

ORIGINAL

FORM MUST BE TYPED

KCC

SIDE ONE

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION FORM
ACG-1 WELL HISTORY
DESCRIPTION OF WELL AND LEASE

JUL 13

CONFIDENTIAL

Operator: License # 30606
Name: MURFIN DRILLING COMPANY, INC.
Address 250 North Water, Suite 300
Wichita, Kansas 67202
Purchaser: na
Operator Contact Person: Scott Robinson
Phone (316) 267-3241
Contractor: Name: L. D. DRILLING, INC.
License: 6039
Wellsite Geologist: Dan Fredlund

Designate Type of Completion
 New Well Re-Entry Workover
 Oil SWD SIOV Temp. Abd.
 Gas ENHR SIGW
 Dry Other (Core, WSV, Expl., Cathodic, etc.)

If Workover/Re-Entry: old well info as follows:
Operator: _____
Well Name: _____
Comp. Date _____ Old Total Depth _____
Deepening _____ Re-perf. _____ Conv. to Inj/SWD _____
Plug Back _____ PSTD _____
Commingled _____ Docket No. _____
Dual Completion _____ Docket No. _____
Other (SWD or Inj?) _____ Docket No. _____
6-29-93 7-7-93
Spud Date Date Reached TD Completion Date

API NO. 15- 155-21258-6000
County RENO
NE SE NE Sec. 33 Twp. 23S Rge. 9 E

165° Feet from S6 (circle one) Line of Section
330 Feet from E/W (circle one) Line of Section

Footages Calculated from Nearest Outside Section Corner:
NE, SE, NW or SW (circle one)

Lease Name Emma Geist Well # 1-33
Field Name Langdon

Producing Formation _____
Elevation: Ground 1723 KB 1728

Total Depth 3910' PSTD _____

Amount of Surface Pipe Set and Cemented at 220 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set _____ Feet

If Alternate II completion, cement circulated from _____
feet depth to _____ w/ _____ sx cmt.

Drilling Fluid Management Plan PTD 7-28-93
(Data must be collected from the Reserve Pit)

Chloride content 26000 ppm Fluid volume 2500 bbls

Dewatering method used evaporation

Location of fluid disposal if hauled offsite: _____

Operator Name RELEASED

Lease Name _____ License No. _____

Quarter _____ Sec. _____ Twp. SEP 6 1994 Rge. _____ E/W

County _____ Docket No. CONFIDENTIAL

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature By: Larry M. Jack
Title Larry M. Jack, Prod. Mgr. Date 7/13/93

Subscribed and sworn to before me this 13 day of July 19 93.

Notary Public Kerran Redington
KERRAN REDINGTON
NOTARY PUBLIC
STATE OF KANSAS
My Appl. Exp. 2-6-94

K.C.C. OFFICE USE ONLY
F Letter of Confidentiality Attached
C Wireline Log Received
C Geologist Report Received
DISTRIBUTION
KCC _____ SWD/Rep _____ NGPA _____
KGS _____ Plug _____ Other _____
RECEIVED
JUL 14 1993
CONFIDENTIAL
Wichita, Kan.

Operator Name Murfin Drilling Company, Inc. Lease Name Emma Geist Well # 1-33
 Sec. 33 Twp. 23S Rge. 9 East County Reno
 West

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken (Attach Additional Sheets.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Cherokee	3748 (-2020)	
Electric Log Run (Submit Copy.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	MISS	3765 (-2037)	
		Brëllia Zone	3800 (-2072)	
		Kinderhook Sd	3858 (-2130)	

List All E.Logs Run: attached

CASING RECORD <input checked="" type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs./Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
surface	12 1/4"	8 5/8"	23#	220	60/40 Poz	100	2% Gel, 3% CC

ADDITIONAL CEMENTING/SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				

PERFORATION RECORD - Bridge Plugs Set/Type		Acid, Fracture, Shot, Cement Squeeze Record	
Shots Per Foot	Specify Footage of Each Interval Perforated	(Amount and Kind of Material Used)	Depth

TUBING RECORD	Size	Set At	Packer At	Liner Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Date of First, Resumed Production, SWD or Inj.	Producing Method <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)							
Estimated Production Per 24 Hours	Oil	Bbls.	Gas	Mcf	Water	Bbls.	Gas-Oil Ratio	Gravity

Disposition of Gas: Vented Sold Used on Lease (If vented, submit ACD-18.)

METHOD OF COMPLETION Open Hole Perf. Dually Comp. Commingled Other (Specify) _____

Production Interval _____

Superior Testers Enterprises, Inc.

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

(316) 792-6902

JUL 13

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GAS FLOW REPORT

Date 7-5-1993 Ticket # 12187 Company MURFIN DRILLING COMPANY INC.
 Well Name and No. EMMA GLIST # 1-33 DST No. 1 Interval Tested 3750-3778
 County RENO State KANSAS Sec. NE-SE-NE 33 Twp. 23S Rg. 9W

Time Gauge Pre-Flow	Time Gauge in Min.	Inches of Water on Orifice Well Tester	Inches of Mercury on Orifice Well Tester	P.S.I. on Orifice Well Tester	P.S.I. on Pitot Tester	Choke Size	Gas Rate MCF
PRE FLOW							

SECOND FLOW								
4:00	TOOL OPENED							
4:06	GAS TO SURFACE							
4:10	10	5				1/4	1.18	
4:20	20	8				1/4	1.5	
4:30	30	8				1/4	1.5	
4:40	40	9				1/4	1.59	
4:50	50	8				1/4	1.5	
4:55	55	8				1/4	1.5	
4:55 to 5:00	GOT A GAS SAMPLE							RELEASED
5:00	CLOSED TOOL							SEP 6 1994

FROM CONFIDENTIAL

GAS BOTTLE

Serial No. _____ Date Bottle Filled _____ Date to be Invoiced _____ Test Ticket # _____

Requisition and Provisions for high pressure steel gas bottles. Superior Testers Enterprises, Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Superior Testers Enterprises, Inc. within thirty (30) days free of charge or be invoiced in the amount of \$125.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1 1/2 % per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME _____

Authorized by _____

RECEIVED
STATE CORPORATION COMMISSION

JUL 14 1993

CONSERVATION DIVISION
Wichita, Kansas

Superior Testers Enterprises, Inc.

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

(316) 792-6902

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JUL 13

CONFIDENTIAL

Date 7-5-1993 Location NE-SE-NE 33-23-9N Elevation 1728.8 County BEND

Company MURFIN Drilling Company Inc. Number of Copies 5

Charts Mailed to 250 North Water Suite 300 Wichita Kansas 67202

Drilling Contractor L.D. Davis Rig # 1

Length Drill Pipe 3722 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 NONE I.D. Drill Collars NONE Tool Joint Size NONE

Top Packer Depth 3745 Bottom Packer Depth 3750 Number of Packers 2 Packer Size 6 3/4"

TESTED FROM 3750 TO 3778 ANCHOR LENGTH 28 TOTAL DEPTH 3778 Hole Size 7 7/8"

LEASE & WELL NO EMMA BEIST #1-33 FORMATION TESTED MISSISSIPPI TEST NO. 1

Mud Weight 9.4 Viscosity 42 Water Loss 104 Chlorides - Pits 7000 D.S.T. 67000

Maximum Temp. 112 °F Initial Hydrostatic Pressure (A) 1903 P.S.I. Final Hydrostatic Pressure (H) 1870 P.S.I.

Tool Open I.F.P. from 2:15 A.m to 3:00 A.m 45 min

Tool Closed I.C.I.P. from 3:00 A.m to 4:00 A.m 60 min

Tool Open F.F.P. from 4:00 A.m to 5:00 A.m 60 min

Tool Closed F.C.I.P. from 5:00 A.m to 6:30 A.m 90 min

from [B] <u>78</u> P.S.I. to [C] <u>111</u> P.S.I.
[D] <u>1207</u> P.S.I.
from [E] <u>122</u> P.S.I. to [F] <u>178</u> P.S.I.
[G] <u>1196</u> P.S.I. (APPROX 20 min 1174 P.S.I.)

Initial Blow Good blow - built to the bottom of a 5 GALLON BUCKET IN 75 SEC.

Final Blow Good blow - GAS TO SURFACE IN 6 MINUTES

Total Feet Recovered 330 Gravity of Oil _____ Corrected

90 Feet of Oil & Gas cut watery mud 8 % Gas 12 % Oil 50 % Mud 30 % Water

60 Feet of Oil & Gas cut muddy water 15 % Gas 25 % Oil 20 % Mud 40 % Water

60 Feet of Oil, Gas & mud cut water 5 % Gas 20 % Oil 10 % Mud 65 % Water

120 Feet of Slightly oil, Gas, & mud cut water 5 % Gas 5 % Oil 5 % Mud 85 % 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 _____

FROM CONFIDENTIAL

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

Top Recorder No. 11088 Clock No. 47441 Depth 3772 Cir. Sub NONE Sampler NONE

Bottom Recorder No. 11087 Clock No. 47442 Depth 3775 Insurance NONE

Price of Job _____

Tool Operator Gene Sudig

Approved By NO 12187

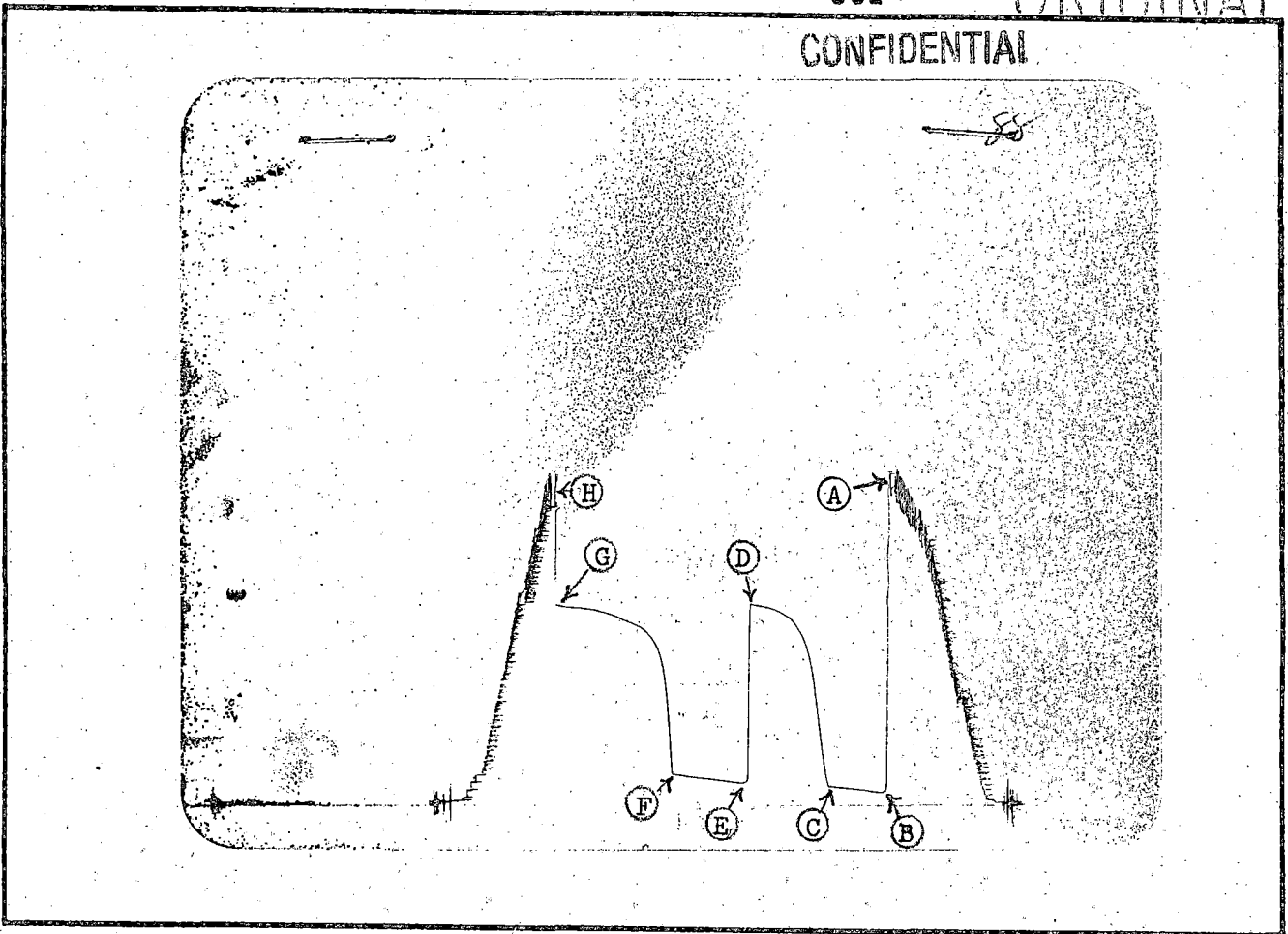
Superior Testers Enterprises, Inc. shall not be liable for damage of any kind to the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test.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

JUL 14 1993

CONSERVATION DIVISION
Wichita, Kansas

CONFIDENTIAL

COMPANY Murfin Drilling Comp. Inc. WELL NO Emma Geist #1-33 SEC 33 TWP 23s RGE 9w TEST NO 1 DATE 7-5-1993



This is an actual photograph of recorder chart.

POINT	PRESSURE		P.S.I.
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	<u>1903</u>	<u>1906</u>	P.S.I.
(B) First Initial Flow Pressure	<u>78</u>	<u>79</u>	P.S.I.
(C) First Final Flow Pressure	<u>111</u>	<u>120</u>	P.S.I.
(D) Initial Closed-in Pressure	<u>1207</u>	<u>1217</u>	P.S.I.
(E) Second Initial Flow Pressure	<u>122</u>	<u>134</u>	P.S.I.
(F) Second Final Flow Pressure	<u>178</u>	<u>189</u>	P.S.I.
(G) Final Closed-in Pressure	<u>1174</u>	<u>1208</u>	P.S.I.
(H) Final Hydrostatic Mud	<u>1870</u>	<u>1884</u>	P.S.I.

RELEASED

SEP 6 1994

FROM CONFIDENTIAL

SION

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SUPERIOR TESTERS ENTERPRISES INC.

WELL IDENTIFICATION DATA

COMPANY : MURFIN DRILLING COMPANY	WELL NAME : EMMA GEIST #1-33
ADDRESS : 250 N.WATER#300,WICHITA	LOCATION : NE-SE-NE 33-23S-9W
STATE & COUNTY : KASAS,RENO	FIELD :
ELEV.(GR) : 1723 (KB) : 1728	TEST DATE : 7-5-1993

EQUIPMENT AND HOLE DATA

FORMATION TESTED : MISSISSIPPI	DRILL PIPE LENGTH(ft) : 3722
TEST INT. KB : 3750 to 3778	DRILL PIPE O.D.(in) : 3.82
ANCHOR LENGTH(ft) : 28	WEIGHT PIPE LENGTH(ft) :
TYPE OF TEST : Conventional	WEIGHT PIPE ID : 2.75
TOTAL DEPTH(ft-kb) : 3778	DRILL COLLAR LENGTH(ft) :
MAIN HOLE SIZE(in) : 7 7/8	DRILL COLLAR I.D.(in) : 2.259
MUD WEIGHT : 9.2	TOP PACKER DEPTH(kb) : 3745
MUD VISCOSITY : 42	BOTTOM PACKER DEPTH(kb) : 3750
MUD CHLORIDES : 7000	DUAL PACKERS :
SURFACE CHOKE : 3/4	PACKER SIZE(in) : 6 3/4
BOTTOM CHOKE(in) : 3/4	PACKER HOLD : Yes
TOOL SIZE(O.D.) : 5 1/2	TOOL PLUG : No
TOOL JOINT SIZE(F.H.) : 4 1/2	REVERSED OUT : No
RESERVOIR TEMPERATURE(F) : 112	TEST TICKET NUMBER : 12187

EXTRA EQUIPMENT : -JARS -SAFETY JOINT

ELEMENT SERIAL NO. : 11088	
RANGE : 0 - 4400	CLOCK RANGE : 12 HOURS
CAL. EQU. : 1102.93 * Defl. + 4.88	

SURFACE BLOW

1st Opening :	GOOD BLOW-BOTTOM OF THE BUCKET IN 75 SECONDS
2nd Opening :	GOOD BLOW-GAS TO SURFACE IN 6 MINUTES

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RECOVERY

Recovered 0	feet of	SEE GAS REPORT
Recovered 90	feet of	OIL & GAS CUT WATERY MUD CHLORIDES 67000
Recovered 60	feet of	OIL & GAS CUT MUDDY WATER
Recovered 60	feet of	OIL-GAS & MUD CUT WATER
Recovered 120	feet of	SLIGHTLY OIL-GAS & MUD CUT WATER-CHLORIDES 67000

REMARKS :

WITNESSED BY : DAN FREDLUND TOOL OPERATOR : GENE BUDIG

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES INC.

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SUPERIOR TESTERS ENTERPRISES INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : MURFIN DRILLING COMPANY
 DATE OF TEST : 7-5-1993
 DEPTH : 3772.0

WELL NAME : EMMA GEIST #1-33
 LOCATION : NE-SE-NE 33-23S-9W
 SERIAL NO. : 11088

SEP 6 1994

COMMENTS	TIME min.	DEFL in	PRESSURE FROM		
			CONFIDENTIAL CALC	CORR	CORRECTED
TEST NO.: 1					
Depth : 3772.0 ft-kb					
-1ST HYDROSTATIC	0.0	1.723	1905.23	1.40	1906.63
-2:15 1ST FLOW	0.0	.071	83.19	-4.06	79.13
- 2:20	5.0	.075	87.60	-4.01	83.59
- 2:25	10.0	.077	89.81	-3.99	85.82
- 2:30	15.0	.084	97.53	-3.90	93.62
- 2:35	20.0	.088	101.94	-3.86	98.08
- 2:40	25.0	.092	106.35	-3.81	102.54
- 2:45	30.0	.098	112.97	-3.74	109.22
- 2:50	35.0	.100	115.17	-3.72	111.45
- 2:44	29.0	.103	118.48	-3.68	114.80
- 3:00	45.0	.108	124.00	-3.63	120.37
-3:00 END FLOW	0.0	.108	124.00	-3.63	120.37
- 3:03	3.0	.205	230.98	-2.50	228.48
- 3:06	6.0	.364	406.35	-.65	405.69
- 3:09	9.0	.543	603.77	.90	604.67
- 3:12	12.0	.729	808.92	.78	809.69
- 3:15	15.0	.831	921.42	.71	922.12
- 3:18	18.0	.903	1000.83	.66	1001.49
- 3:21	21.0	.942	1043.84	.64	1044.48
- 3:24	24.0	.976	1081.34	.62	1081.96
- 3:27	27.0	1.005	1113.33	.61	1113.93
- 3:30	30.0	1.024	1134.28	.64	1134.92
- 3:33	33.0	1.039	1150.82	.67	1151.50
- 3:36	36.0	1.051	1164.06	.69	1164.75
- 3:39	39.0	1.061	1175.09	.71	1175.80
- 3:42	42.0	1.070	1185.02	.73	1185.74
- 3:45	45.0	1.076	1191.63	.74	1192.37
- 3:48	48.0	1.081	1197.15	.75	1197.90
- 3:51	51.0	1.086	1202.66	.76	1203.42
- 3:54	54.0	1.090	1207.07	.76	1207.84
- 3:57	57.0	1.093	1210.38	.77	1211.15
- 4:00	60.0	1.099	1217.00	.78	1217.78
-4:00 1ST SHUT-IN	0.0	1.099	1217.00	.78	1217.78
-4:00 2ND FLOW	0.0	.121	138.33	-3.48	134.86
- 4:05	5.0	.124	141.64	-3.44	138.20
- 4:10	10.0	.127	144.95	-3.41	141.55
- 4:15	15.0	.133	151.57	-3.34	148.23
- 4:20	20.0	.136	154.88	-3.30	151.58
- 4:25	25.0	.140	159.29	-3.25	156.04
- 4:30	30.0	.145	164.80	-3.20	161.61

SUPERIOR TESTERS ENTERPRISES INC.

SUBSURFACE PRESSURE MEASUREMENTS

RELEASED

COMPANY : MURFIN DRILLING COMPANY
 DATE OF TEST : 7-5-1993
 DEPTH : 3772.0

WELL NAME : EMMA GEIST #1-33
 LOCATION : NE-SE-NE 33-23S-9W
 SERIAL NO. : 11088

SEP 6 1994

FROM CONFIDENTIAL

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			CALC	CORR	CORRECTED
TEST NO.: 1					
- 4:35	35.0	.148	168.11	-3.16	164.95
- 4:40	40.0	.152	172.53	-3.12	169.41
- 4:45	45.0	.156	176.94	-3.07	173.87
- 4:50	50.0	.161	182.45	-3.01	179.44
- 4:55	55.0	.165	186.86	-2.96	183.90
- 5:00	60.0	.170	192.38	-2.91	189.47
-5:00 END FLOW	0.0	.170	192.38	-2.91	189.47
- 5:03	3.0	.508	565.17	.92	566.09
- 5:06	6.0	.723	802.30	.78	803.08
- 5:09	9.0	.821	910.39	.72	911.10
- 5:12	12.0	.876	971.05	.68	971.73
- 5:15	15.0	.914	1012.96	.66	1013.61
- 5:18	18.0	.935	1036.12	.64	1036.76
- 5:21	21.0	.955	1058.18	.63	1058.81
- 5:24	24.0	.971	1075.83	.62	1076.44
- 5:27	27.0	.982	1087.96	.61	1088.57
- 5:30	30.0	.991	1097.88	.61	1098.49
- 5:33	33.0	1.000	1107.81	.60	1108.41
- 5:36	36.0	1.000	1107.81	.60	1108.41
- 5:39	39.0	1.018	1127.66	.63	1128.30
- 5:42	42.0	1.027	1137.59	.65	1138.24
- 5:45	45.0	1.036	1147.52	.67	1148.18
- 5:48	48.0	1.043	1155.24	.68	1155.91
- 5:51	51.0	1.050	1162.96	.69	1163.65
- 5:54	54.0	1.055	1168.47	.70	1169.17
- 5:57	57.0	1.061	1175.09	.71	1175.80
- 6:00	60.0	1.065	1179.50	.72	1180.22
- 6:03	63.0	1.069	1183.91	.73	1184.64
- 6:06	66.0	1.071	1186.12	.73	1186.85
- 6:09	69.0	1.074	1189.43	.73	1190.16
- 6:12	72.0	1.076	1191.63	.74	1192.37
- 6:15	75.0	1.077	1192.74	.74	1193.48
- 6:18	78.0	1.078	1193.84	.74	1194.58
- 6:21	81.0	1.080	1196.04	.75	1196.79
- 6:24	84.0	1.084	1200.46	.75	1201.21
- 6:27	87.0	1.089	1205.97	.76	1206.73
- 6:29	89.0	1.091	1208.18	.77	1208.94
-6:29 2ND SHUT-IN	0.0	1.091	1208.18	.77	1208.94
-2ND HYDROSTATIC	0.0	1.703	1883.17	1.41	1884.58

SUPERIOR TESTERS ENTERPRISES INC. CONFIDENTIAL

DATA SUMMARY

COMPANY : MURFIN DRILLING COMPANY
 DATE OF TEST : 7-5-1993

WELL NAME : EMMA GEIST #1-33
 LOCATION : NE-SE-NE 33-23S-9W

RECOVERY INFORMATION

LIQUID RECOVERY

Total Fluid Recovered :

Recovered 0 feet of SEE GAS REPORT
 Recovered 90 feet of OIL & GAS CUT WATERY MUD CHLORIDES 67000
 Recovered 60 feet of OIL & GAS CUT MUDDY WATER
 Recovered 60 feet of OIL-GAS & MUD CUT WATER
 Recovered 120 feet of SLIGHTLY OIL-GAS & MUD CUT WATER-CHLORIDES 67000

GAS RECOVERY

Measured With : ORFICE TESTER
 (INCHES OF WATER)

Riser : 2 INCH

Time (min.)	Reading	Surface Choke (in.)	Cubic feet/day
4:10	5.00	.25	1180
4:20	8.00	.25	1500
4:30	8.00	.25	1500
4:40	9.00	.25	1590
4:50	8.00	.25	1500
4:55	8.00	.25	1500

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FROM CONFIDENTIAL

FLUID PROPERTIES

	Viscosity (cp)	Compressibility (psi-1)	Porosity	Water Saturation
Oil	.8	7.7E-6	.3	
Gas	.2	9.2E-6	.5	
Water	.45	3.1E-6	.2	

KCC

JUL 13 ORIGINAL

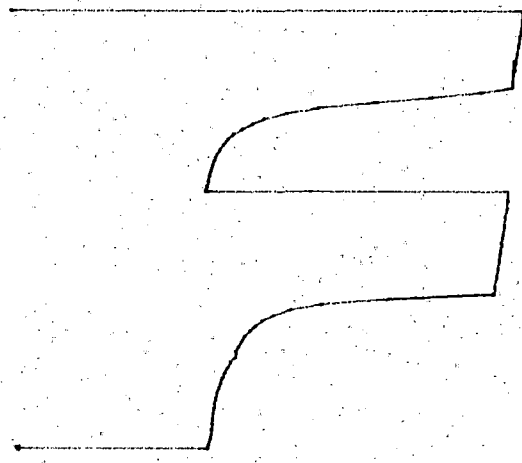
PRESSURE (P S I G)

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4000 3600 3200 2800 2400 2000 1600 1200 800 400 0

0 -180 -90 0 90 180 270 360 450 540 630 720

TIME (MINUTES)



RELEASED

SEP 6 1994

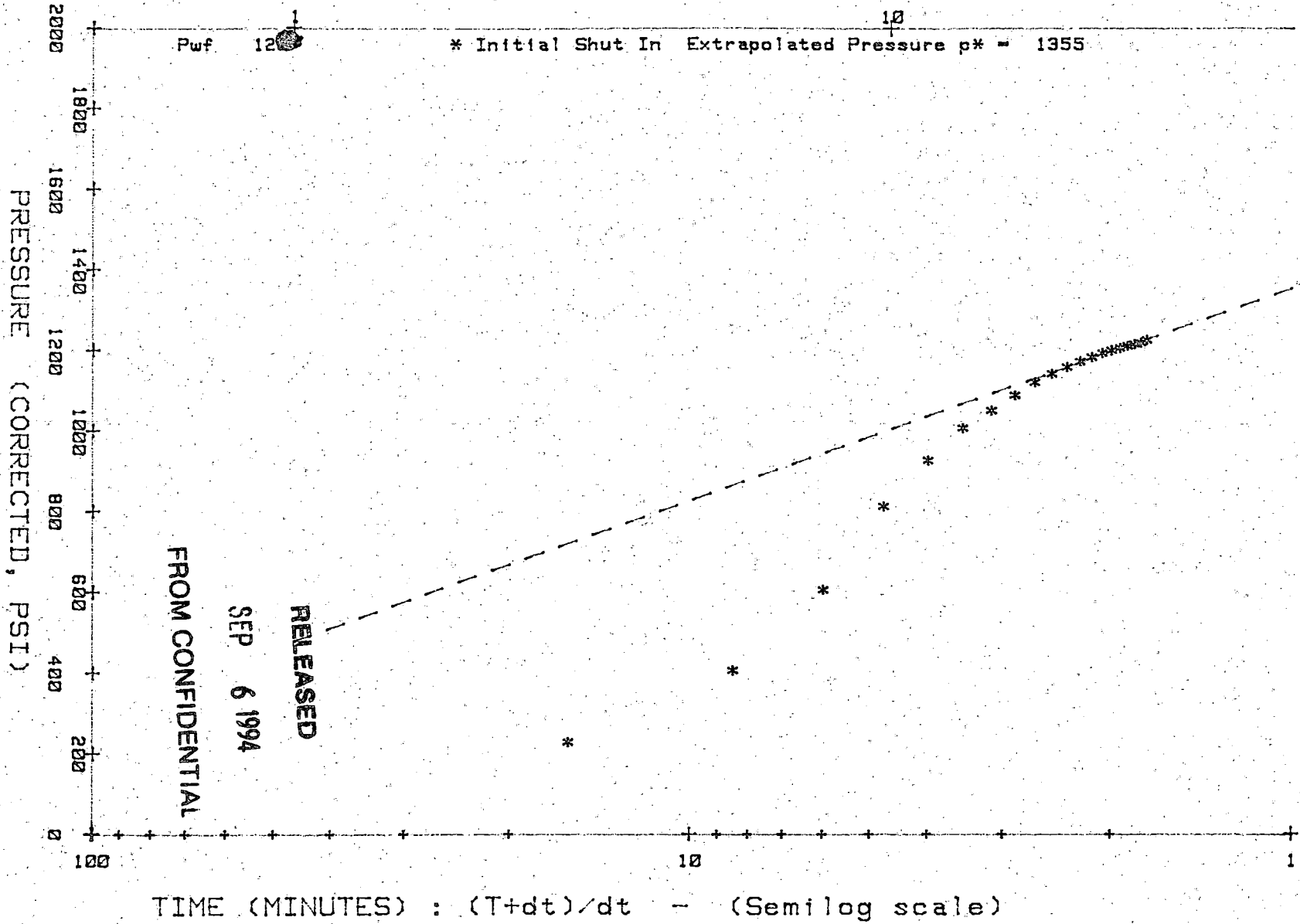
FROM CONFIDENTIAL

COMPANY : MURFIN DRILLING COMPANY
 WELL : EMMA GEIST #1-33
 LOCATION : NE-SE-NE 33-235-9W
 DATE : 7-5-1993
 GAUGE # : 11088

LOCATION : NE-SE-NE 33-23S-9W

DATE : 7-5-1993

GAUGE # : 11088



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SUPERIOR TESTERS ENTERPRISES INC.

HORNER ANALYSIS

COMPANY : MURFIN DRILLING COMPANY
 WELL NAME : EMMA GEIST #1-33
 LOCATION : NE-SE-NE 33-23S-9W
 STATE & COUNTY : KASAS, REND
 DATE OF TEST : 7-5-1993
 TEST INT. KB : 3750 to 3778
 TOTAL INTERVAL (ft) K.B. : 28.00
 ELEV.(GR) : 1723 (KB) : 1728
 FIELD :

ELEMENT SERIAL NO. : 11088
 LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG
Refer. depth :	3772.0	ft-kb	
-3:00 END FLOW	0.00	0.00	120.37
	3.00	16.00	228.48
	6.00	8.50	405.69
	9.00	6.00	605.20
	12.00	4.75	812.50
	15.00	4.00	926.18
	18.00	3.50	1006.43
	21.00	3.14	1049.90
	24.00	2.88	1087.79
	27.00	2.67	1120.11
	30.00	2.50	1141.29
	33.00	2.36	1158.01
	36.00	2.25	1171.38
	39.00	2.15	1182.53
	42.00	2.07	1192.56
	45.00	2.00	1199.25
	48.00	1.94	1204.82
	51.00	1.88	1210.39
	54.00	1.83	1214.85
	57.00	1.79	1218.19
	60.00	1.75	1224.88
-4:00 1ST SHUT-IN	0.00	0.00	1224.88

RELEASED

SEP 6 1994

FROM CONFIDENTIAL

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

ORIGINAL

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JUL 13

CONFIDENTIAL

SUPERIOR TESTERS ENTERPRISES INC.

DATA SUMMARY

COMPANY : MURFIN DRILLING COMPANY	WELL NAME : EMMA GEIST #1-33
DATE OF TEST : 7-5-1993	LOCATION : NE-SE-NE 33-238-9W
DST. NO : 1	SHUT-IN PERIOD : 1

INTERPRETIVE DATA (OIL)

EXTRAPOLATED RESERVOIR PRESSURE (psi):	1355.00
Slope of Build-up Curve (psi/log cycle):	526.23
Effective Producing Time (min):	45.00

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

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SUPERIOR TESTERS ENTERPRISES INC. JUL 13

CONFIDENTIAL

DATA SUMMARY

COMPANY : MURFIN DRILLING COMPANY WELL NAME : EMMA GEIST #1-33
 DATE OF TEST : 7-5-1993 LOCATION : NE-SE-NE 33-23S-9W
 DST. NO : 1 SHUT-IN PERIOD : 1

INTERPRETIVE DATA (GAS)

EXTRAPOLATED RESERVOIR PRESSURE (psi): 1352.13
 Slope of Build-up Curve (psi/log cycle):1315026.14
 Effective Producing Time (min): 45.00

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

RELEASED

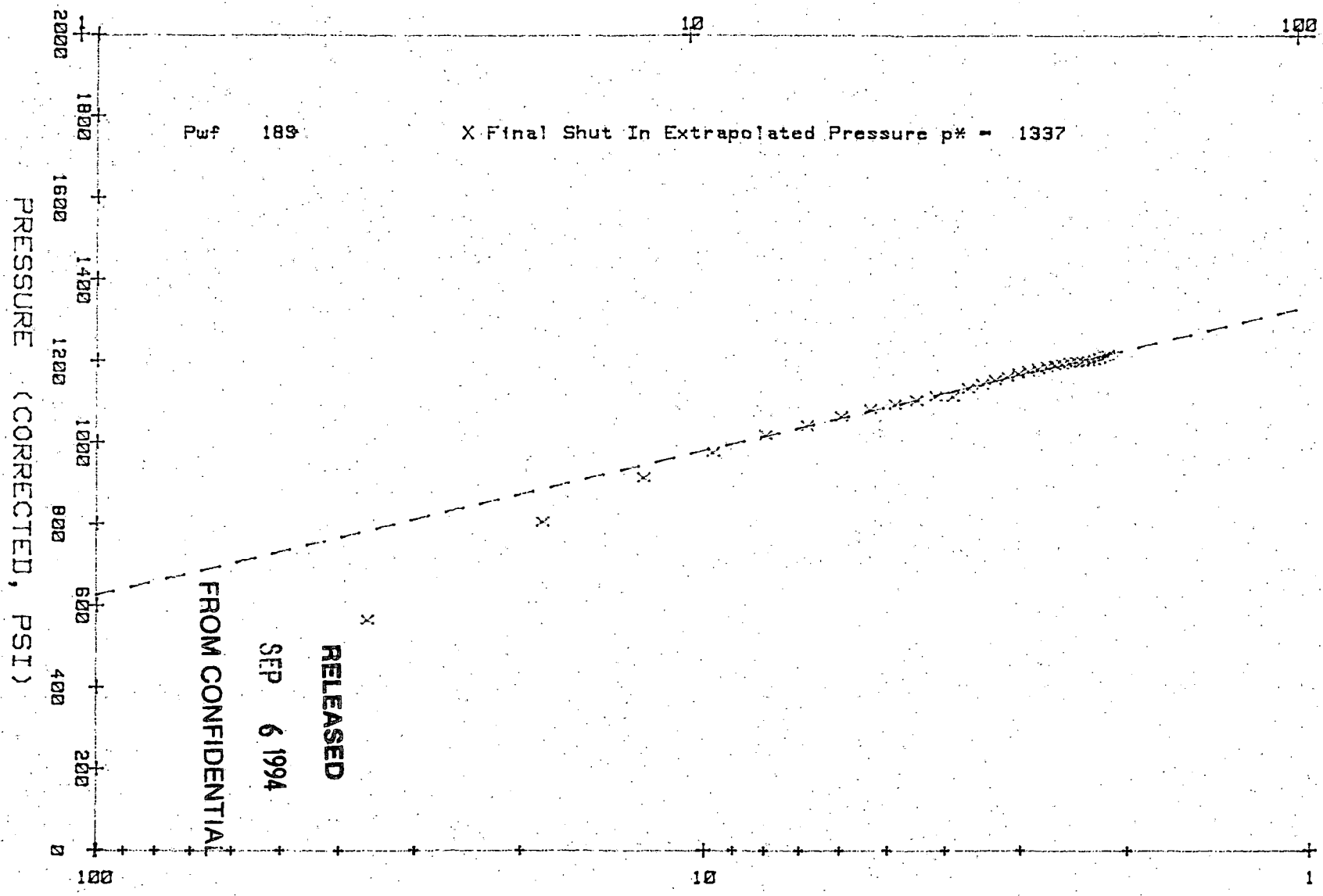
SEP 6 1994

FROM CONFIDENTIAL

LOCATION : NE-SE-NE 33-23S-9W

DATE : 7-5-1993

GAUGE # : 11088



FROM CONFIDENTIAL

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SUPERIOR TESTERS ENTERPRISES INC.

HORNER ANALYSIS

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JUL 13

CONFIDENTIAL

COMPANY : MURFIN DRILLING COMPANY
 WELL NAME : EMMA GEIST #1-33
 LOCATION : NE-SE-NE 33-238-9W
 STATE & COUNTY : KASAS.RENO
 DATE OF TEST : 7-5-1993
 TEST INT. KB : 3750 to 3778
 TOTAL INTERVAL (ft) K.B. : 28.00
 ELEV.(GR) : 1723 (KB) : 1728
 FIELD :

ELEMENT SERIAL NO. : 11088
 LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG
Refer. depth :	3772.0 ft-kb		
-5:00 END FLOW	0.00	0.00	189.47
	3.00	36.00	566.19
	6.00	18.50	805.81
	9.00	12.67	915.04
	12.00	9.75	976.34
	15.00	8.00	1018.69
	18.00	6.83	1042.09
	21.00	6.00	1064.39
	24.00	5.37	1082.22
	27.00	4.89	1094.48
	30.00	4.50	1104.51
	33.00	4.18	1114.54
	36.00	3.92	1114.54
	39.00	3.69	1134.60
	42.00	3.50	1144.63
	45.00	3.33	1154.66
	48.00	3.19	1162.47
	51.00	3.06	1170.27
	54.00	2.94	1175.84
	57.00	2.84	1182.53
	60.00	2.75	1186.99
	63.00	2.67	1191.44
	66.00	2.59	1193.67
	69.00	2.52	1197.02
	72.00	2.46	1199.25
	75.00	2.40	1200.36
	78.00	2.35	1201.47
	81.00	2.30	1203.70
	84.00	2.25	1208.16
	87.00	2.21	1213.73

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FROM CONFIDENTIAL

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

HORNER ANALYSIS

ORIGINAL

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JUL 13

COMPANY : MURFIN DRILLING COMPANY
DATE OF TEST : 7-5-1993
REFERENCE DEPTH : 3772.0

WELL NAME : EMMA GEIST #1-33
LOCATION : NE-SE-NE 33-238-9W
SERIAL NO. : 11088

CONFIDENTIAL

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG
-6:29 2ND SHUT-IN	89.00 0.00	2.18 0.00	1215.96 1215.96

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FROM CONFIDENTIAL

SUPERIOR TESTERS ENTERPRISES INC. KCC

DATA SUMMARY

ORIGINAL

JUL 13
CONFIDENTIAL

COMPANY : MURFIN DRILLING COMPANY WELL NAME : EMMA GEIST #1-33
 DATE OF TEST : 7-5-1993 LOCATION : NE-SE-NE 33-23S-9W
 DST. NO : 1 SHUT-IN PERIOD : 2

INTERPRETIVE DATA (OIL)

TRANSMISSIBILITY

Oil (md.ft/cp): 3.91
 Gas (md.ft/cp): 0.00

EFFECTIVE PERMEABILITY

Oil (md):33
 Gas (md): 0.00

TOTAL MOBILITY (md/cp): 2.12

TOTAL COMPRESSIBILITY (psi-1): 8.01E-06

ESTIMATED DAMAGE RATIO:69

CALCULATED DAMAGE RATIO:78

Reservoir Temperature (F): 112.00
 Formation Porosity :18
 Formation Thickness (ft): 10.00
 Wellbore Radius (in): 3.94
 Reservoir Compressibility (psi-1): 4.80E-07
 Calculated Skin Factor : -1.05

PRODUCTION WITH DAMAGE REMOVED (bbl/D): 8.53
 WATER PRODUCTION WITH DAMAGE REMOVED (bbl/D): 37.39
 PRODUCTIVITY INDEX (bbl/psi):01

Final Flow Pressure (psi): 189.00

APPROXIMATE RADIUS OF INVESTIGATION (ft): 51.80

Total Flowing Time (min): 105.00

EXTRAPOLATED RESERVOIR PRESSURE (psi): 1337.00

Slope of Build-up Curve (psi/log cycle): 355.05

Effective Producing Time (min): 105.00

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FROM CONFIDENTIAL

SUPERIOR TESTERS ENTERPRISES INC. - KCC

DATA SUMMARY

ORIGINAL

JUL 13

CONFIDENTIAL

COMPANY : MURFIN DRILLING COMPANY WELL NAME : EMMA GEIST #1-33
 DATE OF TEST : 7-5-1993 LOCATION : NE-SE-NE 33-23S-9W
 DST. NO : 1 SHUT-IN PERIOD : 2

INTERPRETIVE DATA (GAS)

TRANSMISSIBILITY

Oil (md.ft/cp): 0.00
 Gas (md.ft/cp): 1.55

EFFECTIVE PERMEABILITY

Oil (md): 0.00
 Gas (md):03

TOTAL MOBILITY (md/cp):90

TOTAL COMPRESSIBILITY (psi-1): 9.20E-04

ESTIMATED DAMAGE RATIO:42

CALCULATED DAMAGE RATIO: 1.14

Reservoir Temperature (F): 112.00

Formation Porosity :18

Formation Thickness (ft): 10.00

Wellbore Radius (in): 3.94

Reservoir Compressibility (psi-1): 4.80E-07

Calculated Skin Factor :27

PRODUCTION WITH DAMAGE REMOVED (MCF/D): 1.71

WATER PRODUCTION WITH DAMAGE REMOVED (bbl/D): 42.62

PRODUCTIVITY INDEX (MCF/psi): 0.00

Final Flow Pressure (psi): 189.00

APPROXIMATE RADIUS OF INVESTIGATION (ft): 3.15

Total Flowing Time (min): 105.00

EXTRAPOLATED RESERVOIR PRESSURE (psi): 1341.46

Slope of Build-up Curve (psi/log cycle): 903349.29

Effective Producing Time (min): 105.00

RELEASED

SEP 6 1994

FROM CONFIDENTIAL

Superior Testers Enterprises, Inc.

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

(316) 792-6902

Date 7-5-1993 Location NE-SE-NE 33-23-9W Elevation 1728 K.B. County RENO

Company MURFIN DRILLING COMPANY INC. Number of Copies 5

Charts Mailed to 250 NORTH WATER SUITE 300 WICHITA KANSAS 67202

Drilling Contractor L.D. DAVIS RIG #1 Tool Joint Size 4 1/8" X 1 1/2"

Length Drill Pipe 3758 I.D. Drill Pipe 3.80 Tool Joint Size 4 1/8" X 1 1/2"

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

Length Drill Collars NONE I.D. Drill Collars NONE Tool Joint Size NONE

Top Packer Depth 3781 Bottom Packer Depth 3786 Number of Packers 2 Packer Size 6 3/4"

TESTED FROM 3786 TO 3799 ANCHOR LENGTH 13 TOTAL DEPTH 3799 Hole Size 7 7/8"

LEASE & WELL NO. EMMA GEIST # 1-33 FORMATION TESTED MISSISSIPPI TEST NO. 2

Mud Weight 8.9 Viscosity 64 Water Loss 8.9 Chlorides - Pits 10000 D.S.T 82000

Maximum Temp. 112 °F Initial Hydrostatic Pressure (A) 1914 P.S.I. Final Hydrostatic Pressure (H) 1881 P.S.I.

Tool Open I.F.P. from 3:00 P.m. to 3:45 P.m. 45 min

Tool Closed I.C.I.P. from 3:45 P.m. to 4:45 P.m. 60 min

Tool Open F.F.P. from 4:45 P.m. to 5:30 P.m. 45 min

Tool Closed F.C.I.P. from 5:30 P.m. to 7:00 P.m. 90 min

from [B] <u>44</u> P.S.I. to [C] <u>66</u> P.S.I.
[D] <u>1196</u> P.S.I.
from [E] <u>89</u> P.S.I. to [F] <u>111</u> P.S.I.
[G] <u>(APPROX 60 min) 114</u> P.S.I.

Initial Blow STRONG blow DECREASED TO FAIR blow

Final Blow FAIR blow - built to the bottom of a 5 Gallon bucket in 10 minutes

Total Feet Recovered 190 Gravity of Oil _____ Corrected _____

1400 Feet of GAS in the PIPE % Gas _____ % Oil _____ % Mud _____ % Water _____

20 Feet of Oil & Gas cut muddy water 3 % Gas 10 % Oil 25 % Mud 62 % Water

50 Feet of Slightly Oil & mud cut water 0 % Gas 3 % Oil 15 % Mud 82 % Water

120 Feet of VERY SLIGHTLY oil & mud cut water 0 % Gas 2 % Oil 2 % Mud 96 % Water

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

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

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

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

Feet of _____ **SEP 6 1994** _____ % Gas _____ % Oil _____ % Mud _____ % Water

Remarks _____ **FROM CONFIDENTIAL**

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

Top Recorder No. 11088 Clock No. 47441 Depth 3793 Cir. Sub NONE Sampler NONE

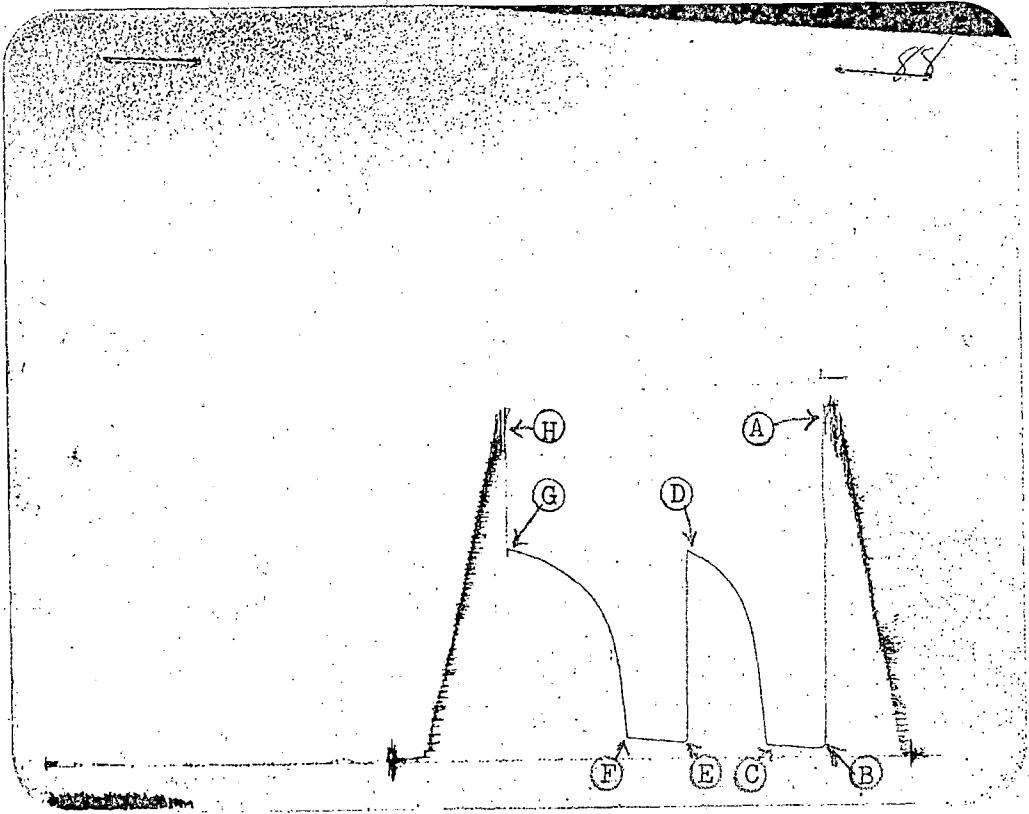
Bottom Recorder No. 11087 Clock No. 47442 Depth 3796 Insurance NONE

Price of Job _____

Tool Operator Jane Budig

Approved By _____
No 12188

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.



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	1914	1892	P.S.I.
(B) First Initial Flow Pressure	44	50	P.S.I.
(C) First Final Flow Pressure	66	73	P.S.I.
(D) Initial Closed-in Pressure	1196	1193	P.S.I.
(E) Second Initial Flow Pressure	89	94	P.S.I.
(F) Second Final Flow Pressure	111	123	P.S.I.
(G) Final Closed-in Pressure	1196	1212	P.S.I.
(H) Final Hydrostatic Mud	1881	1862	P.S.I.

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SEP 6 1994

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SUPERIOR TESTERS ENTERPRISES INC.

WELL IDENTIFICATION DATA

COMPANY : MURFIN DRILLING COMPANY	WELL NAME : EMMA GEIST #1-33
ADDRESS : 250 N.WATER#300,WICHITA	LOCATION : NE-SE-NE 33-23S-9W
STATE & COUNTY : KASAS,RENO	FIELD :
ELEV.(GR) : 1723 (KB) : 1728	TEST DATE : 7-5-1993

EQUIPMENT AND HOLE DATA

FORMATION TESTED : MISSISSIPPI	DRILL PIPE LENGTH(ft) : 3758
TEST INT. KB : 3786 to 3799	DRILL PIPE O.D.(in) : 3.82
ANCHOR LENGTH(ft) : 13	WEIGHT PIPE LENGTH(ft) :
TYPE OF TEST : Conventional	WEIGHT PIPE ID : 2.75
TOTAL DEPTH(ft-kb) : 3799	DRILL COLLAR LENGTH(ft) :
MAIN HOLE SIZE(in) : 7 7/8	DRILL COLLAR I.D.(in) : 2.259
MUD WEIGHT : 8.9	TOP PACKER DEPTH(kb) : 3781
MUD VISCOSITY : 64	BOTTOM PACKER DEPTH(kb) : 3786
MUD CHLORIDES : 10000	DUAL PACKERS :
SURFACE CHOKE : 3/4	PACKER SIZE(in) : 6 3/4
BOTTOM CHOKE(in) : 3/4	PACKER HOLD : Yes
TOOL SIZE(O.D.) : 5 1/2	TOOL PLUG : No
TOOL JOINT SIZE(F.H.) : 4 1/2	REVERSED OUT : No
RESERVOIR TEMPERATURE(F) : 112	TEST TICKET NUMBER : 12188

EXTRA EQUIPMENT : -JARS -SAFETY JOINT

ELEMENT SERIAL NO. : 11088
 RANGE : 0 - 4400 CLOCK RANGE : 12 HOURS
 CAL. EQU. : 1102.93 * Defl. + 4.88

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SURFACE BLOW

1st Opening : STRONG BLOW DECREASED TO FAIR BLOW
 2nd Opening : FAIR BLOW BOTTOM OF THE BUCKET IN 10 MINUTES

FROM CONFIDENTIAL

RECOVERY

Recovered 1400 feet of GAS IN THE PIPE
 Recovered 20 feet of OIL & GAS CUT MUDDY WATER
 Recovered 50 feet of SLIGHTLY OIL & GAS CUT WATER
 Recovered 120 feet of VERY SLIGHTLY OIL & MUD CUT WATER

REMARKS :

WITNESSED BY : DAN FREDLUND

TOOL OPERATOR : GENE BUDIG

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES INC.

JUL 13

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SUPERIOR TESTERS ENTERPRISES INC.

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SUBSURFACE PRESSURE MEASUREMENTS

SEP 6 1994

COMPANY : MURFIN DRILLING COMPANY
 DATE OF TEST : 7-5-1993
 DEPTH : 3793.0

WELL NAME : EMMA GEIST #1-33
 LOCATION : NE-SE-NE 33-23S-9W FROM CONFIDENTIAL
 SERIAL NO. : 11088

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	CORRECTED
TEST NO.: 2					
Depth : 3793.0 ft-kb					
-1ST HYDROSTATIC	0.0	1.710	1890.89	1.41	1892.30
-3:00 1ST FLOW	0.0	.045	54.51	-4.36	50.15
- 3:05	5.0	.045	54.51	-4.36	50.15
- 3:10	10.0	.046	55.61	-4.35	51.27
- 3:15	15.0	.048	57.82	-4.32	53.50
- 3:20	20.0	.051	61.13	-4.29	56.84
- 3:25	25.0	.053	63.34	-4.26	59.07
- 3:30	30.0	.056	66.64	-4.23	62.41
- 3:35	35.0	.059	69.95	-4.19	65.76
- 3:40	40.0	.063	74.36	-4.15	70.22
- 3:45	45.0	.066	77.67	-4.11	73.56
-3:45 END FLOW	0.0	.066	77.67	-4.11	73.56
- 3:48	3.0	.253	283.92	-1.94	281.98
- 3:51	6.0	.470	523.26	.58	523.83
- 3:54	9.0	.606	673.26	.86	674.11
- 3:57	12.0	.710	787.96	.79	788.75
- 4:00	15.0	.776	860.75	.75	861.50
- 4:03	18.0	.824	913.69	.71	914.41
- 4:06	21.0	.864	957.81	.69	958.50
- 4:09	24.0	.896	993.11	.67	993.77
- 4:12	27.0	.921	1020.68	.65	1021.33
- 4:15	30.0	.943	1044.94	.64	1045.58
- 4:18	33.0	.967	1071.41	.62	1072.03
- 4:21	36.0	.987	1093.47	.61	1094.08
- 4:24	39.0	1.003	1111.12	.61	1111.72
- 4:27	42.0	1.018	1127.66	.63	1128.30
- 4:30	45.0	1.029	1139.80	.65	1140.45
- 4:33	48.0	1.042	1154.13	.68	1154.81
- 4:36	51.0	1.052	1165.16	.69	1165.86
- 4:39	54.0	1.065	1179.50	.72	1180.22
- 4:42	57.0	1.077	1192.74	.74	1193.48
-4:42 1ST SHUT-IN	0.0	1.077	1192.74	.74	1193.48
-4:42 2ND FLOW	0.0	.085	98.63	-3.89	94.74
- 4:47	5.0	.086	99.73	-3.88	95.85
- 4:52	10.0	.088	101.94	-3.86	98.08
- 4:57	15.0	.092	106.35	-3.81	102.54
- 5:02	20.0	.096	110.76	-3.77	107.00
- 5:07	25.0	.100	115.17	-3.72	111.45
- 5:12	30.0	.102	117.38	-3.70	113.68
- 5:17	35.0	.104	119.58	-3.67	115.91

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SUBSURFACE PRESSURE MEASUREMENTS

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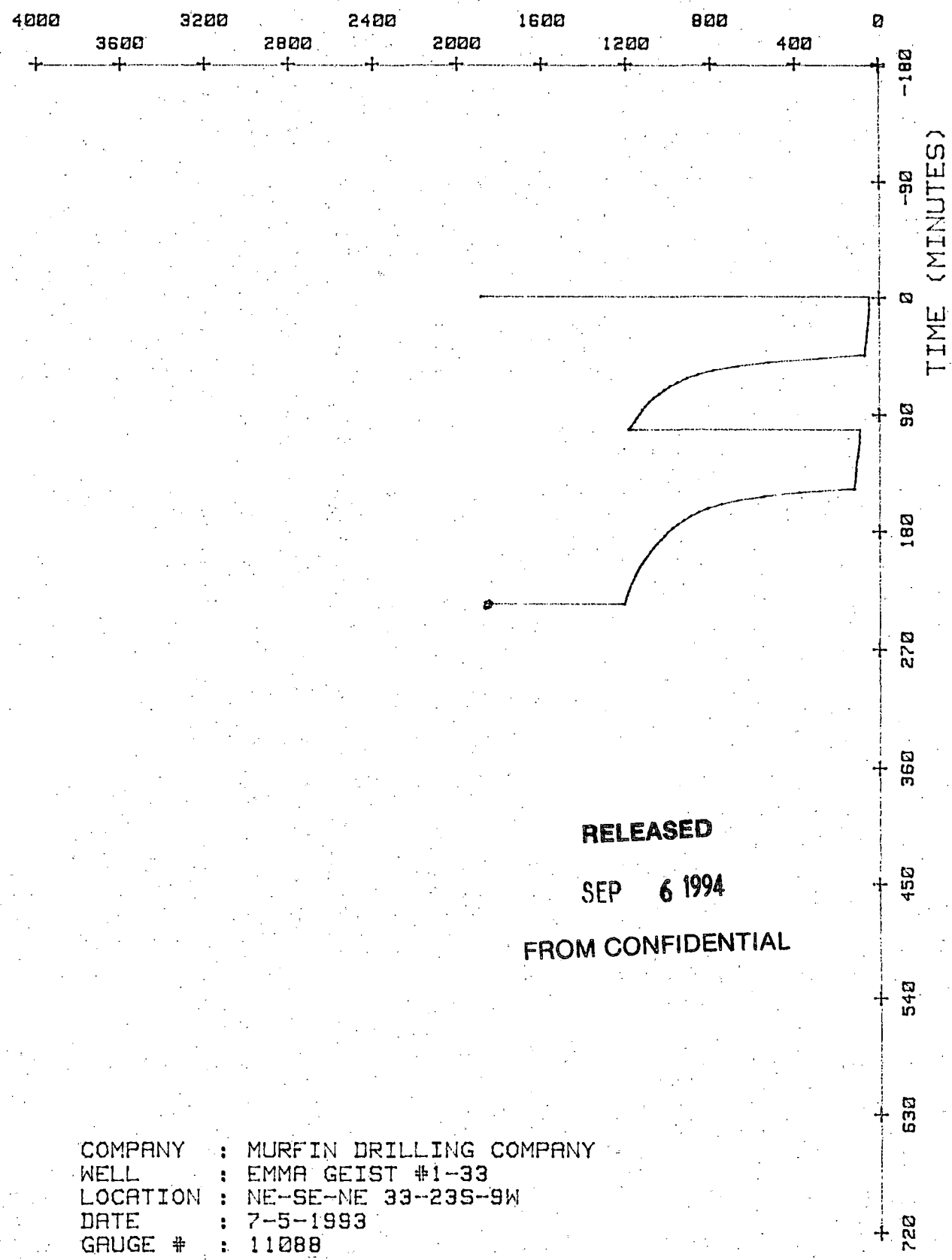
COMPANY : MURFIN DRILLING COMPANY
 DATE OF TEST : 7-5-1993
 DEPTH : 3793.0

WELL NAME : EMMA GEIST #1-33 SEP 6 1994
 LOCATION : NE-SE-NE 33-23S-9W
 SERIAL NO. : 11088

FROM CONFIDENTIAL

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	CORRECTED
TEST NO.: 2					
- 5:22	40.0	.107	122.89	-3.64	119.26
- 5:28	46.0	.111	127.31	-3.59	123.71
-5:28 END FOW	0.0	.111	127.31	-3.59	123.71
- 5:31	3.0	.340	379.88	-.93	378.94
- 5:34	6.0	.494	549.73	.86	550.58
- 5:37	9.0	.606	673.26	.86	674.11
- 5:40	12.0	.677	751.56	.81	752.37
- 5:43	15.0	.734	814.43	.77	815.20
- 5:46	18.0	.774	858.55	.75	859.29
- 5:49	21.0	.808	896.05	.72	896.77
- 5:52	24.0	.837	928.03	.71	928.74
- 5:55	27.0	.864	957.81	.69	958.50
- 5:58	30.0	.886	982.08	.67	982.75
- 6:01	33.0	.907	1005.24	.66	1005.90
- 6:04	36.0	.922	1021.78	.65	1022.43
- 6:07	39.0	.938	1039.43	.64	1040.07
- 6:10	42.0	.954	1057.08	.63	1057.71
- 6:13	45.0	.969	1073.62	.62	1074.24
- 6:16	48.0	.982	1087.96	.61	1088.57
- 6:19	51.0	.994	1101.19	.60	1101.80
- 6:22	54.0	1.007	1115.53	.61	1116.14
- 6:25	57.0	1.019	1128.77	.63	1129.40
- 6:28	60.0	1.030	1140.90	.65	1141.55
- 6:31	63.0	1.038	1149.72	.67	1150.39
- 6:34	66.0	1.047	1159.65	.69	1160.33
- 6:37	69.0	1.055	1168.47	.70	1169.17
- 6:40	72.0	1.063	1177.30	.71	1178.01
- 6:43	75.0	1.070	1185.02	.73	1185.74
- 6:46	78.0	1.077	1192.74	.74	1193.48
- 6:49	81.0	1.082	1198.25	.75	1199.00
- 6:52	84.0	1.087	1203.77	.76	1204.52
- 6:56	88.0	1.094	1211.49	.77	1212.26
-6:56 2ND SHUT-IN	0.0	1.094	1211.49	.77	1212.26
-2ND HYDROSTATIC	0.0	1.683	1861.11	1.42	1862.53

PRESSURE (P S I G) CONFIDENTIAL



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SEP 6 1994

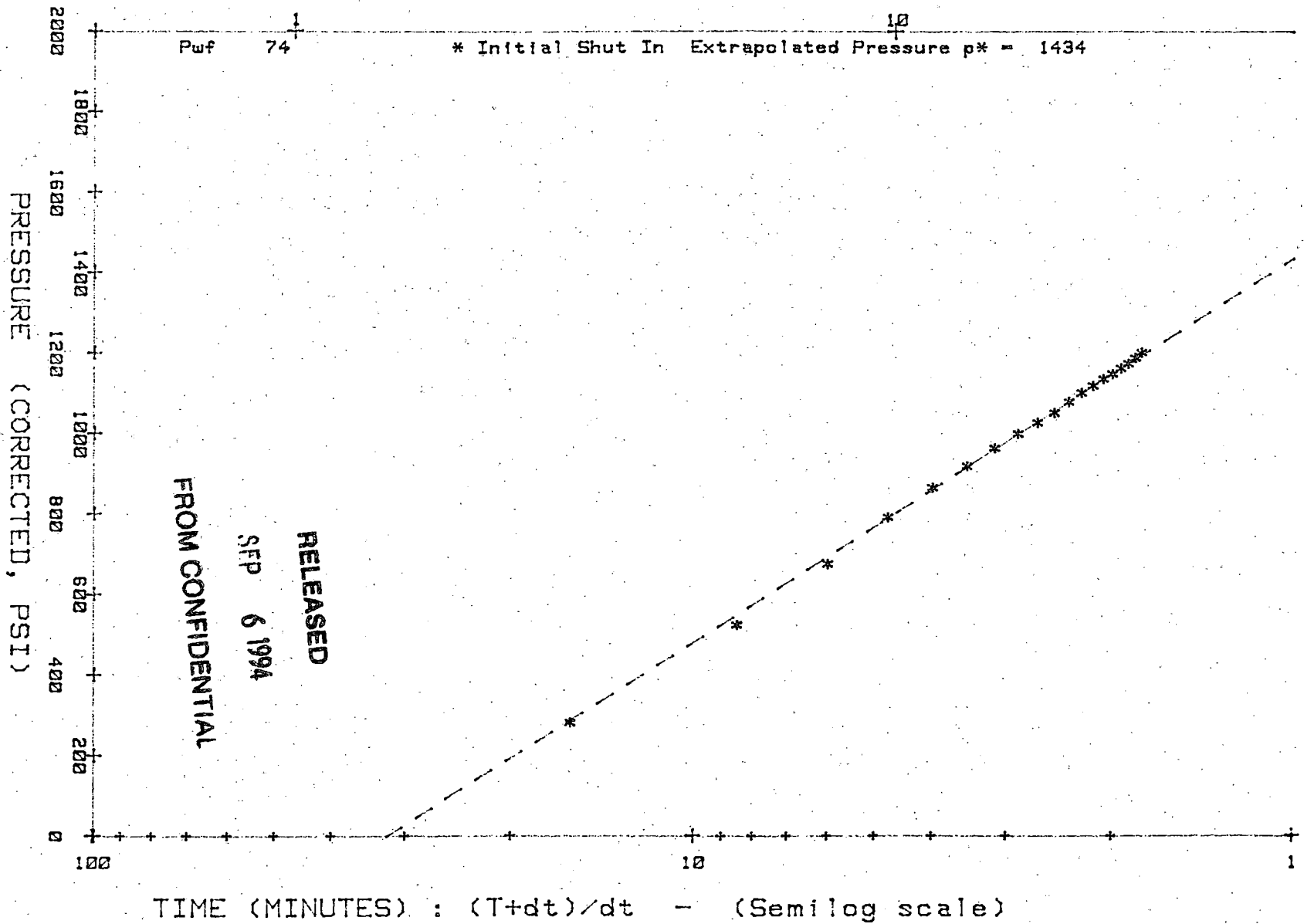
FROM CONFIDENTIAL

COMPANY : MURFIN DRILLING COMPANY
 WELL : EMMA GEIST #1-33
 LOCATION : NE-SE-NE 33-235-9W
 DATE : 7-5-1993
 GAUGE # : 11088

LOCATION : NE-SE-NE 33-235-9W

DATE : 7-5-1993

GAUGE # : 11088



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JUL 15

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SUPERIOR TESTERS ENTERPRISES INC.

HORNER ANALYSIS

COMPANY : MURFIN DRILLING COMPANY
WELL NAME : EMMA GEIST #1-33
LOCATION : NE-SE-NE 33-23S-9W
STATE & COUNTY : KASAS, RENO
DATE OF TEST : 7-5-1993
TEST INT. KB : 3786 to 3799
TOTAL INTERVAL (ft) K.B. : 13.00
ELEV. (GR) : 1723 (KB) : 1728
FIELD :

ELEMENT SERIAL NO. : 11088
LATEST CALIBRATION :

COMMENTS TIME (T+dt)/dt PRESSURES CORR PSIG
min min

Refer. depth : 3793.0 ft-kb

Table with 4 columns: COMMENTS, TIME (min), (T+dt)/dt (min), PRESSURES CORR PSIG. Rows include flow data from -3:45 to -4:42.

RELEASED

SEP 6 1994

FROM CONFIDENTIAL

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

KCC

ORIGINAL

JUL 13

SUPERIOR TESTERS ENTERPRISES ~~CONFIDENTIAL~~

DATA SUMMARY

COMPANY : MURFIN DRILLING COMPANY
DATE OF TEST : 7-5-1993
DST. NO : 2

WELL NAME : EMMA GEIST #1-33
LOCATION : NE-SE-NE 33-23S-9W
SHUT-IN PERIOD : 1

INTERPRETIVE DATA (OIL)

EXTRAPOLATED RESERVOIR PRESSURE (psi):	1434.00
Slope of Build-up Curve (psi/log cycle):	951.80
Effective Producing Time (min):	45.00

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

RELEASED

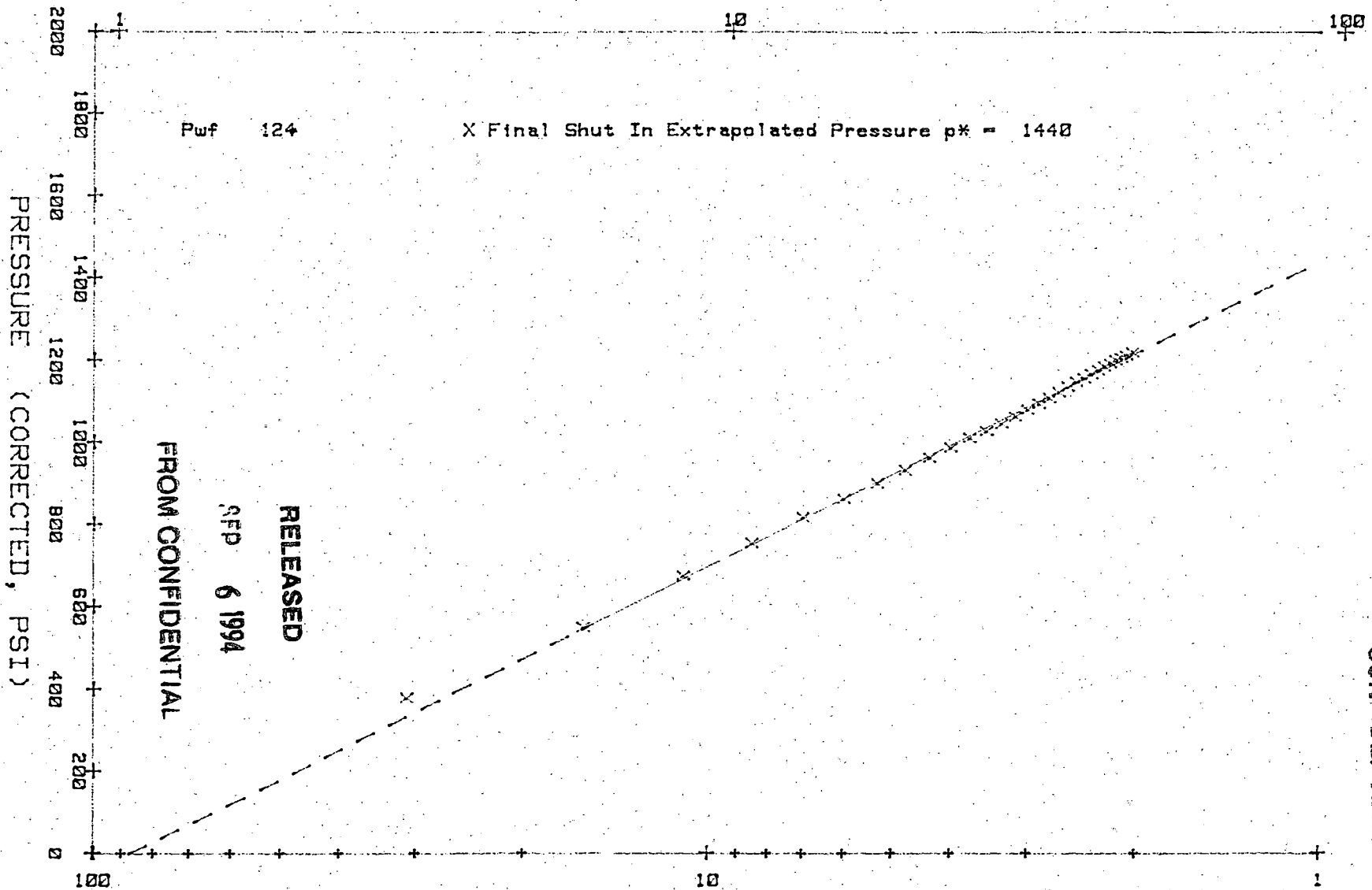
SEP 6 1994

FROM CONFIDENTIAL

LOCATION : NE-SE-NE 33-23S-9W

DATE : 7-5-1993

GRUGE # : 11088



TIME (MINUTES) : $(T+dt)/dt$ - (Semilog scale)

ORIGINAL JUL 13
CONFIDENTIAL

KCC

HORNER ANALYSIS

COMPANY : MURFIN DRILLING COMPANY
 WELL NAME : EMMA GEIST #1-33
 LOCATION : NE-SE-NE 33-23S-9W
 STATE & COUNTY : KASAS, RENO
 DATE OF TEST : 7-5-1993
 TEST INT. KB : 3786 to 3799
 TOTAL INTERVAL (ft) K.B. : 13.00
 ELEV. (GR) : 1723 (KB) : 1728
 FIELD :

ELEMENT SERIAL NO. : 11088
 LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG	-----
----------	-------------	------------------	---------------------------------	-------

Refer. depth : 3793.0 ft-kb

-5:28 END FOW	0.00	0.00	123.71	
	3.00	31.00	378.94	
	6.00	16.00	550.58	
	9.00	11.00	675.41	
	12.00	8.50	754.54	
	15.00	7.00	818.07	
	18.00	6.00	862.65	
	21.00	5.29	900.55	
	24.00	4.75	932.87	
	27.00	4.33	962.96	
	30.00	4.00	987.48	
	33.00	3.73	1010.89	
	36.00	3.50	1027.61	
	39.00	3.31	1045.44	
	42.00	3.14	1063.27	
	45.00	3.00	1079.99	
	48.00	2.88	1094.48	
	51.00	2.76	1107.85	
	54.00	2.67	1122.34	
	57.00	2.58	1135.72	
	60.00	2.50	1147.98	
	63.00	2.43	1156.89	
	66.00	2.36	1166.92	
	69.00	2.30	1175.84	
	72.00	2.25	1184.76	
	75.00	2.20	1192.56	
	78.00	2.15	1200.36	
	81.00	2.11	1205.93	
	84.00	2.07	1211.50	
	88.00	2.02	1219.31	

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SEP 6 1994

FROM CONFIDENTIAL

DATA SUMMARY

KCC

JUL 13

COMPANY : MURFIN DRILLING COMPANY WELL NAME : EMMA GELB #1933
 DATE OF TEST : 7-5-1993 LOCATION : NE-SE-NE 33-23S-9W
 DST. NO : 2 SHUT-IN PERIOD : 2

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INTERPRETIVE DATA (OIL)

SEP 6 1994

FROM CONFIDENTIAL

TRANSMISSIBILITY	
Oil (md.ft/cp):	.29
Gas (md.ft/cp):	0.00
EFFECTIVE PERMEABILITY	
Oil (md):	.02
Gas (md):	0.00
TOTAL MOBILITY (md/cp):	.92
TOTAL COMPRESSIBILITY (psi ⁻¹):	5.72E-06
ESTIMATED DAMAGE RATIO:	.39
CALCULATED DAMAGE RATIO:	.46
Reservoir Temperature (F):	112.00
Formation Porosity :	.18
Formation Thickness (ft):	10.00
Wellbore Radius (in):	3.94
Reservoir Compressibility (psi ⁻¹):	4.80E-07
Calculated Skin Factor :	-2.41
PRODUCTION WITH DAMAGE REMOVED (bbl/D):	1.34
WATER PRODUCTION WITH DAMAGE REMOVED (bbl/D):	40.58
PRODUCTIVITY INDEX (bbl/psi):	0.00
Final Flow Pressure (psi):	124.00
APPROXIMATE RADIUS OF INVESTIGATION (ft):	37.35
Total Flowing Time (min):	90.00
EXTRAPOLATED RESERVOIR PRESSURE (psi):	1440.00
Slope of Build-up Curve (psi/log cycle):	741.87
Effective Producing Time (min):	90.00

Superior Testers Enterprises, Inc.

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

(316) 792-6902

KO ORIGINAL

JUL 13

Date 7-6-1993 Location NE-SE-NE 33-23-9^W Elevation 1728^{ft} Company MURFIN Drilling Company Inc. Number of Copies 5

Charts Mailed to 250 North Water Suite 300 Wichita KANSAS 67202

Drilling Contractor L.D. DAVIS Rig #1

Length Drill Pipe 3674 I.D. Drill Pipe 3.80 Tool Joint Size 4 1/2" X 1 1/4"

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

Length Drill Collars NONE I.D. Drill Collars NONE Tool Joint Size NONE

Top Packer Depth 3793 & 3798 Bottom Packer Depth 3813 Number of Packers 3 Packer Size 6 3/4"

TESTED FROM 3798 TO 3813 ANCHOR LENGTH 15 TOTAL DEPTH 3910 Hole Size 7 7/8

LEASE & WELL NO. Emma Geist # 1-33 FORMATION TESTED Mississippi TEST NO. 3

Mud Weight 9.3 Viscosity 64 Water Loss 12.0% Chlorides - Pits 10000 D.S.T. 26000

Maximum Temp. 112 °F Initial Hydrostatic Pressure (A) 1925 P.S.I. Final Hydrostatic Pressure (H) 1881 P.S.I.

Tool Open I.F.P. from 7:15 P m to 7:45 P m 30 min

Tool Closed I.C.I.P. from 7:45 P m to 8:30 P m 45 min

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

Tool Closed F.C.I.P. from 9:00 P m to 9:45 P m 45 min

from [B]	<u>44</u>	P.S.I. to [C]	<u>44</u>	P.S.I.
[D]	<u>114</u>			P.S.I.
from [E]	<u>55</u>	P.S.I. to [F]	<u>55</u>	P.S.I.
[G]	<u>1075</u>			P.S.I.

Initial Blow WEAK blow-built to lunch DECREASED to WEAK SURFACE BLOW

Final Blow WEAK SURFACE BLOW DECREASED to VERY WEAK INTERMITTANT

Total Feet Recovered 50 Gravity of Oil _____ Corrected _____

150 Feet of GAS in the Pipe % Gas _____ % Oil _____ % Mud _____ % Water _____

25 Feet of oil cut watery mud % Gas 5 % Oil 55 % Mud 40 % Water _____

25 Feet of oil cut watery mud % Gas 5 % Oil 45 % Mud 50 % 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 RELEASED

RELEASED
SEP 6 1994

Extra Equipment - Jars YES Safety Joint YES Extra Packer YES (3rd) Straddle YES Hook Wall NONE

Top Recorder No. 11088 Clock No. 47441 Depth 3800 Cir. Sub NONE Sampler NONE

Bottom Recorder No. 11087 Clock No. 47442 Depth 3805 Insurance NONE

Price of Job _____

Tool Operator R. F. Bulg

Approved By _____

No 12189

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.

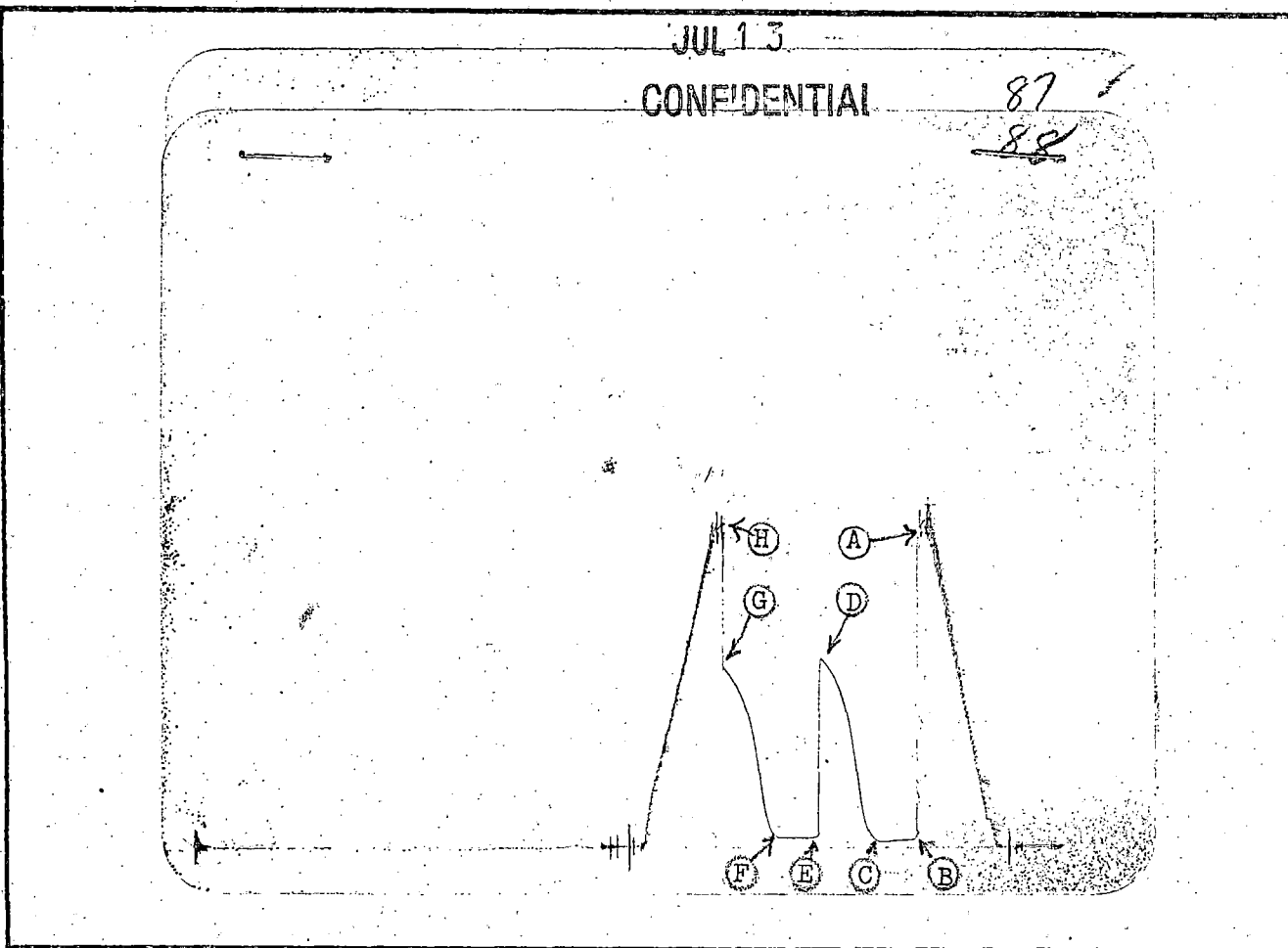
KCC

ORIGINAL

JUL 13

CONFIDENTIAL

87 ✓
~~88~~



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	1985	1905	P.S.I.
(B) First Initial Flow Pressure	44	45	P.S.I.
(C) First Final Flow Pressure	44	37	P.S.I.
(D) Initial Closed-in Pressure	1141	1128	P.S.I.
(E) Second Initial Flow Pressure	55	59	P.S.I.
(F) Second Final Flow Pressure	55	60	P.S.I.
(G) Final Closed-in Pressure	1075	1074	P.S.I.
(H) Final Hydrostatic Mud	1881	1891	P.S.I.

RELEASED

1994

FROM CONFIDENTIAL

COMPANY Murfin Drilling Comp. Inc. LEASE- WELL NO Emma Geist #1-33 SEC 33 TWP 23S RGE. 9W TEST NO. 3 DATE 7-5-1993

ORIGINAL

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JUL 13 --

SUPERIOR TESTERS ENTERPRISES INC. ~~CONFIDENTIAL~~

WELL IDENTIFICATION DATA

COMPANY : MURFIN DRILLING COMPANY WELL NAME : EMMA GEIST #1-33
 ADDRESS : 250 N.WATER#300,WICHITA LOCATION : NE-SE-NE 33-23S-9W
 STATE & COUNTY : KASAS,RENO FIELD :
 ELEV.(GR) : 1723 (KB) : 1728 TEST DATE : 7-6-1993

EQUIPMENT AND HOLE DATA

FORMATION TESTED : MISSISSIPPI DRILL PIPE LENGTH(ft) : 3674
 TEST INT. KB : 3798 to 3813 DRILL PIPE O.D.(in) : 3.82
 ANCHOR LENGTH(ft) : 15 WEIGHT PIPE LENGTH(ft) :
 TYPE OF TEST : Conventional WEIGHT PIPE ID : 2.75
 TOTAL DEPTH(ft-kg) : 3910 DRILL COLLAR LENGTH(ft) :
 MAIN HOLE SIZE(in) : 7 7/8 DRILL COLLAR I.D.(in) : 2.259
 MUD WEIGHT : 9.3 TOP PACKER DEPTH(kb) : 3793-3798
 MUD VISCOSITY : 64 BOTTOM PACKER DEPTH(kb) : 3813
 MUD CHLORIDES : 10000 DUAL PACKERS : THREE
 SURFACE CHOKE : 3/4 PACKER SIZE(in) : 6 3/4
 BOTTOM CHOKE(in) : 3/4 PACKER HOLD : Yes
 TOOL SIZE(O.D.) : 5 1/2 TOOL PLUG : No
 TOOL JOINT SIZE(F.H.) : 4 1/2 REVERSED OUT : No
 RESERVOIR TEMPERATURE(F) : 112 TEST TICKET NUMBER : 12189

EXTRA EQUIPMENT : -JARS -SAFETY JOINT -EXTRA PACKER
-STRADDLE

ELEMENT SERIAL NO. : 11088
 RANGE : 0 - 4400 CLOCK RANGE : 12 HOURS
 CAL. EQU. : 1102.93 * Defl. + 4.88

SURFACE BLOW

1st Opening : WEAK BLOW BUILT TO 1 INCH AND DECREASED
 2nd Opening : WEAK SURFACE BLOW DECREASED TO VERY WEAK

RELEASED

SFP 6 1994

RECOVERY

Recovered 150 feet of GAS IN THE PIPE
 Recovered 25 feet of OIL CUT WATER MUD 5%OIL 55%MUD 40%WATER
 Recovered 25 feet of OIL CUT WATERY MUD 5%OIL 45%MUD 50%WATER

FROM CONFIDENTIAL

REMARKS :

WITNESSED BY : DAN FREDLUND TOOL OPERATOR : GENE BUDIG

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES INC.

SUPERIOR TESTERS ENTERPRISES INC.

RELEASED

SUBSURFACE PRESSURE MEASUREMENTS

SEP 6 1994

COMPANY : MURFIN DRILLING COMPANY WELL NAME : EMMA GEIST #1-33
 DATE OF TEST : 7-6-1993 LOCATION : NE-SE-NE 33-23S-9W
 DEPTH : 3802.0 SERIAL NO. : 11088

FROM CONFIDENTIAL

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	CORRECTED
TEST NO.: 3					
Depth : 3802.0 ft-kb					
-1ST HYDROSTATIC	0.0	1.722	1904.13	1.40	1905.53
-7:15 1ST FLOW	0.0	.041	50.10	-4.40	45.70
- 7:20	5.0	.041	50.10	-4.40	45.70
- 7:25	10.0	.040	49.00	-4.42	44.58
- 7:30	15.0	.039	47.89	-4.43	43.47
- 7:35	20.0	.038	46.79	-4.44	42.35
- 7:40	25.0	.034	42.38	-4.49	37.89
- 7:45	30.0	.034	42.38	-4.49	37.89
-7:45 END FLOW	0.0	.034	42.38	-4.49	37.89
- 7:48	3.0	.046	55.61	-4.35	51.27
- 7:51	6.0	.073	85.39	-4.03	81.36
- 7:54	9.0	.118	135.03	-3.51	131.52
- 7:57	12.0	.207	233.19	-2.48	230.71
- 8:00	15.0	.353	394.21	-.78	393.43
- 8:03	18.0	.493	548.62	.84	549.47
- 8:06	21.0	.621	689.80	.85	690.65
- 8:09	24.0	.739	819.95	.77	820.71
- 8:12	27.0	.812	900.46	.72	901.18
- 8:15	30.0	.872	966.64	.68	967.32
- 8:18	33.0	.919	1018.47	.65	1019.13
- 8:21	36.0	.953	1055.97	.63	1056.60
- 8:24	39.0	.981	1086.85	.61	1087.47
- 8:27	42.0	1.005	1113.33	.61	1113.93
- 8:29	44.0	1.018	1127.66	.63	1128.30
-8:29 1ST SHUT-IN	0.0	1.018	1127.66	.63	1128.30
-8:29 2ND FLOW	0.0	.053	63.34	-4.26	59.07
- 8:34	5.0	.053	63.34	-4.26	59.07
- 8:39	10.0	.053	63.34	-4.26	59.07
- 8:44	15.0	.053	63.34	-4.26	59.07
- 8:49	20.0	.053	63.34	-4.26	59.07
- 8:54	25.0	.054	64.44	-4.25	60.19
- 8:59	30.0	.054	64.44	-4.25	60.19
-8:59 END FLOW	0.0	.054	64.44	-4.25	60.19
- 9:02	3.0	.063	74.36	-4.15	70.22
- 9:05	6.0	.099	114.07	-3.73	110.34
- 9:08	9.0	.157	178.04	-3.06	174.98
- 9:11	12.0	.257	288.33	-1.90	286.44
- 9:14	15.0	.411	458.18	-.11	458.08
- 9:17	18.0	.546	607.08	.89	607.97
- 9:20	21.0	.649	720.68	.83	721.51

KCC

JUL 13

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SUPERIOR TESTERS ENTERPRISES INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : MURFIN DRILLING COMPANY WELL NAME : EMMA GEIST #1-33
DATE OF TEST : 7-6-1993 LOCATION : NE-SE-NE 33-238-9W
DEPTH : 3802.0 SERIAL NO. : 11088

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			CALC	CORR	CORRECTED
TEST NO.: 3					
- 9:23	24.0	.737	817.74	.77	818.51
- 9:26	27.0	.796	882.81	.73	883.54
- 9:29	30.0	.840	931.34	.70	932.05
- 9:28	29.0	.806	893.84	.73	894.57
- 9:35	36.0	.918	1017.37	.65	1018.02
- 9:38	39.0	.947	1049.36	.63	1049.99
- 9:41	42.0	.969	1073.62	.62	1074.24
-9:41 2ND SHUT-IN	0.0	.969	1073.62	.62	1074.24
-2ND HYDROSTATIC	0.0	1.709	1889.79	1.41	1891.20

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SEP 6 1994

FROM CONFIDENTIAL

KCC

JUL 13

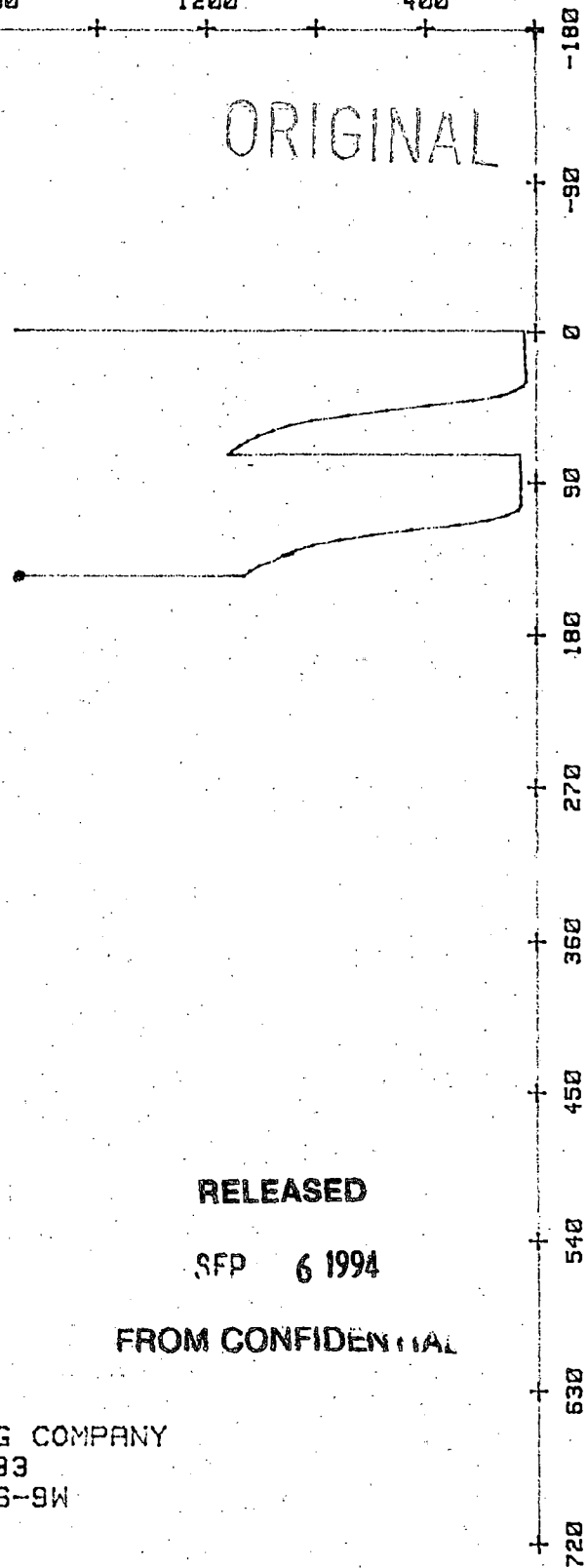
PRESSURE (P S I G)

CONFIDENTIAL

4000 3600 3200 2800 2400 2000 1600 1200 800 400

ORIGINAL

TIME (MINUTES)



RELEASED

SEP 6 1994

FROM CONFIDENTIAL

COMPANY : MURFIN DRILLING COMPANY
 WELL : EMMA GEIST #1-33
 LOCATION : NE-SE-NE 33-23S-9W
 DATE : 7-6-1993
 GAUGE # : 11088

Phone 913-483-2627, Russell, Kansas
 Phone 316-793-5861, Great Bend, Kansas

Phone Plainville 913-434-2812
 Phone Ness City 913-798-3843

ORIGINAL KCC

ALLIED CEMENTING CO., INC.

Home Office P. O. Box 31

CONFIDENTIAL
 Russell, Kansas 67665

1287

New

Date	7-7-93	Sec.	33	Twp.	23s	Range	9w	Called Out	12:00 AM	On Location	2:30 AM	Job Start	5:00 AM	Finish	8:00 AM	
Lease	Emma Gelst Well No. 1-33		Location		Huntsville 35-1E-1/2S-W10			County	RENO	State	K					
Contractor	LD Drilling											Owner	SOMC			
Type Job	Rotary Plug											To Allied Cementing Co., Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.				
Hole Size	12 1/4 7/8		T.D. 3910													
Csg.	8 5/8		Depth 200'													
Tbg. Size	Depth															
Drill Pipe	Depth															
Tool	Depth															
Cement Left in Csg.	Shoe Joint															
Press Max.	Minimum															
Meas Line	Displace															
Perf.																

EQUIPMENT

Pumptrk	No.	Cementer	Don H
	181	Helper	
Pumptrk	No.	Cementer	
		Helper	
Bulktrk	68	Driver	RICK W
		Driver	

DEPTH of Job

Reference:	18 5/8 Plug	
		Sub Total
		Tax
		Total

Remarks: Pumped 35 sk at 1400', 35 sk at 850', 35 sk at 270', 25 sk at 60', 10 sk at RH BY Allied Cementing
 THANKS Don
Julius

Charge To	MURFIN
Street	
City	State
The above was done to satisfaction and supervision of owner agent or contractor.	
Purchase Order No.	
XXXXXXXXXXXX	
CEMENT	
Amount Ordered	140 SK 9/40 48 Gel
Consisting of	
Common	
Poz. Mix	
Gel.	
Chloride	
Quickset	
	Sales Tax
Handling	
Mileage	
	Sub Total
	RELEASED
	Total
Floating Equipment	SEP 6 1994
FROM CONFIDENTIAL	
	RELEASED
	6 1994
	RECEIVED
	STATE CORPORATION COMMISSION
	JUL 14 1993
	CONSERVATION DIVISION
	Wichita, Kansas