

SWD-400
PDEV0020900400

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION



BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

November 30, 1993

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

Yates Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210

Attention: Brian Collins

RE: Injection Pressure Increase, Compromise SWD Well No. 1, Section 30, Township 18 South, Range 27 East, Eddy County, New Mexico

Dear Mr. Collins:

Reference is made to your request dated November 3, 1993 to increase the surface injection pressure on the above referenced well. This request is based on a step rate tests conducted on this well on October 22, 1993. The results of the test have been reviewed by my staff and we feel an increase in injection pressure on this well is justified at this time.

You are therefore authorized to increase the surface injection pressure on the following well:

Well and Location	Maximum Injection Surface Pressure
Compromise SWD Well No. 1 Unit H, Section 30, Township 18 South, Range 27 East	3000 psig
This well located in Eddy County, New Mexico.	

The Division Director may rescind this injection pressure increase if it becomes apparent that the injected water is not being confined to the injection zone or is endangering any fresh water aquifers.

Sincerely,

William J. LeMay
Director

WJL/BES/amg

cc: Oil Conservation Division - Artesia
File: PSI-X 4th Quarter *md*
SWD-400

NO WAITING PERIOD

COMPANY: YATES PETROLEUM CORPORATION
ADDRESS: 105 South Fourth Street
CITY, STATE, ZIP: Artesia, New Mexico 88210
ATTENTION: Mr. Brian Collins

RE: *Injection Pressure Increase
Compromise SWD Well No.1
Section 30-T18S-R27E
Eddy County, New Mexico*

Dear Sir:

Reference is made to your request dated November 3, 1993, to increase the surface injection pressure on the above referenced well. This request is based on a step rate test conducted on this well October 22, 1993. The results of the tests have been reviewed by my staff and we feel an increase in injection pressure on these wells is justified at this time.

You are therefore authorized to increase the surface injection pressure on the following well:

<u>Well & Location</u>	<u>Maximum Injection Surface Pressure</u>
Compromise SWD Well No.1 Unit Letter "H", Section 30T18S-R27E Eddy County, New Mexico	3000 psig

The Division Director may rescind this injection pressure increase if it becomes apparent that the injected water is not being confined to the injection zone or is endangering any fresh water aquifers.

Sincerely,

William J. LeMay
Director

WJL/BES/

xc: OCD - Artesia
FILES: PSI-X 4th Qtr.93; SWD-400

N/R
PS-X

MARTIN YATES, III
1912 - 1985
FRANK W. YATES
1936 - 1986



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210
TELEPHONE (505) 748-1471

OIL CONSERVATION DIVISION
RECEIVED
'93 NOV 5 AM 9 08
S. P. YATES
CHAIRMAN OF THE BOARD
JOHN W. YATES
PRESIDENT
PEYTON YATES
EXECUTIVE VICE PRESIDENT
RANDY C. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

November 3, 1993

State of New Mexico
OIL CONSERVATION DIVISION
P. O. Box 2088
Santa Fe, NM 87501

Attn: Mr. David Catanach

Dear Mr. Catanach,

Yates Petroleum Corporation respectfully requests approval to increase the maximum injection pressure on the Compromise SWD #1 from 1610 psig to ~~3000 psig~~. As demonstrated on the attached step rate test run on October 22, 1993, the proposed injection pressure limit and corresponding rate are well under the maximum pressure and rate achieved on the step rate test. It should be noted that the parting pressure was never reached during the test due to equipment rate limitations and the high formation transmissibility. Also attached is Order No. SWD-400 approved September 11, 1990. OK

Please call me at 748-4182 if you have any questions.

Sincerely,

Brian Collins

Brian Collins
Engineer

BC/th

xc: Mr. Mike Williams

JOHN WEST ENGINEERING COMPANY

Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: YATES PETROLEUM CORPORATION

DATE: OCTOBER 22, 1988

WELL NAME COMPROMISE BWD NO. 1
EDDY COUNTY, NEW MEXICO

H-30-18s-27e
Order SWD-400

WO#: 88-14-2088

MID-PERFB. 8054-8159

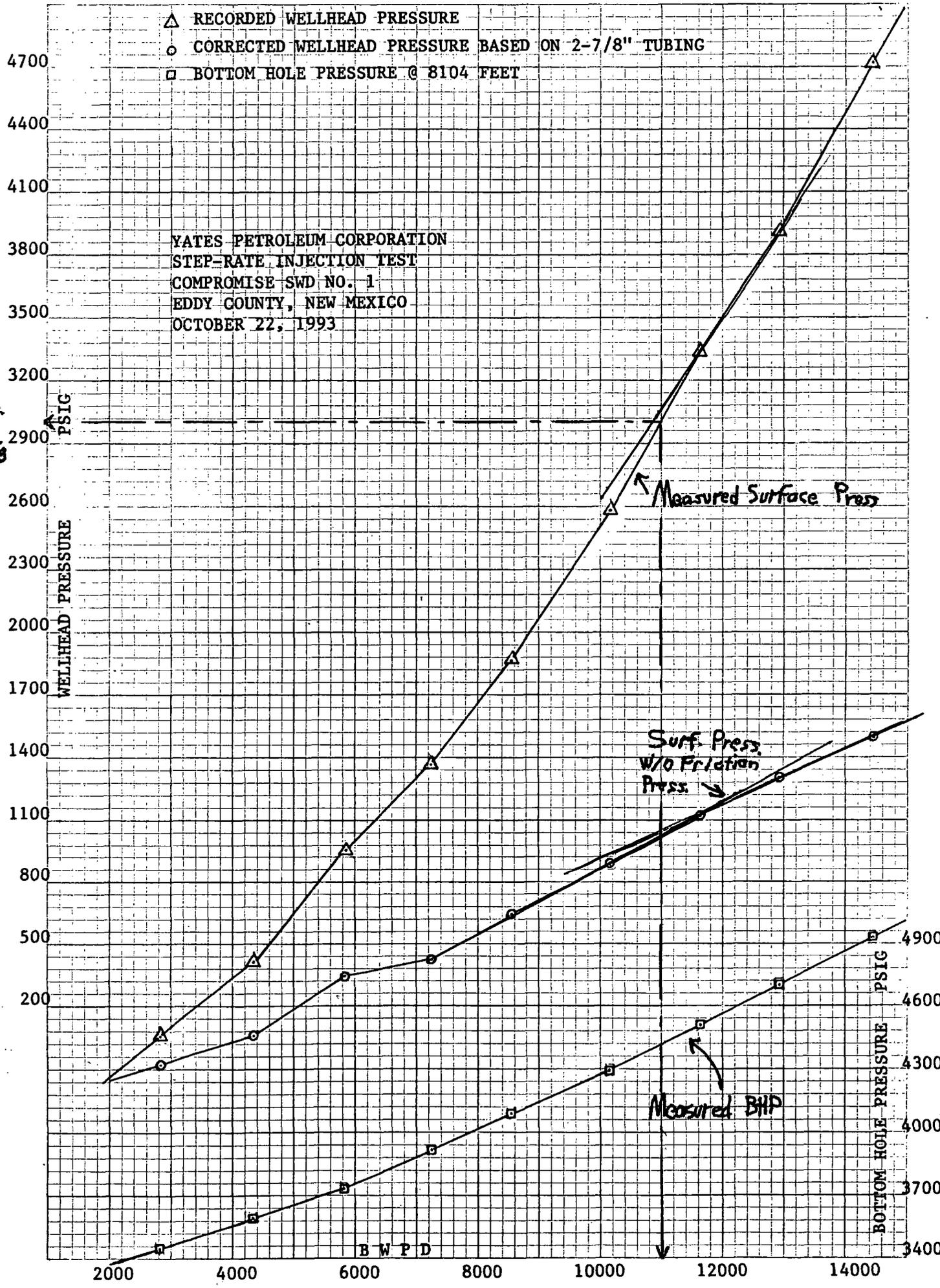
PACKER DEPT 7861

BHP GAUGE C 8104

STEP NO.	REMARKS	TIME	(1) SURFACE TUBING PRESS. (psig)	(2) CUMULATIVE VOL. INJECTED (bbls)	(3) INJECTION RATE (bbls/day)	(4) FRICTION HEAD LOSS (psi)	(5) CORRECTED TUBING PRESS. (psi) (5)-(4)	(6) INJECTION RATE (gpm) (bbls/day) (7)(24 HR)	(7) MEASURED BHP (psi)
		9:17							3263
		9:30	65.6				65.6		3415
		9:35	64.2	10.0	2880.0	163.173	-99.0	84.00	3429
		9:40	65.4	19.7	2793.6	154.233	-88.8	81.48	3440
1		9:45	67.9	29.2	2736.0	148.401	-80.5	79.60	3448
					2803.2				
		9:50	348.5	44.0	4262.4	337.003	11.5	124.32	3523
		9:55	405.9	59.1	4348.8	349.749	56.2	126.84	3557
2		10:00	427.5	74.7	4492.8	371.475	56.0	131.04	3584
					4368.0				
		10:05	777.8	94.8	5788.8	593.693	183.9	168.84	3671
		10:10	823.4	115.0	5817.6	599.169	224.2	169.68	3711
3		10:15	962.4	135.5	5904.0	615.736	346.7	172.20	3742
					5836.8				
		10:20	1279.2	160.4	7171.2	882.304	396.9	209.16	3838
		10:25	1322.0	185.7	7286.4	908.704	413.3	212.52	3882
4		10:30	1367.2	211.4	7401.6	935.461	431.7	215.88	3918
					7286.4				
		10:35	1817.2	240.9	8496.0	1207.314	609.9	247.80	4011
		10:40	1839.8	270.9	8640.0	1245.443	594.4	252.00	4056
5		10:45	1875.3	300.9	8640.0	1245.443	629.9	252.00	4092
					8592.0				
		10:50	2460.7	336.0	10108.8	1665.205	795.5	294.84	4201
		10:55	2523.3	371.5	10224.0	1700.482	822.8	298.20	4253
6		11:00	2587.4	407.0	10224.0	1700.482	886.9	298.20	4299
					10185.6				
		11:05	3157.0	447.3	11606.4	2150.126	1006.9	338.52	4403
		11:10	3210.9	487.7	11635.2	2160.007	1050.9	339.36	4458
7		11:15	3267.4	528.1	11635.2	2160.007	1107.4	339.36	4503
					11625.6				

STEP NO. & REMARKS	TIME	(1) SURFACE FLUID PRESS (psig)	(2) CUMULATIVE VOL. INJECTED (bbls)	(3) INJECTION RATE (bbls/day)	(4) FRICTION HEAD LOSS (psf)	(5) CORRECTED FLUID PRESS (psf) (1)-(4)	(6) INJECTION RATE (gpm) (bbls/day)	(7) MEASURED BHP (psf)	
8	11:20	3834.9	573.0	12931.2	2626.064	1208.8	377.16	4607	
	11:25	3899.3	617.8	12902.4	2615.254	1284.0	376.32	4662	
	11:30	3915.9	662.7	12931.2	2626.064	1289.8	377.16	4705	
					12922.0				
	11:35	4725.4	712.7	14601.6	3267.868	1437.5	425.88	4832	
9	11:40	4792.6	763.1	14515.2	3251.967	1540.6	423.36	4895	
	11:45	4711.0	813.2	14428.8	3216.247	1494.8	420.84	4935	
				14448.0					
FALLOFF	11:46	1085.6				1085.6		4640	
	11:47	971.7				971.7		4523	
	11:48	886.1				886.1		4438	
	11:49	823.5				823.5		4372	
	11:50	767.2				767.2		4314	
	11:55	570.3				570.3		4114	
	12:00	439.7				439.7		3983	

Desired Surf. Press. Limit = 3000 psig



Jrm



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

RECEIVED
SEP 19 1990

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

ADMINISTRATIVE ORDER NO. SWD-400

APPLICATION OF YATES PETROLEUM CORPORATION

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Rule 701(B), Yates Petroleum Corporation made application to the New Mexico Oil Conservation Division on July 20, 1990, for approval to complete for salt water disposal its Compromise AEJ Federal Com No. 1, located in Unit H of Section 30, Township 18 South, Range 27 East, NMPM, Eddy County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

- (1) The application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations.
- (2) Satisfactory information has been provided that all offset operators and surface owners have been duly notified; and
- (3) The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met.
- (4) The only objection received within the waiting period prescribed by said rule has been withdrawn.

IT IS THEREFORE ORDERED THAT:

- (1) The applicant herein, Yates Petroleum Corporation is hereby authorized to complete its Compromise AEJ Federal Com No. 1 located in Unit H of Section 30, Township 18 South, Range 27 East, NMPM, Eddy County, New Mexico, in such a manner as to permit the injection of salt water for disposal purposes into the Canyon formation at approximately 8054 feet to approximately 8154 feet through 2 7/8-inch plastic lined tubing set in a packer located at approximately 7950 feet.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations into the well, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 1610 psi.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Canyon formation. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Artesia district office of the Division of the date and time of the installation of disposal equipment and of the mechanical integrity test so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Artesia district office of the Division of the failure of the tubing, casing or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

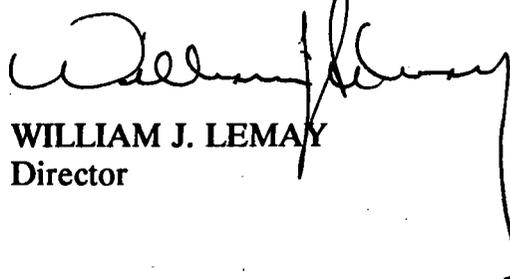
PROVIDED FURTHER THAT, jurisdiction of this cause is hereby retained by the Division for such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of the operator to conduct operations in a manner which will ensure the protection of fresh water or in a manner inconsistent with the requirements set forth in this order, the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall submit monthly reports of the disposal operations in accordance with Rule 706 and 1120 of the Division Rules and Regulations.

*Administrative Order No. SWD-400
Yates Petroleum Corporation
September 11, 1990
Page 3*

Approved at Santa Fe, New Mexico, on this 11th day of September, 1990.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY
Director

SEAL