Confidentiality Requested:
☐ Yes ☑ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1312083

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 # 33864
Name: Habit Petroleum, LLC
Address 1: 639 280TH AVE
Address 2: PO BOX 243
City: HAYS State: KS Zip: 67601 + 9530
Contact Person: Irvin E Haselhorst
Phone: (785) 623-1154
CONTRACTOR: License # 5184
Name: Shields Oil Producers Inc.
Wellsite Geologist: Duane Stecklein
Purchaser:

Designate Type of Completion:

☑ New Well ☐ Re-Entry ☐ Workover

☐ 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:

Operator:
Well Name:
Original Comp. Date: Original Total Depth:

☐ Deepening ☐ Re-perf. ☐ Conv. to ENHR ☐ Conv. to SWD
☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ ENHR Permit #:
☐ GSW Permit #:

04/21/2016	04/27/2016	04/27/2016
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-051-26828-00-00
Spot Description:
NW SW SE NW Sec. 23 Twp. 15 S. R. 17 ☐ East ☑ West
2200 Feet from ☑ North / ☐ South Line of Section
1400 Feet from ☐ East / ☑ West Line of Section

Footages Calculated from Nearest Outside Section Corner:
☐ NE ☑ NW ☐ SE ☐ SW

GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Ellis
Lease Name: K Leiker Well #: 2
Field Name:
Producing Formation: arbuckle
Elevation: Ground: 1960 Kelly Bushing: 1965
Total Vertical Depth: 36022 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 209 Feet
Multiple Stage Cementing Collar Used? ☐ Yes ☑ No
If yes, show depth set: Feet
If Alternate II completion, cement circulated from:
feet depth to: w/ sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 410 ppm Fluid volume: 300 bbls
Dewatering method used: Evaporated

Location of fluid disposal if hauled offsite:

Operator Name:
Lease Name: License #:
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:** Karen Ritter **Date:** 07/18/2016

[redacted] 1312083

Operator Name: Habit Petroleum, LLC Lease Name: K Leiker Well #: 2

Sec. 23 Twp. 15 S. R. 17 ☐ East ☑ West County: Ellis

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken ☐ Yes ☑ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☐ Yes ☑ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Radation Guard log

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Conglomerte	3533	-1562

CASING RECORD ☑ New ☐ Used
Report all strings set-conductor, surface, intermediate, production, 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
Surface	12.25	8.625	20	209	common	150	3%cc 2%gel

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate ___ Protect Casing ___ Plug Back TD ___ Plug Off Zone	-			
	-			

Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☑ No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☐ Yes ☐ No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth

TUBING RECORD: Size: Set At: Packer At: Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR. Producing Method: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)* _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)* _____

PRODUCTION INTERVAL:
_____
_____

Form	ACO1 - Well Completion
Operator	Habit Petroleum, LLC
Well Name	K Leiker 2
Doc ID	1312083

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	20	209	common	150	3%cc 2%gel

Mud-Co / Service Mud, Inc.

100 S. Main St., Suite #310, Wichita,Ks. 67202

Report: 2

Daily Drilling Mud Report

Date: 04/21/16 Depth: 0

Operator: Habit Petroleum, LLC.	Contractor: Shields Drilling Company, Inc.	Rig No.: 1	
Address: Rig	Address: Rig	Spud Date: 04/21/16	
Report for Mr.: Irvin E. Haselhorst	Report for Mr.: George Begler	Section: 23	Twp: 15S Range: 17W
Well Name & No.: K. Leiker #1` El: 1959 GL est.	County: Ellis	State: Kansas	

Operation		Casing	Mud Volume (BBL)		Circulation Data			
Present Activity: Spudding		8 5/8 in. at	Hole: 0	Pits: 300	Liner Size: 6	Stroke: 14	Opposite Drill Pipe: 63	Pump Pressure: 600
Bit Size (in.): 12 1/4	No: 1	Intermediate in. at	Total Circulating Vol.: 300		Est.Hole/DS capacities: 9	1.1463	Opposite Drill Collars: 74	Pump Make: Bethlehem
Drill pipe sz: 4 1/2	Type: XH	Production / Liner in. at	Volume in Storage		BBl/ Strk: 0.139	Strk / Min.: 57	Bottoms Up (Min.): 0	Pump Model: 225
Drill Collar size: 6 1/4	233	Drilling mud type: Gel/Lime			BBL./Min.: 7.9	GAL/Min.: 333	System Total (Min): 38	

Flowline Temperature _____

Daily Mud Cost: 742.60 Cumulative Mud Cost: 742.60

Mud Properties			
Time Sample Taken	8:39 AM		
Depth (Ft.)	0		
Weight (lb/gal.)			
Mud Gradient (psi/ft.)			
Funnel Viscosity (Sec/qt. API)			
Plastic Viscosity cp			
Yield Point (lb/100 sq.ft.)			
Gel Strength 10 sec/10 min.			
pH			
Filtrate API (ml/30 min.)			
Cake Thickness 32nd			
Alkalinity, Mud (Pm)			Makeup
Alkalinity, Filtrate (Pf/Mf)			Water
Chloride Content, ppm			410
Calcium. ppm			195
Sand Content (% by Vol)			
Solids Content (% by Vol.)			
Oil Content (% by Vol.)			
Water Content (% by Vol.)			
LCM, lbs/bbl.			
Reynold's #DP	#DIV/0!		
Reynold's # DC	#DIV/0!		
ECD lb/gal	#DIV/0!		

MUD PROPERTIES SPECIFICATIONS

Mud Wt.(lbs/gal.)	Viscosity	Filtrate	LCM
9.4-10.0	36-40	No Cont	2-3 ppb.

DRILLING MUD INVENTORY

Products:	Prior Day	Delivery	On Hand	Used	Cost	
Premium Gel	280		245	35	598.85	#
Lime	6		5	1	10.23	#
Soda Ash	28		28			#
Caustic Soda	19		19			
Lignite	15		15			
C/S Hulls	150		142	8	133.52	
Drill Pak	6		6			#
Desco	2		2			#
Poly Plus	2		2			#
s.bicarb						#
Xcide						#
Sapp						#
Barite						#
Multi Seal						#

Suggest for surface hole:

1. **Spud with 36-40 vis of gel and lime slurry.**
2. **Have weight of 9.4 to 10.0 ppg. @ surface TD.**
3. **Mix 6 sx. Hulls and add more as needed for LCM of 2-3 ppb.**

Suggest to mud up:

1. Run plenty of fresh water and jet as needed.
2. Flush hole as needed with the following:
   - 40 bbls. Fresh water
   - 10-15 sx. Gel
   - 1/2 sx. Lime (Add just before adding to system)
3. If hole pulls tight, add 2-3 gallons of Poly Plus down the pipe on connections.
4. **If loss circulation does occur, mix and add the following:**
   - **80 bbls. Fresh water**
   - **20 sx. Gel**
   - **18 sx. c/s hulls**
   - **1/2 sx. Lime (Add just before adding to system)**
5. **Displace @ 2800' (or per Geo's orders)**
6. **Fill frac tank with the following:**
   - **80 bbls. Fresh water**
   - **23 sx. Gel**
   - **3 sx. Soda ash**
   - **1 sx. Caustic soda**
   - **1 sx. Lignite**
   - **1/3 sx. Pac**
   - **3 sx. c/s hulls**
7. Always Keep Hole Full!
8. Always Circulate Hole Clean Before Trips.
9. **Always Keep Mud Skids Covered.**

Thank You

Mud-Co / Service Mud Representative	Home Address	Telephone Number
Gary Schmidtberger	Hays, Ks	785-259-2757
Cell: 785-259-2757	Warehouse Location: Hays, Ks	Telephone Number: 785-621-4232

Mud-Co / Service Mud, Inc.

100 S. Main St., Suite #310, Wichita,Ks. 67202

Report: 3

Daily Drilling Mud Report

Date: 04/22/16 Depth: 212

Operator: Habit Petroleum, LLC.	Contractor: Shields Drilling Company, Inc.		Rig No.: 1	
Address: Rig	Address: Rig		Spud Date: 04/21/16	
Report for Mr.: Irvin E. Haselhorst	Report for Mr.: George Begler		Section: 23	Twp: 15S Range: 17W
Well Name & No.: K. Leiker #1` El: 1959 GL est.	County: Ellis		State: Kansas	

Operation		Casing	Mud Volume (BBL)		Circulation Data			
Present Activity: WOC		8 5/8 in. at 209	Hole: 18	Pits: 400	Liner Size: 6	Stroke: 14	Opposite Drill Pipe: 195	Pump Pressure: 600
Bit Size (in.): 7 7/8	No: 1	Intermediate: in. at	Total Circulating Vol.: 418		Est.Hole/DC capacities: 1.1463		Opposite Drill Collars: 356	Pump Make: Bethlehem
Drill pipe sz: 4 1/2	Type: XH	Production / Liner: in. at	Volume in Storage		BBl/ Strk: 0.139	Strk / Min.: 57	Bottoms Up (Min.): 2	Pump Model: 225
Drill Collar size: 6 1/4	233	Drilling mud type: Native/Premix			BBL./Min.: 7.9	GAL/Min.: 333	System Total (Min): 53	Critical GPM DC/DP: #DIV/0! #DIV/0!

Sample from Flowline ___ or Pit __

Flowline Temperature _____

Mud Properties			
Time Sample Taken	7:15 AM		
Depth (Ft.)	212		
Weight (lb/gal.)			
Mud Gradient (psi/ft.)	0.000		
Funnel Viscosity (Sec/qt. API)			
Plastic Viscosity cp			
Yield Point (lb/100 sq.ft.)			
Gel Strength 10 sec/10 min.			
pH			
Filtrate API (ml/30 min.)			
Cake Thickness 32nd			
Alkalinity, Mud (Pm)			
Alkalinity, Filtrate (Pf/Mf)			
Chloride Content, ppm			
Calcium. ppm			
Sand Content (% by Vol)			
Solids Content (% by Vol.)			
Oil Content (% by Vol.)			
Water Content (% by Vol.)	100.0		
LCM, lbs/bbl.			
Reynold's #DP	#DIV/0!		
Reynold's # DC	#DIV/0!		
ECD lb/gal	#DIV/0!		

Daily Mud Cost	Cumulative Mud Cost
100.14	842.74

MUD PROPERTIES SPECIFICATIONS

Mud Wt.(lbs/gal.)	Viscosity	Filtrate	LCM
9.0-9.5	As needed	No cont	As needed.

DRILLING MUD INVENTORY

Products:	Prior Day	Delivery	On Hand	Used	Cost	
Premium Gel	245		245			#
Lime	5		5			#
Soda Ash	28		28			#
Caustic Soda	19		19			#
Lignite	15		15			#
C/S Hulls	142		136	6	100.14	#
Drill Pak	6		6			#
Desco	2		2			#
Poly Plus	2		2			#
Florigel						#
Xcide						#
Sapp						#
Barite						#
Multi Seal						#

Suggest to mud up:

1. Run plenty of fresh water and jet as needed.
2. Flush hole as needed with the following:
   - 40 bbls. Fresh water
   - 10-15 sx. Gel
   - 1/2 sx. Lime (Add just before adding to system)
3. If hole pulls tight, add 2-3 gallons of Poly Plus down the pipe on connections.
4. **If loss circulation does occur, mix and add the following:**
   - **80 bbls. Fresh water**
   - **20 sx. Gel**
   - **18 sx. c/s hulls**
   - **1/2 sx. Lime (Add just before adding to system)**
5. **Displace @ 2800' (or per Geo's orders)**
6. **Fill frac tank with the following:**
   - **80 bbls. Fresh water**
   - **23 sx. Gel**
   - **3 sx. Soda ash**
   - **1 sx. Caustic soda**
   - **1 sx. Lignite**
   - **1/3 sx. Pac**
   - **3 sx. c/s hulls**
7. Always Keep Hole Full!
8. Always Circulate Hole Clean Before Trips.
9. **Always Keep Mud Skids Covered.**

Thank You

Mud-Co / Service Mud Representative	Home Address	Telephone Number
Gary Schmidtberger	Hays, Ks	785-259-2757
Cell: 785-259-2757	Warehouse Location: Hays, Ks	Telephone Number: 785-621-4232

Mud-Co / Service Mud, Inc.

100 S. Main St., Suite #310, Wichita,Ks. 67202

Report: 4

Daily Drilling Mud Report

Date: 04/23/16 Depth: 1616

Operator: Habit Petroleum, LLC.	Contractor: Shields Drilling Company, Inc.		Rig No.: 1		
Address: Rig	Address: Rig		Spud Date: 04/21/16		
Report for Mr.: Irvin E. Haselhorst/Duane Stecklein	Report for Mr.: George Begler		Section: 23	Twp: 15S	Range: 17W
Well Name & No.: K. Leiker #1` El: 1959 GL est.	County: Ellis		State: Kansas		

Operation	Casing	Mud Volume (BBL)	Circulation Data			
Present Activity: Drilling	8 5/8 in. at 209	Hole: 134 Pits: 400	Liner Size: 6 Stroke: 14	Opposite Drill Pipe: 195	Pump Pressure: 600	
Bit Size (in.): 7 7/8 No: 1	Intermediate in. at	Total Circulating Vol.: 534	Est.Hole/DS capacities: 1.1463	Opposite Drill Collars: 356	Pump Make: Bethlehem	
Drill pipe sz: 4 1/2 Type: XH	Production / Liner in. at	Volume in Storage: Volume	BBl/ Strk: 0.139 Strk / Min.: 57	Bottoms Up (Min.): 17	Pump Model: 225	
Drill Collar size: 6 1/4 233	Drilling mud type: Native/Premix		BBL./Min.: 7.9 GAL/Min.: 333	System Total (Min): 67	Critical GPM DC/DP: #DIV/0! #DIV/0!	

Sample from Flowline ___ or Pit __
Flowline Temperature _____

Daily Mud Cost: 0.00

Cumulative Mud Cost: 842.74

Mud Properties			
Time Sample Taken	7:31 AM		
Depth (Ft.)	1,616		
Weight (lb/gal.)	9.6		
Mud Gradient (psi/ft.)	0.499		
Funnel Viscosity (Sec/qt. API)	30		
Plastic Viscosity cp			
Yield Point (lb/100 sq.ft.)			
Gel Strength 10 sec/10 min.			
pH	7.0		
Filtrate API (ml/30 min.)	NC		
Cake Thickness 32nd			
Alkalinity, Mud (Pm)			
Alkalinity, Filtrate (Pf/Mf)			
Chloride Content, ppm	32,000		
Calcium. ppm	Hvy		
Sand Content (% by Vol)	Tr		
Solids Content (% by Vol.)	7.4		
Oil Content (% by Vol.)	0.0		
Water Content (% by Vol.)	92.6		
LCM, lbs/bbl.	Nil		
Reynold's #DP	#DIV/0!		
Reynold's # DC	#DIV/0!		
ECD lb/gal	#DIV/0!		

MUD PROPERTIES SPECIFICATIONS

Mud Wt.(lbs/gal.)	Viscosity	Filtrate	LCM
9.4-9.8	As needed	No cont	As needed.

DRILLING MUD INVENTORY

Products:	Prior Day	Delivery	On Hand	Used	Cost
Premium Gel	245		245		
Lime	5		5		
Soda Ash	28		28		
Caustic Soda	19		19		
Lignite	15		15		
C/S Hulls	136		136		
Drill Pak	6		6		
Desco	2		2		
Poly Plus	2		2		
Florigel					
Xcide					
Sapp					
Barite					
Multi Seal					

Suggest to mud up:

1. Run plenty of fresh water and jet as needed.
2. Flush hole as needed with the following:
   - 40 bbls. Fresh water
   - 10-15 sx. Gel
   - 1/2 sx. Lime (Add just before adding to system)
3. If hole pulls tight, add 2-3 gallons of Poly Plus down the pipe on connections.
4. **If loss circulation does occur, mix and add the following:**
   - **80 bbls. Fresh water**
   - **20 sx. Gel**
   - **18 sx. c/s hulls**
   - **1/2 sx. Lime (Add just before adding to system)**
5. **Displace @ 2800' (or per Geo's orders)**
6. **Fill frac tank with the following:**
   - **80 bbls. Fresh water**
   - **23 sx. Gel**
   - **3 sx. Soda ash**
   - **1 sx. Caustic soda**
   - **1 sx. Lignite**
   - **1/3 sx. Pac**
   - **3 sx. c/s hulls**
7. Always Keep Hole Full!
8. Always Circulate Hole Clean Before Trips.
9. **Always Keep Mud Skids Covered.**

Thank You

Mud-Co / Service Mud Representative	Home Address	Telephone Number
Gary Schmidtberger	Hays, Ks	785-259-2757
Cell: 785-259-2757	Warehouse Location: Hays, Ks	Telephone Number: 785-621-4232

Mud-Co / Service Mud, Inc.

100 S. Main St., Suite #310, Wichita,Ks. 67202

Report: 5

Daily Drilling Mud Report

Date: 04/24/16 Depth: 2587

Operator: Habit Petroleum, LLC.	Contractor: Shields Drilling Company, Inc.	Rig No.: 1		
Address: Rig	Address: Rig	Spud Date: 04/21/16		
Report for Mr.: Irvin E. Haselhorst/Duane Stecklein	Report for Mr.: George Begler	Section: 23	Twp: 15S	Range: 17W
Well Name & No.: K. Leiker #1` El: 1959 GL est.	County: Ellis	State: Kansas		

Operation		Casing	Mud Volume (BBL)		Circulation Data			
Present Activity: Drilling		8 5/8 in. at 209	Hole: 215	Pits: 400	Liner Size: 6	Stroke: 14	Opposite Drill Pipe: 195	Pump Pressure: 700
Bit Size (in.): 7 7/8	No: 1	Intermediate: in. at	Total Circulating Vol.: 615		Est.Hole/DS capacities: 1.1463		Opposite Drill Collars: 356	Pump Make: Bethlehem
Drill pipe sz: 4 1/2	Type: XH	Production / Liner: in. at	Volume in Storage: Frac is Full		BBl/ Strk: 0.139	Strk / Min.: 57	Bottoms Up (Min.): 27	Pump Model: 225
Drill Collar size: 6 1/4	233	Drilling mud type: Chemical			BBL./Min.: 7.9	GAL/Min.: 333	System Total (Min): 78	Critical GPM DC/DP: #DIV/0! | #DIV/0!

Sample from Flowline ___ or Pit __
Flowline Temperature _____

Daily Mud Cost: 4,157.71 Cumulative Mud Cost: 5,000.45

Mud Properties			
Time Sample Taken	8:00 AM		
Depth (Ft.)	2,587		
Weight (lb/gal.)	9.8		
Mud Gradient (psi/ft.)	0.510		
Funnel Viscosity (Sec/qt. API)	30		
Plastic Viscosity cp			
Yield Point (lb/100 sq.ft.)			
Gel Strength 10 sec/10 min.			
pH	7.0		
Filtrate API (ml/30 min.)	NC		
Cake Thickness 32nd			
Alkalinity, Mud (Pm)			
Alkalinity, Filtrate (Pf/Mf)			
Chloride Content, ppm	66,000		
Calcium. ppm	Hvy		
Sand Content (% by Vol)	Tr		
Solids Content (% by Vol.)	6.8		
Oil Content (% by Vol.)	0.0		
Water Content (% by Vol.)	93.2		
LCM, lbs/bbl.	Nil		
Reynold's #DP	#DIV/0!		
Reynold's # DC	#DIV/0!		
ECD lb/gal	#DIV/0!		

MUD PROPERTIES SPECIFICATIONS

Mud Wt.(lbs/gal.)	Viscosity	Filtrate	LCM
9.4-9.8	50-55	8-10cc	1-3 ppb.

DRILLING MUD INVENTORY

Products:	Prior Day	Delivery	On Hand	Used	Cost	
Premium Gel	245		111	134	2,292.74	#
Lime	5		5			#
Soda Ash	28		10	18	432.72	#
Caustic Soda	19		13	6	375.12	
Lignite	15		9	6	159.60	
C/S Hulls	136		119	17	283.73	
Drill Pak	6		4	2	613.80	#
Desco	2		2			#
Poly Plus	2		2			#
Florigel						#
Xcide						#
Sapp						#
Barite						*
Multi Seal						*

Suggest after displacement @ 2800:

1. *Run stream of water @ flowline to control wt. & vis.*
2. *If more vis is required, mix gel in pit mud.*
3. *If hole pulls tight, add Poly Plus down the pipe on connection.*
4. ***When mud wt. climbs above 9.7, mix and add the following:***
   - ***80 bbls. Fresh water***
   - ***23 sx. Gel***
   - ***3 sx. Soda ash***
   - ***1 sx. Caustic Soda***
   - ***1 sx. Lignite***
   - ***1/3 sx. Pac***
   - ***3 sx. c/s hulls***

   Jet & gun a pit before adding to system. Add over 1 1/2 hour period.
5. *Always Keep Hole Full!*
6. *Always Circulate Hole Clean Before Trips.*
7. *Always Keep Mud Skids Covered.*

THANK YOU

Mud-Co / Service Mud Representative	Home Address	Telephone Number
Gary Schmidtberger	Hays, Ks	785-259-2757
Cell: 785-259-2757	Warehouse Location: Hays, Ks	Telephone Number: 785-621-4232

Mud-Co / Service Mud, Inc.

100 S. Main St., Suite #310, Wichita,Ks. 67202

Report: 6

Daily Drilling Mud Report

Date: 04/24/16 Depth: 2822

Operator: Habit Petroleum, LLC.	Contractor: Shields Drilling Company, Inc.	Rig No.: 1		
Address: Rig	Address: Rig	Spud Date: 04/21/16		
Report for Mr.: Irvin E. Haselhorst/Duane Stecklein	Report for Mr.: George Begler	Section: 23	Twp: 15S	Range: 17W
Well Name & No.: K. Leiker #1` El: 1959 GL est.	County: Ellis	State: Kansas		

Operation	Casing	Mud Volume (BBL)	Circulation Data			
Present Activity: Drilling	8 5/8 in. at 209	Hole: 150 Pits: 300	Liner Size: 6 Stroke: 14	Opposite Drill Pipe: 195	Pump Pressure: 700	
Bit Size (in.): 7 7/8 No: 1	Intermediate: in. at	Total Circulating Vol.: 450	Est.Hole/DS capacities: 1.1463	Opposite Drill Collars: 356	Pump Make: Bethlehem	
Drill pipe sz: 4 1/2 Type: XH	Production / Liner: in. at	Volume in Storage: 40 bbls. Fresh mud	BBl/ Strk: 0.139 Strk / Min.: 57	Bottoms Up (Min.): 19	Pump Model: 225	
Drill Collar size: 6 1/4 233	Drilling mud type: Chemical		BBL./Min.: 7.9 GAL/Min.: 333	System Total (Min): 57	Critical GPM DC/DP: 404 614	

Sample from Flowline ___ or Pit __
Flowline Temperature _____

Daily Mud Cost: 0.00 Cumulative Mud Cost: 5,000.45

Mud Properties			
Time Sample Taken	2:37 PM		
Depth (Ft.)	2,822		
Weight (lb/gal.)	9.2		
Mud Gradient (psi/ft.)	0.478		
Funnel Viscosity (Sec/qt. API)	60+		
Plastic Viscosity cp	18		
Yield Point (lb/100 sq.ft.)	39		
Gel Strength 10 sec/10 min.	16/34		
pH	11.5		
Filtrate API (ml/30 min.)	10.0		
Cake Thickness 32nd	1		
Alkalinity, Mud (Pm)	0.0		
Alkalinity, Filtrate (Pf/Mf)	1.3/1.8		
Chloride Content, ppm	9,600		
Calcium. ppm	Tr		
Sand Content (% by Vol)	Tr		
Solids Content (% by Vol.)	5.9		
Oil Content (% by Vol.)	0.0		
Water Content (% by Vol.)	94.1		
LCM, lbs/bbl.	3		
Reynold's #DP	750		
Reynold's # DC	1,467		
ECD lb/gal	10.08		

MUD PROPERTIES SPECIFICATIONS

Mud Wt.(lbs/gal.)	Viscosity	Filtrate	LCM
9.4-9.8	50-55	8-10cc	1-3 ppb.

DRILLING MUD INVENTORY

Products:	Prior Day	Delivery	On Hand	Used	Cost
Premium Gel	111		111		
Lime	5		5		
Soda Ash	10		10		
Caustic Soda	13		13		
Lignite	9		9		
C/S Hulls	119		119		
Drill Pak	4		4		
Desco	2		2		
Poly Plus	2		2		
Florigel					
Xcide					
Sapp					
Barite					
Multi Seal					

Suggest:

1. Run stream of water @ flowline to control wt. & vis.
2. If more vis is required, mix gel in pit mud.
3. If hole pulls tight, add Poly Plus down the pipe on connection.
4. **When mud wt. climbs above 9.7, mix and add the following:**
   - **80 bbls. Fresh water**
   - **23 sx. Gel**
   - **3 sx. Soda ash**
   - **1 sx. Caustic Soda**
   - **1 sx. Lignite**
   - **1/3 sx. Pac**
   - **3 sx. c/s hulls**

   Jet & gun a pit before adding to system.
   Add over 1 1/2 hour period.
5. Always Keep Hole Full!
6. Always Circulate Hole Clean Before Trips.
7. Always Keep Mud Skids Covered.

THANK YOU

Displaced @ 2800-2822
Reserve pit chlorides: 92000 ppm.
Reserve pit volume est: 700 bbls.

Mud-Co / Service Mud Representative	Home Address	Telephone Number
Gary Schmidtberger	Hays, Ks	785-259-2757
Cell: 785-259-2757	Warehouse Location: Hays, Ks	Telephone Number: 785-621-4232

Mud-Co / Service Mud. Inc.

100 S. Main St., Suite #310, Wichita,Ks. 67202

Report: 7

Daily Drilling Mud Report

Date: 04/25/16 Depth: 3192

Operator: Habit Petroleum, LLC.	Contractor: Shields Drilling Company, Inc.	Rig No.: 1	
Address: Rig	Address: Rig	Spud Date: 04/21/16	
Report for Mr.: Irvin E. Haselhorst/Duane Stecklein	Report for Mr.: George Begler	Section: 23	Twp: 15S Range: 17W
Well Name & No.: K. Leiker #1` El: 1959 GL est.	County: Ellis	State: Kansas	

Operation	Casing	Mud Volume (BBL)	Circulation Data			
Present Activity: Drilling	8 5/8 in. at 209	Hole: 265 Pits: 300	Liner Size: 6 Stroke: 14	Opposite Drill Pipe: 195	Pump Pressure: 700	
Bit Size (in.): 7 7/8 No: 1	Intermediate: in. at	Total Circulating Vol.: 565	Est.Hole/DS capacities: 1.1463	Opposite Drill Collars: 356	Pump Make: Bethlehem	
Drill pipe sz: 4 1/2 Type: XH	Production / Liner: in. at	Volume in Storage: 80 bbls. Fresh mud	BBl/ Strk: 0.139 Strk / Min.: 57	Bottoms Up (Min.): 34	Pump Model: 225	
Drill Collar size: 6 1/4 233	Drilling mud type: Chemical		BBL./Min.: 7.9 GAL/Min.: 333	System Total (Min): 71	Critical GPM DC/DP: 375 546	

Sample from Flowline ___ or Pit __
Flowline Temperature _____

Daily Mud Cost	Cumulative Mud Cost
0.00	5,000.45

Mud Properties			
Time Sample Taken	7:20 AM		
Depth (Ft.)	3,192		
Weight (lb/gal.)	9.2		
Mud Gradient (psi/ft.)	0.478		
Funnel Viscosity (Sec/qt. API)	53		
Plastic Viscosity cp	19		
Yield Point (lb/100 sq.ft.)	31		
Gel Strength 10 sec/10 min.	15/28		
pH	11.0		
Filtrate API (ml/30 min.)	8.8		
Cake Thickness 32nd	1		
Alkalinity, Mud (Pm)	0.0		
Alkalinity, Filtrate (Pf/Mf)	1.2/1.5		
Chloride Content, ppm	10,000		
Calcium. ppm	Tr		
Sand Content (% by Vol)	Tr		
Solids Content (% by Vol.)	5.8		
Oil Content (% by Vol.)	0.0		
Water Content (% by Vol.)	94.2		
LCM, lbs/bbl.	2		
Reynold's #DP	935		
Reynold's # DC	1,669		
ECD lb/gal	9.91		

MUD PROPERTIES SPECIFICATIONS

Mud Wt.(lbs/gal.)	Viscosity	Filtrate	LCM
9.4-9.8	50-55	8-10cc	1-3 ppb.

DRILLING MUD INVENTORY

Products:	Prior Day	Delivery	On Hand	Used	Cost	
Premium Gel	111		111			#
Lime	5		5			#
Soda Ash	10		10			#
Caustic Soda	13		13			
Lignite	9		9			
C/S Hulls	119		119			
Drill Pak	4		4			#
Desco	2		2			#
Poly Plus	2		2			#
Florigel						#
Xcide						#
Sapp						#
Barite						#
Multi Seal						#

Suggest:

1. **Run stream of water @ flowline to control wt. & vis after mud wt. reaches 9.4 or better!**
2. If more vis is required, mix gel in pit mud.
3. If hole pulls tight, add Poly Plus down the pipe on connection.
4. **When mud wt. climbs above 9.7, mix and add the following:**
   - **80 bbls. Fresh water**
   - **23 sx. Gel**
   - **3 sx. Soda ash**
   - **1 sx. Caustic Soda**
   - **1 sx. Lignite**
   - **1/3 sx. Pac**
   - **3 sx. c/s hulls**

   Jet & gun a pit before adding to system. Add over 1 1/2 hour period.
5. Always Keep Hole Full!
6. Always Circulate Hole Clean Before Trips.
7. Always Keep Mud Skids Covered.

THANK YOU

Mud-Co / Service Mud Representative	Home Address	Telephone Number
Gary Schmidtberger	Hays, Ks	785-259-2757
Cell: 785-259-2757	Warehouse Location: Hays, Ks	Telephone Number: 785-621-4232

Mud-Co / Service Mud. Inc.

100 S. Main St., Suite #310, Wichita,Ks. 67202

Report: 8

Daily Drilling Mud Report

Date: 04/26/16 Depth: 3552

Operator: Habit Petroleum, LLC.	Contractor: Shields Drilling Company, Inc.	Rig No.: 1	
Address: Rig	Address: Rig	Spud Date: 04/21/16	
Report for Mr.: Irvin E. Haselhorst/Duane Stecklein	Report for Mr.: George Begler	Section: 23	Twp: 15S Range: 17W
Well Name & No.: K. Leiker #1` El: 1959 GL est.	County: Ellis	State: Kansas	

Operation	Casing	Mud Volume (BBL)	Circulation Data			
Present Activity: Drilling	8 5/8 in. at 209	Hole 295 Pits 300	Liner Size 6 Stroke 14	Opposite Drill Pipe 195	Pump Pressure 700	
Bit Size (in.) 7 7/8 No 1	Intermediate in. at	Total Circulating Vol. 595	Est.Hole/DS capacities 1.1463	Opposite Drill Collars 356	Pump Make Bethlehem	
Drill pipe sz 4 1/2 Type XH	Production / Liner in. at	Volume in Storage Volume	BBl/ Strk 0.139 Strk / Min. 57	Bottoms Up (Min.) 37	Pump Model 225	
Drill Collar size 6 1/4 233	Drilling mud type Chemical		BBL./Min. 7.9 GAL/Min. 333	System Total (Min) 75	Critical GPM DC/DP 371 546	

Sample from Flowline ___ or Pit __
Flowline Temperature _____

Mud Properties			
Time Sample Taken	7:45 AM		
Depth (Ft.)	3,552		
Weight (lb/gal.)	9.7		
Mud Gradient (psi/ft.)	0.504		
Funnel Viscosity (Sec/qt. API)	55		
Plastic Viscosity cp	19		
Yield Point (lb/100 sq.ft.)	33		
Gel Strength 10 sec/10 min.	15/32		
pH	10.0		
Filtrate API (ml/30 min.)	11.2		
Cake Thickness 32nd	1		
Alkalinity, Mud (Pm)	0.0		
Alkalinity, Filtrate (Pf/Mf)	1.2/1.5		
Chloride Content, ppm	18,000		
Calcium. ppm	40		
Sand Content (% by Vol)	Tr		
Solids Content (% by Vol.)	9.0		
Oil Content (% by Vol.)	0.0		
Water Content (% by Vol.)	91.0		
LCM, lbs/bbl.	2		
Reynold's #DP	929		
Reynold's # DC	1,693		
ECD lb/gal	10.43		

Daily Mud Cost: 0.00
Cumulative Mud Cost: 5,000.45

MUD PROPERTIES SPECIFICATIONS

Mud Wt.(lbs/gal.)	Viscosity	Filtrate	LCM
9.4-9.8	50-55	8-10cc	1-3 ppb.

DRILLING MUD INVENTORY

Products:	Prior Day	Delivery	On Hand	Used	Cost
Premium Gel	111		111		
Lime	5		5		
Soda Ash	10		10		
Caustic Soda	13		13		
Lignite	9		9		
C/S Hulls	119		119		
Drill Pak	4		4		
Desco	2		2		
Poly Plus	2		2		
Florigel					
Xcide					
Sapp					
Barite					
Multi Seal					

Suggest:

1. **Run stream of water @ flowline to control wt. & vis after mud wt. reaches 9.4 or better!**
2. If more vis is required, mix gel in pit mud.
3. If hole pulls tight, add Poly Plus down the pipe on connection.
4. **When mud wt. climbs above 9.7, mix and add the following:**
   - **80 bbls. Fresh water**
   - **23 sx. Gel**
   - **3 sx. Soda ash**
   - **1 sx. Caustic Soda**
   - **1 sx. Lignite**
   - **1/3 sx. Pac**
   - **3 sx. c/s hulls**

   Jet & gun a pit before adding to system. Add over 1 1/2 hour period.
5. Always Keep Hole Full!
6. Always Circulate Hole Clean Before Trips.
7. Always Keep Mud Skids Covered.

THANK YOU

Mud-Co / Service Mud Representative	Home Address	Telephone Number
Gary Schmidtberger	Hays, Ks	785-259-2757
Cell: 785-259-2757	Warehouse Location: Hays, Ks	Telephone Number: 785-621-4232

Mud-Co / Service Mud. Inc.

100 S. Main St., Suite #310, Wichita,Ks. 67202

Report: 9

Daily Drilling Mud Report

Date: 04/27/16 Depth: 3602

Operator: Habit Petroleum, LLC.	Contractor: Shields Drilling Company, Inc.	Rig No.: 1		
Address: Rig	Address: Rig	Spud Date: 04/21/16		
Report for Mr.: Irvin E. Haselhorst/Duane Stecklein	Report for Mr.: George Begler	Section: 23	Twp: 15S	Range: 17W
Well Name & No.: K. Leiker #1` El: 1959 GL est.	County: Ellis	State: Kansas		

Operation		Casing	Mud Volume (BBL)		Circulation Data			
Present Activity: Plugged		8 5/8 in. at 209	Hole: 299	Pits: 300	Liner Size: 6	Stroke: 14	Opposite Drill Pipe: 195	Pump Pressure: 700
Bit Size (in.): 7 7/8	No: 1	Intermediate: in. at	Total Circulating Vol.: 599		Est.Hole/DS capacities:	1.1463	Opposite Drill Collars: 356	Pump Make: Bethlehem
Drill pipe sz: 4 1/2	Type: XH	Production / Liner: in. at	Volume in Storage: 70 bbls. Fresh mud		BBl/ Strk: 0.139	Strk / Min.: 57	Bottoms Up (Min.): 38	Pump Model: 225
Drill Collar size: 6 1/4	233	Drilling mud type: Chemical			BBL./Min.: 7.9	GAL/Min.: 333	System Total (Min): 76	Critical GPM: #DIV/0! DC/DP: #DIV/0!

Sample from Flowline ___ or Pit __

Flowline Temperature _____

Mud Properties			
Time Sample Taken	7:28 AM		
Depth (Ft.)	3,602	RTD	
Weight (lb/gal.)			
Mud Gradient (psi/ft.)	0.000		
Funnel Viscosity (Sec/qt. API)			
Plastic Viscosity cp			
Yield Point (lb/100 sq.ft.)			
Gel Strength 10 sec/10 min.			
pH			
Filtrate API (ml/30 min.)			
Cake Thickness 32nd			
Alkalinity, Mud (Pm)			
Alkalinity, Filtrate (Pf/Mf)			
Chloride Content, ppm			
Calcium. ppm			
Sand Content (% by Vol)			
Solids Content (% by Vol.)			
Oil Content (% by Vol.)			
Water Content (% by Vol.)	100.0		
LCM, lbs/bbl.			
Reynold's #DP	#DIV/0!		
Reynold's # DC	#DIV/0!		
ECD lb/gal	#DIV/0!		

Daily Mud Cost	Cumulative Mud Cost
0.00	5,000.45

MUD PROPERTIES SPECIFICATIONS

Mud Wt.(lbs/gal.)	Viscosity	Filtrate	LCM
9.4-9.8	50-55	8-10cc	1-3 ppb.

DRILLING MUD INVENTORY

Products:	Prior Day	Delivery	On Hand	Used	Cost	
Premium Gel	111		111			#
Lime	5		5			#
Soda Ash	10		10			#
Caustic Soda	13		13			
Lignite	9		9			
C/S Hulls	119		119			
Drill Pak	4		4			#
Desco	2		2			#
Poly Plus	2		2			#
Florigel						
Xcide						#
Sapp						#
Barite						#
Multi Seal						#

FINAL REPORT

No- DST'S

Logs- OK

Loggers TD: 3601

D & A

Plugged Hole

THANK YOU

2 skids on location

#1 skid 41 Gel

#2 skid The remainder of the materials

Reserve pit chlorides: 92000 ppm.

Reserve pit volume est: 700 bbls.

Mud-Co / Service Mud Representative	Home Address	Telephone Number
Gary Schmidtberger	Hays, Ks	785-259-2757
Cell: 785-259-2757	Warehouse Location: Hays, Ks	Telephone Number: 785-621-4232

2625

GLOBAL CEMENTING, L.L.C.

REMIT TO 18048 170RD
RUSSELL, KS 67665

SERVICE POINT: Russell Ks.

DATE 4-21-16	SEC. 23	TWP. 15	RANGE 17	CALLED OUT	ON LOCATION	JOB START	JOB FINISH 10:00 PM.
LEASE Kleiker	WELL #. #1		LOCATION Victoria is 7 South 2W ½S ¼E 2nd			COUNTY Ellis	STATE Kansas
OLD OR (NEW) (CIRCLE ONE)							

CONTRACTOR Shields Drlg. Rig #1
TYPE OF JOB Cement Surface
HOLE SIZE 12 ¼ T.D. 212
CASING SIZE 8 5/8 New DEPTH 209
TUBING SIZE 23 # csg. DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG. 15'
PERFS
DISPLACEMENT 12.5 BBL

EQUIPMENT

PUMP TRUCK CEMENTER Glenn G.
P-2 HELPER Cody H.
BULK TRUCK
B-4 DRIVER Jason M.
BULK TRUCK
DRIVER

OWNER

CEMENT
AMOUNT ORDERED 150 sx Comm.
3% cc
2% Gel

COMMON		@	
POZMIX		@	
GEL		@	
CHLORIDE		@	
ASC		@	
		@	
		@	
		@	
		@	
		@	
		@	
		@	
		@	
HANDLING		@	
MILEAGE			
		TOTAL	

REMARKS:

Set 8 5/8 @ 209'
Recieved Circulation
Cement w/ 150 sx Com. 3 + 2
Displaced 12½ BBL H2O
Shut in @ 250 #.
Cement Did Circulate To Surface
Thanks

SERVICE

DEPTH OF JOB			
PUMP TRUCK CHARGE			
EXTRA FOOTAGE		@	
MILEAGE		@	
MANIFOLD		@	
		@	
		@	
		TOTAL	

CHARGE TO: Habit Petroleum LLC.
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

		@	
		@	
		@	
		@	
		@	
		TOTAL	

Global Cementing, L.L.C.,
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any)
TOTAL CHARGES

PRINTED NAME George Begler
SIGNATURE George Begler

GEMINI WIRELINE LLC

1023 Reservation Road • Hays, Kansas 67601 • (785) 625-1182

TICKET 2335

Date 4/26/16

Charge To: Habit Petroleum, LLC.

Address:

Lease and Well No. K. Leiker #1 Field Degenhart Southeast

Nearest Town Hays County Ellis State KS

Customer's Order No. Duane Steckler Sec. 23 Twp. 15s Range 12w

Zero KB 5' AGL Casing Size — Weight —

Customer's T.D. 3602 Gemini Wireline T.D. 3601 Fluid Level Full

Engineer Gus Operator Phoenix

Perforations

Code Reference	From	To	Number Of Holes	Amount

Material Inventory

Truck Rental

Code Reference	Unit	File Name	Amount
100	T127		15

Services

Code Reference	From	To	No. Feet	Price Per Ft.	
358.1	00	3601	3601	min	
359.2	3601	2000	3401	min	
Radiation Guard			405		

Received the above service according to the terms and conditions specified below, which we have read and to which they agree.

Customer Gemini Field Agent

General Terms and Conditions

(1) All accounts are to be paid within the terms fixed by Gemini Wireline invoices and should these terms not be observed, interest at the rate of 1.5% per month will be charged from the date of such invoice. Interest, Attorney, Court, Filing and other fees will be added to accounts turned to collections.

(2) Because of the uncertain conditions existing in a well which are beyond the control of Gemini Wireline, it is understood by the customer that Gemini Wireline, cannot guarantee the results of their services and will not be held responsible for personal or property damage in the performance of their services.

(3) Should any of Gemini Wireline instruments be lost or damage in the performance of the operations requested the customer agrees to make every reasonable effort to recover same, and to reimburse Gemini Wireline, for the value of the items which cannot be recovered, or the cost of repairing damage to items recovered.

(4) It is further understood and agreed that all depth measurements shall be supervised by the customer or its employees and customer hereby certifies that the zones, as shot were approved