

RAILROAD COMMISSION OF TEXAS

Form G-1

Type or print only

Oil and Gas Division

Rev. 4/1/83

483-047

API No. 42-495-33257

7. RRC District No.

8

8. RRC Gas ID No.

Gas Well Back Pressure Test, Completion or Recompletion Report, and Log

1. FIELD NAME (as per RRC Records or Wildcat) HALEY (LWR. WOLFCAMP-PENN CONS.)		2. LEASE NAME University 20-33		9. Well No. 1	
3. OPERATOR'S NAME (Exactly as shown on Form P-5, Organization Report) Chesapeake OPERATING, INC.			RRC Operator No. 147715		10. County of well site Winkler
4. ADDRESS 2010 Rankin Hwy. Midland, Texas 70701					11. Purpose of filing Initial Potential <input checked="" type="checkbox"/> Retest <input type="checkbox"/> Reclass <input type="checkbox"/> Well record only <input type="checkbox"/> (Explain in remarks)
5. Location (Section, Block, and Survey) SEC. 33, BLK. 20, UL SURVEY		5b. Distance and direction to nearest town in this county. 10.9 MILES SW FROM WINK			
6. If operator has changed within last 60 days, name former operator		12. If workover or reclass, give former field (with reservoir) & Gas ID or oil lease no.			
13. Pipe Line Connection CHESAPEAKE ENERGY MARKETING, INC.		FIELD & RESERVOIR		Gas ID or Oil LEASE #	Oil - O Gas - G
14. Completion or recompletion date 03/25/2008		15. Any condensate on hand at time of workover or recompletion? <input type="checkbox"/> Yes <input type="checkbox"/> No			16. Type of Electric or other Log Run. SEE ATTACHED L-1

Section I

GAS MEASUREMENT DATA

Date of Test 4-01-2008		Gas Measurement Method (Check One) Orifice <input type="checkbox"/> Flange Taps <input checked="" type="checkbox"/> Positive <input type="checkbox"/> Orifice Vent <input type="checkbox"/> Pitot <input type="checkbox"/> Critical-flow <input type="checkbox"/> Meter <input checked="" type="checkbox"/> Pipe Taps <input type="checkbox"/> Choke <input type="checkbox"/> Meter <input type="checkbox"/> Tube <input type="checkbox"/> Prover <input type="checkbox"/>								Gas produced during test 10843 MCF	
Run No.	Line Size	Orif. or Choke Size	24 Hr. Coeff. Orif. or Choke	Static Pm or Choke Press.	Diff. hw	Flow Temp. deg. F.	Temp. Factor Ftf	Grav. Factor Fg	Comp. Factor Fpv	Volume MCF/DAY	
1	3.068	1.375	12246.49	1141	64.0	71	0.9896	1.0136	1.0888	3614	
2											
3											
4											

Section II

FIELD DATA AND PRESSURE CALCULATIONS

Gravity (Dry Gas) 0.584		Gravity Liquid Hydrocarbon N/A Deg. API		Gas-Liquid Hydro Ratio N/A CF/Bbl		Gravity of Mixture Gmix = 0.610		Avg. Shut-in Temp. 167 °F		Bottom Hole Temperature 260 °F @ 16520 (Depth)	
Deff 8/3 = 18.092		" Tf = " 807.50		= 28.42		" GL = " 10075.56		= 100.38			
C = $\frac{1118 \times \text{Deff } 8/3}{\text{" Tf}} = \frac{20226.86}{807.50} = 25.05$		= 711.80		C = $\frac{\text{" GL}}{\text{" Tf}} = \frac{100.38}{807.50} = 0.1244$		= 0.1410					
Run No.	Time of Run Min.	Choke Size	Wellhead Press. Pw PSIA	Wellhead Flow Temp. ° F	P _w ² (Thousands)	R	R ² (Thousands)	P ₁	P _w / P ₁		
Shut-In	24 Hours		7695	74	59213						
1	4320	14/64	5609	105	31461	509.70	259.79	5632.11	0.9959		
2											
3											
4											
Run No.	F	K	S = 1/Z	E ^{ks}	P _r and P _s	P _r ² and P _s ² (thousands)	P _r ² - P _s ² (thousands)	Angle of Slope			
Shut-In		0.3013	0.7702	1.26115	9705	94178		θ 45.0			
1	0.9979	0.2334	0.8219	1.21151	6795	46177	48001	n 1.000			
2								Absolute Open Flow			
3								7091 MCF/DAY			
4											

WELL TESTER'S CERTIFICATION: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code that I conducted or supervised this test and that data and facts shown in Sections I and II above are true, correct, and complete, to the best of my knowledge. Bottomhole temperature and the diameter and length of flow string were furnished by the operator of the well.

Signature: Well Tester

Name of Company

RRC Representative

O&G
MIDLAND

OPERATOR'S CERTIFICATION: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that I prepared or supervised and directed this report, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge.

Signature: Operator's representative

SR. REGULATORY COMPLI. SPEC.

Title

04/03/2008

Date

Tel: 432-687-2992

A/C

Number

SECTION III				DATA ON WELL COMPLETION AND LOG (Not Required on Retest)			
17. Type of Completion:				18. Permit to Drill, Plug Back or Deepen		DATE	
New Well <input checked="" type="checkbox"/> Deepening <input type="checkbox"/> Plug Back <input type="checkbox"/> Other <input type="checkbox"/>				06/22/2007		640680	
19. Notice of Intention to Drill this well was filed in Name of				Rule 37		CASE NO.	
CHESAPEAKE OPERATING, INC.				Exception		PERMIT NO.	
20. Number of producing wells on this lease in this field (reservoir) including this well		21. Total number of acres in this lease		Water Injection		PERMIT NO.	
1		640		Permit		PERMIT NO.	
22. Date Plug Back, Deepening, WorkOver or Drilling Operations:		Commenced		Completed		23. Distance to nearest well, Same Lease & Reservoir	
		10/01/2007		02/03/2008		N/A	
24. Location of well, relative to nearest lease boundaries of lease on which this well is located				1320 Feet From		NW Line and 1320 Feet from	
				SW Line of the		UNIVERSITY 20-33 Lease	
25. Elevation (DF, RKB, RT, GR, ETC.)				26. Was directional survey made other than inclination (Form W-12)?			
2774' GR				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
27. Top of Pay	28. Total Depth	29. P.B. Depth	30. Surface Casing Determined by:		Recommendation of T.D.W.R.		Dt. of Letter
15,511	17,800	17,640	Field <input type="checkbox"/> Rules <input type="checkbox"/>		Railroad Commission (Special) <input type="checkbox"/>		06/15/2007
31. Is well multiple completion?		32. If multiple completion, list all reservoir names (completions in this well) and Oil Lease or Gas ID No.			33. Intervals Drilled by:		Rotary Tools
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		FIELD & RESERVOIR			Oil-O Gas-G		Cable Tools
34. Name of Drilling Contractor					35. Cementing Affidavit Attached?		
LATSHAW DRILLING					<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
36. CASING RECORD (Report All Strings Set in Well)							
CASING SIZE	WT #/FT.	DEPTH SET	MULTISTAGE TOOL DEPTH	TYPE & AMOUNT CEMENT (sacks)	HOLE SIZE	TOP OF CEMENT	SLURRY VOL. cu. ft.
13-3/8	68	5,145	1485	2238/1978 C	17-1/2	SURF	4516/3191
9-5/8	53.5	12,535		1571 50/50H	12-1/4	3,000	3594.5
5, 5-1/2	23.2, 26	17,746		480 H	6-1/2	12,140	614.2

37. LINER RECORD				
Size	Top	Bottom	Sacks Cement	Screen
7-5/8, 39#	12,250	16,052	478 DNSCRT	-

38. TUBING RECORD			39. Producing Interval (this completion) Indicate depth of perforation or open hole	
Size	Depth Set	Packer Set	From	To
-	-	-	15,511	17,529

40. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
Depth Interval	Amount and Kind of Material Used
17,336 - 17,529	5,198 G. 15% HCL, 29,978 G. 30# LGEL,
	220,616 G. XL GEL, 287,926# 20/40 SD, BRN FLSH
15,885 - 16,522	5193 G. 15% HCL, 29,966 G. 30# LGEL,
(SEE BELOW)	222,221 G. XL GEL, 307,156# 100 MESH & 20/40

41. FORMATION RECORD (LIST DEPTHS OF PRINCIPAL GEOLOGICAL MARKERS AND FORMATION TOPS)			
Formations	Depth	Formations	Depth
MORROW 1	17,030		
BSPG3	10,723		
STRAWN A	14,535		

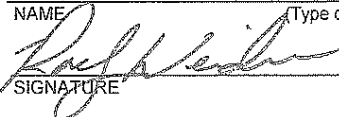
REMARKS: PERF @ 15,511 - 15,526', FRAC/W 5,261 G. 15% HCL, 29,975 G. 30# LGEL, 229,748 G. XL GEL, 9567# 100 MESH & 335,862# 20/40 SD. FLUSHED W/3053 G. BRINE WTR.

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

GAS WELL
CLASSIFICATION REPORT

FORM G-5
Rev. 01/01/86

READ INSTRUCTIONS ON BACK

1. OPERATOR NAME (Exactly as shown on Form P-5 Organization Report) Chesapeake OPERATING, INC.		3. RRC DISTRICT NO. 8	4. OIL LEASE NO. OR GAS WELL ID NO.																												
2. MAILING ADDRESS 2010 Rankin Hwy. Midland, Texas 70701		5. WELL NO. 1	6. API NO. 42- 495-33257																												
		7. COUNTY OF WELL SITE Winkler																													
8. FIELD NAME (as per RRC Records) HALEY (LWR. WOLFCAMP--PENN CONS.)		9. LEASE NAME University 20-33																													
10. LOCATION (Section, Block, and Survey) SEC. 33, BLK. 20, UL SURVEY		11. PIPELINE CONNECTION OR USE OF GAS CHESAPEAKE ENERGY MARKETING, INC.																													
I. PRODUCTION TEST AT RATE ELECTED BY OPERATOR (data on 24-hour basis)		II. A.S.T.M. DISTILLATION OF LIQUID SAMPLE. Distillation test is required for gas wells ONLY if the producing gas-liquid hydrocarbon ratio is less than 100,000 CF/barrel.																													
A. Date of Test 4-01-2008 B. Gas Volume 3614 (Mcft) C. Oil or Condensate Volume 22.00 (Bbl) D. Water Volume 213.00 (Bbl) E. Gas/Liquid Hydrocarbon Ratio N/A (Ct/Bbl) F. Flowing Tubing Pressure 5609 (psia) G. Choke Size 14/64 (in.) H. Casing Pressure 5609 (psia) I. Shut-in Wellhead Pressure-- Tubing 7695 (psia) J. Separator Operating Pressure 1141 (psia) K. Color of Stock Tank Liquid N/A L. Gravity of Separator Liquid N/A °API M. Gravity of Stock Tank Liquid ---- °API N. Specific Gravity of the Gas (Air = 1) 0.584		Date Liquid Sample Obtained Not Applicable Where Obtained <input type="checkbox"/> Separator <input type="checkbox"/> Stock Tank <table style="width:100%;"> <thead> <tr> <th>% Over</th> <th>Temp. (deg.F)</th> <th>% Over</th> <th>Temp. (deg.F)</th> </tr> </thead> <tbody> <tr> <td>I.B.P.</td> <td></td> <td>60</td> <td></td> </tr> <tr> <td>10</td> <td></td> <td>70</td> <td></td> </tr> <tr> <td>20</td> <td></td> <td>80</td> <td></td> </tr> <tr> <td>30</td> <td></td> <td>90</td> <td></td> </tr> <tr> <td>40</td> <td></td> <td>95</td> <td></td> </tr> <tr> <td>50</td> <td></td> <td>End Point</td> <td></td> </tr> </tbody> </table> Total Recovery _____ percent Residue _____ percent Loss _____ percent		% Over	Temp. (deg.F)	% Over	Temp. (deg.F)	I.B.P.		60		10		70		20		80		30		90		40		95		50		End Point	
% Over	Temp. (deg.F)	% Over	Temp. (deg.F)																												
I.B.P.		60																													
10		70																													
20		80																													
30		90																													
40		95																													
50		End Point																													
I declare under penalties prescribed in Sec.91.143, Texas Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete to the best of my knowledge.		RRC USE ONLY																													
Rocky Weidner NAME (Type or Print)  SIGNATURE Tetra Production TITLE Contact Person CONTACT PERSON Contact Phone No. PHONE NUMBER																															
4-01-2008 DATE																															

INSTRUCTIONS

Form G-5: Gas Well Classification Report

This report shall be filed in duplicate in the appropriate Railroad Commission District Office:

- (a) Upon completion of a gas well,
- (b) Upon reclassification of any well from oil to gas,
- (c) Upon reclassification from oil to gas if the gas-oil ratio is more than 12,000 cubic feet per barrel and the oil gravity is more than 50 degrees API,
- (d) And upon subsequent requests by the Railroad Commission.

Production Test: The production test data required on this form must reflect representative operating conditions if the well is connected to a sales line. If the well is not connected, the test must be at a stabilized rate. The volumes reported must be on a 24-hour basis.

Liquid Sample: The liquid hydrocarbon sample must be a fresh sample of stock tank liquid or a separator sample which has been flashed to atmospheric pressure and allowed to stabilize at the ambient temperature. If a separator sample is transported to the laboratory in a pressurized container, the sample must be flashed to atmospheric pressure and allowed to stabilize at 60 degrees Fahrenheit before measuring the API Gravity or commencing the distillation test.

NOTICE: NO CONDENSATE OR CRUDE PETROLEUM WILL BE CLEARED FROM A GAS WELL PRIOR TO THE ASSIGNMENT OF AN ALLOWABLE UNTIL THIS REPORT HAS BEEN PROPERLY PREPARED, EXECUTED, AND FILED ALONG WITH A FORM P-4 NAMING THE GATHERER OF THE CONDENSATE AND A REQUEST FOR CLEARANCE (FORM P-8) STATING THE AMOUNT OF CONDENSATE TO BE MOVED.

Reference: Statewide Rule 53

Cementer: Fill in shaded areas.
Operator: Fill in other items

Form W-15
Cementing Report
Rev. 4/1/83
483-045

RAILROAD COMMISSION OF TEXAS

Oil and Gas Division

1. Operator's Name (As shown on Form P-5, Organization Report) Chesapeake Operating Inc.	2. RRC Operator No. 147715	3. RRC District No. 8	4. County of Well Site Winkler
5. Field Name (Wildcat or exactly as shown on RRC records) HALEY (LWR. WOLFCAMP-PENN CONS.)		6. API No. 42- 495-33257	7. Drilling Permit No. 640680
8. Lease Name University 20-33	9. Rule 37 Case No.	10. Oil Lease/Gas ID No.	11. Well No. 1

CASING CEMENTING DATA:		SURFACE CASING	INTER-MEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
				Single String	Multiple Parallel Strings	Tool	Shoe
12. Cementing Date				1/31/2008			
13. ●Drilling hole size				6-1/2			
●Est. % wash or hole enlargement							
14. Size of casing (in. O.D.)				5, 5-1/2			
15. Top of liner (ft.)							
16. Setting depth (ft.)				17,746			
17. Number of centralizers used				125			
18. Hrs. waiting on cement before drill-out				--			
1st Slurry	19. API cement used: No. of sacks ▼			260			
	Class ▼			H			
	Additives ▼			REMARKS			
2nd Slurry	No. of sacks ▼			220			
	Class ▼			H			
	Additives ▼			REMARKS			
3rd Slurry	No. of sacks ▼						
	Class ▼						
	Additives ▼						
1st	20. Slurry pumped: Volume (cu. ft.) ▼			403.0			
	Height (ft.) ▼			6157.4			
2nd	Volume (cu. ft.) ▼			211			
	Height (ft.) ▼			3226.9			
3rd	Volume (cu. ft.) ▼						
	Height (ft.) ▼						
Total	Volume (cu. ft.) ▼	0	0	614.2		0	0
	Height (ft.) ▼	0	0	9384.3		0	0
21. Was cement circulated to ground surface (or bottom of cellar) outside casing?				No			
1st H + 35% D30 + .2% D167 + .6% D65 + .7% D198 + .2% D46 + 25% D31 + 0.2% D153 + 0.125 pps D130							
2nd DenseCRETE + 0.3% D198 + 0.2% D46 + 0.4% D400 + 0.3% D202							
3rd 0							
4th 0							

OVER ➡

Cementers: Fill in shaded areas.
Operator: Fill in other items

Form W-15
Cementing Report
Rev. 4/1/83
483-045

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

1. Operator's Name (As shown on Form P-5, Organization Report) Chesapeake Operating, Inc.	2. RRC Operator No. 147715	3. RRC District No. 8	4. County of Well Site Winkler
5. Field Name (Wildcat or exactly as shown on RRC records) HALEY (LWR. WOLFCAMP--PENN CONS.)		6. API No. 42-495-33257	7. Drilling Permit No. 640680
8. Lease Name University 20-33	9. Rule 37 Case No.	10. Oil Lease/Gas ID No.	11. Well No. 1

CASING CEMENTING DATA:		SURFACE CASING	INTER- MEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
				Single String	Multiple Parallel Strings	Tool	Shoe
12. Cementing Date				12/14/2007			
13. ●Drilling hole size				8-1/2			
●Est. % wash or hole enlargement							
14. Size of casing (in. O.D.)				7-5/8			
15. Top of liner (ft.)				12,250			
16. Setting depth (ft.)				16,052			
17. Number of centralizers used				44			
18. Hrs. waiting on cement before drill-out				24			
1st Slurry	19. API cement used: No. of sacks			478			
	Class			DenseCRETE			
	Additives			Remarks			
2nd Slurry	No. of sacks						
	Class						
	Additives						
3rd Slurry	No. of sacks						
	Class						
	Additives						
1st	20. Slurry pumped: Volume (cu. ft.)			454			
	Height (ft.)			5901			
2nd	Volume (cu. ft.)						
	Height (ft.)						
3rd	Volume (cu. ft.)						
	Height (ft.)						
Total	Volume (cu. ft.)			454.1			
	Height (ft.)			5901			
21. Was cement circulated to ground surface (or bottom of cellar) outside casing?				No			
1st DensCRETE + 0.2% D198 + 0.2% D46 + 0.40% D400 + 0.25%D202 + 0.02gps D197							
2nd 0							
3rd 0							
4th							

Cementor: Fill in shaded areas
Operator: Fill in other items

Form W-15
Cementing Report
Rev. 4/1/83
483-045

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

1. Operator's Name (As shown on Form P-5, Organization Report) Chesapeake Operating INC.	2. RRC Operator No. 147715	3. RRC District No. 8	4. County of Well Site Winkler, TX
5. Field Name (Wildcat or exactly as shown on RRC records) HALEY (LWR. WOLFCAMP-PENN CONS.)	6. API No. 42-495-33257	7. Drilling Permit No. 640680	
8. Lease Name University 20-33	9. Rule 37 Case No.	10. Oil Lease/Gas ID No.	11. Well No. 1

CASING CEMENTING DATA:		SURFACE CASING	INTER- MEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
				Single String	Multiple Parallel Strings	Tool	Shoe
12. Cementing Date			11/8/2007				
13. *Drilling hole size			12-1/4				
*Est. % wash or hole enlargement							
14. Size of casing (in. O.D.)			9-5/8				
15. Top of liner (ft.)							
16. Setting depth (ft.)			12,535				
17. Number of centralizers used			30				
18. Hrs. waiting on cement before drill-out			24				
1st Slurry	19. API cement used: No. of sacks		1208				
	Class		50:50:Poz:H				
	Additives	REMARKS					
2nd Slurry	No. of sacks		363				
	Class		50:50:Poz:H				
	Additives	REMARKS					
3rd Slurry	No. of sacks						
	Class						
	Additives						
1st	20. Slurry pumped: Volume (cu. ft.)		3,140.80				
	Height (ft.)		10,028.10				
2nd	Volume (cu. ft.)		453.75				
	Height (ft.)		1,448.75				
3rd	Volume (cu. ft.)						
	Height (ft.)						
Total	Volume (cu. ft.)		3,594.55				
	Height (ft.)		11,476.85				
21. Was cement circulated to ground surface (or bottom of collar) outside casing?			NO				

1st 10%D20+5ppsD42+0.6%D800+0.2%D046+0.125ppsD130+0.5%D065+0.3%D112

2nd 2%D20+1%D174+0.2%D167+0.4%D065+0.30%D201

3rd

Schlumberger Private

Cementor: Fill in shaded areas.

Operator: Fill in other items

Form W-15

Cementing Report

Rev. 4/1/83

483-045

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

1. Operator's Name (As shown on Form P-5, Organization Report) Chesapeake Operating, Inc.		2. RRC Operator No. 147715	3. RRC District No. 8	4. County of Well Site Winkler
5. Field Name (Wildcat or exactly as shown on RRC records) HALEY (LWR. WOLFCAMP-PENN CONS.)			6. API No. 42-495-33257	7. Drilling Permit No. 640680
8. Lease Name University 20-33		9. Rule 37 Case No.	10. Oil Lease/Gas ID No.	11. Well No. 1

CASING CEMENTING DATA:		SURFACE CASING	INTER-MEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
				Single String	Multiple Parallel Strings	Shoe	Tool
12. Cementing Date						10/15/2007	10/15/2007
13. ●Drilling hole size						17-1/2	17-1/2
●Est. % wash or hole enlargement							
14. Size of casing (in. O.D.)						13-3/8	13-3/8
15. Top of liner (ft.)							
16. Setting depth (ft.)						1485	5145
17. Number of centralizers used							37
18. Hrs. waiting on cement before drill-out							24
1st Slurry	19. API cement used: No. of sacks ▶					1350	1460
	Class ▶					50:50 POZ/C	Class C
	Additives ▶					Remarks	Remarks
2nd Slurry	No. of sacks ▶					888	518
	Class ▶					Class C	Class C
	Additives ▶					Remarks	Remarks
3rd Slurry	No. of sacks ▶						
	Class ▶						
	Additives ▶						
1st	20. Slurry pumped: Volume (cu. ft.) ▶					3335	2497
	Height (ft.) ▶					4800	3594
2nd	Volume (cu. ft.) ▶					1181.04	694
	Height (ft.) ▶					1700	999
3rd	Volume (cu. ft.) ▶						
	Height (ft.) ▶						
Total	Volume (cu. ft.) ▶					4516	3191
	Height (ft.) ▶					6501	4593
21. Was cement circulated to ground surface (or bottom of cellar) outside casing?						*Yes	**Yes
1st 10% D20 + 0.2%D65+ 0.2%D46 + 0.1%D112+ 3ppsD42+1.5%D44+ .125ppsD130+.04gpsD801 2nd 0.2%D201 3rd 2% D20 + 2% S001 4th 2% S001 Circulated to surface: *160 BBLS / 364 SKS(after opening tool) **275.5 BBLS / 904 SKS							

OVER ➡

**Railroad Commission Of Texas
Oil And Gas Division**

Form W-12

PAGE 1 OF 2

INCLINATION REPORT

(One Copy Must Be Filed With Each Completion Report)

1. FIELD NAME (as per RRC Records or Wildcat) HALEY (LWR. WOLFCAMP--PENN. CONS.)		2. LEASE NAME University 20-33	6. RRC District 8
3. OPERATOR Chesapeake Operating Inc.		4. ADDRESS 2010 Rankin Highway, Midland, TX 79701	7. RRC Lease Number (Oil Completions Only)
5. LOCATION (Section, Block, and Survey) Sec 33, Blk 20, Univ Lds			8. Well Number 1
			9. RRC Identification Number (Gas Completions Only)
			10. County Loving

RECORD OF INCLINATION

*11. Measured Depth (feet)	12. Course Length (Hundreds of feet)	13. Angle of Inclination (Degrees)	14. Displacement per 100 feet (Sine of Angle x 100)	15. Course Displacement (Feet)	Accumulative Displacement (Feet)
282	282	0.10	0.17	0.49	0.49
960	678	0.40	0.70	4.73	5.23
1,544	584	0.30	0.52	3.06	8.28
2,484	940	1.10	1.92	18.05	26.33
3,465	981	0.60	1.05	10.27	36.60
4,303	838	1.80	3.14	26.32	62.92
5,085	782	1.30	2.27	17.74	80.67
5,876	791	0.30	0.52	4.14	84.81
6,480	604	0.60	1.05	6.32	91.13
7,021	541	0.60	1.05	5.67	96.80
7,856	835	0.40	0.70	5.83	102.63
8,429	573	0.60	1.05	6.00	108.63
9,166	737	1.50	2.62	19.29	127.92
9,809	643	0.75	1.31	8.42	136.34
10,300	491	0.50	0.87	4.28	140.62
11,450	1,150	1.50	2.62	30.10	170.72

17. Is any information shown on the reverse side of this form? ☒ Yes ☐ No

18. Accumulative total displacement of well bore at total depth of 16,869 feet = 291.98 feet

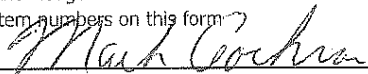
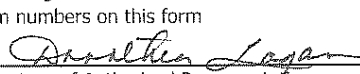
*19. Inclination measurements were made in ☐ Tubing ☐ Casing ☐ Open Hole ☒ Drill Pipe

20. Distance from surface location of well to the nearest lease line..... 1320 Feet

21. Minimum distance to lease line as prescribed by field rules..... 1320 Feet

22. Was the subject well at any time intentionally deviated from vertical in any matter whatsoever?

(if the answer to the above question is "yes" attach written explanation of the circumstances.) **SEE ATTACHED PAGE 2**

Inclination Data Certification I declare under penalties prescribed in Sec. 91.143, Texas National Resource Code, that I am authorized to make this certification, that I have personal knowledge of the inclination data and facts placed on both sides of this form and that such data and facts are true, correct, and complete to the best of my knowledge. This certification covers all data as indicated by asterisks(*) by the item numbers on this form.		Inclination Data Certification I declare under penalties prescribed in Sec. 91.143, Texas National Resource Code, that I am authorized to make this certification, that I have personal knowledge of the inclination data and facts placed on both sides of this form and that such data and facts are true, correct, and complete to the best of my knowledge. This certification covers all data as indicated by asterisks(*) by the item numbers on this form.	
 Signature of Authorized Representative		 Signature of Authorized Representative	
<u>2-22-08</u> Date		<u>04/03/2008</u> Date	
<u>Mark Cochran, CFO</u> Name of Person and Title		<u>Dorothea Logan Sr. Reg. Comp. Spec.</u> Name of Person and Title	
<u>Latshaw Drilling Company, LLC</u> Name of Company		<u>Chesapeake Operating Inc.</u> Operator	
Telephone: 918-355-4380		Telephone: 432-687-2992	

Railroad Commission Use Only:

Approved By: _____ Title: _____ Date: _____

*Designates items certified by the company that conducted the inclination surveys.

RECORD OF INCLINATION - (Cont.)

*11. Measured Depth (feet)	12. Course Length (Hundreds of feet)	13. Angle of Inclination (Degrees)	14. Displacement per 100 feet (Sine of Angle x 100)	15. Course Displacement (Feet)	Accumulative Displacement (Feet)
12,385	935	0.30	0.52	4.90	175.62
13,166	781	2.80	4.88	38.15	213.77
14,069	903	2.20	3.84	34.66	248.44
14,663	594	0.75	1.31	7.78	256.21
15,519	856	0.75	1.31	11.20	267.42
15,960	441	0.10	0.17	0.77	268.19
16,869	909	1.50	2.62	23.79	291.98

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Subject: FW: Survey Readings for University 20-33-1

There was trouble with the Teledrift MWD tool and we were unable to get a good reading at the appropriate depth. The tool failed 5 times. Consequently, the drilling assembly was pulled out of hole (POOH) and the MWD tool was changed out. Prior to POOH with the drill string, TOTCO was dropped and took the survey at 11,450 ft.

I hope this is sufficient to back up your report. Please, let me know if you need further clarification.

Dorothea Logan

Sr. Regulatory Compliance Specialist

Chesapeake Operating, Inc.

Midland Field Office

Phone: 432-687-2992, Ext. 6031

Fax 432-687-4112

dlogan@chkenenergy.com

CERTIFICATE OF COMPLIANCE
AND TRANSPORTATION AUTHORITY

P-4
5/02
DBC0702

READ INSTRUCTIONS ON BACK

1. Field name exactly as shown on proration schedule HALEY (LWR. WOLFCAMP-PENN CONS.)		2. Lease name as shown on proration schedule UNIVERSITY 20-33				
3. Current operator name exactly as shown on P-5 Organization Report CHESAPEAKE OPERATING, INC.		4. Operator P-5 no. 147715	5. Oil Lse/Gas ID no.	6. County WINKLER	7. RRC district 08	
8. Operator address including city, state, and zip code 2010 RANKIN HWY. MIDLAND, TX 79701		9. Well no(s) (see instruction E) 1		11. Effective Date 03/25/2008		
10. Classification <input type="checkbox"/> Oil <input checked="" type="checkbox"/> Gas <input type="checkbox"/> Other (see instruction A)						
12. Purpose of Filing. (Complete section a or b below.) (See instruction B and G)						
a. Change of: <input type="checkbox"/> operator <input type="checkbox"/> oil or condensate gatherer <input type="checkbox"/> gas gatherer <input type="checkbox"/> gas purchaser <input type="checkbox"/> gas purchaser system code						
<input type="checkbox"/> field name from: _____						
<input type="checkbox"/> lease name from: _____						
OR						
b. New RRC Number for: <input type="checkbox"/> oil lease <input checked="" type="checkbox"/> gas well <input type="checkbox"/> other well (specify) _____						
Due to: <input checked="" type="checkbox"/> new completion or recompletion <input type="checkbox"/> reclass oil to gas <input type="checkbox"/> reclass gas to oil						
<input type="checkbox"/> consolidation, unitization, or subdivision (oil lease only)						
13. Authorized GAS WELL GAS or CASINGHEAD GAS Gatherers and/or Purchaser(s). (See instruction G).						
Gatherer	Purchaser	Name of GAS WELL GAS or CASINGHEAD GAS Gatherer(s) or Purchaser(s) As Indicated in Columns to the Left (Attach an additional sheet in same format if more space is needed)		Purchaser's RRC Assigned System Code	Percent of Take	Full-well stream
X	X	CHESAPEAKE ENERGY MARKETING, INC.		0001	100	
14. Authorized OIL or CONDENSATE Gatherer(s). (See instruction G).						
Name of OIL or CONDENSATE Gatherer(s) - List Highest Volume Gatherer First (Attach an additional sheet in same format if more space is needed)				Percent of Take	RRC USE ONLY	
TEPPCO CRUDE OIL, L.P.				100	Reviewer's initials: _____	
					Approval date: _____	
15. PREVIOUS OPERATOR CERTIFICATION FOR CHANGE OF OPERATOR P-4 FILING. Being the PREVIOUS OPERATOR, I certify that operating responsibility for the well(s) designated in this filing, located on the subject lease has been transferred in its entirety to the above named Current Operator. I understand, as Previous Operator, that designation of the above named operator as Current Operator is not effective until this certificate is approved by the Commission.						
Name of Previous Operator		Signature				
Name (print)		<input type="checkbox"/> Authorized Employee of previous operator <input type="checkbox"/> Authorized agent of previous operator (see instruction G)				
Title		Date		Phone with area code		
16. CURRENT OPERATOR CERTIFICATION. By signing this certificate as the Current Operator, I certify that all statements on this form are true and correct and I acknowledge responsibility for the regulatory compliance of the subject lease including plugging of well(s) pursuant to Rule 14. I further acknowledge that I assume responsibility for the physical operation, control, and proper plugging of each well designated in this filing. I also acknowledge that I will remain designated as the Current Operator until a new certificate designating a new Current Operator is approved by the Commission.						
DOROTHEA LOGAN		Signature				
Name (print)		<input checked="" type="checkbox"/> Authorized Employee of current operator <input type="checkbox"/> Authorized agent of current operator (see instruction G)				
SR. REG. COMPLIANCE SPEC.		Date		(432)687-2992		
Title		04/04/2008		Phone with area code		
dlogan@chkenegy.com						
E-mail Address (optional)						

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Form P-15
(5-5-71)
DBC0697

STATEMENT OF PRODUCTIVITY OF ACREAGE
ASSIGNED TO PRORATION UNITS

The undersigned states that he is authorized to make this statement; that he has knowledge of the facts concerning the CHESAPEAKE OPERATING, INC. ,
OPERATOR
UNIVERSITY 20-33 , No. 1 ; that such well is
LEASE WELL
completed in the HALEY (LWR. WOLFCAMP-PENN CONS.) WINKLER County,
Texas and that the acreage claimed, and assigned to such well for proration purposes as
authorized by special rule and as shown on the attached certified plat embraces _____
640 acres which can reasonably be considered to be productive of hydrocarbons.

- CERTIFICATE -

I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge.

Date 04/04/2008 Signature *Danitha Lopez*

Telephone _____ (432) 687-2992 Title SR. REG. COMPLIANCE SPEC.
AREA CODE

TOPOGRAPHIC LAND SURVEYORS OF TEXAS

Surveying and Mapping for the Energy Industry

2903 N. BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONES: (432) 662-1653 • (800) 767-1653 • FAX: (432) 662-1743

WINKLER County, Texas

Description 1320' FNL & 1320' FWL

FND. CON. MON.

SECTION 33, BLOCK 20, UNIVERSITY LAND

NAD 27
GND BEARINGS

29

28

27

32

33

34

1320'

NAD 27 TC ZONE
X = 1071079
Y = 742124
LAT.: N 31.6728948
LONG.: W 103.3195897

1320'

CHESAPEAKE OPERATING, INC.

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FND. CON. MON.

"University 20-33"

41

40

39

FND. CON. MON.

This location has been very carefully staked on the ground according to the best official survey records, maps, and other data available to us. This plot does not in any way represent a "Boundary Survey", and does not comply with correct T.B.P.L.S. Minimum Standards of Procedures for Boundary Surveys.

Date Staked MAY 23, 2007

SCALE: 1" = 1000'

0' 500' 1000'

Operator CHESAPEAKE OPERATING, INC.

Lease Name & Well No. UNIVERSITY 20-33 #1

Ground Elev. 2774' Reference Stakes or 150' LINE UP N. S. E. W

Alternate Location

Good Drill Site? YES Stakes Set ±10.9 MILES SOUTHWEST OF WINK, TEXAS

Topography & Vegetation NATURAL MESQUITE PASTURE

Best Accessibility to Location FROM EXISTING WELL ±2640' WEST OF LOCATION.

Distance & Direction

from Hwy Jct. or Town FROM PYOTE GO NORTHWEST 9.4 MI. ON HWY. 2355 THENCE SOUTHWEST 2.0 MI. ON

HWY. 2355, THENCE NORTH 1.8 MI. ON LSE. RD., THENCE WEST 1.0 MI. THENCE NORTH 1.4 MI., THENCE

NORTHWEST 0.5 MI., THENCE NORTH 0.8 MI., THENCE SOUTHEAST 0.3 MI., THENCE NORTHEAST 0.2 MI., THENCE

NORTH 1.9 MI., THENCE NORTHEAST 0.8 MI. TO EXISTING WELL 32-20 #1 ±2640' WEST OF LOCATION.



CERTIFICATION:

I, William J. Keating, a Registered Professional Land Surveyor, and an authorized agent of Topographic Land Surveyors, do hereby certify that the above described well location was surveyed and staked on the ground as shown herein.

William J. Keating
Texas Reg. No. 5041

Invoice # 124087/627NE
L.A.S.