STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

WFX-621

pPEV0020600621

November 30, 1994

Texaco Exploration & Production, Inc.
P.O. Box 730
Hobbs, New Mexico 88241

Attn: Ms. Darlene de Aragao

RE: Injection Pressure Increase West Dollarhide Drinkard Unit Waterflood Project, Lea County, New Mexico

Dear Ms. de Aragao:

Reference is made to your request dated October 14, 1994 to increase the surface injection pressure on the above referenced well. This request is based on a step rate test conducted on October 4, 1994. 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 Surface Injection Pressure**
West Dollarhide Drinkard Well No.68 Unit Letter M, Section 32, Township 24 South, Range 38 East	1310 PSIG
This well located in Lea 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

cc: Oil Conservation Division - Hobbs
Files: WFX-621; PSI-X 4th QTR 94
2nd

Texaco E & P
PO Box 730
Hobbs NM 88241-0730
505 393 7191

October 14, 1994

New Mexico Oil Conservation Division
PO Box 2088
Santa Fe NM 87504

Attn: Mr. David Catanach
Engineer, New Mexico Oil Conservation Division

Re: PRESSURE INCREASE
West Dollarhide Drinkard Unit # 68 M-32-24-38
T-24-S, R-38-E SEC 32
Lea County, New Mexico

Dear David:

Texaco Exploration and Production Inc. requests an increase in the maximum allowable pressure on West Dollarhide Drinkard Unit #68 from 1271 psi to 1393 psi. A step rate injection test was run on October 4, 1994. Results of the test are attached.

If you have any questions concerning this request, please contact me at 397-0424. Thank you for your assistance in this matter.

Yours very truly,

Darlene de Aragao

Darlene de Aragao
Production Engineer

/ddd
Chrono
Attachments

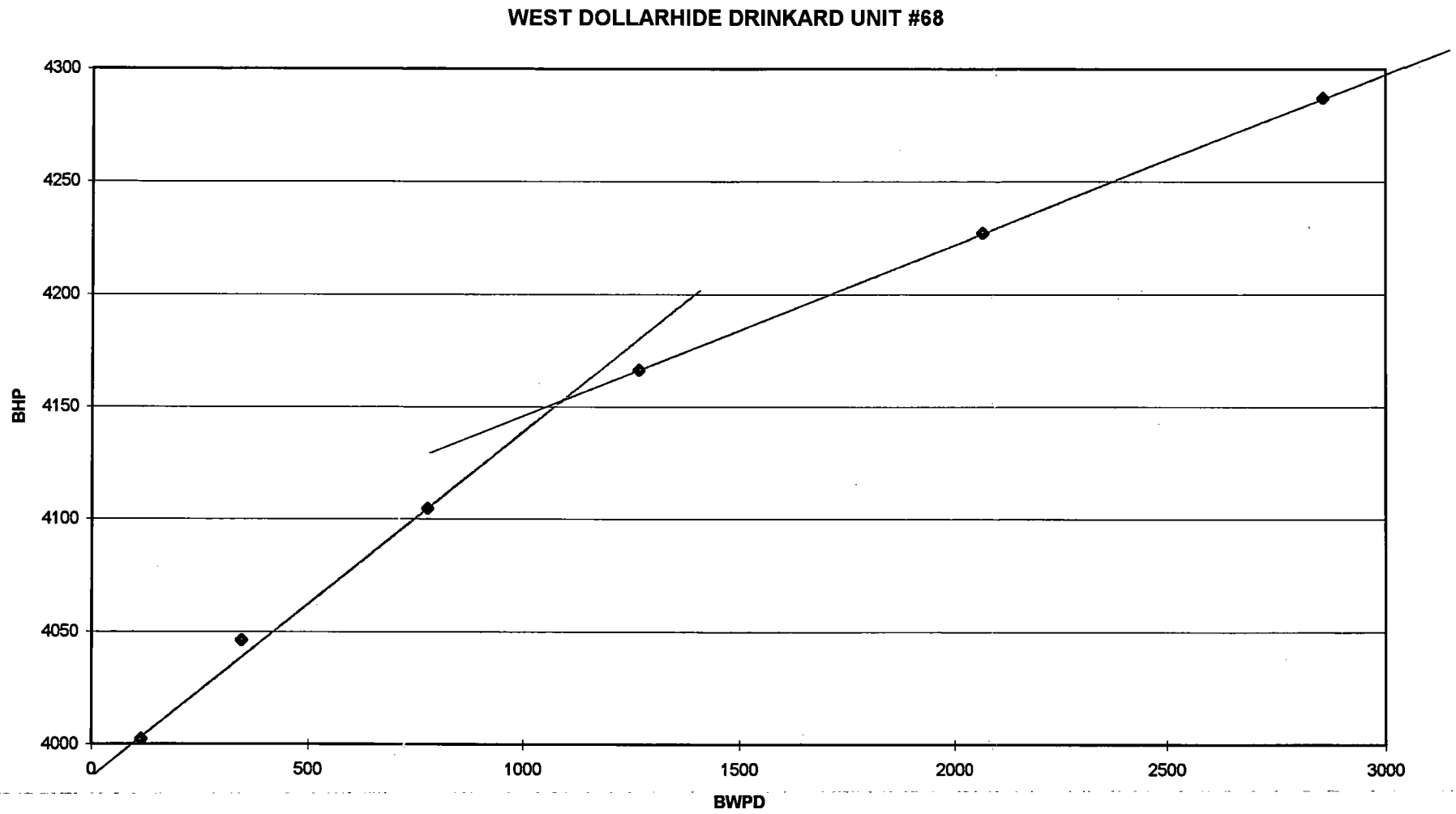
WFX-621

WELL NAME	PRESENT MAXIMUM ALLOWABLE SURFACE PRESSURE	BHFP	STFP	FRICTION *	REQUESTED MAXIMUM ALLOWABLE SURFACE PRESSURE
WDDU 68	1271	4150	1360	33	1393

BHFP=BOTTOM HOLE FRAC PRESSURE
STFP=SURFACE TREATING FRAC
PRESSURE
FLUID GRADIENT=.450
DBG=DEPTH OF BOTTOM HOLE GAGE

STFP=BHFP-(.450xDBG)

*FRICTION PRESSURE CALCULATED
@ 500 BWPD


WEST DOLLARHIDE DRINKARD UNIT #68
BHP
4300
4250
4200
4150
4100
4050
4000
0
500
1000
1500
2000
2500
3000
BWPD

WEST-TEST, INC.

A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY

Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION AND PRODUCTION

DATE: OCTOBER 4, 1994

WELL NAME: WEST DOLLARHIDE DRINKARD UNIT NO. 68
LEA COUNTY, NEW MEXICO

WO#: 94-14-1741

PERFS = 6357-6424

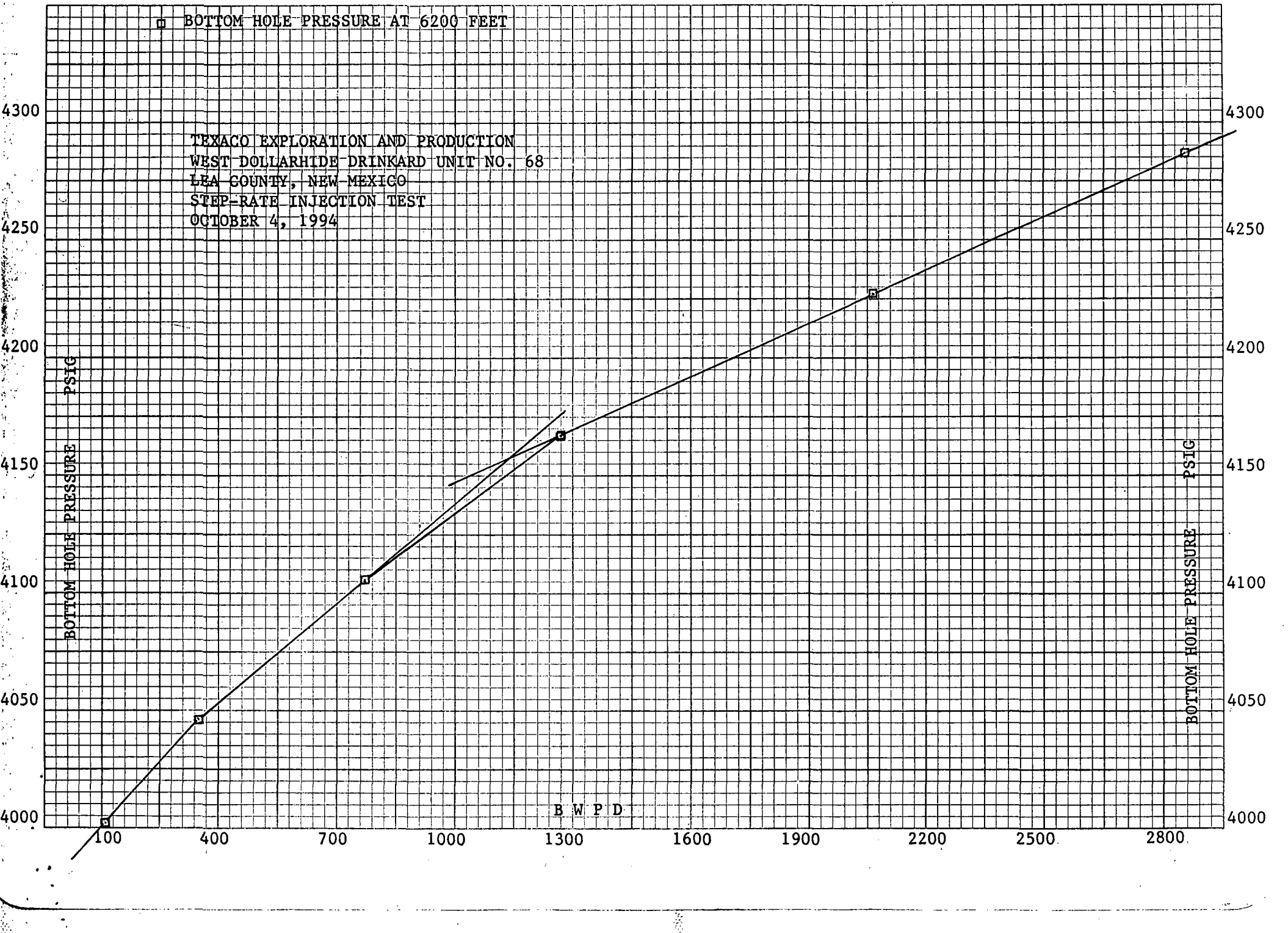
PACKER DEPTH = 6337

BHP GAUGE DEPTH = 6200

STEP NO. & REMARKS	TIME	(1) SURFACE TUBING PRESS (psig)	(2) CUMMULATIVE VOL INJECTED (bbls)	(3) INJECTION RATE (bbls/day)	(4) FRICTION HEAD LOSS (psi)	(5) CORRECTED TUBING PRESS (psi) (1)-(4)	(6) INJECTION RATE (gpm) (3)/34.2857	(7) MEASURED BHP (psi)
	8:50	1175.6				1175.6		3985.1
	8:55	1183.1	0.4	115.2	0.864	1182.2	3.36	3987.5
	9:00	1185.6	0.7	86.4	0.507	1185.1	2.52	3993.3
	9:05	1186.8	1.1	115.2	0.864	1185.9	3.36	3996.2
	9:10	1188.2	1.5	115.2	0.864	1187.3	3.36	3996.9
	9:15	1190.8	1.9	115.2	0.864	1189.9	3.36	3997.2
	9:20	1192.0	2.3	115.2	0.864	1191.1	3.36	3998.8
	9:25	1193.2	2.7	115.2	0.864	1192.3	3.36	4000.0
	9:30	1193.3	3.0	86.4	0.507	1192.8	2.52	4000.9
	9:35	1195.7	3.4	115.2	0.864	1194.8	3.36	4001.4
	9:40	1197.0	3.8	115.2	0.864	1196.1	3.36	4001.9
	9:45	1197.0	4.2	115.2	0.864	1196.1	3.36	4002.0
1	9:50	1197.0	4.6	115.2	0.864	1196.1	3.36	4002.4
				110.4				
	9:55	1232.0	1.2	345.6	6.594	1225.4	10.08	4018.9
	10:00	1224.7	2.4	345.6	6.594	1218.1	10.08	4023.7
	10:05	1238.4	3.7	374.4	7.647	1230.8	10.92	4026.0
	10:10	1237.2	4.9	345.6	6.594	1230.6	10.08	4028.4
	10:15	1242.1	6.1	345.6	6.594	1235.5	10.08	4030.8
	10:20	1238.4	7.3	345.6	6.594	1231.8	10.08	4033.1
	10:25	1232.1	8.6	374.4	7.647	1224.5	10.92	4035.5
	10:30	1238.4	9.8	345.6	6.594	1231.8	10.08	4037.2
	10:35	1237.1	11.0	345.6	6.594	1230.5	10.08	4038.3
	10:40	1235.9	12.2	345.6	6.594	1229.3	10.08	4040.1
	10:45	1238.4	13.4	345.6	6.594	1231.8	10.08	4044.4
2	10:50	1238.4	14.6	345.6	6.594	1231.8	10.08	4046.3
				350.4				

STEP NO. & REMARKS	TIME	(1) SURFACE TUBING PRESS. (psig)	(2) CUMMULATIVE VOL. INJECTED (bbls)	(3) INJECTION RATE (bbls/day)	(4) FRICTION HEAD LOSS (psi)	(5) CORRECTED TUBING PRESS. (psi) (1) – (4)	(6) INJECTION RATE (gpm) (3)/34.2857	(7) MEASURED BHP (psi)
	10:55	1338.2	17.3	777.6	29.560	1308.6	22.68	4060.9
	11:00	1347.0	20.0	777.6	29.560	1317.4	22.68	4069.5
	11:05	1340.7	22.7	777.6	29.560	1311.1	22.68	4074.7
	11:10	1349.5	25.4	777.6	29.560	1319.9	22.68	4080.5
	11:15	1368.2	28.0	748.8	27.566	1340.6	21.84	4082.9
	11:20	1355.7	30.7	777.6	29.560	1326.1	22.68	4086.9
	11:25	1358.2	33.4	777.6	29.560	1328.6	22.68	4089.9
	11:30	1365.7	36.1	777.6	29.560	1336.1	22.68	4092.8
	11:35	1380.6	38.8	777.6	29.560	1351.0	22.68	4095.7
	11:40	1356.9	41.5	777.6	29.560	1327.3	22.68	4099.4
	11:45	1381.9	44.1	748.8	27.566	1354.3	21.84	4099.7
3	11:50	1376.9	46.8	777.6	29.560	1347.3	22.68	4104.8
				772.8				
	11:55	1531.7	51.4	1324.8	79.210	1452.5	38.64	4125.1
	12:00	1561.6	55.6	1209.6	66.941	1494.7	35.28	4133.6
	12:05	1555.4	60.0	1267.2	72.957	1482.4	36.96	4138.6
	12:10	1560.3	64.4	1267.2	72.957	1487.3	36.96	4142.4
	12:15	1577.8	68.8	1267.2	72.957	1504.8	36.96	4147.8
	12:20	1571.6	73.2	1267.2	72.957	1498.6	36.96	4150.5
	12:25	1576.6	77.7	1296.0	76.054	1500.5	37.80	4153.9
	12:30	1590.3	82.1	1267.2	72.957	1517.3	36.96	4155.7
	12:35	1579.1	86.5	1267.2	72.957	1506.1	36.96	4159.9
	12:40	1576.6	90.9	1267.2	72.957	1503.6	36.96	4160.7
	12:45	1586.5	95.3	1267.2	72.957	1513.5	36.96	4162.4
4	12:50	1591.5	99.7	1267.2	72.957	1518.5	36.96	4166.5
				1269.6				
	12:55	1965.9	106.9	2073.6	181.445	1784.5	60.48	4186.9
	1:00	1967.1	114.0	2044.8	176.811	1790.3	59.64	4194.0
	1:05	1978.4	121.2	2073.6	181.445	1797.0	60.48	4198.8
	1:10	1975.9	128.4	2073.6	181.445	1794.5	60.48	4203.5
	1:15	1983.4	135.7	2102.4	186.135	1797.3	61.32	4208.2
	1:20	1990.8	142.8	2044.8	176.811	1814.0	59.64	4215.3
	1:25	1990.8	150.0	2073.6	181.445	1809.4	60.48	4217.7
	1:30	1985.8	157.2	2073.6	181.445	1804.4	60.48	4220.1
	1:35	1990.8	164.4	2073.6	181.445	1809.4	60.48	4222.4
	1:40	1989.6	171.6	2073.6	181.445	1808.2	60.48	4224.8
	1:45	1984.6	178.7	2044.8	176.811	1807.8	59.64	4226.1
5	1:50	1994.6	185.8	2044.8	176.811	1817.8	59.64	4227.2
				2066.4				

STEP NO. & REMARKS	TIME	(1) SURFACE TUBING PRESS. (psig)	(2) CUMMULATIVE VOL. INJECTED (bbls)	(3) INJECTION RATE (bbls/day)	(4) FRICTION HEAD LOSS (psi)	(5) CORRECTED TUBING PRESS. (psi) (1) – (4)	(6) INJECTION RATE (gpm) (3)/34.2857	(7) MEASURED BHP (psi)
	1:55	2523.3	195.6	2822.4	320.959	2202.3	82.32	4238.6
	2:00	2534.6	205.5	2851.2	327.044	2207.6	83.16	4246.3
	2:05	2548.4	215.5	2880.0	333.181	2215.2	84.00	4255.2
	2:10	2529.6	225.4	2851.2	327.044	2202.6	83.16	4261.3
	2:15	2532.1	235.3	2851.2	327.044	2205.1	83.16	4267.5
	2:20	2525.8	245.2	2851.2	327.044	2198.8	83.16	4271.2
	2:25	2525.8	255.1	2851.2	327.044	2198.8	83.16	4274.5
	2:30	2530.8	265.0	2851.2	327.044	2203.8	83.16	4278.0
	2:35	2544.6	275.0	2880.0	333.181	2211.4	84.00	4280.3
	2:40	2547.1	284.9	2851.2	327.044	2220.1	83.16	4282.3
	2:45	2535.8	294.8	2851.2	327.044	2208.8	83.16	4284.7
6	2:50	2547.1	304.8	2880.0	333.181	2213.9	84.00	4287.3
				2856.0				
FALLOFF	2:51	1419.3				1419.3		4256.7
	2:52	1405.6				1405.6		4250.9
	2:53	1401.8				1401.8		4246.7
	2:54	1399.3				1399.3		4243.7
	2:55	1396.8				1396.8		4241.2
	3:00	1386.8				1386.8		4231.9
	3:05	1379.3				1379.3		4223.4


BOTTOM HOLE PRESSURE AT 6200 FEET
TEXACO EXPLORATION AND PRODUCTION
WEST DOLLARHIDE DRINKARD UNIT NO. 68
LEA COUNTY, NEW MEXICO
STEP-RATE INJECTION TEST
OCTOBER 4, 1994
BOTTOM HOLE PRESSURE PSIG
BOTTOM HOLE PRESSURE PSIG
4300
4250
4200
4150
4100
4050
4000
100
400
700
1000
1300
1600
1900
2200
2500
2800
B W P D

Energy, Minerals and Natural Resources Department
Out-of-State Travel Request

1. Actuals Requested XX 2. Date of Request 11-30-94

3. Name of Person Making Trip William J. LeMay

4. Division Centers _____

5. Detailed reason for travel To attend IOGCC Meeting (see Attached)

6. Starting Point and Destination Santa Fe to Denver, Colorado

7. Date Leaving 12-15-94 Time of Departure: Estimated: 1:30 pm Actual: _____

8. Date Return 12-16-94 Time of Arrival: Estimated: 6:31 pm Actual: _____

9. Travel Expenses:

a.	Plane	____	$_____
b.	Rental	____	$_____
c.	Limousing/Parking/Misc.	____	$ 6.00
d.	Registration	____	$_____
e.	Other_____	____	$_____
f.	Personal Car	____	$ 31.25
g.	State Car	____	$_____

10. Speedometer Reading for Personal vehicles:

_____ Ending Mileage
_____ Beginning Mileage
_____ x _____ = $_____

** All other expenses paid by DOE Grant to IOGCC.

11. Per Diem:

Amount . . . . . A $_____ = _____ x _____
Rate No. of days

Amount . . . . . B $ 37.50 = 37.50 x 1
Rate No. of days

12. Total . . . . . $ 37.25

13. Traveler _____ Title Division Director, OCD

14. Approved _____
Supervisor

Date _____

15. Approved _____
Supervisor

Date 11-30-94

Travel [illegible]
Leave SF 11:30pm
12/15
Return SF 8:30pm
12/16

No funds required
pd for w/ DOE Grant to IOGCC

RECEIVED ... DIVISION
... 8 52

PACT COMMISSION
127 ■ Phone: 405/525-3556 ■ Fax: 405/525-3592

: Lands Project

CH

RE: December 16th Meeting

Final approval has been received from the Department of Energy for funding of the Public Lands Project. Therefore, the Friday, December 16th meeting in Denver, Colorado, at the Holiday Inn-(Denver Central) Stapleton located at 4040 Quebec Street, will definitely be held from 8:00 a.m. to 5:00 p.m.

There are courtesy phones in the baggage area of the airport to ring for a Holiday Inn shuttle to take you to the hotel. There will be a Continental Breakfast served from 7:00 a.m. to 8:00 a.m. at the meeting room. Lunch will be in the Blue Moose Lounge from noon to 1:00 p.m., with two breaks at the meeting room at 10:15 a.m. and 2:45 p.m.

Please contact Gidget Bullington of the IOGCC staff by no later than December 1, 1994, with your hotel reservation information, as she will make them for you. You will each make your own flight and/or travel arrangements. For airline reservations, please directly contact Jo Twibell of TransWorld Travel, Inc. of Oklahoma City at (405) 755-0906.

A binder of pertinent information will be prepared for you in advance, which you will receive at the December 16th meeting. If you have any graphs, clippings, studies, or any other information you would like to share or discuss with our Core Working Group, please send to Gidget by December 9th to include in the binder or bring 30 copies of the item with you to the meeting.

If you have any questions or concerns regarding the December 16th meeting of the Core Working Group-Public Lands Project, please contact myself or Gidget.

See you soon.

United
Leave 12/15 @ 1:30pm (1:30pm – 2:47)
Return 12/16 @ 6:31 pm (5:20 – 6:31)

CH:gb