

F.G. Hall Co.
Debes 'A' 1-5

5-21s-14w
15-185-23201

CONFIDENTIAL Superior Testers Enterprises, Inc. ORIGINAL

R.R. 3, Box 295B, Great Bend, Kansas 67530
(316) 792-6902

Date 09-25-2003 Location CN-12-SE 5-21s-14w Elevation 1910 GL County Stafford

Company F.G. Hall Company L.L.C. Number of Copies 5

Charts Mailed to 9431 East Central Suite 100 Wichita Kansas 67206-2543

Drilling Contractor Steelwing Drilling Div #1

Length Drill Pipe 1504 I.D. Drill Pipe 2.80 Tool Joint Size 4 1/2" X.H.

Length Weight Pipe NONE I.D. Weight Pipe NONE Tool Joint Size NONE

Length Drill Collars 240 I.D. Drill Collars 2.25 Tool Joint Size 4 1/2" X.H.

Top Packer Depth 1765 Bottom Packer Depth 1770 Number of Packers 2 Packer Size 6 3/4"

TESTED FROM 1770 TO 1830 ANCHOR LENGTH 60 TOTAL DEPTH 1830 Hole Size 7 7/8"

LEASE & WELL NO. Debes "A" #1-5 FORMATION TESTED Heermann-Kridger TEST NO. 1

Mud Weight 8.61 Viscosity 38 Water Loss 7.4 Chlorides - Pits 5500 D.S.T.

Maximum Temp. 95 °F Initial Hydrostatic Pressure (A) 868 P.S.I. Final Hydrostatic Pressure (H) 828 P.S.I.

Tool Open I.F.P. from 10:30 pm to 10:00 pm 30 min

Tool Closed I.C.I.P. from 11:00 pm to 10:00 am 60 min

Tool Open F.F.P. from 12:00 am to 12:15 am 15 min

Tool Closed F.C.I.P. from 12:15 am to 12:45 am 30 min

Initial Blow VERY WEAK build up blow built to 4 inches into the water

Final Blow WEAK blow built to 2 inches DECREASED & DIED IN 12 minutes

Total Feet Recovered 65 Gravity of Oil _____ Corrected

65 Feet of Drilling Mud NO SHOWS %Gas _____ %Oil _____ %Mud _____ %Water _____

_____ Feet of _____ %Gas _____ %Oil _____ %Mud _____ %Water _____

_____ Feet of _____ %Gas _____ %Oil _____ %Mud _____ %Water _____

_____ Feet of _____ %Gas _____ %Oil _____ %Mud _____ %Water _____

_____ Feet of _____ %Gas _____ %Oil _____ %Mud _____ %Water _____

_____ Feet of _____ %Gas _____ %Oil _____ %Mud _____ %Water _____

_____ Feet of _____ %Gas _____ %Oil _____ %Mud _____ %Water _____

_____ Feet of _____ %Gas _____ %Oil _____ %Mud _____ %Water _____

_____ Feet of _____ %Gas _____ %Oil _____ %Mud _____ %Water _____

Remarks _____

Extra Equipment - Jars YES Safety Joint YES Extra Packer NONE Straddle NONE Hook Wall NONE

Top Recorder No. 78225 Clock No. Electronic Depth 1822 Cir. Sub NONE Sampler NONE

Bottom Recorder No. 13208 Clock No. 47441 Depth 1824 Insurance NONE

Price of Job _____

Tool Operator Steve Baily

Approved By _____

No 12306

Superior Testers Enterprises, Inc. shall not be liable for damage of any kind to the property or personnel of the one for whom a test is made, of for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

SUPERIOR TESTERS ENTERPRISES INC.

Great Bend, Kansas

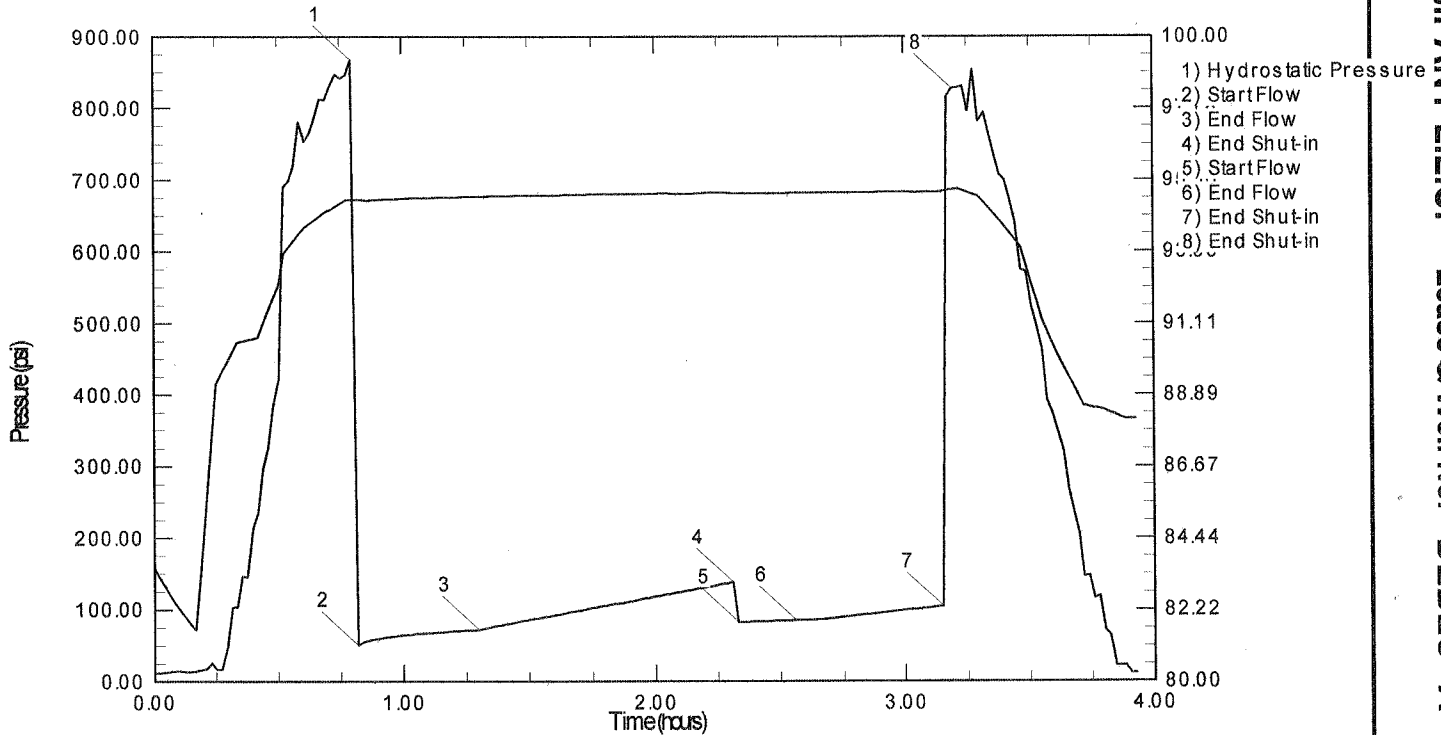
CHART DATA

(316) 792-6902

State KANSAS
County STAFFORD
Field

Test Date September 25, 2003
Sec Town Range 5-21S-14W
Report Number 12306

Company: F.G.HOLL COMPANY L.L.C. Lease & Well No. DEBES "A" #1-15 Test #: 1 Date: 09-25-2003 SEC. 5
TWP. 21S RGE. 14W



Field Reading

(1)	Initial Hydrostatic Pressure	868
(2)	Initial Flow Pressure	51
(3)	Final Initial Flow Pressure	72
(4)	Initial Shut-In Pressure	138
(5)	Initial Final Flow Pressure	83
(6)	Final Flow Pressure	85
(7)	Final Shut-In Pressure	105
(8)	Final Hydrostatic Pressure	828

ELECTRONIC RECORDER DEPTH 1823 FT, RECORDER NUMBER 80507

SUPERIOR TESTERS ENTERPRISES INC.

DRILL STEM TEST REPORT

GREAT BEND ,KANSAS 67530 (316)792-6902

GENERAL INFORMATION

COMPANY NAME	F.G.HOLL COMPANY L.L.C.	LEASE AND WELL NUMBER	DEBES "A" #1-5
TEST DATE	09/25/2003	FORMATION TESTED	HERRINGTON-KRIDER
SECTION-TOWN-RANGE	5-21S-14W	DRILL STEM TEST NUMBER	1
STATE	KANSAS	REPORT NUMBER	12306
COUNTY	STAFFORD	ELEVATION KELLY BUSHINGS	1919
ELEVATION GROUND LEVEL	1910	TESTING ENGINEER	GENE BUDIG
COMPANY REPRESENTATIVE	BILL REE		

TOOL SETTING INFORMATION

TEST INTERVAL (From)	1770	TOP PACKER DEPTH	1765
TEST INTERVAL (to)	1830	BOTTOM PACKER DEPTH	1770
ANCHOR LENGTH	60	NUMBER OF PACKERS	2
TOTAL DEPTH (ft)	1830	PACKER SIZE	6 3/4
		HOLE SIZE	7 7/8

FLOW TIMES

INITIAL OPEN

TOOL OPEN (from)

TOOL OPEN (to)

DURATION (min.)

INITIAL SHUT-IN

TOOL CLOSED (from)

TOOL CLOSED (to)

DURATION (min.)

FINAL OPEN

TOOL OPEN (from)

TOOL OPEN (to)

DURATION (min.)

FINAL SHUT-IN

TOOL CLOSED (from)

TOOL CLOSED (to)

DURATION (min.)

PRESSURE READINGS

INITIAL HYDROSTATIC

INITIAL FLOW

FINAL INITIAL FLOW

INITIAL SHUT-IN

INITIAL FINAL FLOW

FINAL FLOW

FINAL SHUT-IN

FINAL HYDROSTATIC

MAXIMUM TEMPERATURE

TOP RECORDER DEPTH

RECORDER NUMBER

BOTTOM RECORDER DEPTH

RECORDER NUMBER

INITIAL BLOW

VERY WEAK BLOW BUILT TO 4 INCHES INTO THE WATER

FINAL BLOW

WEAK BLOW BUILT TO 2 INCHES INTO THE WATER AND DECREASED AND DIED IN 12 MINUTES

EXTRA EQUIPMENT

JARS	YES	EXTRA PACKER (3RD)	NO
SAFETY JOINT	YES	EXTRA PACKER (4TH)	NO
ELECTRONIC RECORDER	YES	STRADDLE	NO
CIRCULATING SUB	NO	HOOK WALL	NO
		SAMPLER	NO

SUPERIOR TESTERS ENTERPRISES INC.

DRILL STEM TEST REPORT

GREAT BEND ,KANSAS 67530 (316)792-6902

WELL INFORMATION

DRILLING CONTRACTOR **STERLING DRILLING RIG #1**

DRILL PIPE LENGTH **1504**

DRILL PIPE I.D. **3.8**

TOOL JOINT SIZE **4 1/2 X.H.**

DRILL COLLAR LENGTH **240**

DRILL COLLAR I.D. **2.25**

TOOL JOINT SIZE **4 1/2 X.H.**

WEIGHT PIPE LENGTH

WEIGHT PIPE I.D. **2.25**

TOOL JOINT SIZE **4 1/2 X.H.**

MUD WEIGHT #/GAL **8.6**

VISCOSITY **38**

WATER LOSS **7.6**

CHLORIDES-PITS **5500**

CHLORIDES-DST

FEET OF RECOVERY		RECOVERY DECRPTION	% GAS	% OIL	% MUD	% WATER
1)	65	DRILLING MUD WITH NO SHOWS				
2)						
3)						
4)						
5)						
6)						
7)						
8)						
9)						
10)						
11)						
12)						
13)						
14)						
15)						

TOTAL RECOVERY

COMMENTS

CONFIDENTIAL

Superior Testers Enterprises, Inc.

ORIGINAL

R.R. 3, Box 295B, Great Bend, Kansas 67530

(316) 792-6902

Date 9-26-2003 Location CY 1/2 N 1/2 SE 5-21-14 W Elevation 1919 KB County StaffordCompany F.G. Hall Company L.L.C. Number of Copies _____Charts Mailed to 9431 East Central Suite 100 Wichita Kansas 67206-2543Drilling Contractor Sterling Drilling Rig #4Length Drill Pipe 1561 I.D. Drill Pipe 3.80 Tool Joint Size 4 1/2" X 4Length Weight Pipe NONE I.D. Weight Pipe NONE Tool Joint Size NONELength Drill Collars 240 I.D. Drill Collars 2.25 Tool Joint Size 4 1/2" X 4Top Packer Depth 1822 Bottom Packer Depth 1827 Number of Packers 2 Packer Size 6 3/4TESTED FROM 1827 TO 1865 ANCHOR LENGTH 38 TOTAL DEPTH 1865 Hole Size 2 7/8"LEASE & WELL NO. Debes "A" #1-05 FORMATION TESTED Wichita TEST NO. 2Mud Weight 8.8 Viscosity 39 Water Loss 9.6 Chlorides - Pits 16000 D.S.T. _____Maximum Temp. _____ °F Initial Hydrostatic Pressure (A) 871 P.S.I. Final Hydrostatic Pressure (H) 862 P.S.I.Tool Open I.F.P. from 8:30 A.M. to 8:45 A.M. 15 minTool Closed I.C.I.P. from 8:45 A.M. to 9:15 A.M. 30 minTool Open F.F.P. from 9:15 A.M. to 9:30 A.M. 15 minTool Closed F.C.I.P. from 9:30 A.M. to 10:00 A.M. 30 minInitial Blow VERY WEAK blow through outFinal Blow WEAK blow built to 1 inch DECREASED & DIED IN 7 minutesTotal Feet Recovered 25 Gravity of Oil _____ Corrected _____

<u>25</u> Feet of <u>Drilling Mud</u>	% Gas _____ % Oil _____ % Mud _____ % Water _____
_____ Feet of _____	% Gas _____ % Oil _____ % Mud _____ % Water _____
_____ Feet of _____	% Gas _____ % Oil _____ % Mud _____ % Water _____
_____ Feet of _____	% Gas _____ % Oil _____ % Mud _____ % Water _____
_____ Feet of _____	% Gas _____ % Oil _____ % Mud _____ % Water _____
_____ Feet of _____	% Gas _____ % Oil _____ % Mud _____ % Water _____
_____ Feet of _____	% Gas _____ % Oil _____ % Mud _____ % Water _____
_____ Feet of _____	% Gas _____ % Oil _____ % Mud _____ % Water _____
_____ Feet of _____	% Gas _____ % Oil _____ % Mud _____ % Water _____
_____ Feet of _____	% Gas _____ % Oil _____ % Mud _____ % Water _____

Remarks _____

Extra Equipment - Jars YES Safety Joint YES Extra Packer NONE Straddle NONE Hook Wall NONETop Recorder No. 78225 Clock No. Electronic Depth 1858 Cir. Sub NONE Sampler NONEBottom Recorder No. 13208 Clock No. 47441 Depth 1862 Insurance NONE

Price of Job _____

Tool Operator Dave Gudy

Approved By _____

No 12307

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KCC
JAN 08 2004
CONFIDENTIAL

Company: F.G.HOLL COMPANY L.L.C. Lease & Well No. DEBES "A" #1-5 Test #: 2 Date: 9-26-2003 SEC.5 TWP. 21S
RGE. 14W

SUPERIOR TESTERS ENTERPRISES INC.

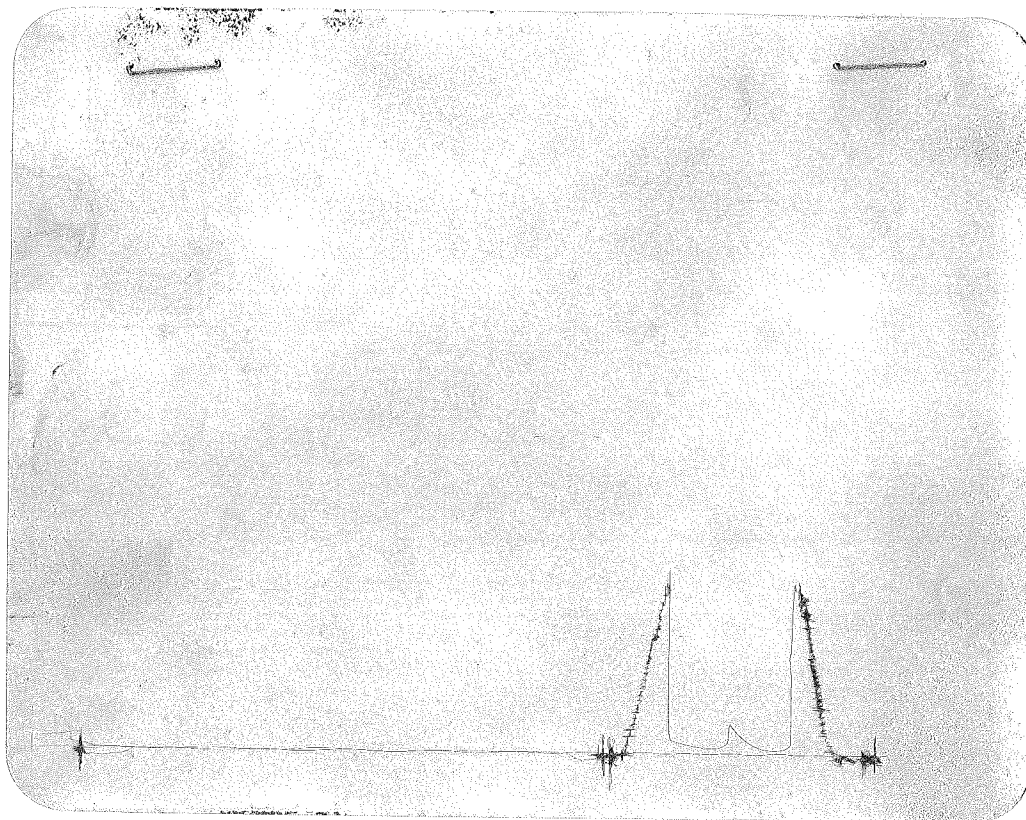
Great Bend, Kansas

CHART DATA

(316) 792-6902

State KANSAS
County STAFFORD
Field

Test Date September 26, 2003
Sec Town Range 5-21S-14W
Report Number 12307



Field Reading

(1)	Initial Hydrostatic Pressure	871
(2)	Initial Flow Pressure	21
(3)	Final Initial Flow Pressure	21
(4)	Initial Shut-In Pressure	138
(5)	Initial Final Flow Pressure	21
(6)	Final Flow Pressure	29
(7)	Final Shut-In Pressure	79
(8)	Final Hydrostatic Pressure	862

ELECTRONIC RECORDER DEPTH 1858 FT, RECORDER NUMBER 80507

SUPERIOR TESTERS ENTERPRISES INC.

DRILL STEM TEST REPORT

GREAT BEND, KANSAS 67530 (316)792-6902

GENERAL INFORMATION

COMPANY NAME	F.G.HOLL COMPANY L.L.C.	LEASE AND WELL NUMBER	DEBES "A" #1-5
TEST DATE	9/26/03	FORMATION TESTED	WINFIELD
SECTION-TOWN-RANGE	5-21S-14W	DRILL STEM TEST NUMBER	2
STATE	KANSAS	REPORT NUMBER	12307
COUNTY	STAFFORD	ELEVATION KELLY BUSHINGS	1919
ELEVATION GROUND LEVEL	1910	TESTING ENGINEER	GENE BUDIG
COMPANY REPRESENTATIVE	BILL REE		

TOOL SETTING INFORMATION

TEST INTERVAL (From)	1827	TOP PACKER DEPTH	1822
TEST INTERVAL (to)	1865	BOTTOM PACKER DEPTH	1827
ANCHOR LENGTH	38	NUMBER OF PACKERS	2
TOTAL DEPTH (ft)	1865	PACKER SIZE	6 3/4
		HOLE SIZE	7 7/8

FLOW TIMES

INITIAL OPEN

TOOL OPEN (from)

TOOL OPEN (to)

DURATION (min.)

INITIAL SHUT-IN

TOOL CLOSED (from)

TOOL CLOSED (to)

DURATION (min.)

FINAL OPEN

TOOL OPEN (from)

TOOL OPEN (to)

DURATION (min.)

FINAL SHUT-IN

TOOL CLOSED (from)

TOOL CLOSED (to)

DURATION (min.)

PRESSURE READINGS

INITIAL HYDROSTATIC

INITIAL FLOW

FINAL INITIAL FLOW

INITIAL SHUT-IN

INITIAL FINAL FLOW

FINAL FLOW

FINAL SHUT-IN

FINAL HYDROSTATIC

MAXIMUM TEMPERATURE

TOP RECORDER DEPTH

RECORDER NUMBER

BOTTOM RECORDER DEPTH

RECORDER NUMBER

INITIAL BLOW

VERY WEAK BLOW THROUGH OUT

FINAL BLOW

WEAK BLOW BUILT TO 1 INCH DECREASED AND DIED IN 7 MINUTES

EXTRA EQUIPMENT

JARS	YES	EXTRA PACKER (3RD)	NO
SAFETY JOINT	YES	EXTRA PACKER (4TH)	NO
ELECTRONIC RECORDER	YES	STRADDLE	NO
CIRCULATING SUB	NO	HOOK WALL	NO
		SAMPLER	NO

SUPERIOR TESTERS ENTERPRISES INC.

DRILL STEM TEST REPORT

GREAT BEND, KANSAS 67530 (316)792-6902

WELL INFORMATION

DRILLING CONTRACTOR **STERLING DRILLING RIG #1**

DRILL PIPE LENGTH **1561**

DRILL PIPE I.D. **3.8**

TOOL JOINT SIZE **4 1/2 X.H.**

DRILL COLLAR LENGTH **240**

DRILL COLLAR I.D. **2.25**

TOOL JOINT SIZE **4 1/2 X.H.**

WEIGHT PIPE LENGTH

WEIGHT PIPE I.D. **2.25**

TOOL JOINT SIZE **4 1/2 X.H.**

MUD WEIGHT #GAL **8.8**

VISCOSITY **39**

WATER LOSS **9.6**

CHLORIDES-PITS **16000**

CHLORIDES-DST

FEET OF RECOVERY		RECOVERY DESCRIPTION	% GAS	% OIL	% MUD	% WATER
1)	25	DRILLING MUD				
2)						
3)						
4)						
5)						
6)						
7)						
8)						
9)						
10)						
11)						
12)						
13)						
14)						
15)						
		TOTAL RECOVERY				

COMMENTS

Superior Testers Enterprises, Inc.

R.R. 3, Box 295B, Great Bend, Kansas 67530

(316) 792-6902

ORIGINAL

CONFIDENTIAL

Date 9-26-2003 Location C 1/2 N 1/2 SE 5-25-4W Elevation 1919 KB County Stafford

Company F.G. HOLL COMPANY LLC Number of Copies 5

Charts Mailed to 9431 East Central Suite 100 Wichita Kansas 67206-2543

Drilling Contractor STERLING DRILLING RIG #1

Length Drill Pipe 1620 I.D. Drill Pipe 3.80 Tool Joint Size 4 1/2" X. H.

Length Weight Pipe NONE I.D. Weight Pipe NONE Tool Joint Size NONE

Length Drill Collars 240 I.D. Drill Collars 2.25 Tool Joint Size 4 1/2" X. H.

Top Packer Depth 1881 Bottom Packer Depth 1886 Number of Packers 2 Packer Size 6 3/4"

TESTED FROM 1886 TO 1933 ANCHOR LENGTH 47 TOTAL DEPTH 1933 Hole Size 2 7/8"

LEASE & WELL NO. Debes "A" #1-S FORMATION TESTED TOWANDA TEST NO. 3

Mud Weight 8.8 Viscosity 39 Water Loss 9.4 Chlorides - Pits 13000 D.S.T. 72000

Maximum Temp. 97 °F Initial Hydrostatic Pressure (A) 942 P.S.I. Final Hydrostatic Pressure (H) 897 P.S.I.

Tool Open I.F.P. from 4:30 pm to 5:00 pm 30 min

Tool Closed I.C.I.P. from 5:00 pm to 6:00 pm 60 min

Tool Open F.F.P. from 6:00 pm to 6:15 pm 15 min

Tool Closed F.C.I.P. from 6:15 pm to 6:45 pm 30 min

Initial Blow WEAK building blow built to 7 inches into the water

Final Blow VERY WEAK surface blow thrown out

Total Feet Recovered 250 Gravity of Oil _____ Corrected _____

100 Feet of Drilling mud % Gas _____ % Oil _____ % Mud _____ % Water _____

150 Feet of muddy water chlorides 72000 % Gas _____ % Oil _____ % Mud _____ % Water _____

_____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

_____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

_____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

_____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

_____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

_____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

_____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

Remarks _____

Extra Equipment - Jars YES Safety Joint YES Extra Packer NONE Straddle NONE Hook Wall NONE

Top Recorder No. 78225 Clock No. Electronic Depth 1926 Cir. Sub NONE Sampler NONE

Bottom Recorder No. 13208 Clock No. 47441 Depth 1930 Insurance NONE

Price of Job _____

Tool Operator Howe Budji

Approved By _____

No 12308

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Company: F.G.HOLL COMPANY L.L.C. Lease & Well No. DEBES "A" #1-5 Test #: 3 Date: 09-26-2003 SEC. 5 TWP.
 21S RGE. 4W

SUPERIOR TESTERS ENTERPRISES INC.

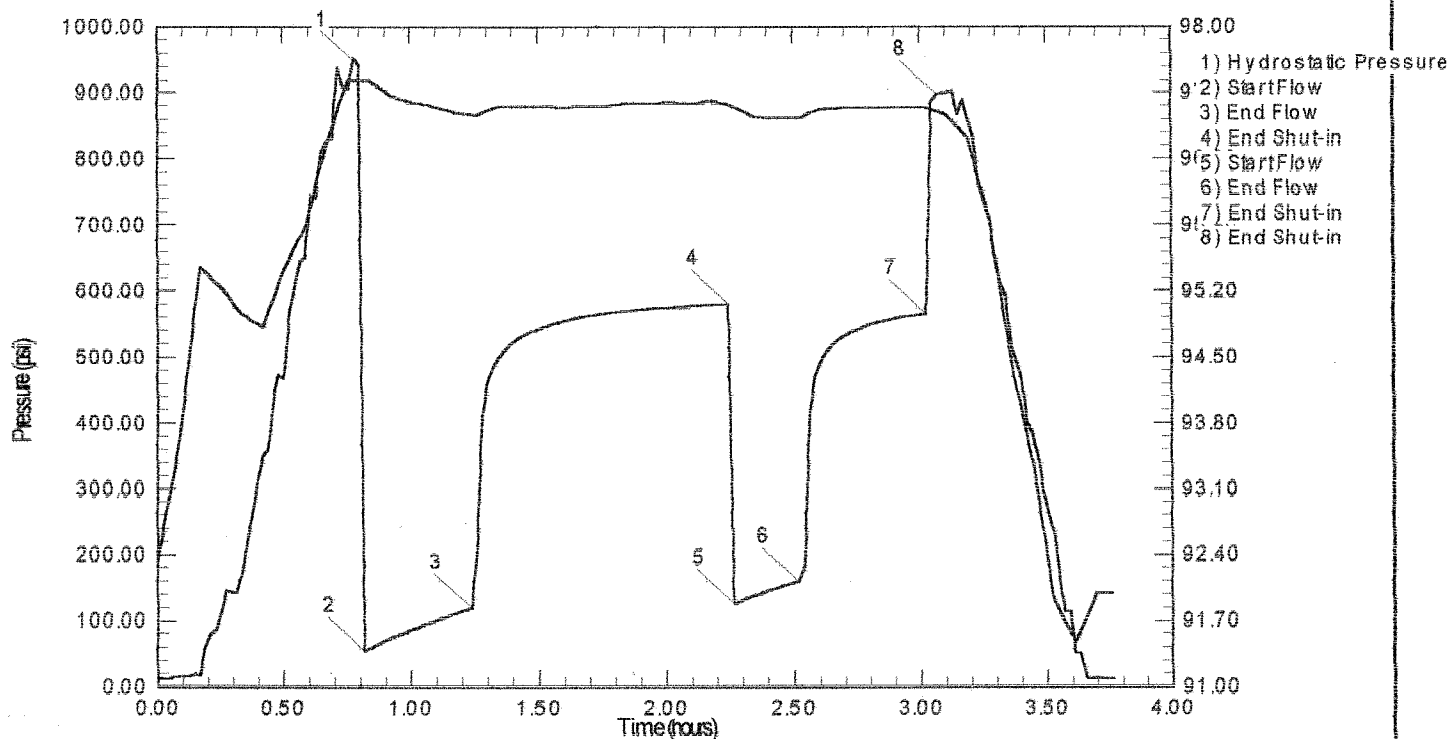
Great Bend, Kansas

CHART DATA

(316) 792-6902

State KANSAS
 County STAFFORD
 Field

Test Date September 26, 2003
 Sec Town Range 5-21S-14W
 Report Number 12308



Field Reading

(1)	Initial Hydrostatic Pressure	942
(2)	Initial Flow Pressure	54
(3)	Final Initial Flow Pressure	120
(4)	Initial Shut-In Pressure	580
(5)	Initial Final Flow Pressure	126
(6)	Final Flow Pressure	159
(7)	Final Shut-In Pressure	565
(8)	Final Hydrostatic Pressure	897

ELECTRONIC RECORDER DEPTH 1926 FT, RECORDER NUMBER 80507

SUPERIOR TESTERS ENTERPRISES INC.

DRILL STEM TEST REPORT

GREAT BEND, KANSAS 67530 (316)792-6902

GENERAL INFORMATION

COMPANY NAME	F.G.HOLL COMPANY L.L.C.	LEASE AND WELL NUMBER	DEBES "A" #1-5
TEST DATE	9/26/03	FORMATION TESTED	TOWANDA
SECTION-TOWN-RANGE	5-21S-14W	DRILL STEM TEST NUMBER	3
STATE	KANSAS	REPORT NUMBER	12308
COUNTY	STAFFORD	ELEVATION KELLY BUSHINGS	1919
ELEVATION GROUND LEVEL	1910	TESTING ENGINEER	GENE BUDIG
COMPANY REPRESENTATIVE	BILL REE		

TOOL SETTING INFORMATION

TEST INTERVAL (From)	1886	TOP PACKER DEPTH	1881
TEST INTERVAL (to)	1933	BOTTOM PACKER DEPTH	1886
ANCHOR LENGTH	47	NUMBER OF PACKERS	2
TOTAL DEPTH (ft)	1933	PACKER SIZE	6 3/4
		HOLE SIZE	7 7/8

FLOW TIMES

INITIAL OPEN

TOOL OPEN (from)	4:30
TOOL OPEN (to)	5:00
DURATION (min.)	30

INITIAL SHUT-IN

TOOL CLOSED (from)	5:00
TOOL CLOSED (to)	6:00
DURATION (min.)	60

FINAL OPEN

TOOL OPEN (from)	6:00
TOOL OPEN (to)	6:15
DURATION (min.)	15

FINAL SHUT-IN

TOOL CLOSED (from)	6:15
TOOL CLOSED (to)	6:45
DURATION (min.)	30

PRESSURE READINGS

INITIAL HYDROSTATIC	942
INITIAL FLOW	54
FINAL INITIAL FLOW	120
INITIAL SHUT-IN	580
INITIAL FINAL FLOW	126
FINAL FLOW	159
FINAL SHUT-IN	565
FINAL HYDROSTATIC	897
MAXIMUM TEMPERATURE	97
TOP RECORDER DEPTH	1928
RECORDER NUMBER	80507
BOTTOM RECORDER DEPTH	1930
RECORDER NUMBER	13208

INITIAL BLOW

WEAK BUILDING BLOW BUILT TO 7 INCHES INTO THE WATER

FINAL BLOW

VERY WEAK BLOW THROUGH OUT

EXTRA EQUIPMENT

JARS	YES	EXTRA PACKER (3RD)	NO
SAFETY JOINT	YES	EXTRA PACKER (4TH)	NO
ELECTRONIC RECORDER	YES	STRADDLE	NO
CIRCULATING SUB	NO	HOOK WALL	NO
		SAMPLER	NO

SUPERIOR TESTERS ENTERPRISES INC.

DRILL STEM TEST REPORT

GREAT BEND, KANSAS 67530 (316)792-6902

WELL INFORMATION

DRILLING CONTRACTOR **STERLING DRILLING RIG #1**

DRILL PIPE LENGTH **1620**

DRILL PIPE I.D. **3.8**

TOOL JOINT SIZE **4 1/2 X.H.**

DRILL COLLAR LENGTH **240**

DRILL COLLAR I.D. **2.25**

TOOL JOINT SIZE **4 1/2 X.H.**

WEIGHT PIPE LENGTH

WEIGHT PIPE I.D. **2.25**

TOOL JOINT SIZE **4 1/2 X.H.**

MUD WEIGHT #/GAL **8.8**

VISCOSITY **39**

WATER LOSS **9.6**

CHLORIDES-PITS **13000**

CHLORIDES-DST **72000**

FEET OF RECOVERY		RECOVERY DESCRIPTION	% GAS	% OIL	% MUD	% WATER
1)	100	DRILLING MUD				
2)	150	MUDDY WATER-CHLORIDES 72000				
3)						
4)						
5)						
6)						
7)						
8)						
9)						
10)						
11)						
12)						
13)						
14)						
15)						

TOTAL RECOVERY

COMMENTS

Superior Testers Enterprises, Inc.

CONFIDENTIAL

P.O. Box 295B, Great Bend, Kansas 67530

(316) 792-6902

ORIGINAL

Date 09-27-2003 Location CN₂ - N₂ SE 5-21⁵-4 W Elevation 1919 KB County Stafford

Company F.G. Hall Company L.L.C. Number of Copies 5

Charts Mailed to 9431 East Central Suite 100 Wichita Kansas 67206-2543

Drilling Contractor Sterling Drilling Rig #1

Length Drill Pipe 2065 I.D. Drill Pipe 3.80 Tool Joint Size 4 1/2" X H.

Length Weight Pipe NONE I.D. Weight Pipe NONE Tool Joint Size NONE

Length Drill Collars 240 I.D. Drill Collars 2.25 Tool Joint Size 4 1/2" X H.

Top Packer Depth 2326 Bottom Packer Depth 2331 Number of Packers 2 Packer Size 6 3/4"

TESTED FROM 2331 TO 2353 ANCHOR LENGTH 22 TOTAL DEPTH 2353 Hole Size 7 7/8"

LEASE & WELL NO. DEBES "A" #1-5 FORMATION TESTED RED EAGLE TEST NO. 4

Mud Weight 9.9 Viscosity 42 Water Loss 8.9 Chlorides - Pits 21000 D.S.T. 128000

Maximum Temp. 104 °F Initial Hydrostatic Pressure (A) 1192 P.S.I. Final Hydrostatic Pressure (H) 1144 P.S.I.

Tool Open I.F.P. from 8:30 p.m. to 9:00 p.m. 30 min

Tool Closed I.C.I.P. from 9:00 p.m. to 10:00 p.m. 60 min

Tool Open F.F.P. from 10:00 p.m. to 11:00 p.m. 60 min

Tool Closed F.C.I.P. from 11:00 p.m. to 12:30 p.m. 90 min

Initial Blow Strong blow with Gas to Surface in 1 minute

Final Blow Strong blow - See Gas

Total Feet Recovered 330 Gravity of Oil _____ Corrected _____

330 Feet of SALT WATER CHLORIDES 128000 % Gas _____ % Oil _____ % Mud _____ % Water _____

_____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

_____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

_____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

_____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

_____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

_____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

_____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

_____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

Remarks _____

Extra Equipment - Jars YES Safety Joint YES Extra Packer NONE Straddle NONE Hook Wall NONE

Top Recorder No. 18225 Clock No. ELECTRONIC Depth 2346 Cir. Sub NONE Sampler NONE

Bottom Recorder No. 13208 Clock No. 47441 Depth 2350 Insurance NONE

Price of Job _____

Tool Operator Sam Basky

Approved By _____ No 12309

from [B] 600 P.S.I. to [C] 595 P.S.I.
[D] 753 P.S.I.
from [E] 623 P.S.I. to [F] 532 P.S.I.
[G] 730 P.S.I.

KCC

JAN 08 2004

CONFIDENTIAL

Superior Testers Enterprises, Inc. shall not be liable for damage of any kind to the property or personnel of the one for whom a test is made, of for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

SUPERIOR TESTERS ENTERPRISES INC.

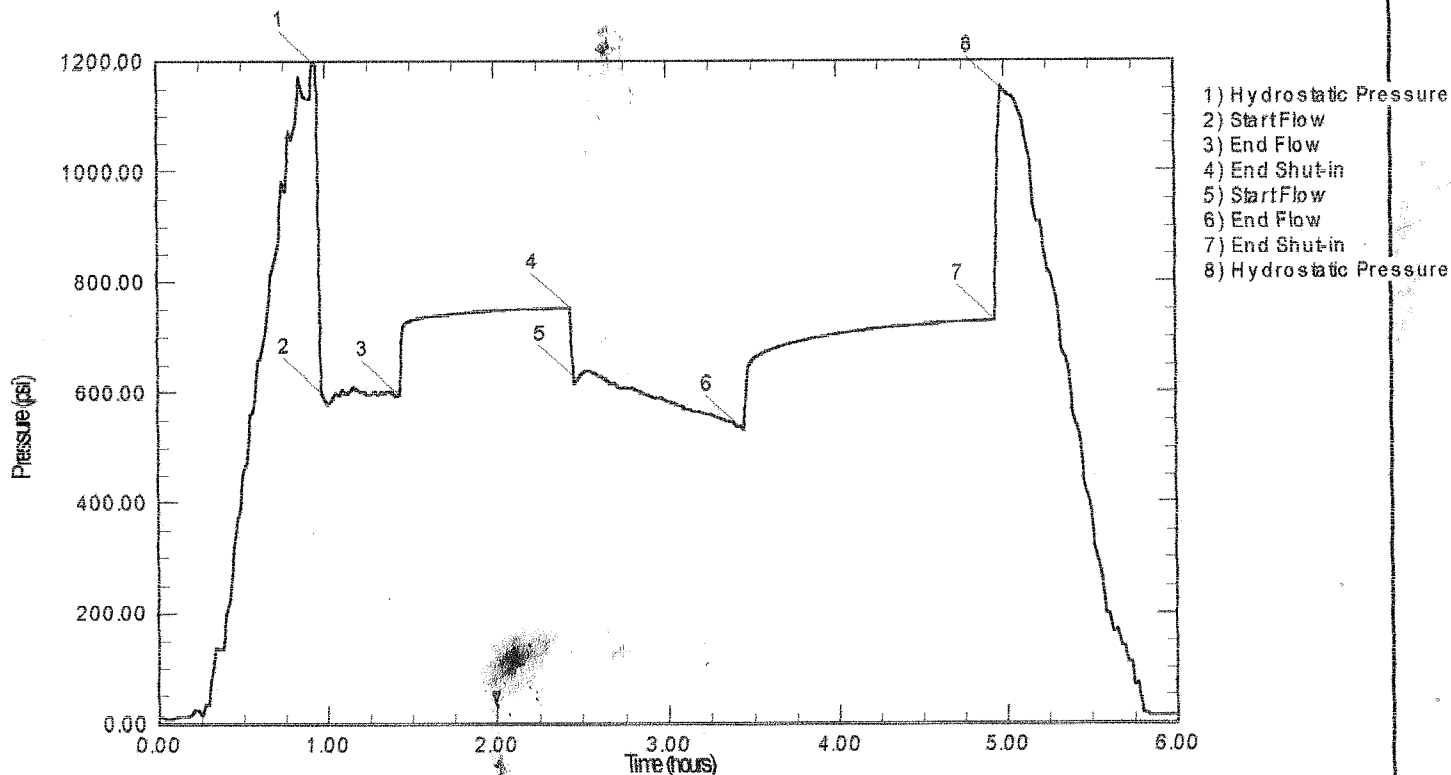
Great Bend, Kansas

CHART DATA

(316) 792-6902

State KANSAS
 County STAFFORD
 Field

Test Date September 27, 2003
 Sec Town Range 5-21S-14W
 Report Number 12309



Field Reading

(1)	Initial Hydrostatic Pressure	1192
(2)	Initial Flow Pressure	600
(3)	Final Initial Flow Pressure	595
(4)	Initial Shut-In Pressure	753
(5)	Initial Final Flow Pressure	623
(6)	Final Flow Pressure	532
(7)	Final Shut-In Pressure	730
(8)	Final Hydrostatic Pressure	1144

ELECTRONIC RECORDER DEPTH 2346 FT, RECORDER NUMBER 80507

SUPERIOR TESTERS ENTERPRISES INC.

DRILL STEM TEST REPORT

GREAT BEND, KANSAS 67530 (316)792-6902

GENERAL INFORMATION

COMPANY NAME	F.G.HOLL COMPANY L.L.C.	LEASE AND WELL NUMBER	DEBES "A" #1-5
TEST DATE	9/27/03	FORMATION TESTED	RED EAGLE
SECTION-TOWN-RANGE	5-21S-14W	DRILL STEM TEST NUMBER	4
STATE	KANSAS	REPORT NUMBER	12309
COUNTY	STAFFORD	ELEVATION KELLY BUSHINGS	1919
ELEVATION GROUND LEVEL	1910	TESTING ENGINEER	GENE BUDIG
COMPANY REPRESENTATIVE	BILL REE		

TOOL SETTING INFORMATION

TEST INTERVAL (From)	2331	TOP PACKER DEPTH	2326
TEST INTERVAL (to)	2353	BOTTOM PACKER DEPTH	2331
ANCHOR LENGTH	22	NUMBER OF PACKERS	2
TOTAL DEPTH (ft)	2353	PACKER SIZE	6 3/4
		HOLE SIZE	7 7/8

FLOW TIMES

INITIAL OPEN

TOOL OPEN (from)	8:30
TOOL OPEN (to)	9:00
DURATION (min.)	30

INITIAL SHUT-IN

TOOL CLOSED (from)	9:00
TOOL CLOSED (to)	10:00
DURATION (min.)	60

FINAL OPEN

TOOL OPEN (from)	10:00
TOOL OPEN (to)	11:00
DURATION (min.)	60

FINAL SHUT-IN

TOOL CLOSED (from)	11:00
TOOL CLOSED (to)	12:30
DURATION (min.)	90

PRESSURE READINGS

INITIAL HYDROSTATIC	1192
INITIAL FLOW	600
FINAL INITIAL FLOW	595
INITIAL SHUT-IN	753
INITIAL FINAL FLOW	623
FINAL FLOW	532
FINAL SHUT-IN	730
FINAL HYDROSTATIC	1144
MAXIMUM TEMPERATURE	104
TOP RECORDER DEPTH	2346
RECORDER NUMBER	80507
BOTTOM RECORDER DEPTH	2350
RECORDER NUMBER	13208

INITIAL BLOW

STRONG BLOW WITH GAS TO SURFACE IN 1 MINUTES

FINAL BLOW

STRONG BLOW-SEE GAS FLOW REPORT

EXTRA EQUIPMENT

JARS	YES	EXTRA PACKER (3RD)	NO
SAFETY JOINT	YES	EXTRA PACKER (4TH)	NO
ELECTRONIC RECORDER	YES	STRADDLE	NO
CIRCULATING SUB	NO	HOOK WALL	NO
		SAMPLER	NO

SUPERIOR TESTERS ENTERPRISES INC.

DRILL STEM TEST REPORT

GREAT BEND, KANSAS 67530 (316)792-6902

WELL INFORMATION

DRILLING CONTRACTOR **STERLING DRILLING RIG #1**

DRILL PIPE LENGTH **2065**

DRILL PIPE I.D. **3.8**

TOOL JOINT SIZE **4 1/2 X.H.**

DRILL COLLAR LENGTH **240**

DRILL COLLAR I.D. **2.25**

TOOL JOINT SIZE **4 1/2 X.H.**

WEIGHT PIPE LENGTH

WEIGHT PIPE I.D. **2.25**

TOOL JOINT SIZE **4 1/2 X.H.**

MUD WEIGHT #/GAL **9**

VISCOSITY **42**

WATER LOSS **8.6**

CHLORIDES-PITS **21000**

CHLORIDES-DST **128000**

FEET OF RECOVERY	RECOVERY DESCRIPTION	% GAS	% OIL	% MUD	% WATER
1)					
2)					
3)					
4)					
5)					
6)					
7)					
8)					
9)					
10)					
11)					
12)					
13)					
14)					
15)					

TOTAL RECOVERY

COMMENTS

#

SUPERIOR TESTERS ENTERPRISES INC.

GREAT BEND, KANSAS

SUPERPOSITION ANALYSIS

(316) 792-6902

1ST SHUT-IN

State KANSAS

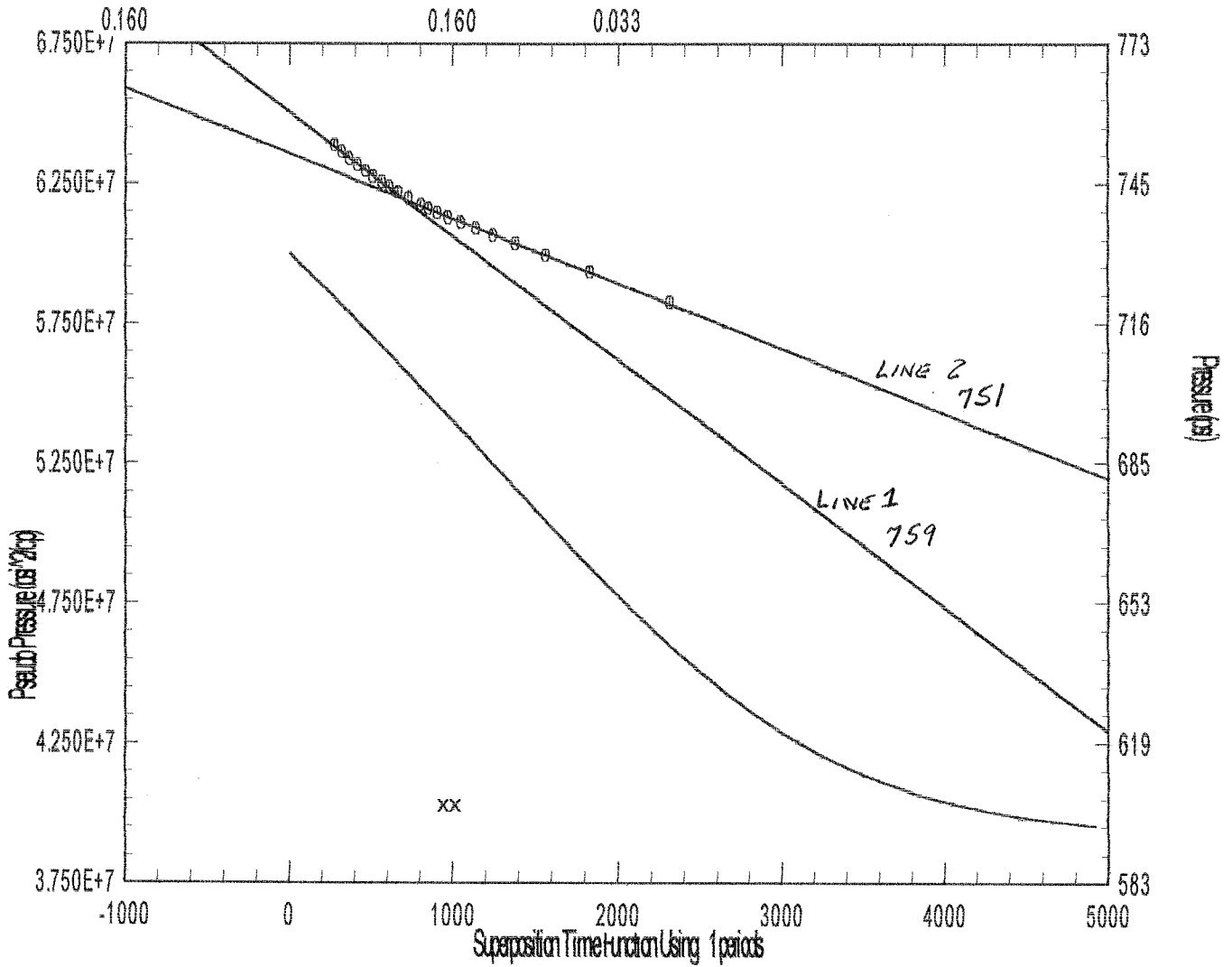
Test Date 9/27/03

County STAFFORD

Sec Town Range 5-21S-14W

Field

Report Number 12309



MODEL RESULTS

Constant Storage
C1 : 0.039 bbl/psi

Skin Model
Skin : -0.10

Homogeneous
k : 16.502 md
Est Pi: 730.7 psi

No Boundaries

h : 10 ft
mu : 0.012 cp
phi : 18.0%
ct : 9.916E-04 1/psi
rw : 3.208 ft
BHT : 104 F
FVF : 3.29

Field :
County or Parish :
State :

Date Printed: 09/28/03 02:16:46
Analysis Period : 1ST SHUT-IN
Comment : Line # /

Superposition Slope -> m' -4431.689000
Horner Slope -> m -7.507282E+6
Intercept 6.505E+7
P(dt=1 hr) 6.381E+7
Pwf 3.913E+7
R Sqr 0.9941

Intercept (psi) 759.485
k (md) 20.83332
kh (md-ft) 208.33319
k/u (md/cp) 1750.69903
kh/uB (md-ft/cp) 17506.99034
Skin 0.6169
DP Skin 28.7365
Total DP 164.5144
Percent DP 17.47%

Radius Invest (ft) 101
Radius Time (hrs) 1.01

Delta Q = 1694
h (ft)= 10
mu (cp) = 0.0119
B (stb/scf) = 3.2880

First Point # 16
Second Point # 49
Start Real Time 0.315
End Real Time 1.008
Start SF Time 664.235

Field :
County or Parish :
State :

Date Printed: 09/28/03 02:17:13
Analysis Period : 1ST SHUT-IN
Comment : Line # 2

Superposition Slope -> m' -2326.191000
Horner Slope -> m -3.940568E+6
Intercept 6.357E+7
P(dt=1 hr) 6.292E+7
Pwf 3.913E+7
R Sqr 0.9984

Intercept (psi) 751.117
k (md) 39.69011
kh (md-ft) 396.90113
k/u (md/cp) 3335.30354
kh/uB (md-ft/cp) 33353.03545
Skin 3.4577
DP Skin 80.7224
Total DP 156.1470
Percent DP 51.70%

Radius Invest (ft) 140
Radius Time (hrs) 1.01

Delta Q = 1694
h (ft)= 10
mu (cp) = 0.0119
B (stb/scf) = 3.2880

First Point # 4
Second Point # 10
Start Real Time 0.063
End Real Time 0.189
Start SF Time 1559.867

SUPERIOR TESTERS ENTERPRISES INC.

GREAT BEND, KANSAS

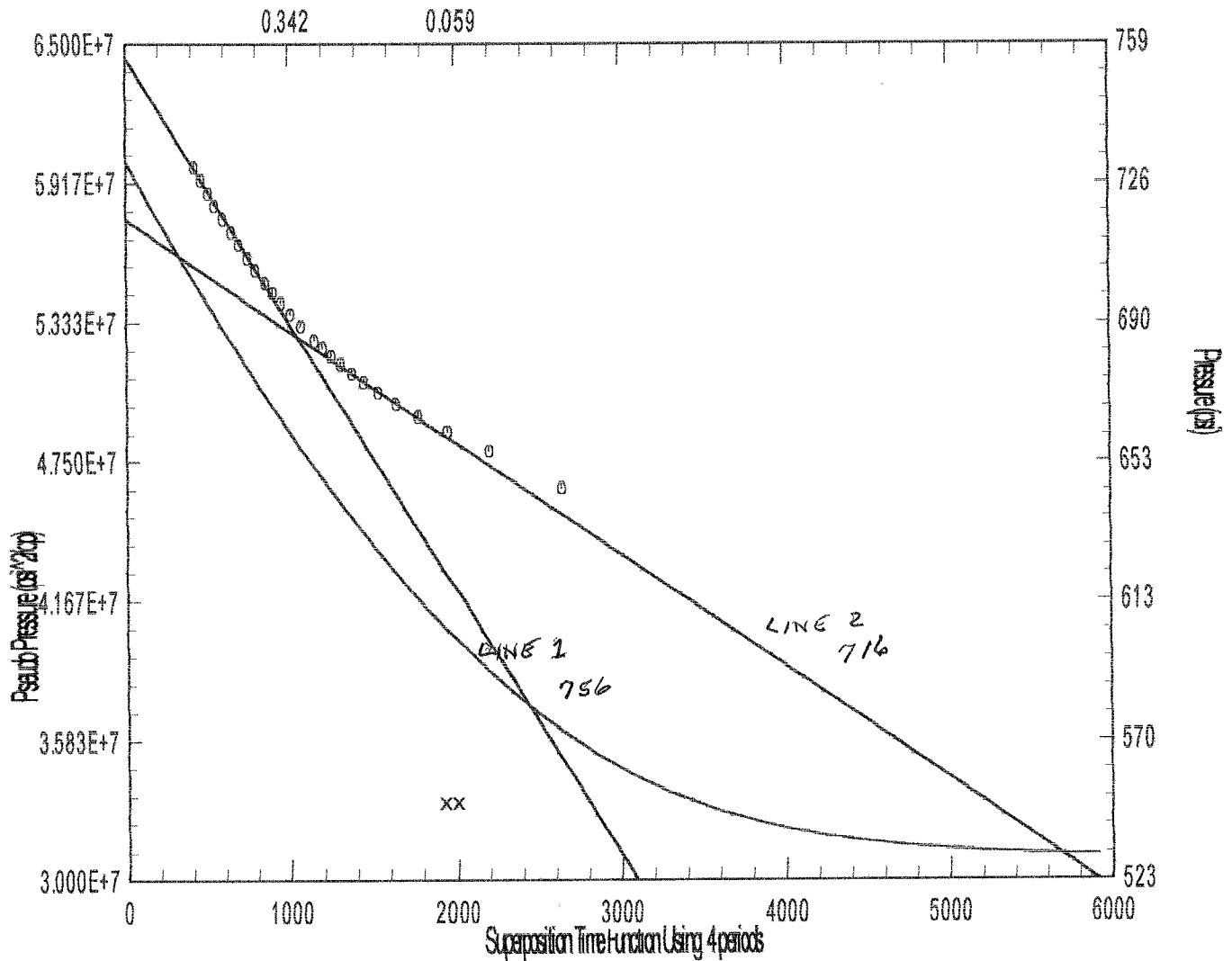
SUPERPOSITION ANALYSIS

(316) 792-6902

2ND SHUT-IN

State KANSAS
County STAFFORD
Field

Test Date 9/27/03
Sec Town Range 5-21S-14W
Report Number 12309



MODEL RESULTS

Constant Storage	Skin Model	Homogeneous	No Boundaries	h : 10 ft
$C1$: 0.041 bbl/psi	Skin : -4.00	k : 7.379 md		μ : 0.012 cp
		Est P: 731.0 psi		ϕ : 18.0%
				ct : 9.916E-04 1/psi
				rw : 3.208 ft
				BHT : 104 F
				FVF : 3.29

Field :
County or Parish :
State :

Date Printed: 09/28/03 02:22:37
Analysis Period : 2ND SHUT-IN
Comment : Line # /

Superposition Slope -> m' -11128.750000
Horner Slope -> m -1.658183E+7
Intercept 6.445E+7
P(dt=1 hr) 5.842E+7
Pwf 3.098E+7
R Sqr -1.0000

Intercept (psi) 756.116
k (md) 8.29624
kh (md-ft) 82.96244
k/u (md/cp) 697.16334
kh/uB (md-ft/cp) 6971.63337
Skin -0.8025
DP Skin -87.9047
Total DP 224.5061
Percent DP -39.15%

Radius Invest (ft) 78
Radius Time (hrs) 1.49

Delta Q = 1490
h (ft)= 10
mu (cp) = 0.0119
B (stb/scf) = 3.2880

First Point # -1
Second Point # -1
Start Real Time
End Real Time
Start SF Time

Field :
County or Parish :
State :

Date Printed: 09/28/03 02:23:08
Analysis Period : 2ND SHUT-IN
Comment : Line # 2

Superposition Slope -> m' -4675.451000
Horner Slope -> m -6.966422E+6
Intercept 5.766E+7
P(dt=1 hr) 5.512E+7
Pwf 3.098E+7
R Sqr 0.9959

Intercept (psi) 716.779
k (md) 19.74714
kh (md-ft) 197.47142
k/u (md/cp) 1659.42369
kh/uB (md-ft/cp) 16594.23692
Skin 0.8480
DP Skin 40.8540
Total DP 185.1691
Percent DP 22.06%

Radius Invest (ft) 120
Radius Time (hrs) 1.49

Delta Q = 1490
h (ft)= 10
mu (cp) = 0.0119
B (stb/scf) = 3.2880

First Point # 4
Second Point # 10
Start Real Time 0.063
End Real Time 0.189
Start SF Time 1955.114

CONFIDENTIAL

Superior Testers Enterprises, Inc. ORIGINAL

R.R. 3, Box 295B, Great Bend, Kansas 67530

(316) 792-6902

Date 9-28-2003 Location C 72-N 2-SE 5-25.4W Elevation 1919.62 County StaffordCompany F.G. Hall Company L.L.C. Number of Copies 5Charts Mailed to 9431 East Central Suite 100 Wichita, Kansas 67206-2543Drilling Contractor Sterling Drilling Co #1Length Drill Pipe 2296 I.D. Drill Pipe 3.80 Tool Joint Size 4 1/2 x 1 1/2Length Weight Pipe NONE I.D. Weight Pipe NONE Tool Joint Size NONELength Drill Collars 240 I.D. Drill Collars 2.25 Tool Joint Size 4 1/2 x 1 1/2Top Packer Depth 2557 Bottom Packer Depth 2562 Number of Packers 2 Packer Size 6 3/4"TESTED FROM 2562 TO 2608 ANCHOR LENGTH 46 TOTAL DEPTH 2608 Hole Size 7 7/8"LEASE & WELL NO. Debes "A" #1-5 FORMATION TESTED Langdon Sand TEST NO. 5Mud Weight 9.1 Viscosity 42 Water Loss 8.9 Chlorides - Pits 22000 D.S.T. 109000Maximum Temp. 109 °F Initial Hydrostatic Pressure (A) 1362 P.S.I. Final Hydrostatic Pressure (H) 1282 P.S.I.Tool Open I.F.P. from 6:00 pm to 6:30 pm 30 minTool Closed I.C.I.P. from 6:30 pm to 7:30 pm 60 minTool Open F.F.P. from 7:30 pm to 8:15 pm 45 minTool Closed F.C.I.P. from 8:15 pm to 9:45 pm 90 minInitial Blow Fair blow with Gas to Surface in 26 minutesFinal Blow Fair blow SEE Gas Flow ReportTotal Feet Recovered 870 Gravity of Oil _____ Corrected _____570 Feet of Gassy SLIGHTLY muddy water % Gas _____ % Oil _____ % Mud _____ % Water _____300 Feet of Salt water Gassy CHLORIDES 109000 % Gas _____ % Oil _____ % Mud _____ % Water _____

____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water _____

Remarks _____

Extra Equipment - Jars YES Safety Joint YES Extra Packer NONE Straddle NONE Hook Wall NONETop Recorder No. 47441 Clock No. 78225 Depth 2601 Cir. Sub NONE Sampler NONEBottom Recorder No. 13202 Clock No. 47441 Depth 2605 Insurance NONE

Price of Job _____

Tool Operator Gene Gentry

Approved By _____

No 12310

Superior Testers Enterprises, Inc. shall not be liable for damage of any kind to the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

SUPERIOR TESTERS ENTERPRISES INC.

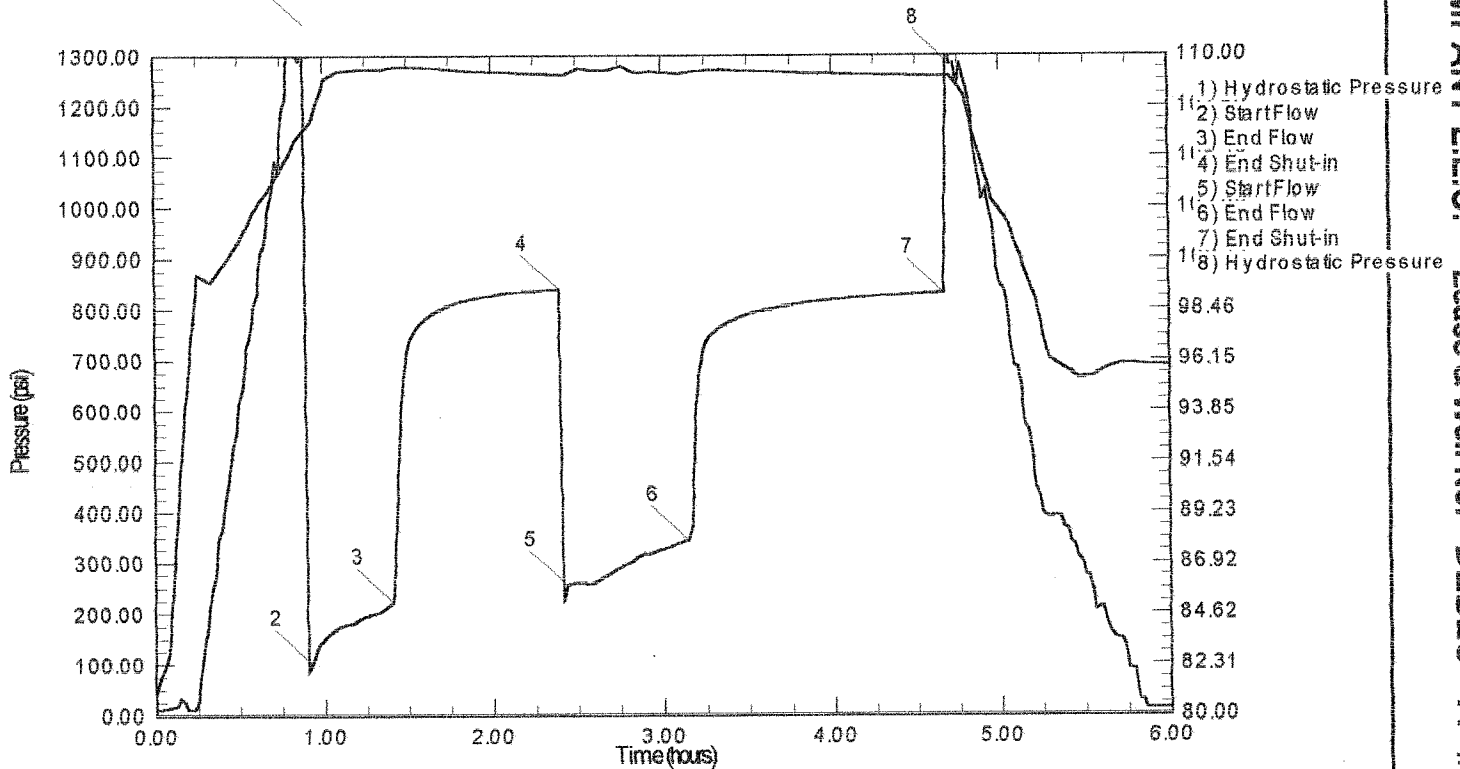
Great Bend, Kansas

CHART DATA

(316) 792-6902

State KANSAS
County STAFFORD
Field

Test Date September 28, 2003
Sec Town Range 5-21S-14W
Report Number 12310



Field Reading

(1)	Initial Hydrostatic Pressure	1362
(2)	Initial Flow Pressure	101
(3)	Final Initial Flow Pressure	223
(4)	Initial Shut-In Pressure	840
(5)	Initial Final Flow Pressure	256
(6)	Final Flow Pressure	344
(7)	Final Shut-In Pressure	831
(8)	Final Hydrostatic Pressure	1282

ELECTRONIC RECORDER DEPTH 2601 FT, RECORDER NUMBER 80507

Company: F.G.HOLL COMPANY L.L.C. Lease & Well No. DEBES "A" #1-5 Test #: 5 Date: 09-28-2003 SEC. 5 TWP. 21S RGE. 4W

SUPERIOR TESTERS ENTERPRISES INC.

DRILL STEM TEST REPORT

GREAT BEND ,KANSAS 67530 (316)792-6902

GENERAL INFORMATION

COMPANY NAME	F.G.HOLL COMPANY L.L.C.	LEASE AND WELL NUMBER	DEBES "A" #1-5
TEST DATE	9/28/03	FORMATION TESTED	LANGDON SAND
SECTION-TOWN-RANGE	5-21S-14W	DRILL STEM TEST NUMBER	5
STATE	KANSAS	REPORT NUMBER	12310
COUNTY	STAFFORD	ELEVATION KELLY BUSHINGS	1919
ELEVATION GROUND LEVEL	1910	TESTING ENGINEER	GENE BUDIG
COMPANY REPRESENTATIVE	BILL REE		

TOOL SETTING INFORMATION

TEST INTERVAL (From)	2562	TOP PACKER DEPTH	2557
TEST INTERVAL (to)	2608	BOTTOM PACKER DEPTH	2562
ANCHOR LENGTH	46	NUMBER OF PACKERS	2
TOTAL DEPTH (ft)	2608	PACKER SIZE	6 3/4
		HOLE SIZE	7 7/8

FLOW TIMES

<i>INITIAL OPEN</i>	
TOOL OPEN (from)	6:00
TOOL OPEN (to)	6:30
DURATION (min.)	30
<i>INITIAL SHUT-IN</i>	
TOOL CLOSED (from)	6:30
TOOL CLOSED (to)	7:30
DURATION (min.)	60
<i>FINAL OPEN</i>	
TOOL OPEN (from)	7:30
TOOL OPEN (to)	8:15
DURATION (min.)	45
<i>FINAL SHUT-IN</i>	
TOOL CLOSED (from)	8:15
TOOL CLOSED (to)	9:45
DURATION (min.)	90

PRESSURE READINGS

INITIAL HYDROSTATIC	1362
INITIAL FLOW	101
FINAL INITIAL FLOW	223
INITIAL SHUT-IN	840
INITIAL FINAL FLOW	256
FINAL FLOW	344
FINAL SHUT-IN	831
FINAL HYDROSTATIC	1282
MAXIMUM TEMPERATURE	109
TOP RECORDER DEPTH	2601
RECORDER NUMBER	80507
BOTTOM RECORDER DEPTH	2605
RECORDER NUMBER	13208

INITIAL BLOW

FAIR BLOW WITH GAS TO SURFACE IN 26 MINUTES

FINAL BLOW

FAIR BLOW SEE GAS FLOW REPORT

EXTRA EQUIPMENT

JARS	YES	EXTRA PACKER (3RD)	NO
SAFETY JOINT	YES	EXTRA PACKER (4TH)	NO
ELECTRONIC RECORDER	YES	STRADDLE	NO
CIRCULATING SUB	NO	HOOK WALL	NO
		SAMPLER	NO

SUPERIOR TESTERS ENTERPRISES INC.

DRILL STEM TEST REPORT

GREAT BEND, KANSAS 67530 (316)792-6902

WELL INFORMATION

DRILLING CONTRACTOR **STERLING DRILLING RIG #1**

DRILL PIPE LENGTH **2296**

DRILL PIPE I.D. **3.8**

TOOL JOINT SIZE **4 1/2 X.H.**

DRILL COLLAR LENGTH **240**

DRILL COLLAR I.D. **2.25**

TOOL JOINT SIZE **4 1/2 X.H.**

WEIGHT PIPE LENGTH

WEIGHT PIPE I.D. **2.25**

TOOL JOINT SIZE **4 1/2 X.H.**

MUD WEIGHT #/GAL **9.1**

VISCOSITY **42**

WATER LOSS **8**

CHLORIDES-PITS **22000**

CHLORIDES-DST **109000**

FEET OF RECOVERY		RECOVERY DECEIPTION	% GAS	% OIL	% MUD	% WATER
1)	570	GASSY MUDDY WATER				
2)	300	GASSY SALT WATER CHLORIDES 109000				
3)						
4)						
5)						
6)						
7)						
8)						
9)						
10)						
11)						
12)						
13)						
14)						
15)						
		TOTAL RECOVERY				

COMMENTS

✱

SUPERIOR TESTERS ENTERPRISES INC.

GREAT BEND, KANSAS

SUPERPOSITION ANALYSIS

(316) 792-6902

1ST SHUT-IN

State KANSAS

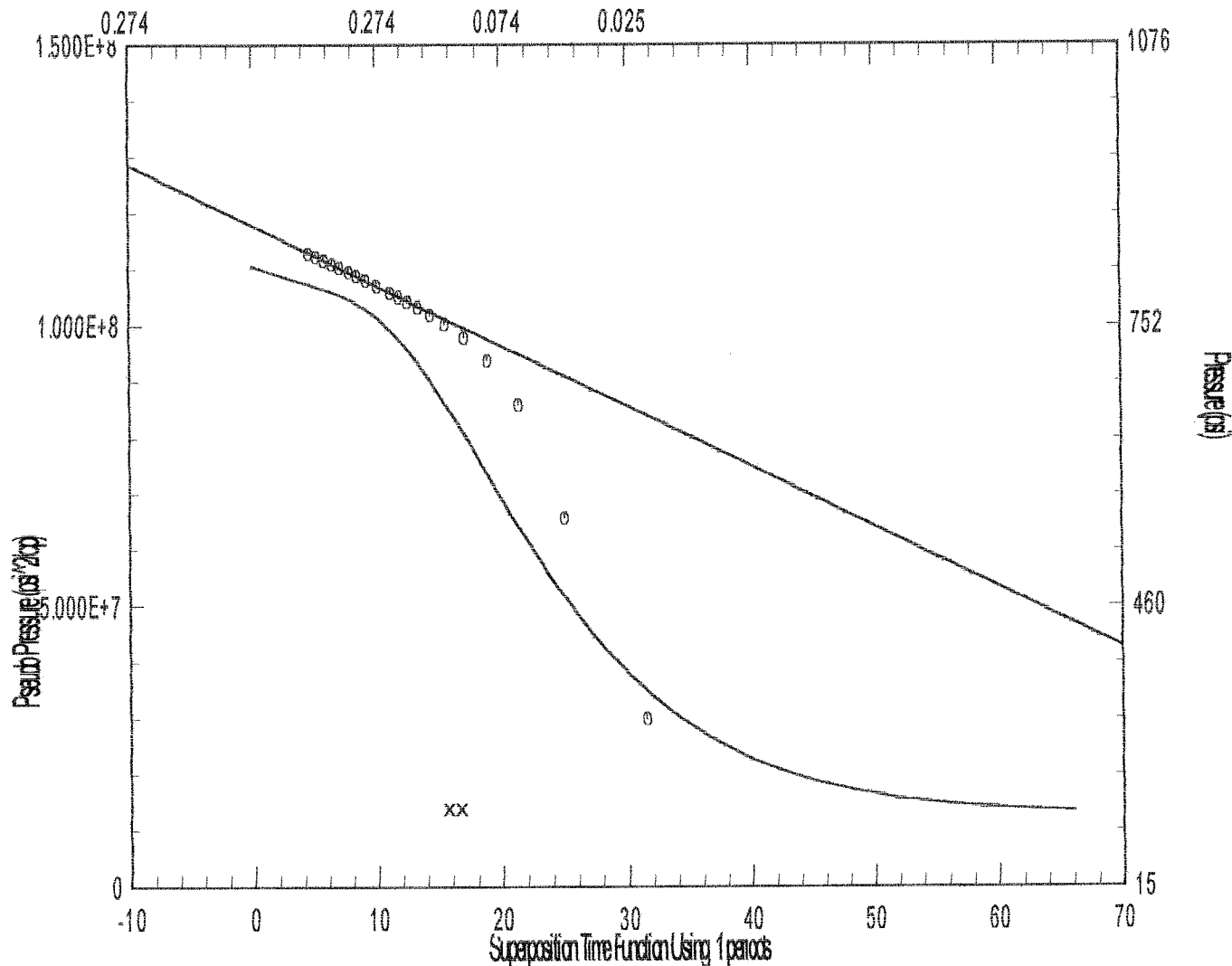
Test Date 9/28/03

County STAFFORD

Sec Town Range 5-21S-14W

Field

Report Number 12310



MODEL RESULTS

Constant Storage

C1 : 2.530E-4 bbl/psi

Skin Model

Skin : 4.62

Homogeneous

k : 0.199 md

Est Pi : 821.9 psi

No Boundaries

h : 5 ft

mu : 0.017 cp

phi : 18.0%

ct : 8.776E-04 1/psi

rw : 3.208 ft

BHT : 109 F

FVF : 1.58

Field :
County or Parish :
State :

Date Printed: 09/28/03 23:36:29
Analysis Period : 1ST SHUT-IN
Comment : Line #

Superposition Slope -> m' -1.074171E+6
Horner Slope -> m -2.449110E+7
Intercept 1.179E+8
P(dt=1 hr) 1.137E+8
Pwf 1.274E+7
R Sqr 0.9989

Intercept (psi) 868.061
k (md) 0.17343
kh (md-ft) 0.86714
k/u (md/cp) 10.02470
kh/uB (md-ft/cp) 50.12351
Skin 4.0957
DP Skin 526.8388
Total DP 643.2946
Percent DP 81.90%

Radius Invest (ft) 8
Radius Time (hrs) 0.99

Delta Q = 23
h (ft)= 5
mu (cp) = 0.0173
B (stb/scf) = 1.5840

First Point # 8
Second Point # 40
Start Real Time 0.147
End Real Time 0.819
Start SF Time 14.410

SUPERIOR TESTERS ENTERPRISES INC.

GREAT BEND, KANSAS

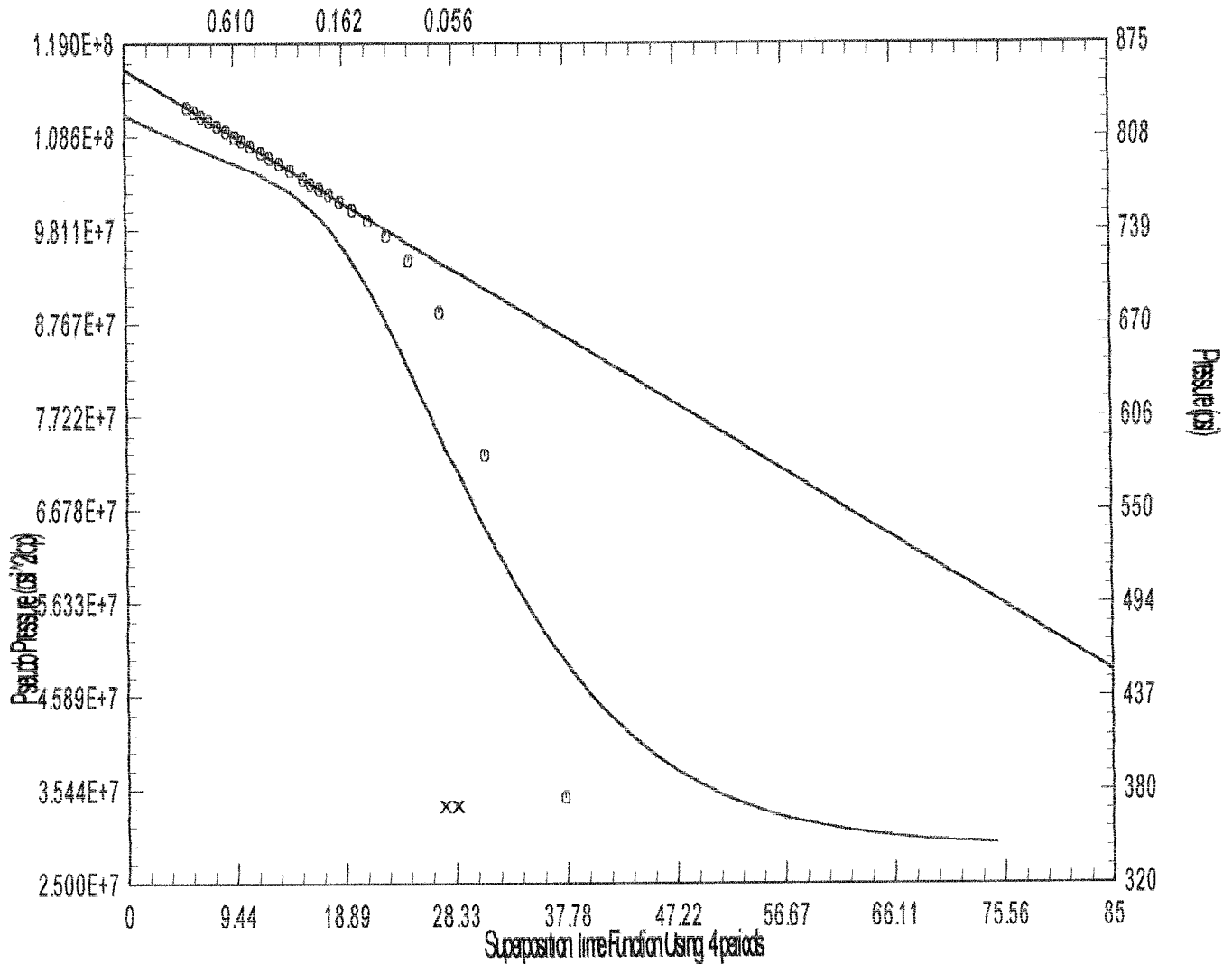
SUPERPOSITION ANALYSIS

(316) 792-6902

2ND SHUT-IN

State KANSAS
County STAFFORD
Field

Test Date 9/28/03
Sec Town Range 5-21S-14W
Report Number 12310



MODEL RESULTS

Constant Storage
C1 : 2.630E-4 bbl/psi

Skin Model
Skin : 4.67

Homogeneous
k : 0.255 md
Est P_i : 825.0 psi

No Boundaries

h : 5 ft
mu : 0.017 cp
phi : 18.0%
ct : 8.776E-04 1/psi
rw : 3.208 ft
BHT : 109 F
FVF : 1.58

Field :
County or Parish :
State :

Date Printed: 09/28/03 23:39:20
Analysis Period : 2nd shut-in
Comment : Line #

Superposition Slope -> m' -7.925694E+5
Horner Slope -> m -1.807058E+7
Intercept 1.161E+8
P(dt=1 hr) 1.106E+8
Pwf 2.895E+7
R Sqr 1.0000

Intercept (psi) 857.085
k (md) 0.23505
kh (md-ft) 1.17523
k/u (md/cp) 13.58650
kh/uB (md-ft/cp) 67.93249
Skin 4.4026
DP Skin 395.9492
Total DP 513.6485
Percent DP 77.09%

Radius Invest (ft) 12
Radius Time (hrs) 1.51

Delta Q = 23
h (ft)= 5
mu (cp) = 0.0173
B (stb/scf) = 1.5840

First Point # 10
Second Point # 73
Start Real Time 0.189
End Real Time 1.512
Start SF Time 17.696