WT-NL	State "R"	1 Sa	unders (Pennsy	lvanian) Lea	New Mexico
Province	Lease—Tract—W		eld-Pool-Producing 2		
		DRILL STEM TE			
Drill Stem Test No.		1	2	8	
Date		4-18-51	4-19-51	4-20-51	4-21-51
Name of Test Tool		Johnston	Johnston	Johnston	Johnston
Kind of Packer		8" Formation	8" formation	8" formation	8" formation
Depth of Hole		9792	9822	9852	9882
Depth-Bottom of Packer		9760	9793	9822	9852
Name—Formation Tested		Pennsylvanian	Pennsylvanian	Pennsylvanian	
Interval Tested (If Open Hole, so State; or Bottom of Perforations)	if Perforated casing, Give Top and	9760-9792	9793-9822	9822-9852	9852 - 9882
Water Load		2000*	20001	20001	20001
Chokes (Bottom and Top)		5/8" - 1"	5/8" - 1"	5/8" - 1"	5/8" - 1"
Total Length of Time Tool Open		One hour	One hour	One hour	One hour
No. of Times & Elapsed Time Tool Opened	Each Attempt	Once	Once	2	Once
Surface Reaction: Type and Elapsed Time					
(1) Air		•	**	V wk blow	V wk bl died.]
(2) Gas	~ · · · · · · · · · · · · · · · · · · ·	to surf in 1	hr Nome	None	None
(3) Water Load (Specify if Charged with	Oil or Gas)	None	Hone	None	None
(4) Drilling Mud (Specify if Cut with oil,	Gas and/or Water)	None	None	None	None
(5) Oll/Gas (Estimate or Guage Quantity	y; % B. S. & /or water)	None	None	None	Nene
(6) Water (Specify kind and if out with (Oil and/or Gas or B. S.)	None	None	None	None
Recovery Fluid in Feet from Drill Pipe					
(1) Water Load		2000' O&G out	20001	* 5	20001
(2) Mud		550' Hv 0 cut	* 5	90 * O&G out	90' Drlg.
(3) Oil and Gas		None	None	None	None
(4) Water-Kind? (i.e. Salt or Sulphur, I	Presh, etc.)	480' sulfur	* 4	None	None
BHP Flowing		1215#	3425 /	750#	826#
BHP Shut In		3325#	3450#	1100#	950#
Rate Flow Oil and Gas		None	None	None	None
Gas/Oil Ratio BS & W		None	None	None	None
REMARKS: (Should Indicate Reaction after Pair blow for 51 min pak blow * - 5 360* - 5 2000* w/c (both		pod blow for las	- 4 5640' salt		
orill Stem Test No.		5	6	7	8
Date		4-22-51	4-23-51		4-25-51
Name of Test Tool		Johnston	Johnston	Johnston	Johnston
Kind of Packer		B" formation	8" formation	8" formation	6" formation
Depth of Hole		9912	9912	9942	9972
epth—Bottom of Packer		9882	9872	9912	9942
lame-Formation Tested	· · · · · · · · · · · · · · · · · · ·	Pennsylvanian	Pennsylvanian	Pennsylvanian	Pennsylvanian
nterval Tested (If Open Hole, so State; or is Bottom of Perforations)	f Perforated easing, Give Top and	9882-9912	9872 - 9912	9912 - 9942	9942 - 9972
Vater Load		20001	2000*	20001	20001
Thokes (Rottom and Ton)		R/8" - 1"	E/07 - 17		-/

				•
Date	4-22-51	4-23-51	4-24-51	4-25-51
Name of Test Tool	Johnston	Johnston	Johnston	Johnston
Kind of Packer	B" formation	8" formation	8" formation	6" formation
Depth of Hole	9912	9912	9942	9972
Depth-Bottom of Packer	9882	9872	9912	9942
Name—Formation Tested	Pennsylvanian	Pennsylvanian	Pennsylvanian	
Interval Tested (If Open Hole, so State; or if Perforated easing, Give Top and Bottom of Perforations)	9882-9912	9872 - 9912	9912 - 9942	9942 - 9972
Water Load	20001	20001	20001	20001
Chokes (Bottom and Top)	5/8" - 1"	5/8" - 1"	5/8" - 1"	5/8" - 1"
Total Length of Time Tool Open	Packer seat	1 hour	1 hour	l hour
No. of Times & Elapsed Time Tool Opened Each Attempt	Failed - No ts]	Once	Once
Surface Reaction: Type and Elapsed Time				
(1) Air		Wk inc to fair	• 6	Strong blow
(2) Gas			5 min Mone	To surf in 40 min
(3) Water Load (Specify If Charged with Oil or Gas)		None	None	Surf in 40 min.
(4) Drilling Mud (Specify if Cut with oil, Gas and/or Water)		None	None	None
(5) Oil/Gas (Estimate or Guage Quantity; % B. S. & /or water)		None	None	. 7
(6) Water (Specify kind and if cut with Off and/or Gas or B. S.)		None	None	None
Recovery Fluid in Feet from Drill Pipe				
(1) Water Load		None	20001	Hone
(2) Mud		150' sulf wate		650 ' O&G out
(3) Oil and Gas		90' oil out	None	* 8
(4) Water-Kind? (i.e. Salt or Sulphur, Fresh, etc.)		180' sulfur	None	810' salt wtr
BHP Flowing		925#	900#	2675
BHP Shut In		1475#	1500#	8250
Rate Flow Oil and Gas		None	None	Tone

* - 6 Very weak blow - died in 6 min. * - 7 To surf in 66 min - clean oil & gas in 1 hr 30 mine * - 8 Reversed out gas and small amount of oil. Rec. 540' oil & malt water emulsion. Above Correct-Signature____

REMARKS: (Should Indicate Reaction after Tool Closed and While Coming out of Hole, Specify.)

Province	Lease—Tract—We	ll No. Fiel	d-Pool-Producing Z	one County	New Mexico State
		DRILL STEM TES	TS		
Drill Stem Test No.		9	10	11	12
Date		4-26-51	4-27-51	4-30-81	5-1-51
Name of Test Tool		Johnston	Johnston	Hole in Drill	Johnston
Cind of Packer		8" formation	8" fermation	Pipe - No Tes	
Depth of Hole		10.002	10.037		10,184
Depth—Bottom of Packer		9972	10,002		10,091
Vame—Formation Tested		Pennsylvanian			Permsylvania
interval Tested (If Open Hole, so State; or Bottom of Perforations)	if Perforated casing, Give Top and	9972 - 10.002			10.091-10.13
Vater Load		2000*	2000		2000
Chokes (Bottom and Top)		5/8" - 1"	5/8" - 1"		5/8" - 1"
Total Length of Time Tool Open		l hour	1 hour	·	1 hour
No. of Times & Elapsed Time Tool Opened	Each Attempt	Once	Onse		Once
Surface Reaction: Type and Elapsed Time				·	V444
(1) Air		*	* 2		+ 3
(2) Gas		Hone	None		None
(3) Water Load (Specify if Charged with	Oil or Gas)	None	None		None
(4) Drilling Mud (Specify if Cut with oil	, Gas and/or Water)	None	None		None
(5) Oil/Gas (Estimate or Guage Quantit	y; % B. S. & /or water)	Hone	None		None
(6) Water (Specify kind and if out with	Oil and/or Gas or B. S.)	None	None		None
Recovery Fluid in Feet from Drill Pipe					
(1) Water Load		2000	2000		2000*
(2) Mud		50' drlg.	20' mad		Kone
(3) Oil and Gas		None	None		None
(4) Water-Kind? (i.e. Salt or Sulphur,	Fresh, etc.)	Kone	Hone		1290' sulfur
BHP Flowing		B 50#	1050#		1450#
HP Shut In		1060#	5250#		3878
late Flow Oil and Gas		None	None		None
has/Oil Ratio BS & W		Home	lione		Yone

*Very weak blow - died in 17 min. * 2 Very weak blow - died in 17 min. * 3 Weak blow equal to 1/2" water pressure increasing to 8" water pressure.

Fill Stem Test No.	13	14	15	16
Date	5-5-51	5-8-51	5-19-51	6-8-51
Name of Test Tool	Johnston	Johnston	Taylor	Taylor
Ind of Packer	8" formation	B" formation	7-8/4" Form	7-3/4" Form
Pepth of Hole	10,436	10,590	11,128	11,838
epth—Bottom of Packer	10,422	10,530	11,079	11.748
ame Formation Tested	Pennsylvanian	Pennsylvanian	Pennsylvanian	Pennsylvanian
nterval Tested (If Open Hole, so State; or if Perforated casing, Give Top and Bottom of Perforations)	30,422-10,436	10,530-10,590	11,079-11,128	11.746-11.838
ater Load	20001	2000	20001	20001
Chokes (Bottom and Top)	5/8" - 1"	5/8" - 1"	5/8" - 1"	$5/8^{n} - 1^{n}$
otal Length of Time Tool Open	1 hour	1 hour	1 hour	Packer seat
o. of Times & Elapsed Time Tool Opened Each Attempt	Onee	Once	Once	Pailed - No Te
arface Reaction: Type and Elapsed Time				
(1) Air	Fair bl thout	Fair bl thout	* 4	
(2) Gas	<u> Hone</u>	None	Rome	
(3) Water Load (Specify if Charged with Oil or Gas)	None	None	None	
(4) Drilling Mud (Specify if Cut with oil, Gas and/or Water)	None	None	None	
(5) Oll/Gas (Estimate or Guage Quantity; % B. S. & /or water)	None	Yone	None	
(6) Water (Specify kind and if cut with Oil and/or Gas or B. S.)	None	None	None	·
secovery Fluid in Feet from Drill Pipe				
(1) Water Load	None	20001	2000*	
(2) Mud	<u> Pone</u>	860'al G out	95'v. sl G out	
(3) Oil and Gas	None	Hone	None	
(4) Water-Kind? (i.e. Salt or Sulphur, Fresh, etc.)	270' Salt	* 5	Hone	
HP Flowing	1040f	1725	880 #	
HP Shut In	5525#	2800#	3100#	
ate Flow Oil and Gas	Fone	Kene	None	
as/Oil Ratio BS & W	None	Rone	None	

Date_____

Above Correct—Signature

* 4 Fair blow decreased to weak blow. * 5 1500' very slight gas cut salt water.

WI-HE	State "R" #1	Sa	unders (Pennsyl	vanian) Lea	New Mexico
Province	Lease—Tract—Wel		eld—Pool—Producing Z		State
		DRILL STEM TE	STS		
Drill Stem Test No.		17	18	19	20
Date		6-9-51	6-14-51	8-19-61	8-20-51
Name of Test Tool		Taylor	Johnston	HOWCO	HOWCO
Kind of Packer		7-3/4" Form	8ª Form	8" Form	8" Form
Depth of Hole		11,838	12,070	13.784	13,887
Depth—Bottom of Packer		11,718	12,040	15.720	15.785
Name-Formation Tested		Pennsylvanian			Devonian
Interval Tested (If Open Hole, so State; Bottom of Perforations)	; or if Perforated casing, Give Top and	11,715-11,858	12,040-12,070		13.785-837
Water Load		20001	20001	38001	8500°
Chokes (Bettom and Top)		$5/8^n - 1^n$	5/8" - 1"	5/8" - 1"	5/8" - 1"
Total Length of Time Tool Open		Packer Seat	Packer seat	One hour	50 min
No. of Times & Elspsed Time Tool Ope	ned Each Attempt	Failed - No	Failed in 19	Once	3 times
Surface Reaction: Type and Elapsed Ti	ime	Test	min.		
(1) Air			V wk blow	*	* 2
(2) Gas			Nene	None	
(3) Water Load (Specify if Charged w	vith Oil or Gas)		None	None	Test tool
(4) Drilling Mud (Specify if Cut with	oil, Gas and/or Water)		None	None	Failed to Ope
(5) Oil/Gas (Estimate or Guage Qua	ntity; % B. S. & /or water)		None	None	
(6) Water (Specify kind and if cut wi	ith Oil and/or Gas or B. S.)		None	None	
Recovery Fluid in Feet from Drill Pipe					
(1) Water Load			2000	35001	
(2) Mud			1440' drlg	614's1 O&G out	
(3) Oil and Gas			None	None	
(4) Water-Kind? (i.e. Salt or Sulph	ur, Fresh, etc.)		None	None	
BHP Flowing			950#	1726-1772	
BHP Shut In				3670#	
Rate Flow Oil and Gas			None	None	
Gas/Oil Ratio BS & W			None	None	1
•	n after Tool Closed and While Coming out of		nd died each ti	TIP	
		DRILL STEM TE			
Drill Stem Test No.		21	22	28	24
Date		8-22-51	8-28-51	9-11-51	9-17-51
Name of Test Tool		Johnston	Johnston	HOWCO	HOWCO
Kind of Packer		8" Form	8" Form	8" Form	8" Form
Depth of Hole		13,838	13,838	14,082	14,147
Depth-Bottom of Packer		15,780	13,790	14,040	14,087
Name—Formation Tested		Devonian	<u>Pevonian</u>	Biluro-Devon.	Devenian
Interval Tested (If Open Hole, so State;	or if Perforated casing, Give Top and	1 T TOO . 0 TO	15 500 15 050		1

Drui Stem 168 No.	6.1	66	28	24
Date	8-22-51	8-23-51	9-11-51	9-17-51
Name of Test Tool	<u>Johnston</u>	Johnston	HOWCO	HOWCO
Kind of Packer	8" Form	8" Form	8" Form	SH Form
Depth of Hole	13,838	13,838	14.082	14 147
Depth—Bottom of Packer	15,780	13,790	14.040	14.087
Name—Formation Tested	Devonian	Pevonian	Siluro-Devon-	Devenien
Interval Tested (If Open Hole, so State; or if Perforated casing, Give Top and Bottom of Perforations)	13,780-838	13,790-13,838	14,040-082	14.087-147
Water Load	Packer Seat	Packer Seat	85001	40001
Chokes (Bottom and Top)	Failed - No	Pailed after	5/8" - 1"	5/8" - 1"
Total Length of Time Tool Open	Test	3 min - No Tee	k 45 min	1 hour
No. of Times & Elapsed Time Tool Opened Each Attempt		* ****	Once	Once
Surface Reaction: Type and Elapsed Time			01100	
(1) Air			* 3	* 4
(2) Gas			None	None
(3) Water Load (Specify if Charged with Oil or Gas)			None	None
(4) Drilling Mud (Specify if Cut with oil, Gas and/or Water)			None	None
(5) Oil/Gas (Estimate or Guage Quantity; % B. S. & /or water)			None	None
(6) Water (Specify kind and if out with Oil and/or Gas or B. S.)			None	None
Recovery Fluid in Feet from Drill Pipe				
(1) Water Load			None	40001
(2) Mud			35' drlg.	1501 mid
(3) Oil and Gas			Woze	None
(4) Water-Kind? (Le. Sait or Sulphur, Fresh, etc.)			None	* 5
BHP Flowing			1690#	1995-5040
BHP Shut In			4045#	571.84
Rate Flow Oil and Gas			None	None
Gas/Oil Ratio BS & W			None	None

REMARKS: (Should Indicate Reaction after Tool Closed and While Coming out of Hole. Speeky.)

S Weak blow for 20 min & died.	* 4 Medium strong blow throughout test. * 5 5012! salt water
slightly discolored with mad.	

Above Correct—Signate	ure
Т	itle
D	ate

IT IS RECOMMENDED THIS INFORMATION BE COMPILED ON DERRICK FLOOR AND ORIGINAL BE PERMANENTLY RETAINED IN WELL RECORD.

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Date		EQUIPM:	ENT: Supp	ly "Pumpin	g Record (3		or "Gas Li			587)" Date		Applica	able		Reaso	n
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Date	"Pickup. Tubing H Braden H Casing H Flow Lin	Item Joint: Size and lead lead ead ead e Size & Length	Test Pres.	ly "Pumpin _i	Make Wells in	Dw Same Line (No	g. No. Seria			Date		Applica	able		Reaso	1
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PORTANT -459). OL ulative d ovals from	"Pickup. Tubing B Braden E Casing H Flow Lin Separator Battery? Wells in to C: Compile D WELLS ata MUST	Item Joint: Size and lead lead ead e Size & Length (Make) No. this Battery (B) in every and : Where "It be included in schedule—	Number an y the Numbers) policable det. nhole" work it as space p-"Date, Supp	d Size: ail and forwing is done, comermits. Indicates the state of th	Make Wells in Wells in Wood ard IMMED upile form it sate pertine gth of Time	Same Line (No Same Separato Capac DIATELY o in every ap int informa in off (in d	g, No. Seria s,) r (Nos.)	Steel of new well il from tin innot be co	Caps attached ae of orivered in ion Lost,	Date Removed to the ginal the bo	otal final "l' complet	Daily D	prilling probability of the second se	or Rem	on Lease	(ist
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(Use Reverse Side "Tumble Fashion" for Additional Space)

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(Use Reverse Side "Tumble Fashion" for Additional Space)