

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

New Well  Re-Entry  Workover

Oil  WSW  SWD

Gas  DH  EOR

OG  GSW

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 EOR  Conv. to SWD  
 Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or Date Reached TD Completion Date or  
Recompletion Date Recompletion Date

API No.: \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE  NW  SE  SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27  NAD83  WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ 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: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

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  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> 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

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
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)*

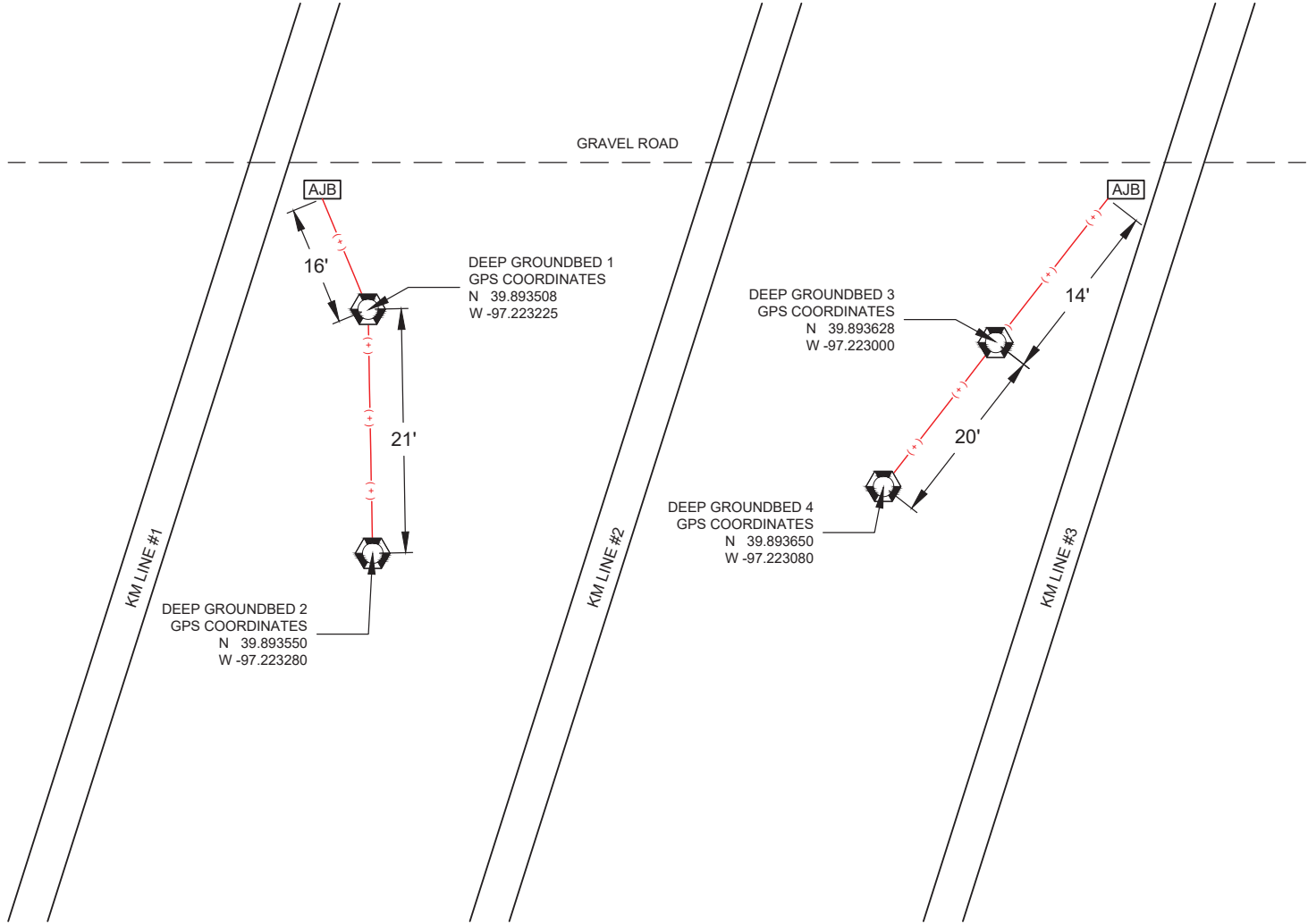
Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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DEEP GROUND BED INSTALLATION  
(4) 10'X250'  
13 OF 2660 CAST IRON ANODES  
WITH #13 HMWPE ANODE LEADS  
5,000# LORESCO SC-3 COKE BREEZE  
1,300# BENTONITE HOLE PLUG  
20' OF 10" SDR-21 PVC CASING WITH CAP

REVISIONS					
No.	Description	Drawn By:	Date	Chk'd By:	Date

DEEP GROUND BED LEGEND			
	DEEP GROUND BED		POSITIVE CABLE
	ANODE JBOX		NEGATIVE CABLE
	RECTIFIER		PIPELINE ASSETS

Drawn By: J. GREENFIELD	Date: 7/2023
Checked By: R. McCLAIN	Date: 7/2023

**MERIDIAN**  
PIPELINE SERVICES  
CORROSION · INTEGRITY · CONSTRUCTION

<b>CATHODIC PROTECTION LAYOUT AMA 428 DEEP GROUND BED INSTALLATION</b>		KS Revision:
HADDAM Project No.	<b>2023-0207</b>	Sheet No. 1
		Revision: 0

# CITATION DEEP GROUND BED DRILL LOG & RECTIFIER FORM

DRILLING & BORING

**CLIENT INFORMATION**

Client	Kinder Morgan	Job Number	2023-0207
Facility	AMA 428 DW2	Customer Contact	Kevin Brown
City	Haddam	County	Washington
		State	Ks
		Phone No.	308-325-3563

**DEEP GROUND BED & DRILLING LOG INFORMATION**  New Installation  Existing Rectifier

Hole Dia.	10"	Total Depth	250'	Casing Feet	20'	Dia.	10"	Type	SDR 21 PVC	Groundbed GPS		
No. Anodes	13	Size & Type	2660 Cast iron	Anode Lead	350'	Size	#8	Type	Halar	N	39.89355	
Lbs. Coke	5000	Coke Type	SC3	Top of Coke Column	108'	Vent	140'	W	-97.223283			
Lbs. Plug	3100	Plug Type	Bentonite	Top of Plug	3'	Logging Volts			12.7			

Depth Ft.	DRILLER'S LOG	Anode NO.	Electric Log				Depth Ft.	DRILLER'S LOG	Anode NO.	Electric Log				
			Volts	Amps Before	Amps After	Remarks				Volts	Amps Before	Amps After	Remarks	
0														
5						205		5				11.3		
10	Casing					210	Red Clay				2.3			
15						215		4				11.4		
20	Casing					220	Red Clay				1.8			
25						225		3				9.1		
30	Sand			.7		230	Red Clay				2.2			
35						235		2				7.5		
40	Sand			.6		240	Red Clay				2.1			
45						245		1				5.4		
50	Sand			.7		250	Red Clay				2.0			
55						255								
60	Sandy Clay			1.2		260								
65						265								
70	Sand			.6		270								
75						275								
80	Sandy Clay			1.2		280								
85						285								
90	Red Clay			1.5		290								
95						295								
100	Red Clay			1.6		300								
105						305								
110	Red Clay			1.4		310								
115						315								
120	Red Clay			1.3		320								
125		13			9.2	325								
130	Red Clay			.8		330								
135		12			9.6	335								
140	Red Clay			1.7		340								
145		11			9.4	345								
150	Red Clay			1.8		350								
155		10			8.4	355								
160	Red Clay			1.3		360								
165		9			9.7	365								
170	Red Clay			1.5		370								
175		8			10.9	375								
180	Red Clay			1.8		380								
185		7			11.9	385								
190	Red Clay			1.5		390								
195		6			11.7	395								
200	Red Clay			2.0		400								
								Total						

**ANODE JUNCTION BOX INFORMATION**

ANODE JUNCTION BOX												COMMENTS
Cir.	Amp	Cir.	Amp	Cir.	Amp	Cir.	Amp	Cir.	Amp	Cir.	Amp	
1		6		11		16		21		26		
2		7		12		17		22		27		
3		8		13		18		23		28		
4		9		14		19		24		29		
5		10		15		20		25		30		
Shunt	Mv		Amp							TOTAL		

**RECTIFIER INFORMATION**

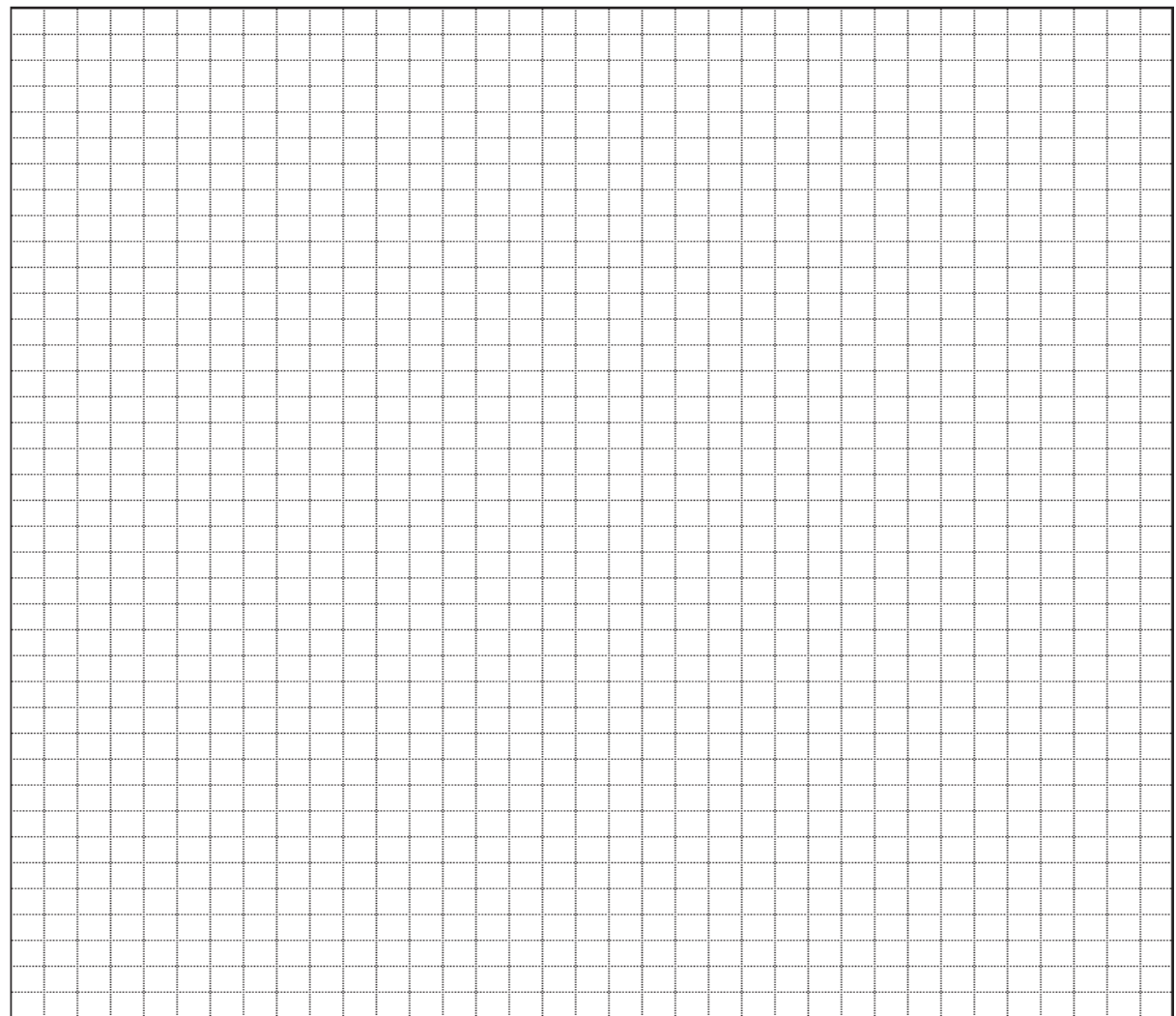
Manufacturer		Rectifier ID Number	
Model No.	DC Volts	AC Volts	Max Coarse
Serial No.	DC Amps	AC Amps	Max Fine
GPS Coordinates	Latitude	N	Longitude
RMU Type	Serial Number		W

**ENERGIZED INFORMATION**

No A/C Power     #12 Lead Installed with Negative

Coarse Tap Setting	of	AC Volts	DC Volts	DC Amps
Fine Tap Setting	of	AC Amps	DC mV	Structure PS
Calculated Ground Bed Resistance		Calculated Rectifier Efficiency		

**ASBUILT DRAWING**



Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Technician/Foreman \_\_\_\_\_ Date \_\_\_\_\_