

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

ORIGINAL

API NO. 15- 065-22,667-00-00

County Graham

Operator: License # 5474

Name: NORTHERN LIGHTS OIL CO., L.P.

Address P.O. BOX 164
Andover, KS 67002

City/State/Zip _____

Purchaser: Clear Creek

Operator Contact Person: John W. Sutherland, Jr.

Phone (316) 733-1515

Contractor: Name: Mallard JV

License: 4958

Wellsite Geologist: Jon Christensen

Designate Type of Completion
 New Well _____ Re-Entry _____ Workover

Oil _____ SWD _____ S10W _____ Temp. Abd.
 Gas _____ ENHR _____ SIGW _____
 Dry _____ Other (Core, WSW, Expl., Cathodic, etc)

If Workover/Re-Entry: old well info as follows:

Operator: _____

Well Name: _____

Comp. Date _____ Old Total Depth _____

_____ Deepening _____ Re-perf. _____ Conv. to Inj/SWD
_____ Plug Back _____ PSTD
_____ Commingled _____ Docket No. _____
_____ Dual Completion _____ Docket No. _____
_____ Other (SWD or Inj?) Docket No. _____

7-15-92 7-21-92 11-19-92
Spud Date Date Reached TD Completion Date

S/2-N/2-SW - _____ Sec. 2 Twp. 7S Rge. 23W

1650 Feet from (circle one) Line of Section

1320 Feet from (circle one) Line of Section

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

Lease Name FT. Hays Well # 1

Field Name WC

Producing Formation LKC

Elevation: Ground 2445 KB 2453

Total Depth 3926 PSTD 3926

Amount of Surface Pipe Set and Cemented at 258' Feet

Multiple Stage Cementing Collar Used? Yes _____ No

If yes, show depth set 2398' Feet

If Alternate II completion, cement circulated from 1200'

feet depth to surface w/ 435 sx _____ sx cmt.

Drilling Fluid Management Plan ALT 2 1-25-99
(Data must be collected from the Reserve Pit)

Chloride content 5000 ppm Fluid volume 1000 bbls

Dewatering method used Evaportaiton

Location of fluid disposal if hauled offsite: _____

Operator Name _____

Lease Name _____ License No. _____

_____ Quarter Sec. _____ Twp. _____ S Rng. _____ E/W

County _____ Docket No. _____

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 [Signature]
Title General Partner Date 1-15-93

Subscribed and sworn to before me this 15th day of January, 1993.

Notary Public [Signature]
Date Commission Expires 7-3-93

RECEIVED STATE CORPORATION COMMISSION
K.C.C. OFFICE USE ONLY
_____ of Confidentiality Attached
_____ of Line Log Received
_____ of Geologist Report Received
Distribution
_____ SWD/Rep _____ NGPA
_____ Plug _____ Other (Specify)

KURT L. SMITH
NOTARY PUBLIC
STATE OF KANSAS
My Appt. Exp. 7-3-93

1-19-93 Form ACO-1 (7-91)

Operator Name Northern Lights Oil Co., L.P. Lease Name Ft. Hays Well # 1

Sec. 2 Twp. 7S Rge. 23W East West
 county Graham

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

Drill Stem Tests Taken (Attach Additional Sheets.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Anhydrite		2107
Electric Log Run (Submit Copy.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Heebner		3672
List All E.Logs Run:	<u>RAG</u>	LKC		3711
		BKC		3906

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs./Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12 1/4	8 5/8	20#	258	60/40 Poz	150	2%g3%cc
Production	7 7/8	4 1/2	10 1/2	3929	Surfill	75	4%gilsonite

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	Acid, Fracture, Shot, Cement Squeeze Record
	Specify Footage of Each Interval Perforated	(Amount and Kind of Material Used) Depth
4	3867-3874	500gal/MCA & 4000gal 15% FE
4	3777-3779	300gal/MCA

TUBING RECORD	Size <u>2 3/8</u>	Set At <u>3905</u>	Packer At	Liner Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of First, Resumed Production, SWD or Inj.	<u>11-19-92</u>	Producing Method	<input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)	
Estimated Production Per 24 Hours	Oil <u>22</u> Bbls.	Gas <u>--</u> Mcf	Water <u>128</u> Bbls.	Gas-Oil Ratio <u>39</u>

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

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

Production Interval: _____

ORIGINAL

MALLARD JV, INC.
P. O. BOX 1009
McPHERSON, KS 67460
D R I L L E R S L O G

OPERATOR: Northern Lights Oil Co., L.P. WELL: Ft. Hays #1
P. O. Box 164
Andover, KS 67002 API#: 15-065-22,667-00-00
COMMENCED: July 15, 1992 LOC: S/2 N/2 SW
COMPLETED: July 21, 1992 1650 Ft FSL, 1320 Ft FWL
TOTAL DEPTH: 3925 Ft Sec 2 Twp 7 Rge 23 W
ELEVATION: 2445 Ft GL, 2453 Ft KB COUNTY: Graham

STATUS: Set Casing - Marmaton Formation
Spud: 5:15 p.m. 7/15/92
Size Hole Drilled: 12-1/4" x 260'
Surface Casing: 8-5/8" x 20# x 248.80' (7 jts.)
Set at: 258.4'
Cement: 150 sacks 60/40 Pozmix, 2% gel, 3% cc
PD: 10:15 p.m. 7/15/92
Size Hole Drilled: 7-7/8" x 3925'
Production Casing: 5-1/2" x 10.5# x 3929' (117 jts.)
Set at: 3924'
Port Collar at: 2136'
Cement: 75 sacks Surefill w/4# gilsonite per sack
PD: 11:20 p.m. 7/21/92
Drill Stem Tests: 4
Electric Log: Yes

... CERTIFICATE ...

James H. Hess, Vice-President of Mallard JV, Inc., hereby certifies that this is a true and correct copy of the log of the following well, as reflected by the files of Mallard JV, Inc.: Ft. Hays #1

RECEIVED
STATE CORPORATION COMMISSION
JAN 19 1993
CONSERVATION DIVISION
WICHITA, KANSAS
James H. Hess
James H. Hess, Vice-President

STATE OF KANSAS)
COUNTY OF McPHERSON) ss.

Subscribed and sworn to before me this 29th day of July, 1992.

NOTARY PUBLIC - State of Kansas
BRYAN K. HESS
My Appt. Exp. 5-26-93

Bryan K. Hess
Bryan K. Hess, Notary Public

75
4

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

ORIGINAL 5137

Well Name & No. <u>#1 Fort Hays</u>	Test No. <u>1</u>	Date <u>7-19-92</u>
Company <u>Northern Lights Oil Co L.P.</u>	Zone Tested <u>LKC A</u>	
Address <u>P O Box 64 Andover Ks 67002</u>	Elevation <u>2453</u>	
Co. Rep./Geo. <u>Jon Christensen</u>	Cont. <u>Maribel</u>	Est. Ft. of Pay _____
Location: Sec. <u>2</u> Twp. <u>7s</u> Rge. <u>23w</u> Co. <u>Graham</u> State <u>Ks</u>		
No. of Copies _____	Distribution Sheet _____	Yes _____ No _____ Turnkey _____ Yes _____ No _____ Evaluation _____

Interval Tested <u>3703-3718</u>	Drill Pipe Size <u>4 1/2 XH</u>
Anchor Length <u>15</u>	Top Choke — 1" _____ Bottom Choke — 3/4" _____
Top Packer Depth <u>3698</u>	Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
Bottom Packer Depth <u>3703</u>	Wt. Pipe I.D. — 2.7 Ft. Run _____
Total Depth <u>3718</u>	Drill Collar — 2.25 Ft. Run <u>300</u>
Mud Wt. <u>9.2</u> lb/gal.	Viscosity <u>42</u> Filtrate <u>6.6</u>
Tool Open @ <u>5:45 AM</u> Initial Blow <u>2" blow building to bottom of bucket in 3 minutes (1/2" blow back on shut-in)</u>	
Final Blow <u>same as initial (weak blow back on shut-in - died in 20 minutes)</u>	
Recovery — Total Feet <u>2000</u> Feet of Gas in Pipe _____ Flush Tool? _____	
Rec. <u>30</u> Feet Of <u>50CM</u> %gas <u>30</u> %oil _____ %water <u>70</u> %mud _____	
Rec. <u>1970</u> Feet Of <u>gassy salt water</u> %gas _____ %oil _____ %water _____ %mud _____	
Rec. _____ Feet Of <u>w/ oil spots at top</u> %gas _____ %oil _____ %water _____ %mud _____	
Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____	
Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____	

BHT <u>109</u> °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW <u>.33</u> @ <u>76.1</u> °F Chlorides <u>19,000</u> ppm Recovery Chlorides <u>1000</u> ppm System
(A) Initial Hydrostatic Mud <u>1810</u> PSI AK1 Recorder No. <u>22150</u> Range <u>3925</u>
(B) First Initial Flow Pressure <u>91</u> PSI @ (depth) <u>3708</u> w/Clock No. <u>27573</u>
(C) First Final Flow Pressure <u>495</u> PSI AK1 Recorder No. <u>10248</u> Range <u>4400</u>
(D) Initial Shut-In Pressure <u>1078</u> PSI @ (depth) <u>3717</u> w/Clock No. <u>27501</u>
(E) Second Initial Flow Pressure <u>539</u> PSI AK1 Recorder No. _____ Range _____
(F) Second Final Flow Pressure <u>749</u> PSI @ (depth) _____ w/Clock No. _____
(G) Final Shut-In Pressure <u>1078</u> PSI Initial Opening <u>30</u> Test <u>X</u>
(H) Final Hydrostatic Mud <u>1788</u> PSI Initial Shut-In <u>30</u> Jars <u>X</u>
Final Flow <u>30</u> Safety Joint <u>X</u>
Final Shut-In <u>30</u> Straddle _____

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 Jon Christensen
 Our Representative Paul Simpson

Sampler _____
 Extra Packer _____
 Other _____

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

ORIGINAL

5138

Test Ticket

Well Name & No. #1 Fort Haw Test No. 2 Date 7-19-92
 Company Northern Lights Oil Co LP Zone Tested LKC F
 Address _____ Elevation 2453
 Co. Rep./Geo. Jon Christensen Cont. Mallard Est. Ft. of Pay _____
 Location: Sec. 2 Twp. 7s Rge. 23w Co. Graham State Ks
 No. of Copies 5 Distribution Sheet _____ Yes _____ No Turnkey _____ Yes _____ No _____ Evaluation _____

Interval Tested 3769-3790 Drill Pipe Size 4 1/2 XH
 Anchor Length 21 Top Choke — 1" _____ Bottom Choke — 3/4" _____
 Top Packer Depth 3764 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
 Bottom Packer Depth 3769 Wt. Pipe I.D. — 2.7 Ft. Run _____
 Total Depth 3790 Drill Collar — 2.25 Ft. Run 300
 Mud Wt. Oil lb/gal. Viscosity 44 Filtrate 818
 Tool Open @ 8:55 PM Initial Blow Very strong - bottom of bucket in 30 seconds
 (no blow on shut-in)
 Final Blow strong blow bottom of bucket in 1 min - (surface blow back on shut-in)

Recovery — Total Feet	Feet of Gas in Pipe	Flush Tool?
Rec. <u>5</u> Feet Of <u>oil gassy oil</u>	<u>120</u>	
Rec. <u>310</u> Feet Of <u>gassy oil speckled mw</u>		
Rec. <u>900</u> Feet Of <u>oil speckled water</u>		
Rec. <u>115</u> Feet Of <u>gassy salt water</u>		
Rec. _____ Feet Of _____		

BHT 109 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
 RW 1.33 @ 77.4 °F Chlorides 18,500 ppm Recovery Chlorides 1000 ppm System
 (A) Initial Hydrostatic Mud 1854 PSI AK1 Recorder No. 22150 Range 3925
 (B) First Initial Flow Pressure 372 PSI @ (depth) 3774 w/Clock No. 27573
 (C) First Final Flow Pressure 815 PSI AK1 Recorder No. 10748 Range 4400
 (D) Initial Shut-In Pressure 1034 PSI @ (depth) 3789 w/Clock No. 27501
 (E) Second Initial Flow Pressure 869 PSI AK1 Recorder No. _____ Range _____
 (F) Second Final Flow Pressure 936 PSI @ (depth) _____ w/Clock No. _____
 (G) Final Shut-In Pressure 1056 PSI Initial Opening 30 Test X
 (H) Final Hydrostatic Mud 1832 PSI Initial Shut-In 30 Jars _____

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 Jon Christensen
 Our Representative Paul Simpson
 Final Flow 15 Safety Joint _____
 Final Shut-In 30 Straddle _____
 Circ. Sub _____
 Sampler _____
 Extra Packer _____
 Other _____

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

ORIGINAL

5139

Test Ticket

Well Name & No. A1 Fort Hays Test No. 3 Date 7-20-92
 Company Northon Lights Oil Co LP Zone Tested LKs H
 Address _____ Elevation 2453
 Co. Rep./Geo. Jon Christensen cont. Mallard 41 Est. Ft. of Pay _____
 Location: Sec. 2 Twp. 7s Rge. 23 W Co. Graham State _____
 No. of Copies 5 Distribution Sheet _____ Yes _____ No Turnkey _____ Yes _____ No _____ Evaluation _____

Interval Tested 3816-3846 Drill Pipe Size 4 1/2 XH - 4 1/2 FH D.P
 Anchor Length 30 Top Choke — 1" _____ Bottom Choke — 3/4" _____
 Top Packer Depth 3811 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
 Bottom Packer Depth 3816 Wt. Pipe I.D. — 2.7 Ft. Run _____
 Total Depth 3846 Drill Collar — 2.25 Ft. Run _____
 Mud Wt. 9.1 lb/gal. Viscosity 41 Filtrate 10.0
 Tool Open @ 10:40 AM Initial Blow 1/2" blow building to 5"
(1/2" weak surface blow on shut-in)
 Final Blow 1/2" weak surface blow building to 2"

Recovery — Total Feet	Feet of Gas in Pipe	Flush Tool?			
Rec. <u>35</u> Feet Of <u>mud</u>		%gas	%oil	%water	%mud
Rec. <u>120</u> Feet Of <u>sl muddy water</u>		%gas	%oil	%water	%mud
Rec. _____ Feet Of <u>oil specks in tool</u>		%gas	%oil	%water	%mud
Rec. _____ Feet Of _____		%gas	%oil	%water	%mud
Rec. _____ Feet Of _____		%gas	%oil	%water	%mud

BHT 108 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
 RW 135 @ 68.8 °F Chlorides 20,000 ppm Recovery Chlorides 2000 ppm System
 (A) Initial Hydrostatic Mud 1887 PSI AK1 Recorder No. 22150 Range 3925
 (B) First Initial Flow Pressure 839 PSI @ (depth) 3820 w/Clock No. 27503
 (C) First Final Flow Pressure 507 PSI AK1 Recorder No. 10248 Range 4400
 (D) Initial Shut-in Pressure 1220 PSI @ (depth) 3845 w/Clock No. 27501
 (E) Second Initial Flow Pressure 980 PSI AK1 Recorder No. _____ Range _____
 (F) Second Final Flow Pressure 114 PSI @ (depth) _____ w/Clock No. _____
 (G) Final Shut-in Pressure 1176 PSI Initial Opening 30 Test _____
 (H) Final Hydrostatic Mud 1876 PSI Initial Shut-in 45 Jars _____
 Final Flow 30 Safety Joint _____
 Final Shut-in 60 Straddle _____
 Circ. Sub _____
 Sampler _____
 Extra Packer _____
 Other _____

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 Jon Christensen
 Our Representative Paul Simpson

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

ORIGINAL

Test Ticket

No. 5140

FAX 733-4715

Well Name & No. <u>#1 Fort Hays</u>	Test No. <u>4</u>	Date <u>7-21-92</u>
Company <u>Northern Lights Oil Co LP</u>	Zone Tested <u>LK J</u>	
Address _____	Elevation <u>2453</u>	
Co. Rep./Geo. <u>John Christensen</u>	Cont. <u>Malcolm A1</u>	Est. Ft. of Pay <u>4</u>
Location: Sec. <u>2</u> Twp. <u>7s</u> Rge. <u>23w</u> Co. <u>Graham</u> State <u>Ks</u>		
No. of Copies _____	Distribution Sheet _____	Yes _____ No _____ Evaluation _____

Interval Tested <u>3848-3926</u>	Drill Pipe Size <u>4 1/2 XH</u>
Anchor Length <u>78</u>	Top Choke — 1" _____ Bottom Choke — 3/4" _____
Top Packer Depth <u>3843</u>	Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
Bottom Packer Depth <u>3848</u>	Wt. Pipe I.D. — 2.7 Ft. Run _____
Total Depth <u>3926 LTD</u>	Drill Collar — 2.25 Ft. Run <u>300</u>
Mud Wt. <u>8.9</u> lb/gal.	Viscosity <u>50</u> Filtrate <u>7.2</u>

Tool Open @ 5:12 AM Initial Blow weak 1" building to 13"
(2" blowback on shulin)

Final Blow 1" blow building to bottom of bucket in 23 minutes
(2" blow back on shulin)

Recovery — Total Feet	Feet of Gas in Pipe	Flush Tool?
Rec. <u>300</u> Feet Of <u>cl gassy oil</u>	<u>240</u>	
Rec. <u>60</u> Feet Of <u>HOCM</u>	<u>15</u> %gas <u>85</u> %oil	%water _____ %mud _____
Rec. _____ Feet Of _____	%gas <u>25</u> %oil	%water <u>75</u> %mud _____
Rec. _____ Feet Of _____	%gas _____ %oil	%water _____ %mud _____
Rec. _____ Feet Of _____	%gas _____ %oil	%water _____ %mud _____
Rec. _____ Feet Of _____	%gas _____ %oil	%water _____ %mud _____

BHT 106 °F Gravity 38 °API @ 80 °F Corrected Gravity 36 °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud <u>2008</u>	PSI AK1 Recorder No. <u>22150</u>	Range <u>3925</u>
(B) First Initial Flow Pressure <u>57</u>	PSI @ (depth) <u>3920</u>	w/Clock No. <u>27501</u>
(C) First Final Flow Pressure <u>91</u>	PSI AK1 Recorder No. <u>1024</u>	Range <u>4400</u>
(D) Initial Shut-In Pressure <u>1384</u>	PSI @ (depth) <u>3925</u>	w/Clock No. <u>27573</u>
(E) Second Initial Flow Pressure <u>114</u>	PSI AK1 Recorder No. _____	Range _____
(F) Second Final Flow Pressure <u>171</u>	PSI @ (depth) _____	w/Clock No. _____
(G) Final Shut-In Pressure <u>1362</u>	PSI Initial Opening <u>30</u>	Test _____
(H) Final Hydrostatic Mud <u>1920</u>	PSI Initial Shut-In <u>60</u>	Jars _____

Final Flow <u>60</u>	Safety Joint _____
Final Shut-In <u>90</u>	Straddle _____
	Circ. Sub _____
	Sampler _____
	Extra Packer _____
	Other _____

Approved By John Christensen

Our Representative Paul Simpson

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

ORIGINAL

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

ALLIED CEMENTING CO., INC.

1575

New

Home Office P. O. Box 31

Russell, Kansas 67665

Date	7-15-92	Sec	2	Twp.	7S	Range	23W	Called Out	7:00PM	On Location	9:00PM	Job Start	9:45PM	Finish	10:15PM
Lease	FT. HAY'S	Well No.	#1	Location	Hill City	7N	2W	1/4N	GRAHAM	County	GRAHAM	State	KANSAS		
Contractor	MALLARD DRLG RIG #1 JVTAK										Owner	To Allied Cementing Co., Inc. You are hereby requested to rent cementing equipment and furnish cement and helper to assist owner or contractor to do work as listed.			
Type Job	SURFACE														
Hole Size	12 1/4	T.D.	260'												
Csg.	8 5/8	20#	Depth	258'											
Tbg. Size		Depth													
Drill Pipe		Depth													
Tool		Depth													
Cement Left in Csg.	15	Shoe Joint													
Press Max.		Minimum													
Meas Line		Displace	15 3/4 BBL												
Perf.	EQUIPMENT														

Pumptrk #177	No.	Cementer	Blum
		Helper	9210
Pumptrk #212	No.	Cementer	
		Helper	
Bulktrk #212		Driver	Joe
Bulktrk		Driver	

DEPTH of Job		
Reference:	Pump Truck Chrg	380.00
	2.00 per mile	84.00
1-8 5/8	WOODEN WIPER Plug	20.00
	Sub Total	
	Tax	
	Total	484.00

Remarks: Cement Circulated

[Signature]

Charge To: NORTHERN LIGHTS OIL COMPANY
 Street: P.O. Box 164
 City: Andover State Kan 67002

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

Purchase Order No. *[Signature]*

CEMENT

Amount Ordered	150 SK	6 9/10	2 7/8 Gel	3 3/8 CC
Consisting of	Common	90	SKs @ 5.25	472.50
	Poz. Mix	60	SKs @ 2.25	135.00
	Gel.	3	SKs @ 6.25	18.75
	Chloride	5	SKs @ 21.00	105.00
	Quickset			

Handling	1.00 per SK	150.00
Mileage	4¢ per SK/mile	252.00
	Sub Total	
	Total	1,114.50

RECEIVED
 STATE CORPORATION COMMISSION
 JAN 19 1993
 Floating Equipment
 CONSERVATION DIVISION
 WICHITA, KANSAS

Phone 313-483-2627, Russell, Kansas

Phone Plainville 913-434-2812

Phone 316-793-5861, Great Bend, Kansas

Phone Ness City 913-798-3843

ALLIED CEMENTING CO., INC.

4647

Home Office P. O. Box 31

Russell, Kansas 67665

New

Date	1-7-93	Sec	2	Twp.	7	Range	23	Called Out	6:00AM	On Location	9:00AM	Job Start	11:00AM	Finish	1:30PM	
Lease	Fort Hays	Well No. #	1			Location	Hill City TN 1/2 N			County	Graham	State	Kansas			
Contractor	Express Well Service						Owner	Same								
Type Job	Circulate Cement															
Hole Size	I.D.															
Csg.	4 1/2"			Depth												
Tbg. Size	2"			Depth												
Drill Pipe	Depth															
Tool	Depth															
Cement Left in Csg.	Shoe Joint															
Press Max.	Minimum															
Meas Line	Displace															
Perf.	@ 700'															

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 Northern Lights oil CO
Street P.O. Box 164
City Andover State Kan 67002
The above was done to satisfaction and supervision of owner agent or contractor.

Purchase Order No. *[Signature]*
X
CEMENT # Flo-seal
Amount Ordered 185 SKS 65/35 Poz. 10% (w) 1% CC

Consisting of	50 SKS COM 3% CC		
Common	170	5.50	935.00
Poz. Mix	65	2.50	162.50
Gel.	13	6.75	87.75
Chloride	3	21.00	63.00
Quickset	F10 Seal 50# 100 50.00		
Sales Tax			

Handling	100	235.00
Mileage 42m	.04	394.80
Sub Total		1928.05
Total		

EQUIPMENT

# 191 No.	Cementor	Walt D
Pumptrk Okley	Helper	M Kaufman
No.	Cementor	
Pumptrk	Helper	
# 212	Driver	Lawrence H.
Bulktrk # 315	Driver	Ken B.

DEPTH of Job

Reference:	#	Pump Tok	475.00
		200 Per mile	84.00
		1-4 1/2 Rubber Plug	33.00
		Sub Total	592.00
		Tax	
		Total	

Remarks: Perforated @ 700'
Down 4 1/2" casing mixed 185 SKS 65/35 Poz.
followed with 50 SKS COM Released plug &
pumped to 640' Cement did circulate
to surface

[Signature]

Phone 913-483-2627, Russell, Kansas

Phone 316-793-5861 Great Bend, Kansas

new ORIGINAL

Phone Plainville 913-434-2812

Phone Ness City 913-798-3843

ALLIED CEMENTING CO., INC.

5680

Home Office P. O. Box 31

Russell, Kansas 67665

Date	1-6-93	Sec	2	Twp	7	Range	23	Called Out	7:00 AM	On Location	9:30 AM	Job Start	12:30 PM	Finish	4:30 PM
Lease	PT Hayes	Well No.	A 1	Location	7NW 2N Hill City			County	Graham	State	KS				
Contractor	Express Well Services					Owner					Northern Lights Oil				
Type Job	Squeeze					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 1/8"		T.D.												
Csg.	4 1/2"		Depth												
Tbg. Size	2"		Depth 1090'												
Drill Pipe			Depth												
Tool			Depth												
Cement Left in Csg.			Shoe Joint												
Press Max.			Minimum												
Meas Line			Displace												
Perf.	1200'														

Charge To Northern Lights Oil
 Street P.O. Box 164
 City Andover State Kan 67002
 The above was done to satisfaction and supervision of owner agent or contractor.

Purchase Order No. *AM Line*
 X

CEMENT

Amount Ordered 50 sks com w/ 3% cc
 150 65/35 10% gel 1% cc 1/4" coll

Consisting of			
Common	148 sks	550	814.00
Poz. Mix	52 sks	250	130.00
Gel.	17 sks	675	114.75
Chloride	4 sks	21.00	84.00
Quickset			
	F10 Seal 38"	100	38.00

EQUIPMENT

No.	Cementier	Dean Rundle
Pumptrk 11024	Helper	
No.	Cementier	
Pumptrk 2034	Helper	Carl Battib
	Driver	Lawrence Hilgenberg
Bulktrk 212		
Bulktrk 218	Driver	Jason Glenney

Handling	100	200.00
Mileage 42m	.04	336.00
Sub Total		1716.75
Total		

DEPTH of Job 1090'

Reference:	Pump Truck	475.00
	2 ^{cc} per mile 42 miles	84.00
	Sub Total	559.00
	Tax	
	Total	

Remarks: Ben Packer 70 1239 pressured up to 700 PSI Held
 Pulled to 1090' InJ Rate 1/2 BPM at 500 PSI. Pumped
 150 sks 65/35 10% gel 1% cc 1/4" coll followed w/ 50sk chf w/ 3% cc
 displaced 5 1/2 Bbl

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

ORIGINAL

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

ALLIED CEMENTING CO., INC.

4090

Home Office P. O. Box 31

Russell, Kansas 67665

Date	1-5-93	Sec.	2	Twp.	7	Range	23	Called Out		On Location	7:30 AM	Job Start		Finish	2:30 PM
Lease	Fort Hays		Well No.	1		Location	Hill City 7N 1W 1/4 N			County	Graham		State	KS	
Contractor	Express Well Service														
Type Job	port collar														
Hole Size								T.D.							
Csg.	4 1/2"							Depth							
Tbg. Size	2"							Depth							
Drill Pipe								Depth							
Tool	Baker							Depth	28	2395					
Cement Left in Csg.								Shoe Joint							
Press Max.								Minimum							
Meas Line								Displace							
Perf.															

Owner
 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 Northern Lights Oil Co.
 Street P.O. Box 164
 City Andover State Kan 67002
 The above was done to satisfaction and supervision of owner agent or contractor.

Purchase Order No. *AM Line*
 X

2 sand		CEMENT		25 com	
Amount Ordered	475.35	10% gel	1% cc	4 1/2 flo seal	
Consisting of	Used 175	6 3/4	10% gel	25 com	
Common	139		550	764.50	
Poz. Mix	61		250	152.50	
Gel.	22		6.75	148.50	
Chloride	2		21.00	42.00	
Quickset	2 sand		4.75	9.50	
Flo Seal	44 #		100	44.00	

EQUIPMENT

No.	Cementor	
Pumptrk 153	Helper	Dave Mack
No.	Cementor	
Pumptrk	Helper	
Hays	Driver	Steve Mike
Bulktrk Hays	Driver	

Handling	100	200.00
Mileage 42	.04	336.00
Sub Total		1697.00
Total		

DEPTH of Job

Reference:		
	Pump trak chg	475.00
	1/2 gel per mile 42m	84.00
	Sub Total	559.00
	Tax	
	Total	

Remarks: tested casing & plug @ 500psi spot 2 sand
 opened collar Injection Rate @ 1/2 - 3/8" @ 500-1000psi
 mixed 10 gel followed by app. 175 6 3/4 10% gel followed by 25 com
 w/ no blow up annulus, displaced & closed port collar, Ran 35 ft
 & air cement & hole clean