

20871-00020871 ORIGINAL

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

API NO. 15- 033-2007494
County COMANCHE
N/2 - NW - SW - SE Sec. 5 Twp. 34 Rge. 20 X W

Operator: License # 3882

1100 Feet from S/N Line of Section

Name: SAMUEL GARY JR. AND ASSOC.

2500 Feet from E/W Line of Section

Address: 1775 SHERMAN ST., SUITE 1925

Footages Calculated from Nearest Outside Section Corner:
NE, SE, NW or SW

City/State/Zip: DENVER, CO 80203

Lease Name BLUFF CREEK Well # 5-15

Purchaser: N/A

Field Name WILDCAT

Operator Contact Person: CRAIG AMBLER

Producing Formation N/A

Phone (303) 831-4673

Elevation: Ground 1762 KB 1768

Contractor: Name: BRANDT DRILLING COMPANY

Total Depth 5431 PBSD SURF

License: 5840

Amount of Surface Pipe Set and Cemented at 675 Feet

Wellsite Geologist: TIM MCCOY

Multiple Stage Cementing Collar Used? Yes X No

Designate Type of Completion

If yes, show depth set Feet

X New Well Re-Entry Workover

If Alternate II completion, cement circulated from

Oil SWD SLOW Temp. Abd.

feet depth to w/ sx cmt.

Gas ENHR SIGW

Drilling Fluid Management Plan 5-27-93

X Dry Other (Core, WSW, Expl., Cathodic, etc)

(Data must be collected from the Reserve Pit)

If Workover:

Chloride content 11000 ppm Fluid volume bbls

Operator: N/A

Dewatering method used

Well Name:

Location of fluid disposal if hauled offsite:

Comp. Date Old Total Depth

Deepening Re-perf. Conv. to Inj/SWD

Plug Back PBSD

Commingled Docket No.

Dual Completion Docket No.

Other (SWD or Inj?) Docket No.

3-12-93 3-22-93 P&A 3-25-93

Spud Date Date Reached TD Completion Date

Operator Name KBW OIL & GAS

Lease Name HARMON SWD License No. CD 98329

NW Quarter Sec. 11 Twp. 33 S Rng. 20 E/W

County COMANCHE Docket No. 5993

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 Samuel Gary, Jr. President Date 05/12/93

Subscribed and sworn to before me this 12th day of May 1993.

Notary Public Joan S. Lucero Date Commission Expires 01/21/1996

RECEIVED C.C. OFFICE USE ONLY
CONFIDENTIALITY ATTACHED
C Wireline Log Received
Geologist Report Received
MAY 17 1993
KANSAS CONSERVATION DIVISION
Wichita, Kansas
Distribution SWD/Rep NGPA
Plug Other (Specify)

91

Operator Name SAMUEL GARY JR. & ASSOC. Lease Name BLUFF CREEK Well # 5-15

Sec. 5 Twp. 34 Rge. 20 East
 X West County COMANCHE

ORIGINAL

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 X Yes No
 (Attach Additional Sheets.)

Samples Sent to Geological Survey X Yes No

Cores Taken Yes X No

Electric Log Run X Yes No
 (Submit Copy.)

List All E.Logs Run: DUAL INDUCTION
BHC - SONIC
CNL - PHOTO DENSITY

 X Log Formation (Top), Depth and Datums Sample

Name	Top	Datum
STONE CORRAL	803	+965
CHASE	2313	-545
LANSING	4406	-2638
MARMATON	4966	-3108
MORROW	5238	-3470
MISSISSIPPIAN	5362	-5494

CASING RECORD
 Report all strings set-conductor, surface, intermediate, production, etc. New Used

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	675	60-40 LITE & CLASS "A"	225 & 100	3% CaCl, 2% GEL & 1/4# CELOFLAK
PRODUCTION	7 7/8	N/A	-	-	-	-	-

ADDITIONAL CEMENTING/SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
<u> </u> Perforate	N/A			
<u> </u> Protect Casing				
<u> </u> Plug Back TD				
<u> </u> Plug Off Zone				

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

TUBING RECORD Size N/A Set At Packer At Liner Run Yes No

Date of First, Resumed Production, SWD or Inj. Producing Method Flowing Pumping Gas Lift Other (Explain)

Estimated Production Per 24 Hours Oil Bbls. Gas Mcf Water Bbls. Gas-Oil Ratio Gravity

Disposition of Gas: METHOD OF COMPLETION

Vented Sold Used on Lease (If vented, submit ACO-18.) Open Hole Perf. Other (Specify)

STATE OF KANSAS RECEIVED
 PRODUCTION INFORMATION DIVISION
 APR 17 1993
 CONSERVATION DIVISION
 Wichita, Kansas

ORIGINAL

SAMUEL GARY, JR. & ASSOCIATES, INC.

BLUFF CREEK #5-15

NW SW SE SEC 5 T34S R20W

COMANCHE COUNTY, KANSAS

WELLSITE GEOLOGIST'S REPORT

TIGHT HOLE

T. M. MCCOY & CO., INC.
CONSULTING GEOLOGISTS

ORIGINAL

Samuel Gary, Jr. & Associates, Inc.
Bluff Creek #5-15

WELL DATA

OPERATOR: Samuel Gary, Jr. & Associates, Inc.

WELL NAME: Bluff Creek #5-15

LOCATION: 1100' fsl 2500' fel
NW SW SE Sec. 5, T34S, R20W
Comanche County, Kansas

ELEVATIONS: 1762' GL 1768' KB

FIELD: Wildcat

ROAD DIRECTIONS: From Protection, W 2.3 miles on US 160 & 183; S 6 miles
on county road at mile marker 167; E 0.5 mile; N 0.2
mile on lease road.

SURFACE CASING: 16 joints 8 5/8" 23# set at 671' KB.

SPUD DATE: 11 March 1993 3:15 PM

DRILLING COMPLETED: 21 March 1993 10:00 AM

TOTAL DEPTH: 5430' Driller 5431' Logger

LAST FORMATION
PENETRATED: Mississippian

WELL STATUS: Plugged and abandoned.

OPERATOR
REPRESENTATIVES: Tom Fertal - Geologist
Hugh Harvey - Engineer

Samuel Gary, Jr. & Associates, Inc.
Bluff Creek #5-15

ORIGINAL

FORMATION TOPS

	Log Top	1768 KB Datum
PERMIAN		
Stone Corral	803	+965
Hutchinson Salt	1597	+171
Chase	2313	-545
PENNSYLVANIAN		
Wabaunsee	3258	-1490
Base Lecompton Ls	4022	-2254
Elgin Ss Interval	4112	-2344
Heebner	4212	-2444
Toronto	4222	-2454
Douglas	4270	-2502
Lansing	4406	-2638
Stark	4828	-3060
Swope	4852	-3084
Marmaton	4966	-3198
Pawnee	5060	-3292
Cherokee	5124	-3356
Morrow	5238	-3470
Basal Morrow Ss	5348	-3580
MISSISSIPPIAN	5362	-5494
TD Logger	5431	
TD Driller	5430	

SUMMARY OF SHOWS AND LITHOLOGY

The following descriptions are interpretive and are tied to the wireline logs. Rig personnel collected unlagged 10-ft samples from 4000' to 5430' rig TD. Sample quality was fair, at times poor.

Grain size was determined by use of the American Stratigraphic Company comparator. Rock colors were determined from the Rock-Color Chart distributed by the Geological Society of America. 10% HCl was used in acid reaction tests.

Significant shows are marked in the left margin; lesser indications of hydrocarbons are contained in sample descriptions or are noted as "No show". Cut tests were performed with 1,1,1-trichloroethane. Samples were examined for fluorescence with a Corvascope.

Remark: Initially poor sample quality; 30% - 10% surface sand.
Displaced native salt mud at 3858'.

4000' - 4022' Thin Limestones; light brownish to brownish gray; micro-crystalline; firm, moderately hard; commonly argillaceous; no porosity visible. Also Shale; medium to dark gray, trace grayish black; slightly calcareous. Total gas 30-54 units from dark shale. No show.

BASE LECOMPTON LS. BASE: 4022' DATUM: -2254'

4022' - 4112' Shale; medium light to dark gray; silty and micromicaceous where lighter colored; slightly to moderately calcareous; part carbonaceous; subblocky. No show.

ELGIN SS. INTERVAL TOP: 4112' DATUM: -2344'

4112' - 4176' Interbedded. Minor Sandstone; light gray; very fine grained; firm, moderately hard; slightly calcareous; part silty; slightly peppered; micaceous; part carbonaceous; no porosity visible, no drill break. Mostly Shale; medium light to medium dark gray; silty; firm; non- to slightly calcareous; part micaceous, carbonaceous; platy, subblocky. Some Siltstone; light to medium gray; commonly argillaceous, some very fine grained sandy; firm; slightly calcareous; subblocky. No show.

SUMMARY OF SHOWS AND LITHOLOGY

4176' - 4212' Thin beds. Limestone; light brownish to brownish gray and pale to dark yellowish brown, some mottled medium dark gray; micro- to little fine crystalline; firm, moderately hard; clean to argillaceous; no porosity visible. Siltstone; medium light to medium gray; slightly to moderately calcareous; subblocky. Shale; medium to dark gray, minor grayish black; silty to moderately smooth; firm; part calcareous; platy, subblocky. No sample show. Total gas 20-55-40 units from dark shale.

HEEBNER TOP: 4212' DATUM: -2444'

4212' - 4222' Shale; grayish to brownish black, some dusky yellowish brown; slightly silty; firm; slightly calcareous; trace coaly laminae; platy, subblocky. No fluorescence; slow nonstreaming cut fluorescence dries to fair bluish yellow halo. Total gas 40-65-30 units. Thin Limestone; light brownish or brownish gray; tight. No show.

TORONTO TOP: 4222' DATUM: -2454'

4222' - 4270' Limestone; light brownish to brownish gray and yellowish brown, minor pinkish gray (buff); microcrystalline, trace sparry patches; firm, some moderately hard; clean, some argillaceous; trace pyritic; no porosity visible. Few small cylindrical fossil fragments. Some Shale; medium to dark gray, trace grayish black. No show.

DOUGLAS TOP: 4270' DATUM: -2502'

4270' - 4332' Limestone; pinkish gray (buff) to light brownish gray, minor medium light gray; micro- to some very fine crystalline; firm to moderately hard; mostly clean; minor patches of sparry dolomite; no to minor slight intercrystalline porosity visible. Some Shale; medium to dark gray. No show.

SUMMARY OF SHOWS AND LITHOLOGY

4332' - 4406' Shale; medium to medium dark gray; smooth, some slightly silty; firm; noncalcareous; micromicaceous; platy, subblocky; fast steady drill break. No show.

Remark: Fair sample quality; still much limestone in samples after drilling 70 ft of shale.

LANSING

TOP: 4406' DATUM: -2638'

4406' - 4440' Limestone; pinkish gray (buff) to light brownish gray; micro- to some very fine and fine crystalline; few chips oolitic; firm, moderately hard; clean, some slightly argillaceous; trace sparry dolomite; no to slight intercrystalline porosity visible. Some Shale; gray. No show.

4440' - 4464' Limestone; pinkish gray (buff) to light brownish gray; micro- to increased fine crystalline; staining and acid show increased sparry dolomite streaks; some medium to coarse carbonate grains; clean; trace pyritic; no to minor fair intercrystalline porosity, two thin fast drill breaks. Virtually no show--two small chips exhibited bright bluish yellow oil fluorescence and slight cut fluorescence. Total gas 35 units.

4464' - 4493' Limestone; pinkish gray (buff), some light brownish gray; micro- to fine crystalline, trace medium crystalline; dolomite sparry streaks common, minor free light gray fine to medium crystalline dolomite masses; firm, some moderately hard; clean; no to some fair small vug and intercrystalline porosity visible, fast 25 ft drill break. Some yellow mineral fluorescence; no show.

4493' - 4641' Limestone; pinkish gray (buff) to light brownish gray, some brownish gray and pale to dark yellowish brown; microcrystalline and partly chalky to some fine crystalline; some faintly fine to medium grained; little sparry dolomite; firm, moderately hard; mostly clean, part argillaceous; small cuttings, mostly no to some slight intercrystalline porosity visible. Trace Chert; white to light gray and light brownish to brownish gray; free and within limestone chips. Minor Shale; medium dark to dark gray. No show.

SUMMARY OF SHOWS AND LITHOLOGY

- 4641' - 4654' Shale; dark gray, trace grayish black. No cut attempted.
Total gas 30-50-30 units.
- 4654' - 4677' Limestone; pinkish gray (buff), light brownish gray, some
light gray; crypto- to very fine crystalline; firm to quite
hard; clean; no porosity visible. Trace Chert; white,
light gray. No show.
- Remark: No colitic limestone with moldic porosity found in samples;
no fast drilling break.
- Note: No gas detection 4665' - 4750' (replaced extractor motor).
- 4677' - 4694' Shale; medium dark to dark gray, trace grayish black;
moderately smooth; firm; non- to slightly calcareous; platy,
subblocky. No show.
- 4694' - 4742' Limestone; pinkish gray (buff) to some light brownish
gray; micro- to very fine crystalline, part chalky; firm;
clean; no to slight intercrystalline porosity visible; fair
drilling breaks 4695' - 4707 and 4733' - 4638'. Trace
Chert; white, light gray. No show.
- 4742' - 4789' Limestone; pinkish gray to light brownish and brownish
gray, minor yellowish brown, some light to medium gray
increases downhole; crypto- to very fine crystalline; firm,
moderately hard; clean, some slightly argillaceous; mostly
no porosity visible. Trace Chert; white, light gray. No
show.
- 4789' - 4828' Shale; medium dark to dark gray, tinted brown, grayish to
brownish black downhole; silty; firm; calcareous; appears
micromicaceous; minute black flecks are evident in chips
immersed in water; subblocky. No fluorescence; no cut
attempted. Total gas 25-90-114 units.
- STARK TOP: 4828' DATUM: -3060'
- 4828' - 4836' Shale; grayish to brownish black; slightly silty; firm;
slightly calcareous; subblocky. No fluorescence. Slow
nonstreaming cut fluorescence dries to fair yellow
fluorescent halo. Total gas 114-235-120 units.

SUMMARY OF SHOWS AND LITHOLOGY

weak yellow halo. Virtually no show.

Some interbedded Shale; medium dark to dark gray--rare greenish gray streaks--and trace grayish black; smooth to silty; firm; non- to slightly calcareous; platy, subblocky. Downhole, trace Chert; very light gray. No show.

PAWNEE

TOP: 5060' DATUM: -3292'

- 5060' - 5062' Shale; grayish black. Total gas 100-140-100 units.
- 5062' - 5072' Shale; medium to dark gray, some greenish gray; smooth to silty; firm; non- to moderately calcareous; subblocky, platy, some splintery. Limestone stringers; medium gray; argillaceous. No show.
- 5072' - 5102' Limestone; pinkish gray (buff) to some light brownish gray; microcrystalline and partly chalky, some very fine crystalline; minor sparry patches; firm, some quite hard; clean; no porosity visible. No show.
- 5102' - 5105' Shale; grayish black. Total gas 90-190-95 units.
- 5105' - 5124' Limestone; pinkish gray (buff) to light brownish gray; micro- to very fine crystalline, some faintly fine grained; firm, moderately hard; mostly clean; no porosity visible. No show.

CHEROKEE

TOP: 5124' DATUM: -3356'

- 5124' - 5129' Shale; grayish to brownish black; slightly silty; firm; non- to slightly calcareous; trace pyritic; subblocky, platy. Total gas 100-275-160 units.
- 5129' - 5139' Shale; medium to dark gray, some greenish-, olive- and light brownish gray; smooth, some silty; firm; non- to moderately calcareous; subblocky, platy, some splintery. No show.

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STATE CORPORATION COMMISSION

MAY 17 1993

CONSERVATION DIVISION
Wichita, Kansas

SUMMARY OF SHOWS AND LITHOLOGY

- 5139' - 5157' Limestone; pinkish gray (buff) to light brownish gray, little yellowish brown; micro- to some very fine crystalline; firm, moderately hard; mostly clean; trace sparry patches; mostly tight, some slight intercrystalline porosity. No show.
- 5157' - 5161' Shale; grayish black. Total gas 150--230--190 units.
- 5161' - 5238' Thin beds. Shale; medium dark to dark gray, grayish and minor brownish black, some greenish- and olive gray streaks; smooth, some silty; firm; non- to slightly calcareous; platy, little splintery.
- Limestone; pinkish gray (buff) to light brownish and brownish gray, minor yellowish brown; crypto- and micro- to little fine crystalline; firm to moderately hard; clean, some argillaceous; trace light brownish gray chert; trace pyrite; no porosity visible. No show.
- MORROW TOP: 5238' DATUM: -3470'
- 5238' - 5262' Shale; medium dark to dark gray, greenish gray, minor brownish gray--hues commonly mixed in streaks; smooth, trace very fine grained sandy; firm; slightly calcareous, some noncalcareous; platy, some splintery. Much Limestone in samples, most is caving. No show.
- 5262' - 5279' Shale; medium gray to dark gray, greenish gray--partly streaked; smooth to some very fine grained sandy; firm; slightly calcareous; subblocky and platy, some splintery. Minor Sandstone; medium gray, greenish gray; very fine grained; argillaceous; slightly calcareous; firm to moderately hard; no porosity visible, no good drilling break. Continued Limestone in samples, most is caving. No show.
- 5279' - 5298' Shale; medium dark gray to dark gray, greenish gray--partly streaked; as above. Few chips Shale; dusky red; subblocky. One chip Shale; light olive brown.
- Trace Limestone; nearly white; microcrystalline, chalky--possible artifact; firm; clean, no porosity visible. No show.

SUMMARY OF SHOWS AND LITHOLOGY

5298' - 5348' Much Shale; medium to dark gray--commonly drab tinted--and greenish gray; smooth, some very fine grained sandy; firm; non- to some moderately calcareous; some subblocky, much platy, some splintery. No show.

Trace Sandstone; light to medium light gray; very fine to lower fine grained; moderately hard to hard; silica cement in part, some moderately calcareous; trace glauconite or green clay grains; slightly peppered; tight, no porosity visible. No show.

Trace Limestone; nearly white; chalky; possible artifact. No show.

MORROW BASAL SS.

TOP: 5348' DATUM: -3580'

5348' - 5358' Sandstone; very light to light gray; fine to medium grained; subangular, subrounded; well to some moderately sorted; moderately hard, hard; siliceous, some calcite cement in part; no to rare glauconite or green clay grains; pyrite conspicuous in part; trace white to light gray, medium to coarse chert grains in sandstone; tight, no to minor slight intergranular porosity.

Also 5% - 10% Chert; white to medium light gray, partly mottled; opaque, some is earthy; mostly hard; part pyritic.

Show: 1% - 2% sandstone in sample. Some light brown oil stain. Most chips display bright fairly uniform yellow fluorescence and yield moderately slow slightly streaming cut fluorescence that dries to fair yellow halos. Under white light, no cut or oil ring.

Hot-wire Gas	Total	C1	C2	C3	C4	Min/Ft	Mud Log
Before	90	79%	13%	8%	0%	4.6	5344'
Maximum	122	81%	12%	8%	0%	2.2	5349'
After	88	80%	11%	8%	0%	8.3	5355'

Remark: Samples circulated late compared to gas show. Samples contain much limestone believed to be caving.

DST #1: 5233' - 5366' rig depth; 5237' - 5370' log depth. Recovered 190 ft slightly gas cut mud with slight rainbow show of oil.

Samuel Gary, Jr. & Associates, Inc.
Bluff Creek #5-15

ORIGINAL

SUMMARY OF SHOWS AND LITHOLOGY

No oil detected after samples were centrifuged. Misrun:
clocks stopped during final shut-in.

DST #2: 5233' - 5368' rig depth; 5237' - 5372' log depth. Misrun:
packers did not seat; top packer torn.

DST #3: 5332' - 5370' rig depth; 5336' - 5374' log depth. Times:
1/2-4-6-8 hrs. Recovered 45 ft gas, 5 ft free oil,
40 ft oil cut mud, 270 ft salt water.

MISSISSIPPIAN TOP: 5362' DATUM: -3594'

5362' - 5431' TD Limestone; pinkish gray (buff); micro- to very fine
crystalline; part chalky, some faintly fine grained; mostly
firm; clean; trace is sandy downhole; no porosity visible.
10% Chert; white to light gray; appears fresher than chert
associated with basal Morrow sandstone. No show.

Samuel Gary, Jr. & Associates, Inc.
Bluff Creek #5-15

DRILL STEM TEST #1

Trilobite ran on-bottom straddle test of Morrow Ss 5348' - 5358' (log depth) on 22 March 1993 after logs. Misrun: clocks stopped during final shut-in.

TEST INTERVAL: 5233' - 5366' rig depth; 5237' - 5370' log depth.

PACKERS:

Upper Packer: 5226'
Upper Packer: 5233'
Lower Packer: 5366'
Lower Packer: 5373'
TD at Test: 5430'

PRESSURES:

Recorder Depth: 5350'
Initial Hydrostatic: 2441 psi
Initial Flow: 80 psi to 89 psi 10 min
Initial Shut-In: 1386 psi 45 min
Final Flow: 108 psi to 128 psi 90 min
Final Shut-In: * 620 psi * 210 min
Final Hydrostatic: 2402 psi

NOTE:

* Clock stopped at 45 min into final shut-in.

RECOVERY:

190 ft slightly gas cut mud with rainbow spots/streaks of oil. No oil detected after samples were centrifuged.

4000 CC SAMPLER:

800 psi: 0.25 cubic ft of gas
3900 cc gas cut mud
0 cc oil
0 cc water

BLOW:

Tool opened with 1" blow; 3" at 5 min; 5" at 5 min.
Tool reopened with 4" blow; 5" at 5 min; 6" at 10 min;
5.5" at 20 min; 6.5" at 30 min; 7" at 40 min; 8" at 50
min; 9" at 60 min; 10.5" at 70 min; 12" at 75
min--bottom of bucket; installed ounce guage--no valid
readings; estimated 15" at 90 min. No gas to surface.

TEMPERATURE:

126 deg F

APPARENT SALINITY:

Pit Mud: 9000 ppm NaCl
Top Sample: 12000 ppm NaCl
Bottom Sample: 12000 ppm NaCl
Sampler: 13000 ppm NaCl



Samuel Gary, Jr. & Associates, Inc.
Bluff Creek #5-15

ORIGINAL

DRILL STEM TEST #2

Halliburton ran on-bottom straddle test of basal Morrow Ss 5348' - 5358' (log depth) on 23 March 1993 after logs. Misrun: packers did not seat; top packer of upper pair was torn and replaced.

TEST INTERVAL: 5233' - 5368' rig depth; 5237' - 5372' log depth.

PACKERS:

Upper Packer:	5227'
Upper Packer:	5233'
Lower Packer:	5368'
Lower Packer:	5376'
TD at Test:	5430'

ORIGINAL

Samuel Gary, Jr. & Associates, Inc.
Bluff Creek #5-15

DRILL STEM TEST #3

Halliburton ran on-bottom straddle test of basal Morrow Ss 5348' - 5358' (log depth) on 23-24 March 1993.

TEST INTERVAL: 5332' - 5370' rig depth; 5336' - 5374' log depth.

PACKERS:

Upper Packer: 5326'
Upper Packer: 5332'
Lower Packer: 5370'
Lower Packer: 5378'
TD at Test: 5430'

PRESSURES (psi):

Recorder Depth: 5365'
Initial Hydrostatic: 2682 psi
Initial Flow: 39 psi to 48 psi 30 min
Initial Shut-In: 2006 psi 240 min
Final Flow: 58 psi to 145 psi 360 min
Final Shut-In: 1918 psi 480 min
Final Hydrostatic 2682 psi

RECOVERY:

45 ft of gas in pipe; 5 ft of free 37 deg gravity oil;
40 ft of oil cut mud; 270 ft of salt water.

SAMPLER:

120 psi 0.121 cubic ft. of gas
0 cc mud
1 cc oil
2200 cc salt water

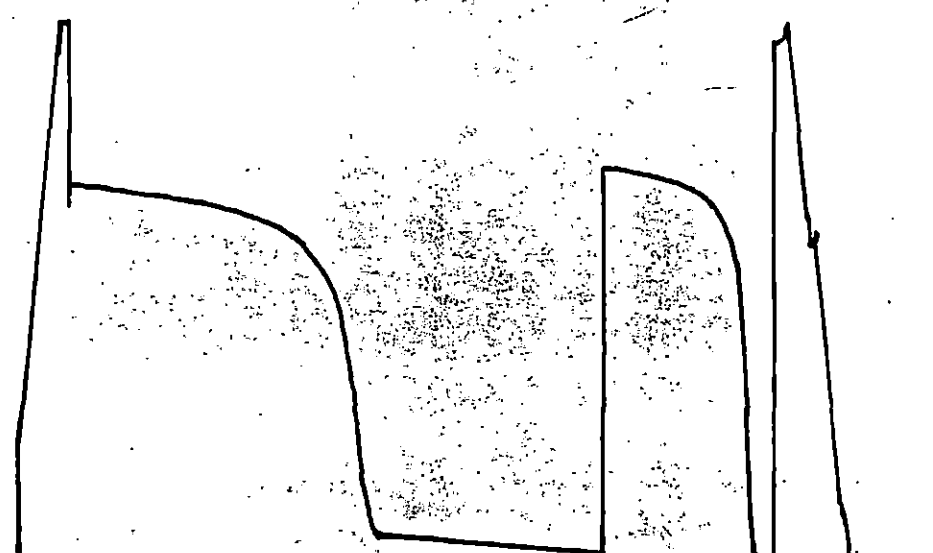
BLOW:

Tool opened with weak blow; 1" at 5 min; 2" at 10 min;
2 1/2" at 20 min; 3" at 30 min. Reopened with no blow
till surface bubbles at 30 min; 1" at 60 min; 2" at 90
min; 3" at 120 min; 3 1/2" at 150; 3" at 180 min;
3 1/2" at 210 min; 1 1/2" at 240 min; 1/2" at 270 min;
1 1/2" at 300 min; 2" at 330 min; 1" at 360 min.

TEMPERATURE: --- deg F

SALINITY:

Pit Mud: 12000 ppm Cl
Bottom: 97000 ppm Cl
Sampler: 97000 ppm Cl



TRACED 7/11/93 DST #3

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

ORIGINAL

Drill-Stem Test Data

Well Name #5-15 BLUFF CREEK Test No. 1 Date 3/22/93
 Company SAMUEL GARY JR & ASSOCIATES INC Zone MORROW
 Address 1775 SHERMAN ST #1925 DENVER CO 80203 Elevation 1762
 Co. Rep./Geo. JIM McCOY Cont. BRANDT DRLG RIG #2 Est. Ft. of Pay _____
 Location: Sec. 5 Twp. 34S Rge. 20W Co. COMANCHE State KS

Interval Tested	<u>5233-5366</u>	Drill Pipe Size	<u>4.5" XH</u>
Anchor Length	<u>133</u>	Wt. Pipe I.D. - 2.7 Ft. Run	_____
Top Packer Depth	<u>5226-5233</u>	Drill Collar - 2.25 Ft. Run	<u>520</u>
Bottom Packer Depth	<u>5368-5375</u>	Mud Wt.	<u>9.1</u> lb/Gal.
Total Depth	<u>5430</u>	Viscosity	<u>48</u> Filtrate <u>10.2</u>

Tool Open @ 9:19 AM Initial Blow FAIR BLOW-INITIALLY 1" BUILDING TO 5" AT END OF FLOW

Final Blow STRONG BLOW-5MIN-5"/10MIN-6"/20MIN-5.5"/30MIN-6.5"/40MIN-7"
50MIN-8"/60MIN-9"/70MIN-10.5"/B.O.B. 75 MIN-12"/90MIN-15"/WEAK SHUTIN BLOW.

Recovery - Total Feet 190 Flush Tool? NO

Rec. 190 Feet of VERY SLIGHTLY GAS CUT DRILLING MUD
 Rec. _____ Feet of _____
 Rec. _____ Feet of _____
 Rec. _____ Feet of _____
 Rec. _____ Feet of _____

BHT 126 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
 RW 0.65 @ 48 °F Chlorides 12000 ppm Recovery Chlorides 7000 ppm System

(A) Initial Hydrostatic Mud 2451.6 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 78.7 PSI @ (depth) 5350 w / Clock No. 8179

(C) First Final Flow Pressure 90.5 PSI AK1 Recorder No. 7437 Range 4000

(D) Initial Shut-in Pressure 1357.9 PSI @ (depth) 5362 w / Clock No. 27501

(E) Second Initial Flow Pressure 120.0 PSI AK1 Recorder No. 13849 Range 4375

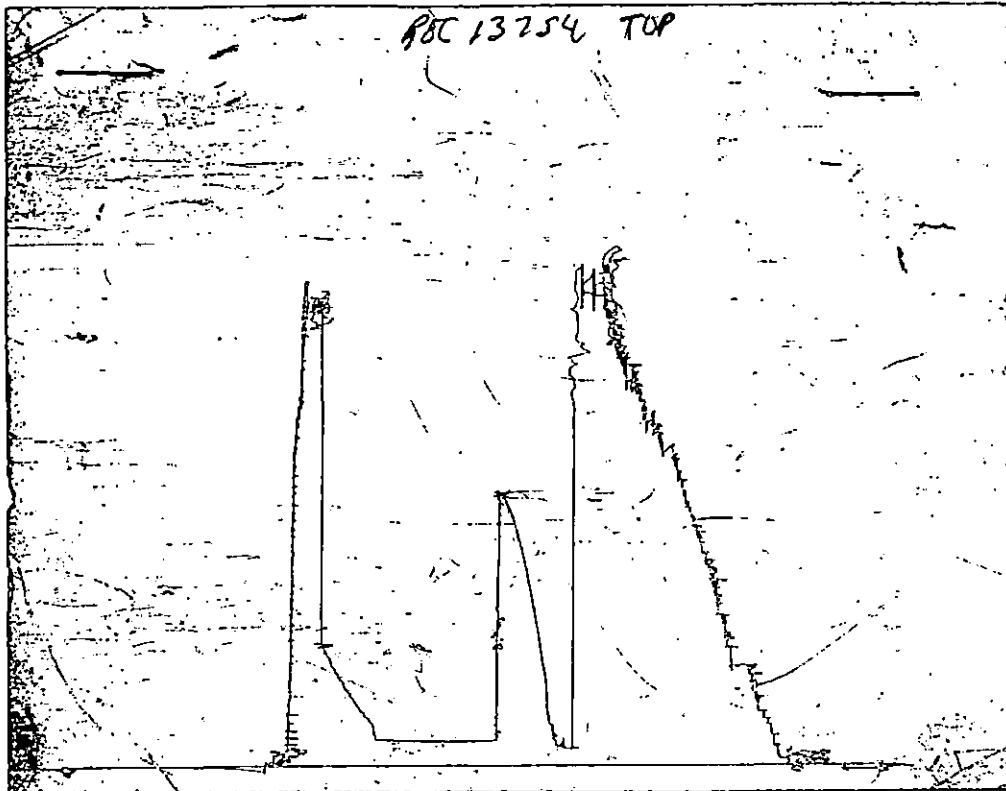
(F) Second Final Flow Pressure 127.5 PSI @ (depth) 5427 w / Clock No. 8376

(G) Final Shut-in Pressure 592.8 PSI Initial Opening RECEIVED Final Flow 90

(H) Final Hydrostatic Mud 2411.5 PSI Initial Shut-in MAY 17 1993 Final Shut-in 210

Our Representative JOHN RIEDL

CONSERVATION DIVISION
Wichita, Kansas



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2441	2451.6
(B) FIRST INITIAL FLOW PRESSURE	80	78.7
(C) FIRST FINAL FLOW PRESSURE	89	90.5
(D) INITIAL CLOSED-IN PRESSURE	1386	1357.9
(E) SECOND INITIAL FLOW PRESSURE	108	120
(F) SECOND FINAL FLOW PRESSURE	128	127.5
(G) FINAL CLOSED-IN PRESSURE	620	592.8
(H) FINAL HYDROSTATIC MUD	2402	2411.5

RECEIVED
STATE CORPORATION COMMISSION

MAY 17 1993

CONSERVATION DIVISION
Wichita, Kansas

ORIGINAL

EQUIPMENT & HOLE DATA

FORMATION TESTED: MORROW
 NET PAY (ft): 10.0
 GROSS TESTED FOOTAGE: 98.0 PKR. TO PKR.
 ALL DEPTHS MEASURED FROM: K.B.
 CASING PERFS. (ft): _____
 HOLE OR CASING SIZE (in): 7.875
 ELEVATION (ft): 1768.0
 TOTAL DEPTH (ft): 5430.0
 PACKER DEPTH(S) (ft): 5326, 5332, 5370, 5376
 FINAL SURFACE CHOKE (in): _____
 BOTTOM HOLE CHOKE (in): 0.750
 MUD WEIGHT (lb/gal): 9.10
 MUD VISCOSITY (sec): 58
 ESTIMATED HOLE TEMP. (°F): _____
 ACTUAL HOLE TEMP. (°F): _____ @ _____ ft

TICKET NUMBER: 01637000
 DATE: 03-23-93 TEST NO: 2
 TYPE DST: ON BTM. STRADDLE
 FIELD CAMP: PRATT
 TESTER: L.R. PARKER
 WITNESS: R. TRUEHEART
 DRILLING CONTRACTOR: BRANDT DRILLING COMPANY

FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY	CHLORIDES
SAMPLER	_____ @ _____ °F	96798 ppm
PIT	_____ @ _____ °F	12000 ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm

SAMPLER DATA

Psig AT SURFACE: 120.0
 cu.ft. OF GAS: 0.121
 cc OF OIL: 1.0
 cc OF WATER: 2200.0
 cc OF MUD: _____
 TOTAL LIQUID cc: 2201.0

HYDROCARBON PROPERTIES

OIL GRAVITY (°API): 37.0 @ 60 °F
 GAS/OIL RATIO (cu.ft. per bbl): _____
 GAS GRAVITY: _____

CUSHION DATA

TYPE	AMOUNT	WEIGHT
_____	_____	_____
_____	_____	_____

RECOVERED :

45 FT. OF GAS IN PIPE
 5 FT. OF FREE OIL
 40 FT. OF OIL CUT MUD
 270 FT. OF WATER

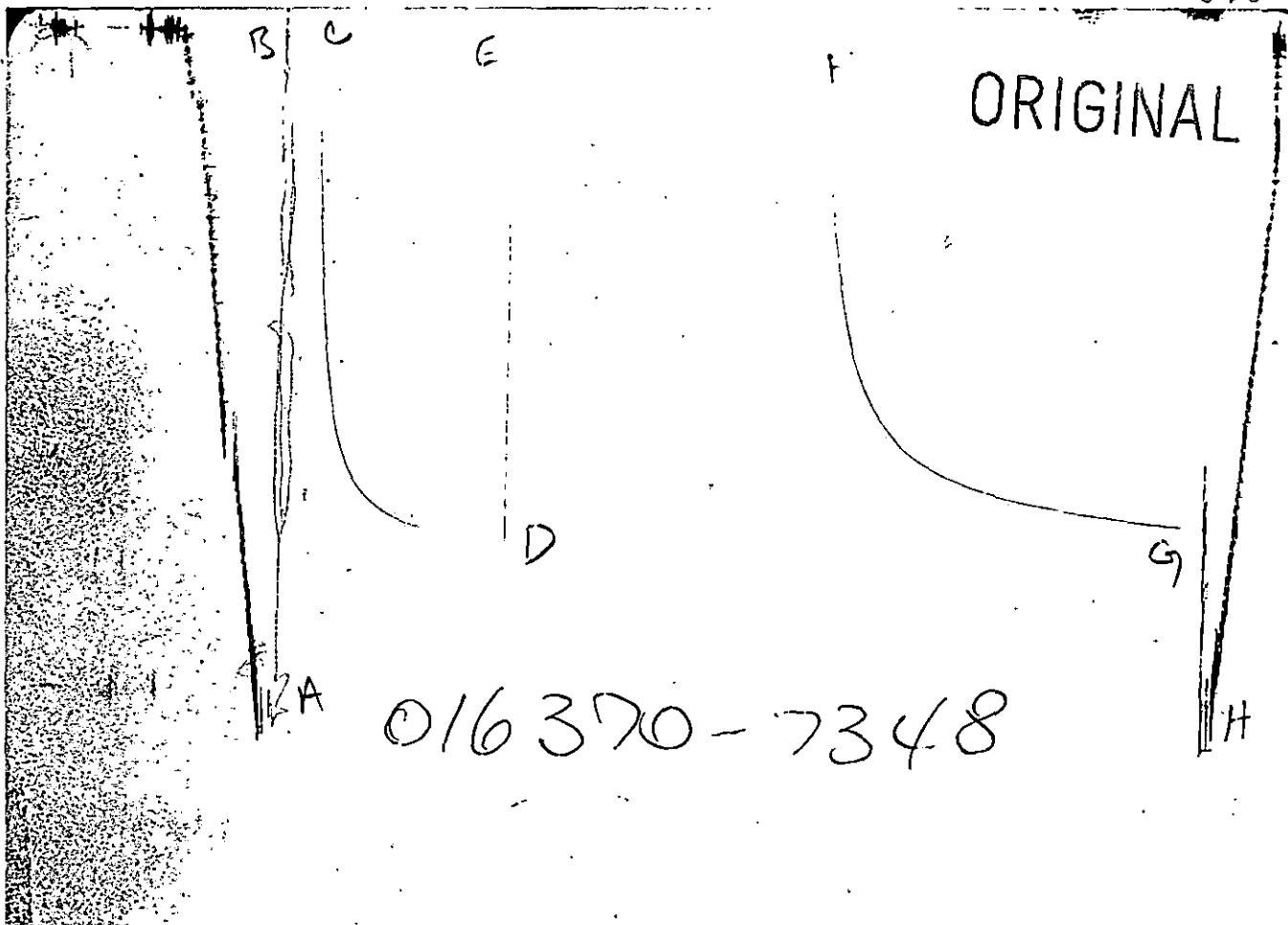
MEASURED FROM TESTER VALVE

REMARKS :

REC'D
 STATE CORP.

MAY

CONS'



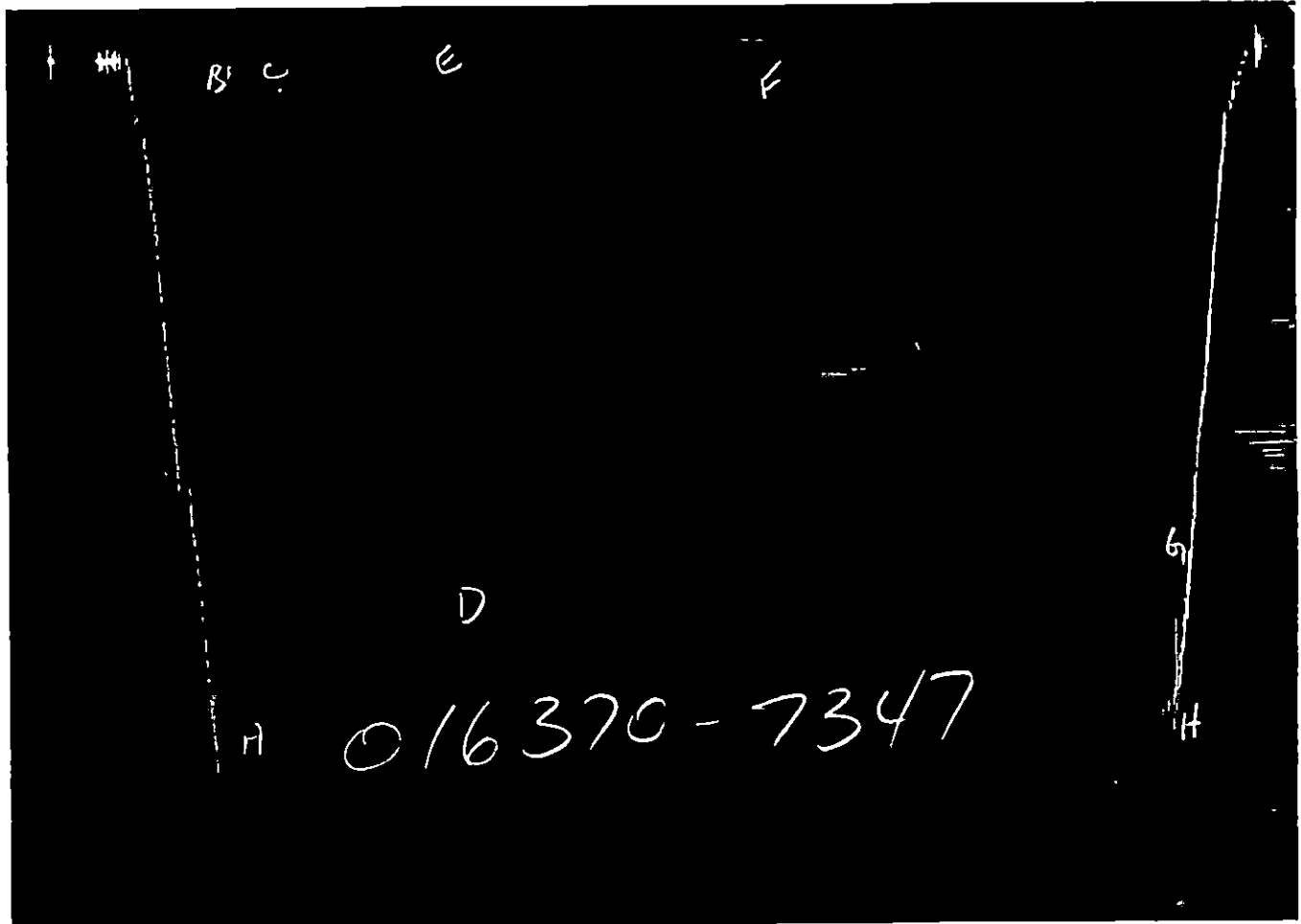
GAUGE NO: 7348 DEPTH: 5310.0 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		2622.8			
B	INITIAL FIRST FLOW		29.3			
C	FINAL FIRST FLOW		49.9	30.0	29.5	F
C	INITIAL FIRST CLOSED-IN		49.9			
D	FINAL FIRST CLOSED-IN		1985.4	240.0	240.5	C
E	INITIAL SECOND FLOW		58.7			
F	FINAL SECOND FLOW		137.8	360.0	359.4	F
F	INITIAL SECOND CLOSED-IN		137.8			
G	FINAL SECOND CLOSED-IN		1883.2	480.0	480.6	C
H	FINAL HYDROSTATIC		2569.1			

RECEIVED
STATE CORPORATION COMMISSION

MAY 17 1995

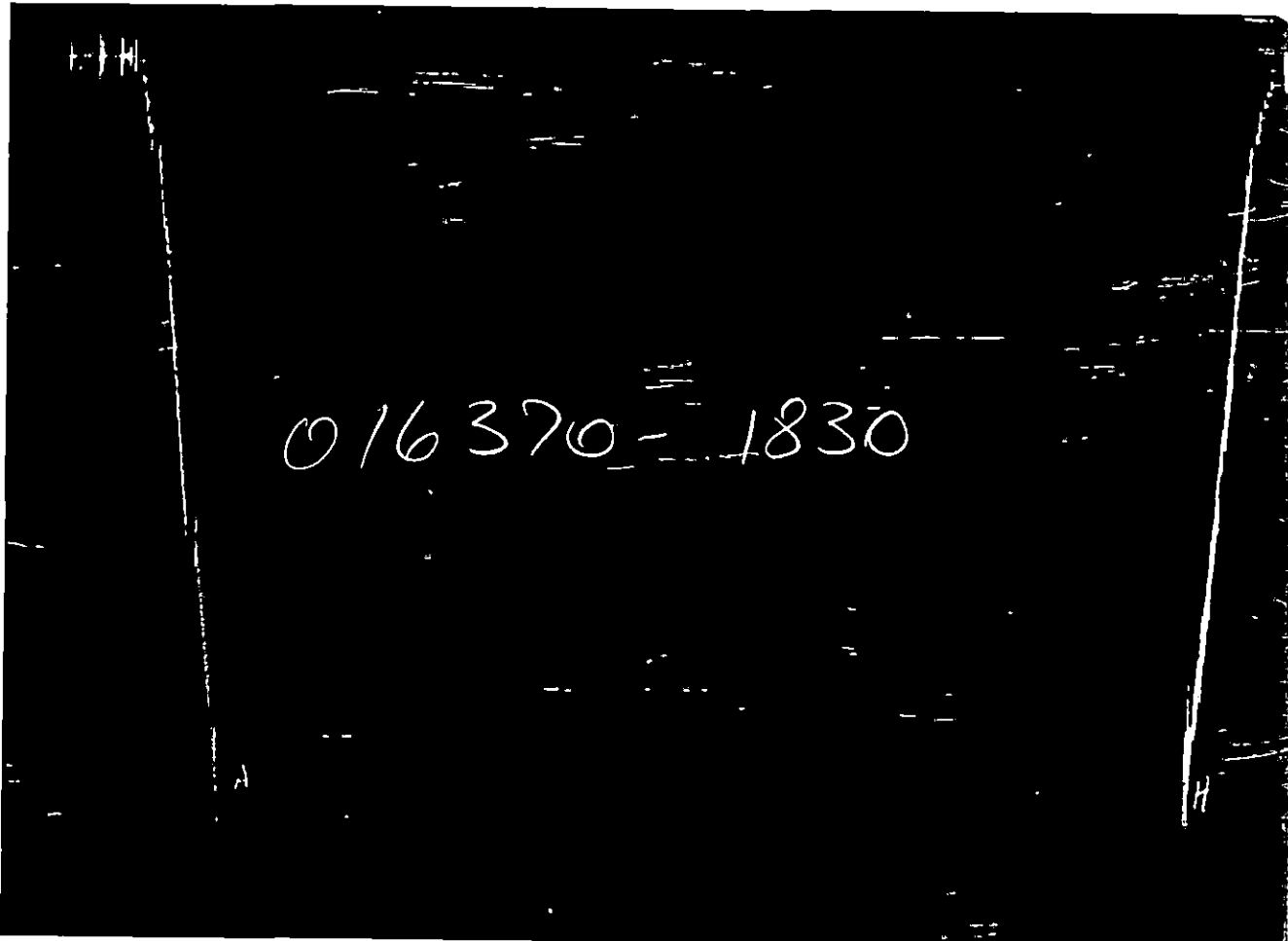
CONSERVATION DIVISION
Wichita, Kansas
Kansas



GAUGE NO: 7347 DEPTH: 5365.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	2682	2637.9			
B	INITIAL FIRST FLOW	39	59.5			
C	FINAL FIRST FLOW	48	73.9	30.0	29.5	F
C	INITIAL FIRST CLOSED-IN	48	73.9			
D	FINAL FIRST CLOSED-IN	2006	2007.8	240.0	240.5	C
E	INITIAL SECOND FLOW	58	81.4			
F	FINAL SECOND FLOW	145	162.2	360.0	359.4	F
F	INITIAL SECOND CLOSED-IN	145	162.2			
G	FINAL SECOND CLOSED-IN	1918	1907.3	480.0	480.6	C
H	FINAL HYDROSTATIC	2682	2588.1			

RECEIVED ORIGINAL
 STATE CORPORATION COMMISSION
 MAY 17 1993
 CONSERVATION DIVISION
 Wichita, Kansas



016370-1830

GAUGE NO: 1830 DEPTH: 5427.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		2630.5			
B	INITIAL FIRST FLOW		2632.7			
C	FINAL FIRST FLOW			30.0		F
C	INITIAL FIRST CLOSED-IN					
D	FINAL FIRST CLOSED-IN			240.0		C
E	INITIAL SECOND FLOW					
F	FINAL SECOND FLOW			360.0		F
F	INITIAL SECOND CLOSED-IN					
G	FINAL SECOND CLOSED-IN			480.0		C
H	FINAL HYDROSTATIC					

RECEIVED
STATE CORPORATION COMMISSION

MAY 17 1993

CONSERVATION DIVISION
Wichita, Kansas

ORIGINAL

ALLIED CEMENTING CO., INC.

Home Office P. O. Box 31

Russell, Kansas 67665

2940

3-5-93

Lease No. <u>3-4-93</u>	Sec. <u>5</u>	Twp. <u>34 S</u>	Range <u>20 W</u>	Called Out <u>3:00 P.M.</u>	On Location <u>6:00 P.M.</u>	Job Start <u>6:30 P.M.</u>	Finish <u>10:45 A.M.</u>
Bluff Creek	Well No. <u>5-65</u>	Location <u>Protection 20-65-1/2 E</u>			County <u>Comanche</u>	State <u>KANSAS</u>	

Contractor <u>Brandt</u>	Owner <u>SAME</u>
Type Job <u>Conductor</u>	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 <u>28"</u>	T.D. <u>60'</u>
Csg. <u>20"</u>	Depth <u>60'</u>
Tbg. Size	Depth
Drill Pipe	Depth
Tool	Depth
Cement Left in Csg.	Shoe Joint
Press Max. <u>3 RS</u>	Minimum <u>150</u>
Meas Line	Displace <u>22 BBIS</u>
Perf.	

Charge To <u>Brandt Drilg.</u>
Street <u>200 W. Douglas Suite 700</u>
City <u>Wichita</u> State <u>Ko.</u> <u>67202</u>
The above was done to satisfaction and supervision of owner agent or contractor.
Purchase Order No. <u>[Signature]</u>

EQUIPMENT

No. <u>266</u>	Cementor <u>Larry Dreiling</u>	Helper <u>Carl Balding</u>
No. <u>259</u>	Cementor	Helper
No. <u>222</u>	Driver <u>Mark Brungardt</u>	
	Driver <u>Carl Balding</u>	

CEMENT			
Amount Ordered	<u>215 SKS. 60' 40' 3% CACL²</u>	<u>170 SKS. 65' 35' 6% 3% CACL²</u>	<u>170 SKS. 65' 35' 6% 3% CACL²</u>
Consisting of	<u>240</u>	<u>145</u>	<u>11</u>
Common	<u>5.75</u>	<u>1380.00</u>	
Poz. Mix	<u>3.00</u>	<u>435.00</u>	
Gel.	<u>7.00</u>	<u>77.00</u>	
Chloride	<u>25.00</u>	<u>300.00</u>	
Quickset			

DEPTH of Job <u>60'</u>	
Reference:	
<u>50</u>	<u>Pump Truck</u>
	<u>Miles</u>
	<u>430.00</u>
	<u>112.50</u>
	<u>542.50</u>

Handling <u>615</u>	<u>1.00</u>	<u>615.00</u>
Mileage <u>50</u>		<u>1230.00</u>
Hauled BACK <u>150 SKS. Common 3% 3% CACL²</u>		
<u>80 SKS. 65' 35' 6% 3% CACL²</u>		
	Total	<u>4037.00</u>

Remarks: Cement w/ 215 SKS. 60' 40' 3% CACL²
Cement Did not Circ. Shutt Down For the
night. (3-5-93) Run 38' 1", Cement w/ 170 SKS.
65' 35' 6% 3% CACL². Cement Circ. to Surface

Floating Equipment	
TOTAL #	<u>4579.50</u>
Disc -	<u>915.90</u>
	<u>\$ 3663.60</u>

RECEIVED
STATE CORPORATION COMMISSION

MAY 17 1993

CONSERVATION DIVISION
Wichita, Kansas

CEMENTING LOG

ORIGINAL
STAGE NO.

Payment to "ALLIED" before delivery of the merchandise. For per annum until paid. Not with of interest that "CUSTOMER" is deemed to be.



P.O. BOX 31
RUSSELL, KS 67665

District Med. Lodge Ticket No. 2940
Hardt Drig Rig
Wuff Creek Well No. 5-65
Comanche State KANSAS
 Location Protection, 242-65-14E Field
5-345-2012

CASING DATA: PTA Squeeze
 Surface Intermediate Production Liner
 Size 20" Type T-5.5 Weight 47.5 Collar

Burst collapse
960PST 410 PST
 Casing Depths: Top _____ Bottom _____

Drill Pipe: Size _____ Weight _____ Collars _____
 Open Hole: Size 28" T.D. 60 ft. P.B. to _____ ft.

CAPACITY FACTORS:
 Casing: Bbls/Lin. ft. 1.3568 Lin. ft./Bbl. 2.80
 Open Holes: Bbls/Lin. ft. .7616 Lin. ft./Bbl. 1.3130
 Drill Pipe: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Annulus: Bbls/Lin. ft. .3730 Lin. ft./Bbl. 2.6808
 Perforations: From _____ ft. to _____ ft. Amt. _____

CEMENT DATA:
 Spacer Type: _____
 Amt. _____ Sks Yield _____ ft³/sk Density _____ PPG

LEAD: Pump Time _____ hrs. Type CLASS A
60:40: 3% CaCl₂ Excess _____
 Amt. 21.5 Sks Yield 1.11 ft³/sk Density 15.3 PPG

TAIL: Pump Time _____ hrs. Type CLASS A
lite, 3% 47-P Excess _____
 Amt. _____ Sks Yield _____ ft³/sk Density _____ PPG
 WATER: Lead 26 gals/sk Tail 32 gals/sk Total 58 Bbls.

Pump Trucks Used #266 - Carl Balding
 Bulk Equip. #251 - Mark Brunhardt

Float Equip: Manufacturer _____
 Shoe: Type _____ Depth _____
 Float: Type _____ Depth _____
 Centralizers: Quantity _____ Plugs Top _____ Btm. _____
 Stage Collars _____
 Special Equip. _____
 Disp. Fluid Type Fresh H₂O Amt. 22 Bbls. Weight 8.34 PPG
 Mud Type CHEMICAL Weight 9.1 PPG

COMPANY REPRESENTATIVE Merlin Freeman CEMENTER Larry Dreiling

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS	
	AM/PM	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period		RATE Bbls Min.
6:30		250		43	14	3	Cement w/ 21.5 Sks. 60:40: 3% CaCl ₂
				22	7	3	Displace Cement to Bottom CASING
6:45							Cement Did not Cure.
							Shut Down For the night.
							3:5-93
9:45		385		47	25	3	Run 38' of 1", Cement w/ 170 Sks.
10:15							35' 65' 6, 3% CaCl ₂ Cement Did
							Cure to Surface, Pull 1"

ALLIED CEMENTING CO., INC.

Home Office P. O. Box 31

Russell, Kansas 67665

2941

NEW

Date	Sec.	Twp.	Range	Called Out	On Location	Job Start	Finish
3-12-93	5	34s	20W	12:00 A.M.	3:30 A.M.	7:50 A.M.	9:45 A.M.
Lease Buff Creek		Well No. 5-15		Location Protection, 20-6S-1/2 E		County Comanche	State Kansas

Contractor Brandt Drlg.	
Type Job Surface Casing	
Hole Size 12 1/4	T.D. 675'
Csg. 8 5/8 x 24**	Depth 671'
Tbg. Size	Depth
Drill Pipe 4 1/2, X-Hole	Depth 675'
Tool	Depth
Cement Left in Csg.	Shoe Joint 42.18
Press Max. 700	Minimum 150
Meas Line	Displace 40 BBLS
Perf.	

EQUIPMENT

No.	Cementer	Helper
Pumptrk 265	Larry Dreiling	Carl Balding
No.	Cementer	Helper
Pumptrk		
	Driver	
Bulktrk 256	Mark Brunhardt	
Bulktrk	Driver	

DEPTH of Job 675'		
Reference:		
	Pump Trk	430.00
1	8 5/8 Rubber Plug	83.00
50	WELCS	112.50
	375' at .39	146.25
Total		771.75

Remarks: Rig up to Cement Pump, Pump Capacity of Casing Cement w/ 275 SKS. 65/85: 1, 3% CaCl₂ & 1/4# Cello-flake, 100 SKS. CLASS A, 3% CaCl₂ + 2% Gel. Displace Plug w/ Fresh H₂O. Bump Plug 700# Cement Did not Circ. Top out w/ 7.5 SKS CLASS A 3% CaCl₂ + 2% Gel

Owner SAM GARY
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.

Charge To Brandt Drlg.
Street 200 W. Douglas Suite 700
City Wichita State KS. 67202

The above was done to satisfaction and supervision of owner agent or contractor.

Purchase Order No. *[Signature]*

225 65/85: 6 + 3% CaCl₂, 1/4# Cello-flake. ^{9% gel} CEMENT

Amount Ordered	200 SKS. CLASS A + 3% CaCl ₂ + 2% Gel
(Used 175 SKS)	
Consisting of	
Common	321 5.75 1845.75
Poz. Mix	79 3.00 237.00
Gel.	18 7.00 126.00
Chloride	12 25.00 300.00
Quickset	
Flo Seal 56**	1.10 61.60
Handling	4.25 1.00 425.00
Mileage	50 850.00
Hauled Back 255 SKS. CLASS A sub-total 3% CaCl ₂ + 2% Gel	
Total # 5296.10	
DISC - 1659.75	
Total 3845.35	

Floating Equipment	#4236.85
2- 8 5/8 BASKETS	- 360.00
1- 8 5/8 AFU Insert	- 258.00
1- 8 5/8 Centerizer	- 61.00
	679.00

STANDARD AND CONDITIONS



P.O. BOX 31
RUSSELL, KS 67665

CEMENTING LOG

STAGE NO.

ORIGINAL

Date 3-12-93 District Med. Lodge Ticket No. 2941
 Company Sam Gary Rig Brandt Drq.
 Lease Buff Creek Well No. 5-15
 County Comanche State Kansas
 Location Protection, 2w-65-16E Field _____
5-345-20w

CASING DATA: PTA Squeeze
 Surface Intermediate Production Liner
 Size 8 5/8 Type F-55 Weight 24# Collar _____

Burst Collaps
2,950 PSI 1,370 PSI
 Casing Depths: Top _____ Bottom _____

Drill Pipe: Size 4 1/2 Weight 16.6 Collars X-Hole
 Open Hole: Size 12 1/4 T.D. 625 ft. P.B. to _____ ft.

CAPACITY FACTORS:
 Casing: Bbls/Lin. ft. 06.37 Lin. ft./Bbl. 15.70
 Open Holes: Bbls/Lin. ft. 14.58 Lin. ft./Bbl. 6.8599
 Drill Pipe: Bbls/Lin. ft. 0142 Lin. ft./Bbl. 70.32
 Annulus: Bbls/Lin. ft. 0735 Lin. ft./Bbl. 13.6037
 Bbls/Lin. ft. 2830 Lin. ft./Bbl. 3.53
 Perforations: From _____ ft. to _____ ft. Amt. _____

CEMENT DATA:
 Spacer Type: _____
 Amt. _____ Skys Yield _____ ft³/sk Density _____ PPG

LEAD: Pump Time _____ hrs. Type 35:65:6+
3% CaCl₂ + 1/4# cello-flake Excess _____
 Amt. 225 Skys Yield 1.98 ft³/sk Density 12.2 PPG

TAIL: Pump Time _____ hrs. Type CLASS A
3% CaCl₂ + 2% Gel Excess _____
 Amt. 175 Skys Yield 1.37 ft³/sk Density 14.9 PPG
 WATER: Lead 9.9 gals/sk Tail 6.4 gals/sk Total _____ Bbls.

Pump Trucks Used #265-Carl Balding
 Bulk Equip. #256-Mark Brunard

Float Equip: Manufacturer Baker
 Shoe: Type 3 1/2" 100# Depth _____
 Float: Type A-FU Insert Depth 628.96
 Centralizers: Quantity 1 Plugs Top 1 Rim _____
 Stage Collars _____
 Special Equip. Baskets (2)
 Disp. Fluid Type Fresh H₂O Amt. 40 Bbls. Weight 8.34 PPG
 Mud Type Loss Circ. Weight 8.34 PPG

COMPANY REPRESENTATIVE Merlin Freeman

CEMENTER Harry Drilling

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	RATE Bbls Min.	
7:50	100		105	15	7	Rig up and hold Safety meeting
8:14						Pipe on Bottom Circ w/ Rig Pump
8:20	100		5	1	5	Rig up to Cement Pump
8:25	100		80	15	5	Start Fresh H ₂ O Pad
8:40	150		25	5	5	Start Cement, Cement w/ 225 sks.
8:44						65/35:6, 3% CaCl ₂ , 1/4# cello-flake
8:45						Followed w/ 100 sks. CLASS A, 3% CaCl ₂
8:50	100		20	5	4	w/ 2% Gel. Steady PSI + Rate
8:51	150		25	1	4	Cement In. Stop Pumps
8:53	150		35	2	4	Release Plug
8:54	700		40	1	3	Start Fresh H ₂ O Displace
						Slight PSI Increase
						Steady PSI, Decrease rate
						Bump Plug
						Release PSI
						Float Did not Hold
						Cement Did not Line
9:40	50		18	3	3	Rig up to Cap Cement, Cement
						w/ 7.5 sks. CLASS A 3% CaCl ₂ + 2% Gel
						Cement Circ to Surface

RECEIVED
 STATE CORPORATION COMMISSION
 MAY 17 1993

CONSERVATION DIVISION
 WICHITA, KANSAS
 THANK YOU

FINAL DISP. PRESS: _____ PSI BUMP PLUG TO _____ PSI BLEEDBACK _____ BBLs.

ORIGINAL

Russell, Kansas
Great Bend, Kansas

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

ALLIED CEMENTING CO., INC.

2955

Home Office P. O. Box 31
Russell, Kansas 67665

(E.W.)

Date	3/13/93	Sec.	5	Twp.	34s	Range	20W	Called Out	10:30 PM	On Location	2:00 AM	Job Start	3:20	Finish	10:35	
Lease	Bluff Creek		Well No.	5-15		Location	Protection Rs 2W 6S 1/2 E 1/4 N			County	Comanche		State	KS		
Contractor	Brandt Drilling							Owner	Sam Gary							
Type Job	1" Between 9 5/8" & Conductor							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	7 7/8		T.D.	756												
Csg.	9 5/8		Depth	671												
Tbg. Size			Depth													
Drill Pipe			Depth													
Tool			Depth													
Cement Left in Csg.			Shoe Joint													
Press Max.	250		Minimum	0												
Meas Line			Displace													
Perf.																
EQUIPMENT																
Pumptrk	No.	Cementer	Max Ball													
	265	Helper	Carl Balding													
Pumptrk	No.	Cementer														
		Helper														
Bulktrk	No.	Driver	Mark Pruhgardt													
Bulktrk	No.	Driver														
DEPTH of Job																
Reference:	Pump Charge		430.00													
50 mi:	Pump Truck		112.50													
			Sub-total													
			tax													
			Total 542.50													
Remarks:	Run 250 sks Class #490 Ca C12 down 1" Between 9 5/8" & 20" Pump 125 sks in void under floor															
CEMENT																
Amount Ordered	500 sks Class A 490 Ca C12															
Consisting of	(used 375 sks)															
Common	375	5.75	2156.25													
Poz. Mix																
Gel.																
Chloride	15	25.00	375.00													
Quickset																
			State Tax													
Handling	500	1.00	500.00													
Mileage	50		1000.00													
	Return 125 sks class #490 Ca C12															
	Total \$ 4031.25															
Floating Equipment																
	Total \$ 4573.75															
	Disc. 914.75															
	\$ 3659.00															
RECEIVED STATE CHIEF OF MINES COMMISSION MAY 17 1993 CONSERVATION DIVISION Wichita, Kansas																

J-2627, Russell, Kansas
 J-793-5861, Great Bend, Kansas

ORIGINAL

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

ALLIED CEMENTING CO., INC.

2904

Home Office P. O. Box 31

Russell, Kansas 67665

NEW

Date	3/25/93	Sec.	S	Twp.	34s	Range	20w	Called Out	9:00 PM	On Location	12:00 AM	Job Start	2:35 AM	Finish	
Lease	BLUFF CREEK	Well No.	S-1S	Location	PROTECTION 2 1/2, 6s, 1/2 E, N 1/2			County	COMANCHE			State	KS		
Contractor	BRANDT DRIL. #2														
Type Job	ROTARY PUG														
Hole Size	7 7/8"	T.D.	5430'												
Csg.	8 5/8"	Depth	671'												
Tbg. Size		Depth													
Drill Pipe	4 1/2" 16.6#	Depth	830'												
Tool		Depth													
Cement Left in Csg.		Shoe Joint													
Press Max.		Minimum													
Meas Line		Displace													
Perf.															

Owner SAM GARY JR. & ASSOC
 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.

Charge To SAM GARY JR. & ASSOC.
 Street 1775 SHERMAN ST. 1925
 City DANVER State COLORADO 80203

The above was done to satisfaction and supervision of owner agent or contractor.

Purchase Order No.

[Signature]

CEMENT

Amount Ordered 135 sk 60/40:6% gel

Consisting of

Common	81	5.75	465.75
Poz. Mix	54	3.00	162.00
Gel.	8	7.00	56.00
Chloride			
Quickset			

Handling	1.35	1.00	1.35.00
Mileage	50		270.00

Total 1088.75

Floating Equipment

Total \$ 1652.25
 Disc - 330.45

\$ 1321.80 RECEIVED
 STATE CORPORATION COMMISSION

MAY 17 1993

CONSERVATION DIVISION
 Wichita, Kansas

EQUIPMENT

No.	Cementer	<u>K. BAUNGARDT</u>
Pumptrk 234	Helper	<u>J. HART</u>
No.	Cementer	
Pumptrk	Helper	
	Driver	<u>J. KELLEY</u>
Bulktrk 242		
Bulktrk	Driver	

DEPTH of Job

Reference:	<u>PUMP CHARGE</u>	<u>430.00</u>
<u>50</u>	<u>W/LEASE ON PUMP</u>	<u>112.50</u>
<u>1</u>	<u>8 5/8" DRY SHOE PUG</u>	<u>21.00</u>
	<u>Total</u>	<u>563.50</u>

Remarks: 50 sk @ 830'
50 sk @ 630'
10 sk @ 40'
15 sk IN RATHOLE
10 sk IN MOUSEHOLE

shall refer to the front side of this products, or supplies



P.O. BOX 31
RUSSELL, KS 67665

CEMENTING LOG

STAGE NO. ORIGINAL

Date 3/25/93 District WEO. LOOSE Ticket No. 2904
 Company SAUL BANN Rig BRANDT #2
 Lease BLUFF CREEK Well No. S-15
 County COMANCHE State KANSAS
 Location S-34s-20w Field WELCAT
PROTECTION 2w, 6s, 1/2E, N/S
 CASING DATA: PTA Squeeze
 Surface Intermediate Production Liner
 Size 8 7/8" Type _____ Weight _____ Collar _____

CEMENT DATA:
 Spacer Type: FRESH H₂O
 Amt. _____ Sks Yield _____ ft³/sk Density _____ PPG _____

LEAD: Pump Time _____ hrs. Type _____
 Excess _____
 Amt. _____ Sks Yield _____ ft³/sk Density _____ PPG _____
 TAIL: Pump Time _____ hrs. Type 60:40:6

Amt. 135 Sks Yield 1.58 ft³/sk Density 13.8 PPG
 WATER: Lead _____ gals/sk Tail 7.8 gals/sk Total _____ Bbls.

Casing Depths: Top 6.1 Bottom 671'

Pump Trucks Used 233-234 JUSTIN, JANT
 Bulk Equip. 242 JOHN KELLEY

Drill Pipe: Size 4 1/2" Weight 16.6# Collars XH
 Open Hole: Size 7 7/8" T.D. 5430' ft. P.B. to _____ ft.

Float Equip: Manufacturer _____
 Shoe: Type _____ Depth _____
 Float: Type _____ Depth _____
 Centralizers: Quantity _____ Plugs Top _____ Btm. _____
 Stage Collars _____
 Special Equip. _____

CAPACITY FACTORS:
 Casing: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Open Holes: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Drill Pipe: Bbls/Lin. ft. .01422 Lin. ft./Bbl. 70.3
 Annulus: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Perforations: From _____ ft. to _____ ft. Amt. _____

Disp. Fluid Type MUD Amt. _____ Bbls. Weight 9.2 PPG
 Mud Type CHEMICAL Weight 9.2 PPG

COMPANY REPRESENTATIVE RICHARD TRUENEDT

CEMENTER KEVIN BRUNGARDT

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	RATE Bbls Min.	
12:00						ON LOCATION, RIG UP
2:35	150				4.0	50x @ 830'
	200		8 1/2	8 1/2	4.0	START FRESH H ₂ O
	200		22 1/2	14	4.0	FRESH H ₂ O IN - START CEMENT
2:45	150		25 1/2	3	4.0	CEMENT IN - START H ₂ O
	150		30 1/2	5	4.0	H ₂ O IN - START MUD
						MUD IN - STOP PUMPS
2:55	150				4.0	50x @ 630'
	200		39	8 1/2	4.0	START FRESH H ₂ O
	150		53	14	4.0	FRESH H ₂ O IN - START CEMENT
	150		56	3	4.0	CEMENT IN - START H ₂ O
3:05	150		58	2	4.0	H ₂ O IN - START MUD
						MUD IN - STOP PUMPS
4:00			61	3		SOLID BRIDGE @ 105x @ 40'
			64	3		CIRCULATE 105x IN MOUSE HOLE
			68	4		CIRCULATE 155x IN RAT HOLE