



KANSAS CORPORATION COMMISSION 1100917
OIL & GAS CONSERVATION DIVISION

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 34357
Name: Atlas Operating LLC
Address 1: 15603 Kuykendahl, Ste 200
Address 2: _____
City: HOUSTON State: TX Zip: 77090 + 3655
Contact Person: zafar ullah
Phone: (281) 893-9400
CONTRACTOR: License # 34357
Name: Atlas Operating LLC
Wellsite Geologist: Saman Sharifaie
Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SLOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____
Well Name: _____
Original Comp. Date: _____ Original Total Depth: _____

Deepening Re-perf. Conv. to ENHR Conv. to SWD

Conv. to GSW

Plug Back: _____ Plug Back Total Depth _____

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

ENHR Permit #: _____

GSW Permit #: _____

<u>06/13/2012</u>	<u>06/28/2012</u>	<u>08/01/2012</u>
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-055-22143-00-00

Spot Description: _____
SE NW NW Sec. 19 Twp. 22 S. R. 33 East West
990 Feet from North / South Line of Section
990 Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: Finney
Lease Name: Garden City Well #: 24-19
Field Name: Damme

Producing Formation: St Louis
Elevation: Ground: 2907 Kelly Bushing: 2915
Total Depth: 4924 Plug Back Total Depth: 4870
Amount of Surface Pipe Set and Cemented at: 340 Feet
Multiple Stage Cementing Collar Used? Yes No
If yes, show depth set: 2036 Feet
If Alternate II completion, cement circulated from: 4924
feet depth to: 0 w/ 1000 sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: 0 ppm Fluid volume: 0 bbls
Dewatering method used: Evaporated
Location of fluid disposal if hauled offsite: _____
Operator Name: _____
Lease Name: _____ License #: _____
Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West
County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that 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.

Submitted Electronically

KCC Office Use ONLY

- Letter of Confidentiality Received
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: Deanna Garrison Date: 11/14/2012



1100917

Operator Name: Atlas Operating LLC Lease Name: Garden City Well #: 24-19
 Sec. 19 Twp. 22 S. R. 33 East West County: Finney

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems 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 test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run: Attached	<input checked="" type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">Name</td> <td style="width:20%;">Top</td> <td style="width:20%;">Datum</td> </tr> <tr> <td>Heebner</td> <td>3815</td> <td>-900</td> </tr> <tr> <td>Lansing</td> <td>3864</td> <td>-949</td> </tr> <tr> <td>Cherokee</td> <td>4494</td> <td>-1579</td> </tr> <tr> <td>Morrow Shale</td> <td>4688</td> <td>-1773</td> </tr> <tr> <td>Miissippi</td> <td>4768</td> <td>-1853</td> </tr> </table>	Name	Top	Datum	Heebner	3815	-900	Lansing	3864	-949	Cherokee	4494	-1579	Morrow Shale	4688	-1773	Miissippi	4768	-1853
Name	Top	Datum																	
Heebner	3815	-900																	
Lansing	3864	-949																	
Cherokee	4494	-1579																	
Morrow Shale	4688	-1773																	
Miissippi	4768	-1853																	

CASING RECORD <input checked="" type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (in O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
surface	12.25	8.625	24	340	A	225	CC-3 % , Gel 2 %
production	7.875	4.50	10.50	4924	A, C, lite	1000	Gel 2 % , Gilsonite 5 #

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate				
___ Protect Casing	-			
___ Plug Back TD				
___ Plug Off Zone	-			

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth
4	4664-4667; 4770-4773; 4812-18	1500 gals 15 % nefe acid	4664-4818

TUBING RECORD: Size: <u>2.375</u> Set At: <u>4800</u> Packer At: _____		Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Date of First, Resumed Production, SWD or ENHR. _____		Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____	
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls. Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: <u>4664-4818</u> <u>mississippi</u>
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Form	ACO1 - Well Completion
Operator	Atlas Operating LLC
Well Name	Garden City 24-19
Doc ID	1100917

All Electric Logs Run

Dual Induction
Compensated Neutron-Density
Microlog
Cbl

ALLIED

OIL & GAS SERVICES, LLC

INVOICE

PO Box 93999
Southlake, TX 76092

Invoice Number: 131520

Invoice Date: Jun 13, 2012

Page: 1

Voice: (817) 546-7282
Fax: (817) 246-3361

001598



Bill To:

Atlas Operating
15603 Kuykendahl Suite #200
Houston, TX 77090-3655

Customer ID	Well Name/# or Customer P.O.	Payment Terms	
Atlas	Garden City B 24-19	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	Jun 13, 2012	7/13/12

Quantity	Item	Description	Unit Price	Amount
225.00	MAT	Class A Common	16.25	3,656.25
4.00	MAT	Gel	21.25	85.00
8.00	MAT	Chloride	58.20	465.60
243.30	SER	Cubic Feet	2.10	510.93
832.50	SER	Ton Miles	2.35	1,956.37
1.00	SER	Surface	1,125.00	1,125.00
43.00	SER	Extra Footage	0.95	40.85
75.00	SER	Heavy Vehicle Mileage	7.00	525.00
1.00	SER	Manifold Head Rental	200.00	200.00
75.00	SER	Light Vehicle Mileage	4.00	300.00
1.00	EQP	8 5/8 Surface Plug	92.00	92.00
1.00	EQUIP OPER	Darren Racette		
1.00	EQUIP OPER	Tyler Flipse		
1.00	OPER ASSIST	Chris Helpingstine		

*KS Drilling
Rig # 2
L. Hearld*

RECEIVED JUN 25 2012

DESCRIPTION Cement

ACCOUNT # 160015

WELL NAME _____

AFE # _____

DATE _____ APPROVED E. Allen
6/26/12

ALL PRICES ARE NET, PAYABLE
30 DAYS FOLLOWING DATE OF
INVOICE. 1 1/2% CHARGED
THEREAFTER. IF ACCOUNT IS
CURRENT, TAKE DISCOUNT OF

\$2486.74

ONLY IF PAID ON OR BEFORE
Jul 8, 2012

Subtotal	8,957.00
Sales Tax	320.26
Total Invoice Amount	9,277.26
Payment/Credit Applied	
TOTAL	9,277.26

ALLIED OIL & GAS SERVICES, LLC 056216

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

SERVICE POINT

Osage

DATE <u>6-13-12</u>	SEC <u>19</u>	TWP <u>22</u>	RANGE <u>33</u>	CALLED OUT	ON LOCATION <u>6-14-12</u> <u>12:30 AM</u>	JOB START <u>6-14-12</u> <u>7:30 AM</u>	JOB FINISH <u>8:00 AM</u>
LEASE <u>Barlow City B</u>	WELL # <u>2419</u>		LOCATION <u>Barlow Rd SW - Swinto</u>			COUNTY <u>Finney</u>	STATE <u>Ks.</u>
OLD OR <input checked="" type="checkbox"/> NEW (Circle one)							

CONTRACTOR Pioneer #2

TYPE OF JOB Surface

HOLE SIZE 12 1/4 TD 350

CASING SIZE 8 5/8 DEPTH 343

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRBS MAX MINIMUM

MEAS. LINE SHOBJOINT

CEMENT LEFT IN CSG. 15'

PERFS.

DISPLACEMENT 20.87

OWNER Same

CEMENT

AMOUNT ORDERED 225 sks Cem 3% CC
2% Gel

COMMON	<u>225 sks</u>	<u>\$16.25</u>	<u>\$3656.25</u>
POZMIX			
OBL	<u>4 sks</u>	<u>\$21.25</u>	<u>\$85.00</u>
CHLORIDE	<u>8 sks</u>	<u>\$58.22</u>	<u>\$465.76</u>
ASC			
HANDLING	<u>213.30</u>	<u>\$2.72</u>	<u>\$580.22</u>
MILBAGE	<u>1110 x 75 x</u>	<u>\$2.32</u>	<u>\$2575.20</u>
			TOTAL <u>\$6674.15</u>

EQUIPMENT

PUMP TRUCK CEMENTER Damon Pasath
#423-281 HELPER Tyler Filose

BULK TRUCK
#347 DRIVER Chris Helpingstone

BULK TRUCK
DRIVER

SERVICE

DEPTH OF JOB	<u>343</u>		
PUMP TRUCK CHARGE			<u>\$1125.00</u>
EXTRA FOOTAGE	<u>43</u>	<u>.75</u>	<u>\$32.25</u>
MILBAGE	<u>75</u>	<u>\$7.00</u>	<u>\$525.00</u>
MANIFOLD	<u>Hand</u>		<u>\$200.00</u>
LV Mileage		<u>\$4.00</u>	<u>\$300.00</u>
			TOTAL <u>\$2107.15</u>

REMARKS:

mix 225 sks Cement
Displace with water
Cement Did Circulate

Thank You.

CHARGE TO: Atlas

STREET _____

CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

<u>1 Surface Plug</u>		<u>\$92.00</u>
		TOTAL <u>\$92.00</u>

To: Allied Oil & Gas Services, LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) 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 and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Leonard Heard

SIGNATURE Leonard Heard

SALTS TAX (If Any) _____

TOTAL CHARGES 8,875.30

DISCOUNT _____ IF PAID IN 30 DAYS

Bid 20/0/20/45



001669

INVOICE

PO Box 93999
Southlake, TX 76092

RECEIVED JUL - 9 2012

Invoice Number: 131789
Invoice Date: Jun 30, 2012
Page: 1

Voice: (817) 546-7282
Fax: (817) 246-3361



Bill To:
Atlas Operating
15603 Kuykendahl Suite #200
Houston, TX 77090-3655

Customer ID	Well Name/ # or Customer P.O.	Payment Terms	
Atlas	Garden City #24-19	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-02	Oakley	Jun 30, 2012	7/30/12

Quantity	Item	Description	Unit Price	Amount
200.00	MAT	Lite Type 2	14.50	2,900.00
4.00	MAT	Gel		
200.00	MAT	ASC	18.00	3,800.00
19.00	MAT	Salt		
1,000.00	MAT	Gilsonite	0.89	890.00
50.00	MAT	FloSeal	2.70	135.00
500.00	MAT	Super Flush	1.27	635.00
480.95	SER	Handling	2.10	1,010.00
1,533.02	SER	Ton Miles	2.35	3,602.60
1.00	SER	Production	2,405.00	2,405.00
75.00	SER	Heavy Vehicle Mileage	7.00	525.00
1.00	SER	Manifold Head Rental	200.00	200.00
75.00	SER	Light Vehicle Mileage	4.00	300.00
1.00	EQP	4 1/2 DV Tool	3,187.00	3,187.00
1.00	EQP	4 1/2 Latkh Down Plug Assy	233.00	233.00
1.00	EQP	4 1/2 AFU Float Shoe	327.00	327.00
2.00	EQP	Basket	270.00	540.00
11.00	EQP	Centralizers	48.00	528.00
1.00	EQUIP OPER	Darren Racette		
1.00	EQUIP OPER	Tyler Flipse		
1.00	OPER ASSIST	Brandon Wilkinson		

*L. Heard
KS-R19#2
E. Allen
7/12/12
Cement
160015*

ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. 1 1/2% CHARGED THEREAFTER. IF ACCOUNT IS CURRENT, TAKE DISCOUNT OF

\$ _____

ONLY IF PAID ON OR BEFORE
Jul 25, 2012

Subtotal	Continued
Sales Tax	Continued
Total Invoice Amount	Continued
Payment/Credit Applied	
TOTAL	Continued



PO Box 93999
Southlake, TX 78092

Voice: (817) 548-7282
Fax: (817) 248-3381

INVOICE

Invoice Number: 131789
Invoice Date: Jun 30, 2012
Page: 2



Bill To:
Atlas Operating 15603 Kuykendahl Suite #200 Houston, TX 77090-3855

Customer ID	Well Name/# or Customer P.O.	Payment Terms	
Atlas	Garden City #24-19	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-02	Oakley	Jun 30, 2012	7/30/12

Quantity	Item	Description	Unit Price	Amount
1.00	OPER ASSIST	Adam Holcomb		
1.00	OPER ASSIST	Jeremy Sterger		
1.00	CEMENTER	Larene Wentz		
DESCRIPTION _____ ACCOUNT # _____ WELL NAME _____ AFE # _____ DATE _____ APPROVED _____				

ALL PRICES ARE NET, PAYABLE
30 DAYS FOLLOWING DATE OF
INVOICE. 1 1/2% CHARGED
THEREAFTER. IF ACCOUNT IS
CURRENT, TAKE DISCOUNT OF

\$ 5350.42

ONLY IF PAID ON OR BEFORE
Jul 25, 2012

Subtotal	21,217.60
Sales Tax	981.54
Total Invoice Amount	22,199.14
Payment/Credit Applied	
TOTAL	22,199.14

ALLIED OIL & GAS SERVICES, LLC 056229

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

SERVICE POINT:

Cakley

DATE <u>6-30-12</u>	SEC. <u>19</u>	TWP. <u>22</u>	RANGE <u>33</u>	CALLED OUT	ON LOCATION	JOB START <u>3:20 pm</u>	JOB FINISH <u>4:00 pm</u>
BASE <u>Carleton City</u>				WELL # <u>24-19</u>	LOCATION <u>Parlow Rd 5 1/2 W - Swinto</u>	COUNTY <u>Flory</u>	STATE <u>Ks</u>
OLD OR <input checked="" type="checkbox"/> NEW (Circle one)							

CONTRACTOR Pipmer #2
 TYPE OF JOB Production 2 Stage
 HOLE SIZE 7 7/8 I.D. 5000'
 CASING SIZE 4 1/2 DEPTH 4924'
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DV DEPTH 2700'
 REFS. MAX. MINIMUM
 WEAS. LINE SHOE JOINT 21.50
 CEMENT LEFT IN CSG. 21.50
 BERFS.
 DISPLACEMENT 77.95 bbl

OWNER Janie
 CEMENT
 AMOUNT ORDERED 200 sks Lite 1/4 Floreal
200 sks R.S. 5" Gilsomite 10% Salt 2% Gel
500 gal Super Flush.
 COMMON Lite Type (R) 27" @ 14.50 = \$2900.00
 FOZ MIX
 GEL 4 sks @ \$21.25 = NC
 CHLORIDE
 ASC 270 sks @ \$11.00 = \$3000.00
Salt 19 sks @ \$21.25 = NC
Gilsomite 1000' @ 3.87 = \$3870.00
Floreal 50" @ \$3.50 = \$175.00
Super flush 500 gal @ \$1.30 = \$635.00
 HANDLING @ 480.95 = \$1040.00
 MILEAGE 22.42 @ \$12.50 = \$280.25
TOTAL 12972.00

EQUIPMENT
 PUMP TRUCK CEMENTER Larcan Kacotte
428-281 HELPER Tyler Flipse
 JULK TRUCK
328-308 DRIVER Bronson Wilkison
 JULK TRUCK
326-304 DRIVER Adam Holman + Jeremy Stager
326-340 LaRone Wertz

REMARKS:
Run casing Pump Ball Thru
Mix Super Flash mix 200 sks Lite mix 200 sks
150' Displacement meter and Land Flag
Float held open DV Tool Circulate br.

Frank Han.

CHARGE TO: Atlas operating
 TREET
 CITY _____ STATE _____ ZIP _____

SERVICE
 DEPTH OF JOB 4924'
 PUMP TRUCK CHARGE \$2405.00
 EXTRA FOOTAGE
 MILEAGE 75 @ \$7.00 = \$525.00
 MANIFOLD Head @ \$200.00
1 v mileage @ \$400.00 = \$400.00
TOTAL \$3430.00

PLUG & FLOAT EQUIPMENT
1/2 Weatherford
1 DV Tool @ \$387.00
1 APV Float Shoe @ \$387.00
1 Latub Down Plug Heavy @ \$233.00
2 Baskets @ \$270.00 = \$540.00
11 Centralizers @ \$48.00 = \$528.00
TOTAL \$4815.00

To: Allied Oil & Gas Services, LLC.
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) 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 and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME _____
 SIGNATURE Leonard Heauld

Bid
 SALES TAX (If Any) _____
 TOTAL CHARGES 21,217.60
 DISCOUNT _____ IF PAID IN 30 DAYS
Bid 20/20/20/45



001668

INVOICE

PO Box 93999
Southlake, TX 76092

Invoice Number: 131748

Invoice Date: Jun 30, 2012

Voice: (817) 548-7282

Page: 1

Fax: (817) 248-3381



RECEIVED JUL - 9 2012

Bill To:
Atlas Operating
15603 Kuykendahl Suite #200
Houston, TX 77090-3655

Customer ID	Well Name/# or Customer ID	Payment Terms	
Atlas	Garden City #24-19	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-02	Oakley	Jun 30, 2012	7/30/12

Quantity	Item	Description	Unit Price	Amount
600.00	MAT	Light Weight	14.50	8,700.00
150.00	MAT	Class C	22.15	3,322.50
3,000.00	MAT	Gilsonite	0.89	2,670.00
150.00	MAT	FloSeal	2.70	405.00
868.80	SER	Handing'	2.10	1,824.48
2,736.75	SER	Ton Miles	2.35	6,431.36
1.00	EQUIP OPER	Darren Racette		
1.00	EQUIP OPER	Tyler Flipse		
1.00	OPER ASSIST	Adam Holcomb		
1.00	OPER ASSIST	Jeremy Sterger		
1.00	OPER ASSIST	Brandon Wilkinson		

L Heard

DESCRIPTION Cement

ACCOUNT # 160015

WELL NAME _____

AFE # _____

DATE _____ APPROVED E Allen

7/12/12

ALL PRICES ARE NET, PAYABLE
30 DAYS FOLLOWING DATE OF
INVOICE. 1 1/2% CHARGED
THEREAFTER. IF ACCOUNT IS
CURRENT, TAKE DISCOUNT OF

\$ 6278.51

ONLY IF PAID ON OR BEFORE
Jul 25, 2012

Subtotal	23,353.34
Sales Tax	1,124.76
Total Invoice Amount	24,478.10
Payment/Credit Applied	
TOTAL	24,478.10

API #15-065-22143

API #15-063-21986

Saman Sharifaie

Petroleum Geologist

GEOLOGIST'S REPORT DRILLING TIME AND SAMPLE LOG

COMPANY Atlas Operating, LLC
 LEASE Garden #24-19
 FIELD Damme
 LOCATION 990' FNL & 990' FWL
 SEC 19 TWSP 22S RGE 33W
 COUNTY Finney STATE Kansas
 CONTRACTOR Pioneer Drilling #2
 SPUD 6/13/12 COMP 06/29/12
 RTD 4980' LTD 4924'
 MUD UP 2900' TYPE MUD Chemical

ELEVATIONS

KB 2915'

DF _____

GL 2907'

Measurements Are All
From Kelly Bushing

CASING

CONDUCTOR _____
 SURFACE 8-5/8" at 348'
 PRODUCTION 5-12" at 4924'

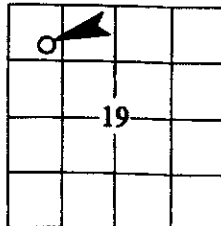
ELECTRICAL SURVEYS

CND; DIL; Micro

Superior

SAMPLES SAVED FROM 3900' TO RTD
 DRILLING TIME KEPT FROM 3700' TO RTD
 SAMPLES EXAMINED FROM 3900' TO RTD
 GEOLOGICAL SUPERVISION FROM 3800'
 REFERENCE WELL Garden City #17-19

Formation	Sample Tops	E-log Tops	Struct Pos.
Heebner Shale	3821 (-906)	3815 (-900)	-1
Lansing	3872 (-957)	3864 (-949)	-2
BKC	4349 (-1434)	4344 (-1429)	-2
Marmaton	4420 (-1505)	4422 (-1507)	-3
Cherokee	4494 (-1579)	4494 (-1579)	-3
Morrow Sh	4680 (-1765)	4688 (-1773)	-2
Upper Morrow Sd	4707 (-1792)	4707 (-1792)	-2
Lower Morrow Sd	4736 (-1821)	4734 (-1819)	-2
Mississippian	4766 (-1851)	4768 (-1853)	+2



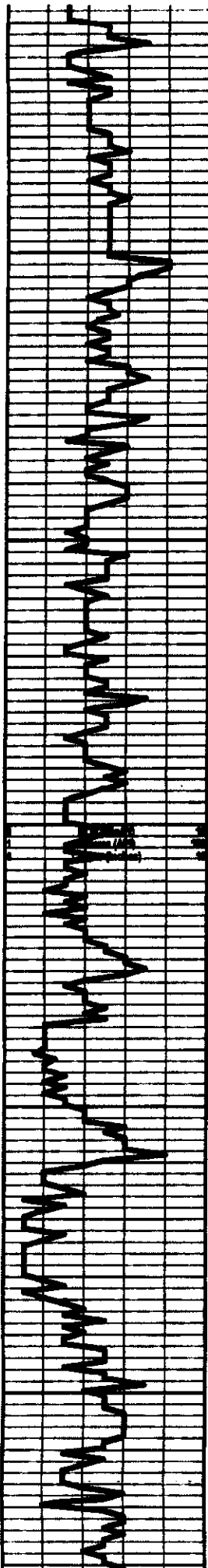
REMARKS

Respectfully Submitted,

Saman Sharifaie

API #15-065-22143

Lensing 3872' (-957)



La., omigryfa, sing, f gr, f zin, hroc w ch, all Col, n/s

La., om, microch, sing, sub-chig fite, pyr, all feat, n/s

La., s.a, fro dd O str

La., whitit gry, sing, f to med zin, all feat por, n/s

Sh., grybra, argil

La., ornibm, f to microch, chig, n/s

La., trigr, molt, f zin, feat, n/s

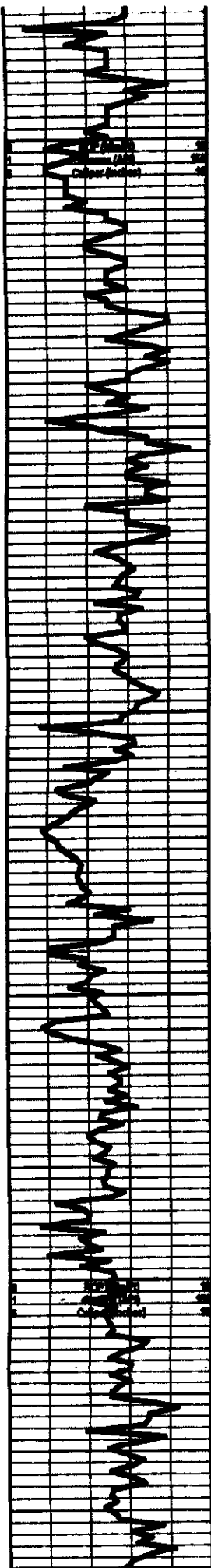
Sh., bit carb

La., whitit gryfms, molt, crypto zin, drms, dol, glauc, chig, sub-chig IP, n/s

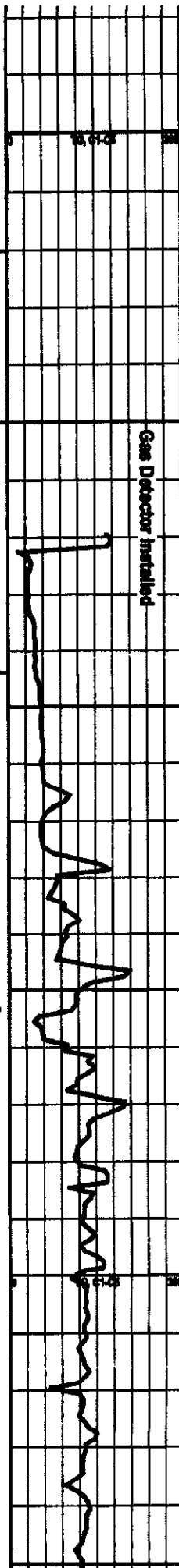
La., s.a. incr feat, incr ch

Mudco 3823'
WT 9.0
VIS 52
WL 7.2
CHL 3,000
LCM 2#

18 61-08 58

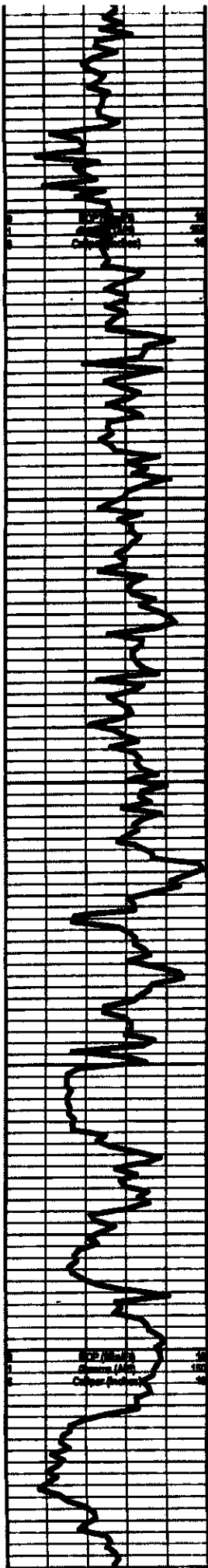


Ls., gryln, molt, microcon, fad IP, sub-chly, n/s
 Sh., blk carb
 Sh., varic, argil to silty clay
 Sh., blk carb
Marmston 4420' (-1505)
 Ls., crngry, sing/mott, p fad por, n/s
 Ls., gryln, silty, microcon, tris, tro pyr, n/s
Pawnee 4450' (-1535)
 Sh., gryln, argil
 Ls., gryln, v f gr, clay, glauc, n/s
 Sh., dk gry/dk gn, argil to silty pyr
Cherokee 4494' (-1579)
 Sh., blk carb
 Ls., gryln, silty, microcon, sil clay, n/s
 Sh., dk gry/gry argil, strat
 Ls., orn, microcon, sub-chly, mold, argil, n/s
 Ls., s.s, kvar ch, pyr
 Sh., blk carb
Mudco @ 4552'
 Ls., gryln, silty, microcon, n/s
 WT 9.1
 VIS 51
 WL 8.0
 CHL 1,500
 LCM 3#
 Sh., blk carb
 Ls., gryln, silty, druse xln to microcon, n/s
 Ls., s.s
 Sh., blk carb
 Ls., gryln, silty, microcon, sub-chly, n/s
 Sh., blk carb
 Ls., gryln, sing/mott, v f gr, druse xln, abund varic Sh, n/s



Gas Detector installed

1. Symbols of rock types are shown in the legend to the right.



Sh., blk carb **CHL 1,500**
LCM 3#
 Ls., gry'n, shg, chae xln to microsh, n/s
 Ls., ss
 Sh., blk carb
 Ls., gry'n, shg, microsh, sub-chng n/s
 Sh., blk carb
 Ls., gry'n, shg, shd, v f gr, chae xln, shd varic Sh, n/s
 Ls., unsh, v f gr, r vag por, chng, lrac, trc por, ang to shng, n/s
 Ls., gry'n, shg, microsh, sub-chng all sh, n/s
Morrow Sh 4680 (-1765)
 Sh., blk carb
 Ls., ss, r gls, cut flour, SFO
 Sh., dk gry'blk varic fl, shly IP
 Sh., varic, shly
Upper Morrow Sh 4707 (-1782)
 SS., ch'n, f to med gr, sh, shng, arid, sh ocr, trc flour, all SLFO
 Ls., gry'n, shg, chae xln, all sh, trc ch, trc R Sh, n/s
Lower Morrow Sh 4736 (-1821)
 SS., gry' f gr, arid, rmd, glauc, lrac, no ocr, trc gr flour, n/s
 Sh., gry'blk varic, f gr, lragran por, mdd, trc flour, n/s
 SS., ch'gry'form, f to med gr, lragran por, shng, cong, no flour, no ocr, n/s
Mississippi 4766 (-1851)
 Sh., varic, shly sh
 Sh., ss, all chy
 Ls., cm, microsh, shg, chy pr arid, chae, trc flour, n/s
 Sh., blk carb/varic, shly
 Sh., gry' mica
 SS., wh'com/gry, f to med gr, lragran por, gls incl, dd O shd, trc flour, NSFO
 Sh., gry'blk carb, mica, glauc incl

CHL 1,500
LCM 3#

Mudco @ 4788'
 WT 9.4
 VIS 60
 WL 8.8
CHL 1,500
LCM 2#

Gas Detector Inoperable



Ls., gryfln, shg, druse sh, all feat, trc ch, trc il shal, n/s
 Lower Morrow Sh 4730 (-1821)
 Sh., gry f gr, arid, rmd, glauc, lenc, no ock, trc gn flour, n/s
 Shal., gry/wh/orm, f gr, intgran por, mdd, trc flour, n/s
 Sh., chr/gry/brn, f to med gr, intgran por, abang, coag, no flour, no ock, n/s
Mississippi 4766 (-1851)
 Sh., varic, slty, tra
 Sh., s.s, sil chly
 Ls., crn, microsh, ang, chly pr arid, druse, trc flour, n/s
 Sh., blk carb/veric, slty
 Sh., gry mica
 Sh., whit/cr/gry, f to med gr, intgran por, gls incl, dd O shnd, trc flour, NFO
 Sh., gry/blk carb, mica, glauc incl
 Sh., crn, f to lg gr, pr arid, abang, sub-chly, flour, no ock, n/s
 Sh., varic, mica, argil to slty
 Sh., chr/gry w gn incl, intgran por, rr dd O sh, chly, pyx, abund crn Ls, no ock, no flour, n/s
 Sh., blk carb, mica
 Sh., varic, mica
 Chl., crn, tra, druse, abund varic sh, n/s
 Ls., crn, slng, f to microsh, pr intgran por, n/s
 Chl., chr/orm/brn, tra, ang, lenc, feat, trc pyx, abund varic sh, n/s
 Chl., s.s, incr wsg por
 Ls., crn/gry, moll, intgran por, chly, dd O shnd, no ock, no flour, n/s
 Chl., gryfln, tra to all wld, mica, n/s
 Ls., crn/gry, moll/abng, microsh to sh, trc feat to all Ool por, sub-chly, shly, n/s

Mudco @ 4788'
 WT 9.4
 VIS 60
 WL 8.8
 CHL 1,500
 LCM 28

Mudco @ 4920'
 WT 9.3
 VIS 54
 WL 8.8
 CHL 1,400
 LCM 48

or properties