WT-NM	State "R" #1	Saunders (Pennsylvanian)	Lea	New Mexico
Province	Lease—Tract—Well No.	Field—Pool—Producing Zone	County	State

DRILL STEM TESTS

Drill Stem Test No.	1	2	3	4
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	Pennsylvanian
Interval Tested (If Open Hole, so State; or if Perforated casing, Give Top and Bottom of Perforations)	9760-9792	9793-9822	9822-9852	9852 - 9882
Water Load	2000'	2000'	2000'	2000'
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 14 min.
(2) Gas	to surf in 1 hr	None	None	None
(3) Water Load (Specify if Charged with Oil or Gas)	None	None	None	None
(4) Drilling Mud (Specify if Cut with oil, Gas and/or Water)	None	None	None	None
(5) Oil/Gas (Estimate or Guage Quantity; % B. S. & /or water)	None	None	None	None
(6) Water (Specify kind and if cut 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 cut	2000'	* 5	2000'
(2) Mud	550' Hv O cut	* 3	90' O&G cut	90' Drlg.
(3) Oil and Gas	None	None	None	None
(4) Water—Kind? (i.e. Salt or Sulphur, Fresh, etc.)	480' sulfur	* 4	None	None
BHP Flowing	1215#	3425#	750#	825#
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 Tool Closed and While Coming out of Hole. Specify.)

*Fair blow for 51 min. increasing to good blow for last 9 min. **St. blow grad. decreased to very weak blow * - 3 360' mud cut w/salt & sulfur water. * - 4 5640' salty sulfur water cut w/gas. * - 5 2000' w/o (bottom 1530' gas cut)

DRILL STEM TESTS

Drill Stem Test No.	5	6	7	8
Date	4-22-51	4-23-51	4-24-51	4-25-51
Name of Test Tool	Johnston	Johnston	Johnston	Johnston
Kind of Packer	8" formation	8" formation	8" formation	8" formation
Depth of Hole	9912	9912	9942	9972
Depth—Bottom of Packer	9882	9872	9912	9942
Name—Formation Tested	Pennsylvanian	Pennsylvanian	Pennsylvanian	Pennsylvanian
Interval Tested (If Open Hole, so State; or if Perforated casing, Give Top and Bottom of Perforations)	9882-9912	9872 - 9912	9912 - 9942	9942 - 9972
Water Load	2000'	2000'	2000'	2000'
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	1 hour
No. of Times & Elapsed Time Tool Opened Each Attempt	Failed - No tst	Once	Once	Once
Surface Reaction: Type and Elapsed Time				
(1) Air		Wk inc to fair	* 6	Strong blow
(2) Gas		To surf 1 hr 15 min	None	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 Oil and/or Gas or B. S.)		None	None	None
Recovery Fluid in Feet from Drill Pipe				
(1) Water Load		None	2000'	None
(2) Mud		150' sulf water	30' drlg.	650' O&G cut
(3) Oil and Gas		90' oil cut	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#	3250
Rate Flow Oil and Gas		None	None	None
Gas/Oil Ratio BS & W		None	None	None

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

* - 6 Very weak blow - died in 6 min. * - 7 To surf in 66 min - clean oil & gas in 1 hr 30 min.

* - 8 Reversed out gas and small amount of oil. Rec. 540' oil & salt water emulsion.

Above Correct—Signature_____

Title_____

Date_____

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

WT-NM	State "R" #1	Saunders (Pennsylvanian)	Lea	New Mexico
Province	Lease—Tract—Well No.	Field—Pool—Producing Zone	County	State

DRILL STEM TESTS

Drill Stem Test No.	9	10	11	12
Date	4-26-51	4-27-51	4-30-51	5-1-51
Name of Test Tool	Johnston	Johnston	Hole in Drill	Johnston
Kind of Packer	8" formation	8" formation	Pipe - No Test	8" formation
Depth of Hole	10,002	10,037		10,154
Depth—Bottom of Packer	9972	10,002		10,091
Name—Formation Tested	Pennsylvanian	Pennsylvanian		Pennsylvanian
Interval Tested (If Open Hole, so State; or if Perforated casing, Give Top and Bottom of Perforations)	9972 - 10,002	10,002-10,037		10,091-10,154
Water Load	2000'	2000'		2000'
Chokes (Bottom and Top)	5/8" - 1"	5/8" - 1"		5/8" - 1"
Total Length of Time Tool Open	1 hour	1 hour		1 hour
No. of Times & Elapsed Time Tool Opened Each Attempt	Once	Once		Once
Surface Reaction: Type and Elapsed Time				
(1) Air	*	* 2		* 3
(2) Gas	None	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 Quantity; % B. S. & /or water)	None	None		None
(6) Water (Specify kind and if cut 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	30' drlg.	20' mud		None
(3) Oil and Gas	None	None		None
(4) Water—Kind? (i.e. Salt or Sulphur, Fresh, etc.)	None	None		1290' sulfur
BHP Flowing	850#	1050#		1450#
BHP Shut In	1060#	5250#		3878#
Rate Flow Oil and Gas	None	None		None
Gas/Oil Ratio BS & W	None	None		None

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

*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.

DRILL STEM TESTS

Drill 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
Kind of Packer	8" formation	8" formation	7-3/4" Form	7-3/4" Form
Depth of Hole	10,436	10,590	11,128	11,838
Depth—Bottom of Packer	10,422	10,530	11,079	11,746
Name—Formation Tested	Pennsylvanian	Pennsylvanian	Pennsylvanian	Pennsylvanian
Interval Tested (If Open Hole, so State; or if Perforated casing, Give Top and Bottom of Perforations)	10,422-10,436	10,530-10,590	11,079-11,128	11,746-11,838
Water Load	2000'	2000'	2000'	2000'
Chokes (Bottom and Top)	5/8" - 1"	5/8" - 1"	5/8" - 1"	5/8" - 1"
Total Length of Time Tool Open	1 hour	1 hour	1 hour	Packer seat
No. of Times & Elapsed Time Tool Opened Each Attempt	Once	Once	Once	Failed - No Tes
Surface Reaction: Type and Elapsed Time				
(1) Air	Fair bl thout	Fair bl thout	* 4	
(2) Gas	None	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 Quantity; % B. S. & /or water)	None	None	None	
(6) Water (Specify kind and if cut with Oil and/or Gas or B. S.)	None	None	None	
Recovery Fluid in Feet from Drill Pipe				
(1) Water Load	None	2000'	2000'	
(2) Mud	None	360'sl G cut	95'v. sl G cut	
(3) Oil and Gas	None	None	None	
(4) Water—Kind? (i.e. Salt or Sulphur, Fresh, etc.)	270' Salt	* 5	None	
BHP Flowing	1040#	1725#	880#	
BHP Shut In	3525#	2800#	3100#	
Rate Flow Oil and Gas	None	None	None	
Gas/Oil Ratio BS & W	None	None	None	

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

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

Above Correct—Signature _____

Title _____

Date _____

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

WT-NM	State "R" #1	Saunders (Pennsylvanian)	Lea	New Mexico
Province	Lease—Tract—Well No.	Field—Pool—Producing Zone	County	State

DRILL STEM TESTS

Drill Stem Test No.	17	18	19	20
Date	6-9-51	6-14-51	8-19-51	8-20-51
Name of Test Tool	Taylor	Johnston	HOWCO	HOWCO
Kind of Packer	7-3/4" Form	8" Form	8" Form	8" Form
Depth of Hole	11,838	12,070	13,784	13,837
Depth—Bottom of Packer	11,713	12,040	13,720	13,785
Name—Formation Tested	Pennsylvanian	Pennsylvanian	Mississippian	Devonian
Interval Tested (If Open Hole, so State; or if Perforated casing, Give Top and Bottom of Perforations)	11,713-11,838	12,040-12,070	13,720-84	13,785-837
Water Load	2000'	2000'	3500'	3500'
Chokes (Bottom and Top)	5/8" - 1"	5/8" - 1"	5/8" - 1"	5/8" - 1"
Total Length of Time Tool Open	Packer Seat	Packer seat	One hour	60 min
No. of Times & Elapsed Time Tool Opened Each Attempt	Failed - No	Failed in 19	Once	3 times
Surface Reaction: Type and Elapsed Time	Test	min.		
(1) Air		V wk blow	*	* 2
(2) Gas		None	None	
(3) Water Load (Specify if Charged with Oil or Gas)		None	None	Test tool
(4) Drilling Mud (Specify if Cut with oil, Gas and/or Water)		None	None	Failed to Open
(5) Oil/Gas (Estimate or Guage Quantity: % B. S. & /or water)		None	None	
(6) Water (Specify kind and if cut with Oil and/or Gas or B. S.)		None	None	
Recovery Fluid in Feet from Drill Pipe				
(1) Water Load		2000'	3500'	
(2) Mud		1440' drlg	614'sl O&G cut	
(3) Oil and Gas		None	None	
(4) Water—Kind? (i.e. Salt or Sulphur, 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	

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

*Fair blow increased to good blow. * 2 Faint blow and died each time

DRILL STEM TESTS

Drill Stem Test No.	21	22	23	24
Date	8-22-51	8-23-51	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	13,780	13,790	14,040	14,087
Name—Formation Tested	Devonian	Devonian	Silure-Devon.	Devonian
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	3500'	4000'
Chokes (Bottom and Top)	Failed - No	Failed after	5/8" - 1"	5/8" - 1"
Total Length of Time Tool Open	Test	3 min - No Test	45 min	1 hour
No. of Times & Elapsed Time Tool Opened Each Attempt			Once	Once
Surface Reaction: Type and Elapsed Time				
(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 cut with Oil and/or Gas or B. S.)			None	None
Recovery Fluid in Feet from Drill Pipe				
(1) Water Load			None	4000'
(2) Mud			55' drlg.	150' mud
(3) Oil and Gas			None	None
(4) Water—Kind? (i.e. Salt or Sulphur, Fresh, etc.)			None	* 5
BHP Flowing			1690#	1925-3040
BHP Shut In			4045#	5715#
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. Specify.)

* 3 Weak blow for 20 min & died. * 4 Medium strong blow throughout test. * 5 5012' salt water slightly discolored with mud.

Above Correct—Signature _____

Title _____

Date _____

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

Province	Lease—Tract—Well No.	Field—Pool—Producing Zone	County	State
W T- NM	State "R" #1	Saunders (Pennsylvanian)	Lea, New Mexico	

DECLINATION TESTS

Depth	Deviation	Depth	Deviation	Depth	Deviation	Depth	Deviation	Depth	Deviation
371	0	4718	0	6780	½	9180	1 3/4	10930	1 3/4
1710	¼	5028	½	6960	3/4	9240	1 ½	11371	3/4
2247	¼	5440	½	7230	0	9267	1 ½	11575	0
2995	1	5535	3/4	7430	½	9375	2	11638	3/4
3140	½	5802	3/4	7645	0	9418	2	11798	3/4
4000	¼	5928	1	7760	1	9665	2	12000	1
4329	1	6140	½	7831	½	9765	3/4	12193	3/4
4530	½	6250	½	8133	½	10320	1 ½	12350	½
4631	1¼	6528	3/4	9050	1 3/4	10710	1 ¼	12620	¼

SAFETY JOINT

Make	R.-L. Thd. or Shear Pin	Weight To Shear	Depth Set

CORE REFERENCE DETAILS
"Daily Drilling or Remedial History (3B-459)"

Core No.	Page No.	Core No.	Page No.	Core No.	Page No.	Core No.	Page No.	Core No.	Page No.	Core No.	Page No.	Core No.	Page No.	Core No.	Page No.	Core No.	Page No.	Core No.	Page No.	Core No.	Page No.

BOTTOM HOLE PRESSURE: DATUM

Date	Pressure	Date	Pressure	Date	Pressure	Date	Pressure	Date	Pressure

ELECTRICAL OR OTHER LOGGING OR SPECIAL TESTING DATA (Including surveys)

Date	Kind	From	To	Date	Kind	From	To
4-28-51	Schlumberger Electic Log	10032	4106				
5-8-51	Same as above	10586	10032				
7-22-51	" " "	13020	10586				
8-24-51	" " "	13385	13020				
9-22-51	HOWCO Temp. Survey	7650	?				
9-22-51	Lane Wells Radio Act.	10040	?				

EQUIPMENT: Supply "Pumping Record (3B-432-B)" or "Gas Lift Installation (3B-587)" Where Applicable

Date	Item	Test Pres.	Make	Dwg. No.	Serial No.	Date Removed	Reason
	"Pickup Joint: Size and Thread"						
	Tubing Head						
	Braden Head						
	Casing Head						
	Flow Line Size & Length		Wells in Same Line (Nos.)				
	Separator (Make)		Wells in Same Separator (Nos.)				
	Battery No.	Number and Size:	Wood	Capacity;	Steel	Capacity; Total	Capacity on Lease
	Wells in this Battery (By the Numbers)						

IMPORTANT: Compile in every applicable detail and forward IMMEDIATELY on completion of new well attached to the final "Daily Drilling or Remedial History" (3B-459). OLD WELLS: Where "Inhole" work is done, compile form in every applicable detail from time of original completion, including present work. All cumulative data MUST be included as space permits. Indicate pertinent information which cannot be covered in the body of the form in space below, including removals from proration schedule—"Date, Supplement, Length of Time Off (in das.), Barrels of Production Lost, Date Returned to Production." Give condition "BEFORE" and "AFTER" on remedial operations. (The Accurate Compilation of the Record is Invaluable).

Dates _____ Above Correct—Signature(s) _____

For Drilling Section

For Petroleum Engineering

Superintendent

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

WT-NM	State "R" #1	Saunders (Pennsylvanian)	Lea	New Mexico
Province	Lease—Tract—Well No.	Field—Pool—Producing Zone	County	State

DECLINATION TESTS

Depth	Deviation	Depth	Deviation	Depth	Deviation	Depth	Deviation	Depth	Deviation
12775	1/2								
12940	0								
13150	1/2								
13250	3/4								
13350	3/4								
13600	1								
13780	1/2								

SAFETY JOINT

Make	R.-L. Thd. or Shear Pin	Weight To Shear	Depth Set

CORE REFERENCE DETAILS
"Daily Drilling or Remedial History (3B-459)"

Core No.	Page No.	Core No.	Page No.	Core No.	Page No.	Core No.	Page No.	Core No.	Page No.	Core No.	Page No.	Core No.	Page No.	Core No.	Page No.	Core No.	Page No.	Core No.	Page No.	Core No.	Page No.	Core No.	Page No.

BOTTOM HOLE PRESSURE: DATUM

Date	Pressure	Date	Pressure	Date	Pressure	Date	Pressure	Date	Pressure

ELECTRICAL OR OTHER LOGGING OR SPECIAL TESTING DATA (Including surveys)

Date	Kind	From	To	Date	Kind	From	To

EQUIPMENT: Supply "Pumping Record (3B-432-B)" or "Gas Lift Installation (3B-587)" Where Applicable

Date	Item	Test Pres.	Make	Dwg. No.	Serial No.	Date Removed	Reason
	"Pickup Joint: Size and Thread"						
	Tubing Head						
	Braden Head						
	Casing Head						
	Flow Line Size & Length		Wells in Same Line (Nos.)				
	Separator (Make)		Wells in Same Separator (Nos.)				
	Battery No.	Number and Size:	Wood	Capacity;	Steel	Capacity; Total	Capacity on Lease
	Wells in this Battery (By the Numbers)						

IMPORTANT: Compile in every applicable detail and forward IMMEDIATELY on completion of new well attached to the final "Daily Drilling or Remedial History" (3B-459). OLD WELLS: Where "Inhole" work is done, compile form in every applicable detail from time of original completion, including present work. All cumulative data MUST be included as space permits. Indicate pertinent information which cannot be covered in the body of the form in space below, including removals from proration schedule—"Date, Supplement, Length of Time Off (in das.), Barrels of Production Lost, Date Returned to Production." Give condition "BEFORE" and "AFTER" on remedial operations. (The Accurate Compilation of the Record is Invaluable).

Dates _____ Above Correct—Signature(s) _____

For Drilling Section

For Petroleum Engineering

Superintendent

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