

Confidentiality Requested:

Yes No

### Kansas Corporation Commission Oil & Gas Conservation Division

1255097

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:	SecTwpS. R				
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.xxxxxx) (e.gxxx.xxxxxxx)				
Wellsite Geologist:	Datum: NAD27 NAD83 WGS84				
Purchaser:	County:				
Designate Type of Completion:	Lease Name: Well #:				
☐ New Well ☐ Re-Entry ☐ Workover	Field Name:				
Oil WSW SWD SIOW 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:	Producing Formation:  Elevation: Ground: Kelly Bushing:   Total Vertical Depth: Plug Back Total Depth:   Amount of Surface Pipe Set and Cemented at: Fee   Multiple Stage Cementing Collar Used? Yes No  If yes, show depth set: Fee				
Operator:	If Alternate II completion, cement circulated from: sx cmt.				
Well Name:  Original Comp. Date:  Deepening Re-perf. Conv. to ENHR Conv. to SWD Plug Back Conv. to GSW Conv. to Producer	Drilling Fluid Management Plan (Data must be collected from the Reserve Pit)				
Commingled Permit #:	Chloride content: ppm Fluid volume: bbls  Dewatering method used:  Location of fluid disposal if hauled offsite:  Operator Name:				
GSW Permit #:	Lease Name: License #:				
Spud Date or Date Reached TD Completion Date or Recompletion Date Recompletion Date	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	
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:				_ Lease l	Name: _			Well #:			
Sec Twp	S. R	East V	West	County	:						
INSTRUCTIONS: Shopen and closed, flow and flow rates if gas to	ring and shut-in pres o surface test, along	sures, whether s with final chart(	shut-in pre s). Attach	ssure reac extra shee	hed stati t if more	c level, hydrosta space is neede	itic pressures, bot d.	tom hole temp	erature, flui	d recovery,	
Final Radioactivity Lo- files must be submitte						gs must be ema	ailed to kcc-well-lo	gs@kcc.ks.go	v. Digital el	ectronic log	
Drill Stem Tests Taker (Attach Additional S		Yes	No				on (Top), Depth ar			mple	
Samples Sent to Geo	logical Survey	Yes	☐ No		Nam	e		Тор	Da	tum	
Cores Taken Electric Log Run		☐ Yes ☐ Yes	☐ No ☐ No								
List All E. Logs Run:											
			CASING		☐ Ne						
	0: 11-1-	· ·				ermediate, product		# O	T	d Damasat	
Purpose of String	Size Hole Drilled	Size Cas Set (In O		Weig Lbs. /		Setting Depth	Type of Cement	# Sacks Used		d Percent itives	
		AD	DITIONAL	CEMENTIN	NG / SQL	JEEZE RECORD					
Purpose:	Depth Top Bottom	Type of Ce	ement	# Sacks	Used	Type and Percent Additives					
Perforate Protect Casing											
Plug Back TD Plug Off Zone											
Did you perform a hydrau	•					Yes	No (If No, ski	p questions 2 ar	nd 3)		
Does the volume of the to							= :	p question 3)	of the ACO	()	
Was the hydraulic fractur	ing treatment information	on submitted to the	e chemicai d	isciosure re	gistry?	Yes	No (If No, fill	out Page Three	or the ACO-1	<i>)</i> 	
Shots Per Foot		ION RECORD - I Footage of Each I					cture, Shot, Cement mount and Kind of Ma		d	Depth	
TUBING RECORD:	Size:	Set At:		Packer A	i:	Liner Run:	Yes No				
Date of First, Resumed	Production, SWD or Ef	NHR. Prod	ducing Meth	ıod:		1					
			Flowing	Pumpin	g	Gas Lift C	Other (Explain)				
Estimated Production Per 24 Hours	Oil	Bbls.	Gas	Mcf	Wate	er B	bls. (	Gas-Oil Ratio		Gravity	
DISPOSITIO	ON OF GAS:		M	METHOD OF	COMPLE	ETION:		PRODUCTION	ON INTERVA		
Vented Sold		Open		Perf.	Dually	Comp. Cor	mmingled				
	bmit ACO-18.)		(Specify)		(Submit )	ACO-5) (Sub	mit ACO-4)				

Form	ACO1 - Well Completion
Operator	LB Exploration, Inc.
Well Name	Hopkin's Ranch 31 1
Doc ID	1255097

### All Electric Logs Run

Dual Compensated Porosity
Dual Induction
Microresistivity
Borehole Compensated Sonic



## TREATMENT REPORT

Customer R	Sypholo		Lease No.				Date		
_ease	cins k	one b	Well #	3/			1/2	6/15	)
ield Order #	Station	PRAI	7.65	Casing	Depth	221	County	ober	State
ype Job 3	4 100	reluc	tox pipe	CNW	Formation		,,,,	Legal De	escription
PIPE	DATA	PERF	ORATING DATA	FLUID	USED		TRE	ATMENT	RESUME
asing Size	Tubing Size	Shots/Ft		Acid			RATE PRI	ESS	ISIP
epth 7/	Depth	From	То	Pre Pad		Max			5 Min.
lume SU	Volume	From	То	Pad		Min		19.	10 Min.
ax Press	Max Press	From	То	Frac		Avg			15 Min.
ell Connection	Annulus Vol.	From	То			HHP Use	d		Annulus Pressure
ug Depth	Packer Dept	_	То	Flush		Gas Volu			Total Load
stomer Repr	esentative	1 Pel	Station	Manager Ko	vin Go	edley	Treater	0011	Graves
ervice Units	8970 2	74/63	19960						
river ames	vott -	Shaur	Erliv						
Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate			Ser	vice Log	
(-30)				<i>8</i>	Onla	atic	n 50	Lety	Merling R.
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5:57	0		5	4	Star	1 M.	sing ?	2005/	5 60140 PC
59	300		5	5.4	Incore	We	Rate		
1:04	4		18		Shut	do	un t	14 M	Thring held
7:12	300		18	5.3	Kesu	me	Mix	99	60/210 POZ
7:15	200		15	5.2	Star	1 [	rspla	IFM	2Pht
9:22	150		32		1215	Okel	emer	7/	omplete
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## TREATMENT REPORT

Customer	EXP	151	ATIU	n jin	CL	ease No.						60	Date	7	0	1,7		
Lease Hor	Kins A	2 AI	164		V	/ell #	- 3	1					1	2	- 9	-/5		
Field Order #	Station		0/0	T				Casi	ing 5	1/2	Depth	5061	County	BA	118-1		State/	
Type Job	nw 4	5 1/1	L	ung	Str	ing				For	mation	RTD 5	307		Legal De	escription	32-13	
PIPE DATA PERFORATING DATA FLUID						IID US							RESUME					
Casing Size	Tubing Si	ze	Shots/F	Shots/Ft Acid 2.75					75 5	W	AR	2 L	RATE	PRE	SS	ISIP		
Depth 706	Depth		From		То		Pre					Max				5 Min.		
Volume 3.5	Volume		From		То		Pad					Min			-	10 Min.		
Max Press	Max Pres	S	From		То		Frac					Avg				15 Min.		
Well Connectio	1	/ol.	From		То			§ 9				HHP Use	d			Annulus F	Pressure	
Plug Depth	Packer De	epth	From		То		Flus	h / 7	23			Gas Volu	me			Total Loa	d	
Customer Rep	resentative		Pere	MAN		Station	Mana	ager	Kevi	0	0/1)1	cy	Trea	ter j	nik	MATTO		
OCI VICE CITIES	37546			848	4	1984	3			1		17562						
Driver Names	MATTAL			M	rd	V-Z				9	iB	509					8	
Time	Casing Pressure		ubing essure	Bbls	. Pum	ped	F	Rate						Servi	ce Log			
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Hopkins Ranch 31 #1 Formation: Upper Douglas Pool: Wildcat Job Number: K220 5513 Temperature , °F 135.0 112.5 90.0 45.0 22.5 67.5 0.0 3:00 2:00 1:00 p = 1758.81p = 1382.46 Hopkins Ranch 31 #1 0:00 p = 426.785513 Time 23:00 Temp = 120.60p = 190.78p = 1444.55 22:00 p = 158.94p = 04.07 p = 1759.83 21:00 LB Exploration, Inc DST #1 Upper Douglas 3815-3864 Start Test Date: 2015/01/31 Final Test Date: 2015/02/01 20:00 19:00 2015/1/31 1600 400 -400 1200 0 800 5513 Pressure, psi(a)



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### **DIAMOND TESTING**

P. O. Box 157 HOISINGTON, KANSAS 67544 (316) 653-7550

### GAS VOLUME REPORT

Company LB Exploration, Inc	Lease & Well No. Hopkins Ranch 31 #1	
Date 1-31-15 Sec. 31Twp. 32S Rge. 13W Lo	cationState_	KS
Drilling Contractor Ninnescah #101	Formation Upper Douglas DST No	1
Remarks: Sample Taken 25 Min. into 2nd Open.		

### **INITIAL FLOW**

Time O'Clock	Orifice Size	Gauge	CF/D
	in.	in.	
	in.	in,	
	in.	ìn.	
	ia.	in.	
	ín.	in.	
	in,	in.	
	in.	in.	

### FINAL FLOW $_{\mbox{\scriptsize IW}}$

Time O'Clock	Orifice Size	Gauge	CF/D
10	.75 in.	5# in.	175,000
20	.75 in.	2.5# in.	121,000
30	.75 <sub>in.</sub>	2.5# in.	121,000
	in.	in.	
	in,	in.	
	in.	in,	
	in,	in.	
	in.	in.	
	in.	in,	
	in.	in	

FINAL FLOW



CELL # 620-617-0527

### **General Information**

Company Name LB Exploration, Inc

Contact Steve Petermann Job Number K220 Hopkins Ranch 31 #1 Representative **Well Name Jason McLemore Unique Well ID** DST #1 Upper Douglas 3815-3864 Well Operator LB Exploration, Inc **Surface Location** 31-31s-13w-Barber Prepared By **Jason McLemore** Palmer Qualified By Steve Petermann Field **Vertical Test Unit Well Type** 6

### **Test Information**

Representative Test Type Drill Stem Test Well Operator Formation Upper Douglas Report Date Upper Douglas Report Date 2015/02/01 Well Fluid Type 01 Oil Prepared By Test Purpose (AEUB) Jason McLemore

 Start Test Date
 2015/01/31 Start Test Time
 19:55:00

 Final Test Date
 2015/02/01 Final Test Time
 02:05:00

### **Test Results**

#### **RECOVERED:**

950 Muddy Water, 90% Water, 10% Mud

950 TOTAL FLUID

**CHLORIDES: 118,000** 

PH: 7

RW: .125 @ 40



# P.O. Box 157 OISINGTON, KANSAS 6754

HOISINGTON, KANSAS 67544 (800) 542-7313

### **DRILL-STEM TEST TICKET**

TIME ON: 7:55 PM
TIME OFF: 2:05 AM

FILE: hop31dst1 Company LB Exploration, Inc. Lease & Well No. Hopkins Ranch 31 #1 Charge to LB Exploration, Inc Contractor Ninnescah 101 Upper Douglas Effective Pay GL 1715 K220 Elevation Formation Ft. Ticket No. Barber KANSAS Date 1-31-15 Sec. Twp. 32 S Range 13 W County State Test Approved By Steve Petermann Jason McLemore Diamond Representative 3864 ft. Total Depth\_ 3815 ft. to Formation Test No. Interval Tested from 3864 ft. 3810<sub>ft</sub> Size 6 3/4 6 3/4 Packer Depth Packer depth ft. Size in. 3815 ft. Size 6 3/4 6 3/4 Packer Depth Packer depth ft. Size Depth of Selective Zone Set 3803 ft 5513 Cap. 5000 P.S.I. Top Recorder Depth (Inside) Recorder Number 5000 P.S.I. 3804 ft. 5588 Cap. Recorder Number Bottom Recorder Depth (Outside) Below Straddle Recorder Depth Recorder Number Cap. P.S.I. Chemical 0 ft. I.D. Viscosity Drill Collar Length 2 1/4 Mud Type 8.8 0 ft. I.D.\_\_\_\_ 9.1 Weight cc. Weight Pipe Length 2 7/8 Water Loss 3791 ft. 4000 P.P.M. I.D. 3 1/2 Chlorides Drill Pipe Length NA 25 ft. STERLING Tool Size 3 1/2-IF Serial Number Test Tool Length Jars: Make No No 49 ft. Size 4 1/2-FH Did Well Flow? Reversed Out Anchor Length 31' DP In Anchor 4 1/2 XH in. Main Hole Size Tool Joint Size Surface Choke Size Bottom Choke Size 5/8 in. Blow: 1st Open: BOB in 10 Sec, Gas To Surface On Shut In., Blowback Built to 3" 2nd Open: Gaging Gas 950 ft of Muddy Water, 90% Water, 10% Mud Recovered 950 ft. of TOTAL FLUID Recovered ft. of Recovered Recovered ft. of Price Job ft. of Recovered ft. of Other Charges Recovered Insurance Remarks: Total A.M. A.M. 10:07 PM 121 11:42 PM P.M. Time Started Off Bottom P.M. Maximum Temperature Time Set Packer(s) 1760 P.S.I. Initial Hydrostatic Pressure.....(A) 5 81 P.S.I. to (C) 159 P.S.I. 30 1445 P.S.I. (D) 427 <sub>P.S.I.</sub> 30 191 P.S.I. to (F) (E) 1382 P.S.I. Final Closed In Period......Minutes

Final Hydrostatic Pressure

1759 P.S.I.

Hopkins Ranch 31 #1 Formation: Marmaton-Conglomerate Pool: Wildcat Job Number: K221 150 100 125 25 20 0 20:00 19:00 p = 2092.3418:00 Hopkins Ranch 31 #1 17:00 p = 687.07Temp = 119.655513 Time 16:00 p = 19.93p = 306.80p = 23.8615:00 p = 22.46p = 42.1614:00 p = 2094.97LB Exploration, Inc DST #2 Marm-Cong 4374-4455 Start Test Date: 2015/02/02 Final Test Date: 2015/02/02 13:00 12:00 2015/2/2 200 2000 1500 -200 5513 Pressure , psi(a) 0

5513 Temperature, °F

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CELL # 620-617-0527

### **General Information**

Company Name LB Exploration, Inc

Contact Steve Petermann Job Number K221 Hopkins Ranch 31 #1 Representative **Well Name** Jason McLemore **Unique Well ID** DST #2 Marm-Cong 4374-4455 Well Operator LB Exploration, Inc **Surface Location** 31-32s-13w-Barber Prepared By Jason McLemore Palmer Qualified By **Steve Petermann** Field **Vertical Test Unit Well Type** 6

### **Test Information**

Representative Test Type Drill Stem Test Well Operator Formation Marmaton-Conglomerate Report Date Well Fluid Type 01 Oil Prepared By Test Purpose (AEUB) Jason McLemore La Exploration, Inc.

 Start Test Date
 2015/02/02 Start Test Time
 12:32:00

 Final Test Date
 2015/02/02 Final Test Time
 19:14:00

### **Test Results**

**RECOVERED:** 

20 Drilling Mud20 TOTAL FLUID

1200' Gas In Pipe



### DIAMOND TESTING P.O. Box 157 HOISINGTON, KANSAS 67544

(800) 542-7313

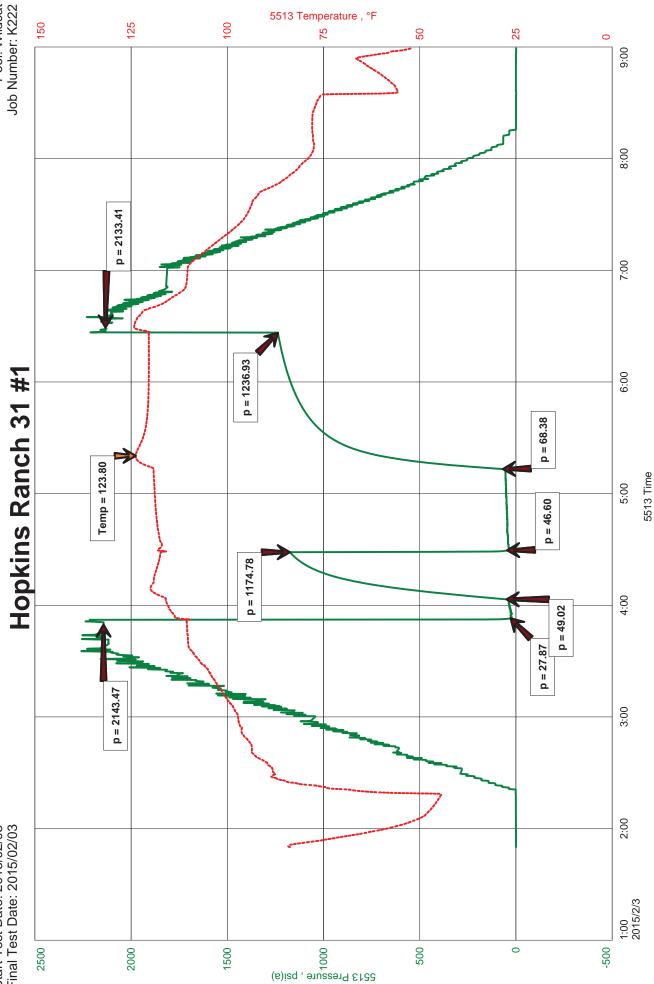
TIME ON: 12:32 PM TIME OFF: 7:14 PM

### **DRILL-STEM TEST TICKET**

FILE: hop31dst2

Company_LB Exploration, Inc	Lease & Well No. Hopkins Ranch 31 #1
Contractor Ninnescah 101	Charge to LB Exploration, Inc
ElevationGL 1715FormationMarm-Con	Effective PayFt. Ticket NoK221
	inge 13 W County Barber State KANSAS
Test Approved By Steve Petermann	Diamond Representative Jason McLemore
Formation Test No. 2 Interval Tested from 43	
Packer Depth 4369 ft. Size 6 3/4 in.	Packer depthft. Size_ 6 3/4 in.
Packer Depth 4374 ft. Size6 3/4 in.	Packer depthft. Size6 3/4 in.
Depth of Selective Zone Set	
Top Recorder Depth (Inside) 4362 ft.	Recorder Number5513 Cap5000 P.S.I.
Bottom Recorder Depth (Outside) 4363 ft.	Recorder Number 5588 Cap. 5000 P.S.I.
Below Straddle Recorder Depthft.	Recorder NumberCapP.S.I.
Mud Type Chemical Viscosity 51	Drill Collar Length         0 ft. I.D.         2 1/4         in.
Weight 9.4 Water Loss 10.4 cc.	Weight Pipe Length0 ft. I.D2 7/8 in
Chlorides 6000 P.P.M.	Drill Pipe Length 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 81 ft. Size 4 1/2-FH in
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in.	63' DP In Anchor Surface Choke Size 1 in. Bottom Choke Size 5/8 in
Blow: 1st Open: BOB in 1 Min., 40 Seconds, Surface E	Blowback For 10 Min.
2nd Open: BOB on Open, No Blowback	1
Recovered 20 ft. of Drilling Mud	
Recovered 20 ft. of TOTAL FLUID	
1200' Gas In Pipe	
Recovered ft. of	
Recovered ft. of	
Recovered ft. of	Other Charges
Remarks:	Insurance
CASTRONO PICCAR	
	Total
Time Set Packer(s) 2:42 PM A.M. P.M. Time Started Off Bo	ttom 5:02 PM A.M. Maximum Temperature 120
Initial Hydrostatic Pressure	(A) 2095 P.S.I.
Initial Flow PeriodMinutes10	(B) 42 P.S.I. to (C) 22 P.S.I.
Initial Closed In Period	(D)307 <sub>P.S.I.</sub>
Final Flow PeriodMinutes40	(E)24 P.S.I. to (F)20 P.S.I.
Final Closed In PeriodMinutes60	(G) 687 P.S.I.
Final Hydrostatic Pressure.	(H) 2092 <sub>P.S.I.</sub>

Hopkins Ranch 31 #1 Formation: Mississippi Pool: Wildcat Job Number: K222 LB Exploration, Inc DST #3 Mississippi 4456-4472 Start Test Date: 2015/02/03 Final Test Date: 2015/02/03





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### **DIAMOND TESTING**

P. O. Box 157 HOISINGTON, KANSAS 67544 (316) 653-7550

### GAS VOLUME REPORT

Company LB Exploration, Inc	Lease & Well No. Hopkins Ranch 31 #1	
Date 2-3-15 Sec. 31 Twp. 32 S Rge. 13 W Lo	cationBarber	KS
Drilling Contractor Ninnescah #101	Formation Mississippi	D\$T No3
Remarks: Sample Taken 20 Min. into 2nd Open.		
		<u> </u>

### **INITIAL FLOW**

Time O'Clock	Orifice Size	Gauge	CF/D
	in.	in.	
:	in.	in,	
	in.	ìn.	
	ia.	in.	
	ín.	in.	
	in,	in.	
	in.	in.	

### FINAL FLOW $_{\mbox{\scriptsize IW}}$

Time O'Clock	Orifice Size	Gauge	CF/D
10	.5 in,	3.5# in.	64,000
20	.5 in.	3# in.	59,200
30	.5 <sub>in.</sub>	3# in.	59,200
40	.5 in.	3# <sub>in.</sub>	59,200
	in,	in.	
	in.	in,	
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	in.	ìn.	
	in.	in,	
	in.	in.	
i			

FINAL FLOW



CELL # 620-617-0527

### **General Information**

Company Name LB Exploration, Inc

Contact Steve Petermann Job Number **K222** Hopkins Ranch 31 #1 Representative Jason McLemore **Well Name Unique Well ID** DST #3 Mississippi 4456-4472 Well Operator Steve Petermann **Surface Location** 31-32s-13w-Barber Prepared By Jason McLemore Palmer Qualified By Field **Steve Petermann Vertical Test Unit Well Type** 6

### **Test Information**

Representative Test Type Drill Stem Test Well Operator Formation Mississippi Report Date 2015/02/03 Well Fluid Type 01 Oil Prepared By Test Purpose (AEUB) Report Date Initial Test Jason McLemore

 Start Test Date
 2015/02/03 Start Test Time
 01:50:00

 Final Test Date
 2015/02/03 Final Test Time
 08:58:00

### **Test Results**

### **RECOVERED:**

80 VSOCM, 1% Oil, 99% Mud

40 OCMW, 20% Oil, 60% Water, 20% Mud

120 TOTAL FLUID



# P.O. Box 157 OISINGTON, KANSAS 6754

HOISINGTON, KANSAS 67544 (800) 542-7313

DRILL-STEM TEST TICKET

FILE: hop31dst3

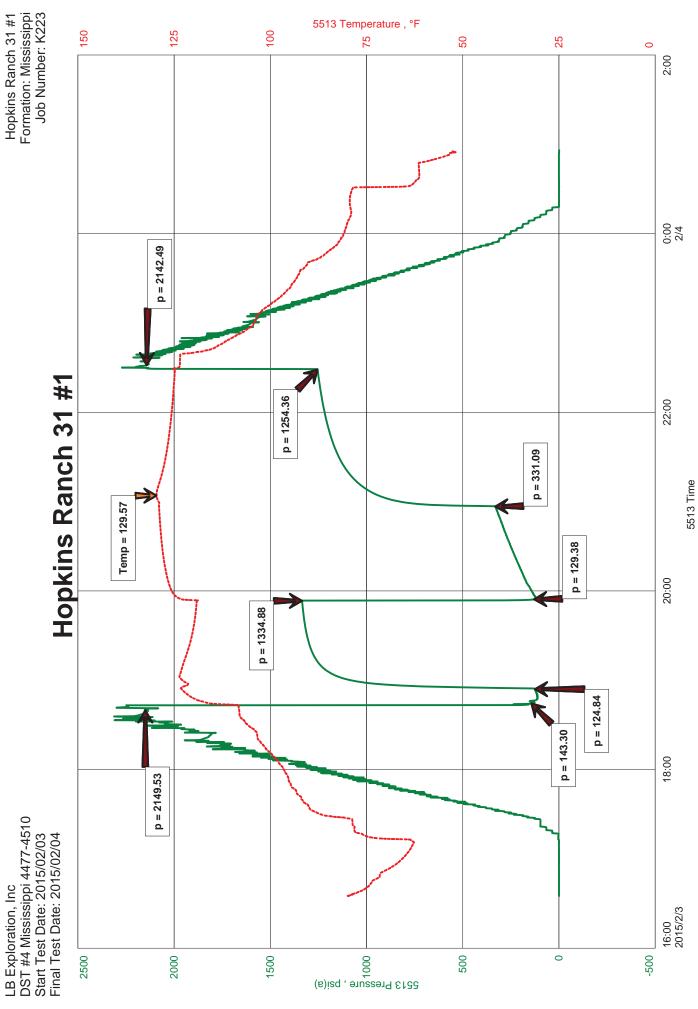
TIME ON: 1:50 AM

TIME OFF: 8:58 AM

Company_LB Exploration, Inc	Lease & Well No. Hopkins Ranch 31 #1
Contractor Ninnescah 101	Charge to LB Exploration, Inc
ElevationGL 1715FormationMississip	pi Effective PayFt. Ticket NoK222
Date 2-3-15 Sec. 31 Twp. 32 S R	
Test Approved By Steve Petermann	Diamond Representative Jason McLemore
	456 ft. to4472 ft. Total Depth 4472 ft.
Packer Depth 4451 ft. Size 6 3/4 in.	Packer depthft. Size 6 3/4 in.
Packer Depth 4456_ft. Size6_3/4in.	Packer depthft. Size6 3/4in.
Depth of Selective Zone Set	
Top Recorder Depth (Inside) 4444 ft.	Recorder Number
Bottom Recorder Depth (Outside)ft.	Recorder Number 5588 Cap. 5000 P.S.I.
Below Straddle Recorder Depthft.	Recorder NumberCapP.S.I.
Mud Type Chemical Viscosity 51	Drill Collar Length         0 ft.         I.D.         2 1/4         in
Weight 9.4 Water Loss 10.4 cc	Weight Pipe Length 0 ft. I.D. 2 7/8 ir
Chlorides 6000 P.P.M.	Drill Pipe Length 4431 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 16 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: BOB in 20 Seconds, No Blowback	
<sup>2nd Open:</sup> BOB on Open, Gas To Surface in 8 Min	, Gaging Gas, No Blowback
Recovered 80 ft. of VSOCM, 1% Oil, 99% Mud	
Recovered40 ft. of OCMW, 20% Oil, 60% Water, 20% Mud	
Recovered120 ft. of TOTAL FLUID	
Recoveredft. of CHLORIDES: 84,000	
Recoveredft. of PH: 6	Price Job
Recoveredft. of RW: .130 @ 25	Other Charges
Remarks:	Insurance
g	
O.55 a.m. A.M.	Total A.M.
Time Set Packer(s) 3:55 am P.M. Time Started Off Br	
Initial Hydrostatic Pressure	(A) 2143 P.S.I.
Initial Flow PeriodMinutes10	(B)
Initial Closed In Period	(D) 1175 P.S.I.
Final Flow Period	(E)68_P.S.I. to (F)68_P.S.I.
Final Closed In PeriodMinutes60	(G)1237 <sub>P.S.I.</sub>
Final Hydrostatic Pressure	

Diamond Testing shall not be liable for damages of any kind to 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 statement or opinion concerning the result 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.

Hopkins Ranch 31 #1 Formation: Mississippi Job Number: K223



C:\Users\Roger Friedly\Desktop\HOP31DST4.FKT 04-Feb-15 Ver



### **DIAMOND TESTING**

P. O. Box 157 HOISINGTON, KANSAS 67544 (316) 653-7550

### GAS VOLUME REPORT

Company_ LB Exploration, Inc	Lease & Well No. Hopkins Ranch 31 #1	
Date 2-3-15 Sec. 31Twp. 32S Rge. 13W	Location County Barber	KS
Drilling Contractor Ninnescah #101	Formation Mississippi	D\$T No4
Remarks: Sample Taken 15 Min. into 2nd Open.		

### **INITIAL FLOW**

Time O'Clock	Orifice Size	Gauge	CF/D
	in.	in.	
	in.	in,	
	in.	ìn.	
	ia.	in.	
	in.	in.	
	in,	in.	
	in.	in.	

### FINAL FLOW $_{\mbox{\scriptsize IW}}$

Time O'Clock	Orifice Size	Gauge	CF/D
10	.5 in,	5-1/2# in.	81,800
20	.5 in.	5-1/2# in.	81,800
30	.5 <sub>in.</sub>	4# in.	68,800
40	.5 in.	4# in.	68,800
50	.5 in,	4# in.	68,800
60	.5 in.	4# in,	68,800
	in,	in.	
	in.	ìn.	
	in.	in,	
	in.	in.	
i			

FINAL FLOW



### CELL # 620-617-0527

### **General Information**

Company Name LB Exploration, Inc

Contact Steve Petermann Job Number K223 Hopkins Ranch 31 #1 Representative **Well Name Jason Mclemore Unique Well ID** DST #4 Mississippi 4477-4510 Well Operator LB Exploration, Inc **Surface Location** 31-32s-13w-Barber Prepared By **Jason Mclemore** Palmer Qualified By **Steve Petermann** Field **Vertical Test Unit Well Type** 

### Test Information

Representative Test Type Drill Stem Test Well Operator Formation Mississippi Report Date Well Fluid Type 01 Oil Prepared By Test Purpose (AEUB) Jason Mclemore Jason Mclemore Initial Test Jason Mclemore

 Start Test Date
 2015/02/03 Start Test Time
 16:35:00

 Final Test Date
 2015/02/04 Final Test Time
 00:56:00

### **Test Results**

### **RECOVERED:**

650 Muddy Water 650 TOTAL FLUID

**CHLORIDES: 98,000** 

PH: 6

RW: .800 @ 36



## P.O. Box 157

HOISINGTON, KANSAS 67544 (800) 542-7313

### **DRILL-STEM TEST TICKET**

FILE: hop31dst4

TIME ON: 4:35 PM

TIME OFF: 12:56 AM

Company_LB Exploration, Inc	Lease & Well No. Hopkins Ranch 31 #1
Contractor Ninnescah 101	Charge to LB Exploration, Inc
ElevationGL 1715FormationMississipp	i Effective PayFt. Ticket NoK223
	inge 13 W County Barber State_ KANSAS
Test Approved By Steve Petermann	Diamond Representative Jason McLemore
Formation Test No. 4 Interval Tested from 44	77 ft. to4510 ft. Total Depth 4510 ft.
Packer Depthft. Size6 3/4in.	Packer depthft. Size 6 3/4 in.
Packer Depthft. Size6 3/4in.	Packer depthft. Size6 3/4in.
Depth of Selective Zone Set	
Top Recorder Depth (Inside) 4465 ft.	Recorder Number         5513         Cap.         5000 P.S.I.
Bottom Recorder Depth (Outside) 4466 ft.	Recorder Number         5588 Cap.         5000 P.S.I.
Below Straddle Recorder Depthft.	Recorder Number Cap P.S.I.
Mud Type Chemical Viscosity 48	Drill Collar Length         0 ft.         I.D.         2 1/4 in
Weight         9.2         Water Loss         10.2         cc.	Weight Pipe Length
Chlorides 6800 P.P.M.	Drill Pipe Length 4452 ft. I.D 3 1/2 ir
Jars: Make STERLING Serial Number NA	Test Tool Length 25 ft. Tool Size 3 1/2-IF ir
Did Well Flow? No Reversed Out No	Anchor Lengthi define the size and
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in.	
Blow: 1st Open: BOB in 15 seconds, Gas To Surface C	On Shut In, Blowback Built to 2-1/2"
<sup>2nd Open:</sup> Gaging Gas, Blowback Built to 4"	9
Recovered 650 ft. of Muddy Water, 95% Water, 5% Mud	
Recovered 650 ft. of TOTAL FLUID	
Recoveredft. of	
Recoveredft. of CHLORIDES: 98,000	
Recoveredft. of PH: 6	Price Job
Recoveredft. of RW: .800 @ 36	Other Charges
Remarks:	Insurance
·	
C. 45 DM A.M.	Total A.M.
Time Set Packer(s) 6:45 PM P.M. Time Started Off Bo	
Initial Hydrostatic Pressure	5/ A
Initial Flow Period	(B) 143 P.S.I. to (C) 125 P.S.I.
Initial Closed In Period	(D)1335 P.S.I.
Final Flow Period	(E) 129 P.S.I. to (F) 331 P.S.I.
Final Closed In PeriodMinutes 90	(G) 1254 P.S.I.
Final Hydrostatic Pressure	(H) 2142 <sub>P.S.I.</sub>

Hopkins Ranch 31 #1 Formation: Mississippi Pool: Wildcat Job Number: K224 5513 Temperature, °F 150 100 125 22 20 p = 2165.71 Hopkins Ranch 31 #1 p = 756.33Temp = 119.30p = 796.38LB Exploration, Inc DST #5 Mississippi 4517-4590 Start Test Date: 2015/02/04 Final Test Date: 2015/02/04 p = 2160.805513 Pressure , psi(a) 200 2500 2000 1500

Fast

25

0

0:00

22:00

20:00

18:00

16:00

14:00 2015/2/4

-200

p = 42.87

p = 24.07

p = 26.81

0

p = 20.75

5513 Time



CELL # 620-617-0527

### **General Information**

Company Name LB Exploration, Inc

Contact Steve Petermann Job Number K224 Hopkins Ranch 31 #1 Representative **Well Name** Jason McLemore **Unique Well ID** DST #5 Mississippi 4517-4590 Well Operator LB Exploration, Inc **Surface Location** 31-32s-13w-Barber Prepared By Jason McLemore Palmer Qualified By **Steve Petermann** Field **Vertical Test Unit Well Type** 6

### **Test Information**

Representative Jason McLemore **Test Type** Drill Stem Test Well Operator LB Exploration, Inc **Formation** Mississippi Report Date 2015/02/04 01 Oil Prepared By **Well Fluid Type Jason McLemore Test Purpose (AEUB) Initial Test** 

**Start Test Date** 2015/02/04 Start Test Time 14:08:00 2015/02/04 Final Test Time **Final Test Date** 22:38:00

### **Test Results**

### **RECOVERED:**

50 VSOCM, 1% Oil, 99% Mud

50 **TOTAL FLUID** 



# P.O. Box 157 OISINGTON, KANSAS 6754

HOISINGTON, KANSAS 67544 (800) 542-7313

### DRILL-STEM TEST TICKET

FILE: hop31dst5

TIME ON: 4:13 PM

TIME OFF: 10:38 PM

•	icc. <u>Hopore</u>	1313				
Company LB Exploration, Inc		_Lease & Well NoHe	opkins Ranch 31 #1			
Contractor Ninnescah 101	VI	_ Charge to LB Explo	ration, Inc			
Elevation GL 1715 Formation	Mississip	pi Effective Pay	F	t. Ticket	No	K224
Date 2-4-15 Sec. 31 Twp.	32 S R	ange1	13 W County	Barber	_ State_	KANSAS
Test Approved By Steve Petermann		_ Diamond Representati	veJas	son McLe	more	
Formation Test No5 Interval Tested from	m45	517 ft. to	4590 ft. Total De	epth		4590 ft.
Packer Depth	in.	Packer depth	ft	. Size	6 3/4	in.
Packer Depth 4517 ft. Size 6 3/4		Packer depth	ft	. Size	6 3/4	in.
Depth of Selective Zone Set						
Top Recorder Depth (Inside)	4503 <sub>ft.</sub>	Recorder Number_	5513 Ca	p	5000	) P.S.I.
Bottom Recorder Depth (Outside)	4506 ft.	Recorder Number_	5588 C	ар	500	D_P.S.I.
Below Straddle Recorder Depth	ft.	Recorder Number_	Ca	p		
Mud Type Chemical Viscosity 48		Drill Collar Length_		I.D		
Weight 9.3 Water Loss 11.	.2cc.	Weight Pipe Length	0 <sub>ft.</sub>	I.D	2 7/8	Bin
Chlorides 600	00 P.P.M.	Drill Pipe Length	4492 ft.	I.D	3 1/2	2in
Jars: Make STERLING Serial Number	NA	Test Tool Length	25 <sub>ft.</sub>	Tool Size	e 3 1/2	2-IFin
Did Well Flow?NoReversed Out	No	Anchor Length	73 <sub>ft.</sub>	Size	4 1/2	2-FHin
Main Hole Size 7 7/8 Tool Joint Size 4	1/2 XH in.	63' DP in Anchor Surface Choke Size	1in.	Bottom (	Choke Siz	e_ 5/8 _in
Blow: 1st Open: BOB in 10 Seconds, No Blow	wback					
2nd Open: BOB on Open, Odorless Gas I		After 10 Min., to	Weak to Gage,	No Blo	wback	ų.
Recovered 50 ft. of VSOCM, 1% Oil, 99% Mud						
Recovered 50 ft. of TOTAL FLUID						
Recovered ft. of						
Recoveredft. of						
Recoveredft. of			Pric	e Job		
Recovered ft. of			Oth	er Charge	s	
Remarks:				urance		
Normalis.						
2			Tot	al		
Time Set Packer(s) 4:13 PM A.M. P.M. Time S	Started Off Bo	8:18 PM	A.M. P.M. Maximu	m Temper	ature	119
Initial Hydrostatic Pressure		(A)	2161 P.S.I.			
Initial Flow Period	10	(B)	27 P.S.I. to (C)		21 <sub>F</sub>	P.S.I.
Initial Closed In Period Minutes	45	(D)	796 <sub>P.S.I.</sub>			
Final Flow Period	70	(E)	24 P.S.I. to (F)		43 <sub>P</sub>	.S.I.
Final Closed In PeriodMinutes	120	(G)	756 <sub>P.S.I.</sub>			
Final Hydrostatic Pressure		(H)	2166 P.S.I.			
Diamond Testing shall not be liable for damages of any kind to the property			or for any loss suffered or	ustained, dire	ctly or indirec	tly through

Hopkins Ranch 31 #1 Formation: Simpson Pool: Wildcat Job Number: K225 5513 Temperature, °F 159.6 136.8 114.0 91.2 45.6 22.8 68.4 p = 2357.84Hopkins Ranch 31 #1 Temp = 126.09p = 1143.74p = 975.15p = 2360.10 LB Exploration, Inc DST #6 Simpson 4884-4944 Start Test Date: 2015/02/06 Final Test Date: 2015/02/07 5133 Pressure , psi(a) 2500 2000 200 0

**Tas** 

0.0

1:00

0:00

23:00

22:00

20:00

19:00

18:00

17:00 2015/2/6

-200

21:00 5513 Time

p = 12.43

p = 11.17

p = 11.32

p = 10.80



CELL # 620-617-0527

### **General Information**

Company Name LB Exploration, Inc

Contact Steve Petermann Job Number K225 Hopkins Ranch 31 #1 Representative **Well Name Jason Mclemore Unique Well ID** DST #6 Simpson 4884-4944 Well Operator LB Exploration, Inc 31-32s-13w-Barber Prepared By **Surface Location Jason Mclemore** Palmer Qualified By Steve Petermann Field **Vertical Test Unit Well Type** 6

### **Test Information**

Representative Test Type Drill Stem Test Well Operator Formation Simpson Report Date 2015/02/07 Well Fluid Type 01 Oil Prepared By Test Purpose (AEUB) Simpson Report Date 2015/02/07 Jason Mclemore Initial Test

 Start Test Date
 2015/02/06 Start Test Time
 17:30:00

 Final Test Date
 2015/02/07 Final Test Time
 00:10:00

### **Test Results**

### **RECOVERED:**

2 Drilling Mud2 TOTAL FLUID



## P.O. Box 157

HOISINGTON, KANSAS 67544 (800) 542-7313

### **DRILL-STEM TEST TICKET**

FILE: hop31dst6

TIME ON: 5:30 PM

TIME OFF: 12:10 AM

•	L. Hopore	1310				
Company LB Exploration, Inc		_Lease & Well NoHe	opkins Ranch 31 #1			
Contractor Ninnescah 101		_ Charge to LB Explo	ration, Inc			
Elevation GL 1715 Formation	Simpso	n_Effective Pay		Ft. Ticket	No	K225
Date 2-6-15 Sec. 31 Twp.	32 S R	ange1	13 W County	Barber	State_	KANSAS
Test Approved By Steve Petermann		_ Diamond Representati	veJa	son McLe	emore	
Formation Test No. 6 Interval Tested from	48	884 ft. to	4944 ft. Total D	epth		4944 ft.
Packer Depth	in.	Packer depth		t. Size	6 3/4	in.
Packer Depth 4884 ft. Size 6 3/4	_ in.	Packer depth		t. Size	6 3/4	in.
Depth of Selective Zone Set						
Top Recorder Depth (Inside)	872 <sub>ft.</sub>	Recorder Number_	5513 C	ар	500	0_P.S.I.
Bottom Recorder Depth (Outside)4	873 <sub>ft.</sub>	Recorder Number_	5588	Сар	500	<sup>0</sup> _P.S.I.
Below Straddle Recorder Depth	ft.	Recorder Number_				_ P.S.I.
Mud Type Chemical Viscosity 49		Drill Collar Length_	<u>0</u> ft.	I.D	2 1/	4 in.
Weight 9.4 Water Loss 10.8	cc.	Weight Pipe Length	0 <sub>ft</sub>	I.D	2 7/	8in
Chlorides 7000	P.P.M.	Drill Pipe Length	4859 ft.	I.D	3 1/	2 in
Jars: Make STERLING Serial Number N	4	Test Tool Length	25 <sub>ft.</sub>	Tool Siz	ze 3 1/	2-IFin
Did Well Flow? No Reversed Out	No	Anchor Length	60 <sub>ft.</sub>	Size	4 1/	2-FH in
Main Hole Size 7 7/8 Tool Joint Size 4 1/2	XH_in.	31' DP in Anchor Surface Choke Size	1in.	Bottom	Choke Siz	te_5/8_in
Blow: 1st Open: Weak Surface Blow, Died in 5	Min., N	o Blowback				
2nd Open: Dead						ų.
Recovered 2 ft. of Drilling Mud						
Recovered 2 ft. of TOTAL FLUID						
Recovered ft. of						
Recoveredft. of						
Recoveredft. of			Pr	ice Job		
Recovered ft. of			Ot	her Charge	es	
Remarks:			Ins	surance		
CASTROPORTIONAL .						
			To	tal		
Time Set Packer(s) 7:25 PM A.M. P.M. Time Sta	rted Off Bo	9:40 PM	A.M. P.M. Maxim	um Tempe	rature	126
Initial Hydrostatic Pressure		(A)	2360 P.S.I.			
Initial Flow Period	30	(B)	11 P.S.I. to (C	)	11	P.S.I.
Initial Closed In Period Minutes	30	(D)	975 <sub>P.S.I.</sub>			
Final Flow PeriodMinutes	30	(E)	11 P.S.I. to (F)		12 <sub>P</sub>	.S.I.
Final Closed In PeriodMinutes	45	(G)	1144 P.S.I.			
Final Hydrostatic Pressure		(H)	2358 <sub>P.S.I.</sub>			
Diamond Testing shall not be liable for damages of any kind to the property or	personnel of th	e one for whom a test is made	or for any loss suffered or	sustained dir	ectly or indirec	tly through

Diamond Testing shall not be liable for damages of any kind to 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 statement or opinion concerning the result 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.