

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

FORM APPROVED
OMB No. 1004-0135
Expires November 30, 2000

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

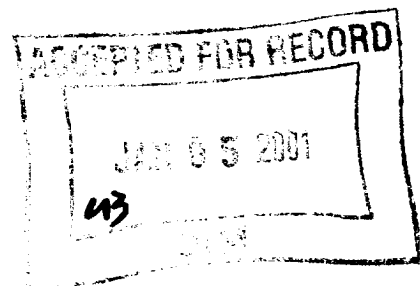
1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMNM0509201
2. Name of Operator SAGA PETROLEUM LLC		6. If Indian, Allottee or Tribe Name
3a. Address 415 W WALL, SUITE 1900 MIDLAND, TX 79701	3b. Phone No. (include area code) (915)684-4293	7. If Unit or CA/Agreement, Name and/or No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 660'FSL & 1980' FWL, Sec 18 (N) T8S, R38E		8. Well Name and No. Bluitt SA 18 Federal #14
		9. API Well No. 30-041-20855
		10. Field and Pool, or Exploratory Area Bluitt San Andres Assoc
		11. County or Parish, State Roosevelt NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/ Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>Sales Meter</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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 recompleat horizontally, give subsurface locations 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 recompleat 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.)

Well is tied in to Sales Meter 1575A (originally assigned to 1811 only)
with wells Bluitt 18 Federal #11 and Bluitt SA 18 Federal #12. All wells under same Fed Lease NMNM0509201



14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) BONNIE HUSBAND		Title PRODUCTION ANALYST
Signature <i>Bonnie Husband</i>		Date 12/11/2000

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.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. C 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
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1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator
SAGA PETROLEUM LLC

3a. Address
415 W WALL, SUITE 1900 MIDLAND, TX 79701

3b. Phone No. (include area code)
(915)684-4293

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
660' FSL & 1980' FWL, Sec 18 (N) T8S, R38E

Case Serial No.
NMNM0509201

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
Bluitt SA 18 Federal #14

9. API Well No.
3C-041-20855

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Bluitt San Andres Assoc

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7-9-2000 Load csg w/2% KCL, press test to 1000, good.

7-11 Perf 1 JSPF from 4589'-4664'.

7-23 RU acid trk to csg, press to 500 psi, begin pumping 15% NEFE HCL, after 6 bbls acid in, between 4000-4500 psi, press broke & went on vac. Pumped 13 bbls acid & flush w/5 BW. Frac w/5000 gal 30# borate xlink gel pad, 2000 gal 30# borate x link gel w/1 ppg 20/40 sd, 2000 gal 30# borate xlink gel w/2 ppg 20/40 sd, 750 gal 30# borate xlink gel w/3 ppg 20/40 sd. Flush to btm perf w/861 gal 2% slick KCL. AIR 11.9 BPM, total sd 8000#. Total fluid including acid 250 gals. ISIP 1100 psi, 5 mins 30 psi, 10 mins vac.

8-4 Sqzd off perfs 4712'-4740' w/retainer @ 4692'. Pump 20 BW thru retainer, 50 sx 14 bbls thick slurry & begin dwn tbq @ 1.5 BPM, vac.8 bbls cmt in perfs

continued on back of form. Also enclosed is 4 point CAO

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

BONNIE HUSBAND

Signature

Bonnie Husband

Title

PRODUCTION ANALYST

Date

09/14/2000

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

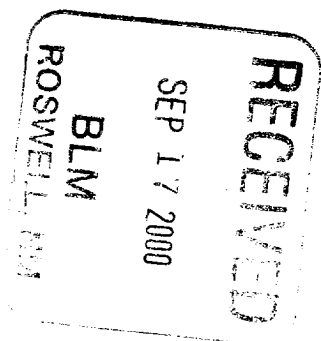
Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

8-22 Refrac w/12,000 gal Boragel G3195 w/5250# 20/40 mesh sand followed by 12,250# 16/30 sand.
Treat dwn 2-3/8" tbg @ 12 BPM, max press 5000 psi. ISIP 1610 psi, 15 mins 1189 psi, ATP 3400
psi, ATR 12.2 BPM

8-28 FTP 60 psi, op choke, flow back 20 BW, 138 BLTR

9-10 SITP 1050 psi, hooked up FL to separator & open to sales line

9-13 Flowed 264 MCF & 3 BW w/FTP 70, open choke

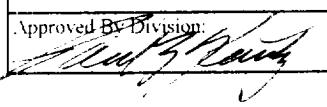


Submit in duplicate to
appropriate district office.
See Rule 401 & Rule 1122

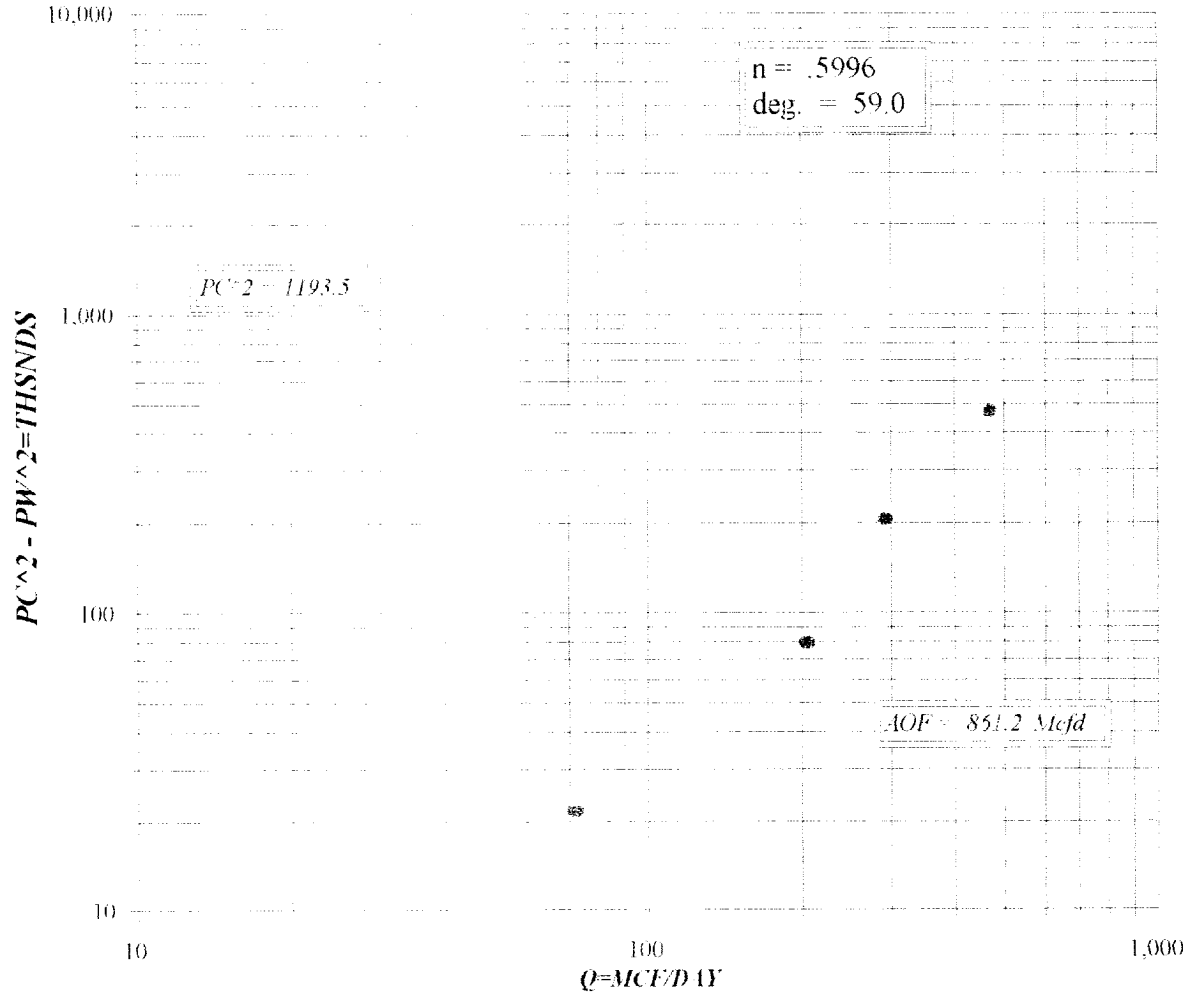
State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Form C-122
Revised October, 1999

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator SAGA PETROLEUM					Lease or Unit Name BLUITT SA 18 FED						
Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special							Test Date 8/5/00		Well No. 12		
Completion Date 7/9/00		Total Depth 4740		Plug Back TD		Elevation		Unit Ltr - Sec - TWP - Rge 18 8-S 38-E			
Csg. Size 5 1/2	Wt. 14	d 5.012	Set At 4740	Perforations: From: 4562 To: 4593				County ROOSEVELT			
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 4507	Perforations: From: To:				Pool			
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At 4507				Formation SANANDRES			
Producing Thru TUBING		Reservoir Temp. °F 110.4		Mean Annual Temp °F 60		Baro. Press. -P _a 13.2		Connection AIR			
L 4507	H 4507	Gg 0.727	%CO ₂ 5.501	%N ₂ 7.319	%H ₂ S	Prover	Meter Run 3.068	Taps FLG			
FLOW DATA					TUEING DATA			CASING DATA		Duration of Flow	
No.	Prover Line Size	Orifice x 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		
SI						1060	N/A	PKR	N/A		
1	3.068 X .750		50	8	78	1056					
2	3.068 X 1.250		50	8	78	1031					
3	3.068 X 1.250		50	16	78	1000					
4	3.068 X 1.250		50	42	78	920					
5											
RATE OF FLOW CALCULATIONS											
No.	COEFFICIENT (24 Hour)		$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress Factor F _{pv}	Rate of Flow Q, Mcfd			
1	2.672		22.5	63.2	0.9831	1.173	1.047	72			
2	7.577		22.5	63.2	0.9831	1.173	1.047	205			
3	7.577		31.8	63.2	0.9831	1.173	1.047	291			
4	7.577		51.5	63.2	0.9831	1.173	1.047	471			
5											
No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio			N/A Mcf bbl.			
1	0.77	538	1.44	0.912	A.P. I. Gravity of Liquid Hydrocarbons			N/A Deg.			
2	0.77	538	1.44	0.912	Specific Gravity Separator Gas			0.727 XXXXXX			
3	0.77	538	1.44	0.912	Specific Gravity Flowing Fluid			N/A XXXXX			
4	0.77	538	1.44	0.912	Critical Pressure			691 P.S.I.A. P.S.I.A.			
5					Critical Temperature			372 R. R			
P _c 1092.5		P _{c2} 1193.5									
No.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{2.54}{\quad}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{1.74}{\quad}$						
1		1082.5	1171.8	21.7							
2		1065.8	1135.9	79.3							
3		1033.3	1067.7	205.1							
4		963.8	928.9	469.7							
5											
Absolute Open Flow					819.5		Mcf/d @ 15.025		Angle of Slope (°):		59
Slope n:					0.5996						
Remarks: CALCULATED FROM KNOWN BOTTOM HOLE PRESSURES. NO LIQUID MADE DURING TEST											
Approved By Division: 				Conducted By: PRO WELL TESTING		Calculated By: M3			Checked By: BM		

SAGA PETROLEUM
BLUITT SA 18 FED # 12



WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURE (Pc or Pw)
FROM KNOWN BOTTOM HOLE PRESSURE (Pf or Ps)

FORM C-122F

COMPANY SAGA LEASE : BLUITT 18 WELL NO. : 12 DATE 8/5/00
UNIT SECTION : TWSHP : RANGE :
L 4507 H : 4507 L/H : 1 G/GMIX : 0.7270
CO2 : 5.501 N2 : 7.319 H2S :
GH : 3276.6 PCR : 691 TCR : 372

LINE		1	2	3	4	5	6	7	8
1	TW(W.H. R)	534	534	534	534	534	534	534	534
2	Ts(B.H. R)	579.1	579.1	579.1	579.1	579.1	579.1	579.1	579.1
3	T=(Tw+Ts/2)	556.5	556.5	556.5	556.5	556.5	556.5	556.5	556.5
4	Z (EST.)	0.871	0.820	ERR	ERR	ERR	ERR	ERR	ERR
5	TZ	485	456	ERR	ERR	ERR	ERR	ERR	ERR
6	GH/TZ	6.756	7.180	ERR	ERR	ERR	ERR	ERR	ERR
7	eS(TABLE XIV)	1.288	1.309	ERR	ERR	ERR	ERR	ERR	ERR
8	Pf or Ps	1249.9	1249.9	0	0	0	0	0	0
9	Pf2 or Ps2	1562.3	1562.3	0.0	0.0	0.0	0.0	0.0	0.0
10	Pc2=Pf/eS or Pw2=Ps2/eS	1212.6	1193.5	ERR	ERR	ERR	ERR	ERR	ERR
11	Pc or Pw	1101	1092	ERR	ERR	ERR	ERR	ERR	ERR
12	P=(Pw+Ps/2)or(Pc+Pf/2)	1176	1171	ERR	ERR	ERR	ERR	ERR	ERR
13	Pr=(P/PCR)	1.70	1.69	ERR	ERR	ERR	ERR	ERR	ERR
14	Tr(T/TCR)	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
15	Z (TABLE XI)	0.820	0.820	ERR	ERR	ERR	ERR	ERR	ERR

PC 1 : 1092.5 PW 2 : ERR PW 3 : ERR PW 4 : ERR

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURE (Pc or Pw)
FROM KNOWN BOTTOM HOLE PRESSURE (Pf or Ps)

FORM C-122F

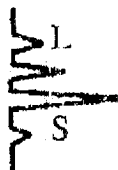
COMPANY SAGA
UNIT
L

4507

LEASE : BLUITT 18 WELL NO. : 12 DATE 8/5/00
SECTION : TWSHP : RANGE :
H : 4507 L/H : 1 G/GMIX : 0.7270
CC2 : 5.501 N2 : 7.319 H2S :
GH : 3276.6 PCR : 691 TCR : 372

LINE		1	2	3	4	5	6	7	8
1	TW(W.H. R)	534	534	534	534	534	534	534	534
2	Ts(B.H. R)	579.1	579.1	579.1	579.1	579.1	579.1	579.1	579.1
3	T=(Tw+Ts/2)	556.5	556.5	556.5	556.5	556.5	556.5	556.5	556.5
4	Z (EST.)	0.873	0.821	0.815	0.824	0.819	0.828	0.829	0.837
5	TZ	486	457	454	458	456	461	461	466
6	GH/TZ	6.746	7.169	7.221	7.147	7.185	7.112	7.106	7.038
7	eS(TABLE XIV)	1.288	1.308	1.311	1.307	1.309	1.306	1.305	1.302
8	Pf or Ps	1238.3	1238.3	1218.6	1218.6	1180.7	1180.7	1099.7	1099.7
9	Pf2 or Ps2	1533.4	1533.4	1485.0	1485.0	1394.1	1394.1	1209.3	1209.3
10	Pc2=Pf/eS or Pw2=Ps2/eS	1190.7	1171.9	1132.7	1135.9	1064.8	1067.7	926.5	928.8
11	Pc or Pw	1091	1083	1064	1066	1032	1033	963	964
12	F=(Pw+Ps/2)or(Pc+Pf/2)	1165	1160	1141	1142	1106	1107	1031	1032
13	Pr=(P/Pcr)	1.69	1.68	1.65	1.65	1.60	1.60	1.49	1.49
14	Tr(T/Tcr)	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
15	Z (TABLE XI)	0.821	0.822	0.824	0.824	0.828	0.828	0.837	0.836

PW 1 : 1082.5 PW 2 : 1065.8 PW 3 : 1033.3 PW 4 : 963.8



Laboratory Services, Inc.

4016 Fiesta Drive
Hobbs, New Mexico 88240

Telephone: (505) 697-3713

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

SAMPLE
IDENTIFICATION: SAU #1812
COMPANY: Saga Petroleum
LEASE:
PLANT

SAMPLE DATA: DATE SAMPLED: 8/5/00
ANALYSIS DATE: 8/6/00
PRESSURE - PSIG
SAMPLE TEMP. °F
ATMOS. TEMP. °F

GAS (X) LIQUID ()
SAMPLED BY: B. Pena
ANALYSIS BY: Roland Perry

REMARKS: Sample taken @ the meter run.

COMPONENT ANALYSIS

COMPONENT	MOL PERCENT	GPM
Hydrogen Sulfide (H2S)		
Nitrogen (N2)	7.318	
Carbon Dioxide (CO2)	5.591	
Methane (C1)	75.001	
Ethane (C2)	3.922	1.847
Propane (C3)	2.909	0.300
I-Butane (IC4)	0.331	0.108
N-Butane (NC4)	0.733	0.231
I-Pentane (IC5)	0.171	0.062
N-Pentane (NC5)	0.167	0.060
Hexane Plus (C6+)	0.206	0.111
	100.000	3.219

BTU/CU.FT. - DRY 1021
AT 14.650 DRY 1017
AT 14.650 WET 1000
AT 14.73 DRY 1023
AT 14.73 WET 1005

MOLECULAR WT. 21.0752

SPECIFIC GRAVITY -
CALCULATED 0.727
MEASURED