original</u> Has well ever been be <u>No.</u> List all such perforate <u>None</u> Give depth to and name <u>There has never been</u> this well.	2.375 INCHES inickle pluted tension packer reducing interval. (if applicable). ed for injection? e was the well originally drilled? y drilled as a Queen producing well. rforated in any other zones? ed intervals and give plugging details ne of any overlying and/or underlying any production from any formation	(sacks of cement or pridge plug(s) used). (soil or gas zones (pools) in this area. other than the Queen in the area surrounding	
01 1. 2. 3. 4. 5.	TUBING SIZE PACKER THER DATA Name of injection or p <u>Gueen</u> Name of field or poot <u>SE Chaves Gueen</u> Is this a new well drille <u>No.</u> If no, for what purpose <u>This well was original</u> Has well ever been be <u>No.</u> List all such perforate <u>None</u> Give depth to and name <u>There has never been</u> this well.	2.375 INCHES inickle pluted tension packer reducing interval. (if applicable). ed for injection? e was the well originally drilled? by drilled as a Queen producing well. rforated in any other zones? ed intervals and give plugging details he of any overlying and/or underlying	(sacks of cement or pridge plug(s) used). (soil or gas zones (pools) in this area. other than the Queen in the area surrounding	
01 1. 2. 3. 4. 5.	TUBING SIZE PACKER THER DATA Name of injection or p <u>Gueen</u> Name of field or pool <u>SE Chaves Queen</u> Is this a n-w well drille <u>No.</u> If no, for what purpossi <u>This well was original</u> Has well ever been pe <u>No</u> List all such perforate <u>None</u> Give depth to and nam <u>There has never been</u> this well.	2.375 INCHES inickle pluted tension packer reducing interval. (if applicable). ed for injection? e was the well originally drilled? y drilled as a Queen producing well. rforated in any other zones? ed intervals and give plugging details ne of any overlying and/or underlying any production from any formation	(sacks of cement or pridge plug(s) used). (soil or gas zones (pools) in this area. other than the Queen in the area surrounding	
01 1. 2. 3. 4. 5.	TUBING SIZE PACKER THER DATA Name of injection or p <u>Gueen</u> Name of field or pool <u>SE Chaves Queen</u> Is this a n-w well drille <u>No.</u> If no, for what purposs <u>This well was original</u> Has well ever been pe <u>No</u> List all such perforate <u>None</u> Give depth to and nam <u>There has never been</u> this well.	2.375 INCHES inickle pluted tension packer reducing interval. (if applicable). ed for injection? e was the well originally drilled? y drilled as a Queen producing well. rforated in any other zones? ed intervals and give plugging details ne of any overlying and/or underlying any production from any formation	(sacks of cement or pridge plug(s) used). (soil or gas zones (pools) in this area. other than the Queen in the area surrounding	

	Yates Drilling Company		
LEASE: WELL #:	Garner Federal		
FOOTAGE:	660' fnl & 660' fwl		
	3-13S-34E, Chaves County, New M	exico	
COMPLETION DATE:	14-Feb-84 1-Mar-84		
	Active producing well - Queen		
PROPOSED STATUS:	Active producing weil - Queen		
SURFACE CASING		PRODUCTION CASING	
CASING SIZE	B.625 INCHES	CASING SIZE:	5.500 INCHES
CASING WEIGHT:	24.000 FOUNDS/FOOT	CASING WEIGHT:	14.000 PCUNDS/FOOT
CASING GRADE:	J-55 374 FEET	CASING GRADE:	<u>J-55</u>
CEMENTED USED		CEMENTED USED:	230 SACKS
TOP OF CEMENT		CEMENTED USED:	2,000 FEET
DELERMINED BY	circulate	DETERMINED BY: Te	mp. survey
HULE SIZE	: 12.250 INCHES	HOLE SIZE: TOTAL DEPTH:	7.875 INCHES 2.925 FEFT
		PLUGGED BACK TO:	2.920 FEET
INJECTION OR PRODUCING			
	:2.695_FEET	INTERVAL BOTTOM:	2.701 FEET
	: Perforated : 750 gallons 15% HCL acid plus 30,	000 galloos delled water	
FREMOUS STRVIULATION	24,000 pounds of 20/40 sand, 12,5/		
PROPOSED STIMULATION			
LUPING SIZE	NA INCHES	UNING NA	
PACKER	: NA INCHES	UNING: NA DEPTH TO BE SET: NA	FEET
FACKER	: <u>NA</u> :NCHES : <u>NA</u> :NCHES		FEET
OTHER DATA	: <u>NA</u> :NCHES : <u>NA</u>		FÉET
PACKER OTHER DATA 1. Name of injection or p	: <u>NA</u>		FEET
PACKER OTHER DATA 1. Name of injection or p <u>Queen</u>	rödueing interval.		FEET
PACKER OTHER DATA 1. Name of injection or p	rödueing interval.		FČET
PACKER OTHER DATA 1. Name of injection or p <u>Queen</u> 2. Name of field or pool	roducing interval. (if applicable).		FÊET
COTHER DATA 1. Name of injection or p <u>Gueen</u> 2. Name of field or pool <u>SE Chaves Queen</u> 3. Is this a new well drilling <u>No.</u>	roducing interval. (if applicable). ed for injection?		FEET
PACKER OTHER DATA 1. Name of injection or p <u>Queen</u> 2. Name of field or pool <u>SE Chaves Queen</u> 3. Is this a new well drill- <u>No.</u> If no, for what purpos	roducing interval. (if applicable).	DEPTH TO BE SET: NA	FËET
CTHER DATA 1. Name of injection or p <u>Queen</u> 2. Name of field or pool <u>SE Chaves Queen</u> 3. Is this a new well drill <u>No.</u> If no, for what purpos <u>This well was original</u>	roducing interval. (if applicable). ed for injection? e was the well originally drilled?	DEPTH TO BE SET: NA	FËET
ACKER OTHER DATA 1. Name of injection or p <u>Queen</u> 2. Name of field or pool <u>SE Chaves Queen</u> 3. Is this a new well drill- No. If no, for what purpos <u>This well was original</u> 4. Has well ever been per <u>No</u>	roducing interval. (if applicable), ed for injection? e was the well originally drilled? ly drilled as a Queen producing well, producing in any other zones?	DEPTH TO BE SET: NA	FEET
ACKER OTHER DATA 1. Name of injection or p <u>Queen</u> 2. Name of field or pool <u>SE Chaves Queen</u> 3. Is this a new well drill- No. If no, for what purpos <u>This well was original</u> 4. Has well ever been per <u>No</u>	roducing interval. (if applicable), ed for injection? e was the well originally drilled? ly drilled as a Queen producing well, producing in any other zones?	DEPTH TO BE SET: NA	FEET
ACKER OTHER DATA 1. Name of injection or p <u>Queen</u> 2. Name of field or pool <u>SE Chaves Queen</u> 3. Is this a new well drilling No. If no, for what purpos <u>This well was original</u> 4. Has well ever been been <u>No</u> <u>List all such perforate</u> <u>None</u>	róducing interval. (if applicable). ed for injection? e was the well originally drilled? ly drilled as a Queen producing well, enforated in any other zones? ed intervals and give plugging details	DEPTH TO BE SET: NA	FËET
ACKER OTHER DATA 1. Name of injection or p <u>Queen</u> 2. Name of field or pool <u>SE Chaves Queen</u> 3. Is this a new well drill <u>No.</u> If no, for what purpos <u>This well was original</u> 4. Has well ever been per <u>No</u> <u>Ust all such perforate</u> <u>None</u> <u>5. Give depth to and nan</u> <u>There has never been</u>	roducing interval. (if applicable). ed for injection? e was the well originally drilled? ly drilled as a Queen producing well. erforated in any other zones? ad intervals and give plugging details ne of any overlying and/or underlying	DEPTH TO BE SET: NA	
ACKER OTHER DATA 1. Name of injection or p <u>Queen</u> 2. Name of field or pool <u>SE Chaves Queen</u> 3. Is this a new well drill- No. If no, for what purpos <u>This well was original</u> 4. Has well ever been be <u>No</u> List all such perforate <u>None</u> 5. Give depth to and nam	roducing interval. (if applicable). ed for injection? e was the well originally drilled? ly drilled as a Queen producing well. enforated in any other zones? ad intervals and give plugging details ne of any overlying and/or underlying	CEPTH TO BE SET: NA	
ACKER OTHER DATA 1. Name of injection or p <u>Queen</u> 2. Name of field or pool <u>SE Chaves Queen</u> 3. Is this a new well drill- No. If no, for what purpos <u>This well was original</u> 4. Has well ever been be <u>No</u> List all such perforate <u>None</u> 5. Give depth to and nam <u>There has never been</u> this well.	roducing interval. (if applicable). ed for injection? e was the well originally drilled? ly drilled as a Queen producing well. erforated in any other zones? ad intervals and give plugging details ne of any overlying and/or underlying a any production from any formation	CEPTH TO SE SET: NA	
ACKER OTHER DATA 1. Name of injection or p <u>Queen</u> 2. Name of field or pool <u>SE Chaves Queen</u> 3. Is this a new well drill- No. If no, for what purpos <u>This well was original</u> 4. Has well ever been be <u>No</u> List all such perforate <u>None</u> 5. Give depth to and nam <u>There has never been</u> this well.	roducing interval. (if applicable). ed for injection? e was the well originally drilled? ly drilled as a Queen producing well. enforated in any other zones? ad intervals and give plugging details ne of any overlying and/or underlying	CEPTH TO SE SET: NA	
CTHER DATA 1. Name of injection or p <u>Queen</u> 2. Name of field or pool <u>SE Chaves Queen</u> 3. Is this a new well drilling No. If no, for what purpos <u>This well was original</u> 4. Has well ever been perforate <u>No</u> Ust all such perforate <u>None</u> 5. Give depth to and nam <u>There has never been</u> 6. If well is plugged and	roducing interval. (if applicable). ed for injection? e was the well originally drilled? ly drilled as a Queen producing well. erforated in any other zones? ad intervals and give plugging details ne of any overlying and/or underlying a any production from any formation	CEPTH TO SE SET: NA	

			<u>- 7 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. </u>		العيد
	0050.500				
1		Yates Drilling Company Garner Federal			Ì
l		2			
	FOOTAGE:	2310' fsl 3 2310' fel			
SEC-TWN-R	ING, COUNTY, STATE:	34-12S-34E. Chaves County, New	Mexico		
1		29-Apr-84			
	COMPLETION DATE:	Active producing well - Queen			
		Active injection well - Queen			
		Heave meetion weir adden			ł
L					
				······································	
 SUE	RFACE CASING		PRODUCTION CASING		
	TAGE CASING		PRODUCTION CROINED		
	CASING SIZE	8.625 INCHES	CASING SIZE:	5.500 INCHES	
	CASING WE GHT	8.625 INCHES 24.000 POUNDS/FOOT	CASING WEIGHT	14 000 POUNDS FOOT	
ll .	CASING GRADE	J-55	CASING GRADE:	<u>J-55</u>	
	CEMENTED USED	410 FEET			
	TOP OF CEMENT	0 FEET	TOP OF CEMENT:	1.992 FEET	
	CETERMINED BY	: 0 FEET	DETERMINED BY:	CBL	
	HOLE SIZE	: 12.250 INCHES	HOLE SIZE: TOTAL DEPTH: PLUGGED BACK TD:	7.875 INCHES	
			TOTAL DEPTH:	3,100 FEET	
[[FLUGGED BACK TD:	3.098_FEET	
LUI INJ	ECTION OR PRODUCING	INTERVAL			
	INTERVAL TOP	2,982 FEET	INTERVAL BOTTOM:	2 990 555	
1		: Perforated		2.330 FEET	
F			,000 gailons geiled water, 25% CO2.		
1		16,500 counas of 20/40 sand, 1,70			
PI	ROPOSED STIMULATION	: 500-1000 gailons of 7-1/2% HCL to	clean perforations		
L/II	ECTION TUBING (if an i TUBING SIZE PACKEP	njection well) :2.375 INCHES : Nickel plated tension packer	LINING: <u>plas</u> DEPTH TO BE SET:	ticFEET	
<u> </u>					
πο	HER DATA				
	Nome of situation of a				
1	Name of injection or p Queen	roducing interval.			
1					
2.	Name of field or pool	(if applicable).			
	SE Chaves Queen				
	Is this a new well drill	ed for injection?			
J. 3.	No.	eu ier ingeenen?			
		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		
1		e was the well originally drilled?			
ll.	This well was original	ly drilled as a Queen producing well			
4.	Has well ever been be	erforated in any other zones?			
	No				
		ea intervals and give plugging details	s (sacks of cement or pridge plug(s) used).		
l	None				
				<u> </u>	
5.	Give depth to and nam	ne of any overlying and/or underlying	g oil or gas zones (pools) in this area.		
			other than the Queen in the area surrounding	9	
	this well.				
6	this well.	abandoned, list details of elucions	and attach schematic.		
6.	this well.	abandoned, list details of plugging a	and attach schematic.		
6.	this well.	abandoned, list details of plugging a	and attach schematic.		
6.	this well.	abandoned, list details of plugging a	and attach schematic.		
6.	this well.	abandoned, list details of plugging a	and attach schematic.		

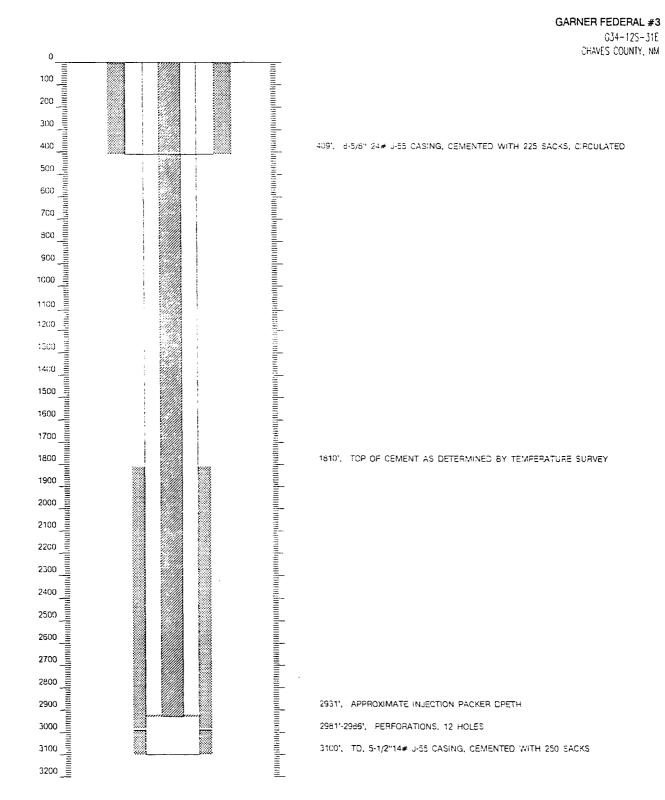


GARNER FEDERAL #2

CHAVES COUNTY, NM

PROPOSED INJECTION CONFIGURATION

	OPERATOR:	Yates Drilling Company			
		Garner Federal			
		3 1980' fni & 1980' fel			
EC-TWN-F		34-12S-34E. Chaves County, N	ew Mexico		
		2-Jul-84			
	COMPLETION DATE:	12-Aug-84			
		Active producing well - Queen	<u> </u>		
	PROPOSED STATUS:	Active injection well - Queen			
sur	RFACE CASING		PROD	JCTION CASING	- <u></u>
	CASING S 75	0.005 M.0UTP		0.0000 0175	5 500 INC: 150
	CASING SIZE:	8.625 INCHES 24.000 POUNDS/FOOT		CASING SIZE:	5.500 INCHES 14.000 PCUNDS/FCOT
	CASING GRADE:	J-55		CASING GRADE:	14.000 1 001100/1 001
	DEPTH SET:	J-55 408 FEET 225 SACKS 0 FEET		CASING GRADE: DEPTH SET:	3.100 FEET
	CEMENTED USED:	225 SACKS		CEMENTED USED:	250 SACKS
	TOP OF CEMENT:	O FEET		TCP OF CEMENT:	1,910 FEET
	JELCHWONED OF	Circulate		CETERMINED BY: to	mo. survey
	HOLE SIZE:	12.250 INCHES		HOLE SIZE: TOTAL DEPTH: PLUGGED BACK TD:	7.875 INCHES
				RUTAL DEPTH:	3,100 FEE
				. 1963E9 CRON (6	<u> </u>
INJ	JECTION OR PRODUCING	INTERVAL	<u></u>		<u></u>
	INTERVAL TOP:	2,981_FEET		INTERVAL BOTTOM:	2,986 FEET
	COMMENTS:	Perforated			· · · · · · · · · · · · · · · · · · ·
F		750 gallons 15% HCL acid plus			
-		15,000 pounds of 20/40 sand,	1,700 pounds of 12/20) sand	
P	PHOPUSED STIMULATION:	500-1000 gallons of 7-1/2% HC	L acid to clean perfor	ations	·····
	JECTION TUBING (if an in	jaction weil)			
in.	TUBING SIZE:	jection weil) 2.375 INCHES Nickel plated tension packer		UNING: plas CEPTH TO SE SET:	ticFEET
	TUBING SIZE: PACKER: THER Dr. A	2.375 INCHES Nickel plated tension packer		LINING: <u>plas</u> DEPTH TO 9E SET:	:tic 2.931_FEET
от 1.	TUBING SIZE: PACKER: THER Dr. TA Name of injection or pr <u>Queen</u>	2.375 INCHES Nickel plated tension packer bducing interval.		LINING: <u>plas</u> DEPTH TO 95 SET:	ticFEET
от 1.	TUBING SIZE: PACKER: THER Dr. 1A Name of injection or pr	2.375 INCHES Nickel plated tension packer bducing interval.		LINING: <u>plas</u> CEPTH TO SE SET:	ticFEET
or 1. 2.	TUBING SIZE: PACKER: THER Delta Name of injection or pr <u>Queon</u> Name of field or pool (2.375 INCHES Nickel plated tension packer oducing interval.		UNING: <u>plas</u> CEPTH TO SE SET:	ticFEST
or 1. 2.	TUBING SIZE: PACKER: Name of injection or pr Queen Name of field or pool (<u>SE Chaves Queen</u> Is this a new well drille <u>No.</u> If no, for what purpose	2.375 INCHES Nickel plated tension packer oducing interval.		UNING: <u>plas</u> DEPTH TO SE SET:	ticFEET
от 1. 2. 3.	TUBING SIZE: PACKER: THER Dr. TA Name of injection or pr <u>Queen</u> Name of field or pool (<u>SE Chaves Queen</u> Is this a new well drille <u>No.</u> If no, for what purpose <u>This well was originally</u>	2.375 INCHES Nickel plated tension packer oducing interval. if applicable). d for injection?			tic 2.931_FEST
от 1. 2. 3.	TUBING SIZE: PACKER: Name of injection or pr Queen Name of field or pool (<u>SE Chaves Queen</u> Is this a new well drille <u>No.</u> If no, for what purpose <u>This well was originally</u> Has well ever been per <u>No.</u>	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	well.		:tic 2.931_FEET
от 1. 2. 3. 4.	TUBING SIZE: PACKER: PACKER: THER D- TA Name of injection or pr <u>Queen</u> Name of field or pool (<u>SE Chaves Queen</u> Is this a new well drille <u>No.</u> If no, for what purpose <u>This well was originally</u> Has well ever been per <u>No.</u> List all such perforate <u>None</u> <u>Give depth to and nam</u>	2.375 INCHES Nickel plated tension packer oducing interval. if applicable). d for injection? was the welf originally drilled? drilled as a Queen producing forated in any other zones?	well. tails (sacks of cumen	t or bridge plug(s) used).	
OT 1. 2. 3. 4. 5.	TUBING SIZE: PACKER: Name of injection or pr <u>Queen</u> Name of field or pool (<u>SE Chaves Queen</u> Is this a new well drille <u>No.</u> If no, for what purpose <u>This well was originally</u> Has well ever been per <u>No.</u> List all such perforate <u>None</u> Give depth to and nam <u>There has never been</u> this 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 t forated in any other zones? d intervals and give plugging all e of any overlying and/or under	well. stails (sacks of cernen riying oil or gas zones ition other than the Qu	t or bridge plug(5) used). (pools) in this area.	
OT 1. 2. 3. 4. 5.	TUBING SIZE: PACKER: Name of injection or pr <u>Queen</u> Name of field or pool (<u>SE Chaves Queen</u> Is this a new well drille <u>No.</u> If no, for what purpose <u>This well was originally</u> Has well ever been per <u>No.</u> List all such perforate <u>None</u> Give depth to and nam <u>There has never been</u> this 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 forated in any other zones? d intervals and give plugging di-	well. stails (sacks of cernen riying oil or gas zones ition other than the Qu	t or bridge plug(5) used). (pools) in this area.	



PROPOSED INJECTION CONFIGURATION

	OPERATOR:	Yates Drilling Company		
		Garner Federal	······································	
		4		
		330' fsl & 1980' fel		
SEC-TWN-R		34-125-34E, Chaves County, New M	exico	
	SPUD DATE:	24-Jun-84		
	COMPLETION DATE:			
		Inactive producing well - Queen		
	PROPOSED STATUS:	Inactive producing well - Queen		<u> </u>
SUF	RFACE CASING		PRODUCTION CASING	
_				
	CASING SIZE	8.625 INCHES	CASING SIZE:	5.500 INCHES
	CASING WEIGHT:	8.625 INCHES 24.000 FOUNDS FOOT	CASING WEIGHT:	5.500 INCHES 14.000 POUNDS/FCOT
	CASING GRACE	J-55	CASING GRADE:	J-55
	DEPTH SET	408 FEET	CEPTH SET:	3,108 FEET
	CEMENTED USED	408 FEET 250 SACAS	CEMENTED USED:	500 SACKS
	TOP OF CEMENT	0_FEET	TOP OF GEMENT:	1.940 FEE!
	DETERMINED BY	:c:rculate	DETERMINED BY: Ter	nd. survey
	nOLE SIZE	12.250 INCHES	HOLE SIZE:	7.875 INCHES
			TOTAL DEPTH: PLUGGED BACK TD:	3,108 FEET
			PLUGGED BACK TD:	3,108 FEET
<u> </u>				
INJ	ECTION OR PRODUCING	INTERVAL		
1				
	INTERVAL TCP	:2.989_FEET	INTERVAL BOTTOM:	2,997 FEET
		: Perforated		
F F	PREVIOUS STIMULATION		,000 gallons gelled water, 25% CO2,	
1		43,000 pounds of 20/40 sand, 22,00	0 pounds of 12/20 sand	
P	PROPOSED STIMULATION	: None		
1				
		<u> </u>		
L INJ	JECTION TUBING (if an i	niection well)		
		,		
	TUDING SIZE	NAINCHES	LINING: NA	
	PACKER	: <u>NA</u>		FEET
	PACKER	: <u>NA</u>		FEGT
	PACKER	:: <u>NA</u>		FEET
	PACKER	: <u>NA</u>		FEET
	PACKER	: <u>NA</u>		FEET
от	PACKER	: <u>NA</u>		FEET
-				FEET
-	PACKER			FEET
-				FEET
1,	PACKER	roducing interval.		FEET
1,	PACKER HER DATA Name of injection or p Queen	roducing interval.		FEET
1,	PACKER HER DATA Name of injection or p Queen Name of field or pool	roducing interval.		FEET
1. 2.	PACKER HER DATA Name of injection or p Queen Name of field or pool	roducing interval. (if applicable),		FEET
1. 2.	PACKER THER DATA Name of injection or p Queen Name of field or pool SE Chaves Queen	roducing interval. (if applicable),		FEET
1. 2.	PACKER THER DATA Name of injection or p Queen Name of field or pool SE Chaves Queen Is this a new well drillin No.	roducing interval. (if applicable). ed for injection?		FEET
1. 2.	PACKER THER DATA Name of injection or p <u>Oueen</u> Name of field or pool <u>SE Chaves Oueen</u> Is this a new well drilli- <u>No.</u> If no, for what purpos	roducing interval. (if applicable). ed for injection? e was the well originally crilled?		FEET
1. 2.	PACKER THER DATA Name of injection or p <u>Oueen</u> Name of field or pool <u>SE Chaves Oueen</u> Is this a new well drilli- <u>No.</u> If no, for what purpos	roducing interval. (if applicable). ed for injection?		FEET
1. 2.	PACKER THER DATA Name of injection or p <u>Oueen</u> Name of field or pool <u>SE Chaves Oueen</u> Is this a new well drilli- <u>No.</u> If no, for what purpos	roducing interval. (if applicable). ed for injection? e was the well originally crilled?		FEET
1. 2. 3.	PACKER HER DATA Name of injection or p Queen Name of field or pool SE Chaves Queen Is this a new well drill No. If no, for what purpos This well was original	roducing interval. (if applicable). ed for injection? e was the well originally crilled? ly drilled as a Queen producing well.		FEET
1. 2. 3.	PACKER THER DATA Name of injection or p <u>Queen</u> Name of field or pool <u>SE Chaves Queen</u> Is this a new well drilli- <u>No.</u> If no, for what purpos <u>This well was original</u> Has well ever been pe	roducing interval. (if applicable). ed for injection? e was the well originally crilled?		FEET
1. 2. 3.	PACKER HER DATA Name of injection or p Queen Name of field or pool SE Chaves Queen Is this a new well drill No. If no, for what purpos This well was original	roducing interval. (if applicable). ed for injection? e was the well originally crilled? ly drilled as a Queen producing well.		FEET
1. 2. 3.	PACKER HER DATA Name of injection or p <u>Queen</u> Name of field or pool <u>SE Chaves Queen</u> Is this a new well drill <u>No.</u> If no, for what purpos <u>This well was original</u> Has well ever been pe <u>No</u>	roducing interval. (if applicable), ed for injection? e was the well originally drilled? ly drilled as a Queen producing well. inforated in any other zones?		FEET
1. 2. 3.	PACKER HER DATA Name of injection or p <u>Queen</u> Name of field or pool <u>SE Chaves Queen</u> Is this a new well drill <u>No.</u> If no, for what purpos <u>This well was original</u> Has well ever been pe <u>No</u>	roducing interval. (if applicable), ed for injection? e was the well originally drilled? ly drilled as a Queen producing well. inforated in any other zones?	DEPTH TO BE SET: <u>NA</u>	FEET
1. 2. 3.	PACKER HER DATA Name of injection or p Queen Name of field or pool SE Chaves Queen Is this a new well drill No. If no, for what purpos This well was original Has well ever been per No List all such perforate	roducing interval. (if applicable), ed for injection? e was the well originally drilled? ly drilled as a Queen producing well. inforated in any other zones?	DEPTH TO BE SET: <u>NA</u>	FEET
1. 2. 3.	PACKER HER DATA Name of injection or p Queen Name of field or pool SE Chaves Queen Is this a new well drill No. If no, for what purpos This well was original Has well ever been per No List all such perforate	roducing interval. (if applicable), ed for injection? e was the well originally drilled? ly drilled as a Queen producing well. inforated in any other zones?	DEPTH TO BE SET: <u>NA</u>	FEET
1. 2. 3. 4.	PACKER THER DATA Name of injection or p Queen Name of field or pool SE Chaves Queen Is this a new well drille No. If no, for what purpos This well was original Has well ever been pe No List all cuch perforate None Give depth to and name	roducing interval. (if applicable). ed for injection? e was the well originally drilled? ly drilled as a Queen producing well. inforated in any other zones? ed intervals and give plugging details ne of any overlying and/or underlying	DEPTH TO BE SET: NA	
1. 2. 3. 4.	PACKER THER DATA Name of injection or p Queen Name of field or pool SE Chaves Queen Is this a new well drille No. If no, for what purpos This well was original Has well ever been pe No List all such perforate None Give depth to and nam There has never been	roducing interval. (if applicable). ed for injection? e was the well originally drilled? ly drilled as a Queen producing well. inforated in any other zones? ed intervals and give plugging details ne of any overlying and/or underlying	DEPTH TO BE SET: NA	
1. 2. 3. 4.	PACKER THER DATA Name of injection or p Queen Name of field or pool SE Chaves Queen Is this a new well drille No. If no, for what purpos This well was original Has well ever been pe No List all cuch perforate None Give depth to and name	roducing interval. (if applicable). ed for injection? e was the well originally drilled? ly drilled as a Queen producing well. inforated in any other zones? ed intervals and give plugging details ne of any overlying and/or underlying	DEPTH TO BE SET: NA	
1. 2. 3. 4.	PACKER THER DATA Name of injection or p Queen Name of field or pool SE Chaves Queen Is this a new well drille No. If no, for what purpos This well was original Has well ever been pe No List all such perforate None Give depth to and nam There has never been	roducing interval. (if applicable). ed for injection? e was the well originally drilled? ly drilled as a Queen producing well. inforated in any other zones? ed intervals and give plugging details ne of any overlying and/or underlying	DEPTH TO BE SET: NA	
1. 2. 3. 4.	PACKER THER DATA Name of injection or p Queen Name of field or pool SE Chaves Queen Is this a new well drille No. If no, for what purpos This well was original Has well ever been pe No List all such perforate None Give depth to and nam There has never been	roducing interval. (if applicable). ed for injection? e was the well originally drilled? ly drilled as a Queen producing well. inforated in any other zones? ed intervals and give plugging details ne of any overlying and/or underlying	DEPTH TO BE SET: NA	
1. 2. 3. 4. 5.	PACKER THER DATA Name of injection or p Queen Name of field or pool SE Chaves Queen Is this a new well drille No. If no, for what purpos This well was original Has well ever been pe No List all cuch perforate None Give depth to and nam There has never been this well.	reducing interval. (if applicable), ed for injection? e was the well originally drilled? ly drilled as a Queen producing well, inforated in any other zones? ed intervals and give plugging details me of any overlying and/or underlying a any production from any formation of	DEPTH TO BE SET: NA	
1. 2. 3. 4. 5.	PACKER PACKER PACKER PACKER Name of injection or p Queen Name of field or pool SE Chaves Queen Is this a new well drille No. If no, for what purpos This well was original Has well ever been pe No List all cuch perforate None Give depth to and nam There has never been this well. If well is plugged and	roducing interval. (if applicable). ed for injection? e was the well originally drilled? ly drilled as a Queen producing well. inforated in any other zones? ed intervals and give plugging details ne of any overlying and/or underlying	DEPTH TO BE SET: NA	
1. 2. 3. 4. 5.	PACKER THER DATA Name of injection or p Queen Name of field or pool SE Chaves Queen Is this a new well drille No. If no, for what purpos This well was original Has well ever been pe No List all cuch perforate None Give depth to and nam There has never been this well.	reducing interval. (if applicable), ed for injection? e was the well originally drilled? ly drilled as a Queen producing well, inforated in any other zones? ed intervals and give plugging details me of any overlying and/or underlying a any production from any formation of	DEPTH TO BE SET: NA	
1. 2. 3. 4. 5.	PACKER PACKER PACKER PACKER Name of injection or p Queen Name of field or pool SE Chaves Queen Is this a new well drille No. If no, for what purpos This well was original Has well ever been pe No List all cuch perforate None Give depth to and nam There has never been this well. If well is plugged and	reducing interval. (if applicable), ed for injection? e was the well originally drilled? ly drilled as a Queen producing well, inforated in any other zones? ed intervals and give plugging details me of any overlying and/or underlying a any production from any formation of	DEPTH TO BE SET: NA	
1. 2. 3. 4. 5.	PACKER PACKER PACKER PACKER Name of injection or p Queen Name of field or pool SE Chaves Queen Is this a new well drille No. If no, for what purpos This well was original Has well ever been pe No List all cuch perforate None Give depth to and nam There has never been this well. If well is plugged and	reducing interval. (if applicable), ed for injection? e was the well originally drilled? ly drilled as a Queen producing well, inforated in any other zones? ed intervals and give plugging details me of any overlying and/or underlying a any production from any formation of	DEPTH TO BE SET: NA	

ļ				
1	OPERATOR:	Yates Drilling Company		
		Garner Federal		
		5 330' fml & 2310' fwl		
SEC-TWN-B		3-135-34E, Chaves County, New Me	XICO	
	SPUD DATE:	25-Jul-84		
	COMPLETION DATE:	14-Aug-84		
		Active producing well - Queen		
	PHOPUSED STATUS:	Active producing well - Gueen		
SUE	RFACE CASING		PRODUCTION CASING	
	CASING S.ZE:	8.625 INCHES 24.000 FCUNDS/FCOT	CASING SIZE:	5.500 INCHES
	CASING WEIGHT:	24.000 FCUNDS/FCOT	CASING WEIGHT:	14.000 POUNDS, FOOT
	CASING GRADE.	J-55 371 FFFT	DEPTH SET	2 991 ===-
	CEMENTED USED:	371 FEET 230 SACKS 0 FEET	CASING GRADE: DEPTH SET: CEMENTED USED: TOP OF CEMENT:	235 SACKS
	TOP OF CEMENT:		TOP OF CEMENT:	1.910 FEET
2	DETERMINED SY:	circulate	DETERMINED BY:Tem	D. SURVEY
	HULE SILE:	12.250 INCHES	HOLE SIZE:	2 900 FFF
			TOTAL DEPTH:	2.891 FEE
ll –				
IL AI	ECTION OR PRODUCING	INTERVAL		
		2.773 ====	INTERVAL BOTTOM:	2.789 FEET
		Perforated 1500 gallons 15% HCL acid plus 30,	COO college could water 25% N2	
		14,500 pounds of 20/40 sund, 13,50		······································
PI	ROPOSED STIMULATION:	None		
	ECTION TUBING (if an in TUBING SIZE: PACKER:	NA NCHES	LINING: <u>NA</u> DEPTH TO SE SET: <u>NA</u>	FEET
l				
от	HER DATA			
1				
1.	Name of injection or pr	oducing interval.		
	Queen	···		
2.	Name of field or pool (if applicable).		
	SE Chaves Queen		······································	
, .	Is this a new well drille	d for injection?		
J.	No.			
1		· · ·		
		was the well originally drilled?		
	This well was originally	y drilled as a Queen producing well.		
		······································		
4.	Has well ever been per	forated in any other zones?		
e e	No			
	List all such perforate	d intervals and give plugging details i	(sacks of cement or pridge plug(s) usea).	
	None	a internala sha gire piagging actaila (sacks of example prog(s) uses.	
	······································			
_				
5.			oil or gas zones (popis) in this area, other than the Queen in the area surrounding	
1	this well.	any brougedon nonn any formation e	und the deer in the area surrounding	
	······································			
	If wall an obvious of and	handonud list details of shares	d attach cohonate	
6.	Not applicable.	abandoned, list details of plugging an	a attach schematic.	

	00554700			
		Yates Drilling Company		
	WELL #:	Tao Federal		
		330' fnl & 1980' fel		
SEC-TWN-	RNG, COUNTY, STATE:	3-13S-34E, Chaves County, New M	exico	
	SPUD DATE:	22-May-84		
	COMPLETION DATE:			
		Active producing well - Queen Active producing well - Queen		
1				
L				
		_		
su	JRFACE CASING		PRODUCTION CASING	
l				
	CASING SIZE:	8.625 INCHES	CASING SIZE:	5.500 INCHES
	CASING WEIGHT:	PCUNDS, FOOT	CASING WEIGHT:	? FOUNDS/FOOT
1	CASING GRADE:	? 566 FEET	CASING GRADE: CEPTH SET:	?
	CEMENTED USED:	566 FEET 225 SACKS 2 FEET	CEMENTED USED	3,114 HEES 050 SACKS
	TOP OF CEMENT:	? FEET	CEMENTED USED: TCP OF CEMENT:	2 ===
ll	OFTERMINED BY	2	CETERMINED BY:	?
	HOLE SIZE:	12.250 INCHES	CETERMINED BY: HOLE SIZE: TOTAL DEPTH: PLUGGED BACK TD:	7.875 INCHES
				3,114 FEET
			FLUGGED BACK TU:	<u>3.114</u> FEET
IN IN	JECTION OR PRODUCING	INTERVAL		
	INTERVAL TOP	2,983 FEET	INTERVAL BOTTOM:	3 003
	COMMENTS:		ENTERVAL BOTTOW.	<u>3,003</u> FEE (
1		500 gallens 15% HCL ucid plus 20.	.000 gallons gelled water,	
		20,000 pounds of sand,		
j 5	PROPOSED STIMULATION:	None		
IN	IJECTION TUBING (if an in	jection weil)		
	TURING SIZE	NAINCHES	INING NA	
li	PACKER:	NA	LINING: NA	FEET
		<u> </u>		
<u> </u>				
0				
	THER DATA			
	THER DATA			
1.	THER DATA Name of injection of or	oducing interval.		
1.		oducing interval.		
	Name of neetion of or Queen			
	Name of nyection or or Queen Name of field or pool (i			
	Name of neetion of or Queen			
2.	Name of nyection or or Queen Name of field or pool (i	if applicable).		
2.	Name of njection of or Queen Name of field or pool (SE Chaves Queen	if applicable).		
2.	Name or njection or or Queen Name of field or pool (SE Chaves Queen Is this a new well criller No.	d for injection?		
2.	Name or njection or or Queen Name of field or pool (<u>SE Chaves Queen</u> Is this a new well chilled <u>No.</u> If no, for what purpose	d for injection?		
2.	Name or njection or or Queen Name of field or pool (<u>SE Chaves Queen</u> Is this a new well chilled <u>No.</u> If no, for what purpose	d for injection?		
2.	Name or njection or or Queen Name of field or pool (<u>SE Chaves Queen</u> Is this a new well chilled <u>No.</u> If no, for what purpose	d for injection?		
2.	Name of nyection of or Queen Name of field or pool (SE Chaves Queen Is this a new well critike No. If no, for what purpose This well was originally	d for injection?		
2.	Name of nyection of or Queen Name of field or pool (SE Chaves Queen Is this a new well critike No. If no, for what purpose This well was originally	d for injection? was the well originally drilled? y drilled as a Queen producing well.		
2.	Name of njection of or Queen Name of field or pool (<u>SE Chaves Queen</u> Is this a new well drilled <u>No.</u> If no, for what purpose This well was originally Has well ever been per <u>No.</u>	If applicable). d for injection? was the well originally drilled? y drilled as a Queen producing well. forated in any other zones?		
2.	Name of njection of or <u>Queen</u> Name of field or pool (in <u>SE Chaves Queen</u> Is this a new well critter <u>No.</u> If no, for what purpose This well was originally Has well ever been per <u>No</u> List all such perforated	If applicable). d for injection? was the well originally drilled? y drilled as a Queen producing well. forated in any other zones?	(sacks of cement or bridge plug(s) used).	
2.	Name of njection of or Queen Name of field or pool (<u>SE Chaves Queen</u> Is this a new well drilled <u>No.</u> If no, for what purpose This well was originally Has well ever been per <u>No.</u>	If applicable). d for injection? was the well originally drilled? y drilled as a Queen producing well. forated in any other zones?		
2.	Name of njection of or <u>Queen</u> Name of field or pool (in <u>SE Chaves Queen</u> Is this a new well critter <u>No.</u> If no, for what purpose This well was originally Has well ever been per <u>No</u> List all such perforated	If applicable). d for injection? was the well originally drilled? y drilled as a Queen producing well. forated in any other zones?		
2. 3. 4.	Name of njection of or <u>Queen</u> Name of field or pool (in <u>SE Chaves Queen</u> Is this a new well drilled <u>No.</u> If no, for what purpose <u>This well was originally</u> Has well ever been per <u>No</u> List all such perforated <u>None</u> <u>Give depth to and name</u>	If applicable). d for injection? was the well originally drilled? y drilled as a Queen producing well. forated in any other zones? d intervals and give plugging details e of any overlying and/or underlying	(sacks of cement or bridge plug(s) used).	
2. 3. 4.	Name of njection of or <u>Queen</u> Name of field or pool (in <u>SE Chaves Queen</u> Is this a new well criller <u>No.</u> If no, for what purpose This well was originally Has well ever been per <u>No</u> List all such perforated <u>None</u> Give depth to and name There has never been	If applicable). d for injection? was the well originally drilled? y drilled as a Queen producing well. forated in any other zones? d intervals and give plugging details e of any overlying and/or underlying	(sacks of cement or bridge plug(s) used).	
2. 3. 4.	Name of njection of or <u>Queen</u> Name of field or pool (in <u>SE Chaves Queen</u> Is this a new well drilled <u>No.</u> If no, for what purpose <u>This well was originally</u> Has well ever been per <u>No</u> List all such perforated <u>None</u> <u>Give depth to and name</u>	If applicable). d for injection? was the well originally drilled? y drilled as a Queen producing well. forated in any other zones? d intervals and give plugging details e of any overlying and/or underlying	(sacks of cement or bridge plug(s) used).	
2. 3. 4.	Name of njection of or <u>Queen</u> Name of field or pool (in <u>SE Chaves Queen</u> Is this a new well criller <u>No.</u> If no, for what purpose This well was originally Has well ever been per <u>No</u> List all such perforated <u>None</u> Give depth to and name There has never been	If applicable). d for injection? was the well originally drilled? y drilled as a Queen producing well. forated in any other zones? d intervals and give plugging details e of any overlying and/or underlying	(sacks of cement or bridge plug(s) used).	
2. 3. 4.	Name of njection of or <u>Queen</u> Name of field or pool (in <u>SE Chaves Queen</u> Is this a new well criller <u>No.</u> If no, for what purpose This well was originally Has well ever been per <u>No</u> List all such perforated <u>None</u> Give depth to and name There has never been	If applicable). d for injection? was the well originally drilled? y drilled as a Queen producing well. forated in any other zones? d intervals and give plugging details e of any overlying and/or underlying	(sacks of cement or bridge plug(s) used).	
2. 3. 4. 5.	Name of njection of or <u>Queen</u> Name of field or pool (in <u>SE Chaves Queen</u> Is this a new well drilled <u>No.</u> If no, for what purpose <u>This well was originally</u> Has well ever been per <u>No</u> List all such perforated <u>None</u> <u>Give depth to and name</u> <u>There has never been</u> <u>this well.</u>	If applicable). d for injection? was the well originally drilled? y drilled as a Queen producing well. forated in any other zones? d intervals and give plugging details e of any overlying and/or underlying	(sacks of cement or bridge plug(s) used). I oil or gas zones (pools) in this area, other than the Queen in the area surrounding	
2. 3. 4. 5.	Name of njection of or <u>Queen</u> Name of field or pool (in <u>SE Chaves Queen</u> Is this a new well drilled <u>No.</u> If no, for what purpose <u>This well was originally</u> Has well ever been per <u>No</u> List all such perforated <u>None</u> <u>Give depth to and name</u> <u>There has never been</u> <u>this well.</u>	If applicable). d for injection? was the well originally drilled? y drilled as a Queen producing well. forated in any other zones? d intervals and give plugging details e of any overlying and/or underlying any production from any formation	(sacks of cement or bridge plug(s) used). I oil or gas zones (pools) in this area, other than the Queen in the area surrounding	
2. 3. 4. 5.	Name or njection or or <u>Queen</u> Name of field or pool (<u>SE Chaves Queen</u> Is this a new well crifter <u>No.</u> If no, for what purpose <u>This well was originally</u> Has well ever been per <u>No</u> List all such perforated <u>None</u> Give depth to and name <u>There has never been</u> <u>this well.</u> <u>If well is plugged and a</u>	If applicable). d for injection? was the well originally drilled? y drilled as a Queen producing well. forated in any other zones? d intervals and give plugging details e of any overlying and/or underlying any production from any formation	(sacks of cement or bridge plug(s) used). I oil or gas zones (pools) in this area, other than the Queen in the area surrounding	
2. 3. 4. 5.	Name or njection or or <u>Queen</u> Name of field or pool (<u>SE Chaves Queen</u> Is this a new well crifter <u>No.</u> If no, for what purpose <u>This well was originally</u> Has well ever been per <u>No</u> List all such perforated <u>None</u> Give depth to and name <u>There has never been</u> <u>this well.</u> <u>If well is plugged and a</u>	If applicable). d for injection? was the well originally drilled? y drilled as a Queen producing well. forated in any other zones? d intervals and give plugging details e of any overlying and/or underlying any production from any formation	(sacks of cement or bridge plug(s) used). I oil or gas zones (pools) in this area, other than the Queen in the area surrounding	

Mate	r Mell	<							
SEC	I I I TWN	RNG	UNIT	QTR OF UNIT	; ; ;	ат	: : :	TYPE	i 1 1 tt
 24	===== 125	 131E	::::==== ::K	:===== 1?	: == == =: !		DOM.		======== 1L4793
	1125	131E	IP	17		160	DOM.		16649
26	1125	131E	IE.	17	÷	166	DOM.	& STK	16746
126	129	131E	11	17	12		IIRR.		122117
26	1125	131E	10	12	1	173		(OIL & GAS)	119566
126	:125	131E	10	17	1	198	ICOM		16749
127	1125	131E	114	17	ł	160	DOM.	& STK	L5650
ν 35	125	131E	F	INW	1	55	DOM.		L4170
-35	1129	131E	¦IJOP	17	17		17		112932
1	135	131E	łК	SE	ł	190	t WF		113460
1	135	131E	(P	:SE	{	220	:WF		113461
1	:135	(31E	I M	ISW	1	190	COM.	& STK	L3837X
1	1138	131E	1 M	ISW	1	165	COM.	& STK	113837
2	:135	:31E	:H	ISW	1	165	DEC.		113834
2	1136	131E	H	17	17		I WF		114295
2	135	131E	ΙH	INE	:	196	: SRO		LC914
2	1139	31E	Η	ISW	!	165	IDEC.		113835
2	:138	31E	l F	I SE	17		17		LI3806
2	138	131E	: I	I NE	1	216	ISRO		IL2745
12	139	131E	l A	17	1	217	ISRO		LI3460
13	1139	131E	IABCD	17	12		I OWD I		L2933
24	139	131E	Η	INE	!	196	IND.		L3914
35	1135	131E	:F	ISW	(?		IDOM.		11_2849

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PETROLITE

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

Lease Well	YATES DRILLING ARTESIA, NEW MEXICO WILLIAMS RANCH RANCH HOUSE Pt. : TAP	Date Date Sampled Analysis No.	
	ANALYSIS	mg/L	* meq/L
1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	pH 6.8 H2S 0 Specific Gravity 1.000 Total Dissolved Solids Suspended Solids Dissolved Oxygen Dissolved CO2 Oil In Water Phenolphthalein Alkalinity (CaCO3) Methyl Orange Alkalinity (CaCO3)	409.9 NR NR NR NR NR NR)	
13. 14. 15. 16. 17. 18. 19.	BicarbonateHCOChlorideClSulfateSO4CalciumCaMagnesiumMg	106.0 25.0 96.0 24.4 -11.4 0.0	2.8 3.0 0.5 4.8 2.0 -0.5

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter		Compound	Equiv wt X	meq/L	= mg/L
5 *Ca < *HCO3	J/L J/L	Ca(HCO3)2 CaSO4 CaCl2 Mg(HCO3)2 MgSO4 MgCl2 NaHCO3 Na2SO4 NaCl	81.0 68.1 55.5 73.2 60.2 47.6 84.0 71.0 58.4	2.8 0.5 1.5 1.5	226 35 82 72

REMARKS:

----- L. MALLETT / FILE

Petrolite Oilfield Chemicals Group



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

WATER ANALYSIS REPORT

Company Address Lease Well Sample	S : ARTESIA, NEW MEXICO : TIVIS RANCH : RANCH HOUSE	Date Date Sampled Analysis No.	: 11/09/9 : 11/06/9 : 216	2 2
	ANALYSIS	mg/L		* meq/L
2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19.	pH7.0H2S0Specific Gravity1.000Total Dissolved SolidsSuspended SolidsDissolved OxygenDissolved CO2Oil In WaterPhenolphthalein Alkalinity (CaCO3)BicarbonateHCO3ChlorideC1SulfateSO4CalciumCaMagnesiumMgSodium (calculated)NaIronFeBariumBaStrontiumSrTotal Hardness (CaCO3)	3 146.0 85.0	HCO3 Cl SO4 Ca Mg Na	2.4 2.4 0.5 4.4 2.8 -1.9

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	+	Compound	Equiv wt X	meq/L	=	mg/L			
4 *Ca < *HCO3 /> 3 *Mg> *SO4 -2 *Na> *C1 ++ Saturation Values Dist. Wate CaCO3 13 mg CaSO4 * 2H2O 2090 mg BaSO4 2.4 mg	2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Ca(HCO3)2 CaSO4 CaCl2 Mg(HCO3)2 MgSO4 MgCl2 NaHCO3 Na2SO4 NaCl	81.0 68.1 55.5 73.2 60.2 47.6 84.0 71.0 58.4	2.4 0.5 1.5		194 35 82 44			

REMARKS:

----- L. MALLETT / FILE



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WATER ANALYSIS REPORT

	S : ARTESIA, NEW MEXICO	Date Date Sampled Analysis No.	: 11/09/92 : 11/06/92 : 217
	ANALYSIS	mg/L	* meq/L
13. 14. 15. 16. 17. 18.	IronFeBariumBaStrontiumSr	03 170.0 127.0 4 25.0 128.0 31.7 -48.3 0.0	Cl 3.6 SO4 0.5 Ca 6.4

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	- Equiv wt X	meq/L	=	mg/L	
6 *Ca < *HCO3 /> 3 *Mg> *SO4 <br -2 *Na> *C1	 1 4	Ca(HCO3)2 CaSO4 CaCl2 Mg(HCO3)2 MgSO4 MgCl2	81.0 68.1 55.5 73.2 60.2 47.6	2.8 0.5 3.1		226 35 171
Saturation Values Dist. Wate CaCO3 13 mg CaSO4 * 2H2O 2090 mg BaSO4 2.4 mg	/L /L	NaHCO3 Na2SO4 NaCl	47.8 84.0 71.0 58.4	0.5		24

REMARKS:

----- L. MALLETT / FILE

Petrolite Oilfield Chemicals Group



PETROLITE

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 Address Lease Well Sample	S : ARTESIA, NEW MEXICO : DAVE FEDERAL : BATTERY	Date Date Sampled Analysis No.	: 11/09/9 : 11/06/9 : 218	22
	ANALYSIS	mg/L		* meq/L
2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18.	Chloride Sulfate Calcium Magnesium Sodium (calculated) Iron Barium Strontium			2.4 600.9 36.4 123.8 239.9 276.1

PROBABLE MINERAL COMPOSITION

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

REMARKS:

----- L. MALLETT / FILE

Petrolite Oilfield Chemicals Group



SCALE TENDENCY REPORT

Company	: YATES DRILLING	Date : 11/09	/92
Address	: ARTESIA, NEW MEXICO	Date Sampled : 11/06	/92
Lease	: DAVE FEDERAL	Analysis No. : 218	
Well	: BATTERY	Analyst : STEVE	TIGERT
Sample Pt.	: GUN BARREL	-	

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

S.I. =	0.3	at	80	deg.	F	or	27	deg.	С
S.I. =	0.4	at	100	deg.	F	or	38	deg.	С
S.I. =	0.5	at	120	deg.	F	or	49	deg.	С
S.I. =				deg.					
S.I. =				deg.					

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

s =	3262	at 8	0 deg.	F	or	27	deg	С
s =			0 deg.					
S =	3407	at 12	0 deg.	F	or	49	deg	С
S =	3419	at 14	0 deg.	F	or	60	deg	С
s =			0 deg.					

Petrolite Oilfield Chemicals Group



PETROLITE

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

	S : ARTESIA, NEW MEXICO	Date Date Sampled Analysis No.		
	ANALYSIS	mg/L		* meq/L
13. 14. 15. 16. 17. 18.	ChlorideCSulfateSCalciumCMagnesiumMSodium (calculated)NIronFBariumBStrontiumS	62813.1 NR NR NR NR NR O3)	SO4 Ca	4.0 1051.5 39.0 69.9 141.9 882.7

PROBABLE MINERAL COMPOSITION

*milli equivalents per Lite	 r ++	Compound	- Equiv wt	X meq/L	= mg/L
70 *Ca < *HCO3	4 39 1051	Ca(HCO3)2 CaSO4 CaCl2 Mg(HCO3)2 MgSO4 MgCl2	81.0 68.1 55.5 73.2 60.2 47.6	4.0 39.0 26.8	324 2657 1488
Saturation Values Dist. Wat CaCO3 13 m CaSO4 * 2H2O 2090 m BaSO4 2.4 m	NaHCO3 Na2SO4 NaCl	47.8 84.0 71.0 58.4	141.9 882.7	6757 51586	

REMARKS:

----- L. MALLETT / FILE

Petrolite Oilfield Chemicals Group

PETROLITE

SCALE TENDENCY REPORT

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

S.I. =	0.3	at	80	deg.	F	or	27	deg.	С
S.I. =				deg.					
S.I. =									
S.I. =	0.6	at	140	deg.	F	or	60	deg.	С
S.I. =	0.7	at	160	deg.	F	or	71	deg.	С

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

S	=	5336	at	80	deg.	F	or	27	deg	С
S	=	5501	at	100	deg.	F	or	38	deg	С
S	=	5556	at	120	deg.	F	or	49	deg	С
S	=	5585	at	140	deg.	F	or	60	deg	С
S	=	5517	at	160	deg.	F	or	71	deg	С

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Chemicals and Services

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WATER ANALYSIS REPORT

Lease Well	S : ARTESIA, NEW MEXICO : BURKETT FEDERAL	Date Date Sampled Analysis No.		
1. 2. 3. 4. 5. 6. 7. 8.	ANALYSIS pH 7.0 H2S 1 PPM Specific Gravity 1.030 Total Dissolved Solids Suspended Solids Dissolved Oxygen Dissolved CO2 Oil In Water	mg/L 46894.5 NR NR NR NR NR	* meg/	′L
9. 10.	Phenolphthalein Alkalinity (Ca Methyl Orange Alkalinity (CaCa			
11. 12. 13. 14. 15. 16. 17. 18. 19.	Bicarbonate Chloride Sulfate Calcium Magnesium Sodium (calculated) Iron Barium Strontium Total Hardness (CaCO3)	HCO3 146.0 Cl 28116.0 SO4 1750.0 Ca 2000.0 Mg 2187.3 Na 12695.2 Fe 0.0 Ba 0.0 Sr 0.0 14000.0	SO4 36.4 Ca 99.8	

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter		Compound	- Equiv wt	X meq/L	= mg/L
100 *Ca < *HCO3 /> 180 *Mg> *SO4 <br 552 *Na> *C1	2 36 793	Ca(HCO3)2 CaSO4 CaCl2 Mg(HCO3)2 MgSO4	81.0 68.1 55.5 73.2 60.2	2.4 36.4 61.0	194 2480 3383
	++ er 20 C g/L	MgCl2 NaHCO3 Na2SO4	47.6 84.0 71.0	179.9	8566
CaSO4 * 2H2O 2090 mc BaSO4 2.4 mc	g/L g/L	NaCl	58.4	552.2	32271

REMARKS:

----- L. MALLETT / FILE

Petrolite Oilfield Chemicals Group



SCALE TENDENCY REPORT

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

S.I. =	0.2	at 8	30 deg.	F	or	27	deg.	С
S.I. =	0.3	at 10)0 deg.	F	or	38	deg.	С
S.I. =			20 deg.					
S.I. =	0.4	at 14	l0 deg.	F	or	60	deg.	С
S.I. =	0.5	at 16	50 deg.	F	or	71	deg.	С

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

S =	4073	at	80	deg.	F	or	27	deg	С
S =	4208								
S =	4248	at	120	deg.	F	or	49	deg	С
S =	4265	at	140	deg.	F	or	60	deg	С
S =	4195								

Petrolite Oilfield Chemicals Group

<u>Cactus Queen</u> 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

- 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
- 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)