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February 3, 2004

New Mexico Oil Conservation Division
1220 So. St. Francis Drive
Santa Fe, NM 87505

Attn: Will Jones

RE: Jicarilla 30 #5 SWD, API #30-039-20460
UIC Permit - SWD-807
Rio Arriba County, NM

Dear Mr. Jones,

Attached please find letter submitted to the EPA requesting an increase in maximum surface injection pressure on the above-mentioned Salt Water Disposal well.

If you have any questions or require additional information, please call me at (832) 486-2329 or email me at yolanda.perez@conocophillips.com.

Sincerely,

Yolanda Perez
Sr. Regulatory Analyst
Mid America Business Unit

RECEIVED

FEB 6 2004

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1220 S. St. Francis Drive
Santa Fe, NM 87505



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February 3, 2004

USEPA
1445 Ross Ave.
Dallas, TX 75202

Attn: Bill Hurlbut (6WQ-SG)

RE: **Jicarilla 30 #5 SWD**
UIC Permit #06SNMJ1P9071
Permit Modification for Injection Pressure Increase

Dear Bill,

A step-rate test was conducted on the Jicarilla 30 #5 SWD on November 8, 2003. Two tests were concluded to show a consistent increase in parting pressure for the injected intervals. The conclusion of the analysis is that an increase in allowable surface injection pressure is warranted. The current permitted maximum surface injection pressure is 934 psi. The included data and analysis observed a fracture parting pressure of 3389 & 3394 psi. ConocoPhillips Company requests approval to modify the above-mentioned UIC permit to allow a maximum surface injection pressure of 1500 psi.

Both tests were conducted consistently. Each started at the minimum allowable pump rate of 0.7 bpm. Seven steps were conducted on each test. The steps were fifteen minutes in length with an increase of 0.5 bpm. A bottom hole pressure gauge was run in accordance with compliance to ascertain exact bottom hole pressure data. Step-rate test #1 observed an estimated fracture parting pressure of 3389 psi. Step-rate test #2 observed an estimated fracture parting pressure of 3394 psi. The BHP gauge depth was 5254', the Injection liquid was 2% KCl and Liquid Gradient was 0.438 psi/ft. The surface pressure and pumping data, as well as the BHP gauge data, was previously submitted to the EPA electronically on January 16, 2004.

If you have any questions or need additional information, please contact me at (832) 486-2329 or by email at yolanda.perez@conocophillips.com.

Sincerely,

Yolanda Perez
Sr. Regulatory Analyst
Mid America Business Unit

CC: Will Jones, NMOCD

B / Sec 32 / 25 N / 4W

ConocoPhillips Company
Jicarilla 30-#5 SWD
Mesa Verde Formation
Test Summary & Conclusion

SWD-807
4672-5326
934 psi 7/23/01
30-039-20460

A step-rate test was conducted on the Jicarilla 30 #5 SWD on November 8, 2003. Two tests were concluded to show a consistent increase in parting pressure for the injected intervals. The conclusion of the analysis is that an increase in allowable surface injection pressure is warranted. The current permitted maximum surface injection pressure is 934 psi. The included data and analyses observed a fracture parting pressure of 3389 & 3394 psi. ConocoPhillips Company agrees with the third party, Schlumberger, recommendation of 1088 psi surface injection.

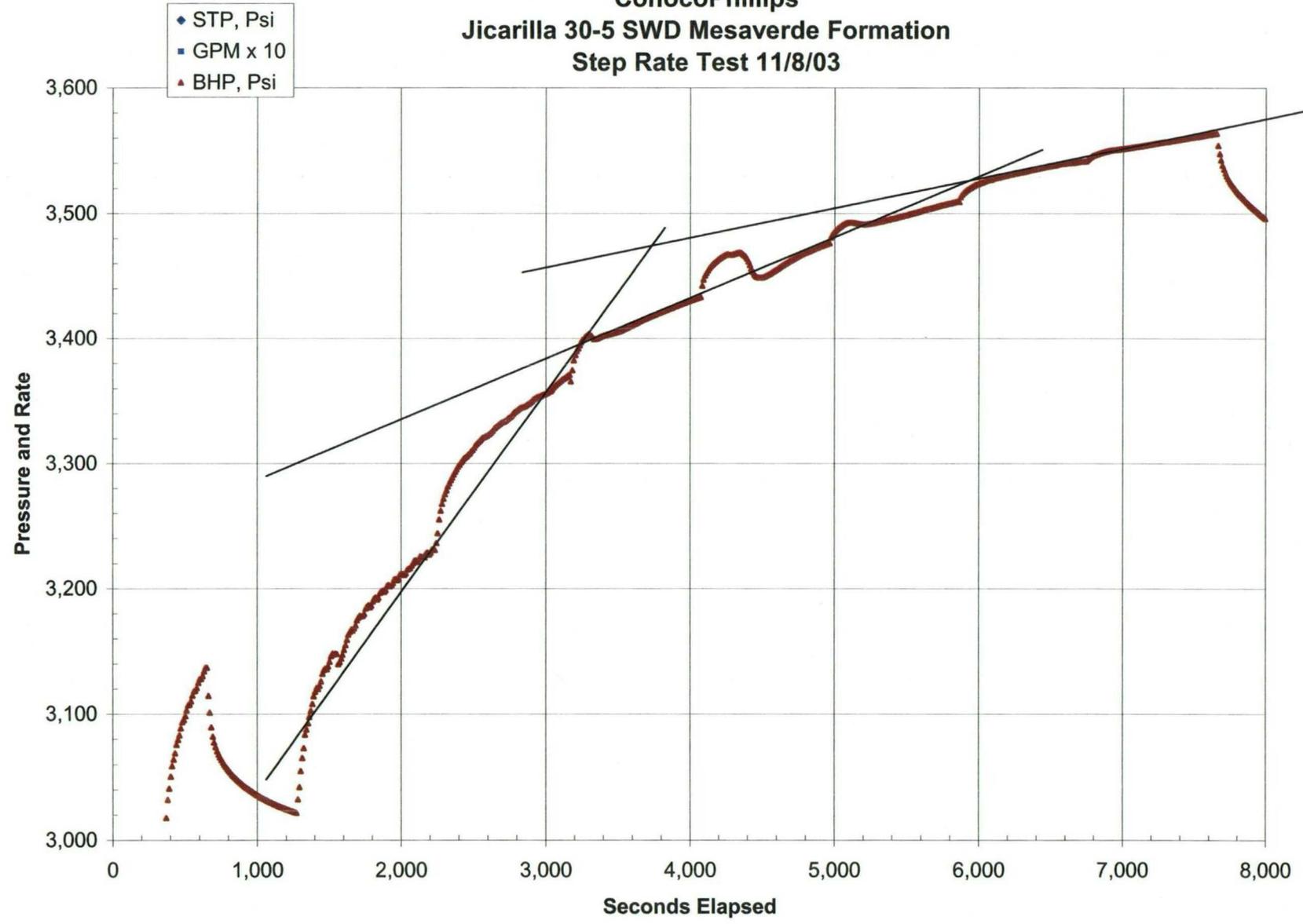
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BHP gauge depth: 5254'

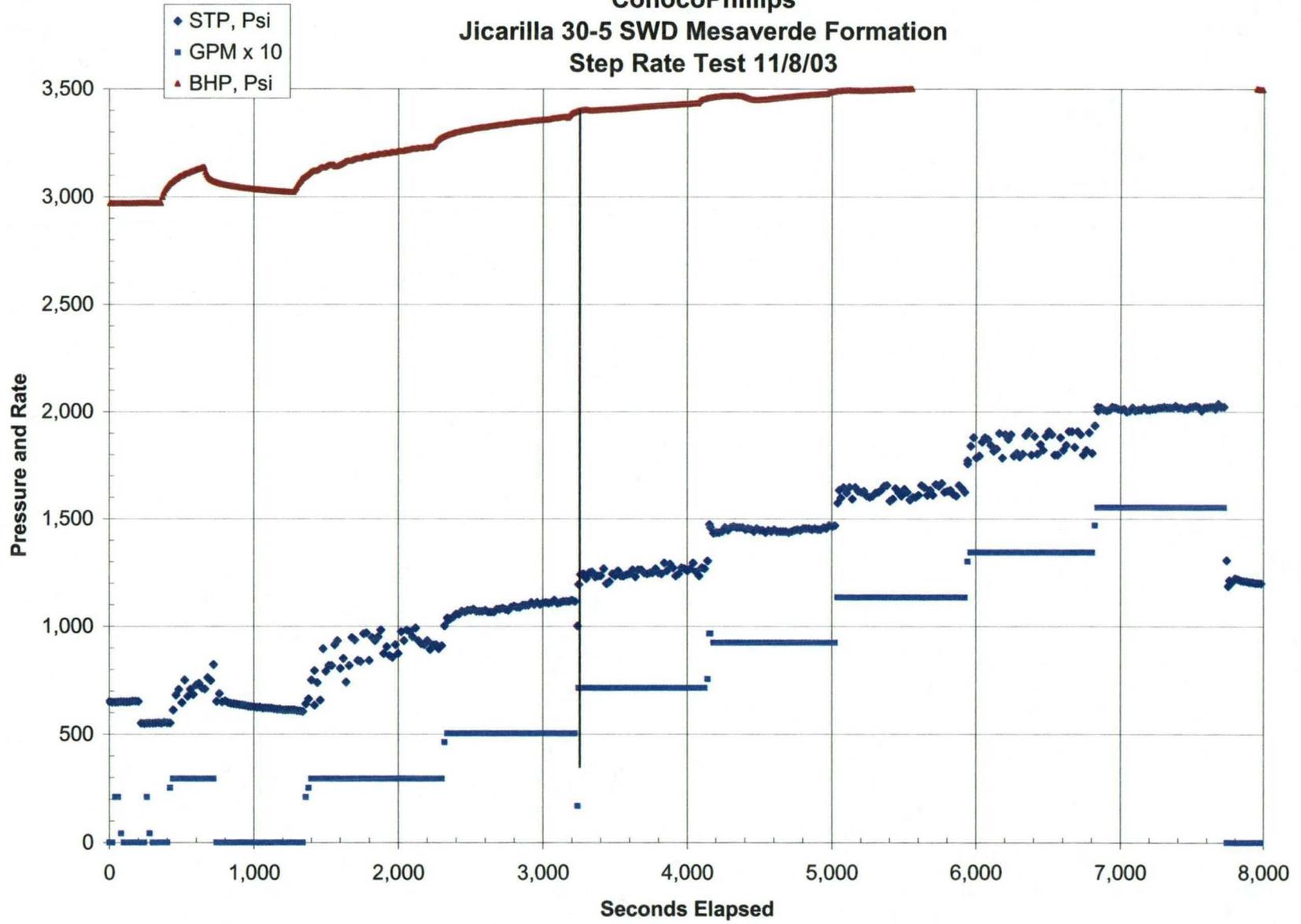
Injection liquid: 2% KCl

Liquid Gradient: 0.438 psi/ft

ConocoPhillips
Jicarilla 30-5 SWD Mesaverde Formation
Step Rate Test 11/8/03



ConocoPhillips
Jicarilla 30-5 SWD Mesaverde Formation
Step Rate Test 11/8/03

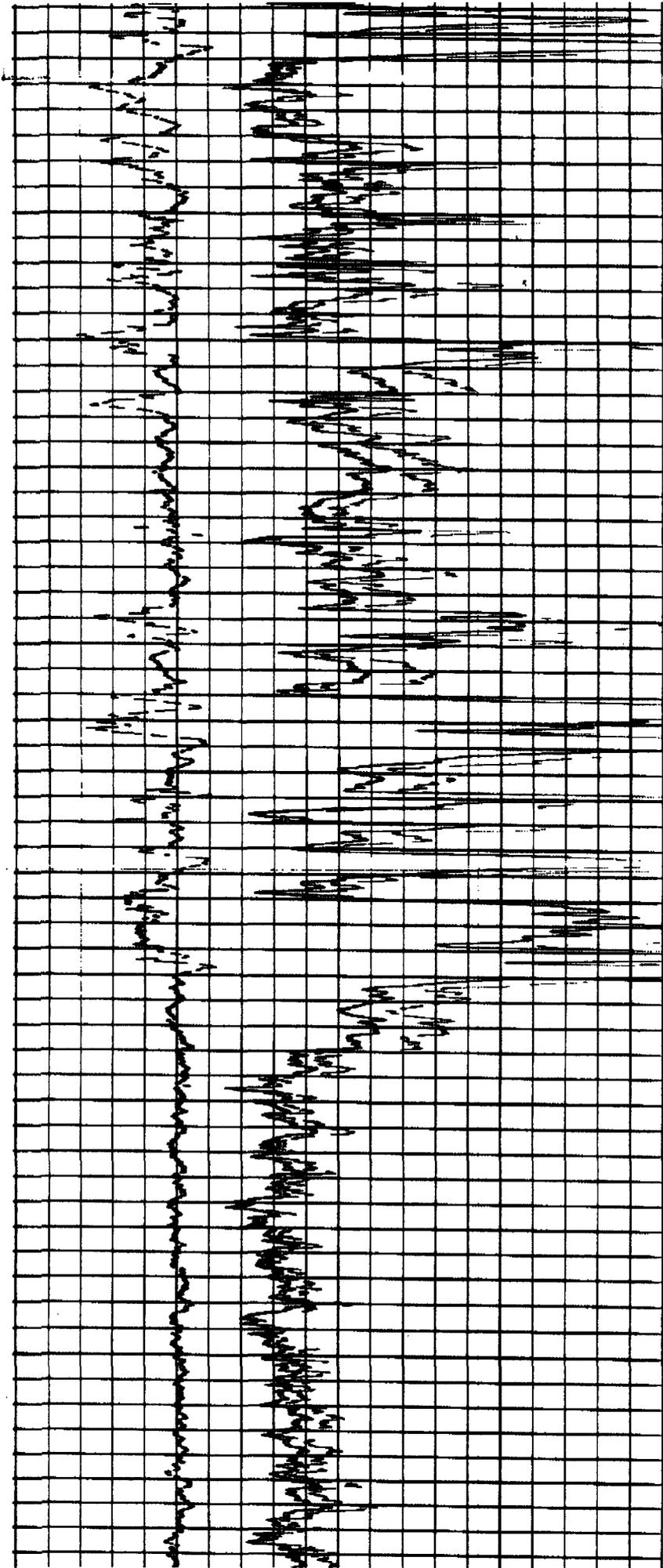


WELL <u>JICARILLA 30 #5</u>	
FIELD <u>WEST LINDRITH</u>	
COUNTY <u>RIO ARRIBA</u> STATE <u>NEW MEXICO</u>	
LOCATION: <u>NW NE</u>	Other Services <u>NONE</u>
SEC <u>32</u> TWP <u>25N</u> RGE <u>4W</u>	
Permanent Datum <u>G.L.</u> Elev. <u>6855</u>	Elevations: KB <u>6869</u>
Log Measured from <u>K.B.</u> <u>14.0</u> Ft. Above Permanent Datum	DF _____
Drilling Measured from <u>K.B.</u>	GL <u>6855</u>
Date	<u>2-13-72</u>
Run No.	<u>ONE</u>
Depth—Driller	<u>7520</u>
Depth—Logger	<u>7525</u>
Bottom Logged Interval	<u>7523</u>
Top Logged Interval	<u>190</u>
Casing—Driller	<u>8 5/8 @ 238 @ @ @</u>
Casing—Logger	<u>243</u>
Bit Size	<u>7 7/8</u>
Type Fluid in Hole	<u>FGM</u>
Density and Viscosity	<u>9.0 54</u>
pH and Fluid Loss	<u>8.0 6.8 cc cc cc cc</u>
Source of Sample	<u>FLOWLINE</u>
Rm @ Meas. Temp.	<u>2.2 @64 °F @ °F @ °F @ °F</u>
Rmf @ Meas. Temp.	<u>1.8 @64 °F @ °F @ °F @ °F</u>
Rmc @ Meas. Temp.	<u>2.6 @64 °F @ °F @ °F @ °F</u>
Source of Rmf and Rmc	<u>MEASURED</u>
Rm @ BHT	<u>0.94 @150 °F @ °F @ °F @ °F</u>
Time Since Circ.	<u>4 HRS.</u>
Max. Rec. Temp. Deg. F.	<u>150 °F °F °F °F</u>
Equip. No. and Location	<u>6080 FARM.</u>
Recorded By	<u>DICKERSON - KNOTSMAN</u>
Witnessed By	<u>MR. SCOTT</u>

Gamma Ray	Run No.	<u>ONE</u>	Equipment Data	Run No.	<u>ONE</u>	Densilog
	Tool Model No.	<u>1305</u>		Tool Model No.	<u>2207</u>	
	Serial No.	<u>69</u>		Serial No.	<u>405</u>	
	Diam.	<u>3 5/8"</u>		Diam.	<u>5"</u>	
	Detect. Model No.	<u>D4G1</u>		Computer Model No.	<u>2254</u>	
	Type	<u>SCINT.</u>		Serial No.	<u>-</u>	
	Length	<u>4"</u>		Source Model No.	<u>S3T20</u>	
	Dist. to Source			Serial No.	<u>317</u>	
				Computer Data		
				General		
		Hoist Truck No.	<u>HL6080</u>			
		Auxiliary Equipment				

General				Gamma Ray				Logging Data			
Run No.	From	To	Speed Ft./Min.	T.C. Sec.	Sens. Settings	Zero Div. I or R	API G.R. Units Per Log Div.	T.C. Sec.	Density Scale	Col	
<u>1</u>	<u>7523</u>	<u>243</u>	<u>25</u>	<u>3.0</u>	<u>330 X1</u>	<u>0</u>	<u>20</u>	<u>3.0</u>	<u>2 - 3</u>	<u>F</u>	

POTO HERE



5000

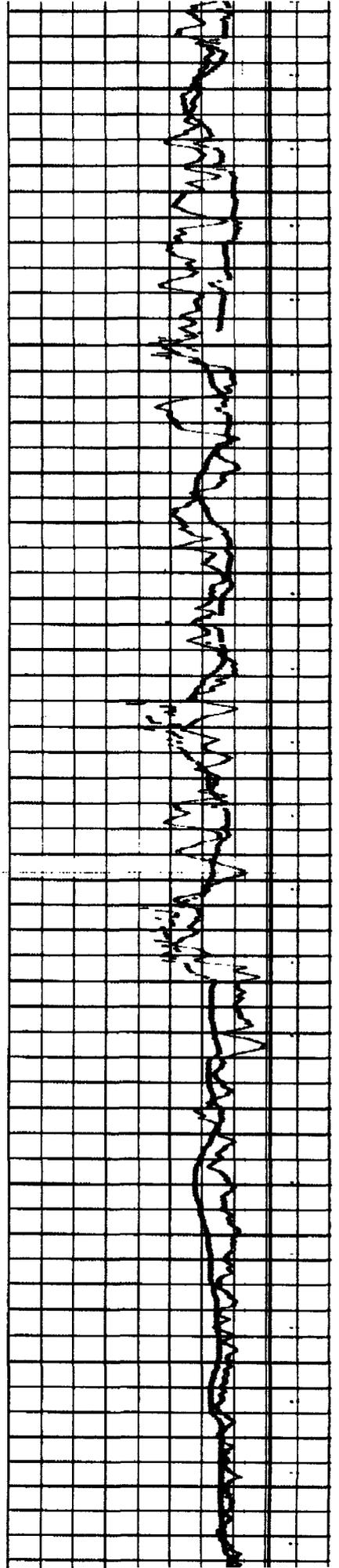
4900

4800

4700

4600

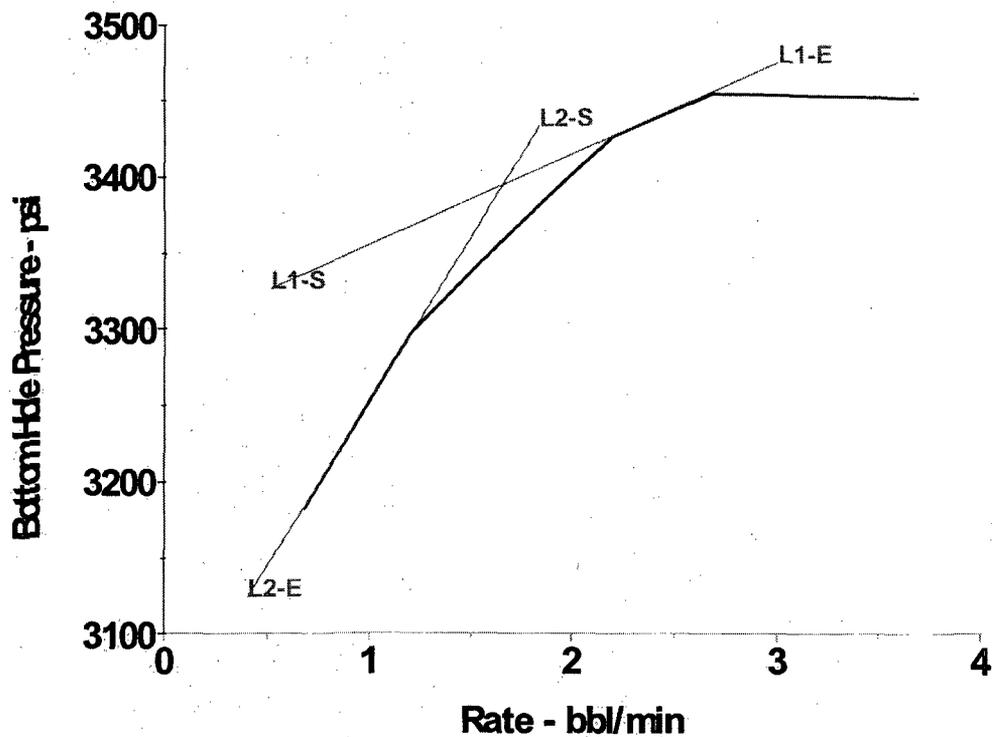
4500



Step-Rate Test #1

The test started at an injection rate of 0.7 bpm. Seven steps were conducted each a consistent 0.5 bpm increase. Please see the included data for this test.

Pressure vs. Rate Plot

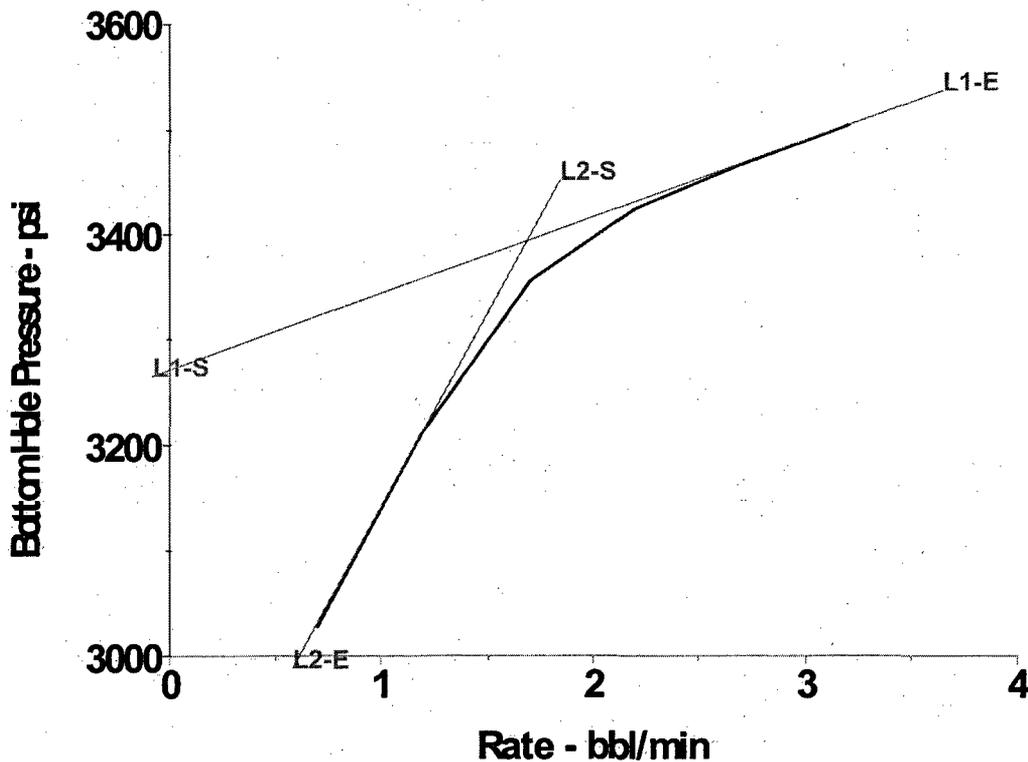


Lines L1-S & L2-S are based upon the inflection point of the rate vs. bottom hole pressure curve. The point of intersection defines the estimated fracture parting pressure, 3389 psi.

Step-Rate Test #2

The test started at an injection rate of 0.7 bpm. Seven steps were conducted each a consistent 0.5 bpm increase. Please see the included data for this test.

Pressure vs. Rate Plot STR2



The second test illustrates the fracture parting pressure as 3394 psi.

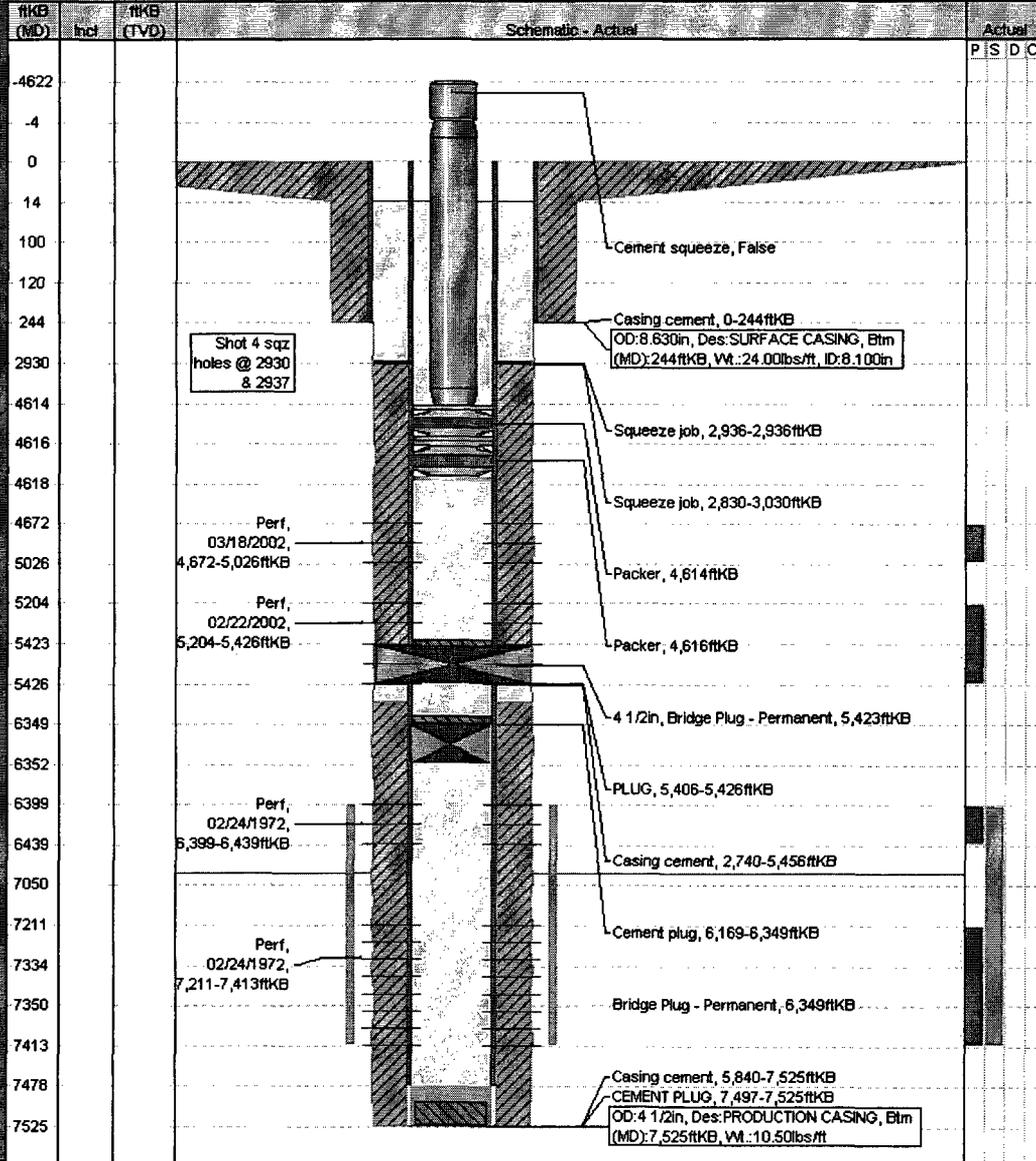
Conclusion

The step-rate test on the Jicarilla 30-#5 was performed to illustrate the increase fracture parting pressure for the current injection of produced field water. The fracture parting pressure is estimated to be 3389 psi. The project used 2% KCL which has a specific gravity of 1.012 ppg. This extrapolates a surface treating pressure of 1088 psi.

Current Schematic

AP#(UOH)	Well Name	Area	Operator	County	State/Province
300392046000	NEW LEMPH CALLERSON	SOUTH		RIO ARRIBA	NEW MEXICO
KI Elevation (ft)	Ground Elevation (ft)	Casing Flange Elevation (ft)	KI-Ground Distance (ft)	KI-Casing Flange Distance (ft)	Spud Date
6869.00	6855.00	0.00	14.00	6869.00	02/01/1972

Main Hole: 05/14/2002



Convert to Salt Water Disposal Procedure
Jicarilla 30-5

Objective: To convert the well from its current state of temporarily abandoned Gallup/Dakota producer to a saltwater disposal well in the Mesa Verde. The well will need to be perforated in the Mesa Verde, a step rate test completed, stimulated if necessary, and tubing and packer installed.

Well Information:

Production Casing: 4 1/2" 10.5 lb/ft set at 7525'
Capacity - .01594 bbls/ft or .6698 gals/ft
Drift diameter 3.927"

Current Perfs: Gallup 6399' – 6439'
Dakota 7211' – 7413'

Proposed Tubing: 2 3/8" to 4550'
Capacity - .00387 bbls/ft or .1626 gals/ft

Proposed Perfs: Mesa Verde
Cliffhouse Member: 4672'-78', 4680'-96',
Menefee Member: 4752'-58', 4772'-82', 4816'-
26', 4846'-64', 4894'-4904', 4912'-16', 4930'-
40', 4996'-5000', 5008'-28', 5176'-82',
Point Lookout Member: 5204'-24', 5234'-44',
5278'-98', 5306'-26'

Procedure:

1. Rig up pulling unit.
2. Install BOP
3. Pressure test casing to 1500 psi.
4. RIH with 2 3/8" tubing to 5400' and circulate hole clean. Note: all fluid used in this procedure should be clean produced water.
5. Pull tubing up to 3000' and swab fluid level to that point. POOH.
6. Rig up perforating company with lubricator.
7. Perforate Point Lookout Interval of the Mesa Verde and the lowest section of the Menefee (5176') with 4 shots per foot.
8. Rig up a pump truck and begin pumping clean produced water into the perforations at 1/4 BPM, continue increasing injection rate in 1/8 BPM increments (with each step being at least 5 minutes in duration or longer if necessary to get a stabilized rate and pressure) until a clear change in slope of the pressure rate curve occurs. Take at least two step beyond the break point before concluding the test. Record the pressure and rate

JICARILLA 30 5 Proposed SWD Completion (300392046000)

4/10/2001

Tubing String - Primary Tubing								
Grd	Item (In)	Comments	ID (In)	Thd	Jnts	Len (ft)	Top (ftKB)	Wt
	2.3740 in Tubing		1.9961			4550.0	0.0	4.60
Formation/Horizon Tops								
Formation							Top (ftKB)	
Ojo Alamo							2492.0	
Pictured Cliffs							3021.0	
Chacra							3884.0	
Mesaverde							4670.0	
Mancos							5644.0	
Gallup							6344.0	
Dakota							7208.0	
Other (plugs, equip., etc.) - Plug Backs								
Int (ftKB)		Item	Comments				Date	
7497.0 - 7525.0		Cement Plug	6/17/91 Tag Fill @ 7450' (47' Fill) Did not clean out				2/23/1972	
Other (plugs, equip., etc.) - Temporary Abandonment								
Int (ftKB)		Item	Comments				Date	
6349.0 - 6350.0		C.I.B.P.					2/12/2001	
7061.0 - 7161.0		Cement Plug					2/12/2001	
7161.0 - 7162.0		C.I.B.P.					2/8/2001	
Other (plugs, equip., etc.) - Injection Packer								
Int (ftKB)		Item	Comments				Date	
4550.0 - 4553.0		Packer					6/1/2001	
Stimulations & Treatments								
Int		Zone	Comments		Type	Date	Fluid	
7211.0 - 7413.0		Dakota	Acid w/ 1500 G + 40 BS. Balled off @ 4000#		Acid Squeeze	2/24/1972	15% HCL	
7211.0 - 7413.0		Dakota	4000 G pad gel water. Frac w/ 58,760 G 1% KCL + 77,000# 10/20 sd. AIR= 41 bpm @ 3300# ISIP 2000#		Fracture	2/24/1972	Water	
6399.0 - 6439.0		Gallup	Acid w/ 500 G + 30 BS. Balled off		Acid Squeeze	2/25/1972	15% HCL	
6399.0 - 6439.0		Gallup	2,000 G pad gel water. Frac w/ 32,450 G 1% KCL + 31,600# 10/20 sd. AIR= 35 bpm @ 3000# ISIP 800#		Fracture	2/25/1972	Water	
6399.0 - 7413.0		Gallup/Dako	Dumped 500 G - flush with 10 bbls water		Acid Dump	12/7/1989	15% HCL	
Logs Run								
Int		Comments			Company	Type	Date	
200.0 - 7523.0					Dresser	IND DENS	2/12/1972	
2700.0 - 7485.0					Gearhart	GR-CBL	2/22/1972	
6000.0 - 7520.0					McCullough	GR-C	5/2/1979	