

Confidentiality Requested:

Yes No

# Kansas Corporation Commission Oil & Gas Conservation Division

1215936

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: Kelly Bushing: Total Vertical Depth: Plug Back Total Depth: Feet Multiple Stage Cementing Collar Used? Yes No If yes, show depth set: Feet
Operator:	If Alternate II completion, cement circulated from:
Well Name: Original Total Depth: Original Total Depth:	feet depth to: w/ sx cmt.  Drilling Fluid Management Plan
☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer	(Data must be collected from the Reserve Pit)
Commingled         Permit #:           Dual Completion         Permit #:	Chloride content: ppm Fluid volume: bbls  Dewatering method used:
☐ SWD Permit #:	Location of fluid disposal if hauled offsite:
ENHR Permit #:	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:				

# 1215936

Operator Name:			Lease Name:			Well #:	
Sec Twp	S. R	East West	County:				
open and closed, flow	ring and shut-in pressu	ormations penetrated. Dres, whether shut-in preith final chart(s). Attach	ssure reached stati	c level, hydrosta	tic pressures, bott		
		tain Geophysical Data a r newer AND an image f		gs must be ema	iled to kcc-well-lo	gs@kcc.ks.gov	v. Digital electronic log
Drill Stem Tests Taker (Attach Additional S		Yes No			on (Top), Depth an		Sample
Samples Sent to Geological Survey						Тор	Datum
Cores Taken Electric Log Run		Yes No					
List All E. Logs Run:							
		0.0000					
		CASING Report all strings set-o	RECORD Ne onductor, surface, inte		ion, 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
Durmaga	Depth		CEMENTING / SQU	EEZE RECORD			
Purpose: Perforate	Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives			
Protect Casing Plug Back TD							
Plug Off Zone							
Did you perform a hydrou	ulia fracturing tractment or	a this well?		Yes	No (If No, ski	n quantiana 2 an	(d 2)
	ulic fracturing treatment or otal base fluid of the hydra	aulic fracturing treatment ex	ceed 350,000 gallons?	= =	= ' '	p questions 2 an p question 3)	u 3)
Was the hydraulic fractur	ring treatment information	submitted to the chemical o	disclosure registry?	Yes	No (If No, fill	out Page Three	of the ACO-1)
Shots Per Foot		N RECORD - Bridge Plug			cture, Shot, Cement		
	Specify Fo	ootage of Each Interval Perf	orated	(Ai	mount and Kind of Ma	terial Used)	Depth
TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run:	Yes No		l
Date of First, Resumed	Production, SWD or ENH	R. Producing Meth		Gas Lift C	Other <i>(Explain)</i>		
Estimated Production Per 24 Hours	Oil B		Mcf Wate			as-Oil Ratio	Gravity
DISPOSITIO	ON OF GAS:		METHOD OF COMPLE	TION:		PRODUCTIO	DN INTERVAL:
Vented Sold		Open Hole	Perf. Dually	Comp. Cor	nmingled	1110000110	TO THE LEVILLE
	bmit ACO-18.)	Other (Specify)	(Submit A	ACO-5) (Sub	mit ACO-4)		

Form	ACO1 - Well Completion
Operator	Hartman Oil Co., Inc.
Well Name	Heyen 1-2
Doc ID	1215936

# All Electric Logs Run

Microlog	
Spectral Density Neutron	
Compensated Resistivity	
Borehole Compensated Sonic	

Form	ACO1 - Well Completion
Operator	Hartman Oil Co., Inc.
Well Name	Heyen 1-2
Doc ID	1215936

# Tops

Name	Тор	Datum
Anhydrite	700	+1158
Topeka	3024	-1116
Heebner	3343	-1435
Toronto	3361	-1453
Lansing	3506	-1598
B/KC	3770	-1862
Mississippi	3804	-1896
Viola	3826	-1918
Arbuckle	4024	-2116
RTD	4090	-2182

Form	ACO1 - Well Completion
Operator	Hartman Oil Co., Inc.
Well Name	Heyen 1-2
Doc ID	1215936

# Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Type and Percent Additives
Surface	12.250	8.675	24	342	Common	3% cc, 2% gel
Production	7.875	5.5	17	4081	Class A, 60/35 Poz	1/4# flo,10% salt,2% gel



Voice:

(817) 546-7282

Fax:

(817) 246-3361

# Bill To:

Hartman Oil Co., Inc. H2 Drilling & H2 Trucking 3545 W. Jones Avenue Garden City, KS 67846

# INVOICE

Invoice Number: 144099

Invoice Date: Jun 25, 2014

Page: 1

Quantity	Item	Description	on	Unit Price	Amount
	KS1-01	Great Bend	Jun 25, 2014 7/25/		5/14
Jo	b Location	Camp Location Service D		Due Date	
	Hart	63579	Net	Net 30 Days	
C	ustomer ID	Field Ticket#	Payment Terms		

Quantity	item	Description	Unit Price	Amount
	WELLNAME	Heyen #1-2 81713		
350.00	CEMENT MATERIALS	Class A Common	17.90	6,265.00
658.00	CEMENT MATERIALS	Gel	1.05	690.90
987.00	CEMENT MATERIALS	Chloride	1.10	1,085.70
378.46	CEMENT SERVICE	Cubic Feet Charge	2.48	938.58
345.40	CEMENT SERVICE	Ton Mileage Charge	2.75	949.85
1.00	CEMENT SERVICE	Surface	1,512.25	1,512.25
20.00	CEMENT SERVICE	Pump Truck Mileage	7.70	154.00
20.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	88.00
1.00	EQUIPMENT SALES	8-5/8 Rubber Plug	131.04	131.04
1.00	CEMENT SUPERVISOR	Charles Kinyon		
1.00	EQUIPMENT OPERATOR	Ben Newell		
1.00	EQUIPMENT OPERATOR	Daniel Casper		
		NEW WELL		
		DRILLED		
	AT Wil	the		
	7-10	-14		

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

\$

3,308 29

ONLY IF PAID ON OR BEFORE
Jul 25, 2014

Subtotal	11,815.32
Sales Tax	584.34
Total Invoice Amount	12,399.66
Payment/Credit Applied	
TOTAL	12,399.66

# ALLIED OIL & GAS SERVICES, LLC 063579 Federal Tax I.D. # 20-8651475

		99 .TEXAS 76	092				SER	VICE POINT:	t Bend
6-25-14 DATE	SEC.	TWP ZY	RANGE	5	ALLED OUT	9	N LOCATION	JOB START	JOB FINISH 7:00 as
HEGER	WELL	1-2	LOCATION 2	Xi	L. 12	4 F	5.1.1	COUNTY	STATE
OLD OR NEW C			LOCATION -2	J. Ja	7m 12	- /	o cine	wiffer	K
CONTRACTOR A	H2	#4			OWNER -	m	me		
HOLE SIZE 12:	t production of the second	ice Tr	356		CENTENIM				
CASING SIZE	85%		PTH. 356		CEMENT	DDE1	ED 25	on cl	- A
TUBING SIZE			PTH		37.00	22	(EU <u>QU</u>	- y cu	MA
DRILL PIPE		DE	PTH	_			0		
TOOL			PTH						
PRES. MAX			NIMUM		COMMON_	_ 3	50	@17.90	6.265.00
MEAS. LINE CEMENT LEFT IN	V CCC	SH	OE JOINT		POZMIX _			@	
PERFS.	v C3U.				GEL _		658	@1.65	690,70
DISPLACEMENT	420	21.7	2 BBI	7.055	CHLORIDE		987	@ 1.10	1.085.70
		UIPMENT			ASC		Materia	le Total	9 (6)
	EQ	OTENING I			-		LINCI CVIO	erice	8.041-60
PUMPTRUCK	CEMEN	TER CA	1/20 // 200	-				_@ <u></u> @	\$ 2251.65
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BULK TRUCK			runer					e .	
#544-198	DRIVER	Dan	carpe					e	
BULK TRUCK			7-7				Ser	vice	
#	DRIVER	2						@	
					HANDLING MILEAGE Z			@ 2.78 2.75	938,38
Rice Ran Cire To / herd 5 B Clim A 3. Release D H20 Jan Crestate  CHARGE TO: /	Mic B1 H Dice Mic A cl	27° gr displi n cen	Nook II is 350 s is shut in 21.7	dan	DEPTH OF J PUMP TRUC EXTRA FOO MILEAGE _ MANIFOLD	K CH TAGE ₩υ u	ARGE	/5/2.25 @ @7.70 @ @ 4.40 @	154.00
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To: Allied Oil &		•			-			_@	
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and furnish ceme								- <del>-</del>	- 11
contractor to do v								TOTAL	131.07
done to satisfaction								28%	36.69
contractor. I have					SALES TAX	(If An	ıy)		_
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PRINTED NAME,	XC	7059	Axtel		TOTAL CHA	RGES	3.309	IF PAI	(26/26/26) B IN 30 DAYS
SIGNATURE _/	,	ray Esta	the contraction of the contracti			(	g.55	7. 03	



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

## Bill To:

Hartman Oil Co., Inc. H2 Drilling & H2 Trucking 3545 W. Jones Avenue Garden City, KS 67846

# INVOICE

Invoice Number: 144206

Invoice Date: Jul 4, 2014

Page: 1

Customer ID	Field Ticket #	Payment Terms	
Hart	63586	Net 30	Days
Job Location	Camp Location	Service Date	Due Date
KS1-02	Great Bend	Jul 4, 2014	8/3/14

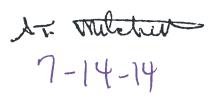
Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Hegen #1-2 7 7 3		
240.00	CEMENT MATERIALS	Class A Common	17.90	4,296.00
451.00	CEMENT MATERIALS	Gel	1.05	473.55
80.00	CEMENT MATERIALS	65/35/6% GeI	19.88	1,590.40
20.00	CEMENT MATERIALS	Flo Seal	2.97	59.40
1,320.00	CEMENT MATERIALS	Salt	0.68	897.60
1,200.00	CEMENT MATERIALS	Kol Seal	0.98	1,176.00
378.80	CEMENT SERVICE	Cubic Feet Charge	2.48	939.42
333.40	CEMENT SERVICE	Ton Mileage Charge	2.75	916.85
20.00	CEMENT SERVICE	Pump Truck Mileage	7.70	154.00
1.00	CEMENT SERVICE	Manifold Rental	275.00	275.00
20.00	CEMENT SERVICE	Light Vehicle Mileage		88.00
	CEMENT SERVICE	Waiting on Location No Charge		
10.00	EQUIPMENT SALES	5-1/2 Centralizer	57.00	570.00
2.00	EQUIPMENT SALES	5-1/2 Basket		790.00
1.00	EQUIPMENT SALES	5-1/2 Latch Down Plug	660.00	660.00
1.00	EQUIPMENT SALES	5-1/2 AFU Float Shoe	545.00	545.00
1.00	EQUIPMENT SALES	5-1/2 D V Tool	5,335.00	5,335.0
1.00	CEMENT SERVICE	Production Casing		2,765.7
1.00	CEMENT SUPERVISOR	Charles Kinyon		
1.00	OPERATOR ASSISTANT	Mariyn Spangenberg		
		Subtatal		Continue

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

\$ 3,816.95

ONLY IF PAID ON OR BEFORE
Aug 3, 2014

Continued
Continued
Continued
Continued





Voice:

(817) 546-7282

Fax:

(817) 246-3361

## Bill To:

Hartman Oil Co., Inc. H2 Drilling & H2 Trucking 3545 W. Jones Avenue Garden City, KS 67846

# INVOICE

Invoice Number: 144206

Invoice Date: Jul 4, 2014

Page:

2

Customer ID	Field Ticket #	Payment Terms	
Hart	63586	Net 30	Days
Job Location	Camp Location	Service Date	Due Date
KS1-02	Great Bend	Jul 4, 2014	8/3/14

Quantity	Item	Description	Unit Price	Amoun
1.00	EQUIPMENT OPERATOR			
	OPERATOR ASSISTANT	Kevin Weighous		
				l.

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

\$

3,816.95

ONLY IF PAID ON OR BEFORE Aug 3, 2014

21,531.97
1,172.10
22,704.07
22,704.07



# ALLIED OIL & GAS SERVICES, LLC 063586

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999

REMIT TO P.O. I SOUT		SERVICE POINT:  GREAT BENS							
								7-00	,
7-4-14 DATE	SEC	24	RANGE	CALLED 11:00	out pm	ON LO	Soan	JOB START 10:00 an	
Hegen	WELL#	1-2	LOCATION 27	soch .	121	<u>~</u> 5	Ante	COUNTY	STATE
OLD OR NEW (C			6	70-0-				2007-02	
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CONTRACTOR A	H-2	#4		1WO	NER 20	ime			
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TUBING SIZE			PTH	<u> </u>	pla	2	40 sx	class A	10% salt
DRILL PIPE			PTH	_ 5 A	Kol	elaf	27.	zel	
TOOL OV			PTH 1903						
PRES. MAX			NIMUM		IMON	<u>ス</u>	40	@ 17.90	4.296.00
MEAS. LINE	1)1 000	SH	OE JOINT /6	_ POZ		- 1 -		_@	
CEMENT LEFT	IN CSG.	16		GEL		45	5)	@ <u>/.۵5</u>	473.55
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DISPLACEMEN'			mud 44,5	_ ASC		-125	1/04	_@ <u></u>	1 60 - 570
	EQ	UIPMENT	Γ		<u> </u>			_@ <u>19.88</u>	1.590,50
					4910		26	@ 2.97	59.40
PUMP TRUCK	CEMEN'	TER Ch	acles King		٠ ١٠			_@ <u>. 68</u> _	897.60
# <i>597</i>	HELPER	mark	un some		al Scal		1200	@ . 58	1176.00
BULK TRUCK		0	·	3	ma	KUKAL			8.492.95
#870-844	DRIVER	das	Carnes				Kuse	_@ <u>28%</u> _	2.378.63
BULK TRUCK			- ,				- 5	wice .	
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SIGNATURE	XX)	+ Dr				1	1 - 11-	7, -	



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

Bill To:

Hartman Oil Co., Inc. H2 Drilling & H2 Trucking 3545 W. Jones Avenue Garden City, KS 67846

# INVOICE

Invoice Number: 144207

Invoice Date: Jul 4, 2014

Page:

1

Customer ID	Field Ticket #	Payment Terms	
Hart	63587	Net 30	Days
Job Location	Camp Location	Service Date	Due Date
KS1-02	Great Bend	Jul 4, 2014	8/3/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Hegen #1-2 8 17 3		
380.00	CEMENT MATERIALS	65/35/6% Gel	19.88	7,554.40
95.00	CEMENT MATERIALS	Flo Seal	2.97	282.15
386.33	CEMENT SERVICE	Cubic Feet Charge	2.48	958.10
350.40	CEMENT SERVICE	Ton Mileage Charge	2.75	963.60
1.00	CEMENT SERVICE	Production Top Stage	2,213.75	2,213.75
1.00	CEMENT SUPERVISOR	Charles Kinyon		
1.00	OPERATOR ASSISTANT	Marlyn Spangenberg		
1.00	OPERATOR ASSISTANT	Kevin Weighous		
1.00	EQUIPMENT OPERATOR	Daniel Casper		
	NEW WELI			
	DRILLED  AT 1	-14-14		
		Subtotal		11,972.0

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

\$

3,352.15

ONLY IF PAID ON OR BEFORE Aug 3, 2014

Subtotal	11,972.00
Sales Tax	560.31
Total Invoice Amount	12,532.31
Payment/Credit Applied	
TOTAL	12,532.31

# ALLIED OIL & GAS SERVICES, LLC 063587

Federal Tax I.D. # 20-8651475

000	THLAKE.	9 TEXAS 76	<b>1197</b>			SER	VICE POINT:	Benj
		121210 10	0,2				y as	NOG
7-4-14 DATE	SEC.	TWP.	RANGE	CALLED OU	T O	N LOCATION	JOB START 2:30pm	JOB FINISH
Hesen								STATE
LEASE	WELL#	1-2	LOCATION 2	+ sohn	14E	Schol	stabbord	K
OLD OR NEW	Circle one)			-0				, , , ,
CONTRACTOR	#-2	# 4			R-sas	ne		
TYPE OF JOB	produ	etu	2Nd sta	çe				
HOLE SIZE	7 8	T.I	. 4090	CEME		_		
CASING SIZE	52 F	フ# DE	PTH 1903	AMOŲ	NT ORDE	80 <b>380</b> RED	M 651	135 67.
TUBING SIZE		DE	PTH	gel	4 pla			
DRILL PIPE		DE	PTH	•				
TOOL OV		DE	EPTH 1903					
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MEAS. LINE		SH	IOE JOINT					
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<u> </u>	HELPER	mark	yn span	Glady	MA	terials 7	Total	7.836
BULK TRUCK				-6	71100	Disi		2.194.
# <i>599</i>	DRIVER	Kerr	a Weighs	uso		_		<u> </u>
BULK TRUCK		0					Service	*
#870-84	DRIVER	dan	Carper	ITANIE	1 INIC 39	76-33	@_ <del></del> 2.48	958.0
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		EMARKS:		MILEA	NGE LL	2 x 20	x 2.73	763.
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played A	Hacl	man	ese me	EXTR/ MILE/ MANII	A FOOTAC	E		
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Plaged Hose 20 CHARGE TO: _	Hace	man	ou me	EXTRA MILEA MANII	A FOOTAC	SE		<u>4.135.</u> 1.157.
CHARGE TO: STREET	Hack	man	os mo	EXTRA MILEA MANII	A FOOTAC	UG & FLO	の の の の で TOTAL スを分 AT EQUIPMEN	. 4.135. 1.157.
CHARGE TO: STREET	Hack	man	os mo	EXTRA MILEA MANII	A FOOTAC AGE FOLD PL	UG & FLO	TOTAL	. 4.135. 1.137.
CHARGE TO: STREET	Hack	man	os mo	EXTRA MILEA MANII	A FOOTAC AGE FOLD PL	UG & FLO	TOTAL	. 4.135. 1.137.
CHARGE TO: _ STREET CITY To: Allied Oil	Hack Sanh & Gas Ser	man STATE vices, LLC	ose mo	EXTR/MILEA MANII	A FOOTAC AGE FOLD PL	UG & FLO		. <u>4.135.</u> 1.157. NT
CHARGE TO: _ STREET CITY To: Allied Oil You are hereby	Harl S & Gas Ser requested	man  STATE  vices, LLC d to rent ce	ZIP_	EXTR/MILEA MANII	A FOOTAC AGE FOLD PL	UG & FLO		. 4.135. 1.157. NT
CHARGE TO: _ STREET CITY  To: Allied Oil You are hereby and furnish cer	Harl  S  & Gas Ser  requested menter and	STATE	ZIP	EXTR/MILEA MANII	A FOOTAC AGE FOLD PL	UG & FLO		. 4.135. 1.157. NT
CHARGE TO:STREET CITY To: Allied Oil You are hereby and furnish cer contractor to de	Harl  S  & Gas Ser  requested menter and o work as	TATE	ZIP	EXTR/MILEA MANII	A FOOTAC AGE FOLD PL	UG & FLO	— @ TOTAL 78	. 4.135. 1.157. VT
CHARGE TO: STREET CITY To: Allied Oil You are hereby and furnish cer contractor to de	Harl  S  & Gas Ser  requested menter and o work as	TATE	ZIP	EXTR/MILEA MANII	A FOOTAC AGE FOLD PL	UG & FLO	— @ TOTAL 78	. 4.135. 1.157. NT
CHARGE TO:STREET CITY To: Allied Oil You are hereby and furnish cer contractor to dedone to satisfact	Hack  & Gas Ser requested menter and o work as ction and s	TATE	ZIP	MANII  MANII  ment  or  was t or  RAL	PL	UG & FLOA	— @ TOTAL 78	. 4.135. 1.157. VT
CHARGE TO:STREET CITY To: Allied Oil You are hereby and furnish cer contractor to dedone to satisfac contractor. I have a contractor. I have a contractor.	Hack  & Gas Ser requested nenter and o work as ction and s ave read as	TATE	ZIP	MANII  MANII  ment  or  was t or  RAL	PL	UG & FLOA	### TOTAL  ### TOTAL	4.135. 1.157. VT
CHARGE TO: STREET CITY To: Allied Oil of You are hereby and furnish cer contractor to do done to satisfact contractor. I have the contractor of the contractor of the contractor of the contractor of the contractor. I have the contractor of the contractor of the contractor of the contractor. I have the contractor of the contrac	Hack & Gas Ser requested menter and o work as ction and s ave read at	TATE	ZIP	MANII  MANII  ment  or  was t or  RAL	PL	UG & FLOA	### TOTAL  ### TOTAL	4.135. 1.157. VT
CHARGE TO: STREET CITY To: Allied Oil of You are hereby and furnish cer contractor to do done to satisfact contractor. I have the contractor of the contractor of the contractor of the contractor of the contractor. I have the contractor of the contractor of the contractor of the contractor. I have the contractor of the contrac	Hack & Gas Ser requested menter and o work as ction and s ave read at	TATE	ZIP	MANII  MANII  ment  or  was t or  RAL	PL	UG & FLOA	### TOTAL  ### TOTAL	4.135. 1.157. VT
CHARGE TO:STREET CITY To: Allied Oil You are hereby and furnish cer contractor to dedone to satisfac contractor. I have a contractor. I have a contractor. I have a contractor.	Hack & Gas Ser requested menter and o work as ction and s ave read at	TATE	ZIP	MANII  MANII  ment  or  was t or  RAL	PL	UG & FLO	TOTAL  28% AT EQUIPMEN	4.135. 1.157. NT
CHARGE TO: STREET CITY To: Allied Oil of You are hereby and furnish cer contractor to do done to satisfact contractor. I have the contractor of the contractor of the contractor of the contractor of the contractor. I have the contractor of the contractor of the contractor of the contractor. I have the contractor of the contrac	Hack & Gas Ser requested menter and o work as ction and s ave read at	TATE	ZIP	MANII  MANII  ment  or  was t or  RAL	PL	UG & FLO	— @ TOTAL 78	4.135. 1.157. NT



Hartman Oil Co

2-24S-13W Stafford

10500 E Berkeley Sq Ste 100

Wichita, KS 67206

Job Ticket: 59000

Heyen 2

DST#: 1

ATTN: Kitt Noah

Test Start: 2014.06.28 @ 20:25:10

Test Type: Conventional Bottom Hole (Initial)

### **GENERAL INFORMATION:**

Formation: LKC "H"

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:50:55 Tester: Leal Cason 74

Time Test Ended: 05:44:40 Unit No:

3631.00 ft (KB) To 3650.00 ft (KB) (TVD) Reference Elevations: Interval: 1908.00 ft (KB)

Total Depth: 3650.00 ft (KB) (TVD) 1900.00 ft (CF)

7.88 inches Hole Condition: Good Hole Diameter: KB to GR/CF: 8.00 ft

Serial #: 6798 Inside

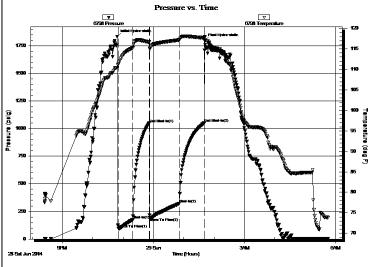
Press@RunDepth: 3632.00 ft (KB) 322.11 psig @ Capacity: 8000.00 psig

Start Date: 2014.06.28 End Date: 2014.06.29 Last Calib.: 2014.06.29 Start Time: 20:25:11 End Time: 05:44:40 Time On Btm: 2014.06.28 @ 22:48:25 Time Off Btm: 2014.06.29 @ 01:41:10

TEST COMMENT: IF: Strong Blow, BOB in 30 seconds, GTS in 19 minutes, TSTM, Caught Sample

ISI: Blow Back Built to BOB in 7 minutes FF: Strong Blow, BOB & GTS immediate, TSTM

FSI: 7 inch Blow Back



1	Time	Pressure	Temp	Annotation
	(Min.)	(psig)	(deg F)	
	0	1831.30	110.33	Initial Hydro-static
	3	93.87	111.37	Open To Flow (1)
	31	177.45	115.24	Shut-In(1)
,	63	1048.08	116.66	End Shut-In(1)
3	65	193.64	114.94	Open To Flow (2)
	123	322.11	117.15	Shut-In(2)
,	173	1049.24	117.68	End Shut-In(2)
9	173	1793.81	117.91	Final Hydro-static

PRESSURE SUMMARY

#### Recovery

Description	Volume (bbl)
2120 GIP	0.00
GMCO 10%G 30%M 60%O	2.48
GCO 20%G 80%O	15.91
	2120 GIP GMCO 10%G 30%M 60%O

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

Trilobite Testing, Inc. Ref. No: 59000 Printed: 2014.06.29 @ 07:02:52



**FLUID SUMMARY** 

ppm

Hartman Oil Co 2-24S-13W Stafford

10500 E Berkeley Sq Ste 100

Wichita, KS 67206

ATTN: Kitt Noah

Heyen 2

Job Ticket: 59000 **DST#:1** 

Test Start: 2014.06.28 @ 20:25:10

**Mud and Cushion Information** 

Mud Type: Gel Chem Cushion Type: Oil API: 30.1 deg API

Mud Weight: 9.00 lb/gal Cushion Length: ft Water Salinity:

Viscosity: 46.00 sec/qt Cushion Volume: bbl

Water Loss: 9.99 in<sup>3</sup> Gas Cushion Type:

Resistivity: ohm.m Gas Cushion Pressure: psig

Salinity: 7600.00 ppm Filter Cake: 0.02 inches

## **Recovery Information**

### Recovery Table

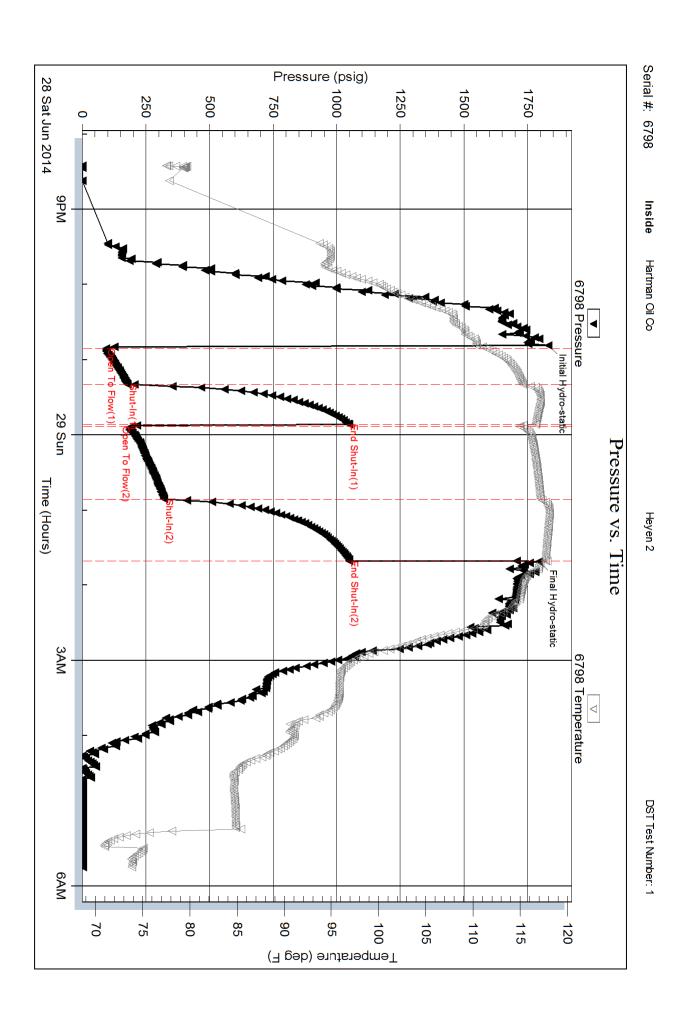
Length ft	Description	Volume bbl
0.00	2120 GIP	0.000
378.00	GMCO 10%G 30%M 60%O	2.478
1134.00	GCO 20%G 80%O	15.907

Total Length: 1512.00 ft Total Volume: 18.385 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location: Recovery Comments: Gravity w as 31.2 @ 71 degrees

Trilobite Testing, Inc Ref. No: 59000 Printed: 2014.06.29 @ 07:02:52



Trilobite Testing, Inc

Ref. No:

59000

Printed: 2014.06.29 @ 07:02:53



Hartman Oil Co

2-24S-13W Stafford

10500 E Berkeley Sq Ste 100 Wichita, KS 67206

Heyen 2

Job Ticket: 51801

DST#: 2

ATTN: Kitt Noah

Test Start: 2014.06.29 @ 13:12:59

### **GENERAL INFORMATION:**

Formation: LKC "I"

Time Tool Opened: 15:13:44

Time Test Ended: 20:12:14

Interval:

Deviated: No Whipstock: ft (KB)

Test Type: Conventional Bottom Hole (Reset) Tester: Leal Cason

Unit No:

74

1908.00 ft (KB)

3650.00 ft (KB) To 3664.00 ft (KB) (TVD) 3664.00 ft (KB) (TVD)

Reference Elevations:

1900.00 ft (CF)

Total Depth:

KB to GR/CF:

8.00 ft

7.88 inches Hole Condition: Good Hole Diameter:

Serial #: 6798 Inside

> 3651.00 ft (KB) 38.88 psig @

Capacity: Last Calib.: 8000.00 psig

Start Date: 2014.06.29 2014.06.29

Time On Btm:

2014.06.29 2014.06.29 @ 15:06:44

Start Time:

Press@RunDepth:

13:13:00

End Time: 20:12:14

Time Off Btm:

2014.06.29 @ 17:58:29

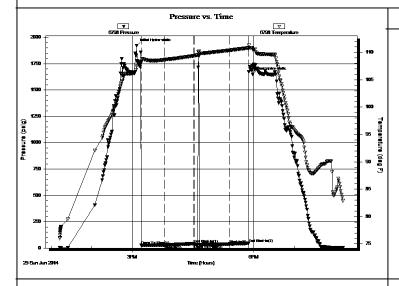
TEST COMMENT: IF: Weak Surface Blow, Dead @ 12 minutes

End Date:

ISI: No Blow Back

FF: No Blow, Flushed Tool, No Blow

FSI: No Blow Back



## PRESSURE SUMMARY

Time	Pressure	Temp	Annotation
(Min.)	(psig)	(deg F)	
0	1920.54	107.46	Initial Hydro-static
7	25.38	108.19	Open To Flow (1)
42	29.06	108.67	Shut-In(1)
85	42.08	109.37	End Shut-In(1)
85	31.70	109.37	Open To Flow (2)
90	32.74	109.50	Flushed Tool
138	38.88	110.39	Shut-In(2)
166	45.98	110.81	End Shut-In(2)
172	1649.93	110.52	Final Hydro-static

#### Recovery

Length (ft)	Description	Volume (bbl)	
5.00	Mud	0.02	
* Recovery from multiple tests			

#### Gas Rates

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

Trilobite Testing, Inc. Ref. No: 51801 Printed: 2014.06.29 @ 23:06:43



**FLUID SUMMARY** 

Hartman Oil Co

2-24S-13W Stafford

10500 E Berkeley Sq Ste 100

Wichita, KS 67206

Heyen 2

Job Ticket: 51801

Serial #:

DST#: 2

ATTN: Kitt Noah

Test Start: 2014.06.29 @ 13:12:59

### **Mud and Cushion Information**

9.98 in<sup>3</sup>

ohm.m

Mud Type:Gel ChemCushion Type:Oil A Pl:deg A PlMud Weight:9.00 lb/galCushion Length:ftWater Salinity:ppm

Viscosity: 46.00 sec/qt Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Salinity: 7600.00 ppm Filter Cake: 0.02 inches

## **Recovery Information**

Water Loss:

Resistivity:

## Recovery Table

Length ft	Description	Volume bbl
5.00	Mud	0.025

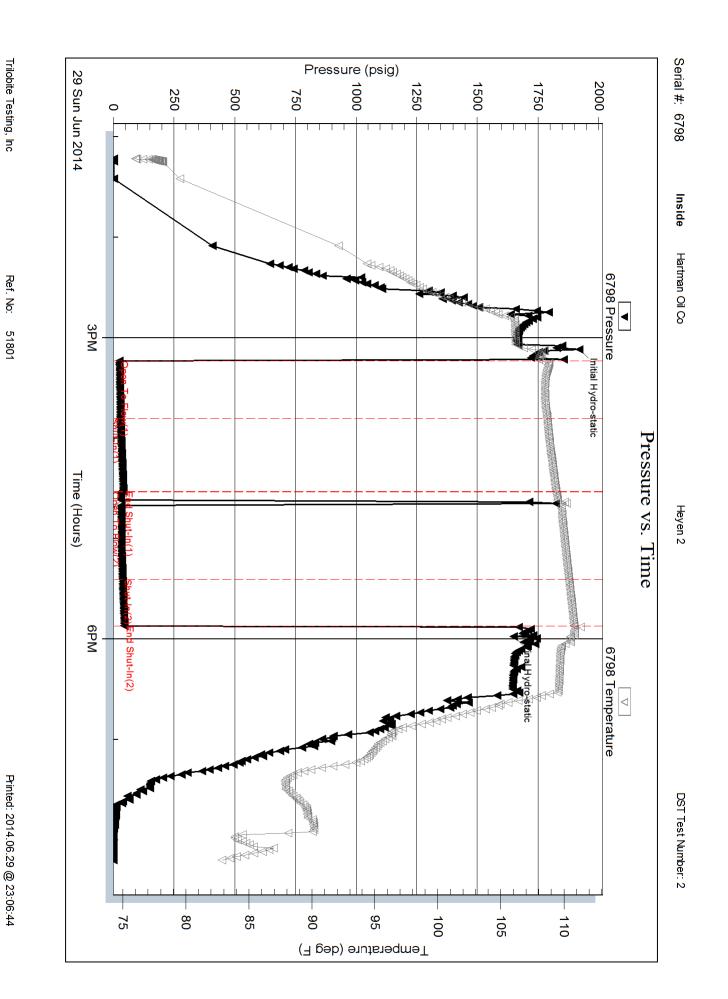
Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0

Laboratory Name: Laboratory Location:

Recovery Comments:

Trilobite Testing, Inc Ref. No: 51801 Printed: 2014.06.29 @ 23:06:43





Hartman Oil Co

2-24S-13W Stafford

10500 E Berkeley Sq Ste 100

Wichita, KS 67206

Job Ticket: 51802

Heyen 2

DST#: 3

ATTN: Kitt Noah Test Start: 2014.06.30 @ 05:27:53

### **GENERAL INFORMATION:**

Formation: LKC "J"

Deviated: No Whipstock: ft (KB)

Test Type: Conventional Bottom Hole (Reset) Time Tool Opened: 07:56:38 Tester: Leal Cason Time Test Ended: 12:38:08 Unit No: 74

Interval: 3662.00 ft (KB) To 3690.00 ft (KB) (TVD) Reference Elevations: 1908.00 ft (KB)

Total Depth: 3690.00 ft (KB) (TVD) 1900.00 ft (CF)

7.88 inches Hole Condition: Good KB to GR/CF: Hole Diameter: 8.00 ft

Serial #: 6798 Inside

Press@RunDepth: 3663.00 ft (KB) 46.94 psig @ Capacity: 8000.00 psig

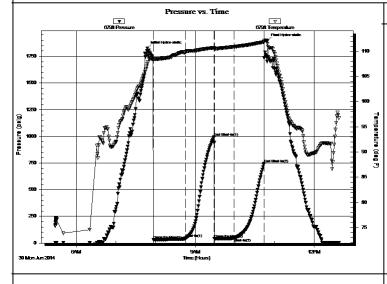
Start Date: 2014.06.30 End Date: 2014.06.30 Last Calib.: 2014.06.30 Start Time: 05:27:54 End Time: 12:38:08 Time On Btm: 2014.06.30 @ 07:47:38

Time Off Btm: 2014.06.30 @ 10:49:38

TEST COMMENT: IF: Weak 1 inch Blow ISI: No Blow Back

FF: Weak Surface Blow, Dead @ 2 minutes

ISI: No Blow Back



Time	Pressure	Temp	Annotation
(Min.)	(psig)	(deg F)	
0	1825.59	107.47	Initial Hydro-static
9	30.39	108.15	Open To Flow (1)
58	45.21	109.82	Shut-In(1)
101	992.64	110.68	End Shut-In(1)
102	41.32	110.36	Open To Flow (2)
132	46.94	110.86	Shut-In(2)
177	744.59	111.81	End Shut-In(2)
182	1896.89	111.46	Final Hydro-static

#### Recovery

Length (ft)	Description	Volume (bbl)		
10.00	SGCM 2%G 98%M	0.05		
* Recovery from multiple tests				

#### Gas Rates

Choke (inche	s) Pressure (psig)	Gas Rate (Mcf/d)
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Ref. No: 51802 Printed: 2014.06.30 @ 13:06:30 Trilobite Testing, Inc



**FLUID SUMMARY** 

ppm

Hartman Oil Co

2-24S-13W Stafford

10500 E Berkeley Sq Ste 100

Wichita, KS 67206

Serial #:

Heyen 2

Job Ticket: 51802

DST#: 3

ATTN: Kitt Noah

Test Start: 2014.06.30 @ 05:27:53

**Mud and Cushion Information** 

Mud Type: Gel Chem Cushion Type: Oil API: deg API Water Salinity:

Mud Weight: Cushion Length: 9.00 lb/gal ft Viscosity: 46.00 sec/qt Cushion Volume: bbl

Water Loss: 9.98 in<sup>3</sup> Gas Cushion Type:

Resistivity: Gas Cushion Pressure: ohm.m psig

Salinity: 7600.00 ppm Filter Cake: 0.02 inches

**Recovery Information** 

Recovery Table

Volume Length Description ft bbl 10.00 SGCM 2% G 98% M 0.049

Total Length:  $10.00\,ft$ Total Volume: 0.049 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0

Laboratory Name: Laboratory Location:

Recovery Comments:

Trilobite Testing, Inc Ref. No: 51802 Printed: 2014.06.30 @ 13:06:31

