KOLAR Document ID: 1317430

Confidentiality Requested:

Yes No

Kansas Corporation Commission Oil & Gas Conservation Division

Form ACO-1
January 2018
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.:
Name:	Spot Description:
Address 1:	SecTwpS. R □East □ West
Address 2:	Feet from
City: State: Zip: +	Feet from _ East / _ West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	□NE □NW □SE □SW
CONTRACTOR: License #	GPS Location: Lat:, Long:
Name:	(e.g. xx.xxxxx) (e.gxxx.xxxxxx)
Wellsite Geologist:	Datum: NAD27 NAD83 WGS84
Purchaser:	County:
Designate Type of Completion:	Lease Name: Well #:
New Well Re-Entry Workover	Field Name:
	Producing Formation:
☐ Oil ☐ WSW ☐ SWD	Elevation: Ground: Kelly Bushing:
☐ Gas ☐ DH ☐ EOR	Total Vertical Depth: Plug Back Total Depth:
☐ OG ☐ GSW	
CM (Coal Bed Methane)	Amount of Surface Pipe Set and Cemented at: Feet
Cathodic Other (Core, Expl., etc.):	Multiple Stage Cementing Collar Used?
If Workover/Re-entry: Old Well Info as follows:	If yes, show depth set: Feet
Operator:	If Alternate II completion, cement circulated from:
Well Name:	feet depth to:w/sx cmt.
Original Comp. Date: Original Total Depth:	
☐ Deepening ☐ Re-perf. ☐ Conv. to EOR ☐ Conv. to SWD	Drilling Fluid Management Plan
☐ Plug Back ☐ Liner ☐ Conv. to GSW ☐ Conv. to Producer	(Data must be collected from the Reserve Pit)
	Chloride content:ppm Fluid volume:bbls
Commingled Permit #:	Dewatering method used:
Dual Completion Permit #:	Dewatering method about.
SWD Permit #:	Location of fluid disposal if hauled offsite:
EOR Permit #:	Operator Name:
GSW Permit #:	Lease Name: License #:
	Quarter Sec TwpS. R East West
Spud Date or Date Reached TD Completion Date or 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 Drill Stem Tests Received
Geologist Report / Mud Logs Received
UIC Distribution
ALT I II III Approved by: Date:

KOLAR Document ID: 1317430

Page Two

Operator Name: _				Lease Name:			Well #:			
Sec Twp.	S. R.	E	ast West	County:						
	flowing and shu	ut-in pressures, v	vhether shut-in pre	ssure reached st	atic level, hydrosta	tic pressures, bot		val tested, time tool erature, fluid recovery,		
Final Radioactivity files must be subm						iled to kcc-well-lo	gs@kcc.ks.gov	v. Digital electronic log		
Drill Stem Tests Ta			Yes No		Log Formation	Sample				
Samples Sent to 0	Geological Surv	/ey	Yes No	Na	me		Тор	Datum		
Cores Taken Electric Log Run Geologist Report / List All E. Logs Ru	_		Yes No Yes No Yes No							
		B	CASING eport all strings set-c		New Used	ion, etc.				
Purpose of Strir		Hole illed	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives		
			ADDITIONAL	CEMENTING / SO	UEEZE RECORD					
Purpose:		epth T Bottom	ype of Cement	# Sacks Used Type and Percent Additives						
Perforate Protect Casi Plug Back T										
Plug Off Zor										
Did you perform a Does the volume Was the hydraulic	of the total base f	fluid of the hydrauli		_	=	No (If No, sk	ip questions 2 an ip question 3) out Page Three	,		
Date of first Product Injection:	tion/Injection or R	esumed Production	Producing Meth	nod:	Gas Lift 0	Other (Explain)				
Estimated Production Per 24 Hours	on	Oil Bbls.					Gas-Oil Ratio Gravity			
DISPOS	SITION OF GAS:		N	METHOD OF COMP	LETION:			DN INTERVAL: Bottom		
	Sold Used	I on Lease	Open Hole			mmingled mit ACO-4)	Тор	BOROTT		
,	,			B.11 B1						
Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid,	Fracture, Shot, Cer (Amount and Kind	menting Squeeze I of Material Used)	Record		
TUBING RECORD:	: Size:	Set	Δ+-	Packer At:						
TODING RECORD:	. 3126.		n.	i donei Al.						

Form	ACO1 - Well Completion
Operator	M G Oil Inc
Well Name	COMEAU 1-21
Doc ID	1317430

All Electric Logs Run

Compensate Density/Neutron
Micro Log
DIL
Sonic

Form	ACO1 - Well Completion
Operator	M G Oil Inc
Well Name	COMEAU 1-21
Doc ID	1317430

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Type and Percent Additives
Surface	12.25	8.625	23	939	60/40 Poz. Mix	3%cc 2%gel



QUALITY OILWELL CEMENTING, INC.

PO Box 32 - 740 West Wichita Ave, Russell KS 67665 Phone:785-324-1041 fax:785-483-1087 Email: cementing@ruraltel.net Date: 8/28/2016 Invoice # 1760

P.O.#:

Due Date: 9/27/2016

Division: Russell

Invoice

Contact: MG OIL

Address/Job Location:

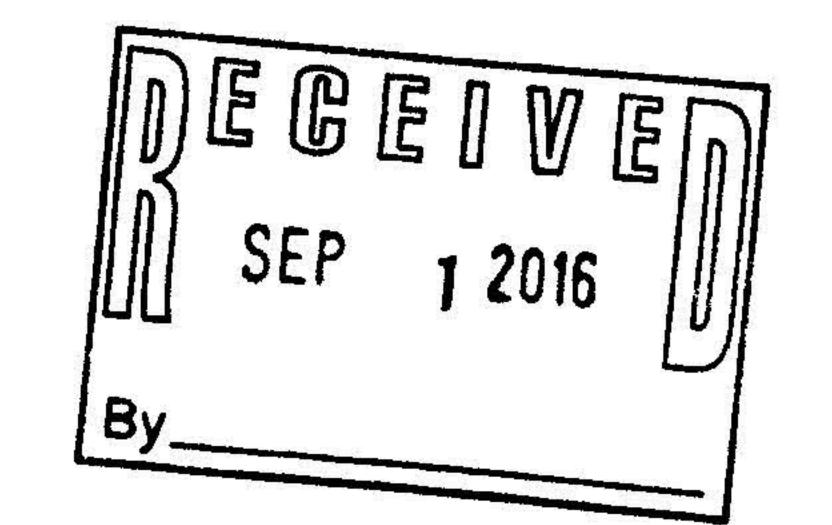
PO Box 162 Russell Ks 67665

Reference:

COMEAU 1-21-SEC-21-11-16

Description of Work:

PLUG JOB



Services / Items Included:	Quantity	Price	Taxable	ltem .	Quantity	Price	Taxable
Labor		\$ 467.97	Yes				> -
Common-Class A	141	\$ 1,473.20	Yes				
POZ Mix-Standard	94	\$ 414.15	Yes				
Bulk Truck Matl-Material Service Charge	243	\$ 152.95	Yes				
Premium Gel (Bentonite)	8	\$ 146.02	Yes				
Pump Truck Mileage-Job to Nearest Camp	27	\$ 76.47	Yes				1200
Flo Seal	60	\$ 75.53	Yes				
Bulk Truck Mileage-Job to Nearest Bulk Plant	27	\$ 59.48	Yes				

Invoice Terms:		SubTotal:	\$ 2,865.77
Net 30	Discount Available <u>ONLY</u> if Invoice is within listed	Paid & Received terms of invoice:	\$ (71.64)
	SubTo	tal for Taxable Items:	\$ 2,794.13
	SubTotal fo	r Non-Taxable Items:	\$
		Total:	\$ 2,794.13
	7.00% Ellis County Sales Tax	Tax: _	\$ 195.59
Thank You For Your Business!		Amount Due:	\$ 2,989.72
	Ag	plied Payments:	
		Balance Due:	\$ 2,989.72

Past Due Invoices are subject to a service charge (annual rate of 24%)
This does not include any applicable taxes unless it is listed.
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QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025 Cell 785-324-1041 Home Office P.O. Box 32 Russell, KS 67665

No. 1760

On Location State Finish Range County Twp. Location Walker N River Wiew RD Lease Well No. Owner To Quality Oilwell Cementing, Inc. Contractor You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed. Type Job Charge Hole Size Depth Csg. Street Tbg. Size Depth State City The above was done to satisfaction and supervision of owner agent or contractor. Tool Depth Cement Amount Ordered 235/40 41/662 14# Fb Cement Left in Csg. **Shoe Joint** Meas Line Displace EQUIPMENT Common Cementer mia Q No. Poz. Mix Pumptrk Helper Driver No. Bulktrk Gel. Driver Driver No. Bulktrk Calcium Driver **JOB SERVICES & REMARKS** Hulls Salt Remarks: Rat Hole Flowseal Kol-Seal Mouse Hole Mud CLR 48 Centralizers CFL-117 or CD110 CAF 38 Baskets D/V or Port Collar Sand Handling Mileage 80514 FLOAT EQUIPMENT 105K Chuide Shoe Centralizer Baskets AFU Inserts Float Shoe Latch Down Pumptrk Charge Mileage 7 Tax Discount **Total Charge** Signature



QUALITY OILWELL CEMENTING, INC.

PO Box 32 - 740 West Wichita Ave, Russell KS 67665 Phone:785-324-1041 fax:785-483-1087 Email: cementing@ruraltel.net Date: 8/23/2016 Invoice # 1750

P.O.#:

Due Date: 9/22/2016
Division: Russell

Invoice

Contact: MG OIL

Address/Job Location:

PO Box 162 Russell Ks 67665

Reference:

COMEAU 1-21 SEC 21-11-16

This does not include any applicable taxes unless it is listed.

©2008-2013 Straker Investments, LLC. All rights reserved.

Description of Work: LONG SURFACE JOB DEGEIVE AUG 2'9 2016 By______

Services / Items Included:	Quantity		Price	Taxable	Item Quantity		Price	Taxable
Labor	2012 122 (11-20-16-00)	\$	467.97	No				
Common-Class A	210	\$	2,194.13	Yes				
POZ Mix-Standard	140	\$	616.82	Yes				
Calcium Chloride	13	\$	458.21	Yes				
Bulk Truck Matl-Material Service Charge	370	\$	232.88	No				L.
Premium Gel (Bentonite)	7	\$	127.77	Yes				
8 5/8" Top Rubber Plug	1	\$	76.79	Yes				
Pump Truck Mileage-Job to Nearest Camp	27	\$	76.47	No				
Baffle Plate Aluminum, 8 5/8"	1	\$	67.98	Yes				
Bulk Truck Mileage-Job to Nearest Bulk Plant	27	\$	59.48	No				
Invoice Terms:					SubTotal:	\$	4,378.50	
Net 30			Disco	unt Availa	ble <u>ONLY</u> if Invoice is Paid & Received within listed terms of invoice:	\$	(109.46)	
		0			SubTotal for Taxable Items:	\$	3,453.16	
					SubTotal for Non-Taxable Items:	\$	815.88	_0
		Set 10,100 mg			Total:	\$	4,269.04	
				7.00% Ellis	County Sales Tax Tax:	\$_	241.72	
Thank You For Your Business	!				Amount Due:	\$	4,510.76	3/1
					Applied Payments:			
					Balance Due:	\$	4,510.76	
Past Due Invoices are subject to a ser	vice charge	(anr	nual rate o	of 24%)				



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

Phone 785-483-2025 Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

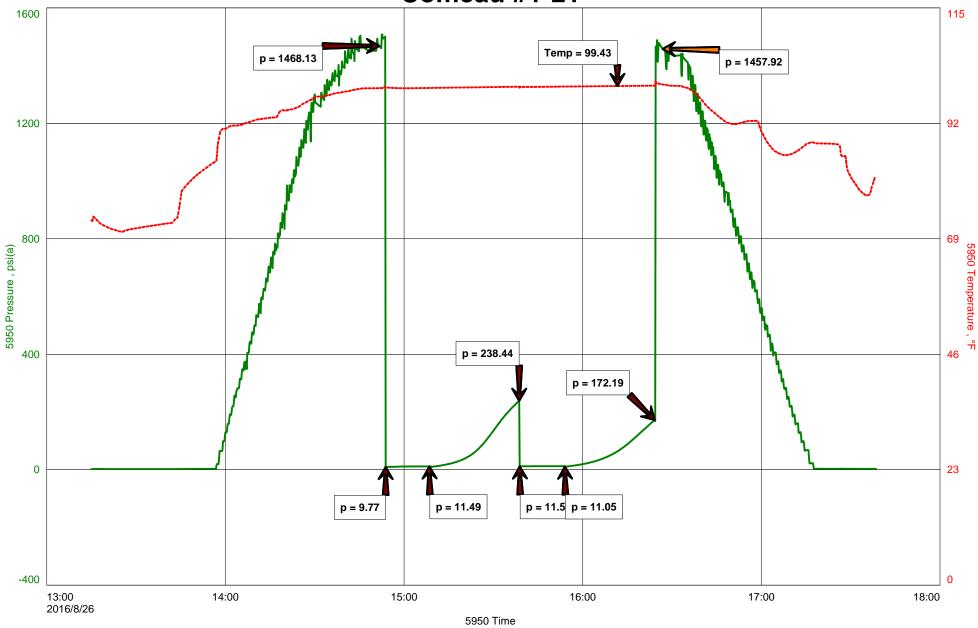
No. 1750

OCH 700 024 1041							
Date 8-23-16 21	Twp. Range	County State On Location Finish					
	Loca	tion Walker N to D.E. IW. N to Room					
Lease Comeau	Well No. 1-21	Owner Riverview Rd. 14 W. Starto					
Contractor Royal 1		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish					
Type Job Surface		cementer and helper to assist owner or contractor to do work as listed.					
Hole Size 121/41	T.D. 939'	Charge M G G					
Csg. 85/8"	Depth 9391	Street					
Tbg. Size	Depth	City State					
Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor.					
Cement Left in Csg. 401	Shoe Joint 45	Cement Amount Ordered 350 69/40 3% CC 3% be					
Meas Line	Displace 57 14 BCS	Street Section 1997					
EQUIPI		Common 210					
Pumptrk S No. Cementer Helper	nick	Poz. Mix /40					
	ane	Gel. 43 .7					
Bulktrk No. Driver Driver		Calcium /3					
JOB SERVICES	& REMARKS	Hulls					
Remarks Cement d	id Circulate	Salt					
Rat Hole		Flowseal					
Mouse Hole		Kol-Seal					
Centralizers		Mud CLR 48					
Baskets		CFL-117 or CD110 CAF 38					
D/V or Port Collar	- 46000	Sand					
		Handling 3.70					
		Mileage					
		FLOAT EQUIPMENT					
		Guide Shoe Kubber plug					
		Controlizór Baffle plate					
		Baskets					
esta à l'Assistant de la company		AFU Inserts					
		Float Shoe					
Jaco estant and a		Latch Down					
DESCRIPTION OF THE PROPERTY OF							
000000000000000000000000000000000000000		Pumptrk Charge Louis Surface					
		Mileage 27					
- CAUSE OF SOME THE STATE OF SOME		Tax					
- ico bos nos v ecola		Discount					
Signature Down B	tuel	Total Charge					

MG Oil INC Dst #1 Lans/KC E&F 3060-3085' Start Test Date: 2016/08/26 Final Test Date: 2016/08/26 Comeau #1-21 Formation: Dst #1 Lans/KC E&F 3060-3085'

Pool: Infield Job Number: P0126







Michael Carroll 620-617-0368 carroll.dtllc@gmail.com

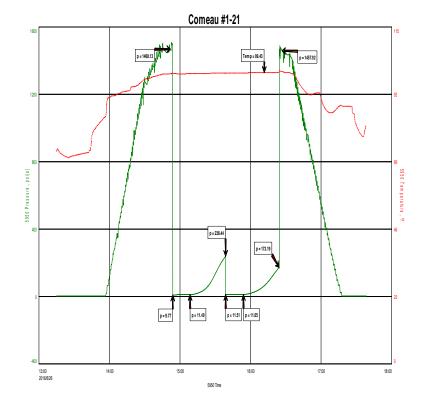
Hoisington, Kansas

General Information

Company Name MG Oil INC

Chad Counts Contact **Well Name** Comeau #1-21 **Unique Well ID** Dst #1 Lans/KC E&F 3060-3085' **Surface Location** Sec 21-11s-16w Ellis County Chrisler **Field Well Type** Vertical **Test Type Drill Stem Test Well Operator** MG Oil INC

Formation Dst #1 Lans/KC E&F 3060-3085' **Well Fluid Type** 01 Oil **Test Purpose Initial Test Start Test Date** 2016/08/26 **Start Test Time** 13:15:00 **Final Test Time** 17:38:00 **Job Number** P0126 2016/08/26 **Report Date Prepared By Michael Carroll**



TEST RECOVERY

Remarks Recovery: 1' Mud 100%M

Total Fluid: 1'

Tool Sample: 2%O 98%M



DIAMOND TESTING P.O. Box 157

HOISINGTON, KANSAS 67544 (800) 542-7313

DRILL-STEM TEST TICKET

TIME ON: 1315 TIME OFF: 1738

FILE: COMEAU#1-21DST#1

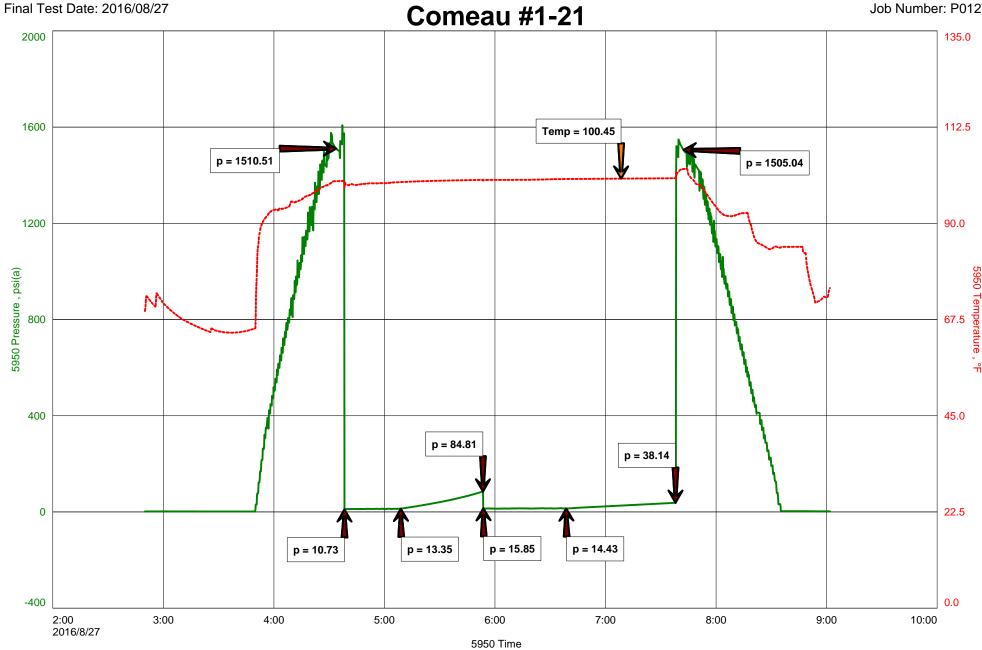
Company_MG OIL INC	Lease & Well No. COMEAU #1-21
Contractor_ROYAL DRLG RIG 1	Charge to MG OIL INC
Elevation1777ESTFormationLANS/KC E8	Ft. Ticket No. P0126
Date 8-26-16 Sec. 21 Twp. 11 S R	ange16 W CountyELLISStateKANSAS
Test Approved By CHAD COUNTS	Diamond Representative Michael Carroll
Formation Test No. 1 Interval Tested from 30	060 ft. to3085 ft. Total Depth 3085 ft.
Packer Depth 3055 ft. Size 6 3/4 in.	Packer depthft. Size 6 3/4 in.
Packer Depth 3060 ft. Size 6 3/4 in.	Packer depthft. Size6 3/4 in.
Depth of Selective Zone Set	
Top Recorder Depth (Inside) 3048 ft.	Recorder Number
Bottom Recorder Depth (Outside) 3064_ft.	Recorder Number 0230 Cap. 5000 P.S.I.
Below Straddle Recorder Depth ft.	Recorder NumberCapP.S.I.
Mud Type Chem Viscosity 51	Drill Collar Length 0 ft. I.D. 2 1/4 in.
Weight 9.1 Water Loss 8.0 cc.	Weight Pipe Length
Chlorides 3000 P.P.M.	Drill Pipe Length 3035 ft. I.D 3 1/2 in
Jars: Make STERLING Serial Number NA	Test Tool Length 25 ft. Tool Size 3 1/2-IF in
Did Well Flow? NO Reversed Out NO	Anchor Length 25 ft. Size 4 1/2-FH in
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in.	Surface Choke Size 1 in. Bottom Choke Size 5/8 in
Blow: 1st Open: WSB-DIED IN 15 MINUTES	NOBB
^{2nd Open:} NO BLOW-BUILT TO WSB IN 15 MINU	TES NOBB
Recovered 1 ft. of MUD 100%M	
Recovered 1 ft. of TOTAL FLUID	
Recovered ft. of	
Recovered ft. of	
Recoveredft. of	- 20 00 2000
Recoveredft. of	Other Charges
Remarks: TOOL SAMPLE: 2%O 98%M	Insurance
transporter and the second sec	modranoo
	modranos
	Total
Time Set Packer(s) 2:51P.M. A.M. P.M. Time Started Off Bo	Total A.M.
2:51D M A.M.	Total A.M. P.M. Maximum Temperature 99
Time Set Packer(s) 2:51P.M. A.M. P.M. Time Started Off Bo	Total A.M. P.M. Maximum Temperature 99
Time Set Packer(s) 2:51P.M. A.M. P.M. Time Started Off Bo	Total Ottom 4:21P.M. A.M. P.M. Maximum Temperature 99 (A) 1468 P.S.I. (B) 10 P.S.I. to (C) 11 P.S.I. (D) 238 P.S.I.
Time Set Packer(s) 2:51P.M. P.M. Time Started Off Boundaries Pressure	Total Ottom 4:21P.M. A.M. P.M. Maximum Temperature 99 (A) 1468 P.S.I. (B) 10 P.S.I. to (C) 11 P.S.I.
Time Set Packer(s) 2:51P.M. A.M. P.M. Time Started Off Boundard Pressure	Total Ottom 4:21P.M. A.M. P.M. Maximum Temperature 99 (A) 1468 P.S.I. (B) 10 P.S.I. to (C) 11 P.S.I. (D) 238 P.S.I.

MG Oil Inc Dst #2 Lans/KC I&J 3142-3176' Start Test Date: 2016/08/27

Comeau #1-21 Formation: Dst #2 Lans/KC I&J 3142-3176'

Pool: Infield

Job Number: P0127





Michael Carroll 620-617-0368 carroll.dtllc@gmail.com

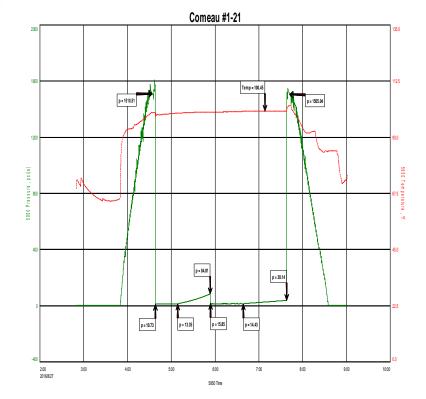
Hoisington, Kansas

General Information

Company Name MG Oil Inc

Chad Counts Contact **Well Name** Comeau #1-21 **Unique Well ID** Dst #2 Lans/KC I&J 3142-3176' **Surface Location** Sec 21-11s-16w Ellis County Field Chrisler **Well Type** Vertical **Test Type Drill Stem Test Well Operator** MG Oil Inc

Formation Dst #2 Lans/KC I&J 3142-3176' **Well Fluid Type** 01 Oil **Test Purpose Initial Test Start Test Date** 2016/08/27 **Start Test Time** 02:50:00 **Final Test Time** 09:00:00 **Job Number** P0127 2016/08/27 **Report Date Prepared By Michael Carroll**



TEST RECOVERY

Remarks Recovery: 1' Clean Oil

9' OCM 14%O 86%M

Total Fluid: 10'

Tool Sample: 20%O 80%M



P.O. Box 157 OISINGTON, KANSAS 6754

HOISINGTON, KANSAS 67544 (800) 542-7313

DRILL-STEM TEST TICKET

TIME ON: 0250
TIME OFF: 0900

FILE: COMEAU#1-21DST#2

Company MG OIL INC			_Lease & Well No. C	COMEAU #1-21				
Contractor ROYAL DRLG RIG 1			_ Charge to MG OIL	INC				
Elevation1777EST Formati	on	LANS/KC I	LEffective Pay		Ft.	Ticket N	No	P0127
Date 8-27-16 Sec. 21	_Twp	11 S R	ange	16 W County_	Е	LLIS	_ State_	KANSAS
Test Approved By CHAD COUNTS			Diamond Representa	tive	Mic	chael Ca	rroll	
Formation Test No. 2 Int	erval Tested fron	n3 ⁻	142 ft. to	3176 _{ft.} To	tal Dep	oth		3176 ft.
Packer Depth3137 ft.	Size6 3/4	in.	Packer depth		ft.	Size	6 3/4	in.
Packer Depth3142 ft.	Size6 3/4	in.	Packer depth		ft.	Size	6 3/4	in.
Depth of Selective Zone Set								
Top Recorder Depth (Inside)		3130 _{ft.}	Recorder Number_	595	50 Cap	i	500	0_P.S.I.
Bottom Recorder Depth (Outside)		3146 ft.	Recorder Number_	023	30_Ca	p	500	⁰ P.S.I.
Below Straddle Recorder Depth		ft.	Recorder Number_		Cap			_ P.S.I.
Mud Type Chem Viscosity	51		Drill Collar Length_		<u>0</u> ft.	I.D	2 1/	4 in.
Weight 9.1 Water Loss	8.0	сс	Weight Pipe Lengtl	n	0_ft.	I.D	2 7/	8in
Chlorides	300	<u>0</u> Р.Р.М.	Drill Pipe Length _	311	7 _{ft.}	I.D	3 1/	2 in
Jars: Make STERLING Serial Nun	nber	NA	Test Tool Length_	2	5 _{ft.}	Tool Size	3 1/	2-IF in
Did Well Flow?NOReve	rsed Out	NO	Anchor Length	3	84_ft.	Size	4 1/	2-FHir
Main Hole Size 7 7/8 Tool	Joint Size 4 1	/2 XH_in.	Surface Choke Size	e1	_ in.	Bottom (Choke Siz	že_5/8_in
Blow: 1st Open: WSB-BUILT TO	3/4" IN 30 N	/INUTES	3					NOBB
2nd Open: NO BLOW-BUILT	TO WSB IN	45 MINU	TES					NOBB
Recovered 1 ft. of CLEAN OIL								
Recovered 9 ft. of OCM 14%C	86%M							
Recovered 10 ft. of TOTAL FLU	ID							
Recoveredft. of								
Recoveredft. of					Price	Job		
Recoveredft. of					Other Charges			
	30%M	**********			Insu	rance		
					Tota	1		
	A.M. P.M. Time S	Started Off Bo	7:35 A.M	1. A.M. P.M. Ma	aximum	Tempera	ature	100
Initial Hydrostatic Pressure			(A)	1511 _{P.S.I.}				
Initial Flow Period	Minutes	30	(B)	11 _{P.S.I.}	to (C)_		13 _F	P.S.I.
Initial Closed In Period	Minutes	45	(D)	85 P.S.I.				
Final Flow Period	Minutes	45	(E)	16 P.S.I. t	o (F)		14 _P	.S.I.
Final Closed In Period	Minutes	60	(G)	38 P.S.I.				
Final Hydrostatic Pressure			(H)	1505 _{P.S.I.}				

MG Oil, Inc.

MG Oil

Chrisler

Comeau 1-21

COMPANY:

WELL:

FIELD:

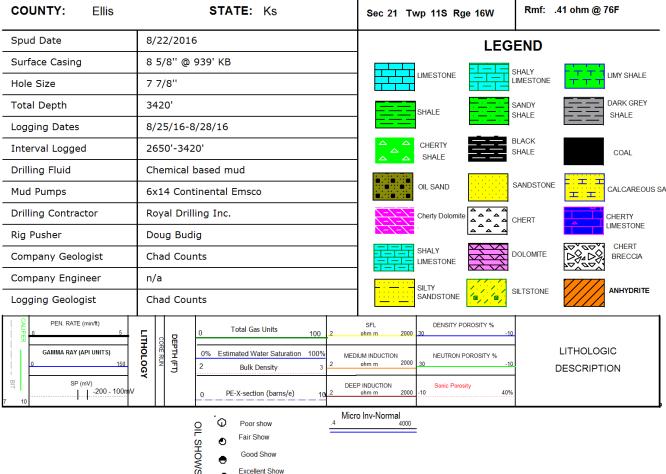


FORMATION EVALUATION LOG

SCALE: 1:240 (1"=20')

API#: 15-051-26842 LOCATION: SE NW NW NE 561' FNL & 2005' FEL

ELEV GL: 1777 ELEV KB: 1783 Log Measured from:



CALCAREOUS SAND Excellent Show 2650, 2655 Shale: med-dk grey, firm and sft, calcareous, ROP shifted to 2655, 2668 Shale, cream dark grey, calcareous, soft, match electric 2660 logs. 4' Uphol<mark>e</mark> rrection. 2668, 2684 Shale: A/A 2680 $2684,\,2693$ Argillaceous limestone and calc shale, greytan, occ packstone, micro xln matrix, no vis por, NSOC. 2693, 2709 60% Limestone,tan cream, micro xln, chalky. dense. very poor no visible por, few fossil chalky, dense, very poor no visible por, few fossil fragments. 40% grey med grey subplaty shale, sl. calcareous. NSFOC. 2700 Topeka (†917) 2709, 2717 limestone, tan cream, sl arilaceous, finemicro xln, very poor por, dense, occ. fossils, sl chalky. 10% grey silty shale. NSOC. 2717, 2727 limestone: cream grey tan, sl chalky, very poor inxl por, dense. 10% grey subplaty shale. 2720 2727, 2738 limestone cream tan, fine xln micro xln, granular texture, few fusulinids.poor inxl por, faint fair oil odor, c5% cuttings w/staining, one cutting sub sat with spots of free oil and gas bubbles slight show free oil. Zone appears very thin and tight porosity. 2740 2738, 2748 limestone:cream tan brown, fine xln, sl. sucrosic, poor inxln por, granular in part, 5-10% cuttings w/ spotty oil staing, few cutting sub sat, faint fair oil odor, porosity more developed than above. Abundant dense barren limestone. 2748, 2759 75% limestone, grey cream, fn xln, poor inxln suggary por, very faint odor 5·10% spotty oil staining, slight show free oil. Slow streaming cut. 25% 2760 2759, 2770 60% limestone, light grey, ivory, argillaceous, sl. sucrosic, micro xln, occ sl xln, mostly barren, few cuttings with spotty oil stain, no odor, no free oil. 40% calcareous med grey shale, platy subplaty, 2770, 2781 limestone: grey-tan, argillaceous, mottled, sl bedded chalk, fn xln micro xln, no visible inxln por, 2780 2781, 2791 limestone: tan/ivory grey, fn xln,sl chalky, poor inxln por, few crinoid segments, pyrite within matrix, few cuttings pckstn, poor porosity, no odor, 2791, 2798 limestone: buff, creamy greay, micro xlne, mudstone, no vis por, NSOC. 2800 $2798,\,2810$ Limestone: A/A Shale: blk, grey, calc, carbonaceous, platy. g Hill Shale (-2810, 2819 Limestone: grey'light brown, fn xl, agillaceous, fossils, chalky, very tight, NFOC. Light grey calc shale, very firm, cemented, brittle. 2820 2819, 2830 Limestone: ivory offwhite, thin chalk beds, wackstone packtone, fn micro xln, poor vis gran por, nsfoc. 2830, 2841 Limestone: cream white, fn xln, very dense, few white opaque chert, poor por, NSFOC. 2840 2841, 2850 Limestone, tan white, micro xln, dense, poor 2850, 2858 Limestone: creamy white, micro xlne, very dense, pure calcite, 20% grey argillaceous limestone. NSFOC. 2860 2858, 2868 Limestone: A/A n <mark>H</mark>ill Shale 2868, 2880 Limestone: cream·light brown, fn·mcicro xln, sl fossils, occ. wackestone. 10% Black shale, carb, 2880 2880, 2889 Limestone: light grey ivory, wackestone, packstone, poor ingl and inxl por, mod cemented, large clasts fossils, NSFOC. 10% light grey calcareous shale. 2889, 2899 Limestone, light grey'lt brown, cream, fn xln, occ fossiliferous, micro xln, poor inxl por, NSFOC. 2899, 2904 Limestone, crem grey, fn xln micro, occ. highly argillaceous, wells cemented dens, poor por, nsfoc. 2900 2904, 2920 Limestone, grey, off whit, fine xln, pyrite in matrix, suggary texture, fossiliferous mudsone, occ fusulinids, poor inxl por, NSFOC. 2920 2920, 2930 Limestone creamy brown, fine micro xln, dense, sl. argillaceous, poor visible por, spotty dead gilsonite stain, NSFOC. 2930, 2940 Limestone, white, cream, grey, fn xln, mottled, poor inxl por, tight, NSFOC. <mark>ner</mark> (-1159) 2940, 2951 Limestone: tan light grey, fossiliferous, few fusulinids, mostly dense w/few friable porous limestone, very friable, dead spotty oil stain, no free oil. 5% Black shale. carb, platy, mod firm. 2951, 2959 60% shale: grey, blu grey, very soft, mushy texture. 40% Limestone, tan brown, fossiliferous, mostly tight, few with granular texture soft. NSFOC. 2960 2959, 2972 Lime: tan:creamy white, dense, occ granular porosity embeded chalky matrix, spotty edge stain, 2·3 cuttings oil stained, no free oil, no odor. mostly barren. conto (-1181) 2977, 2981 Lime: tan, creamy white, amber, fine xln, heavy fossil content, mostly tight, very poor por, chalky, NSFOC. 2980 2981, 2994 Shale: lt red, mostly washed, very soft, mushy occ blocky. Limestone A/A. Lansing (* 1207) 2994, 3009 Limestone tan light brown, fn xln, poor granular and inxl por, occ. pinpoint vugs, very spotty oil stain in <5% sample. brittle, NFO, possible very faint odor. 20% light grey shale, silty, gritty, calcareous, MW 8.6 Vis 50 1.5 # LCM 3000€ 3009, 3018 B zone: Argillaceous limestone, tan'brown, argillaceous, wackestone, fossiliferous, microxln matrix 1 cutting wisporty oil stain, NSO. 25% shale:med·light grey, blocky, brittle, soft. 3018, 3031 C Zone porosity: oolicastic, very poor ingranular or inxl por, very chalky, edge oil stain, few cutting sub sat, poe very faint odor, vssfo, found one cutting sub saturated stain w/sl show free oil, gas kick from 2u·9u. 80% tan dense lime mud stone, no visible 3020 MW 8.6 Vis 50 1.5 # LCM 3031, 3038 D Zone porosity: oolicatic, poor ingranular and inxl porosity, few pinpoint vugs in matrix, mostly dense and barren, few cutting with light oil stain, very faint odor, no cut. 4ur llu gas kick90% Dense tan limestone, very hard, fossiliferous, abundant fusulinids. $3038,\,3051$ 5% A/A vssfo, 1 cutting with oil globule sitting on top. 95% dense lime, poor porosity, NSOC. 3051, 3060 <5% limestone, sparry, replacement calcite, small pinpont porosity,occ. colicatic, spotty oil satin, faint-fair oil odor. Few globules of oil in tray.SSF095% limestone, white tan dense, 3060 Dst #1 KC E & Fzone; 15-30-5-30, IFP 10-11, ISIP 238, FFP 11-12, FSIP 172, Rec 1 Mud, Tool Sample 2 % oll 3060, 3073 5% black shale. E Porosity: <2% brown tan oolitic limestone, fossils, small pinpoint vuggy replacement, ssforfsfo, fair odor, good cut, oil globules in sample, fast streaming bright chartruse cut95% dense limestone, tan micro xln, poor por, sl. chalky, argillaceous 3073. 3077 A/A ssfo-fsfo 3080 3077, 3085 <5% tan lime, comoldic collitic, occ. pinpoint por, very slight odor, spotty oil stain, ssfo. 5% white ble chert, 90% dense limestone, tan, poor visible porosity. MW 9.1 Vis 51 1# LCM 3085, 3090 Cherty limestone, very dense, micro xln, occ. fossil fragments, no visible por NSFOC. 3090, 3106 Oomoldic Limestonte: off white-white, sparry calcie replacement, excellent vuggy porosity, honecom texture, part edge stain on few cuttings, no show free oil. Remainder is dense, very hard tan lime. 3100€ MW 9.0 Vis 49 1# LCM 3106, 3112 Limestone: tan cream, chalky, dense, micro xln, very hard, NSFOC. 10% light grey shale, soft, sl. gritty, non calcareous. 3112, 3120 40% lime A/A 60% Black shale, very platy, firm, carbonaceous, sl. calcareous, few grey soft shale. 3120 3120, 3130 Limestone, tan cream, fine xln, mostly dense. Few cuttings oolicastic to oomoldic, fai iinxl por. Mostly barren. 3130, 3140 Limestone A/A. Increased chalk content. MW 9.1 VIS 48 1#LCM 3140, 3145 A/A Shale: grey, very platy, sl. Dst #2 KC I & J zone, 30-45-45-60, IFP 11-14, ISIP 85, FFP 15-14, FSIP 38, Rec 1' clean oil, 9 3145, 3156 I porosity zone: fine xln, granular in part, fair visible vugular por, sl chalky,friable, faint oil odor, OCM (14%) 3156, 3160 I porosity cont,fair good inxl por, very suggary texture, fair show free oil, good odor, fast 3160 3160, 3170 J zone porosity:cream·brown, comoldic, and colitic, fossiliferousfair inxl por from calc replacment, occ. barren por, fair oil odor, fair oil cut, slightly less of show than I zone. Remainder of sample is dense creampy white lime. 3170, 3176 Pay zone: fine med xln suggary/sparry calcite, fair poor show free oil. Easily crushed, fair odor, fair streaming cut. 95% tan creamy white dense lime stone, sl chalky. Light grey shale, subplaty. 3180 Trip gas from DST #2 3176, 3181 Limestone, tan grey cream, occ. mottled, very dense, micro xln, very poor por. 2 cutting w/edge

3181, 3188 limestone, cream white, fine xln, mostly dense, very chalky, brittle, poor inxl por, micro xln, NSFOC. 5% light green soft shale. $3188,\,3199$ Limestone: A/A 5% Black shale, very platy, calcareous, firm, brittle, carbonaceous, calcite veins.

3200 WW 9.4 Vis 44 1# LCM Chlorides

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is dense white chalky ls, and grey green shale. 3211, 3221 Limestone: white light grey, chalky dense, no visible por, few sparry calcite. 10% red brown, green $3221,\,3229$ Limestone: white, light grey, very chalky, sucrosic, poor por, found one cutting sparry calcit w/vssfo, oil stained btwn por, no detectable odor.10% light

3199, 3211 K zone porosity: very thin <2% cuttings, very friable, packstone, good ingl and inxl por, vssfo, no detectable odor, ver slight oil cut. Remainder of sample

grey shale. $3229,\,3243$ Limestone A/A. few cuttings packstone, wackestone, fossils, and oolicastic limestone, poor visible por.

3243, 3250 Limestone A/A <5% siltstone vfg ss, high clay content, poorly consolidated, very friable, very porningl por, spotty heavy oil staining, spotted black on white cuttings, sl sfo withheld in matrix. Shales, green, brown, orange, grey.

 $3250,\,3256$ Mostly limestone, white, chalky, dense, brittle soft, micro xln. Vari colored shales. 2%

3256, 3269 lime, white, very chalky, soft and brittle. Vari colored shales. 3269, 3281 Limestone' white, cream, very chalky, dense, no visible porosity, red shale embedded with lime, NSFOC.

3281, 3290 Sandy lime, well cemented, fine grain, poor visible por, sli spotty oil stain, heavy oil, poor show. Red shale bedded in lime, very dense, poor porosity, 3290, 3297 Chert, limestone, and shale: orange chert translucent, chalky white limestone A/A varied colored shales. <2% sandy limestone, spotty dead oil stain, well std, well cemented, poor por.

 $3297,\,3304$ Chert, lime, and shale, vari colors. $10\%\,$ qtz sandstone, bothe well cemented and poorly

3312, 3333 Various cherts and shales, mostly orange, grey, white, no visible por, NSFOC. Few pieces of sand A/A. dead oil stain.

3339, 3347 Blue green shale, blocky, waxy. Orange, tan, blue grey chert, 20% sand stone, white, vf grain, well std, arenite, poor inxl por, spotty dead oil stain, gilsonite. 5% dolomite, very dense poor inxl por, few co omoldic chips, spotty dead stain.

3347, 3360 Dolomite: tan light grey brown, fine xln, occ. sparry dolomite with pin point vugs, few cuttings with dark staining lining porosity, no free oil no odor.

3360, 3370 Dolomite tan brown, dense very hard, microx
ln, NSFOC

 $33\,70,\,3380$ A/A pieces of bone white chert. 3380, 3390 Dolomite: tan, dense, fine xln, slightly

3390, 3400 A/A

3400, 3420 Cherty dolomite: tan, light brown, fine xln, dense, poor visible por, sl sucrosic, contains grey and white chert, NSFOC.