



**PHILLIPS PETROLEUM COMPANY**

FARMINGTON, NEW MEXICO 87401  
5525 HWY. 64 NBU 3004

September 17, 1992

RE: Step Rate Test  
San Juan 32-8 Unit SWD #303

State of New Mexico  
Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division  
1000 Rio Brazos Road  
Aztec, NM 87410

**RECEIVED**  
SEP 17 1992  
OIL CON. D<sup>IV</sup>

ATTN: Frank Chavez

Dear Mr. Chavez,

The San Juan 32-8 Unit SWD #303 Step-Rate Test results, as witnessed by OCD representatives Dianna Fairhurst and Charles Gholson on September 15, are enclosed for your review. The rate, surface pressure, and bottomhole pressure were all directly measured. Based on this data, Phillips Petroleum requests a maximum authorized injection pressure limit of 3200 psi.

The 32-8 SWD #303 tubular design is a 5-1/2" by 4-1/2" tapered casing and 2-7/8" IPC injection tubing. The friction pressure generated by the 2-7/8" is much greater than that generated by the 3-1/2" tubing normally run in injection wells. As apparent from the enclosed graph, a pressure limit of 3200 psi is below the fracture initiation pressure based on the straight-line injection behavior. In fact, the corresponding measured BHP of 4600 psi is well below the estimated bottomhole fracture pressure of 5800 psi.

This injection well is critical to Phillips operations in the San Juan 32-8 Unit. This area tends to have tighter injection sands but also some of the highest coal seam water production per well. A 3200 psi maximum injection pressure will aid Phillips in disposing of the large volumes of produced coal seam water, possibly avoiding the drilling of an additional disposal well in this unit.

Your consideration in this matter is appreciated. Please contact Mike Larimer at 599-3459 if there are any questions.

Sincerely,

PHILLIPS PETROLEUM COMPANY

*Robert G. Flesher*  
Robert G. Flesher  
Area Manager

*FMX*  
RGF:TML

cc: Dave Catanach, NMOCD, Santa Fe

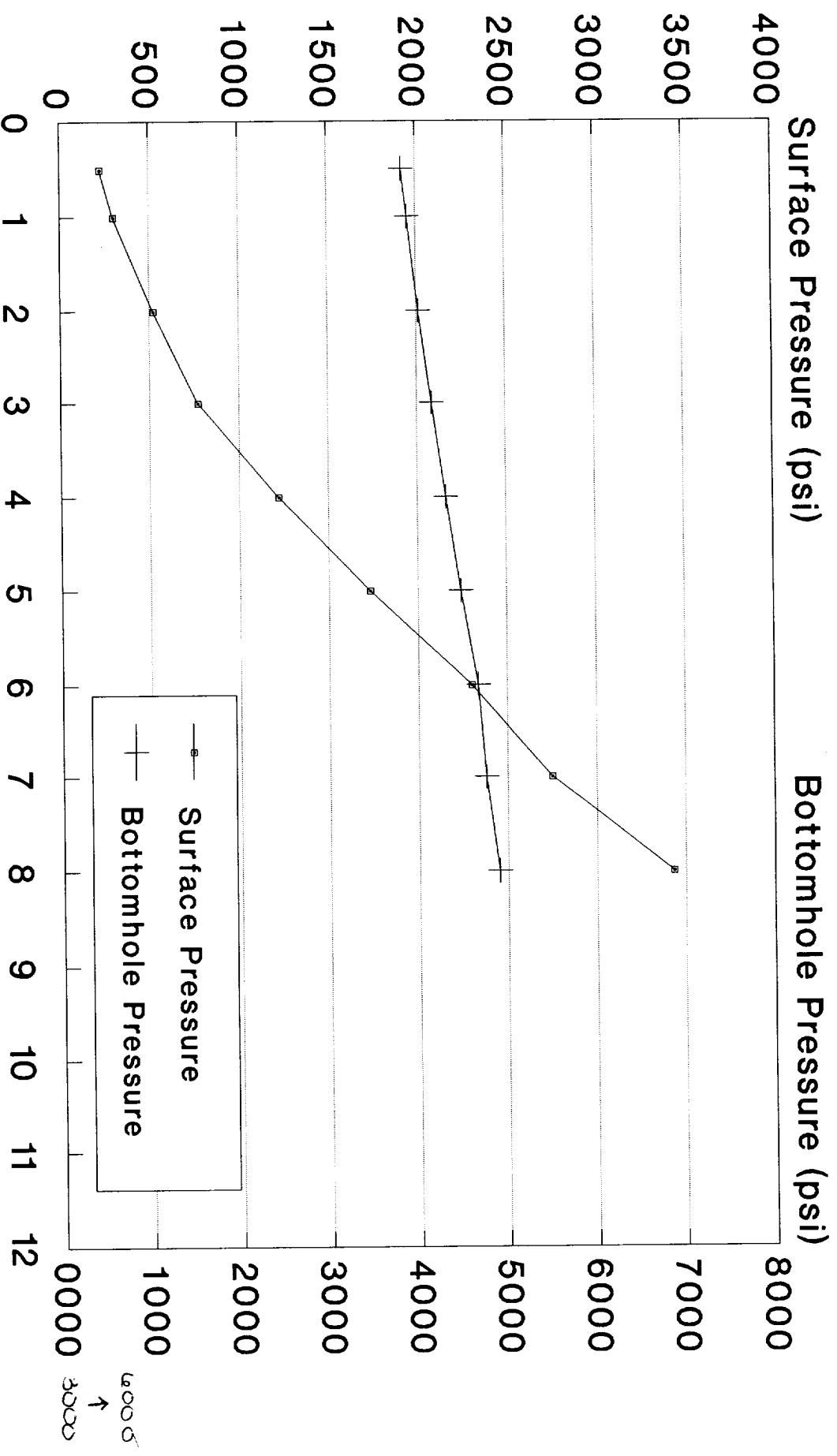
DATA TABLE

RATE (BPM)	Surface Pressure (psi)	Bottomhole Pressure (psi)
0.5	225	3844
1.0	300	3905
2.0	520	4026
3.0	770	4170
4.0	1220	4321
5.0	1730	4482
6.0	2300	4675
* 7.0	2750	4757
8.0	3430	4903

PUMP RATED @ 3000 psi - SURFACE  
MAX

# San Juan 32-8 SWD #303

## Step Rate Test (9/15/92)



AFFIDAVIT OF PUBLICATION

No. 30024

STATE OF NEW MEXICO,  
County of San Juan:

CHRISTINE HILL being duly  
sworn, says: "That she is the  
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First Publication FRIDAY, SEPTEMBER 11, 1992

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Christine Hill

Subscribed and sworn to before me  
this 14<sup>th</sup> day of  
SEPTEMBER, 1992.

Connie Andrae

Notary Public, San Juan County,  
New Mexico

My Comm expires: July 3, 1993

COPY OF PUBLICATI

LEGAL NOTICE

Notice is hereby given  
of the application of  
Phillips Petroleum  
Company.

Attention: R.G.  
Flesher, Area Manager,  
5525 Hwy 64 NBU 3004,  
Farmington, New Mexico  
87401, Telephone (505)  
599-3401, to the Oil  
Conservation Division,  
New Mexico Energy and  
Minerals Department, for  
approval of the following  
well for the purpose of  
saltwater disposal.

Well No. 303

Unit Name:

San Juan 32-8 Unit

Location:

Section 14, T-31-N,

R-8-W, San Juan

County, New Mexico

The disposal forma-  
tion is Morrison, Bluff,  
Entrada and Chinle at an  
approximate depth  
between 8510-9210 feet  
below the surface of the  
ground. Expected maxi-  
mum disposal rate is  
6,000 barrels per day and  
expected maximum injec-  
tion pressure is 2700  
pounds per square inch.

Interested parties  
must file objections or  
request for hearing with  
the Oil Conservation  
Division, P.O. Box 2088,  
Santa Fe, New Mexico  
87501, within fifteen days  
of this publication.

Legal No 30024 pub-  
lished in the Farmington  
Daily Times, Farmington,  
New Mexico on Friday,  
September 11, 1992.