

C	onfiden	tiality	Requested:
	Yes	N	lo

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

1076959

Form ACO-1
August 2013
Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License #			API No. 15		
Name:			Spot Description:		
Address 1:			Sec	TwpS. R	East West
Address 2:			F6	eet from North /	South Line of Section
City:	State: Z	ip:+	Fe	eet from East /	West Line of Section
Contact Person:			Footages Calculated from I	Nearest Outside Section C	Corner:
Phone: ()			□ NE □ NW	V □SE □SW	
CONTRACTOR: License #			GPS Location: Lat:	, Long: _	
Name:				(e.g. xx.xxxxx)	(e.gxxx.xxxxx)
Wellsite Geologist:			Datum: NAD27	NAD83 WGS84	
Purchaser:			County:		
Designate Type of Completion:			Lease Name:	W	/ell #:
	e-Entry	Workover	Field Name:		
	_		Producing Formation:		
☐ Oil ☐ WSW ☐ D&A	☐ SWD	∐ SIOW □ SIGW	Elevation: Ground:	Kelly Bushing:	:
	GSW	Temp. Abd.	Total Vertical Depth:	Plug Back Total C	Depth:
CM (Coal Bed Methane)	dow	Temp. Abd.	Amount of Surface Pipe Se	et and Cemented at:	Feet
☐ Cathodic ☐ Other (Co	ore, Expl., etc.):		Multiple Stage Cementing	Collar Used? Yes	No
If Workover/Re-entry: Old Well I			If yes, show depth set:		Feet
Operator:			If Alternate II completion, c	cement circulated from:	
Well Name:			feet depth to:	w/	sx cmt.
Original Comp. Date:					
Deepening Re-perf	•	NHR Conv. to SWD	Drilling Fluid Managemer	nt Plan	
☐ Plug Back	Conv. to G		(Data must be collected from the		
Commingled	Pormit #:		Chloride content:	ppm Fluid volume	e: bbls
Dual Completion			Dewatering method used: _		
SWD			Location of fluid disposal if	hauled offsite	
☐ ENHR			· ·		
GSW	Permit #:		Operator Name:		
_ _			Lease Name:	License #:_	
Spud Date or Date R	eached TD	Completion Date or	QuarterSec	TwpS. R	East _ West
Recompletion Date		Recompletion Date	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
Confidentiality Requested
Date:
Confidential Release Date:
Wireline Log Received
Geologist Report Received
UIC Distribution
ALT I II III Approved by: Date:

Page Two



Operator Name:			L	ease Name: _			Well #:	
Sec Twp	S. R	East We	est C	County:				
INSTRUCTIONS: Shopen and closed, flow and flow rates if gas to	ring and shut-in pres	sures, whether sh	ut-in pressur	e reached stati	c level, hydrosta	tic pressures, bott		
Final Radioactivity Lo files must be submitted					gs must be ema	iled to kcc-well-log	gs@kcc.ks.go	. Digital electronic log
Drill Stem Tests Taker (Attach Additional		Yes	No	L		n (Top), Depth an		Sample
Samples Sent to Geo	logical Survey	Yes	No	Nam	e		Тор	Datum
Cores Taken Electric Log Run		Yes Yes	No No					
List All E. Logs Run:								
		(CASING REC	ORD Ne	w Used			
		· ·		ıctor, surface, inte	ermediate, producti		T	
Purpose of String	Size Hole Drilled	Size Casin Set (In O.D		Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
		ADD	ITIONAL CEN	MENTING / SQL	JEEZE RECORD			
Purpose:	Depth Top Bottom	Type of Cem	ent #	# Sacks Used Type and Percent Additives				
Perforate Protect Casing	100 20111111							
Plug Back TD Plug Off Zone								
1 lag on zono								
Did you perform a hydrau	ulic fracturing treatment	on this well?			Yes	No (If No, ski)	o questions 2 ar	nd 3)
Does the volume of the to		•				_	o question 3)	(" 100 ")
Was the hydraulic fractur	ing treatment information	on submitted to the c	hemical disclo	sure registry?	Yes	No (If No, fill o	out Page Three	of the ACO-1)
Shots Per Foot		ION RECORD - Bri Footage of Each Int				cture, Shot, Cement		d Depth
	, ,				,		,	
TUBING RECORD:	Size:	Set At:	Pa	acker At:	Liner Run:			
						Yes No		
Date of First, Resumed	Production, SWD or Ef		cing Method: owing	Pumping	Gas Lift C	ther <i>(Explain)</i>		
Estimated Production Per 24 Hours	Oil	Bbls. G	as Mcf	Wate	er Bl	ols. G	ias-Oil Ratio	Gravity
DIODOCITI	ON OF CAS:		, 4 CT - 1		TION:		DRODUCTIO	AN INTEDVAL.
Vented Solo	ON OF GAS: Used on Lease	Open Ho		IOD OF COMPLE \Box		nmingled	PHODUCIIC	ON INTERVAL:
	bmit ACO-18.)	Other (S	necify)	(Submit		mit ACO-4)		

Form	ACO1 - Well Completion
Operator	Mai Oil Operations, Inc.
Well Name	Haberer 'A' 4
Doc ID	1076959

Tops

Name	Тор	Datum
Anhydrite	701	+935
Tarkio Lime	2273	-637
Topeka	2530	-894
Heebner	2749	-1112
Toronto	2767	-1131
Lansing	2800	-1164
Base Kansas City	3051	-1415
Arbuckle	3081	-1445

JAMES C. MUSGROVE

Petroleum Geologist 212 Main Street P.O. Box 215 Claflin, KS 67525

Office (620) 588-4250

Res. Claflin (620) 587-3444

Mai Oil Operations Haberer 'A' #4 SE-SE-NW-SE (1450' FSL & 1375' FEL) Section 14-12s-15w Russell County, Kansas Page 1

5 1/2" Production Casing Set

Contractor:

Southwind Drilling Co (Rig #3)

Commenced:

January 17, 2012

Completed:

January 25, 2012

Elevation:

1636' K.B; 1634' D.F; 1628' G.L.

Casing program:

Surface; 8 5/8" @ 705'

Production; 5 1/2" @ 3159'

Sample:

Samples saved and examined 2200' to the Rotary Total Depth.

Drilling time:

One (1) foot drilling time recorded and kept 2200' to the Rotary Total Depth.

Measurements:

All depths measured from the Kelly Bushing.

Drill Stem Tests: There were five (5) Drill Stem Tests ran by Trilobite Testing.

Electric Log:

By Superior Well Services; DIL, CDL/CNL, Micro.

Formation	Log Depth	Sub-Sea Datum
Anhydrite	701	+935
Base Anhydrite	736	+900
Tarkio	2273	-637
Elmont	2333	-697
Topeka	2530	-894
Heebner	2748	-1112
Toronto	2767	-1131
Lansing	2800	-1164
Base Kansas City	3051	-1415
Arbuckle	3081	-1445
Rotary Total Depth	3160	-1524
Log Total Depth	3160	-1524
Log Total Depth	3160	-1524

(All tops and zones corrected to Electric Log measurements).

SAMPLE ANALYSIS, SHOWS OF OIL, TESTING DATA, ETC.

TARKIO SECTION

2210-2219' No samples, log indicates possible gas

2231-2248'

Sand; clear, gray, very fine grained, sub rounded, sub angular,

friable, micaceous, trace gas bubbles. (Good gas effect in

electric logs)

TOPEKA SECTION

2551-2560' Limestone; gray and tan, finely crystalline, poor visible porosity,

trace brown stain, trace free oil and faint odor in fresh samples.

2564-2970' Limestone; tan, cream, slightly fossiliferous, poor visible porosity,

no shows.

2675-2690' Limestone; cream, finely crystalline, slightly cherty, poor visible

porosity, no shows.

2705-2712' Limestone; cream, gray, finely crystalline, few scattered porosity,

questionable stain, no show of free oil and no odor in fresh

samples.

TORONTO SECTION

2767-2780' Limestone; cream, white, finely crystalline, chalky, poor visible

porosity, slightly cherty, no shows.

LANSING SECTION

2801-2810' Limestone; cream, light gray, finely crystalline, chalky, slightly

oolitic, fossiliferous, poorly developed porosity, trace brown stain,

trace of free oil and questionable odor in fresh samples.

2826-2832' Limestone; cream, finely crystalline, fossiliferous, trace fossil

cast and intercrystalline type porosity, brown stain, s how of free

oil and faint odor.

2838-2844' Limestone; cream, gray, fine and medium crystalline,

fossiliferous, fair fossil cast and intercrystalline porosity, trace brown spotty stain, trace of free oil and faint odor in fresh

samples.

Drill Stem Test #1

2804-2850'

Times:

30-45-60-90

Blow:

Strong

Recovery:

300' gas in pipe

40' mud

125' Heavy oil and gas cut muddy water (40% gas, 30% oil, 20% water, 10% mud)

175' very slightly oil cut water

(5% oil, 95% water)

Pressures:

ISIP 304 psi

FSIP 307 psi IFP 41-100 psi FFP 103-165 psi HSH 1421-1343 psi

2854-2850'

Limestone; gray, cream, finely crystalline, poor visible porosity,

no shows.

2875-2880'

Limestone; cream, white, finely crystalline, chalky, scattered vuggy type porosity, trace brown stain, trace of free oil and faint

odor in fresh samples.

2886-2892'

Limestone; cream, tan, fossiliferous, oolitic, chalky, few scattered porosity, trace brown stain, slightly show of free oil and faint odor in fresh samples.

Drill Stem Test #2

2863-2893'

Times:

30-30-45-60

Blow:

Strong

Recovery:

360' gas in pipe

90' heavy oil cut mud (35% oil, 65% mud)

Pressures: ISIP

ISIP 163 psi FSIP 207 psi IFP 17-37 psi FFP 35-51 psi HSH 1406-1375 psi

2896-2905'

Limestone; cream, highly oolitic, chalky, few sub oomoldic, fair oomoldic porosity, trace spotty brown stain, show of free oil and very faint odor in fresh samples.

2934-2941'

Limestone; cream, light gray, finely crystalline, slightly chalky, poorly developed porosity, no shows, plus light gray boney chert.

2951-2965'

Limestone; cream, white, oolitic, chalky, finely crystalline, fossil cast porosity, golden brown stain, spotty stain, show of free oil and very faint odor in fresh samples.

2984-2991'

Limestone; cream, oomoldic, fair oomoldic porosity, brown stain, trace free oil and faint to fair odor in fresh samples.

3013-3020'

Limestone; cream, highly oolitic, chalky in part, intercrystalline type porosity, brown stain, show of free oil and faint odor in fresh samples.

Drill Stem Test #3

2948-3025'

Times:

30-30-x-x

Blow:

Weak

Recovery:

10' oil spotted mud

Pressures: ISIP

ISIP 260 psi FSIP x psi IFP 19-21 psi FFP x psi HSH 1505-1425 psi

3040-3050'

Limestone; cream, light gray, white, finely crystalline, chalky in part, poorly developed porosity, no shows.

ARBUCKLE SECTION

3081-3090'

Dolomite; cream, buff, fine and medium crystalline, slightly sucrosic, fair intercrystalline porosity, black and brown stain,

show of free oil and faint odor in fresh samples.

3090-3096'

Dolomite; as above, slightly oolitic.

Drill Stem Test #4

3050-3096'

Times:

30-30-30-30

Blow:

Weak

Recovery:

30' clean oil 15' oil cut mud (15% oil, 85% mud)

Pressures: ISIP

871 psi **FSIP 801** psi IFP 19-26 psi FFP 31-38 psi HSH 1502-1481

3096-3104'

Dolomite; tan, cream, fine to medium crystalline, slightly oolitic, scattered vuggy and intercrystalline type porosity, black stain and saturation, show of free oil and faint odor in fresh samples.

Drill Stem Test #5

3050-3104'

Times:

30-45-45-60

Blow:

Weak

Recovery:

45' clean oil 40' oil cut mud (10% oil, 90% mud)

Pressures: ISIP

977 psi **FSIP 930** psi IFP 17-31 psi FFP 32-47 psi HSH 1506-1462 psi

3104-3120'

Dolomite; cream, tan, fine and medium crystalline, fair porosity, brown and black stain, show of free oil and faint to fair odor in fresh samples.

3120-3140'

Dolomite; cream, finely crystalline, slightly cherty, dense, trace black stain, no free oil, no odor.

3140-3150'

Dolomite; white, cream, finely crystalline, scattered porosity, brown and black stain, trace of free oil and faint odor, plus white boney chert.

3150-3160'

Dolomite; cream, finely crystalline, dense poor porosity, trace stain, no free oil and no odor, plus white boney chert.

Rotary Total Depth 3160 Log Total Depth 3160

Recommendations:

5 1/2" production casing was set and cemented in the Haberer "A" #40

Respectfully submitted;

Joshua R. Austin, Pelroleum Geologist



Mai Oil Operations

14-12-15, Russell, Ks

8411 Preston RD STE 800 Dallas TX 75225

Haberer A #4 Job Ticket: 46851

DST#: 1

ATTN: Josh Austin

Test Start: 2012.01.22 @ 04:20:43

GENERAL INFORMATION:

Time Tool Opened: 05:57:13

Time Test Ended: 11:30:43

KC "A-C"

Deviated:

No Whipstock:

ft (KB)

Test Type: Conventional Bottom Hole (Initial)

Tester:

Brett Dickinson

Unit No:

#59

Reference Elevations:

1636.00 ft (KB) 1628.00 ft (CF)

KB to GR/CF:

8.00 ft

Interval: Total Depth:

Hole Diameter:

Serial #: 8319

Press@RunDepth:

2804.00 ft (KB) To 2850.00 ft (KB) (TVD)

2850.00 ft (KB) (TVD)

7.88 inches Hole Condition: Fair

Outside

2805.00 ft (KB)

2012.01.22

Capacity:

8000.00 psig

Start Date: Start Time:

164.69 psig @

2012.01.22 04:20:48

End Date: End Time:

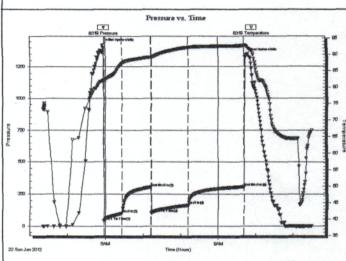
11:30:42

Last Calib .: Time On Btm: 2012.01.22

2012.01.22 @ 05:55:13 Time Off Btm: 2012.01.22 @ 09:43:43

TEST COMMENT: IF-BOB in 1.5min

ISI-1in blow FF-BOB in 2min FSI-2in blow



Time	Pressure	Temp	Annotation	
(Min.)	(psig)	(deg F)		
0	1420.56	81.94	Initial Hydro-static	
2	41.32	81.97	Open To Flow (1)	
31	99.85	87.31	Shut-In(1)	
77	303.96	89.16	End Shut-In(1)	
78	102.63	89.13	Open To Flow (2)	
136	164.69	92.22	Shut-In(2)	
226	307.47	92.70	End Shut-In(2)	
229	1343.04	92.67	Final Hydro-static	

175.00		the state of the s
175.00	VSOCW 5%O 95%W	1.36
125.00	GMWCO 40%G 30%O 20%W 10%M	1.75
40.00	Mud	0.56
0.00	300ft GIP	0.00

Gas Rates Choke (inches) Pressure (psig) Gas Rate (Mcf/d)

Trilobite Testing, Inc

Ref. No: 46851

Printed: 2012.01.23 @ 08:52:56



Mai Oil Operations

14-12-15, Russell, Ks

8411 Preston RD STE 800 Dallas TX 75225

Haberer A #4

Job Ticket: 46852

DST#: 2

ATTN: Josh Austin

Test Start: 2012.01.22 @ 17:50:14

GENERAL INFORMATION:

Formation:

KC "E-F"

Deviated:

No Whipstock:

ft (KB)

Tester:

Test Type: Conventional Bottom Hole (Reset)

Brett Dickinson

Unit No:

#59

1636.00 ft (KB)

Reference Bevations:

1628.00 ft (CF)

KB to GR/CF:

8.00 ft

Total Depth:

Time Tool Opened: 19:23:44

Time Test Ended: 23:32:44

2863.00 ft (KB) To 2893.00 ft (KB) (TVD)

2893.00 ft (KB) (TVD)

Hole Diameter:

7.88 inches Hole Condition: Fair

Inside

50.79 psig @ 2864.00 ft (KB) 2012.01.22 17:50:19

End Date:

End Time:

2012.01.22

23:32:43

Capacity: Last Calib .: 8000.00 psig

2012.01.22

Time On Btm:

2012.01.22 @ 19:21:44 Time Off Btm: 2012.01.22 @ 22:10:14

TEST COMMENT: IF-BOB in 9.5min

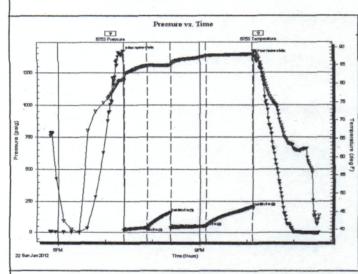
Serial #: 6753

Press@RunDepth:

Start Date:

Start Time:

ISI-No blow FF-BOB in 7min FSI-No blow



Time	Pressure	Temp	Annotation
(Min.)	(psig)	(deg F)	
0	1406.09	80.99	Initial Hydro-static
2	17.47	80.84	Open To Flow (1)
32	37.09	84.84	Shut-In(1)
61	162.59	85.01	End Shut-In(1)
62	37.68	85.00	Open To Flow (2)
106	50.79	87.50	Shut-In(2)
166	206.66	87.97	End Shut-In(2)
169	1374.66	88.90	Final Hydro-static

Description	Volume (bbl)
OCM 35%O 65%M	0.44
360ft GIP	0.00
	OCM 35%O 65%M

Gas Rates

Choke (inches) Pressure (psig)

Gas Rate (Mcf/d)

Trilobite Testing, Inc

Ref. No: 46852

Printed: 2012.01.23 @ 08:50:54



Mai Oil Operations

14-12-15, Russell, Ks

8411 Preston RD STE 800 Dallas TX 75225

Haberer A #4 Job Ticket: 46853

DST#: 3

ATTN: Josh Austin

Test Start: 2012.01.23 @ 11:10:13

GENERAL INFORMATION:

Time Tool Opened: 13:00:43

Formation:

KC "I-K"

Deviated:

No Whipstock:

ft (KB)

Test Type: Conventional Bottom Hole (Reset)

Tester:

Brett Dickinson

Unit No:

#59

Time Test Ended: 15:06:13

1636.00 ft (KB)

Interval: Total Depth:

2948.00 ft (KB) To 3025.00 ft (KB) (TVD)

Reference Bevations:

KB to GR/CF:

1628.00 ft (CF) 8.00 ft

Hole Diameter: 7.88 inches Hole Condition: Fair

Serial #: 6753

Press@RunDepth:

3025.00 ft (KB) (TVD)

Inside

20.92 psig @ 2949.00 ft (KB) 2012.01.23 End Date:

2012.01.23

Capacity: Last Calib .: 8000.00 psig

Start Date: Start Time:

11:10:18

End Time:

15:06:13

2012.01.23

Time On Btm: 2012.01.23 @ 12:58:43 Time Off Btm: 2012.01.23 @ 14:01:43

TEST COMMENT: IF-1/2in blow died back to 1/4in

ISI-No blow

	Pressure vs. Time			PF	RESSUR	E SU	MMARY	
750	CPM SPM Tree (feet)	- 70 - 70	Time (Min.) 0 2 31 61 63	Pressure (psig) 1504.96 18.78 20.92 259.62 1424.54	Temp (deg F) 83.47 83.24 84.22 85.50 85.73	Initial I Open Shut-I End S	otation Hydro-static To Flow (1) In(1) Shut-In(1) Hydro-static	
	Recovery				Gas	s Rate	es	
Length (ft)	Description	Volume (bbl)			Choke (ii	nches)	Pressure (psig)	Gas Rate (Mcf/d
10.00	oilspotted mud	0.14						

Trilobite Testing, Inc.

Ref. No: 46853

Printed: 2012.01.23 @ 15:32:11



Mai Oil Operations

14-12-15, Russell, Ks

8411 Preston RD STE 800 Dallas TX 75225

Haberer A #4 Job Ticket: 46854

DST#: 4

ATTN: Josh Austin

Test Start: 2012.01.23 @ 22:25:39

GENERAL INFORMATION:

Formation: Deviated:

Arb.

No Whipstock:

ft (KB)

Tester:

Test Type: Conventional Bottom Hole (Reset)

Brett Dickinson

Unit No:

#59

Time Tool Opened: 23:54:09 Time Test Ended: 03:19:39

3050.00 ft (KB) To 3096.00 ft (KB) (TVD)

Total Depth:

3096.00 ft (KB) (TVD)

Hole Diameter:

7.88 inches Hole Condition: Fair

Reference Elevations:

1636.00 ft (KB)

KB to GR/CF:

1628.00 ft (CF) 8.00 ft

Serial #: 6753

Press@RunDepth:

38.37 psig @

3051.00 ft (KB) End Date:

2012.01.24

Capacity:

8000.00 psig

Start Date: Start Time: 2012.01.23 22:25:44

Inside

End Time:

03:19:38

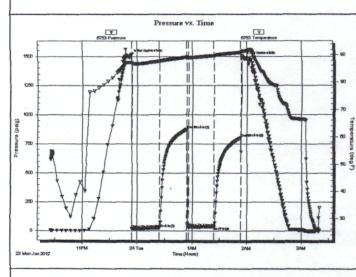
Last Calib.:

2012.01.24

Time On Btm: 2012.01.23 @ 23:52:39 Time Off Btm: 2012.01.24 @ 01:56:39

TEST COMMENT: IF-4in blow

ISI-No blow FF-1in blow FSI- No blow



Time	Pressure	Temp	Annotation
Min.)	(psig)	(deg F)	
0	1501.96	87.12	Initial Hydro-static
2	19.28	86.34	Open To Flow (1)
32	26.45	87.60	Shut-In(1)
61	871.12	89.06	End Shut-In(1)
63	31.07	88.85	Open To Flow (2)
91	38.37	89.70	Shut-In(2)
121	801.08	90.83	End Shut-In(2)
124	1480.71	91.38	Final Hydro-static
1			
			•

	Recovery	
Length (ft)	Description	Volume (bbl)
30.00	GO 10%G 90%O	0.42
15.00	OCM 15%O 85%M	0.21
Recovery from r	nultiple tests	

Gas Rates

Choke (inches) Pressure (psig) Gas Rate (Mcf/d)

Trilobite Testing, Inc

Ref. No: 46854

Printed: 2012.01.24 @ 08:39:23



Mai Oil Operations

14-12-15, Russell, Ks

8411 Preston RD STE 800 Dallas TX 75225

Haberer A #4 Job Ticket: 46855

DST#: 5

ATTN: Josh Austin

Test Start: 2012.01.24 @ 06:40:41

GENERAL INFORMATION:

Formation:

Arb.

Deviated:

No Whipstock:

ft (KB)

Test Type: Conventional Bottom Hole (Reset)

Time Tool Opened: 09:41:41 Time Test Ended: 14:03:41 Tester:

#59

Brett Dickinson

Unit No:

3050.00 ft (KB) To 3104.00 ft (KB) (TVD)

Total Depth:

3104.00 ft (KB) (TVD)

7.88 inches Hole Condition: Fair

Reference Bevations:

1636.00 ft (KB)

KB to GR/CF:

1628.00 ft (CF) 8.00 ft

Hole Diameter:

Serial #: 6753

Press@RunDepth:

Inside 47.31 psig @

06:40:46

3051.00 ft (KB)

Capacity:

8000.00 psig

Start Date: Start Time:

2012.01.24

End Date: End Time:

2012.01.24 14:03:40 Last Calib .: Time On Btm: 2012.01.24

2012.01.24 @ 09:40:11 Time On Btm: 2012.01.24 @ 09:40:11
Time Off Btm: 2012.01.24 @ 12:44:41

TEST COMMENT: IF-4.25in blow

ISI-No blow FF-2.25in blow FSI-No blow

		Pressure vs. Time				PF	RESSUR	RE SUMMARY
F	6763 Pressure		6753 Temperature		Time	Pressure	Temp	Annotation
1500		a decision a ball		- 60	(Min.)	(psig)	(deg F)	
-		1	THE STATE OF THE S	- 65	0	1505.67	83.88	Initial Hydro-static
1250			1		2	17.03	83.57	Open To Flow (1)
Ė			1 1	76	31	30.52	84.35	Shut-In(1)
1000					76	976.67	87.14	End Shut-In(1)
E			1	70 mps	77	32.33	86.86	Open To Flow (2)
700	A P P P P P P P P P P P P P P P P P P P		1	m min	120	47.31	87.51	Shut-In(2)
E	7 7 1		# 1	0 G G	181	929.87	89.34	End Shut-In(2)
200	111			7 8	185	1462.15	89.88	Final Hydro-static
F	1 1							
250	111	-	-11-					
ŧ	1	111	+11	1 10				
0 -	*****	Control of the contro	de la caracter de la	-0				
M Tue Jan	OAM SAM	Time (Hours)	12514					

	Recovery	
Length (ft)	Description	Volume (bbl)
45.00	GO 10%G 90%O	0.63
40.00	OCM 10%O 90%M	0.56
Recovery from n	nultiple tests	

Gas Rates

Choke (inches) Pressure (psig) Gas Rate (Mcf/d)

Trilobite Testing, Inc

Ref. No: 46855

Printed: 2012.01.24 @ 15:12:45

QUALITY OILWELL CEMENTING, INC.

Phone 785-483-2025

ignatur

351

Discount

Total Charge

Home Office P.O. Box 32 Russell, KS 67665 No. Cell 785-324-1041 Range Sec Twp. County State On Location Finish 14 15 CANSAS 5551 Owner To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish 705 T.D cementer and helper to assist owner or contractor to do work as listed. Charge To Depth 703 Depth Tbg. Size Depth Tool City Shoe Joint Cement Left in Csg The above was done to satisfaction and supervision of owner agent or contractor. Cement Amount Ordered 3005x 6945 3 ₹ 44 Displace Meas Line EQUIPMENT Cemente DAVE No. Common/8 Pumptrk No. Driver Bo Bulktrk Poz. Mix Driver C PK Gel. **JOB SERVICES & REMARKS** Calcium Remarks: Hulls Rat Hole Salt Mouse Hole Flowseal Centralizers Kol-Seal Baskets Mud CLR 48 D/V or Port Collar CFL-117 or CD110 CAF 38 Sand ESTABLISHED CHECULATION
PLIMPED SBL HAD AHEAD OF COMENT Handling Mileage FLOAT EQUIPMENT 14.3 STARTED CEM. Guide Shoe Centralizer Baskets CIECULAT AFU Inserts Float Shoe Latch Down THANK Pumptrk Charge Mileage / Tax

QUALITY OILWELL CEMENTING, INC. Federal Tax I,D.# 20-2886107

Date 1 25-12 Sec. Twp. Range County State On Location Finish M 12 IS RUSE! KS On Location Finish M 12 IS RUSE! KS On Location P 125-12 IS RUSE! KS ON Location P 125-	Phone 785-483-2025 Cell 785-324-1041			ox 32 Russ	ell, KS 67665	No.	571
Lease Haberes "H" Well No. 4 Location Russell, Ks - 7 N to Mellard Ray Contractor Stuth 2014 #3 Owner TU Type Job Production Hole Size N8" T.D. 3160' Cag. 52" 14 # New Depth TDg. Size Depth Street SVII Restor Rat State IX 7 \$225 The above was done to satisfaction and supervision of owner agent or contractor. Meas Line Displace 16 % BC Cement Amont Ordered 50 50 18% Salt 2%61 WF.S. Pumpirk S No. Cementer T 1500 Common Common Ordered 50 50 18% Salt 2%61 WF.S. Bulktrk No. Dirver Mike Bulktrk W No. Dirver Mike JOB SERVICES & REMARKS Calcium Remarks: Rat Hole 30 SX Salt 25 Mouse Hole Flowseal Baskets Mud CLR 48 Mud CLR 48 Pump S SA 50 50 18% Salt 2%61 Willear Y Y Handling Pump S SA 50 50 18% Salt 2%61 Willear Y Y Handling Pump S SA 50 50 18% Salt 2%61 Willear Y Y Handling Pump S SA 50 50 18% Salt 2%61 Willear Y Y Handling Pump S SA 50 50 18% Salt 2%61 Willear Y Y Handling Pump S SA 50 50 18% Salt 2%61 Willear Y Y Handling Pump S SA 50 50 18% Salt 2%61 Willear Y Y Handling Pump S SA 50 50 18% Salt 2%61 Willear Y Y Handling Pump S SA 50 50 18% Salt 2%61 Willear Y Y Handling Pump S SA 50 50 18% Salt 2%61 Willear Y Y Handling Pump S SA 50 50 18% Salt 2%61 Willear Y Y Handling Pump S SA 50 50 18% Salt 2%61 Willear Y Y Handling Pump H Jines Kelkusul Baskets	I Soo		10	0.00	1)	On Location	9'osAm
Owner 7 W No. Ow	111 11-11	Well No. 4		•	14	o to Mel	
To Quality Oliveit Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed. Cog. 38" 14 # New Depth 31571 7 Charge Mai in Decarding Street Officers (Charge Mai in Decarding Street Officers) 150 Street Officers (Charge Mai in Decarding Street Officers) 150 Street Officers (Charge Mai in Cog. 21" Shoe Joint 21" The above was done to satisfaction and supervision of owner agent or contractor. Comment Left in Cog. 21" Shoe Joint 21" The above was done to satisfaction and supervision of owner agent or contractor. Comment Amount Ordered St. 50 152 Sat 22 Sc. 14 St. 51 EQUIPMENT 100 SX 60/40 10% Sat 1, 2% Get Mail 51. 100 Sat 14 St. 100 Sat	2 11 2			D.	5 N/S		a part to be seen as
T.D. 3160 commenter and helper to assist on owner or contractor to do work as listed. Csg. 52 14 4 New Depth 31571 Charge Mo. i of Operations of the William Street Stree	V 1		Market B	To Quality Oilw	ell Cementing, Inc.		
Cos. 52 14 4 New Depth 31571 Charge Mai of Operations Street 8411 Reston Rd Ste 800 Common Left in Cos. 2) Shoe Joint 21' The above was done to satisfaction and supervision of owner agent or contractor. Displace 76 8 8 Cement Amount Ordered 50 50 182 Salt 286e 145.5. EQUIPMENT 100 50 60 182 Salt 286e 145.5. Pumptr J S No. Cementer 7 500 Common J	Hole Size 7 78"	TD 3160	1	You are hereby cementer and h	requested to rent	cementing equipment ner or contractor to d	t and furnish o work as listed.
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Conservation Division Finney State Office Building 130 S. Market, Rm. 2078 Wichita, KS 67202-3802



Phone: 316-337-6200 Fax: 316-337-6211 http://kcc.ks.gov/

Sam Brownback, Governor

Mark Sievers, Chairman Ward Loyd, Commissioner Thomas E. Wright, Commissioner

March 21, 2012

Allen Bangert Mai Oil Operations, Inc. 8411 PRESTON RD STE 800 DALLAS, TX 75225-5520

Re: ACO1 API 15-167-23759-00-00 Haberer 'A' 4 SE/4 Sec.14-12S-15W Russell County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully, Allen Bangert