Kansas Corporation Commission Oil & Gas Conservation Division

WELL HISTORY - DESCRIPTION OF WELL & LEASE

WELL COMPLETION FORM

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

OPERATOR: License # 34055 H&M Petroleum Cororation Spot Description: Name: NW_NW_SE Sec. 30 Twp. 9 S. R. 24 East West 13570 Meadowgrass Drive, Ste 101 Address 1: 2,310 _ Feet from 🔲 North / 🗹 South Line of Section Address 2:_ City: Colorado Springs State: Co Zho: 80921 2,310 _ Feet from 🔽 East / 🗌 West Line of Section Contact Person: __Shane Boillot Footages Calculated from Nearest Outside Section Corner: Phone: (719 590-6060 □NE □NW ØSE □SW County:_Graham CONTRACTOR: License #_33575 Betty Thunder Well #: 3 Name: WW Drilling, LLC Lease Name: Wellsite Geologist: Randy Sey Field Name: Dreiling Purchaser: None Producing Formation: None ___ Kelly Bushing: 2574 Elevation: Ground: 2569 Designate Type of Completion: Total Depth: 4190 Plug Back Total Depth: Re-Entry New Well Amount of Surface Pipe Set and Cemented at: 233 ☐ wsw ☐ SIOW ☐ Oil ☐ SWD Multiple Stage Cementing Collar Used? ☐ Yes ☑ No D&A ☐ ENHR SIGW Gas C OG ☐ GSW Temp. Abd. If yes, show depth set: CM (Coal Bed Methana) If Alternate II completion, cement circulated from: Cathodic Other (Care, Expl., etc.); ___ If Workover/Re-entry: Old Well Info as follows: Operator: __ Drilling Fluid Management Plan Well Name: ___ (Data must be collected from the Reserve Pit) Original Comp. Date: _____ Original Total Depth: ____ Chloride content: 8900 ppm Fluid volume; 800 bbis Re-perf. Conv. to ENHR Conv. to SWD Deepening Dewatering method used: Air Dry - Back Fill Conv. to GSW Location of fluid disposal if hauled offsite: Plug Back: _ Plug Back Total Depth ☐ Commingled Permit #: ___ Operator Name: _____ Dual Completion Permit #: ___ _____ License #: ___ Lease Name: _____ ☐ \$WD Permit #: ___ ☐ ENHR Permit #: ___ County: _____ Permit #: _____ ☐ GSW Permit #: 12/01/2010 11/22/2010 11/30/2010 Completion Date or Soud Date or Date Reached TD Recompletion Date Recompletion Date INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita,

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information of side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

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.

Signature:	Ilst.		
Title: LAND MCN.	Date:	1-20-11	

		J
KCC Office Use ONL	YEANSAS CORPORATE	To CHAMISSION
Letter of Confidentiality Received Date:	IAN 26	2011
Confidential Release Date:	OONSERVAIR	" WAISION
Geologist Report Received	WICHIN	KS
ALT I Wil III Approved by:	_ Date: 1 27 1	

Side Two

perator Name: H &	M Petroleum Co	proration		Lease	Name: _	Betty Thunde	F	. Well #: _3_		
ec. 30 Twp.9	s. r. <u>24</u>	☐ East	 ✓ West		y: <u>Grah</u>		74.0		·	
ISTRUCTIONS: Sho me tool open and clos covery, and flow rates ne Logs surveyed. Att	ed, flowing and shu if gas to surface to	ıt-in pressu est, along w	res, whether s ith final chart(shut-in pres	ssure read	ched static level,	hydrostatic press	ures, bottom l	hole temp	erature, fluid
rill Stem Tests Taken (Attach Additional SI		✓ Ye	s 🗍 No			og Formatio	n (Top), Depth an	d Datum		Sample
amples Sent to Geolo	,	☐ Ye	s 🗸 No		Nam	е		Тор	ı	Datum
ores Taken lectric Log Run lectric Log Submitted (If no. Submit Copy)		☐ Ye. ☑ Ye. ☐ Ye.	s No							
st All E. Logs Run:								,		
		Repor	•	RECORD	Ne Burface, inte	w Used	ion, etc.			
Purpose of String	Size Hole Drilled		Casing (In Q.D.)		lght /FL	Setting Depth	Type of Cement	# Sacks Used		and Percent dditives
Surface	12 1/4	8 5/8	-	20		233	Common	165	3% cc	- 2 <u>% g</u> el
Purpose: Perforate Protect Casing Plug Back TD Plug Off Zone	Depth Tep Bettom	Туре	ADDITIONAL of Cement	T	ING / SQL	JEEZE RECÓRD		Percent Additives	3	
Shots Per Foot			D - Bridge Plug ach Interval Pe				acture, Shot, Cemen mount and Kind of Ma		rd	Depth
			- · · · · · · · · · · · · · · · · · · ·					KANS	AS CORPO	CEIVED NATION COMMIS
									JAN	26 2011
UBING RECORD:	Size:	Set At:		Packer	At:	Liner Run:	Yes No	C	ONSEHI	VATION ENVISI
Date of First, Resumed F	Production, SWD or El	NHR.	Producing Met	thod:	ing 🗀	Gas Lift	Other (Explain)			
Estimated Production Per 24 Hours	Oil	Bbls.	Gas	M¢ľ	Wa	ter E	Bbls.	Gas-Oil Ratio		Gravity
DISPOSITIO	Used on Lease		Open Hole Other (Specify)	METHOD C		y Comp. 🔲 Co	ommingled bmlt ACO-4)	PRODUCT	ON INTER	WAL:



TICKET NUM	BER	24	497	
LOCATION	00	Klass	Ks	
FOREMAN	D. J	المار	100	

PO Bo	x 884,	Cha	nute,	KS	66720
620-43	1-9210	or or	800-	467-	8676

FIELD TICKET & TREATMENT REPORT

620-431-9210 (or 800-467-867 (6	CEMENT	Γ			
DATE	CUSTOMER#	WELL NAME & NUM	BER	SECTION	TOWNSHIP	RANGE	COUNTY
11-22-10	3655	Betty Thundar	#3	30	নূ ১	2403	Grehaus
CUSTOMER	60 1			可能等數學學	为的。1000年1000年100mm		
H+211	Petrolow	u Cirp	しんは「	TRUCK#	DRIVER	TRUCK#	DRIVER
MAILING ADDRE	:55	F	156	463	Miles S.		
13570	mealou	16rass Dr. 5to 101	J MS	439	Josh G.		
CITY	1	STATE ZIP CODE	7		·		1
Colorage	a Springs	Cob 80921					
JOB TYPE_SU		HOLE SIZE 12 1/4	HOLE DEPTH	234	CASING SIZE & W	EIGHT 85	%-23#
CASING DEPTH	2341	DRILL PIPE	_TUBING		_	OTHER	
SLURRY WEIGH		SLURRY VOL	WATER gal/sk	<u> </u>	CEMENT LEFT in	CASING 15	-4-
DISPLACEMENT	1342	DISPLACEMENT PSI	MIX PSI		RATE 5 SE	BPm	
REMARKS:	SeFit 1	Martine Ric not	o crisine	Cure			
	10D 165	SKS COM, 3/6CC-2	%Co. D	ISDISCOE)	13/2 BB)	HOO.	
		Shutin					
		Comont D	& Circ				
					•		
					March Ye	7/2]	:
					Patteno	74.7	

ACCOUNT CODE	QUANITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401 5		PUMP CHARGE	98500	285-00
5406	40	MILEAGE	450	180 00
11045	16.5 SKS	Class A Coment	1600	2.6400
1102	46.5#	Cilcion Chlorida	, ४६	409 20
IIIBB	310#	Rentonite Gel	120	6200
5407A	7.76	Ton Wilese Delivery	150	46560
			AEGEVE	- MUSELLAND
		· · · · · · · · · · · · · · · · · · ·	CAUSAS CORPULMATE	, , , , , , , , , , , , , , , , , , , ,
		0002	JAN 26	<u> 2011 </u>
		238	CONSENVALLE	33 33
				4,7418
		Less 150 Disc.		4.030
			SALES TAX	234.8
vin 3737			ESTIMATED TOTAL	4265.4
AUTHORIZTION_	More Rigo	TITLE TOU DUSHER	DATE_11-22_	10



TICKET NUMBER 28685

LOCATION Ockley Ks

FOREMAN LIGHT Devike

PO Box 884, Chanute, KS 66720 620-431-9210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT

520-431-9210	or 800-467-8676		CEMEN	IT .			
DATE .	CUSTOMER#	WELL NAME & NUME	BER	SECTION	TOWNSHIP	RANGE	COUNTY
11-30-10	3655	Betty Thousdor	#3	30	93	244	Graham
CUSTOMER							
H4 N	1 Petrole	corp.		TRUCK#	DRIVER	TRUCK#	DRIVER
			ì	463	ched 5		
1357	c mecolo	STATE ZIP CODE		439	Josh 6		
CITY		STATE ZIP CODE	1				
Colora	Do Sormes	Cala 30921	j				
JOB TYPE_P	TA-D	HOLE SIZE 77/8	HOLE DEPTI	H <u>4190'</u>	CASING SIZE & W	VEIGHT_	
CASING DEPTH		DRILL PIPE 492x4-775	d'ubing			OTHER_	
				sk	CEMENT LEFT In	CASING	
DISPLACEMENT	r	DISPLACEMENT PSI	MIX PSI		RATE		
REMARKS:	So Fet W	Posture, Plug es	neder				
		31.					
25 5	Ks > 225	50'					
100 5		o' 2	05	K5 6/40 D	2, 4% 6	1. 1/4# FI	المناح ا
,	150 28	- /		and the fac			
	40 40			· · · · · · · · · · · · · · · · · · ·		·	
	Sin R.H.				•		
					······································		
				1/2	w/c You		:
					alt + Cro		
1222	T			<u></u>	411 FCIE	;	

		lacule to Walt +C	21	:
ACCOUNT	QUANTTY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CODE				<u> </u>
5405 N		PUMP CHARGE	1,2000	1,200 00
5406	40	MILEAGE	24 50	18000
1131	205 SKS	60/40 pos	1300	2,665
11183	704 F	Bentouite Cel	120	140 86
1107	5L #	FlorSeal	250	12750
5407A	8.82	Ton Whilese Dolwary	1.50	5292
	· · · · · · · · · · · · · · · · · · ·			
		A20	HECEIVED NSAS CORPORATION COMM	ISSION
			AN 26 2011	
			CONSESVATION DIVI	ION
			WICHITA, KS	
		728391		
		750		
				4,842
		Less 15% Disc	_	7263
				4,1161
in 3737			SALES TAX	121.4
raior 37			ESTIMATED TOTAL	4337
	Man Range	The Death	IVIAL	<u> </u>

AUTHORIZTION Mal B33'

TITLE TOOL PASHON

DATE

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this for



WELLSITE GEOLOGICAL CONSULTING

GEOLOGICAL ANALYSIS & WELL REPORT

H & M Petroleum Corporation

BETTY THUNDER No. 3

2,310' FSL & 2,310' FEL C-NW-NW-SE Section 30-Township 9 South-Range 24 West Graham County, Kansas

December 6, 2010

RECEIVED COMMISSION COMMISSION

JAN 26 2011

CONSERVATION DIVISION WICHITA, KS

GENERAL INFORMATION

Elevation: G.L. 2,569' K.B. 2,574' All measurements are from K.B. Field: Dreil Drilling Contractor/Rig No.: WW Drilling/Rig 6 Total Depth: RTD: 4,190' LTD: 4,186' Surface Casing: 8 5/8" set @ 233' **Production Casing:** None Drill Time Kept: 3,600'-4,190' RTD Samples Examined: 3,630'-4,190' RTD Geological Supervision: 3,600'-4,190' RTD Wellsite Geologist: Randy Say Consulting Wellsite Geologist - Arvada, CO **Drill Stem Tests:** 1) Lansing "A"-"C" Zone's - Open hole test 2) Lansing "D" Zone - Open hole test 3) Lansing "F" Zone - Open hole test 4) Kansas City "H"-"J" Zone's - Open hole test 5) Kansas City "K"-"L" Zone's - Open hole test Mud Company/Mud Type/Engineer: Morgan Mud/Chemical/Dave Lines **Electric Logging Company:** Log-Tech Log Suite Run: -Dual Induction -Neutron/Density Porosity

Not Kept

Total Depth Formation: Base/Kansas City

Samples:

Well Status: Plugged & Abandoned KANSAS CORPOLATION COMMISSION JAN 26 2011

RECEIVED

MOISING MOITAVESZNOO WICHIYA, KS

DAILY DRILLING CHRONOLOGY

2010 <u>Date</u>	7:00 A.M. <u>Depth</u>	24 Hour <u>Footage</u>	7:00 A.M. Operation; 24 Hour Activity
11/22/10	0	0	MIRU; spud @ 3:15 P.M., drilling to 234', circ., dev. survey, TOOH, run 5 jts of 8 5/8" surf. csg set @ 233', cement csg. w/165 sx-plug down @ 7:15 P.M., WOC 8', drill out cement plug, drilling.
11/23/10	690'	690'	Drilling ahead; jet, drilling, jet, drilling, jet, drilling, jet, drilling, jet, drilling.
11/24/10	2,554'	1,864'	Drilling ahead; jet, drilling, displace hole/mud up @ 2,973' (660 bbls), drilling.
11/25/10	3,315'	761'	Drilling ahead; drilling.
11/26/10	3,770'	455'	Drilling ahead; CFS @ 3,877', drilling, CFS @ 3,942', short trip 28 stands (2.5 hrs), short trip 45 stands (3.5 hrs), circ. 60", drop dev. survey, TOOH strapping pipe (2.77' long), pick up test tool, TIH, run DST No. 1.
11/27/10	3,942'	172'	Running DST No. 1; TOOH, lay down test tool, TIH w/bit, circ. 60", drilling, CFS @ 3,954', TOOH, pick up test tool, TIH, run DST No. 2, TOOH, lay down test tool, TIH w/bit, drilling, CFS @ 3,997', TOOH, pick up test tool, TIH, run DST No. 3.
11/28/10	3,997'	. 55'	Running DST No. 3; TOOH, lay down test tool, TIH w/bit, drilling, CFS @ 4, , drilling, CFS @ 4,094', TOOH, pick up test tool, TIH, run DST No. 4.
11/29/10	4,094'	97'	Running DST No. 4; TOOH, lay down test tool, TIH w/bit, drilling, CFS @ 4,1 ', drilling, CFS @ 4,134', TOOH, pick up test tool, TIH, run DST No. 5, TOOH, lay down test tool, TIH w/bit, drilling.
11/30/10	4,185'	91'	Drilling ahead; reach 4,190' RTD, circ. 1', drop dev survey, TOOH for logs, rig up and run Log-Tech logs (3.5 hrs)-hit bridge on 2 nd (microlog) log runterminate logging, rig down loggers, TIH, TOOH laying down drill pipe & plug hole, set cement plugs @ 2,250', 1,390' and 285', plug rat hole – plug

down @11:30 P.M. by Consolidated, rig released @ 1:30 AM 12/1/10.

12/01/10

4,190'

5'

Done.

DEVIATION SURVEYS

<u>Depth</u>	Deviation (Degrees)
234'	0.5
3,942'	1.5
4,190'	1.0

REFERENCE WELLS

Reference Well "A": Dreiling Oil

Beiker No. 1 SE-SW-SE

Section 30-T9S-R24W Graham County, Kansas

KB: 2,257' LTD: 4,126'

Date Drilled: May, 1971

TD Formation: Base/Kansas City

Status: Plugged & Abandoned Kansas City "I" & "K" Zone's oil

well

Reference Well "B": H & M Petroleum Corp.

Betty Thunder No. 2

NE-NE-SE

Section 30-T9S-R24W Graham County, Kansas

KB: 2,569' LTD: 4,185'

Date Drilled: October, 2010 TD Formation: Base/Kansas

Status: Production casing set, waiting on LKC Group completion

Reference Well "C": Murfin Drilling Co.

Engelbert No. 1 NW-NW-NE

Section 30-T9S-R24W Graham County, Kansas

KB: 2,571' RTD: 4,150'

Date Drilled: August, 1957 TD Formation: Base/Kansas City

Status: Dry & Abandoned

FORMATION TOPS

	ВЕТТҮ	THUNDER No. 3		Beiker No. 1 Betty Thunder Engelbert No. 2 No. 1					
FORMATION	SAMPLE]	LOG	REFERENCE	REFERENCE	REFERENCE	Г	DIFFERENCE T	0
	TOPS	TOPS	DATUM	WELL "A"	WELL "B"	WELL "C"	WELL "A"	WELL "B"	WELL "C"
PERMIAN			,						
Stone Corral Anhydrite	2230	2228	+346	+335	+334	+350	+11	+12	-4
PENNSYLVANIAN									
Topeka	3649	3647	-1073	-1069	-1079	NA	-4	+6	NA
Heebner Shale	3866	3864	-1290	-1287	-1298	-1296	-3	+8	+6
Lansing "A"	3902	3898	-1324	-1324	-1334	-1340	Flat	+10	+16
Lansing "D"	3943	3941	-1367	-1365	-1373	-1379	-2	+6	+12
Lansing "F"	3988	3986	-1412	-1407	-1419	-1420	-5	+7	+8
Muncie Creek Shale	4033	4030	-1456	-1447	-1460	-1461	-9	+4	+5
Kansas City "J"	4083	4082	-1508	-1505	-1515	-1519	-3	+7	+11
Base/Kansas City	4135	4133	-1559	-1552	-1567	-1565	-7	+8	+6

ZONES OF INTEREST

<u>Formation</u>	Log Depth	Lithologic & Show Descriptions, Remarks
Lansing "D"	3,941'-3,945'	Limestone, white-tan, granular-fine crystalline, friable-firm, mostly fossiliferous, oolitic development with chalky and calcite matrix, slightly cherty, poor to good inter-oolitic matrix porosity and inter-crystalline porosity, INTERMEDIATE SHOW: slight oil odor, bright yellow fluorescence, near saturated oil stain, light brown show live oil, immediate streaming live cut, tan dried residual fluorescence. The Lansing "D" Zone was isolated on DST No. 2 and on a 45 minute total flow period recovered 147 feet of gas in pipe, 5 feet of oil, 31 feet of muddy water with oil spots (15% mud, 85% water), with flow pressures of 42-113 and 132-212 p.s.i. and shut in pressures of 675-670 p.s.i. Log-Tech logs show this zone has a very clean gamma ray signature, good SP development, maximum 12+% neutron porosity, maximum10%

Kansas City "J" 4,082'-4,086'

Limestone, tan/brown-light gray, mottled, very fine crystalline, friable-firm, very fossiliferous, some ooitic development with calcite matrix infilling, abundant chalk matrix, poor-fair intercrystalline porosity, INTERMEDIATE SHOW: slight oil odor, medium yellow fluorescence, saturated brown oil stain, light tan show free oil/break, medium bright yellow immediate streaming live cut, tan dried residual ring fluorescence.

density porosity, and has a wet signature with 9-25

ohms deep resistivity over this interval.

This zone was included on DST No. 4 which tested the Kansas City "H"-"J" Zone's and on a 75 minute flow period recovered 157 feet of gas in pipe, 62 feet of slightly oil cut gassy mud (5% gas, 5% oil, 90% mud), and 62 feet of very slightly oil cut mud (2% oil, 98% mud), with flow pressures of 57-72 and 81-88 p.s.i. and shut in pressures of 782-1,217 p.s.i.

Log-Tech logs show this zone has a very clean gamma ray signature, intermediate SP development,

maximum 15% neutron and density shoulder porosity, and has a wet signature with a maximum 14 ohms deep resistivity.

Kansas City "K" 4,100'-4,104'

Limestone, light gray-buff/tan, mottled, very fine-micro crystalline, firm-dense, slightly fossiliferous, cherty, slightly pyritic, some dolomitic with interbedded shale stringers, poor-fair granular and intercrystalline porosity, fine vug porosity, GOOD SHOW: moderate oil odor, medium bright yellow fluorescence, saturated oil stain, live brown oil droplets/show free oil, bright yellow streaming live cut, light tan dried residual ring fluorescence.

This zone was not drill stem tested.

Log Tech Logs show this zone is well developed with an extremely clean gamma ray signature, poorfair SP development, maximum 14% neutron porosity, maximum 8.25% density porosity, and has a maximum 20 ohms deep resistivity.



H&M Petroleum Corpation

13570 Meadow Grass Rd ste 101

Colorado Spgs Co 80921 ATTN: Shane Boillot

Betty Thunder #3

30-9s-24w

Job Ticket: 041007

DST#: 1

Test Start: 2010.11.27 @ 03:10:25

GENERAL INFORMATION:

Time Tool Opened: 05:40:25

Time Test Ended: 10:09:55

Formation:

LKC-C

Deviated:

No Whipstock ft (KB)

Test Type:

Conventional Bottom Hole

Tester:

Jeff Brown

Unit No:

2574.00 ft (KB)

Reference Bevations:

2569.00 ft (CF)

2010.11.27

KB to GR/CF:

interval:

3930.00 ft (KB) To 3942.00 ft (KB) (TVD)

3942.00 ft (KB) (TVD) Total Depth:

Hole Diameter:

Start Date:

Start Time:

7.88 inchesHole Condition: Good

5.00 ft

Serial #: 6672

Inside

Press@RunDepth:

196.22 psig @ 2010.11.27

03:10:25

3931.00 ft (KB) End Date: End Time:

2010.11.27

10:09:55

Capacity: Last Calib.:

Time Off Btm:

8000.00 psig

Time On Btm:

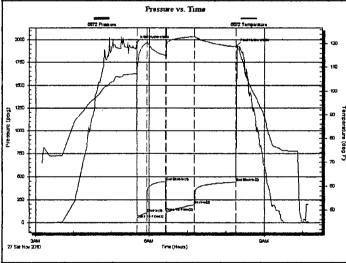
2010.11.27 @ 05:39:55 2010.11.27 @ 08:16:55

TEST COMMENT: IFP-Good blow BOB in 11 1/2 min

ISI-Dead

FFP-Good blow BOB in 16 1/2 min

FSI-Dead



	PRESSURE SUMMARY						
1	Time	Pressure	Temp	Annotation			
	(Min.)	(psig)	(deg F)				
	0	1969.50	107.27	Initial Hydro-static			
ŀ	15 16	41.53	106.89	Open To Flow(1)			
ı		105.30	120.51	Shut-In(1)			
7	30 46	443.85	115.08	End Shut-In(1)			
Temperatura	45 47	118.29	117.76	' ' '			
	60 ⁹¹	196.22	122.90	Shut-in(2)			
dea 5	156	438.72	118.68	End Shut-In(2)			
	157	1934.80	118.66	Final Hydro-static			
				}			
ı		ļ					
-							
			1				

Recovery

Length (ff)	Description	Volume (bbl)
378.00	MM20%M80%W	4.17
10.00	MW with oil spots 25%M75%W	0.14

Gas	Rate	es
-----	------	----

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

Trilobite Testing, Inc.

Ref. No: 041007

Printed: 2010.11.27 @ 10:18:33 Page 1



H&M Petroleum Corpation

Betty Thunder #3

13570 Meadow Grass Rd ste 101

Job Ticket: 041008

30-9s-24w

DST#: 2

Colorado Spgs Co 80921 ATTN: Shane Boillot

Test Start: 2010.11.27 @ 16:17:59

GENERAL INFORMATION:

Formation:

LKC-D

Deviated:

No Whipstock

ft (KB)

Test Type: Conventional Bottom Hole

Time Tool Opened: 18:10:59 Time Test Ended: 22:47:59

Tester: Unit No: Jeff Brown

interval:

3944.00 ft (KB) To 3954.00 ft (KB) (TVD)

2574.00 ft (KB)

Total Depth:

Reference Elevations:

2569.00 ft (CF)

Hole Diameter:

3954.00 ft (KB) (TVD)

7.88 inches Hole Condition: Good

KB to GR/CF:

5.00 ft

Serial #: 6672 Press@RunDepth: Inside

212.44 psig @

3946.00 ft (KB)

Capacity: Last Calib .: 8000.00 psig

Start Date: Start Time:

2010.11.27 16:17:59 End Date: End Time:

2010.11.27 22:47:59

Time On Btm:

2010.11.27 2010.11.27 @ 18:10:29

Time Off Btm:

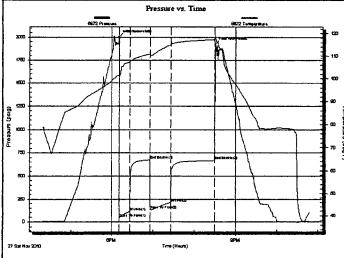
2010.11.27 @ 20:30:29

TEST COMMENT: IFP-Good blow BOB in 8 min

ISI-Weak blow back built to 1/2 died back to 1/4 in

FFP-Good blow BOB in 10 1/2 min

FSI-Weak blow back built to 1/2 in died back to 1/4 in



		Pl	RESSUR	RE SUMMARY
	Time	Pressure	Temp	Annotation
	(Min.)	(psig)	(deg F)	
	0	2006.07	101.44	Initial Hydro-static
i	1	42.74	100.40	Open To How(1)
	15 16	113.22	107.28	Shut-In(1)
_	³⁰ 46	675.95	111.00	End Shut-in(1)
Temperature (deg F)	46	132.71	110.73	Open To Flow (2)
Thurs.	30 76	212.44	114.99	Shut-In(2)
б В	60 ₁₃₉	670.33	117.38	End Shut-In(2)
3	140	1925.63	118.98	Final Hydro-static

Recovery

Description	Volume (bbl)
MM20%M80%W	4.14
MW with oil spots 15%M85%W	0.43
OIL	0.07
147 GIP	0.00
	MM20%M80%W MW with oil spots 15%M85%W OIL

Gas Rat	es	
Choke (inches)	Pressure (psig)	Ges Rate (MMc

Trilobite Testing, Inc.

Ref. No: 041008

Printed: 2010.11.27 @ 22:56:29 Page 1



H&M Petroleum Corpation

Betty Thunder #3

13570 Meadow Grass

Rd ste 101

Job Ticket: 041009

30-9s-24w

DST#: 3

Colorado Spgs Co 80921 ATTN: Shane Boillot

Test Start: 2010.11.28 @ 07:41:28

GENERAL INFORMATION:

Time Tool Opened: 09:30:28

Time Test Ended: 14:02:28

Formation:

LKC-F

Deviated:

Whipstock No

ft (KB)

Test Type:

Conventional Bottom Hole

Tester:

Jeff Brown

Unit No:

Reference Bevations:

2574.00 ft (KB)

Total Depth:

interval:

3962.00 ft (KB) To 3997.00 ft (KB) (TVD)

3997.00 ft (KB) (TVD)

2569.00 ft (CF)

Hole Diameter:

7.88 inches Hole Condition: Good

KB to GR/CF:

5.00 ft

Serial #: 6672 Press@RunDepth: Inside

112.60 psig @

3965.00 ft (KB) End Date:

Capacity:

Last Calib .:

8000.00 psig

Start Date: Start Time: 2010.11.28 07:41:28

End Time:

2010.11.28 14:02:28

Time On Btm:

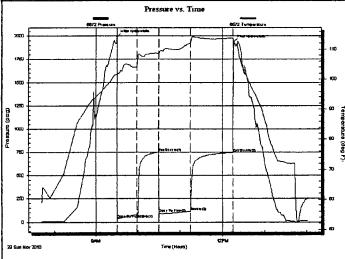
2010.11.28 2010.11.28 @ 09:29:58

Time Off Btm:

2010.11.28 @ 12:15:58

TEST COMMENT: IFP-Fair blow built to 7 in

ISI-Dead no blow back FFP-Fair blow built to 8 in FSI-Weak surface blow back



	PRESSURE SUMMARY			
1	Time	Pressure	Temp	Annotation
	(Min.)	(psig)	(deg F)	
•	0	1991.64	101.78	Initial Hydro-static
0	1	36.40	101.36	Open To Flow(1)
	30 29	79.09	104.15	Shut-In(1)
	30 60	749.60	108.69	End Shut-In(1)
Temperature (deg F)	و60 م م	96.96	108.74	Open To Flow (2)
rature	45 60 105	112.60	112.22	Shut-In(2)
(deg	9 ~ 165	747.37	113.67	End Shut-In(2)
إق	166	1932.71	112.85	Final Hydro-static
,				

Recovery

Volume (bbl)
0.61
1.09

Gas Rates

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

Trilobite Testing, Inc

Ref. No: 041009

Printed: 2010.11.28 @ 14:10:29 Page 1



H&M Petroleum Corpation

Betty Thunder #3

13570 Meadow Grass

Rd ste 101

Job Ticket: 041010

30-9s-24w

DST#: 4

Colorado Spgs Co 80921 ATTN: Shane Boillot .

Test Start: 2010.11.29 @ 05:03:18

GENERAL INFORMATION:

Formation:

LKC-HI-J

Deviated:

Interval:

Total Depth:

No Whipstock:

ft (KB)

Test Type: Conventional Bottom Hole

Tester:

Jeff Brown

Unit No:

2574.00 ft (KB)

Reference Bevations:

2569.00 ft (CF)

Hole Diameter:

Time Tool Opened: 07:12:18

Time Test Ended: 11:57:48

4022.00 ft (KB) To 4094.00 ft (KB) (TVD)

4094:00 ft (KB) (TVD)

7.88 inches Hole Condition: Good

KB to GR/CF:

5.00 ft

Serial #: 6672

Press@RunDepth:

Start Date:

Start Time:

Inside

88.72 psig @ 2010.11.29

05:03:18

4058.00 ft (KB) End Date:

End Time:

2010.11.29

Capacity: Last Calib.: 8000.00 psig

11:57:48

Time On Btm:

2010.11.29 2010.11.29 @ 07:11:48

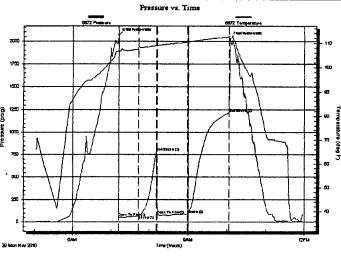
Time Off Btm:

2010.11.29 @ 10:04:18

TEST COMMENT: IFP-Fair blow built to 5 3/4 in

ISI-Dead no blow back FFP-Fair blow built to 9 1/2 in

FSI-Dead no blw back



	PRESSURE SUMMARY				
	Time	Pressure	Temp	Annotation	
10	(Min.)	(psig)	(deg F)		
	0	2064.44	106.86	Initial Hydro-static	
00	. 1	57.87	106.47	Open To Flow (1)	
,	30 31	72.22	108,61	Shut-In(1)	
4	. 30 59	782.36	109.07	End Shut-In(1)	
Tempsishire (dsg F	45 60	81.01	108.88	Open To Flow (2)	
The state of	10/	88.72	110.58	Shut-In(2)	
(deg)	60 171	1217.37	112.64	End Shut-in(2)	
, 3	173	2025.16	113.21	Final Hydro-static	
•					
,					

Recovery

Length (ft)	Description	Volume (bbl)
62.00	VSOCM2%O98%M	0.30
62.00	SOCGM5%O5%G90%M	0.30
0.00	157 GIP	0.00

Gas F	₹ates
-------	-------

Choke (inches)	Pressure (psig)	Gas Rate (MMct/d)
----------------	-----------------	-------------------



H&M Petroleum Corpation

Betty Thunder #3

13570 Meadow Grass

Rd ste 101

Job Ticket: 041011

30-9s-24w

DST#: 5

Colorado Spgs Co 80921 ATTN: Shane Boillot

Test Start: 2010.11.29 @ 20:35:50

GENERAL INFORMATION:

Time Tool Opened: 22:21:50

Time Test Ended: 03:04:50

Formation:

LKC-K-L

Deviated:

intervai:

Start Date:

Start Time:

No Whipstock ft (KB)

Test Type: Conventional Bottom Hole

Tester:

Jeff Brown

Unit No:

44

2574.00 ft (KB)

Reference Bevations:

2569.00 ft (CF)

Hole Diameter:

4098.00 ft (KB) To 4134.00 ft (KB) (TVD)

Total Depth:

4134.00 ft (KB) (TVD)

7.88 inches Hole Condition: Good

KB to GR/CF:

5.00 ft

Serial #: 6672 Press@RunDepth:

Inside

66.51 psig @ 2010.11.29 20:35:50

4099.00 ft (KB) End Date:

End Time:

2010.11.30 03:04:50 Capacity: Last Calib.: 8000.00 psig

Time On Btm:

2010.11.29 @ 22:21:20

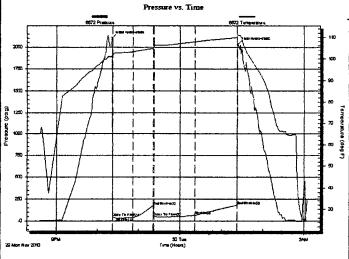
2010.11.30

Time Off Btm:

2010.11.30 @ 01:23:50

TEST COMMENT: IFP-Fair blow built to 7 1/2 in

ISI-Dead no blow back FFP-Fair blow built to 5 in FSI-Dead no blow back



	PRESSURE SUMMARY				
	Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation	
į	٥	2107.08	101.06	Initial Hydro-static	
	30 1	43.80	100.54	Open To Flow(1)	
	31	38.92	103.29	Shut-In(1)	
7	³⁰ 60	171.51	104.85	End Shut-In(1)	
Temperature (deg F	60 ⁶¹	50.13	105.81	Open To Flow (2)	
Mura 1	120	66.51	107.84	Shut-in(2)	
(deg F	181	179.91	109.80	End Shut-In(2)	
٦	183	2035.64	110.98	Final Hydro-static	
1					
		i i			

Recovery

Description	Volume (bbl)	
HOCGM5%G40%O55%M	0.30	
156 GIP	0.00	
	•	
	HOCGM5%G40%O55%M	

Gas Rates

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

Trilobite Testing, Inc.

Ref. No: 041011

Printed: 2010.11.30 @ 03:14:31 Page 1

SUMMARY

The Betty Thunder Prospect is located in southwestern Graham County, Kansas. Numerous oil fields surrounding the prospect produce high gravity oil from the prolific multiple pay Zone Pennsylvanian aged Lansing/Kansas City Group. These oil fields have cumulatively produced from 269,000 BO to over 1,000,000+BO each.

In the prospect area, 10 out of 11 Lansing/Kansas City Group Zone's have commercial oil production within two miles of the Betty Thunder Prospect. The primary objectives in the Betty Thunder No. 3 test well included the Lansing "C", "D" and "F" Zone's and the Kansas City "I", "J" and "K" Zone's. Secondary objectives included the Lansing "A" and "E" Zone's and the Kansas City "H" and "L" Zone's.

The Betty Thunder Prospect was originally defined through subsurface structure and isopach (thickness) mapping from existing well control. A 2.25 square mile 3-D seismic survey was shot over the Betty Thunder Prospect leasehold which defined several structural features. The Betty Thunder No. 3 well tested a north dipping structural nose connected to the Dreil Field structural closure located in the southern portion of Section 30 and the northern and eastern portions of Section 31-T9S-R24W.

The Betty Thunder No. 3 is located 3/8th's of a mile west of the H & M Petroleum Corp. Betty Thunder No. 2 Lansing/Kansas City Group discovery well, located in the NE-NE-SE-Section 30-T9S-R24W. The 3-D seismic shows that the Betty Thunder No. 2 location and structural closure is separate and is not connected to the Betty Thunder No. 3 well structural feature.

Surrounding wells used for correlation in this report include: Reference Well "A"/Dreiling Oil Beiker No. 1 (SE-SW-SE-Section 30-T9S-R24W); Reference Well "B"/H & M Petroleum Corp. Betty Thunder No. 2 (NW-NW-SE-Section 30-T9S-R24W); and Reference Well "C"/Murfin Drilling Englebert No. 1 (NW-NW-NE-Section 30-T9S-R24W).

The Betty Thunder No. 3 test well is located approximately 10 miles west and 9 miles south of Hill City, Kansas.

Five (5) open hole drill stem test's were run during the drilling of the Betty Thunder No. 3, all based on visual oil shows and associated rate of penetration drilling breaks:

-DST No. 1 tested the Lansing "A"-"C" Zone's and recovered 10 feet of muddy water with oil spots and 378 feet of muddy water with shut in pressures of 443-438 p.s.i.

-DST No. 2 isolated the Lansing "D" Zone and recovered 147 feet of gas in pipe, 5 feet of oil, 31 feet of muddy water with oil spots and 376 feet of muddy water with shut in pressures of 675-670 p.s.i.

-DST No. 3 tested the (Lansing "E" Zone not developed) and "F" Zone's and recovered 78 feet of watery mud and 124 feet of muddy water with shut in pressures of 749-747 p.s.i.

-DST No. 4 tested the Kansas City "H"-"I" Zone's and recovered 157 feet of gas in pipe, 62 feet of slightly oil cut gassy mud (2% oil) with shut in pressures of 782-1,217 p.s.i.

-DST No. 5 tested the Kansas City "K"-"L" Zone's and recovered 156 feet of gas in pipe and 62 feet of heavy oil cut gassy mud (5% gas, 40% oil) with shut in pressures of 171-179 p.s.i.

The Betty Thunder No. 3 well was spuded on November 22, 2010, and after plugging and abandoning the well, the rig was released on December 1, 2010. No significant drilling problems were encountered during the drilling of this well.

The well was under 24-hour geological supervision from 3,600 feet to 4,190 feet RTD. Wet and dry drilling samples were caught by the drilling crews from 3,630 feet to 4,190 feet RTD at 10-foot intervals. All lithologic descriptions were lagged to true depth by the consulting wellsite geologist.

Hydrocarbon Shows

Several significant free live oil sample shows were observed and recorded in the samples during the drilling of the Betty Thunder No. 3 in the primary and secondary objective Lansing/Kansas City Group and include:

-Lansing "C" Zone:

Good Show:

faint oil odor, medium bright yellow fluorescence, near saturated oil stain, live light brown free oil show, oil filled porosity, medium - bright yellow immediate streaming live cut, light tan dried residual ring fluorescence.

-Lansing "D" Zone:

Intermediate Show:

slight oil odor, bright yellow fluorescence, near saturated oil stain, light brown show live oil, immediate streaming live cut, tan dried residual fluorescence.

-Lansing "F" Zone:

Fair Show:

faint oil odor, light yellow fluorescence, mostly even tan-brown oil stain, poor show free oil/break, slow milky crush live cut, very good milky cut.

-Kansas City "H" Zone:

Intermediate Show:

slight oil odor, medium yellow fluorescence, brown oil stain, brown show free oil, medium yellow to milky slow streaming live cut, tan dried residual ring fluorescence. -Kansas City "I" Zone:

Fair Show:

slight oil odor, medium bright vellow fluorescence, mostly even browndark brown oil stain, brown-dark brown show free oil/droplets on break, medium yellow streaming cut. tan dried residual ring fluorescence.

-Kansas City "J" Zone:

Intermediate Show:

slight oil odor, medium yellow fluorescence, saturated brown oil stain, light tan show free oil/break, medium bright yellow immediate streaming live cut, tan dried residual ring fluorescence.

-Kansas City "K" Zone:

Good Show:

moderate oil odor, medium bright yellow fluorescence, saturated oil stain, live brown oil droplets/show free oil, bright yellow streaming live cut, light tan dried residual ring

fluorescence.

-Kansas City "L" Zone:

Good Show:

slight oil odor, medium bright yellow fluorescence, saturated brown oil stain, live brown oil droplets/show free oil, immediate bright vellow streaming live cut, light tan dried

residual ring fluorescence.

There were no observed sample hydrocarbon shows recorded in the Topeka or Toronto Formation's, and Lansing "A", "E" or "G" Zone's.

Complete lithologic descriptions and hydrocarbon sample shows can be found in the detailed "Zones of Interest" portion of this geologic report. Complete Drill Stem Test fluid recovery results and pressures can be found in this report under "Drill Stem Tests".

Structural Position

As the 3-D seismic interpretation correctly predicted, the Betty Thunder No. 3 runs moderately structurally low throughout the well relative to the Dreil Field located to the south and Reference Well "A", and structurally high relative to Reference Well "B" (Betty Thunder No. 2 oil discovery) and Reference Well "C" (a dry hole).

Compared to Reference Well "A"/Dreiling Oil Beiker No. 1 (SE-SW-SE-Section 30-T9S-R24W), the Betty Thunder No. 3 runs: +11 feet high at the Stone Corral Anhydrite, -3 feet low at the Heebner Shale, flat at the Top/Lansing "A", -9 feet low at the Muncie Creek Shale, -3 feet low at the Kansas City "J" Zone, and -7 feet low at the Base/Kansas City.

Compared to Reference Well "B"/H & M Petroleum Betty Thunder No. 2 (NE-NE-SE-Section 30-T9S-R24W), the Betty Thunder No. 3 runs: +12 feet high at the Stone Corral Anhydrite, +8 feet high at the Heebner Shale, and +10 feet high at the Top/Lansing "A", +4 feet high at the Muncie Creek Shale, +7 feet high at the Kansas City "J" Zone, and +8 feet high at the Base/Kansas City.

Compared to Reference Well "C"/Murfin Drilling Co. Engelbert No. 1 (NW-NW-NE-Section 30-T9S-R24W), the Betty Thunder No. 3 runs: -4 feet low at the Stone Corral Anhydrite, +6 feet high at the Heebner Shale, and +16 feet high at the Top/Lansing "A", +5 feet high at the Muncie Creek Shale, +11 feet high at the Kansas City "J" Zone, and +6 feet high at the Base/Kansas City.

A complete structural comparison of the Formation Tops in this well, in relation to the Reference Wells, can be found in the detailed "Formation Tops" table in this geologic report.

Conclusion

The Betty Thunder No. 3 wildcat test location was based on a 3-D seismic survey interpretation which indicated a north plunging structural nose related to the Dreil Field structural closure at the Lansing datum. The Betty Thunder No. 3 is predominately moderately structurally low to the Dreil Field and Reference Well "A" (located in the Dreil Field), and structurally high to Reference Well "B" (located on a separate structural feature) and Reference Well "C" (a structurally low dry hole).

Numerous free oil sample shows were observed in the Lansing "C", "D", and "F" Zone's and the Kansas City "H", "I", "J", and "K" Zone's. Based on sample oil shows and associated drilling breaks, five drill stem tests were run in the Lansing/Kansas City Group. Drill Stem Test's No. 1, 2, and 3 all tested wet (muddy water or watery mud), and Drill Stem Test's No. 4 and 5 recovering moderate amounts of oil and gas with mud with associated moderate to poor bottom hole pressures.

Therefore, based predominately on the negative fluid recoveries (water or modest hydrocarbon recoveries with mud) and bottom hole pressure results on the five drill stem tests, the structural position of the primary objective Lansing/Kansas City Group relative to the three Reference Well's as confirmed by Log-Tech logs evaluation and analysis, the Betty Thunder No. 3 test well was plugged and abandoned as a non-commercial dry hole.

Respectfully Submitted,

Richard J. Hall

Certified Petroleum Geologist No. 582

Whitehall Exploration