CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS

Operator: Mewbourne Oil Co. Well: Todd '27P' Federal No. 16

Contact: Nancy Gragg Title: Eng. Phone: 405-235-3611 x 4545

DATE IN 7-24-97 RELEASE DATE 8-8-97 DATE OUT 7-24-97

Proposed Injection Application is for: ___ **WATERFLOOD** ___ Expansion ___ Initial

Original Order: R- _____ ___ Secondary Recovery ___ Pressure Maintenance

SENSITIVE AREAS X **SALT WATER DISPOSAL** ___ Commercial Well

↘ WIPP ___ Capitan Reef

Data is complete for proposed well(s)? Yes Additional Data Req'd Location Discrepancy - NMOCD

Copy of Log Strips - 7-30-97

AREA of REVIEW WELLS

8 Total # of AOR 1 # of Plugged Wells

Yes Tabulation Complete Yes Schematics of P & A's

Yes Cement Tops Adequate No AOR Repair Required

INJECTION FORMATION

Injection Formation(s) Bell Canyon Compatible Analysis Yes

Source of Water or Injectate Area Production / Brine

PROOF of NOTICE

Yes Copy of Legal Notice Yes Information Printed Correctly

Yes Correct Operators Yes Copies of Certified Mail Receipts

No Objection Received N/A Set to Hearing _____ Date

NOTES: 9-3 - Nancy Gragg w/ Devon forwards a copy to NMP & gives 15 day to review. → Jim Johns called & waives any objections - owner 4 miles away & he was aware of situation w/

APPLICATION QUALIFIES FOR ADMINISTRATIVE APPROVAL? Yes other Todd SWD.

COMMUNICATION WITH CONTACT PERSON:

1st Contact:	X Telephoned	___ Letter	7-30 Date	Nature of Discussion	Additional/corrected info
2nd Contact:	X Telephoned	___ Letter	9-3 Date	Nature of Discussion	Sends copy to NMP for review
3rd Contact:	X Telephoned	___ Letter	9-22 Date	Nature of Discussion	Jim Johns / Westinghouse waived opportunity to comment
			9-24		Verbal approval to Nancy Gragg

SWD 8/8/97
676

devon
ENERGY CORPORATION

20 North Broadway, Suite 1500
Oklahoma City, Oklahoma 73102-8260

Telephone 405/235-3611
FAX 405/552-4550

July 21, 1997

Certified Mail No. Z 447 031 386

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 88505

JUL 24 1997

RE: Todd "27P" Federal #16
Section 27-T23S-R31E
Eddy County, New Mexico

CK LOCATION
REFERENCES TARD-OUT
APPLICATION.

Gentlemen:

Concerning the referenced, enclosed please find our Application for Authorization to Inject and one copy of same. A copy of this submittal is being sent to the NMOCD office in Artesia.

Please direct inquiries concerning this matter to Wally Frank at (405) 235-3611, X4595.

Yours truly,

DEVON ENERGY CORPORATION (NEVADA)

Candace R. Graham

Ms. Candace R. Graham
Engineering Tech

/cg
Enclosures
copy: NMOCD, Artesia
BLM, Roswell
WF, File

SPOKE W/ JIM JOHNS W/ WESTERN REFINING. HE SAID THEY HAVE NO PROBLEMS WITH THIS APPLICATION. THEY WAIVED THIS OPPORTUNITY (WHICH WE ALLOWED THEM) TO COMMENT!
9-23-97

STATE OF NEW MEXICO
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

Oil Conservation Div.
2040 Pacheco St.
Santa Fe, NM 87505

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: ____ Secondary Recovery ____ Pressure Maintenance X Disposal ____ Storage
Application qualifies for administrative approval? X Yes ___ No Convert Todd "27P" Federal #16

II. OPERATOR: DEVON ENERGY CORPORATION (NEVADA)

ADDRESS: 20 NORTH BROADWAY, SUITE 1500, OKLAHOMA CITY, OK 73102-8260

CONTACT PARTY: WALTER FRANK X4595 PHONE: 405/235-3611

III. WELL DATA: Complete the data required on the reverse side of this form for each well processed for injection. Additional sheets may be attached if necessary. Refer to Attachment III

IV. Is this an expansion of an existing project: ___ Yes X No
If yes, give the Division order number authorizing the project _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review. Refer to Attachment V

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. Refer to Attachment VI

VII. Attach data on the proposed operation, including: Refer to Attachment VII

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/1 or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval. Refer to Attachment VIII

IX. Describe the proposed stimulation program, if any. Refer to Attachment IX

* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted.) Refer to Attachment X

* 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. Refer to Attachment XI

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water. Refer to Attachment XII

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form. Refer to Attachment XIII

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

NAME: WALTER M. FRANK TITLE: DISTRICT ENGINEER

SIGNATURE: Walter M Frank DATE: 7/21/97

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstance of the earlier submittal. _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township, and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

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

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

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

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

(1) The name, address, phone number, and contact party for the applicant;

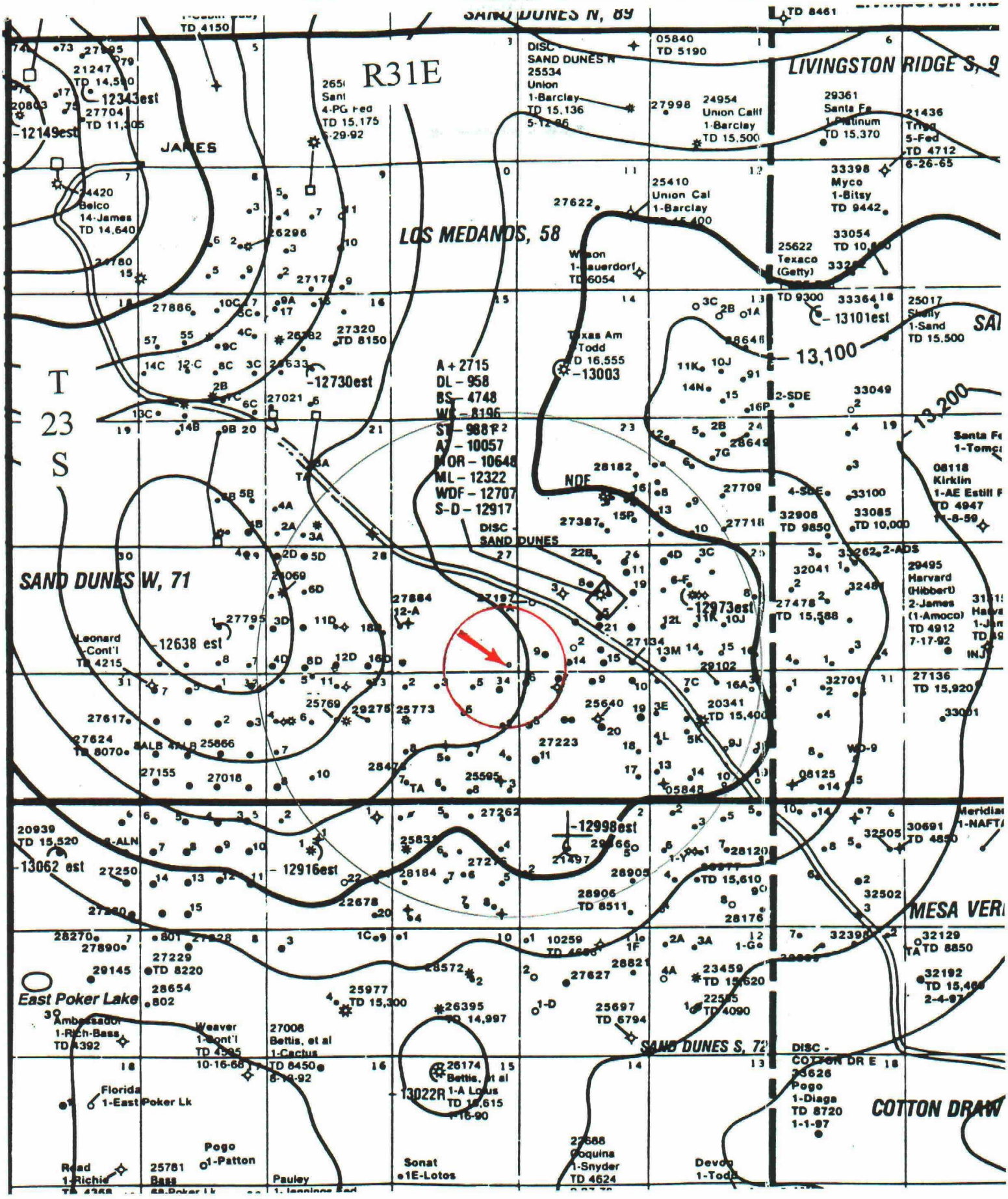
(2) The intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, PO Box 2088, Santa Fe, NM 87504-2088 within 15 days.

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

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



Todd "27P" Federal #16 (Conversion) **ATTACHMENT V**

Todd "27P" Federal #16 (Conversion) **ATTACHMENT VI**

WELL NAME (Operator)	*Eddy Cnty, NM LOCATION*	*TD PBTD*	*SPUD DATE*	*CPLN DATE*	*WELL TYPE*	*COMPLETION RECORD*					
						CASING	*lbs*	*SET*	*SX CMT*	*TOC*	*PERFS*
Todd "27P" Federal #16 (Devon) originally named Todd 27 Federal #1	330' FSL & 330' FEL Sec. P-27-T23S-R31E	TD 8328' PB 8281'	11-05-92	01-07-93	OIL	13 3/8"	48	849'	650	Surface	
						8 5/8"	32	4350'	2200	Surface	
						5 1/2"	15.5 &17	8328'	1200	1750' (CBL)	7962-8046' 8102-8164'
Todd "26M" Federal #9 (Devon)	660' FSL & 990' FWL Sec. M-26-T23S-R31E	TD 8400' PB 8346'	09-15-92	10-21-92	OIL	13 3/8"	48	869'	600	Surface	
						8 5/8"	32	4400'	2700	Surface	
						5 1/2"	15.5 &17	8400'	1025	2898' (CBL)	8006-8046'
Sand Dunes "34" Fed #1 (Pogo Producing)	660' FNL & 660' FEL Sec. A-34-T23S-R31E	TD 8338' PB 8291'	12-29-92	01-28-93	OIL	13 3/8"	54.5	806'	1000	Surface	
						8 5/8"	32 & 24	4220'	1650	Surface	
						5 1/2"	15.5 & 17	8338'	1485	Surface	8114-8182'
Sand Dunes "34" Fed #2 (Pogo Producing)	2310' FNL & 660' FEL Sec. H-34-T23S-R31E	TD 8370' PB 8323'	12-11-92	01-11-93	OIL	13 3/8"	54.5	803'	950	Surface	
						8 5/8"	32 & 24	4250'	1650	Surface	
						5 1/2"	15.5 & 17	8370'	1580	Surface	8108-8177'
Sand Dunes "34" Fed #5 (Pogo Producing)	660' FNL & 1980' FEL Sec. B-34-T23S-R31E	TD 8340' PB 8294'	11-26-93	12-22-93	OIL	13 3/8"	54.5	765'	950	Surface	
						8 5/8"	32 & 24	4185'	1700	Surface	
						5 1/2"	15.5 & 17	8340'	1685	Surface	8057-8117'
Sand Dunes "34" Fed #6 (Pogo Producing)	1650' FNL & 2310' FEL Sec. G-34-T23S-R31E	TD 8340' PB 8294'	09-13-94	10-18-94	OIL	13 3/8"	54.5	720'	950	Surface	
						8 5/8"	32 & 24	4235'	1600	Surface	
						5 1/2"	15.5 & 17	8290'	1740	Surface	7976-8130'
Cal-Mon #1 (Pogo Producing)	660' FNL & 1650' FWL Sec. C-35-T23S-R31E	TD 7100'	09-28-83	10-18-83	D&A	10 3/4"		850'	275	Surface	
										Set cmt plugs: 6521-6671' 4610-5150' 4158-4458' 720-1020' 50' plug at surface	Welded on steel cap and installed P&A marker at surface

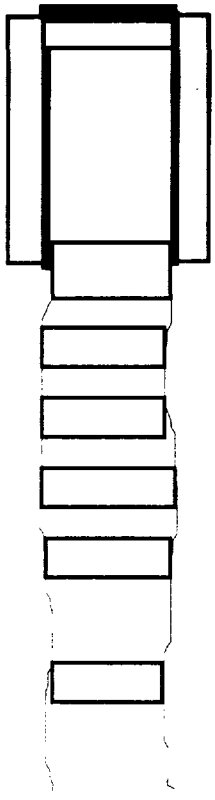
Cal-Mon #6 (Pogo Producing)	330' FNL & 380' FWL Sec. D-35-T23S-R31E	TD 8340' PB 8270'	02-20-92	03-24-92	OIL	13 3/8" 8 5/8" 5 1/2"	54.5 32 & 24 15.5 & 17	825' 4340' 8309'	950 1575 1404	Surface Surface 4400' (CBL)	8007-8046'
Cal-Mon #7 (Pogo Producing)	330' FNL & 1650' FWL Sec. C-35-T23S-R31E	TD 8400' PB 8360'	08-10-92	09-08-92	OIL	13 3/8" 8 5/8" 5 1/2"	54.5 32 & 24 15.5 & 17	797' 4275' 8400'	1000 1525 1275	Surface Surface 2800' (CBL)	8125-8201'

POGO PRODUCING COMPANY
WELLBORE SCHEMATIC

WELL NAME: Cal-Mon #1		FIELD: Wildcat (Brushy Canyon)	
LOCATION: Section 35, T23S, R31E		COUNTY: EDDY	STATE: NM
ELEVATION: GL=3467.6' - KB=3484.7'		SPUD DATE: 09-28-83	COMP DATE: D&A 10-18-83
API#: 30-015	PREPARED BY: C.R. Graham / Devon Energy		DATE: 7/21/97

TUBULARS	DEPTH	SIZE	WEIGHT	GRADE	THREAD	HOLE SIZE
CASING:	0' - 850'	10 3/4"				
CASING:						
CASING:						
TUBING:						
TUBING:						

CURRENT



Welded on steel cap and installed permanent P&A marker at surface
Cement plug work witnessed by Bird Jones BLM
50' to surface (30 sx cmt plug)

10 3/4" CASING, CMT'D W/275 SXS. TOC @ SURFACE.

720-1020' (131 sx cmt plug)

4158' (86 sx cmt plug)

4500' (50 sx cmt plug)

4798' (170 sx cmt plug)

5150' (60 sx cmt plug)

6521-6671' (50 sx cmt plug)

TD @ 7100'. 7 7/8" open hole

Todd "27P" Federal #16 (Conversion)	**ATTACHMENT VII**

PROPOSED OPERATION

1. Plans are to inject 2500 bbls of produced water per day.

2. The disposal system will be a closed system.

3. The proposed disposal pressure is 900 psig. Maximum pressure will be 1000 psig.

4. The disposal fluid will be produced water from the Delaware Group.

5. A sample of produced water from the Todd SWD battery was analyzed by the Baker Performance Chemicals' lab. Please refer to Attachment VII (B) for a copy of the analysis.

DownHole SAT(tm)
SURFACE WATER CHEMISTRY INPUT

Devon Energy
Todd Federal

Injection Pump

Report Date: 02-27-97
Sample ID#: 1

Sampled: 02-03-97
at 0000

CATIONS

Calcium(as Ca)	25280
Magnesium(as Mg)	3806.4
Barium(as Ba)	0.00
Strontium(as Sr)	0.00
Sodium(as Na)	75965
Potassium(as K)	0.00
Lithium(as Li)	0.00
Iron(as Fe)	42.60
Ammonia(as NH3)	0.00
Aluminum(as Al)	0.00
Boron(as B)	0.00

ANIONS

Chloride(as Cl)	173190
Sulfate(as SO4)	0.00
"M" Alkalinity(as CaCO3)	152.50
"P" Alkalinity(as CaCO3)	0.00
Silica(as SiO2)	0.00
Phosphate(as PO4)	0.00
H2S (as H2S)	0.00
Fluoride(as F)	0.00
Nitrate(as NO3)	0.00

PARAMETERS

pH	5.85
Temperature(Deg F)	62.00
Calculated T.D.S.	278551
Molar conductivity	0.00

Pressure(Atm.)	0.00
P-CO2(Atm)	0.00
Density(g/ml)	1.18

BAKER PERFORMANCE CHEMICALS INC.
3920 ESSEX LANE HOUSTON, TEXAS 77027

Todd "27P" Federal #16 (Conversion)	**ATTACHMENT VIII**

GEOLOGY AND LITHOLOGY

Disposal Zones

The proposed intervals for disposal are siltstones and sandstones of the upper portion of the Cherry Canyon formation of the Delaware Mountain Group. The gross depth interval is 4694 feet to 5284 feet. There are no productive or prospective commercial oil or gas bearing zones within this interval in this borehole or in any boreholes within a 1/2 mile radius of this borehole.

Specifically the proposed intervals for disposal are as follows.

Bell Canyon	4694-4740'	46'
	4788-4816'	28'
	4832-4846'	14'
	4880-4904'	24'
	4946-4960'	14'
	5046-5088'	42'
	5164-5216'	52'
	5254-5284'	30'

Fresh Water Zones

Base of near surface aquifer is estimated to be at approximately 800 feet.
No fresh water zones exist at or below the proposed disposal intervals.

Todd "27P" Federal #16 (Conversion)	**ATTACHMENT III (Tabular)**

WELL DATA

A. (1) Todd "27P" Federal #16
Section P-27-T23S-R31E
330' FSL & 330' FEL
Eddy County, New Mexico

(2) Please refer to the wellbore schematic labeled Attachment III (Current). Cement was circulated to surface on the surface string. Top of cement on the production string is 1750 feet determined by Cement Bond Log.

(3) Please refer to the wellbore schematic labeled Attachment III (Proposed). We will be using 2 7/8" IPC tubing. The tubing will be set at ±4380 feet.

(4) Please refer to the wellbore schematic labeled Attachment III (Proposed). We will use a 5 1/2" x 2 7/8" IPC A-3 Loc-Set packer to be set at ±4380 feet.

B. (1) The injection formation will be the Bell Canyon in the Cherry Canyon (Delaware) Field.

(2) The injection intervals will be through new perforations as follows.

Bell Canyon	4694-4740'
	4788-4816'
	4832-4846'
	4880-4904'
	4946-4960'
	5046-5088'
	5164-5216'
	5254-5284'

(3) This well was originally drilled as an Ingle Wells (Delaware) oil well.

(4) Please refer to the wellbore schematics labeled Attachment III (Current) and Attachment III (Proposed).

(5) There are no higher productive oil or gas zones in the area of this well. The next lower productive zone is the Brushy Canyon at ±6950 feet.