



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1069445
OIL & GAS CONSERVATION DIVISION

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 # _____

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 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 #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

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
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

1069445

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 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				

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 <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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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> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Chesapeake Operating, Inc.
Well Name	York 31-31-17 1H
Doc ID	1069445

All Electric Logs Run

Spectral Density Dual Spaced Neutron Gamma Ray Memory
Array Induction Gamma Ray Memory
Array Compensated True Resistivity
Spectral Density Dual Spaced Neutron Microlog
2 in TVD
Array Induction Density/Neutron Gamma Ray Rush Log
2 in MD
5 in TVD
5 in MD

Form	ACO1 - Well Completion
Operator	Chesapeake Operating, Inc.
Well Name	York 31-31-17 1H
Doc ID	1069445

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Conductor	24	20	75	125		167	
Surface	12.25	9.6250	36	925	Class A	725	
Intermediate	8.750	7	26	5730	Class H	205	
Production Liner	6.1250	4.5	13.5	8862	Class H	550	

Notice of Conductor Pipe Installation

Installation Company Information

Firm Name	<u>Elite Drilling, LLC.</u>
Mailing Address	<u>3105 Bent Creek Drive</u>
City	<u>Woodward</u>
State	<u>OK</u>
Zip	<u>73801</u>

Well Operator Information

Operator name	<u>Chesapeake Operating, Inc.</u>
Mailing Address	<u>Rt. 1 Box 5-A</u>
City	<u>Waynoka</u>
State	<u>OK</u>
Zip	<u>73860</u>

Well Information

Well Name	<u>York 31-31-17-1H</u>
Legal location	<u>Sec. 31-31S-17W</u>
Footage	<u></u>
County	<u></u>

Installation Details

Pipe Size	<u>20"</u>
Depth	<u>120'</u>
Completion Method	<u>Displacement</u>
Date installed	<u>8/8/2011</u>
Cement	<u>18 yds</u>



COMPANY CHESAPEAKE OPERATING		FACILITY CLINTON		API Number AFE# 156642		DATE August 17, 2011	
CONTRACTOR NOMAC #115			TOWN COLDWATER	STATE KS	LEGAL DESCRIPTION SEC. 31-31S-17W		
LEASE / WELL NUMBER YORK 31-31-17 1H		Ticket Number 41-000000	COUNTY COMMANCHE		MILEAGE ONE WAY 200		
DIRECTIONS COLDWATER, KS JCT 183 & HWY 150 - GO 6 MILES EAST ON HWY 160 TO WILMORE BLACKTOP - GO 1.5 MILES NORTH ON WILMORE BLACKTOP - EAST INTO LOCATION							

COPY

Pumping Services	<input checked="" type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Longstring <input type="checkbox"/> Plug Back <input type="checkbox"/> Conductor <input type="checkbox"/> Liner <input type="checkbox"/> Squeeze <input type="checkbox"/> Acid <input type="checkbox"/> PTA <input type="checkbox"/> Other <input type="checkbox"/> H2S								
	Casing Size/Weight 9 5/8 / 36#	Thread 8RD	Tbng/DP Size	Thread	Plug. Cont X	Swage X	Top Plug X	Bottom Plug	% Excess 150
	Number and Type Units 1 - PUMP TRUCK, 2 - BULK TRUCKS						BHST 95	BHC 85	Flt Size 12 1/4
Remarks HAVE A SAFE JOB!						Depth-TMD 925 950	Depth-TVD 925 950	Mud Weight/Type 9.0 WBM	

Cementing Materials	CEMENT	# of Sacks 350	Type 35:65 POZ CLASS A	Additives 5% GYPSUM - 60 + 6% BENTONITE + 2% CALCIUM CHLORIDE + 0.25 LB/SK SUPER FLAKE				
		Weight PPG	Yield Ft ³ /Sk	Water Gal/Sk	<i>640.5 cu ft 114.0 Bbl (net) 80 Bbl water</i>			
		# of Sacks 175	Type CLASS A	Additives 2% CALCIUM CHLORIDE + 0.25 LB/SK SUPER FLAKE				
		Weight PPG	Yield Ft ³ /Sk	Water Gal/Sk	<i>208.25 cu ft 37.8 Bbl 22 Bbl water</i>			
		# of Sacks 200	Type CLASS A	Additives (NEAT) WITH 2% CALCIUM CHLORIDE ON THE SIDE				
		Weight PPG	Yield Ft ³ /Sk	Water Gal/Sk				
		# of Sacks	Type					
		Weight PPG	Yield Ft ³ /Sk	Water Gal/Sk				
		Spacer or Flush 10 BBL	Quantity 10 BBL	Type FRESH WATER	REMARKS SPACER			
		Other 68	Quantity 70 BBL	Type FRESH WATER	Additives DISPLACEMENT (ALWAYS REFIGURE ON LOCATION)			

Remarks/HSE	TAKE 9 5/8 PLUG CONTAINER + MANIFOLD + 8 RD BOWEL + TAKE TOP WOODEN PLUG + TAKE 10 GAL OF NO FOAM + TAKE 1" SWADGE + TAKE 1" HANDLING TOOLS + TAKE 200 FT OF 1" PIPE + CIRCULATING IRON AND SWADGE ALREADY ON LOCATION(C.ROBERSHAW) + TALK WITH CUSTOMER ABOUT PROCEDURES
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Sales Items	Casing Size	Casing Weight	Thread	
	Guide Shoe	Float Shoe	Float Collar	Insert Float Valve
	Centralizers - Number	Size	Type	
	Well Cleaners - Number	Type	MSC (DV Tool)	MSC Plug Set
	Limit Clamps	Weid-A	Other	
	Remarks			

Customer Rep BILL CANNON	Phone Number 580-374-2354	Fax	Time of Call W/C
Call Taken By BOB BITTEL			Time Ready W/C



COMPANY CHESAPEAKE OPERATING		FACILITY CLINTON	API Number GET FROM CUST.	DATE September 16, 2011
CONTRACTOR NOMAC #115		TOWN COLDWATER	STATE KS	LEGAL DESCRIPTION SEC. 31-31S-17W
LEASE / WELL NUMBER YORK #31-31-17 1H		Ticket Number 41-000000	COUNTY COMMANCHE	MILEAGE ONE WAY 200
DIRECTIONS COLDWATER, KS JCT 183 & HWY 160 - GO 6 MILES EAST ON HWY 160 TO WILMORE BLACKTOP - GO 1.5 MILES NORTH ON WILMORE BLACKTOP - EAST INTO LOCATION				

COPY

Pumping Services	<input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Longstring <input type="checkbox"/> Plug Back <input type="checkbox"/> Conductor <input checked="" type="checkbox"/> Liner <input type="checkbox"/> Squeeze <input type="checkbox"/> Add <input type="checkbox"/> PTA <input type="checkbox"/> Other <input type="checkbox"/> H2S								
	Casing Size/Weight 4 1/2" / 11.6#	Thread 8RD	Tbng/DP Size 4" / 14#	Thread IF	Plug. Cont.	Swage X	Top Plug	Bottom Plug	% Excess 30
	Number and Type Units 2 - PUMP TRUCKS, 2 - BULK TRUCKS						BHST 126	BHCT 106	Hole Size 6 1/8
	Remarks HAVE A SAFE JOB!						Depth-TMD 8,890	Depth-TVD 5121	Mud Weight/Type 9.0# WBM

Cementing Materials	CEMENT	# of Sacks 550	Type 50:50 POZ CLASS H	Additives 5% SALT (NaCl)(BWOW) + 0.6% SUPER FL-200 + 0.1% SUPER CR-1 + 2.5 LB/SK PHENO SEAL	
		Weight PPG 14.2	Yield Ft3/Sk 1.30	Water Gal/Sk 5.59	
		# of Sacks	Type	Additives	
		Weight PPG	Yield Ft3/Sk	Water Gal/Sk	
		# of Sacks	Type	Additives	
		Weight PPG	Yield Ft3/Sk	Water Gal/Sk	
		# of Sacks	Type	Additives	
		Weight PPG	Yield Ft3/Sk	Water Gal/Sk	
		Spacer or Flush 20 BBL	Quantity 20 BBL	Type DUST FLUSH	REMARKS SPACER
		Other 96 BBL	Quantity 96 BBL	Type FRESH WATER	Additives DISPLACEMENT (ALWAYS REFIGURE ON LOCATION)

Remarks/HSE	TAKE 10 GALS OF NO FOAM + TAKE 4 SKS OF DUST FLUSH + TAKE 5 GALS OF SUPER OW-3 + CIRCULATING IRON & 4.5 SWADGE ALREADY ON LOCATION(J.BITTEL) + TOOL HAND WILL BE ON LOCATION + LINER HANGER +/- 4870 FT + TALK WITH CUSTOMER ABOUT PROCEDURES
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Sales Items	Casing Size	Casing Weight	Thread	
	Guide Shoe	Float Shoe	Float Collar	Insert Float Valve
	Centralizers - Number	Size	Type	
	Well Cleaners - Number	Type	MSC (DV Tool)	MSC Plug Set
	Limit Clamps	Weld-A	Other	
	Remarks			

Customer Rep. BILL CANNON / CURTIS TURNER	Phone Number 832-531-7284	Fax 580-374-2354	Time of Call W/C
Call Taken By JOEY BITTEL			Time Ready W/C



BREAK THROUGH

COMPANY CHESAPEAKE OPERATING		FACILITY CLINTON		API Number AFE #158642	DATE August 31, 2011
CONTRACTOR NOMAC #115		TOWN COLDWATER	STATE KS	LEGAL DESCRIPTION SEC. 31-31S-17W	
LEASE / WELL NUMBER YORK #31-31-17 1H		Ticket Number 41-000000	COUNTY COMMANCHE		MILEAGE ONE WAY 200
DIRECTIONS COLDWATER, KS JCT 183 & HWY 160 - GO 6 MILES EAST ON HWY 160 TO WILMORE BLACKTOP - GO 1.5 MILES NORTH ON WILMORE BLACKTOP - EAST INTO LOCATION					

COPY

Pumping Services	<input type="checkbox"/> Surface <input checked="" type="checkbox"/> Intermediate <input type="checkbox"/> Longstring <input type="checkbox"/> Plug Back <input type="checkbox"/> Conductor <input type="checkbox"/> Squeeze <input type="checkbox"/> Acid <input type="checkbox"/> PTA <input type="checkbox"/> Other <input type="checkbox"/> H2S								
	Casing Size/Weight 7" / 26#	Thread 8RD	Tong/DP Size	Thread	Plug. Cont X	Swage X	Top Plug X	Bottom Plug	% Excess 30
	Number and Type Units 1 - PUMP TRUCK, 1 - BULK TRUCK						BHST 131	BHCT 109	Hole Size 8 3/4
	Remarks HAVE A SAFE JOB!						Depth-TMD 5,552	Depth-TVD 5130	Mud Weight/Type 9.0# WBM

Cementing Materials	CEMENT	# of Sacks 110	Type 35:65 POZ CLASS H	Additives 6% BENTONITE + 0.5% CALCIUM CHLORIDE + 0.25 LB/SK SUPER FLAKE
		Weight PPG 13.0	Yield Ft ³ /Sk 1.73	Water Gal/Sk 9.04
		# of Sacks 95	Type CLASS H	Additives 0.2% CD-20 + 0.25 LB/SK SUPER FLAKE
	Weight PPG 15.6	Yield Ft ³ /Sk 1.18	Water Gal/Sk 5.20	
	# of Sacks	Type	Additives	
	Weight PPG	Yield Ft ³ /Sk	Water Gal/Sk	
	# of Sacks	Type	Additives	
	Weight PPG	Yield Ft ³ /Sk	Water Gal/Sk	
	Spacer or Flush	Quantity 20 BBL	Type DUST FLUSH	REMARKS SPACER
	Spacer or Flush	Quantity	Type	Additives
Other	Quantity 212 BBL	Type FRESH WATER	Additives DISPLACEMENT (ALWAYS REFIGURE ON LOCATION)	

Remarks/HSE	<p>TAKE 7" PLUG CONTAINER + MANIFOLD + 8 RD BOWEL + TAKE TOP RUBBER PLUG + TAKE 10 GALS OF NO FOAM + CIRCULATING IRON AND SWADGE ALREADY ON LOCATION(D.CARTER) + TAKE 4 SKS OF DUST FLUSH + TAKE 5 GAL OF SUPER OW-3 + TALK TO CUSTOMER ABOUT PROCEDURES</p> <p style="text-align: right;"><i>45,129.05</i></p>
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Sales Items	Casing Size	Casing Weight	Thread	
	Guide Shoe	Float Shoe	Float Collar	Insert Float Valve
	Centralizers - Number	Size	Type	
	Well Cleaners - Number	Type	MSC (DV Tool)	MSC Plug Set
	Limit Clamps	Weld-A	Other	
Remarks				

Customer Rep. ERIC DOLPH / CURTIS TURNER	Phone Number	Fax 405-368-5936	Time of Call W/C
Call Taken By JOEY BITTEL			Time Ready W/C



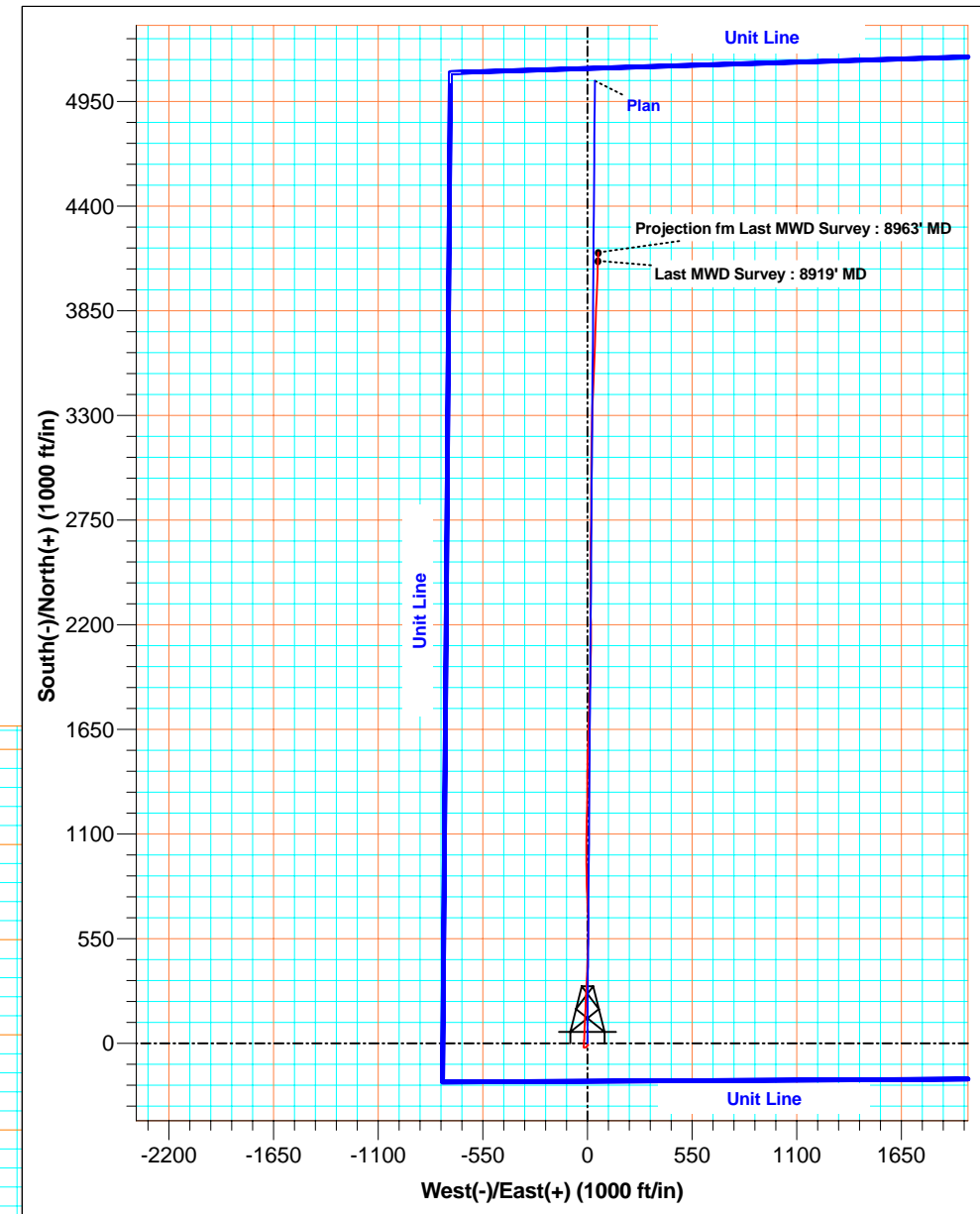
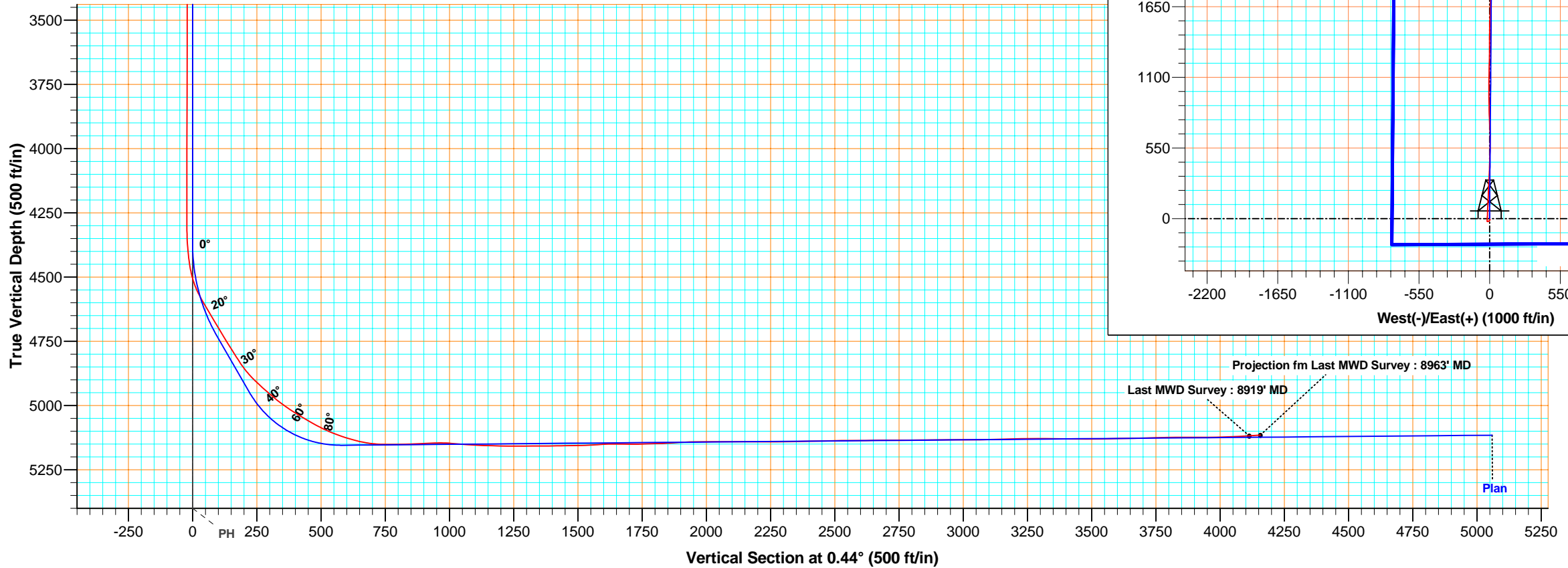
Chesapeake - OK, TX, KS
York 31-31-17 1H
Comanche County, KS
Final Plan vs Actual

Nomac 115



Surface Location		Ground Elevation: 2128.00 RKB2 @ 2144.00ft (Nomac 115)					Slot
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude		
0.00	0.00	230085.000	1791652.000	37° 17' 46.923 N	99° 12' 58.451 W		

Map System : US State Plane 1927 (Exact solution)
 Datum : NAD 1927 (NADCON CONUS)
 Ellipsoid : Clarke 1866
 Zone Name : Kansas South 1502
 Local Origin : Well 1H, Grid North
 System Datum : Mean Sea Level



Projection fm Last MWD Survey : 8963' MD

Last MWD Survey : 8919' MD

Plan

Chesapeake - OK, TX, KS

Comanche County, KS

York 31-31-17

1H

ST1

Design: ST1

Standard Survey Report

21 September, 2011

Crescent Directional Survey Report

Company: Chesapeake - OK, TX, KS	Local Co-ordinate Reference: Well 1H
Project: Comanche County, KS	TVD Reference: RKB2 @ 2144.00ft (Nomac 115)
Site: York 31-31-17	MD Reference: RKB2 @ 2144.00ft (Nomac 115)
Well: 1H	North Reference: Grid
Wellbore: ST1	Survey Calculation Method: Minimum Curvature
Design: ST1	Database: EDM 2003.16 Single User Db

Project Comanche County, KS		
Map System: US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum: NAD 1927 (NADCON CONUS)		
Map Zone: Kansas South 1502		

Site York 31-31-17					
Site Position:		Northing:	230,085.000 ft	Latitude:	37° 17' 46.923 N
From: Map		Easting:	1,791,652.000 ft	Longitude:	99° 12' 58.451 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	-0.44 °

Well 1H						
Well Position	+N/-S	0.00 ft	Northing:	230,085.000 ft	Latitude:	37° 17' 46.923 N
	+E/-W	0.00 ft	Easting:	1,791,652.000 ft	Longitude:	99° 12' 58.451 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	2,128.00 ft

Wellbore ST1					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	08/17/11	5.45	65.31	51,967

Design ST1					
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:		Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
		0.00	0.00	0.00	0.44

Survey Program Date 09/21/11					
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
200.00	8,963.00	Crescent MWD Surveys (ST1)	MWD	MWD - Standard	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.58	144.46	200.00	-0.82	0.59	-0.82	0.29	0.29	0.00	
400.00	0.65	155.40	399.99	-2.68	1.65	-2.67	0.07	0.03	5.47	
600.00	0.72	159.27	599.97	-4.89	2.57	-4.87	0.04	0.03	1.93	
800.00	0.83	174.79	799.95	-7.50	3.14	-7.48	0.12	0.05	7.76	
1,000.00	0.33	197.19	999.94	-9.50	3.10	-9.47	0.27	-0.25	11.20	
1,200.00	0.53	212.43	1,199.94	-10.83	2.44	-10.81	0.11	0.10	7.62	
1,400.00	0.48	226.68	1,399.93	-12.18	1.33	-12.17	0.07	-0.02	7.12	
1,600.00	0.46	240.16	1,599.92	-13.16	0.03	-13.16	0.06	-0.01	6.74	
1,800.00	0.31	239.72	1,799.92	-13.83	-1.14	-13.84	0.08	-0.07	-0.22	
2,000.00	0.62	226.53	1,999.91	-14.85	-2.39	-14.86	0.16	0.15	-6.59	
2,200.00	0.20	217.94	2,199.91	-15.87	-3.39	-15.89	0.21	-0.21	-4.29	
2,400.00	0.25	211.51	2,399.90	-16.51	-3.83	-16.54	0.03	0.02	-3.21	

Crescent Directional Survey Report

Company:	Chesapeake - OK, TX, KS	Local Co-ordinate Reference:	Well 1H
Project:	Comanche County, KS	TVD Reference:	RKB2 @ 2144.00ft (Nomac 115)
Site:	York 31-31-17	MD Reference:	RKB2 @ 2144.00ft (Nomac 115)
Well:	1H	North Reference:	Grid
Wellbore:	ST1	Survey Calculation Method:	Minimum Curvature
Design:	ST1	Database:	EDM 2003.16 Single User Db

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
2,600.00	0.54	213.45	2,599.90	-17.67	-4.58	-17.71	0.15	0.14	0.97	
2,800.00	0.65	229.55	2,799.89	-19.19	-5.96	-19.24	0.10	0.05	8.05	
3,000.00	0.39	235.45	2,999.88	-20.32	-7.39	-20.37	0.13	-0.13	2.95	
3,200.00	0.20	258.75	3,199.88	-20.77	-8.29	-20.83	0.11	-0.09	11.65	
3,400.00	0.61	260.73	3,399.87	-21.01	-9.68	-21.08	0.21	0.20	0.99	
3,600.00	0.70	264.03	3,599.86	-21.31	-11.95	-21.40	0.05	0.04	1.65	
3,800.00	0.52	256.76	3,799.85	-21.64	-14.05	-21.75	0.10	-0.09	-3.63	
4,000.00	0.51	256.83	3,999.84	-22.05	-15.80	-22.18	0.01	0.00	0.03	
4,200.00	0.70	273.29	4,199.83	-22.19	-17.88	-22.33	0.13	0.09	8.23	
4,320.00	0.61	287.73	4,319.82	-21.95	-19.22	-22.10	0.16	-0.07	12.03	
4,385.00	4.90	7.00	4,384.74	-19.09	-19.22	-19.24	7.42	6.60	121.95	
4,416.00	5.90	10.30	4,415.60	-16.21	-18.77	-16.35	3.38	3.23	10.65	
4,448.00	8.30	4.40	4,447.35	-12.28	-18.30	-12.43	7.83	7.50	-18.44	
4,479.00	11.90	1.70	4,477.87	-6.86	-18.03	-7.00	11.71	11.61	-8.71	
4,511.00	16.50	2.60	4,508.88	0.98	-17.73	0.85	14.39	14.37	2.81	
4,543.00	21.90	2.40	4,539.09	11.49	-17.27	11.36	16.88	16.87	-0.62	
4,574.00	27.30	1.40	4,567.27	24.39	-16.85	24.26	17.47	17.42	-3.23	
4,606.00	29.60	1.80	4,595.40	39.62	-16.43	39.50	7.21	7.19	1.25	
4,638.00	30.50	2.60	4,623.10	55.64	-15.81	55.51	3.08	2.81	2.50	
4,669.00	30.70	2.60	4,649.78	71.40	-15.09	71.28	0.65	0.65	0.00	
4,701.00	30.80	2.90	4,677.28	87.74	-14.31	87.63	0.57	0.31	0.94	
4,732.00	31.00	2.10	4,703.88	103.65	-13.62	103.54	1.47	0.65	-2.58	
4,764.00	31.50	2.70	4,731.24	120.23	-12.92	120.13	1.84	1.56	1.87	
4,795.00	31.80	2.60	4,757.63	136.48	-12.17	136.38	0.98	0.97	-0.32	
4,827.00	32.30	2.90	4,784.75	153.44	-11.35	153.35	1.64	1.56	0.94	
4,858.00	32.60	2.80	4,810.91	170.06	-10.53	169.97	0.98	0.97	-0.32	
4,890.00	33.80	2.50	4,837.69	187.56	-9.72	187.48	3.78	3.75	-0.94	
4,921.00	38.30	1.80	4,862.74	205.79	-9.04	205.71	14.58	14.52	-2.26	
4,952.00	43.20	1.90	4,886.22	226.00	-8.38	225.93	15.81	15.81	0.32	
4,984.00	46.20	2.90	4,908.97	248.49	-7.44	248.42	9.63	9.37	3.12	
5,016.00	47.90	3.30	4,930.77	271.88	-6.17	271.82	5.39	5.31	1.25	
5,048.00	49.30	3.20	4,951.93	295.84	-4.81	295.79	4.38	4.37	-0.31	
5,079.00	50.60	2.70	4,971.88	319.54	-3.59	319.50	4.37	4.19	-1.61	
5,111.00	53.10	2.30	4,991.64	344.68	-2.49	344.65	7.87	7.81	-1.25	
5,143.00	55.60	1.90	5,010.29	370.66	-1.54	370.64	7.88	7.81	-1.25	
5,175.00	57.80	2.00	5,027.86	397.39	-0.63	397.37	6.88	6.87	0.31	
5,206.00	59.00	1.80	5,044.10	423.78	0.24	423.77	3.91	3.87	-0.65	
5,238.00	59.90	1.90	5,060.37	451.32	1.13	451.32	2.83	2.81	0.31	
5,270.00	61.60	1.30	5,076.00	479.23	1.91	479.23	5.56	5.31	-1.87	
5,302.00	63.90	1.10	5,090.65	507.67	2.51	507.67	7.21	7.19	-0.62	
5,334.00	67.50	0.90	5,103.82	536.83	3.02	536.83	11.26	11.25	-0.62	
5,366.00	70.30	0.30	5,115.34	566.68	3.33	566.68	8.92	8.75	-1.87	
5,398.00	72.00	0.40	5,125.68	596.96	3.51	596.97	5.32	5.31	0.31	
5,430.00	74.90	359.90	5,134.79	627.63	3.59	627.64	9.19	9.06	-1.56	
5,462.00	78.20	358.90	5,142.23	658.74	3.26	658.75	10.75	10.31	-3.12	
5,494.00	82.30	357.90	5,147.65	690.26	2.38	690.26	13.18	12.81	-3.12	
5,526.00	86.90	357.50	5,150.66	722.09	1.10	722.07	14.43	14.37	-1.25	
5,557.00	89.40	357.80	5,151.66	753.04	-0.17	753.02	8.12	8.06	0.97	
5,589.00	90.40	358.20	5,151.72	785.02	-1.28	784.99	3.37	3.12	1.25	
5,621.00	91.20	358.30	5,151.27	817.00	-2.26	816.96	2.52	2.50	0.31	
5,652.00	92.00	358.60	5,150.41	847.98	-3.10	847.93	2.76	2.58	0.97	
5,684.00	92.90	358.30	5,149.04	879.94	-3.96	879.88	2.96	2.81	-0.94	
5,748.00	92.00	358.90	5,146.30	943.86	-5.53	943.79	1.69	-1.41	0.94	
5,780.00	88.70	0.20	5,146.11	975.85	-5.78	975.78	11.08	-10.31	4.06	

Crescent Directional Survey Report

Company:	Chesapeake - OK, TX, KS	Local Co-ordinate Reference:	Well 1H
Project:	Comanche County, KS	TVD Reference:	RKB2 @ 2144.00ft (Nomac 115)
Site:	York 31-31-17	MD Reference:	RKB2 @ 2144.00ft (Nomac 115)
Well:	1H	North Reference:	Grid
Wellbore:	ST1	Survey Calculation Method:	Minimum Curvature
Design:	ST1	Database:	EDM 2003.16 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,811.00	85.80	0.50	5,147.59	1,006.81	-5.59	1,006.74	9.40	-9.35	0.97
5,843.00	85.30	0.40	5,150.08	1,038.72	-5.34	1,038.64	1.59	-1.56	-0.31
5,875.00	86.00	0.60	5,152.50	1,070.62	-5.06	1,070.55	2.27	2.19	0.62
5,906.00	86.60	1.20	5,154.51	1,101.55	-4.57	1,101.48	2.73	1.94	1.94
5,938.00	88.00	1.60	5,156.01	1,133.51	-3.79	1,133.44	4.55	4.37	1.25
5,970.00	88.80	1.10	5,156.91	1,165.49	-3.04	1,165.43	2.95	2.50	-1.56
6,002.00	88.80	1.10	5,157.58	1,197.47	-2.42	1,197.42	0.00	0.00	0.00
6,033.00	89.10	1.10	5,158.14	1,228.46	-1.83	1,228.41	0.97	0.97	0.00
6,065.00	90.40	1.10	5,158.28	1,260.45	-1.21	1,260.41	4.06	4.06	0.00
6,096.00	90.20	0.50	5,158.12	1,291.45	-0.78	1,291.41	2.04	-0.65	-1.94
6,128.00	90.50	360.00	5,157.93	1,323.45	-0.64	1,323.41	1.82	0.94	-1.56
6,160.00	90.40	0.10	5,157.67	1,355.45	-0.61	1,355.40	0.44	-0.31	0.31
6,192.00	90.10	0.50	5,157.54	1,387.45	-0.45	1,387.40	1.56	-0.94	1.25
6,223.00	90.30	0.40	5,157.43	1,418.45	-0.20	1,418.40	0.72	0.65	-0.32
6,255.00	91.30	0.60	5,156.98	1,450.44	0.08	1,450.40	3.19	3.12	0.62
6,286.00	90.80	1.30	5,156.41	1,481.43	0.59	1,481.39	2.77	-1.61	2.26
6,318.00	91.30	1.10	5,155.83	1,513.42	1.26	1,513.38	1.68	1.56	-0.62
6,349.00	92.90	2.00	5,154.69	1,544.39	2.10	1,544.36	5.92	5.16	2.90
6,381.00	94.30	2.70	5,152.68	1,576.30	3.41	1,576.27	4.89	4.37	2.19
6,413.00	92.40	2.20	5,150.81	1,608.21	4.77	1,608.20	6.14	-5.94	-1.56
6,444.00	89.80	1.60	5,150.22	1,639.18	5.80	1,639.18	8.61	-8.39	-1.94
6,476.00	89.50	1.50	5,150.41	1,671.17	6.67	1,671.17	0.99	-0.94	-0.31
6,508.00	88.90	1.70	5,150.86	1,703.16	7.56	1,703.16	1.98	-1.87	0.62
6,539.00	91.40	2.20	5,150.78	1,734.14	8.61	1,734.15	8.22	8.06	1.61
6,571.00	91.90	1.80	5,149.86	1,766.10	9.73	1,766.13	2.00	1.56	-1.25
6,603.00	91.20	2.10	5,148.99	1,798.07	10.82	1,798.10	2.38	-2.19	0.94
6,635.00	92.10	1.80	5,148.07	1,830.04	11.91	1,830.08	2.96	2.81	-0.94
6,666.00	93.60	2.10	5,146.53	1,860.98	12.96	1,861.03	4.93	4.84	0.97
6,698.00	93.80	1.90	5,144.46	1,892.90	14.07	1,892.95	0.88	0.62	-0.62
6,761.00	91.00	1.60	5,141.82	1,955.81	16.00	1,955.87	4.47	-4.44	-0.48
6,825.00	90.40	1.20	5,141.04	2,019.78	17.56	2,019.86	1.13	-0.94	-0.62
6,890.00	89.50	0.60	5,141.10	2,084.77	18.58	2,084.85	1.66	-1.38	-0.92
6,953.00	89.80	359.60	5,141.48	2,147.77	18.69	2,147.85	1.66	0.48	-1.59
7,016.00	89.80	359.30	5,141.70	2,210.77	18.09	2,210.84	0.48	0.00	-0.48
7,080.00	90.30	0.30	5,141.65	2,274.77	17.86	2,274.84	1.75	0.78	1.56
7,144.00	91.60	359.70	5,140.59	2,338.76	17.86	2,338.82	2.24	2.03	-0.94
7,206.00	90.90	0.40	5,139.23	2,400.74	17.92	2,400.81	1.60	-1.13	1.13
7,269.00	91.30	359.60	5,138.02	2,463.73	17.92	2,463.79	1.42	0.63	-1.27
7,333.00	90.70	359.90	5,136.91	2,527.72	17.64	2,527.78	1.05	-0.94	0.47
7,396.00	89.80	359.80	5,136.63	2,590.72	17.47	2,590.77	1.44	-1.43	-0.16
7,459.00	91.40	1.00	5,135.97	2,653.71	17.91	2,653.77	3.17	2.54	1.90
7,523.00	89.60	0.60	5,135.41	2,717.70	18.81	2,717.76	2.88	-2.81	-0.62
7,586.00	90.30	0.60	5,135.47	2,780.69	19.47	2,780.76	1.11	1.11	0.00
7,649.00	90.90	359.90	5,134.81	2,843.69	19.74	2,843.75	1.46	0.95	-1.11
7,713.00	90.20	0.50	5,134.20	2,907.68	19.96	2,907.75	1.44	-1.09	0.94
7,776.00	90.20	0.20	5,133.98	2,970.68	20.35	2,970.75	0.48	0.00	-0.48
7,840.00	90.20	0.70	5,133.75	3,034.68	20.85	3,034.75	0.78	0.00	0.78
7,903.00	91.20	1.10	5,132.98	3,097.67	21.84	3,097.74	1.71	1.59	0.63
7,967.00	91.90	0.60	5,131.25	3,161.63	22.79	3,161.72	1.34	1.09	-0.78
8,031.00	90.70	0.50	5,129.80	3,225.61	23.40	3,225.70	1.88	-1.87	-0.16
8,094.00	90.20	1.60	5,129.30	3,288.60	24.56	3,288.69	1.92	-0.79	1.75
8,157.00	89.10	2.60	5,129.69	3,351.56	26.87	3,351.66	2.36	-1.75	1.59
8,220.00	89.50	2.60	5,130.46	3,414.49	29.72	3,414.61	0.63	0.63	0.00
8,284.00	90.20	2.20	5,130.63	3,478.43	32.40	3,478.58	1.26	1.09	-0.62

Crescent Directional Survey Report

Company: Chesapeake - OK, TX, KS	Local Co-ordinate Reference: Well 1H
Project: Comanche County, KS	TVD Reference: RKB2 @ 2144.00ft (Nomac 115)
Site: York 31-31-17	MD Reference: RKB2 @ 2144.00ft (Nomac 115)
Well: 1H	North Reference: Grid
Wellbore: ST1	Survey Calculation Method: Minimum Curvature
Design: ST1	Database: EDM 2003.16 Single User Db

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
8,347.00	90.90	2.30	5,130.02	3,541.38	34.88	3,541.54	1.12	1.11	0.16	
8,411.00	91.00	2.00	5,128.96	3,605.32	37.28	3,605.50	0.49	0.16	-0.47	
8,474.00	90.80	1.80	5,127.97	3,668.28	39.37	3,668.48	0.45	-0.32	-0.32	
8,539.00	91.80	1.90	5,126.50	3,733.23	41.47	3,733.44	1.55	1.54	0.15	
8,601.00	91.30	1.80	5,124.82	3,795.17	43.47	3,795.40	0.82	-0.81	-0.16	
8,665.00	89.60	2.60	5,124.32	3,859.12	45.92	3,859.36	2.94	-2.66	1.25	
8,728.00	90.20	2.60	5,124.43	3,922.06	48.78	3,922.32	0.95	0.95	0.00	
8,792.00	91.30	1.80	5,123.59	3,986.00	51.24	3,986.28	2.13	1.72	-1.25	
8,855.00	92.10	1.80	5,121.72	4,048.94	53.22	4,049.23	1.27	1.27	0.00	
8,919.00	94.10	2.80	5,118.26	4,112.79	55.78	4,113.10	3.49	3.12	1.56	
Last MWD Survey : 8919' MD										
8,963.00	94.10	2.80	5,115.11	4,156.63	57.92	4,156.95	0.00	0.00	0.00	
Projection fm Last MWD Survey : 8963' MD										

Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
PBHL (York 31-31-17 1H - hit/miss target - Shape	0.00	360.00	5,112.24	4,794.41	36.66	234,879.410	1,791,688.658	37° 18' 34.328 N	99° 12' 58.454 W	
- actual wellpath misses target center by 638.14ft at 8963.00ft MD (5115.11 TVD, 4156.63 N, 57.92 E)										
- Point										
Unit Line (York 31-31-17 - actual wellpath misses target center by 5151.70ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)	0.00	0.00	-2.00	5,101.00	-721.00	235,186.000	1,790,931.000	37° 18' 37.301 N	99° 13' 7.860 W	
- Polygon										
Point 1			-2.00	5,101.00	-721.00	235,186.00	1,790,931.00			
Point 2			-2.00	5,177.00	1,783.00	235,262.00	1,793,435.00			
Point 3			-2.00	5,264.00	4,620.00	235,349.00	1,796,272.00			
Point 4			-2.00	2,496.00	4,437.00	232,581.00	1,796,089.00			
Point 5			-2.00	-175.00	4,354.00	229,910.00	1,796,006.00			
Point 6			-2.00	-190.00	1,693.00	229,895.00	1,793,345.00			
Point 7			-2.00	-204.00	-762.00	229,881.00	1,790,890.00			
Point 8			-2.00	2,444.00	-741.00	232,529.00	1,790,911.00			

Checked By: _____ Approved By: _____ Date: _____

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Mark Sievers, Chairman
Ward Loyd, Commissioner
Thomas E. Wright, Commissioner

Sam Brownback, Governor

December 13, 2011

Aletha Dewbre / David Wiist
Chesapeake Operating, Inc.
6100 N WESTERN AVE
PO BOX 18496
OKLAHOMA CITY, OK 73154-0496

Re: ACO1
API 15-033-21591-01-00
York 31-31-17 1H
SW/4 Sec.31-31S-17W
Comanche County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
Aletha Dewbre / David Wiist

TOPOGRAPHIC LAND SURVEYORS

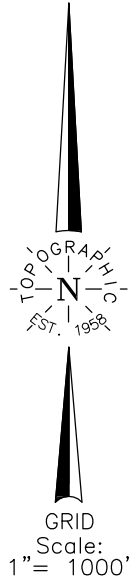
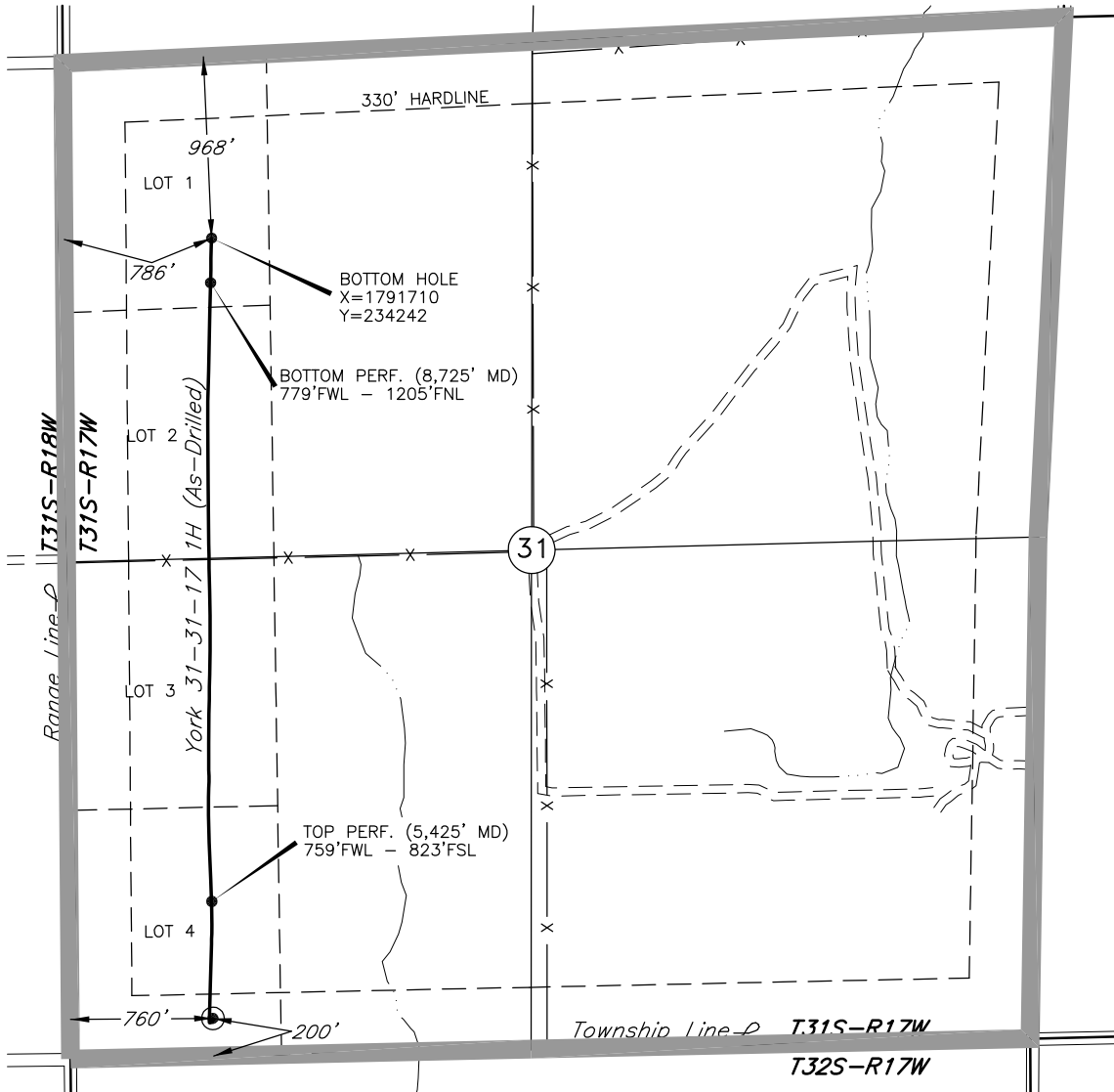
6709 NORTH CLASSEN BLVD., OKLA. CITY, OKLA. 73116 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219
 Certificate of Authorization No. LS-99, Exp. Dec 31, 2011

COMANCHE

County, Kansas

200'FSL - 760'FWL Section 31 Township 31S Range 17W P.M.

BOTTOM HOLE
 786'FWL-968'FNL
 37.307786801° N
 99.216134577° W
 X=1791710
 Y=234242



This location has been very carefully staked on the ground according to the best official survey records, maps, and photographs available to us, but its accuracy is not guaranteed. Review this plat and notify us immediately of any possible discrepancy.

Operator: CHESAPEAKE OPERATING, INC.

Lease Name: YORK 31-31-17

Well No.: 1H

ELEVATION:
2128' Gr. at Stake

Topography & Vegetation Loc. fell in level grass pasture

Good Drill Site? Yes Reference Stakes or Alternate Location Stakes Set None

Best Accessibility to Location From West off county road

Distance & Direction from Hwy Jct or Town From the Jct. of US. Hwy.183 & US. Hwy. 160, North of Coldwater, KS, go 6 miles East on US. Hwy. 160 East, then 1 mile North to the SW Cor. of Sec. 31-T31S-R17W

The following information was gathered using a GPS receiver Accuracy ±2-3 Meters.

GPS DATUM: NAD-27
 LAT: 37°17'46.9"N
 LONG: 99°12'58.4"W
 LAT: 37.296368939
 LONG: 99.216224192
 STATE PLANE COORDINATES:
 ZONE: KS SOUTH
 X: 1791652
 Y: 230085

176867 Date of Drawing: Dec. 12, 2011
 Invoice # 169024 Date Staked: Jun. 20, 2011 JP

FINAL AS-DRILLED PLAT

AS-DRILLED INFORMATION
 FURNISHED BY CHESAPEAKE OPERATING