

NORTHERN NATURAL GAS COMPANY
OBSERVED SURFACE DATA WORKSHEET
SHEET 1

TYPE TEST: ☐ INITIAL ☐ ANNUAL ☐ RETEST ☐ SPECIAL TEST DATE: _____

OPERATOR M^cCrean Oil Corp. LEASE M^cCrean Comm. Fee WELL NO. #2
SEC. 1 TWP. 10 RNG. 25 COUNTY Chaves STA. NO. NONE PIPELINE CONN. Vent
GA SYSTEM Bitter Lake FIELD Pecos Slope South RESERVOIR ABO

CSG. _____ WT. _____ TBG. SIZE _____ WT. _____ PERFS. _____ TO _____
TYPE COMPLETION: SINGLE () GAS-GAS () GAS-OIL () PACKER@ _____ ft. FLOW STRING@ _____ ft.

DATE ON _____ DATE _____ LENGTH _____ AVG. PREFLOW _____
PREFLOW _____ TIME _____ SHUT IN 5-18-87 TIME 9:00am OF PREFLOW _____ RATE _____

DATE SHUT IN _____ LENGTH OF _____ SHUT IN _____ SHUT IN _____
PRESS. TAKEN 5-20-87 TIME 8:45am SHUT IN 47.75 hrs CSG. PRESS. 451.7 psig TBG. PRESS. 451.7 psig

GAS GRAVITY (Gm) _____ API GRAVITY _____ PROVER _____ METER _____ ORIFICE _____ TYPE _____
(Gg) 0.647 OF LIQUID @ 60°F _____ SIZE 2" RUN SIZE _____ SIZE 3/8 TAPS _____

DATE TIME OF READING	ELAP TIME HRS.	W.H. PRESSURE DATA				WELL HEAD TEMP	METER OR PROVER DATA			LIQUID HYDRO- CARBONS BBLs.	WATER PRODUCED BBLs.	REMARKS PERTINENT TO TEST DATA QUALITY
		CASING psig	Δ P CSG.	TUBING psig	Δ P TBG.		PRESS psig	DIFF.	TEMP			
5-20-87												
8:45am	47.75	451.7	-	451.7	-	74	SIP	ONLY				AT M ^c Crean's AND M ^c Crean's Request GAS WAS FIRED.
8:45am	Zero	451.7	-	451.7	-	74	451.7	-	74			START 1-Point Test
9:00am	0.25	379.6	-72.1	309.8	-141.9	72	309.8	-	72			
9:15am	0.50	327.0	-124.7	266.5	-185.2	70	266.5	-	70			
9:30am	0.75	315.3	-136.4	228.9	-222.8	71	228.9	-	71			
9:45am	1.0	311.0	-140.7	225.4	-226.3	73	225.4	-	73			Q=716.0 mcf/d
10:00am	1.25	308.2	-143.8	221.8	-229.9	73	221.8	-	73			Slight mist of H ₂ O
10:15am	1.50	303.9	-147.8	218.3	-233.4	73	218.3	-	73			No Hydrocarbon Liquids
10:30am	1.75	300.0	-151.7	215.1	-236.6	74	215.1	-	74			noticed.
10:45am	2.0	296.3	-155.4	209.6	-242.1	74	209.6	-	74			Q=667.0 mcf/d
11:00am	2.25	294.3	-157.4	208.0	-243.7	75	208.0	-	75			
11:15am	2.50	291.8	-159.9	207.3	-244.4	75	207.3	-	75			
11:30am	2.75	290.0	-161.7	203.9	-247.8	75	203.9	-	75			
11:45am	3.0	289.4	-162.3	202.3	-249.4	76	202.3	-	76			Q=643.5 mcf/d
2:45pm	6.0	271.0	-180.7	188.6	-263.1	77	188.6	-	77			Q=601.7 mcf/d
3:00pm	6.25	269.1	-182.6	186.1	-265.6	77	186.1	-	77			
3:15pm	6.50	268.4	-183.3	183.7	-268.0	76	183.7	-	76			
3:30pm	6.75	267.2	-184.5	180.0	-271.7	76	180.0	-	76			
3:45pm	7.0	267.0	-184.7	180.0	-271.7	76	180.0	-	76			
4:00pm	7.25	266.8		179.4		76	179.4	-	76			
4:15pm	7.50	265.7		178.2		76	178.2	-	76			
4:30pm	7.75	264.8		177.6		76	177.6	-	76			
4:45pm	8.0	263.6		176.1		76	176.1	-	76			Q=564.8 mcf/d

TESTED BY: James Rowe

WITNESSED BY: _____