

ORIGINAL

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

Operator: License # 32282

Name: WESTERN OPERATING COMPANY

Address 518 17TH STREET, SUITE 1680

City/State/Zip DENVER, CO 80202

Purchaser: _____

Operator Contact Person: STEVEN D. JAMES

Phone (303) 893-2438

Contractor: Name: MURFIN DRILLING

License: 30606

Wellsite Geologist: BILL EUCKER III

Designate Type of Completion
 New Well Re-Entry Workover

Oil SWD SLOW Temp. Abd.
 Gas ENHR SIGW
 Dry Other (Core, WSW, Expl., Cathodic, etc)

If Workover:

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. _____

05/06/99 05/14/99 05/15/99
Spud Date Date Reached TD Completion Date

API NO. 15- 071-207050000

County GREELEY

SE SW SE Sec. 14 Twp. 20S Rge. 42 X X W

330 Feet from S (circle one) Line of Section

1600 Feet from E (circle one) Line of Section

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

Lease Name NORRIS Well # 14-2

Field Name NO MAN'S

Producing Formation NONE

Elevation: Ground 3729 KB 3738

Total Depth 5280 PSTD _____

Amount of Surface Pipe Set and Cemented at 610 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 PFA, 7-6-99 U.C.
(Data must be collected from the Reserve Pit)

Chloride content 4,000 ppm Fluid volume 2,000 bbls

Dewatering method used EVAPORATION

Location of fluid disposal if hauled offsite: _____

Operator Name WESTERN OPERATING COMPANY

Lease Name NORRIS License No. _____

SE Quarter Sec. 14 Twp. 20 S Rng. 42 E W

County GREELEY Docket No. _____

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, 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 STEVEN D. JAMES

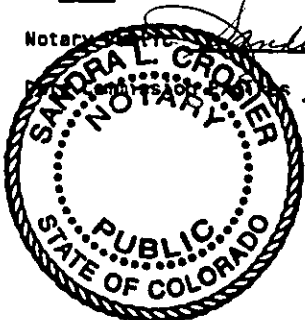
Title VICE PRESIDENT Date 06/16/99

Subscribed and sworn to before me this 16TH day of JUNE, 19 99.

Notary SANDRA L. CROSIER

10/26/2000

K.C.C. OFFICE USE ONLY		
F	<input checked="" type="checkbox"/>	Letter of Confidentiality Attached
C	<input checked="" type="checkbox"/>	Wireline Log Received
C	<input checked="" type="checkbox"/>	Geologist Report Received
Distribution		
<input checked="" type="checkbox"/>	KCC	<input type="checkbox"/> SWD/Rep
<input type="checkbox"/>	KGS	<input type="checkbox"/> Plug
<input type="checkbox"/>		<input checked="" type="checkbox"/> NGPA
		<input type="checkbox"/> Other (Specify)



ORIGINAL

SIDE TWO

Operator WESTERN OPERATING COMPANY

Lease Name NORRIS

Well # 14-2

Sec. 14 Twp. 20S Rge. 42

East

County GREELEY

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 Yes No
(Attach Additional Sheets.)

Samples Sent to Geological Survey Yes No

Cores Taken Yes No

Electric Log Run Yes No
(Submit Copy.)

List All E.Logs Run:

ARRAY INDUCTION
COMPENSATED NEUTRON/DENSITY

Log Formation (Top), Depth and Datum Sample

Name	Top	Datum
BASE STONE, CORRAL	2440	
FORAKER	3342	
SHAWNEE	3813	
LANSING	4028	-290
CHEROKEE	4690	-952
MORROW	5050	-1312
ST. LOUIS	5230	

CASING RECORD New 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 CSG	12 1/4	8 5/8	24#	593'	COMM & LITE	325	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				

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

TUBING RECORD Size Set At Packer At Liner Run Yes No

Date of First, Resumed Production, SMD or Inj. D+A Producing Method Flowing Pumping Gas Lift Other (Explain)

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	<u>N-A</u>				

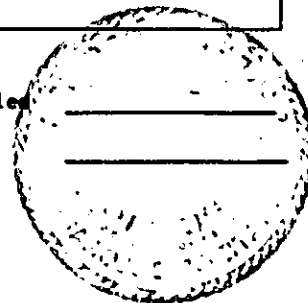
Disposition of Gas:

METHOD OF COMPLETION

Production Interval

Vented Sold Used on Lease
(If vented, submit ACO-18.)

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



ALLIED CEMENTING CO., INC.

2832

Federal Tax I.D.

TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:

DAKLEY, KS

DATE <u>5-7-99</u>	SEC. <u>14</u>	TWP. <u>20S</u>	RANGE <u>42W</u>	CALLED OUT	ON LOCATION <u>5:00 AM</u>	JOB START <u>9:30 AM</u>	JOB FINISH <u>10:00 AM</u>
LEASE <u>NORRIS</u>	WELL # <u>14-2</u>	LOCATION <u>TREBUNE 7W-11S-2 1/2 W</u>	C.T. <u>C.T.</u>		E.T. <u>E.T.</u>		
OLD OR <u>NEW</u> (Circle one)		COUNTY <u>GARRETT</u>	STATE <u>KS</u>				

CONTRACTOR MURFIN DRILL RIG # 25 OWNER SAME

TYPE OF JOB SURFACE

HOLE SIZE 12 1/4" T.D. 610'

CASING SIZE 8 7/8" DEPTH 613'

TUBING SIZE _____ DEPTH _____

DRILL PIPE _____ DEPTH _____

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT 37.64'

CEMENT LEFT IN CSG. 37.64'

PERFS. _____

DISPLACEMENT 36 1/2 BBL.

CEMENT

AMOUNT ORDERED 175 SKS LITE 3% CC 1/4" FLO SEAL

150 SKS COM 3% CC

COMMON	<u>150 SKS</u>	@	<u>75⁵</u>	<u>1132⁵⁰</u>
POZMIX		@		
GEL		@		
CHLORIDE	<u>11 SKS</u>	@	<u>28⁰⁰</u>	<u>308⁰⁰</u>
	<u>Lite 175 SKS</u>	@	<u>7⁰⁵</u>	<u>1233⁷⁵</u>
	<u>Flo Seal 44#</u>	@	<u>11⁵</u>	<u>50⁰⁰</u>
		@		
		@		
		@		
		@		
HANDLING	<u>325 SKS</u>	@	<u>10⁵</u>	<u>341²⁵</u>
MILEAGE	<u>4¢ per sk/mile</u>			<u>1300⁰⁰</u>
TOTAL				<u>4,366¹⁰</u>

EQUIPMENT

PUMP TRUCK CEMENTER TERRY

300 HELPER WAYNE

BULK TRUCK

347 DRIVER WALT

BULK TRUCK

_____ DRIVER _____

REMARKS:

Cement No Seal ✓

35 SKS CIRC. FW PET.

THANK YOU

SERVICE

DEPTH OF JOB 613'

PUMP TRUCK CHARGE 470⁰⁰

EXTRA FOOTAGE @ _____

MILEAGE 100 miles @ 2⁸⁵ 285⁰⁰

PLUG 8 7/8 SURFACE @ 45⁰⁰

TOTAL 800⁰⁰

CHARGE TO: WESTERN OPERATING

STREET 518 17th = 1180

CITY Denver STATE Colo ZIP 80202

FLOAT EQUIPMENT

8 7/8

1- Baffle plate @ 75⁰⁰

TOTAL 75⁰⁰

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 is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

TAX _____

TOTAL CHARGE _____

DISCOUNT _____ IF PAID IN 30 DAYS

SIGNATURE Gus Schwartz

PRINTED NAME GUS SCHWARTZ

ALLIED CEMENTING CO., INC. 2836

Federal Tax I.D.#

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:

DATE <u>5-14-99</u>	SEC. <u>14</u>	TWP. <u>20S</u>	RANGE <u>42W</u>	CALLED OUT	ON LOCATION <u>7:45 PM</u>	JOB START <u>9:15 PM</u>	JOB FINISH <u>12:00 AM</u>
LEASE <u>NORRIS</u>	WELL # <u>14-2</u>	LOCATION <u>TRIBUTE 7w-11s-2w</u>			COUNTY <u>GRAVELY</u>	STATE <u>KS</u>	
OLD OR <input checked="" type="radio"/> NEW (Circle one)							

CONTRACTOR <u>MURFEN DRILL. REG #25</u>	OWNER <u>SAME</u>
TYPE OF JOB <u>PIA</u>	
HOLE SIZE <u>7 7/8"</u>	I.D. <u>5280'</u>
CASING SIZE	DEPTH
TUBING SIZE	DEPTH
DRILL PIPE <u>2 7/8"</u>	DEPTH <u>2440'</u>
TOOL	DEPTH

PRES. MAX	MINIMUM	COMMON	<u>129</u> SKS @ <u>7.55</u>	<u>973.95</u>
MEAS. LINE	SHOE JOINT	POZMIX	<u>86</u> SKS @ <u>3.25</u>	<u>279.50</u>
CEMENT LEFT IN CSG.		GEL	<u>11</u> SKS @ <u>9.50</u>	<u>104.50</u>
PERFS.		CHLORIDE	<u>Fla-Sect 54#</u> @ <u>1.15</u>	<u>62.10</u>
DISPLACEMENT				
EQUIPMENT				
PUMP TRUCK # <u>191</u>	CEMENTER <u>TERRY</u>			
	HELPER <u>DEAN</u>			
BULK TRUCK # <u>218</u>	DRIVER <u>WAYNE</u>	HANDLING	<u>215</u> SKS @ <u>1.05</u>	<u>225.75</u>
BULK TRUCK #	DRIVER	MILEAGE	<u>44</u> per SK/mile	<u>860.00</u>
				TOTAL <u>2,505.00</u>

REMARKS:
50SKs AT 2440'
80SKs AT 1400'
50SKs AT 630'
10SKs AT 40'
15SKs At Hole
10SKs mouse hole
Thank You

SERVICE				
DEPTH OF JOB	<u>2440'</u>			
PUMP TRUCK CHARGE				<u>470.00</u>
EXTRA FOOTAGE		@		
MILEAGE	<u>100</u> miles	@	<u>2.85</u>	<u>285.00</u>
PLUG		@		
				TOTAL <u>755.00</u>

CHARGE TO: WESTERN OPERATING CO.
 STREET _____
 CITY _____ STATE _____ ZIP _____

FLOAT EQUIPMENT				
		@		
		@		
		@		
		@		
		@		
				TOTAL _____

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 is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

SIGNATURE Gus Schwartz

TAX _____
 TOTAL CHARGE _____
 DISCOUNT _____ IF PAID IN 30 DAYS
 PRINTED NAME GUS SCHWARTZ

RECEIVED
STATE GEOLOGICAL COMMISSION

JUN 18 1999

CONSERVATION DIVISION
Wichita, Kansas

GEOLOGICAL WELL REPORT

Western Operating Company

NORRIS No. 14-2

SE SW SE
Sec. 14 T20S, R42W
(1600 fcl, 330 fsl)

Greeley County, Kansas

East State Line Area

Report Date: 5/24/99

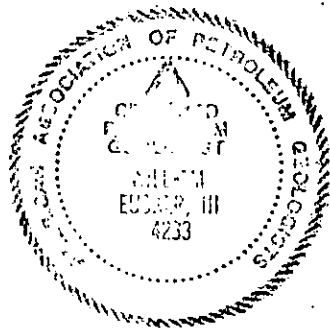
Report For: Mr. Steve D. James
Exploration VP

Report By: William Eucker III
Geologist
Subsurface, Inc.

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5/24/99



Report and Strip-Log By:

**William Eucker III
Geologist AAPG CPG # 4233
WPG # 438
Subsurface, Inc.**

WELL DATA SUMMARY

WELL NAME: NORRIS # 14-2

OPERATOR: WESTERN OPERATING CO.

LOCATION: SESW SE SEC 14. T20S,R42W
(1600 fcl, 330 fsl)
loc. 15 miles SW of Tribune ,Ks.

COUNTY/STATE: Greeley Co., KS

FIELD/AREA: Siverson discovery Dev test " NO MANS
FIELD"

DRILLING CO: Murfin Drilling Corp. RIG #25

ELEVATIONS: GL 3729 KB 3738

SPUD DATE: 5/7/99

TD DATE: 5/14/99: @ 6 AM

DATES LOGGED: 5/11/99 through 5/14/99

DEPTHS LOGGED: 4000-5280 MD.

CASING PROG: 8-5/8 set @ 597.

MUD COMPANY: Mud Co Service Mud; Tony Maestas

MUD LOGGING CO: none

DRILL STEM TESTS: 1) conv. 5030-5155 Trilobite Testing
20ft mud no shows basal Morrow SS

CORE PROGRAM: NONE

E-LOG PROG: BPB HIT BRIDGE NEAR TD COMBO 1 RUN
DIL/DENSITY/NEUTRON/GR?SP/CAL

WELLSITE GEOLOGIST: WILLIAM EUCKER III
Subsurface, Inc.
303-813-9305

DRILLING FOREMAN: None

WELL STATUS P&A'd

WESTERN OPERATING CO. NORRIS 14-2

SUBSURFACE, INC DATA

FORMATION TOPS

KB 3738

NAME	PROGNOSIS	EST	E-LOG	DATUM
Base STONE CORRAL	2444	2440(ROP)	2440	
Chase SS	2824	na	2830	
Council Grove	2898	na	2902	
Neva	3189	na	3200	
Foraker	3332	na	3342	
Admire	3385	na	na	
Virgil(PENN)	3443	na	3454	
SHAWNEE	3713	na	3813	
HEEBNER	3924	--	3940	
LANSING	4003	4035	4028	-290
MARMATON	4423	4450	4452	
CHEROKEE	4670	4706	4690	-952
ATOKA	4870	4910	4890	-1152
MORROW	5030	5045	5050	-1312
V7	5112	5135	5138-48	
LOWER MORROW	5160	5150	5151	
ST LOUIS (MISS)	5240	5264	5230+/-	
TOTAL DEPTH	4200	4095 drlr	4096 Schlu	

Western Operating Co.

Norris 14-2

DAILY DRILLING SUMMARY

DATE	DEPTH	PROG	HRS	MUD WT	VIS	F	ACTIVITY
5/10	3355	680	23	9.0	30	na	DRLG TFB/LCZ
5/11	4035	591	23	8.9	40	9.6	DRIVE OnLine/DRLG
5/12	4626	477	23	9.2	45	8	DRLG/LCZ,DRLG
5/13	5103	63	2.5	9.2	50	8.8	DRLG/CFS4x,DST
5/14	5166	114	7	9.2	50	8.8	RAT HOLE/LOG Released
5/15	5280	-----	-----				P&A no day charge

BIT RECORD

BIT #	MFGR	SIZE	TYPE	SERIAL NO.	DEPTH OUT	FTG	HRS
1A	Varel	12-1/4	L117	139150	610	610	9.75
2	HTC	7-7/8	GT03	U62YP	3223	2613	41.25
3	HTC	7-7/8	GT28C	C412P	5155	1932	73-1/2
4	HTC	7-7/8	GT28C	C602F	5280	125	7 hrs

RIG DATA

WELL NAME Norris 14-2

DRLG CONTRACTOR:Murfin Rig No. 25

DRAWWORKS: National 370

POWER: Cummings v 12

PUMP NO.1 NAT K-500A/#2 EMSCO D-375

DRILL PIPE: 4-1/2 16.6 E GRADE TOOL JT 6 -1/4" XH

DRLRS: Dwyer,Vanpelt,Barnhart Toolpusher: Gus Schwartz

FIELD

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

11915

Test Ticket

Well Name & No. Norris #14-2 Test No. 1 Date 5-13-99
 Company Western Operating Company Zone Tested Morrow
 Address 518 17th St Ste 1180 Denver, CO 80202 Elevation 3742 KB 3729 OL
 Co. Rep / Geo. Bill Eucker Cont. Murfin #25 Est. Pt. of Pay Por. %
 Location: Sec. 14 Twp. 20^s Rng. 42^w Co. Greeley State KS
 No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 5030-5155 Initial Str Wt/Lbs. 70,000 Unseated Str Wt/Lbs. 70,000
 Anchor Length 125' Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 85,000
 Top Packer Depth 5025 Tool Weight 2,000
 Bottom Packer Depth 5030 Hole Size — 7 7/8" Rubber Size — 8 3/4"
 Total Depth 5155 Wt. Pipe Run _____ Drill Collar Run 559' (6)
 Mud Wt. 9.2 LCM 3# Vls. 50 Wt. 8.8 Drill Pipe Size 4 1/2" XH Ft. Run 4473' (47.2)
 Blow Description IF: Weak 1/2" blow steady throughout

EF: Weak 1/2" blow died @ 45 mins

Recovery — Total Feet	QIP	R. in DC	PL in DP
Rec. _____ Feet Of _____	%gas _____ %oil _____ %water _____ %mud _____		
Rec. _____ Feet Of _____	%gas _____ %oil _____ %water _____ %mud _____		
Rec. <u>20'</u> Feet Of _____	%gas _____ %oil _____ %water _____ %mud _____		
Rec. _____ Feet Of _____	%gas _____ %oil _____ %water _____ %mud _____		
Rec. _____ Feet Of _____	%gas _____ %oil _____ %water _____ %mud _____		

BHT 138° °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API
 RW _____ °F Chlorides _____ ppm Recovery Chlorides 3500 ppm System

(A) Initial Hydrostatic Mud	AK-1	Alpine	PSI Recorder No.	T-On Location
<u>2664</u>			<u>13309</u>	<u>1100 (GDT)</u>
(B) First Initial Flow Pressure			PSI (depth)	T-Started
<u>58</u>			<u>5150</u>	<u>1245</u>
(C) First Final Flow Pressure			PSI Recorder No.	T-Open
<u>58</u>			<u>3024</u>	<u>1537</u>
(D) Initial Shut-in Pressure			PSI (depth)	T-Pulled
<u>94</u>			<u>5035</u>	<u>1842</u>
(E) Second Initial Flow Pressure			PSI Recorder No.	T-Out
<u>58</u>			_____	<u>2045</u>
(F) Second Final Flow Pressure			PSI (depth)	T-Off Location
<u>58</u>			_____	<u>2145</u>
(G) Final Shut-in Pressure			PSI Initial Opening	Test
<u>82</u>			<u>15</u>	
(H) Final Hydrostatic Mud			PSI Initial Shut-in	Jers
<u>2523</u>			<u>30</u>	<u>X</u>
			Final Flow	Safety Joint
			<u>45</u>	<u>X</u>
			Final Shut-in	Straddle
			<u>90</u>	

TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF 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 OPINIONS CONCERNING THE RESULTS OF ANY TEST, WELLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST AT THE TIME WHEN THE TEST IS MADE.

Approved By [Signature]
 Our Representative Rod Steinbrink

- _____ Crc. Sub X N/C
- _____ Sampler X
- _____ Extra Packer _____
- _____ Elec. Rec. X N/C
- _____ Mileage _____
- _____ Other _____
- TOTAL PRICE \$ _____

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 11915 Date 5-13-99
 Company Name Western Operating Co. Cont. Murfin #25
 Lease Norris #14-2 Test No. #1 Morrow
 County Greeley KS Sec. 14 Twp. 20^s Rng. 42^w

SAMPLER RECOVERY

Gas _____ ML
 Oil _____ ML
 Mud 4.000 ML
 Water _____ ML
 Other _____ ML
 Pressure 0 PSI
 Total 4.000 ML

PIT MUD ANALYSIS

Chlorides 3,500 ppm
 Resistivity _____ ohms @ _____ F
 Viscosity 6.1M-50
 Mud Weight 9.2
 Filtrate 8.8
 Other LCM 3#/bbl.

SAMPLER ANALYSIS

Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm
 Gravity _____ corrected @ 60 F

PIPE RECOVERY

TOP
 Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm
 Chloride _____ ppm
 MIDDLE
 Resistivity _____ ohms @ _____ F
 Chloride _____ ppm
 BOTTOM
 Resistivity _____ ohms @ _____ F
 Chloride 3,500 ppm

TRILOBITE TESTING L.L.C.

OPERATOR : Western Operating Co.
 WELL NAME: Morris #14-2
 LOCATION : 14-20S-42W Greeley KS.
 INTERVAL : 5030.00 To 5155.00 ft

DATE 5-13-99
 KB 3729.00 ft TICKET NO: 11915 DST #1
 GR 3742.00 ft FORMATION: Morrow
 TD 5155.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA
PF 15 Rec.	13309		3024			PF Fr. 1537 to 1552 hr
SI 30 Range(Psi)	4700.0	0.0	4995.0	0.0	0.0	IS Fr. 1552 to 1622 hr
SP 45 Clock(hrs)	12 HR		ALP			SF Fr. 1622 to 1707 hr
FS 90 Depth(ft)	5150.0	0.0	5035.0	0.0	0.0	FS Fr. 1707 to 1642 hr

	Field	1	2	3	4	
A. Init Hydro	2664.0	0.0	0.0	0.0	0.0	T STARTED 1245 hr
B. First Flow	58.0	0.0	0.0	0.0	0.0	T ON BOYM 1535 hr
B1. Final Flow	58.0	0.0	0.0	0.0	0.0	T OPEN 1537 hr
C. In Shut-in	94.0	0.0	0.0	0.0	0.0	T PULLED 1842 hr
D. Init Flow	58.0	0.0	0.0	0.0	0.0	T OUT 2045 hr
E. Final Flow	58.0	0.0	0.0	0.0	0.0	
F. Fl Shut-in	82.0	0.0	0.0	0.0	0.0	
G. Final Hydro	2523.0	0.0	0.0	0.0	0.0	
Inside/Outside	0		I			

RECOVERY

Tot Fluid	20.00 ft of	20.00 ft in DC and	0.00 ft in DP
20.00	ft of Drig. Mud		
0.00	ft of		
0.00	ft of		
0.00	ft of		
0.00	ft of		
0.00	ft of		
0.00	ft of		
0.00	ft of		
SALINITY	0.00 P.P.M.	A.P.I. Gravity	0.00

BLOW DESCRIPTION

IF; Weak 1/2" blow steady throughout
 FF; Weak 1/2" blow died in 45 mins.

SAMPLES:
 SENT TO:

Test Successful: Y

MUD DATA

Mud Type	Chemical
Weight	9.20 lb/cf
Vis.	50.00 S/L
W.L.	8.80 in3
F.C.	0.00 in
Mud Drop M	

Amt. of fill	0.00 ft
Btm. H. Temp.	138.00 F
Hole Condition	Good
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out M	
Tool Chased M	
Tester	Rod Steinbrink
Co. Rep.	Bill
Contr.	Murfin
Rig #	25
Unit #	
Pump T.	

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Morris #14-2
 LOCATION : 14-20S-42W Greeley KS.
 TICKET No. 11915 D.S.T. No. 1 DATE 5-13-99
 TOTAL TOOL TO BOTTOM OF TOP PACKERS 30
 INTERVAL TOOL 32
 BOTTOM PACKERS AND ANCHOR
 TOTAL TOOL 62
 DRILL COLLAR ANCHOR IN INTERVAL
 D.C. ANCHOR STD.Stands Single Total
 D.P. ANCHOR STD.Stands 1 Single Total 93
 TOTAL ASSEMBLY 155
 D.C. ABOVE TOOLS.Stands6 Single Total 559
 D.P. ABOVE TOOLS.Stands47 Single 2 Total 4473
 TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5187
 TOTAL DEPTH 5155
 TOTAL DRILL PIPE ABOVE K.B. 32

REMARKS:

P.O. SUB 1' Above 90' DC	4910
C.O. SUB 1'	5000
S.I. TOOL 5'	5006
3' Sampler	5009
RMV 5'	5014
JARS 5'	5019
SAFETY JOINT 2'	5021
PACKER 4'	5025
PACKER 5'	5030
DEPTH	
STUBB 1'	5031
ANCHOR	
3' Perf	5034
ALP Rec. @	5035
1' c/o sub	5035
93' DP	5128
1' c/o sub	5129
T.C.	
DEPTH	
20' Perf.	5149
AK-1 Rec. @	5150
BULLNOSE 5'	
T.D.	5155

LOGGING REPORT

DATE: 5/14/99
WELL NAME: NORRIS 14-2
LOGGING CO: REEVES (BPB) 316-624-9324 Liberal, Ks
ENGINEER/TRUCK: Matt Fenn # 1043
MUD DATA: POLY GEL WT 9.2, VIS50, F 8.8, S 6 CI 4000
 Ca 40, L:CM 3% Res PIt 26,000 ppm salt

CIRC SUMMARY: TD 6 AM, CIRC 2 HR, POOH for E-Logs
MAX BHT: 130 DEG F

LOGGING PROGRAM

Run#	LOG TYPE	TIMES RUN	INTERVAL	REMARKS
1	DIL/SP/GR	9:45AM-1:30PM	SURF-TD	TOOL STICKING ON BOTTOM
1	FDC/CNL	STACKED TOOL		

FORMATION SUMMARY

This location represented Western Operating Company's second attempt to establish offsetting gas production from its Siverson 1-X i.e. a basal Morrow Sandstone producer located just 3/4 mi. west-southwest. Both this location and the discovery were picked based on 2-D seismic data. Note the Siverson well had a 25 ft V7 channel valley fill sandstone (5124-49) with > 26% density, excellent X-Over and low 11-28 ohm Rt values. The Siverson 1-x is currently flowing 3 million cu. ft of gas per day but was tested to produce up to 7 MM CFGPD (no sig Water). The gas is consistent with the low BTU, high N2 type gas in the area. Additionally the Siverson 1-X gas contains up to 2% He an added bonus given its non-renewable high commodity price.

The nearest big Gas field is located approx. 10 miles Southeast in the Bradshaw Field. The Bradshaw Field is also a Morrow Gas producer. It was discovered in the 1950's and currently produces from 210 wells from a shallow 3000+/- feet. The field is currently producing 28 million CFGPD that contains 33% N2 and a trace of He. Water is associated with this Gas production.

Wellsite supervision was installed at 4000 ft. just above the Lansing Fm. A bi-modal drilling break was encountered (see 4240-90) and drill cutting samples were circulated up at 4280 MD. Despite the influx of pinpoint optical porosity no significant shows were detected and drilling resumed.

The E-Logs later denoted the Lansing top at 4028 (-290) with a bimodal 15-18% porosity and low 1.5-3.5 ohm Rts. The zone at 4100 and the 4250-85 looked wet on the E-LOGS. NOTE The Lansing top was contacted 18 ft low to the discovery well which supported the flat area dip of .2-.25 deg to the east.

The subsequent entire evaluated section was petroliferous but tight. The primary target interval contained some detectable sandstone but was not quite the channel facies. The zone was tested with DST #1 which confirmed a non permeable sand. The E-Logs coupled with the samples indicated an interbedded and more marine dominated facies resting on the Lower Morrow Limestone. It was reported that the barren well sorted clean glauconitic samples looked the most optimistic when compared to the E-Log and DST data.

It was later resolved, after the fact, that a seismic data point problem had been made. This well was fortunately problem free thus low cost from the operations standpoint. This well held no anomalous show zones, no nitrogen blowouts or pay facies. The 4000-TD interval was professionally evaluated and was void of commercial hydrocarbon presence.

Thankyou for this opportunity to assist you obtain the best available subsurface data while drilling. Keep us in mind when and if you require our detail and coverage with or without FID gas detection.

Geological Well Report & Strip-Log By:

**William Eucker III
Subsurface, Inc.
975 Grant St.
Denver, CO 80203**

Western Operating Co.

Norris No.14-2

DETAILED LITHOLOGY

4000-4100	TR BENT- 30% SH- 70% LS-	wh wxy rust lt grn grybrms nrly blk rr anhyic incr blk and greasy shale in 4060-80 smpl <u>w/ fnt cut insolv</u> (xylene) WH CRM SL PNK TINT MICROXLN crypto ip frm rr anhyic scatt <u>dul pale vel blu fluor petrolif w/ odor in</u> <u>dilute(10%) Hcl</u> tr fusulinid tr pelletal wackstn tt no sig por rr tr ool grainstn tr cht in 80-4100 intvl rr algal stn.
4100-4200	20-40% SH- 60-80% LS-	varic blk reds aa crm tan semi trnsl tr m grybrn dnse chiky cherty tr(mlky wh ang hd cht ool <u>petrolif lp gd odor scatt dul fluor</u> tr few microsuc text w/ pnpt por tr ool grainstn tt rr fusulinid
4200-40	40% SH- aa	60% LS- aa petrolif tr ool packstr/grainstn tt rk no sig opt por
4240-50	TR ANHY- 20% SH- TR CHERT- 80% LS- TR SS-	wh xln frm NS varic rust red grngry purp slty ip wh mlky v hd cryptoxln crm mott w/ m brngry tr lt tan rr fusulinids micro-cryptoxln tr crinoid tr gry shale cntact no por dev <u>petrolif w/ pale fluor</u> <u>odor in Hcl aa</u> tr pelletal bioclastic wackstn lt gry vf-crse prly strtd tt rr bri grn glauc(MARINE)
4250-70	40% SH- 60% LS- TR ANHY-	RED AQUA LT-M GRY SLTY V LT-M TAN BRNS CRM SM MITT GRY WACKSTN/packstn rr bioclastic brecc fos debris include crinoids/ool chiky micro- crypto ip tt rk wh xln free NS
4270-80		NOTE: CFS @ 4280 i.e. ENCOUNTERED a gd 10ft. drlg break in the LKC interval Noted an influx of sucrosic LS
	20% SH- 80% LS-	aa wh, crm tan v suc ip microxln comm semi trnsl tr ool packstn tr oolmoldic por scatt <u>pale blu-vel fluor petrolif w/ odor/</u> <u>in Hcl. pale fluor nil cutor stn</u> tr cht tr anhy not enough show to test, resumed drlg.
4280-4300	30% SH- 70% LS-	rust m-dk gry tr aqua rr anhy tr aqua circ include in redbeds. wh tan crm cin chiky micro-crypto rr fusulinids sm trnsl sparite rr tr oolmoldic por rr m brngry pelletal inclc nil cut tr fluor.
4300-20	10% BENT- TR ANHY- 30% SH- 60% LS-	wh wxy no fluor rr aqua XLN AA RUST BRICK DL GRY crm lt brngry microxln tr fos tr fine crinoids tr pyr tr ool packstn rr oolmoldic por v suc mott & sparry ip petrolif in Hcl sm sppty <u>vel fluor aa</u>

**Detailed Lithology Con't
Subsurface, Inc. Data**

Norris 14-2

4320-40	30% SH- 70% LS-	aa LT CRM WH COMM FINE WL DEV OOL rr tr OOLMOLDIC and microsuc por pred cryptoxln and dnse chky rr tr grainstn-packstn <u>petrolif ip tr spty yel fluor</u> nil Cut
4340-60	70% SH- 30% LS-	dk gry slty mott rust brns aqua dnse tanbrns crypto hd frm chky sparry petrolif ip tt rk deeper water
4360-80	30% SH- 70% LS-	rust grys tan crm lt brns chky dnse crypto tr micro fos(rod-cylinder shaped) cherty noted incr tr anhy
<u>bcmg more petrolif after 4380 incr dul yel fluor sl more particles</u> i.e. shallower marine lithos(Cyclothemc)		
4380-4400	Tr ANHY 40% SH- 60% LS-	varic aqua rust grys lt tan w/ wl dev ool (pack-grainstn) microxln rr fos deb tr fusulinids shl rr cryptoxln sparry ip rr cht clr wh petrolif w/ odor in Hcl tt rk
4400-10	Initiated 10 ft smpls	
	30% SH- 70% LS-	aa khaki tan oolitic chky micro-crypto dnse tt <u>petrolif in Hcl .dul fluor.</u> sparry ip trnsi
4410-20	Lighter carbonate prob shallower more oxidized section: 20% SH- 80% LS-	varic aqua rust grys off wh crm brecc tr gry tr clr sparite incr cherty tr packstn tt rk no sig P&P or live oil
4420-50	Tr CHT- 20% SH- 80% LS-	mlky smokey trnsi ang v hd cryptoxln 10% in 40-50 smpl slty grys rust KHAKI TAN OFF WH OOL packstn mott w/ sm grys brngry cIn tt cherty microxln petrolif w/ <u>odor in Hcl pale fluor</u>
4450-80	est Marmaton top 4450	
	TR CHT- 30% SH- 70% LS-	aa 10% 50-60 smpl smokey hd rust grys pyr sity lt tan grys crm wackstn rr pyr incr dnse crypto-microxln rr crinoid tr anhy sparry tt rk petrolif <u>ip w/ pale fluor sl</u> odor
4480-90	20% SH- 80% LS-	varic aa khaki crm v lt gry semi trnsi sparry micritic comm ool wackstn tt rk tr cht
4490-4500	Noted an influx in SHALE 70% SH- 30% LS-	brick mott w/ gm m-dk grys slty rr crinoid aa

4500-40	40% SH- 60% LS-	pred rust brns brick red tr wh xln anhy sm grys v lt crm khaki ool packstn/grainstn semi trnsl bio-pelmicrite rr shl (PELECYPOD) w/ dev ool MICRO-CRYPTOXLN tr pyr tr wh cht sm well dev ool <u>petrolif w/ dul F & odor</u>
4540-60	influx m gry shale 50% SH- 50% LS-	m gry v lmy stty frm aa lt khaki crm crypto dnse sm ool packstn rr pyr comm m gry marly aa
4560-80	20% SH- 80% LS-	gry blks tr petrolif-organic wh crm semi trnsl comm bioclastic fos deb biomicrite sm ool packstn pelmicrite pred tt rk cherty sm dul even <u>fluor petrolif ip</u>
4580-4600	10% SH- 10% DOLO- 80% LS-	grys rust tr blk lt grybrns v suc dul sft lmy no sig live stn crm wh chiky dnse micro-crypto rr pelletal packstn ool tr chert tt rk <u>petrolif ip aa</u>
4600-20	10% CHERT- 20% SH- 70% LS-	blk comm wh, brn smokey semi trnsl hd ang abdt blk-dk gry tr rust khaki crm brngry tt rk rr crinoid crypto-microxdn dnse tt deep water type lithos.
4620-40	TR CHT- 20% SH- 80% LS-	wh brn aa varic grys rust tr blk brit petrolif ip khaki crm lt-m brngry dnse marly rr pyr nil particles dul fluor no por petrolif w/ odor in Hcl
4640-4700	20% SH- 80% LS-	grys blk rr rust khaki tan crm brngry dnse crypto sl darker grys dolo ip trnsl cht tr blk cht marly arg rr fos/particles petrolif aa tt
4700-40	est top Cherokee	noted incr blk shale and incr ool pelmicrite
	20% SH- 80% LS-	blk organic frm brit tr rust cvgs lt-m khaki molt chiky dnse tt incr ool wack-packstn (pelmicrite) sm gry cntrd ool tr sil(cherty fusulinid fos rr pyr sm m brngry dolo ls tr cht petrolif tt rk
4740-60	20% SH- TR CHERT 80% LS-	varic blk organic blk clr cryptoxln incr particle frm-hd lt crm khaki dnse grys cherty micro- cryptoxln comm-abdt w/ dev ool wack-packstn tt petrolif rk aa
4760-80	lighter smpl 30% SH- 70% LS- TR SS-	VARIC RUST GRYS BLK khaki trnsl brns crypto-microxdn cht microfoss sm grys brecc pelletal petrolif tr pyr aa wh lt gry fgr w/ srted glauc tt cly filled
4780-4800	sl darker smpl	

4780-4800	30% SH- 70% LS-	m-dk grys blk rr tr reds lt-m khaki chiky dnse cryptoxln microxln tt rr pyr cherty less particle deeper water petrolif <u>w/ fnt fluor odor in HCl</u>
4800-20	20% SH- 80% LS- TR SS-	aa khaki cfrm trnsl crypo cherty petrolif aa vfgr lt gry tt NS
4820-40	20% SH- 60% LS- 10% SS- 10% DOLO-	VARIC GRYS REDS BLK crm lt gry cryptol mdnse chiky petrolif tt tr dolo wh lt gry vfgr-fgr wl srted tt lmy aa aa
4840-4900	30% SH- 30% DOLO- 40% LS-	blk grys pyr brit subbiky petrolif ATOKA TOP tt crm microsuc text v frm-hd tt no cut <u>pale even fluor</u> 40% Dolo in 60-80 smpl khaki sm brngry chiky bio-pel micrite dnse tt tr fos <u>petrolif w/ dul fluor ad odor</u> no sig live stn
4900-10	30% SH- 30% DOLO- 40% LS-	v dk gry nrly blk fis WH CRM MICROSUC TEXT LMY FRM-HD NO LIVE STN TR PYR <u>sl better fluor</u> lt-dk gry mott crm khaki rr fos deb bio micritic cryptoxln chiky dnse tt aa
4910-40	30% SH- 20% DOLO- 50% LS-	blk grys `crm tan microsuc frm hd aa petrif w/ even yel grn fluor no sig cut wh crm lt-dul grys cherty trnsl tr sparite gd odor micro-crypto tr cht petrolif no por aa
4940-50	Noted type flaser 30% SH- 10% DOLO- 60% LS-	Shale of the Atoka nrly blk grys rr pyr tr flaser patterned dolo tr rust cvgs crm microsuc w/ gd fluor no sig live oil stn tt crm lt-dk gry chrty crypto-microxln dnse tt rr fos deb mott rr ool packstn tr blk cht marly aa tr brecc
4950-70	ls bcmg more gry 30% SH- TR DOLO- 70% LS-	lt-dk gry tr blk fis sl grn aa suc frm wh crm khaki gry tr crinoid crypto dnse tr shl cht microxln <u>petrolif w/ fluor(fnt) ad odor in Hcl nil cut</u>
4970-90	smpis more COMPETENT DARKER 30% LS- 70% LS-	v dk gry blk pyr fis w/ tr dolo lt-dk gry mott chiky rr crm lt grybm tr microxln rr fos frags tr cht rr wackstn pyr tt petrolif rk pred crypto rr wl dev crinoid button
4990-5000	competent dk LS 20% SH-	aa tr mott gry fis pyr non-sl calc tr blk brit v organic scatt rust/aqua cvgs aa

4990-5000 cont
80% LS- lt-m gry sm dk gry tr crm semi trnsl tr khaki tr croinoid rr ool
packstn tr pyr tr cht dnse chikky mhd-hd
petrolif ip scatt dul fluor

5000-40 type Lower Atoka lithology
20% SH- dk-m gry nrly blk organic fis grainy mott w/ subwxy grn shale
80% LS- crm khaki comm lt-dk grys tr cht microxln crypto chiky
tr fos dolo grainy gd petrolif odor scatt dul fluor

5040-50 est **MORROW** smpl top: **NOTED A SIG ROP BREAK TR
GLASSY, WOODY COAL**
30% SH- BLK FIS CHARCOAL PYR TR LT GRY TR WOODY
COAL V CALC SFT-FRM V FIS
70% LS- VLT-dk bmgry dnse micro-crypto hd cvgs

5050-60 noted 1 mgr clr qtz grain in smpl?
TR COAL- brecc pyr calc brit sft
40% SH- incr m-dk gry fis subblky carb rr lt gmrgy lam subwxy tr
flaser patterned calc sft tr carb incl marginal marine.
60% LS- lt-m khaki lt-dk grys bmgry crypto hd arg marly petrolif

5060-70 40% SH- mott lt gry dk charcoal gry nrly blk fis splntry flaser
patterned rr hackly text sl calc sft pyr brecc rr coal frags
60% LS- m honey brns crypto-micro dnse chiky pettetal tr ool
wackestn mott w/ dk petrolif tt rk

5070- 80 40% SH- char gry fis sm lt bmgry subwxy w/ flaser patterned
60% LS- crm khaki semi trnsl sparry lt-m gry bmgry dul dk dnse tr
fos deb tr pyr microxln petrolif

5080-90 no sig ss v rr tr unconsol f-m gr rnd qtz?
60% SH- lt gm dk gry blk fis Flaser sft v fine framboidal pyr sl calc
subwxy tr carb brns
40% LS- crm lt-m gry tr blk carb pyr dnse tt poss algal str.

5090-5100 Note: Started CFS (Circ for smpls) at 5103 stage and circ hunting
potential Pay SS
50% SH- M-DK GRY FIS LT BRNS SUBWXY RR TR RUST CVGS
AA
50% LS- lt-dk grys dnse tr khaki tt petrolif rr tr wh microsuc/xln dolo
mixed bag smpl.

5100-10 70% SH- lt gm pred v dk char gry v fis subwxy tr flaser patt rr sdy
incl sl calc
30% LS- lt khaki tan chiky micro-cryptoxln dnse microfos ip

5110-20 NO SS NO SHOWS
80% SH- m-v dk charcoal grys fis lt bm subwxy tr carb tr lt blue
green rr pyr, tr coal tr lse pyr frags noted 1 lse crse gr.
20% LS- dul khaki lt-dk grys dnse aa cvgs

5120-30 NO SS
70% SH- charcoal grys blk pyr tr flaser w/ lt gmrgy tint
30% LS- grys honey crypto dnse chiky tr fusulinid aa

5130-35 CIRC BU @ 35 noted 2 slow ft 33-35 noted 2 mgr rnd qtz?
60% SH- m-vdk grys sm lt olive grys flaser patterned
tr carb tr cubic pyr rr tr miroc rod fos
40% LS- incr dul khaki crm blk contactd w/ sh
tr bryozoan fos imprint

5135-40 70% SH- aa
30% LS- khaki dul brngry dnse grainy text ip tt

5140-45 caught by geol Re set sluice Noted influx SS **basal Morrow SS**
30% LS- aa
40% SH- aa
30% SS- cln wh fgr rr glauc brit submd subang wl srted rr crse no live
show no fluor looks low perm/Marine

5145-50 Noted influx wh crm tan Limestone.

60% LS- lt tan chiky trnsd tr glauc include ool packstn crypto dnse
scatt yel fluor tt rk

20% SS- wh cln clr tr glauc tr crse tr qtz ovghts pred fgr upper wl
srted NFSC

5150-55 CFS BU
50% LS- wh crm trnsd micro-cryptoxln chiky tr scatt yel gm fluor no
sig por or moveable live oil presence
20% SS- clr cln wh fgr wl srted rr tr crse (lse) pred tt rr glauc
no live shows aa
30% SH- aa

NOTE: ran DST No.1 5030-5155

5155-5200 50-60% LS- wh trnsd tan rr glauc tr honey stn tt sparry chiky dnse w/
dul fluor petrolif in Hcl no por rr bryozoan fos farbric
50% SH- v dk grys fis pyr 40% in 60-00 interval

TR SS- clr cln fgr wl srted tt aa NS

5200-50 60% LS- tan wh chiky crypto-micro sparry rr bryozoan rr glauc
40% SH- LT-DK GRY GRN FIS
TR SS- wh cln fgr tt qtz nrty 10% of smpl hd type II , < 100md
prob cvgs

EST Mississippian St Louis Fm.

5250-80 60% LS- honey wh crm semi trnsd sparry ool brecc rr glauc rr sdy in
70-80 lagged interval tr microsc ip
40% SH- M-DK GRY FLASER v pyr cvgs
TR SS- drty gry fgr glauc in 60-70 tr clnr fgr qtz tt ss cvgs
no show

TOTAL DEPTH

ALLIED CEMENTING CO., INC.

Federal Tax I.D.#

2832 ORIGINAL

TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:

DAKLEY, KS

DATE <u>5-7-99</u>	SEC. <u>14</u>	TWP. <u>20S</u>	RANGE <u>42W</u>	CALLED OUT	ON LOCATION <u>5:00 AM</u>	JOB START <u>9:30 AM</u>	JOB FINISH <u>1:00 AM</u>
LEASE <u>NORRIS</u>	WELL # <u>14-2</u>	LOCATION <u>TREBUNE 7W-11S-2 1/2 W</u>			COUNTY <u>GREELEY</u>	STATE <u>Ks</u>	
OLD OR <u>(NEW)</u> (Circle one)							

CONTRACTOR MURKIN DRILL RIG # 25 OWNER SAME

TYPE OF JOB SURFACE

HOLE SIZE 12 1/4" T.D. 610'

CASING SIZE 8 7/8" DEPTH 613'

TUBING SIZE _____ DEPTH _____

DRILL PIPE _____ DEPTH _____

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT 37.64'

CEMENT LEFT IN CSG. 37.64'

PERFS. _____

DISPLACEMENT 36 1/2 bbl.

CEMENT

AMOUNT ORDERED 175 SKS LITE 3% CC 1/4 Flo-Seal

150 SKS com 3% CC

COMMON	<u>150 SKS</u>	@	<u>75⁰⁰</u>	<u>1132⁰⁰</u>
POZMIX		@		
GEL		@		
CHLORIDE	<u>11 SKS</u>	@	<u>28⁰⁰</u>	<u>308⁰⁰</u>
	<u>Lite 175 SKS</u>	@	<u>7²⁵</u>	<u>1,233⁷⁵</u>
	<u>Flo-Seal 44#</u>	@	<u>1¹⁵</u>	<u>50⁶⁰</u>
		@		
		@		
HANDLING	<u>325 SKS</u>	@	<u>10⁰⁰</u>	<u>341²⁵</u>
MILEAGE	<u>48 per sk/mile</u>			<u>1,300⁰⁰</u>
				TOTAL <u>4,366¹⁰</u>

EQUIPMENT

PUMP TRUCK CEMENTER TERRY

300 HELPER WAYNE

BULK TRUCK

347 DRIVER WALT

BULK TRUCK

_____ DRIVER _____

REMARKS:

Cement No Seal ✓

35 SKS CARG. FOR PET.

THANK YOU

SERVICE

DEPTH OF JOB 613'

PUMP TRUCK CHARGE 470⁰⁰

EXTRA FOOTAGE @ _____

MILEAGE 100 miles @ 2⁵⁰ 285⁰⁰

PLUG 8 7/8 SURFACE @ _____ 45⁰⁰

TOTAL 800⁰⁰

CHARGE TO: WESTERN OPERATING

STREET 518 17th = 480

CITY Denver STATE Colo ZIP 80202

FLOAT EQUIPMENT

8 5/8

1- GAFFLE plate @ _____ 75⁰⁰

TOTAL 75⁰⁰

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 is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

TAX _____

TOTAL CHARGE _____

DISCOUNT _____ IF PAID IN 30 DAYS

SIGNATURE Gus Schwartz GUS SCHWARTZ
PRINTED NAME

ORIGINAL

ALLIED CEMENTING CO., INC.

2836

Federal Tax ID.#

EMITTO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:

OAKLEY
C.T. C.T. C.T.

DATE <u>5-14-99</u>	SEC. <u>14</u>	TWP. <u>20S</u>	RANGE <u>42W</u>	CALLED OUT	ON LOCATION <u>7:45 PM</u>	JOB START <u>9:15 PM</u>	JOB FINISH <u>12:00 AM</u>
LEASE <u>NORRIS</u>	WELL # <u>14-2</u>	LOCATION <u>TREBUKE 7W-11S-2W</u>			COUNTY <u>GRAVELY</u>	STATE <u>KS</u>	
OLD OR <u>NEW</u> (Circle one)							

CONTRACTOR <u>MURFEN DRIG. REL #25</u>	OWNER <u>SAME</u>
TYPE OF JOB <u>PIA</u>	
HOLE SIZE <u>7 7/8"</u>	T.D. <u>5280'</u>
CASING SIZE	DEPTH
TUBING SIZE	DEPTH
DRILL PIPE <u>2 7/8"</u>	DEPTH <u>2440'</u>
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT
CEMENT LEFT IN CSG.	
PERFS.	
DISPLACEMENT	

CEMENT	AMOUNT ORDERED <u>215 SKS L&NO. POZ BULLY SEAL # FLO</u>
COMMON	<u>129 SKS @ 7.55 = 973.95</u>
POZMIX	<u>86 SKS @ 3.25 = 279.50</u>
GEL	<u>11 SKS @ 9.50 = 104.50</u>
CHLORIDE	
<u>Flo-Sect 54#</u>	<u>@ 1.15 = 62.10</u>
HANDLING	<u>215 SKS @ 1.05 = 225.75</u>
MILEAGE	<u>44 per SK/mile = 860.00</u>
TOTAL <u>2,505.00</u>	

EQUIPMENT

PUMP TRUCK	CEMENTER <u>TERRY</u>
# <u>191</u>	HELPER <u>DEAN</u>
BULK TRUCK	
# <u>218</u>	DRIVER <u>WAYNE</u>
BULK TRUCK	
#	DRIVER

REMARKS:

<u>50 SKS AT 2440'</u>
<u>80 SKS AT 1400'</u>
<u>50 SKS AT 630'</u>
<u>10 SKS AT 40'</u>
<u>15 SKS AT Hole</u>
<u>10 SKS MOUSE Hole</u>
<u>THANK YOU</u>

SERVICE

DEPTH OF JOB	<u>2440'</u>
PUMP TRUCK CHARGE	<u>470.00</u>
EXTRA FOOTAGE	@
MILEAGE	<u>100 miles @ 2.85 = 285.00</u>
PLUG	@
TOTAL <u>755.00</u>	

CHARGE TO: WESTERN OPERATING CO.

STREET _____

CITY _____ STATE _____ ZIP _____

FLOAT EQUIPMENT

	@	
	@	
	@	
	@	
	@	
TOTAL _____		

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 is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

TAX _____

TOTAL CHARGE _____

DISCOUNT _____ IF PAID IN 30 DAYS

SIGNATURE Gus Schwartz

GUS SCHWARTZ
PRINTED NAME

ORIGINAL

Well Name: Norris #14-2
Company: Western Operating Company
Location: 14-20s-42w
Greeley County Kansas
Date: 5-17-99

STATE OF KANSAS
DEPARTMENT OF REVENUE

JUN 1 1999

ST. LOUIS, MO
JUN 1 1999

TRILOBITE TESTING L.L.C.

OPERATOR : Western Operating Co.
WELL NAME: Norris #14-2
LOCATION : 14-20S-42W Greeley KS.
INTERVAL : 5030.00 To 5155.00 ft

DATE 5-13-99

KB 3729.00 ft TICKET NO: 11915 DST #1
GR 3742.00 ft FORMATION: Morrow
TD 5155.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 15 Rec.	13309	13309	3024			PF Fr. 1537 to 1552 hr
SI 30 Range(Psi)	4700.0	4700.0	4995.0	0.0	0.0	IS Fr. 1552 to 1622 hr
SF 45 Clock(hrs)	12 HR	12	ALP			SF Fr. 1622 to 1707 hr
FS 90 Depth(ft)	5150.0	5150.0	5035.0	0.0	0.0	FS Fr. 1707 to 1842 hr

	Field	1	2	3	4	
A. Init Hydro	2664.0	2690.0	0.0	0.0	0.0	T STARTED 1245 hr
B. First Flow	58.0	127.0	0.0	0.0	0.0	T ON BOTM 1535 hr
B1. Final Flow	58.0	106.0	0.0	0.0	0.0	T OPEN 1537 hr
C. In Shut-in	94.0	134.0	0.0	0.0	0.0	T PULLED 1842 hr
D. Init Flow	58.0	114.0	0.0	0.0	0.0	T OUT 2045 hr
E. Final Flow	58.0	91.0	0.0	0.0	0.0	
F. Fl Shut-in	82.0	91.0	0.0	0.0	0.0	
G. Final Hydro	2523.0	2521.0	0.0	0.0	0.0	TOOL DATA-----
Inside/Outside	0	0	I			Tool Wt. 2000.00 lbs

RECOVERY

Tot Fluid 20.00 ft of 20.00 ft in DC and 0.00 ft in DP
20.00 ft of Drilling mud
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of

Wt Set On Packer 30000.00 lbs
Wt Pulled Loose 85000.00 lbs
Initial Str Wt 70000.00 lbs
Unseated Str Wt 70000.00 lbs
Bot Choke 0.75 in
Hole Size 8.88 in
D Col. ID 2.25 in
D. Pipe ID 3.80 in
D.C. Length 559.00 ft
D.P. Length 4473.00 ft

SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

MUD DATA-----

Mud Type Chemical
Weight 9.20 lb/cf
Vis. 50.00 S/L
W.L. 8.80 in3
F.C. 0.00 in

BLOW DESCRIPTION

Initial Flow:
Weak 1/2" blow steady throughout
Final Flow:
Weak 1/2" blow died in 45 mins.

Mud Drop N
Amt. of fill 0.00 ft
Btm. H. Temp. 138.00 F
Hole Condition Good
% Porosity 0.00
Packer Size 6.75 in
No. of Packers 2
Cushion Amt. 0.00
Cushion Type
Reversed Out N
Tool Chased N
Tester Rod Steinbrink
Co. Rep. Bill
Contr. Murfin
Rig # 25
Unit #
Pump T.

SAMPLES:
SENT TO:

Test Successful: Y

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Norris #14-2

LOCATION : 14-20S-42W Greeley KS.

TICKET No. 11915 D.S.T. No. 1 DATE 5-13-99

TOTAL TOOL TO BOTTOM OF TOP PACKERS 30

INTERVAL TOOL 32

BOTTOM PACKERS AND ANCHOR

TOTAL TOOL 62

WELL COLLAR ANCHOR IN INTERVAL

C. ANCHOR STND.Stands Single Total

P. ANCHOR STND.Stands 1 Single Total 93

TOTAL ASSEMBLY 155

C. ABOVE TOOLS.Stands6 Single Total 559

P. ABOVE TOOLS.Stands47 Single 2 Total 4473

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5187

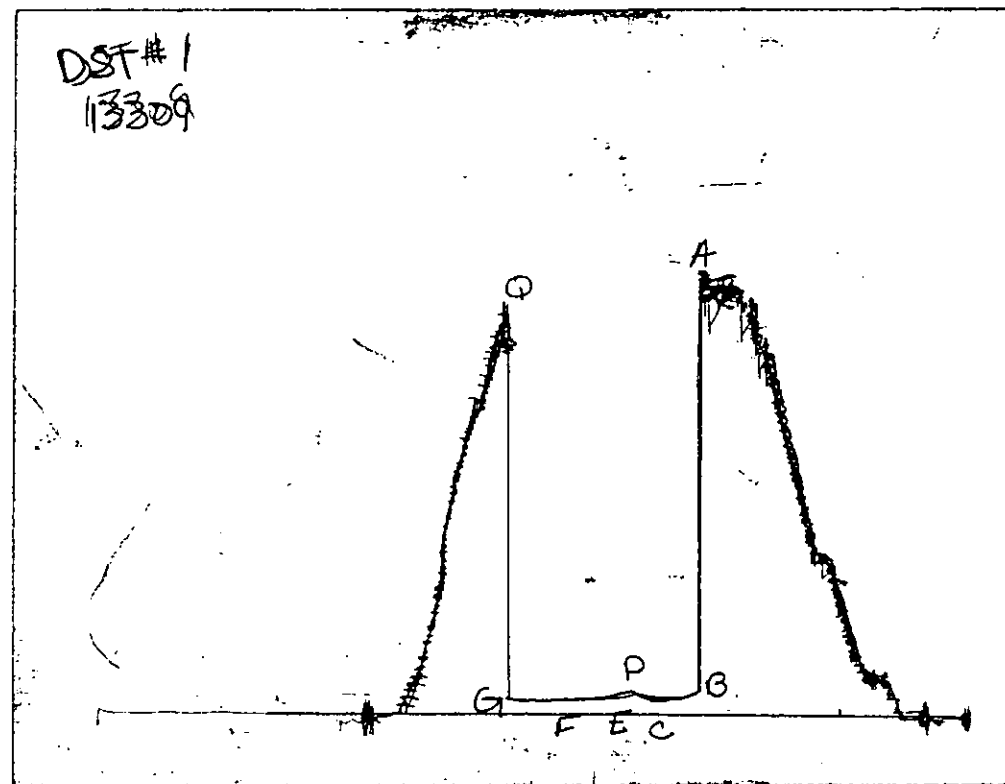
TOTAL DEPTH 5155

TOTAL DRILL PIPE ABOVE K.B. 32

MARKS:

P.O. SUB 1' Above 90' DC	4910
C.O. SUB 1'	5000
S.I. TOOL 5'	5006
3' Sampler	5009
HMV 5'	5014
JARS 5'	5019
SAFETY JOINT 2'	5021
PACKER 4'	5025
PACKER 5'	5030
DEPTH	
STUBB 1'	5031
ANCHOR	
3' Perf	5034
ALP Rec. @	5035
1' c/o sub	5035
93' DP	5128
1' c/o sub	5129
T.C. DEPTH	
20' Perf.	5149
AK-1 Rec. @	5150
BULLNOSE 5'	
T.D.	5155

CHART PAGE



This is a photocopy of the actual AK-1 recorder chart

TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 11915 Date 5-13-99
Company Name Western Operating Co. Cont. MurFin #25
Lease Norris #14-2 Test No. #1 Morrow
County Greeley KS Sec. 14 Twp. 20^s Rng. 42^w

SAMPLER RECOVERY

Gas _____ ML
Oil _____ ML
Mud 4,000 ML
Water _____ ML
Other _____ ML
Pressure 0 PSI
Total 4,000 ML

PIT MUD ANALYSIS

Chlorides 3,500 ppm.
Resistivity _____ ohms @ _____ F
Viscosity 50
Mud Weight 9.2
Filtrate 8.8
Other LCM 3#/bbl.

SAMPLER ANALYSIS

Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.
Gravity _____ corrected @ 60 F

PIPE RECOVERY

TOP
Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.

MIDDLE
Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.

BOTTOM
Resistivity _____ ohms @ _____ F
Chlorides 3,500 ppm.

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

N^o 11915

Test Ticket

Well Name & No. Norris #14-2 Test No. 1 Date 5-13-99
Company Western Operating Company Zone Tested Morrow
Address 518 17th St. Ste 1680 Denver, CO. 80202 Elevation 3742 KB 3729 GL
Co. Rep / Geo. Bill Eucker Cont. Murfin #25 Est. Ft. of Pay Por. %
Location: Sec. 14 Twp. 20^s Rge. 42ⁿ Co. Greeley State KS.
No. of Copies Distribution Sheet (Y, N) Turnkey (Y, N) Evaluation (Y, N)

Interval Tested 5030 - 5155 Initial Str Wt./Lbs. 10,000 Unseated Str Wt./Lbs. 10,000
Anchor Length 125' Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 85,000
Top Packer Depth 5025 Tool Weight 2,000
Bottom Packer Depth 5030 Hole Size — 7 7/8" Rubber Size — 6 3/4"
Total Depth 5155 Wt. Pipe Run Drill Collar Run 559' ()
Mud Wt. 9.2 LCM 3# Vis. 50 WL 8.8 Drill Pipe Size 4 1/2" XH Ft. Run 4473' (4)
Blow Description IF: Weak 1/2" blow steady throughout

FF: Weak 1/2" blow died @ 45 mins

Recovery — Total Feet 20' GIP Ft. in DC 20' Ft. in DP
Rec. Feet Of %gas %oil %water %mud
Rec. Feet Of %gas %oil %water %mud
Rec. 20' Feet Of Drlg Mud %gas %oil %water %mud
Rec. Feet Of %gas %oil %water %mud
Rec. Feet Of %gas %oil %water %mud
BHT 138° °F Gravity °API D @ °F Corrected Gravity °API
RW @ °F Chlorides ppm Recovery Chlorides 3500 ppm System

	AK-1	Alpine		
(A) Initial Hydrostatic Mud	<u>2664</u>		PSI Recorder No. <u>13309</u>	T-On Location <u>1100 (CDT)</u>
(B) First Initial Flow Pressure	<u>58</u>		PSI (depth) <u>5150</u>	T-Started <u>1245</u>
(C) First Final Flow Pressure	<u>58</u>		PSI Recorder No. <u>3024</u>	T-Open <u>1537</u>
(D) Initial Shut-In Pressure	<u>94</u>		PSI (depth) <u>5035</u>	T-Pulled <u>1842</u>
(E) Second Initial Flow Pressure	<u>58</u>		PSI Recorder No. <u> </u>	T-Out <u>2045</u>
(F) Second Final Flow Pressure	<u>58</u>		PSI (depth) <u> </u>	T-Off Location <u>2145</u>
(G) Final Shut-in Pressure	<u>82</u>		PSI Initial Opening <u>15</u>	Test <u> </u>
(Q) Final Hydrostatic Mud	<u>2523</u>		PSI Initial Shut-in <u>30</u>	Jars <u>X</u>
			Final Flow <u>45</u>	Safety Joint <u>X</u>
			Final Shut-in <u>90</u>	Straddle <u> </u>

TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF 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.

Approved By [Signature]

Our Representative Rod Steinbrink

Circ. Sub X N/C
Sampler X
Extra Packer
Elec. Rec. X N/C
Mileage
Other

TOTAL PRICE \$