FLUID WASTE, INC. 1202 Bryan Circle Carlsbad, New Mexico

505:885-1007

885-0869

October 16, 1984

State of New Mexico Oil Conservation Division P. O. Box 2088 Santa Fe, New Mexico 87501

Attention: Gilbert Quintana

Re: Dorstate #1 SWD

Administrative Order SWD-247

Dear Mr. Quintana:

Per our telephone conversation today, attached please find Section III Attachment - Amended, for the above referenced disposal.

Pogo Producing Company has agreed to withdraw their protest to our recompletion in the Bone Spring formation if we will squeeze off the perforations from 6241' to 6310'.

Please process our application administratively. If additional information is needed to insure timely approval, please advise.

Sincerely,

FLUID WASTE, INC.

Rebecca A. Hughes Secretary/Treasurer

/rah

xc: OCD - Artesia

Pogo Producing Company P. O. Box 10340 Midland, Texas 79702 Attention: Monty D. McLane

Rebecca a. Lugles

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

OPERATOR	E, INC.	DORSTATE #1 SWD		
	1980' FNL & 660' FE		25S 10MN5H1P	28E RANGE
Schen	Spudded 3/30/8	1 <u>T</u> Surface Casing	abular Data	
2 7/8	13 3/8"	Size 13-3/8" 48# TOC Surface		
Tubing		Hole size <u>17-1/2"</u>		
	8 5/8" a 2557'	Intermediate Casing Size 8-5/8" 24# TOC Surface	•	th 1700 s
ware Perfs.		Hole size 12-1/4" Long string		
' to 3138'		Size 4-1/2" 11.6# TOC 2316' Hole size 7-7/8"	feet determined by	
•		Total depth 8000'		
	CIBP@3350'	6376 feet t (perforated or open-ho	,	feet perforat with 36
er Model R ker @ ±6310'	CIBP@ 6200' Bone Springs Perfs. 6241' to 6382' CIBP@ 6400' Bone Springs Perfs. 6412' to 6770'	 Drill out CIBP a Drill out cement Squeeze Bone Spr Drill out cement Set CIBP at 6825 	perforations from t 3350'. and CIBP at 6200 and CIBP at 6400 and CIBP at 6400 and cap with 35 R packer at ±6310	m 2919' to 3138' '. from 6241' to 63 '. ' cement.
D 7928'	4 1/2"			
Proposed Tubing size	8000' TD lined	(mate		set in a
<u>Baker</u> (bran	Model R nd and model)	packer a	t±6310) feet
	any other casing-tubing	seal).		
Other Data		nana Caninan		
	the injection formation			
•	ield or Pool (if applic		/7	
•	new well drilled for i		/x/ No Pone Spring oil	production
and give	vell ever been perforate plugging detail (sacks	of cement or bridge plug	g(s) used) <u>Non-cor</u>	nmercial Bone Sp
7204-789	00', 6842-7165', 6412- 5200' w/35' cement on	6770', 6241-6382'. CI	BP @ 6400' w/35' Dpen Delaware per	cement on top. forations:

district office.

OIL CONSERVATION DIVISION

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87501 FORM C-108 Revised 7-1-81

APPLIC	AMENDMENT TO Administrativ Order SWD-247
Ι.	Purpose: Secondary Recovery Pressure Maintenance X Disposit Storage Application qualifies for administrative approval? Ses 100
11.	Operator: Fluid Waste, Inc.
	Address: 1202 Bryan Circle, Carlsbad, New Mexico 88220
	Contact party: Carter or Rebecca Hughes Phone: 505:885-1007
111.	Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
ΙV.	Is this an expansion of an existing project? X yes no no If yes, give the Division order number authorizing the project SWD-247.
٧.	Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
VI.	Attach a tabulation of data on all wells of public record within the area of review 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.).
/III.	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.
х.	Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
ХІ.	Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
XII.	Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
KIII.	Applicants must complete the "Proof of Notice" section on the reverse side of this form.
XIV.	Certification
	I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
	Name: Rebecca A. Hughes Title Secretary/Treasurer
	Signature: Lebecca U. Hughes Date: 9/10/84
subm:	ne information required under Sections VI, VIII, X, and XI above has been previously itted, it need not be duplicated and resubmitted. Please show the date and circumstance ne earlier submittal. Well logs submitted by original operator along with C-105
	completion form around July, 1981.

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

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:
 - 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 zore in the area of the well, if any.

XIV. PROOF OF NOTICE

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

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

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

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

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

SECTION III ATTACHMENT

	LUID WASTE,	INC.	DORSTATE #1 SWD		
ur.		1000! ENT C 660! EET	LEASE	25.0	200
, ME	LL NO.	1980' FNL & 660' FEI FOOTAGE LOCATION	SECTION	25S TOWNSHIP	28E RANGE
	<u>Schema</u>	11,	- -	abular Data	
2 7 Tub	3 1	13 3/8" 433'	Surface Casing Size 13-3/8" 48# TOC Surface Hole size 17-1/2"	feet determined by	
		8 5/8'' 2557'	Intermediate Casing Size 8-5/8" 24# TOC Surface Hole size 12-1/4"		· ·
laware 19' to	j j		Long string Size 4-1/2" 11.6# TOC 2316'		
	111111111111111111111111111111111111111	CIBP@3350'	Hole size 7-7/8" Total depth 8000' Injection interval 6150 feet to perforated or open-ho		_ feet perforate with 56 h
ker Moo		CIBP@ 6200' Bone Springs Perfs. 6241' to 6382' CIBP@ 6400' Bone Springs Perfs. 6412' to 6770'	2. Drill out CIBP a 3. Drill out cement 4. Drill out cement 5. Set CIBP at 6825	e perforations from at 3350'. t and CIBP at 6200' t and CIBP at 6400' 5' and cap with 35' R packer at 6150'.	2919' to 3138' cement.
	pposed ing size	4 1/2" 8000' TD 2-7/8" lined	with PVC (mate	rial)	set in a
	Baker M	lodel R	packer a	•	feet
<u>Oth</u> 1.	describe a <u>cr Data</u> Name of th Name of Fi Is this a	and model) ny other casing-tubing e injection formation _ eld or Pool (if applica new well drilled for in what purpose was the w	Bone Springs ble) N/A jection? / Yes	/x/ No ? Bone Spring oil	production
	llas the we	ll ever been perforated	l in any other zone(s)? of cement or bridge plug	List all such perf g(s) used) <u>Non-comm</u>	orated intervals ercial Bone Spr
4:	and give p 7204-7890	', 6842-7165', 6412-6		BP @ 6400' w/35' c Open Delaware perfo 2919-3138' - 47	rations:

form C-104 Revised 10-1-78 TRIMERAGIO DIARENIMENT **, ** ***** ****** IL CONSERVATION DIVISIC futtaleut (ON RECEIVED ti, O, BOX 2000 FAMILIE SANTA FE, NEW MEXICO 87501 DEC 29 1982 U 1.0.1. LAMD DEFICE REQUEST FOR ALLOWABLE O. C. 15. AND AUTHORIZATION TO TRANSPORT OIL AND NATURAL GASTESIA CORGO PADRATION OFFICE Fluid Waste, Inc. 1303 N. Canal, #28, Carlsbad, New Mexico 88220
Resson(s) For Islang (Check proper box) Other (Please explain) Hew Well Change in Transporter of: Recompletion Dry Gos effective Change in Ownership X Condensale Casinahead Gas 1-1-83 If change of ownership give name Maddox Energy Corporation, P. O. Box 217, Loving, New Mexico 88256 1. DESCRIPTION OF WELL AND LEASE
| Well No. | Pool Name, Including Formation Kind of Leane Lease ! Dorstate SWD-247 State, Federal or Fee Wildcat Delaware State 5369 Location 1980 Unit Letter Feet From The North Line and 660 Line of Section T. waship 25-S Range 28-E , NMPM, Eddy DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS or Condensate None of Authorized Transporter of Oil Address (Give address to which approved copy of this form is to be sent) Name of Authorized Transporter of Casinghead Gan of Dry Gas Address (Give address to which approved copy of this form is to be sent) Twp. Rge. Is gas actually connected? If well produces oil or liquids, give location of tanks. If this production is commingled with that from any other lease or pool, give commingling order number: COMPLETION DATA OII Well Same Resty, Dill, IS Gos Well Workover Plug Back Designate Type of Completion - (X) Date Spudded Date Compl. Heady to Prod. Total Depth P.B.T.D. Elevations (DF, RKB, RT, GR, etc.) Top OII/Gas Pay Name of Producing Formation Tubing Depth Depth Casing Shoe Perforations TUBING, CASING, AND CEMENTING RECORD SACKS CEMENT CASING & TUBING SIZE DEPTH SET HOLE SIZE TEST DATA AND REQUEST FOR ALLOWABLE (Test must be after recovery of total volume of load oil and must be equal to or exceed top all able for this depth or be for full 24 hours) DIL WELL Producing Method (Flow, pump, gas lift, etc.) Date First New Oll Run To Tonks Date of Test Choke Size Length of Test Tubing Pleasure Casing Pressure Gan - MCF Water - Dhla. Actual Prod. During Test Oll-Bble. GAS WELL Actual Prod. Tool-MCF/D Bbls. Condensate/MMCF Gravity of Condensate Lungth of Test Choke Size Casing Freesure (Shat-in) Tubing Pressure (filut-in) Testing Method (pito), back pr./ DIL CONSERVATION DIVISION CERTIFICATE OF COMPLIANCE JAN 1 3 1983 APPROVED I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and bellef. Original Signed By Leslia A. Clements TITLE _____Supervisor District II This form is to be filed in compliance with MULE 1104. If this is a request for allowable for a newly drilled or despen well, this form must be accompanied by a tabulation of the deviational taken on the well in accordance with nucl 111. (Signotury All sections of this form must be filled out completely for all: shis on new and recompleted wells. President (Title) Fill out only Sections I, II, III, and VI for changes of own; well name or number, or transporter, or other such change of conditions. 12-27-82 (Dute)

Separate Forms C-104 must be filed for each pool in multi;

montaind wells.

WALL OF THE VY 17% ARAS

	State	118 <u>4</u> 4 940	Pardue Farms	International Mins (Chem(S)	Press fer Press fee.	
ï	2 e e e e e e e e e e e e e e e e e e e	IEB 118 B 1964 34663 - ARCO. 3-1 66 J 6-3399 mir	70 25 128 36 139 38 122 34 HNG Oil Guin 1	Union 1 NNG Oil Union	80.61 dke 48 18035 218022 - R.N. Enfield Amnon,1/2	Derathy V. Carrell El Paso HNG
** .		ED Burgett	7- 1-85 16 2863 203 07 14-1-83 1 16 135 1 58/2	[75 (-95)	Amocd 18832	15104
	i i i i i i i i i i i i i i i i i i i	EI 2995 5 TD 2496 1 D/A9-25-62	4	131 1 31Mi	2 - U.S	TRN Enfed State Saper Sar Dis 22 14 Retty 3
		2002		нас	HNG Oil Superior 1/2	Jerry Warren M.
	26 24 17			Union 4-1-81 12-5367	152 <u>66 - 152 66 - 15</u>	Noncy P Tonkin R,S Accept
essiee.	Prices transportion Co. 88 65 - 1 Detta Onlig.	Feces Irrigation (s) State Amodo	Stote Amoco	State 626 HCWEXPI 5-1-91 16 98 916 92	Pecos Ireigotion State Olive Ind. 4 Union 116 Gettin 4:24 e3	Olex Ind 2 12:85 18 85 Getty 4:24:83 (white Chem 15) Ketherinet Smith
Poq	1 · 1 · 90 1 · 1 · 90 10 57 2 · 66 · 30	2 - 14 - 84	7-14-04	State Amoco		
できる。 (2 m 主 主 (3 m 主 主 主)	. 7			Pecos Irringhan Co	Getty 30 4:24 13	4 24 89 Union 6 2 81 2 1 69 Ameco 15104 7-26 83 2
	P A Troco	Wright & Davis A fecos Irrig. 70 935		11CWEAXX 5-1-91 169690 285	1 Villon	W.Osage Flag- Pedfern
	76-78 7 Affoca L. State Thia230 D/A8 2 79		Engos Ecces //r. 1) 13 4 10	916 67 U.3. HCYERPI 5 1-91 LG-96-90 916 67	Getty Olix Ind 14:24:83 e 2:12:85:8 84 SaltDrawfed JR Rowan etal U.S. Jay BLECKEST	Williams Getty's Jr. vanil A:24 83
٠	Pecos Ire Co. State	Pecas Irrigation Co	Pecas Irrigation C. Pogo Prod.	State State	U.S. Jay B Leck Est of Joy B J	Barber
		774-08 124-08 16-6/42 275-70	Gulf 4 97 	Amoco 51.91 2 · 14 · 84 6333	4 1 81 wan elal 13413 VB Ceck	Barber Dorothey, America
in Ca	Peces ter Co	Amoco 2 · 14 · 84	27750	Pecostrengotion Co. State	10 3170 00 2 9 5 4	7-1-91 O R.C.Cox.
	Amuco Cities Service 2-14-84	17————————————————————————————————————	Gulf 16—! HCW 10-1-83 SUIF-ST 152 E 18-25 152 E 18-25 152 E 18-25	HILWE KEN 5 Snyder Snyder Peter for 4	Amoco 7/2 - 14 RN. Enfield RN. Enfield	TOTAL
	18 1 92 CH 2019 3025 46132	- Signal St 150 00 - Gulf	152 £ 1866 10 7590 10 152 £ 1862 15 82	State - THEW EXPL	8 · 1 · 84 18832 · (Borber 1 · Oil	16104
	State Pecastre Ca	07A 7-18-56 - 2 3 10:1 03 15227 15227 15227	1 101 42 25	COState State	(5_8_83) U.S.	1 V.S.
	Gulf 7-1-89	Gulf Amoco J0-1 63 2-14-84 L6 1366 152 £7	Gulf 10 · 1 · 83 LG-1366 152 £7 State	R.N. Enfield Pogo Prod. 7 1 87 7 1 87 87 8 583 33	Getty 4 : 1 : 61 : 134:3	Borber Oil R.N. Dorethy 5-6-83 Enfield & Cerroll Amaco 7-1-91 Amaco 7-1-91 8-1-83 49844 18832
	76 Je 7 LG-6729 937 <u>19</u>	152 £ R. Nix 4-1-88 L.G. 5267	LaRue G Muncy Muncy	16632		1 1 1 18832
	। एक्ट्रो- 19	Peros 17 1 - 20 Store 9162	TD 5200 CA 4 15 78 21	U.S. 22 HCW EXOL		Pogo Prod. 24
	A moco 2-14-84 75 31 71	Nix 4-1-98 Guif /	Amoco 2 · 14 · 8 4	2 · (4 · 8 4	Aldridge atal 4-1-81 Sand Fed 13413 CAS-8-56	4-1-81 Amocova 13413 (
	Fects or. Co Store	State Pecastre. Co.	Pecas irrigation do.	Pecos (cr.Co. Stole	u.s.	U.S. Delemarchinings
	40 33 p/A1-24-56	Gulf Amoco. 1/2 R.N. Enfield	Gulf Amaco 1 -1 -83 2 - 14 - 84	Amoco 2 · 14 · 84 8 · 1 · 90 LG · 8481	Pogo Prod.	Union El Paso Expl. 1/2
	غ: Aldridga etal 10 2320 Signal - Pecas 30 عام الله	25 60 Amaco 214 84	25 4.0	Africo THEWEIN	1/2 mile radius	1-63 P
	Pecas terigotian Ca	Pecos U.S.	Gulf Esam. 51 TOIA, 410 C/A7-25 52 _ 28 Gulf	reces ir Ca 27 Constele" Amoco	•	/ 05 011
	Geffy 7 · #8 , id :233	Gulf 5 · 1 · 83 LG · 1169	5-1 83 LG 069 421 <u>3</u>	[5835] [8 1 90		Pogo Prod Pogo Prod V Cerrell V Cerrell TOZETA 1 13 415
	70 U 579	47 19		51011	Signof-Fed. TD2645 U.S.	ا ا ا
Erver.	State 20 28 1 Getty	State Arnoco	Get+y	El Poso Exol.	Artec	El PosoEkpt.
2	/ 1 #3 LG 1731	Amoco 7 63 Ge+ty 7 83 16-1232 1-7-65 33.33	5 : 1 × 83 LG-1170 3505	ि (केट । उ. 688 । 2.85	9 - 1 - 01 L- 6576 16 <u>5.7</u>	16 01 i
	74.5 pt 31	32	33	34	35	36
	70:2 51 31	State		[285]		F1 Paso Excl 5 · 1 · 81 16 · 207 · 4
	1001 T	Gladys Bingham Signal State MyrtleD. Fig. 3133 44 State Fritschy Dia 31-59			4	State
	3191e 3134 i	State Frischy Dia 3 359	State New Idera - &' State	State TE, Monre &	State Moddox Ener.	31076
;	Amaca 7 , #1 Tage of 15-1233	Guif 5- 1-83 	Mare 10, 2342 Gefty S- 1- 83	Dow Chern 5 - 1 - 8 - LG - 11 7 1	(El PoseExpr)	El PasaExpl
) 	469	4063	£6+1172 43 15	3955 Aldridge etal State 170 2568	2 @ fan Jac Bisc.	11 - 1 - 82 LG 829 Prod. 16 27 H1-1 - 85
7197. W 3001	19 92 J ¹ 6	5	-4	3	FLOWER DRAW UNIT MADDOX ENER. (OPER)	
wied isc.	75 06 ET				MADDON LITER OF ERV	U.S. Bennett Aphlend
 	State	State	State	Stele Millimation	Stole Years P.	70 2000 State D'A: 4.30 Yates Prt. Ballon Dix. 2.3MM.
j		EI Paso Expl Guess, etal 7 + 83	L	Amirioil Wayne 7:1:82 Delaware	Yotes Pet	10: 1: 82 1 2.9MM. 170.46
helly (-6) 4344	75 81 2 4820	570fe LG-1235 *02455 7813	15 HT4 5313	OII	1 13 - 3	ASTE, INC. E #1 SWD
- 	_{ī9,75} ∱ 7	8	9	10 DELAWARE RIVER UI	II Soc 27	, T25S, R28E
j	4 Hanson		El Posco Expl. 55 1 63 153 1173 53 12	WAYNE MOORE (OPE	Eddy Co	., New Mexico
!	19-11 A Hanson 20-10-16-64 20-14-5-6		F ~~ ~~	70 7 70 6 2 2 2	1" = 40 SECTION	OO' IV ATTACHMENT

SECTION VI ATTACHMENT

No wells except the Dorstate No. 1 have penetrated the proposed injection formation within the one-half (1/2) mile radius area of review.

SECTION VII ATTACHMENT

DATA FOR PROPOSED INJECTION OPERATION

- 1. The expected average daily salt water injection rate is 2000 barrels per day with a peak rate of 3000 barrels per day. Total injection volume is unknown, but would be expected to be in excess of five million (5,000,000) barrels.
- 2. The system will be a closed system.
- 3. The average injection pressure is expected to be 1025 psi with a maximum of 1354 psi.
- 4. Injection water will be salt water produced from oil and gas wells within a twenty-five (25) mile radius. The water will be predominately from the Bone Spring formation.
- 5. The proposed Bone Bpring injection zone is not productive of oil or gas within a one mile radius of the proposed injection well. A chemical analysis of the Bone Spring formation water from a well two miles south of the Dorstate #1 is attached.

SECTION VIII ATTACHMENT

The proposed injection zone in the Dorstate No. 1 well is the Bone Spring formation. It consists of limestone, siltstone and carbonaceous shale. It is 1690' thick in this well and is encountered at a depth of 6310'.

A potential source of potable water (10,000 mg/l of TDS) are the Lower Cretaceous and Upper Triassic redbeds. These exist from near the surface to a depth of about 300'.

SECTION IX ATTACHMENT

No stimulation program is expected to be required.

SECTION X ATTACHMENT

The well logs were submitted about July, 1981, by the original operator, HCW Exploration, along with the C-105 completion form for the Bone Spring oil reservoir. Upon depletion of the Bone Spring reservoir, it was abandoned.

SECTION XI ATTACHMENT

There are no known producing fresh water wells within one mile of the proposed injection well.

SECTION XII ATTACHMENT

Fluid Waste, Inc. acknowledges that it has thoroughly reviewed the available geologic and engineering data in the vicinity of the subject well and does hereby affirm that there is no evidence to indicate the existence of open faults or possible hydrologic connection between the Bone Spring disposal zone and any potential underground source of drinking water.



G. Knorr, E. Speck

TRETOLITE DI SION

388 Marshall Avenue / Saint Levis, Misseuri 83118 (314) WO 1-3500/TWX 810-780-1860/Telex 44-2417

WATER ANALYSIS REPORT

COMPANY MADDOX ENERGY CORP.	ADDRESS_F	ARTESIA, NM	DATE: 11	/10/83
OURCE FLOWER DRAW 2-265-276	DATE SAMP	LED 11/10/83	ANALYSIS — NO.———	
Analysis		Mg/L	*Meq/L	
1. pH <u>5.80</u>				
2. H ₂ S (Qualitative) neg.				
3. Specific Gravity 1.180				•
4. Dissolved Solids	<u> </u>	239,403		
5. Suspended Solids				
6. Phenolphthalein Alkalinity (CaCO3)	· 			
7. Methyl Orange Alkalinity (CaCO ₃)	,	75		
8. Bicarbonate (HCO ₃)	HCO,	92 ÷61	2	HCO,
9. Chlorides (CI)	CI	$147,312 \div 35.5$	4150	CI
10. Sulfates (SO ₄)	sO ₊	200 ÷48	4	so,
11. Calcium (Ca)	Ca	11,600 ÷20	580	Ca
12. Magnesium (Mg)	Mg	$\frac{2187}{00000000000000000000000000000000000$	179	Mg
13. Total Hardness (CaCO ₁)		38,000		•
14. · Total Iron (Fe)				
15. Barium (Qualitative)				
16. Strontium				•
*Milli equivalents per liter PROBABLE MIN	TRAL COMPC	SCITION		
PROBABLE MIN		Danion		
Ca ← HCO₃	Compound	Equiv. Wt. X	Meq/L == 2	= Mg/L 162
580 2 2 179 Mg SO ₄ 4	Ca (HCO ₃) ₂	81.04	4	272
	Ça SO₄	68.07	574	31857
3397 No CI 4150	Ca Cl ₂	55.50	-0-	-0-
Saturation Values Distilled Water 20°C	Mg (HCO ₃) ₂		-0-	-0-
Ca CO ₃ 13 Mg/L	Mg SO ₄	60.19	179	8524
Ca SO, • 2H ₂ O 2,090 Mg/l Mg CO ₃ 103 Mg/l	Mg Cl ₂	47.62	-0-	-0-
103 mg/t	Na ACO3	84.00	-0-	-0-
	No ₂ \$O ₄	71.03	3397	198,58
cc: Mr. C. Hughes	Na Cl	58.46		

Respectfully submitted TRETOLITE COMPANY

Steve Hollinger

September 7, 1984

State of New Mexico Commissioner of Public Lands P. O. Box 1148 Santa Fe, New Mexico 87504-1148

Dear Commissioner:

Fluid Waste, Inc. wishes to advise you of our intention to recomplete the Dorstate #1 SWD well to inject into the Bone Spring formation. Said well is located on state land in Section 27, T-25-S, R-28-E, Eddy County, New Mexico.

As required by OCD Rule 701, we are enclosing, for your information, a copy of our application recently submitted to the OCD.

Please contact Fluid Waste, Inc. should you require additional information.

Sincerely,

FLUID WASTE, INC.

Rebecca A. Hughes
Secretary/Treasurer

Secretary/Treasurer

/rah

Enclosure

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

a. Hughis

September 7, 1984

Amoco Production Company P. O. Box 3092 Houston, Texas 77001

Re: Dorstate #1 SWD 1980' FNL & 660' FEL Sec. 27, T-25-S, R-28E Eddy County, New Mexico

Attention: Land Manager

Dear Sir:

Fluid Waste, Inc. wishes to advise you of our intention to recomplete the above referenced disposal well to inject into the Bone Spring formation. As required by OCD Rule 701, we are enclosing, for your information, a copy of our application recently submitted to the OCD.

Please contact Fluid Waste, Inc. should you require additional information.

Sincerely,

FLUID WASTE, INC.

Rebecca A. Hughes
Secretary/Treasurer

/rah Enclosure

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

September 7, 1984

HCW Exploration, Inc. 601 N. Loraine, Suite 200 Midland, Texas 79702

Attention: Land Manager

Re: Dorstate #1 SWD

1980' FNL & 660' FEL Sec. 27, T-25-S, R-28-E Eddy County, New Mexico

Dear Sir:

Fluid Waste, Inc. wishes to advise you of our intention to recomplete the above referenced disposal well to inject into the Bone Spring formation. As required by OCD Rule 701, we are enclosing, for your information, a copy of our application recently submitted to the OCD.

Please contact Fluid Waste, Inc. should you require additional information.

Sincerely,

FLUID WASTE, INC.

Rebecca A. Hughes Secretary/Treasurer

/rah Enclosure

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

ecca A. Hughis

September 7, 1984

Pogo Producing Co. P. O. Box 10340 Midland, Texas 79702

Attenton: Land Manager

Re: Dorstate #1 SWD

1980' FNL & 660' FEL Sec. 27, T-25-S, R-28-E Eddy County, New Mexico

Dear Sir:

Fluid Waste, Inc. wishes to advise you of our intention to recomplete the above referenced disposal well to inject into the Bone Spring formation. As required by OCD Rule 701, we are enclosing, for your information, a copy of our application recently submitted to the OCD.

Please contact Fluid Waste, Inc. should you require additional information.

Sincerely,

FLUID WASTE, INC.

Rebecca A. Hughes Secretary/Treasurer

/rah

Enclosure

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Luglies

EDITOR - Carlsbad Current-Argus

September 7, 1984

FLUID WASTE, INC. 1202 Bryan Circle Carlsbad, New Mexico 88220 505:885-1007

The above captioned party declares that it intends to recomplete its Dorstate No. 1 salt water disposal well.

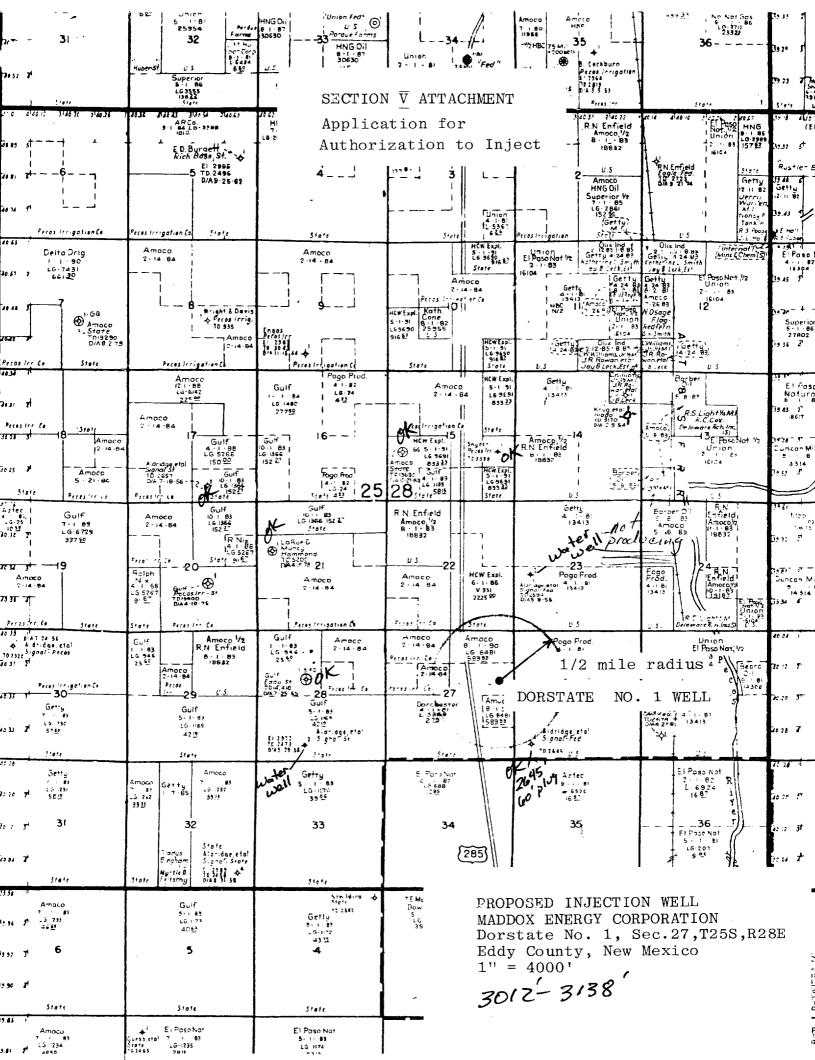
Said well is located 1980' FNL & 660' FEL of Section 27, T25S, R28E, Eddy County, New Mexico.

The salt water will be injected into the Bone Spring formation at a maximum rate of 3000 barrels per day having a maximum pressure of 1354 psig.

All interested parties must file any requests or objections for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico, 87501, within 15 days of publication of this notice.

Rebecca A. Hughes Secretary/Treasurer

Relieven U. Thispers



WELL LOCATION AND ACREAGE DEDICATION PLAT

		All distances must be	from the auter be	undertee of	the Saction.		
Operator H C	W Explorat	ion	Lease	orstat	e [·]		Well No.
Unit Letter H	Section 27	Township 25 South	Range 28	East	Eddy		
Actual Footage Loca 1980		north line and	660	lee:	from the eas	st	line
Ground Level Elev. 2968.0	Producing Form		P∞I Wildcat			Dedic	rated Acreage: 40 Acres
1. Outline the	acreage dedica	ted to the subject	vell by colore	d pencil o	r hachure marks	on the pla	
interest and	d royalty). n one lease of d	ifferent ownership is	dedicated to				f (both as to working
dated by co		nitization, force-poo nawer is "yes;" type		ion			
_	- 	•.			tually been con	solidated.	(Use reverse side of
this form if No allowab	necessary.) le will be assigne	ed to the well until s	ll interests he	ive been o	onsolidated (by	communit	ization, unitization, oved by the Commis-
	1		!			CER	TIFICATION
			 	- 1980	toir	ed herein is	that the information con- true and complete to the redge and belief.
	 				Posit Di v	ision E	
	1				Date	Explor	ation, Inc. 2, 1982
			WAY 85 WATER TOWN TO THE TOWN	ON SE	z ho	wn on this p es of actual er my superv	y that the well location lat was plotted from field surveys made by me or rision, and that the same rrect to the best of my belief.
·	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		<u> </u>	MEXICA	Regis	Surveyed Intered Profes or Land Surve	3-24-81 resonal Engineer eyor
0 330 840	00 1320 1680 168	30 2310 2640 20	00 1800	1000 1	Con l		OHN W. WEST 676 STRICK A. ROMERO 6461 Smald J. Eidson 3231

ATTACHMENTS FOR FORM C-108

SECTION VI ATTACHMENT

No wells except the proposed Dorstate No. 1 injection well have penetrated the proposed injection formation within the one-half (1/2) mile radius area of review.

SECTION VII ATTACHMENT

DATA FOR PROPOSED INJECTION OPERATION

- 1. The expected average daily salt water injection rate is 2000 barrels per day with a peak rate of 3000 barrels per day. Total injection volume is unknown, but would be expected to be in excess of five million (5,000,000) barrels.
- 2. The system will be a closed system.
- 3. The average injection pressure is expected to be 350 psi with a maximum of 625 psi. (000)
- 4. Injection water will be salt water produced from Maddox Energy Corporation and other area operators oil and gas wells within a twenty-five (25) mile radius. The water will be predominately from the Bone Springs formation.
- 5. The proposed Delaware injection zone is not productive of oil or gas within a one (1) mile radius of the proposed injection well. A chemical analysis of the Delaware formation water from the Dorstate well is attached.

SECTION VIII ATTACHMENT

The proposed injection zone in the Dorstate well is the <u>Delaware</u> formation. It consists of a massive sandstone sequence interbedded with dense shale stringers. It is about 700' thick in this well and is encountered at a depth of 2610' in the well. The mud loggers report relative to this interval is enclosed for reference.

A potential source of potable water (10000~mg/1 of TDS) are the Lower Cretaceous and Upper Triassic redbeds. These exist from near the surface to a depth of about 300° .

SECTION IX ATTACHMENT

If stimulation is required, the well will be acidized w/10,000 gallons of 15% HCI.

SECTION X ATTACHMENT

The well logs were submitted about July, 1981 by the previous operator, HCW Exploration, along with the C-105 completion form for the Bone Springs oil reservoir. Upon depletion of the Bone Springs reservoir it was Abandoned. Reports summarizing the unsuccessful recompletion of the well as a Delaware completion are enclosed for reference.

SECTION XI ATTACHMENT

There are no known producing fresh water wells within one (1) mile of the proposed injection well.

SECTION XII ATTACHMENT

Maddox Energy Corporation acknowledges that it has thoroughly reviewed the available geologic and engineering data in the vicinity of the subject well and does hereby affirm that there is no evidence to indicate the existence of open faults or possible hydrologic connection between the Delaware disposal zone and any potential underground source of drinking water.