Submit in duplicate to appropriate district office
See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-122
Revised 4-1-91

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator: Louis Dreyfus				Lease or Unit Name: Greenstone '19' Fed	
Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 11-10-99	Well No.: 1
Completion Date: 11-4-99	Total Depth	Plug Back TD: 13370	Elevation	Unit Ltr. - Sec. - TWP - Rge.: 19 20-S 34-E	
Csg. Size: 5 ½	Wt.: 17#	d: 4.892	Set At	Perforations: From: 12662 To: 12668	County: Lea
Tbg. Size: 2 7/8	Wt.: 6.5	d: 2.441	Set At: 12594	Perforations: From: To:	Pool
Type Well - Single - Bradenhead - G.G. or G.O. Multiple: Single			Packer Set At: 12594		Formation
Producing Thru: Tbg	Reservoir Temp. °F: 199.9	Mean Annual Temp. °F: 60°	Baro. Press - P_a: 13.2		Connection: Air
L: 12594	H: 12594	Gg: .781	% CO_2: .247	% N_2: 2.612	% H_2S	Prover	Meter Run: 4.026	Taps: F/G

FLOW DATA / TUBING DATA / CASING DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI							4000	N/A	PKR	N/A	
1.	4.026	X	1.500	120	1"	62°	3410				60 min
2.	4.026	X	1.500	120	2"	64°	2980				60 min
3.	4.026	X	1.500	120	7"	64°	2240				60 min
4.	4.026	X	1.500	120	18"	64°	1140				60 min
5.											

RATE OF FLOW CALCULATIONS

NO.	COEFFICIENT (24 HOUR)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor F_t	Gravity Factor F_g	Super Compress. Factor, F_{pv}	Rate of Flow Q, Mcfd
1.	10.84	11.5	133.2	.9981	1.132	1.078	151
2.	10.84	15.0	133.2	.9962	1.132	1.078	197
3.	10.84	30.5	133.2	.9962	1.132	1.078	401
4.	10.84	49.0	133.2	.9962	1.132	1.078	645
5.							

NO.	P_r	Temp. °R	T_r	Z
1.	.79	522	1.27	.86
2.	.79	525	1.27	.86
3.	.79	525	1.27	.86
4.	.79	525	1.27	.86
5.				

Gas Liquid Hydrocarbon Ratio: N/A Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: N/A Deg.
Specific Gravity Separator Gas: .781 XXXXXXXXX
Specific Gravity Flowing Fluid: N/A XXXXX
Critical Pressure: 659 P.S.I.A. P.S.I.A.
Critical Temperature: 411 R R

P_c 4013.2 P_c^2 16105.8

NO.	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1.		3413.3	11650.3	4455.5
2.		2993.3	8959.8	7146.0
3.		2253.7	5079.0	11026.8
4.		1155.6	1335.4	14770.4
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.090$

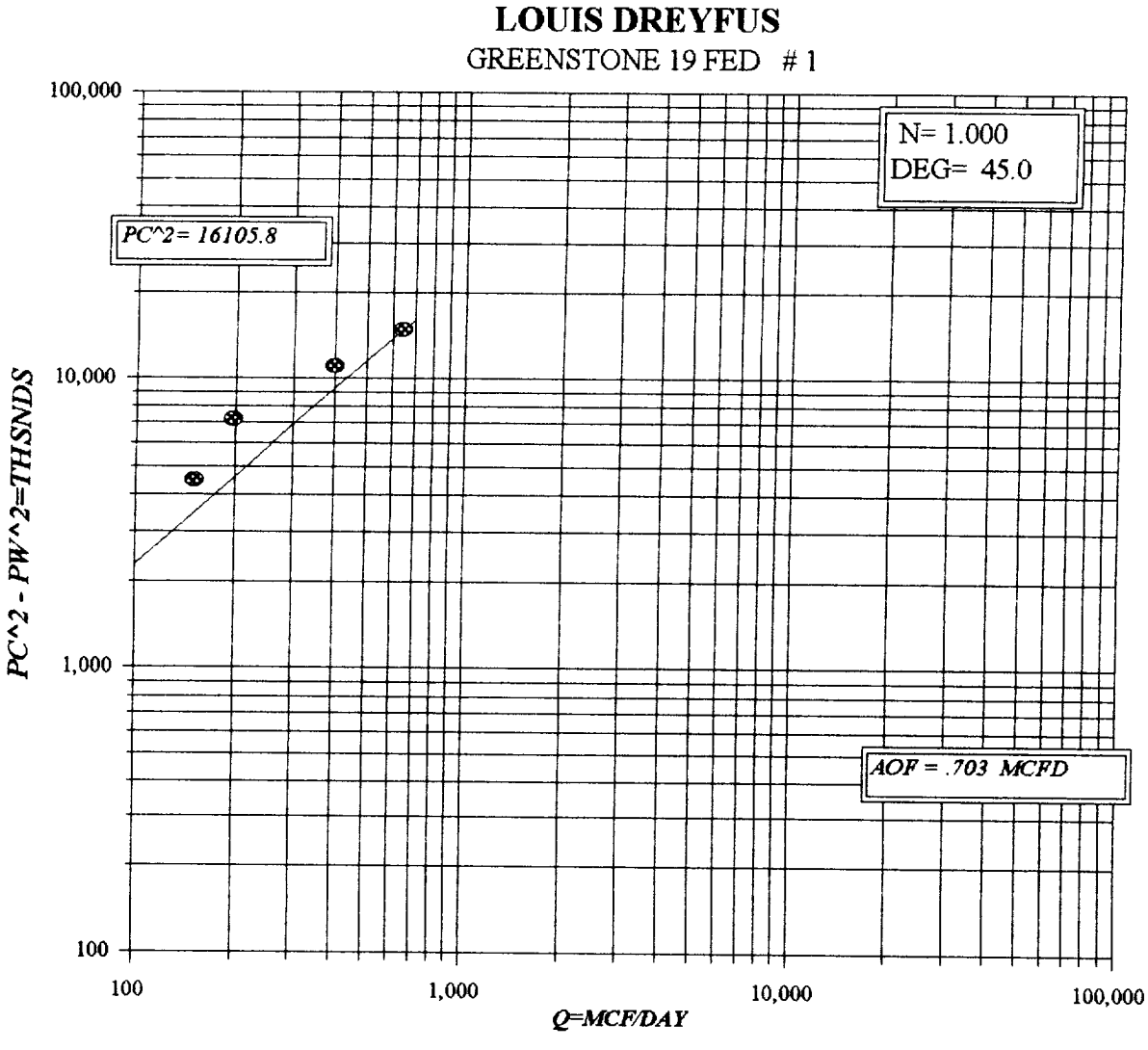
(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.090$

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = .703$

Absolute Open Flow: .703 Mcfd @ 15.025 | Angle of Slope θ: 45° | Slope, n: 1.000

Remarks: *No liquid made during test.

Approved By Division	Conducted By:	Calculated By:	Checked By:
	Pro Well Testing	M.B.	B.M.


LOUIS DREYFUS
GREENSTONE 19 FED # 1
N= 1.000
DEG= 45.0
PC^2= 16105.8
AOF = .703 MCFD
PC^2 - PW^2=THSNDS
Q=MCF/DAY
100,000
10,000
1,000
100
100
1,000
10,000
100,000

COMPANY :LOUIS DRYFUS LEASE :GREENSTONE 19 WELL NO. : 1

UNIT : SECTION : 19 TOWNSHIP : 20

L :	12594	H :	12594	L/H :	1	G/GMIX :	0.781
%CO2 :	0.247	%N2 :	2.612	H2S :		DATE :	11/10/99
d :	2.441	Fr :	0.010763	GH :	9835.9	RANGE :	34

VOL 1 :	151	PSIA 1 :	3413.2	RESV.TEMP	199.9
VOL 2 :	197	PSIA 2 :	2993.2		
VOL 3 :	401	PSIA 3 :	2253.2	SHUT-IN PR=	4013.2
VOL 4 :	645	PSIA 4 :	1153.2		

PCR : 659

TCR : 411

LINE	RATE 1		RATE 2		RATE 3		RATE 4	
	1ST	2ND	1ST	2ND	1ST	2ND	1ST	2ND
1 QM	0.151	0.151	0.197	0.197	0.401	0.401	0.645	0.645
2 TW	534	534	534	534	534	534	534	534
3 Ts	659.9	659.9	659.9	659.9	659.9	659.9	659.9	659.9
4 T	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
PR (est)	5.18		4.54		3.42		1.75	
5 Z(est)	0.780	0.854	0.751	0.808	0.725	0.743	0.797	0.765
6 TZ	465.6	509.6	448.1	482.6	432.8	443.3	475.7	456.6
7 GH/TZ	21.127	19.300	21.951	20.382	22.728	22.186	20.676	21.540
8 eS	2.208	2.062	2.278	2.148	2.345	2.298	2.171	2.243
9 1-e-S	0.547	0.515	0.561	0.534	0.574	0.565	0.539	0.554
10 Pt	3413.2	3413.2	2993.2	2993.2	2253.2	2253.2	1153.2	1153.2
11 Pt2 /1000	11649.9	11649.9	8959.2	8959.2	5076.9	5076.9	1329.9	1329.9
12 Fr	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.0107631
13 Fc=FrTZ	5.011	5.485	4.823	5.194	4.658	4.772	5.120	4.915
14 FcQm	0.76	0.83	0.95	1.02	1.87	1.91	3.30	3.17
15 L/H(FcQm)	0.6	0.7	0.9	1.0	3.5	3.7	10.9	10.0
16 Fw	0.313268	0.353356	0.506351	0.559466	2.001000	2.068010	5.883695	5.5687529
17 Pw2	11650.2	11650.3	8959.8	8959.8	5078.9	5079.0	1335.8	1335.4
18 Ps2	25728.2	24024.6	20407.8	19241.5	11910.4	11670.5	2900.4	2995.2
19 Ps	5072.3	4901.5	4517.5	4386.5	3451.1	3416.2	1703.1	1730.7
20 P	4242.7	4157.3	3755.3	3689.9	2852.2	2834.7	1428.1	1441.9
21 Pr	6.44	6.31	5.70	5.60	4.33	4.30	2.17	2.19
22 Tr	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45
23 Z	0.854	0.845	0.808	0.803	0.743	0.742	0.765	0.764

Pc = 4013.2 Pc2 = 16105.8

Pt2 =	*******	Pw =	3413.3
	8959.2		2993.3
	5076.9		2253.7
	1329.9		1155.6
Pc2-Pw2=	4455.5	Pw2 =	11650.3
	7146.0		8959.8
	*******		5079.0
	*******		1335.4

n = 1.000

Pc2/(Pc2-Pw2) =	3.615
	2.254
	1.461
	1.090
[Pc2/Pc2-Pw2]n =	3.615
	2.254
	1.461
	1.090
AOF= Q	0.546
	0.444
	0.586
	0.703

FORM C122-D

Laboratory Services, Inc.
4016 Fiesta Drive
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

FOR: Pro Well Testing & Wireline
Attention: Mr. Merv Buecker
P. O. Box 791
Hobbs, New Mexico 88241

SAMPLE:
IDENTIFICATION: Green Stone #1
COMPANY: Louis Dreyfus Natural Gas
LEASE:
PLANT:

SAMPLE DATA:
DATE SAMPLED: 11/7/99
ANALYSIS DATE: 11/8/99
PRESSURE – PSIG 110
SAMPLE TEMP, °F 72
ATMOS. TEMP, °F

GAS (XX) LIQUID ( )
SAMPLED BY: Merv Buecker
ANALYSIS BY: Vickie Walker

REMARKS: Condensate API Gravity @ 60° F = 51.2

COMPONENT ANALYSIS

COMPONENT		MOL PERCENT	GPM
Hydrogen Sulfide	(H2S)		
Nitrogen	(N2)	2.612	
Carbon Dioxide	(CO2)	0.247	
Methane	(C1)	74.136	
Ethane	(C2)	11.342	3.053
Propane	(C3)	6.047	1.662
I-Butane	(IC4)	0.892	0.291
N-Butane	(NC4)	2.009	0.632
I-Pentane	(IC5)	0.608	0.222
N-Pentane	(NC5)	0.608	0.220
Hexane Plus	(C6+)	1.399	0.574
		100.000	6.654

BTU/CU.FT. – DRY	1313
AT 14.650 DRY	1309
AT 14.650 WET	1286
AT 14.73 DRY	1316
AT 14.73 WET	1293
SPECIFIC GRAVITY – CALCULATED	0.781
MEASURED	

MOLECULAR WT. 22.6081

Form 3160-5
(November 1994)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division
1625 N. French Dr.
Hobbs, NM 88240

FORM APPROVED
OMB No. 1004-0135
Expires July 31, 1996

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

5. Lease Serial No.
NM-13276

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
GREENSTONE FED. COM. NO. 1

2. Name of Operator
LOUIS DREYFUS NATURAL GAS CORP.

9. API Well No.
30-025-34677

3a. Address 14000 Quail Springs Parkway, Ste. 600, Oklahoma City, OK 73134

3b. Phone No. *(include area code)*
(405) 749-5287

10. Field and Pool, or Exploratory Area
Undesignated Atoka

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*

SL: 480' FSL & 1600' FEL Sec. 19-T20S-R34E
BHL: 962' FSL & 1587' FEL Sec. 19-T20S-R34E

11. County or Parish, State
Lea County, New Mexico

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☒ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Frac'd Atoka Sand perfs on 11/23/99 w/9366 gal. 70 quality binary foam; 14,313 lbs. 20/40 carboprop; 360 MSCF N2 & 44 tons CO2. Flow tested well; SI for psi buildup.

ACCEPTED FOR RECORD
DEC 0 7 1999
BLM

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)*
Terrye D. Bryant

Title
Regulatory Technician

Signature
Terrye D. Bryant

Date
11/29/99

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse) GWW