## GRUNDY-7-5

API No. 45-027-20280-00-03	VDMR Well Rep. No. W-5166
D	MO File No. BU-163
Operator TEXAS INTERNATIONAL PETROLEUM CO	RPORATION (Repermitted to NRM Petroleur
Farm GEORGIA PACIFIC	
Co. Well No. ISLAND CREEK #14	
County BUCHANAN Quadr	angle GRUNDY - 7-1/2'
Location (UTM) N4,123,040; E408,790	UTM Zone 17
(Lat. and Long.)	
Field	Province APPALACHIAN PLATEAUS
Elev. (specify) <u>1865' GR.</u> TD <u>5040'</u>	
Date compl. or abandoned MARCH 7, 1978	0.09840
Result GAS WELL	
Gas Shows	
Gas Pays 3942' to 3950'	
Main Production 3942' to 3950' Prod	d. Form. BIG LIME
Response to the second	Age MISSISSIPPIAN
Treatment: PERFORATED BIG LIME FROM 3942	' to 3950'; 2 SPF, 17 SHOTS.
LOADED HOLE WITH 15% CRA. ACIDIZED BIG	LIME WITH 5,000 GALLONS OF
15% CRA.	
Initial Production	
FINAL FLOW - 189,000 CU. FT.	
Oil shows	
Water FWatat	at
SW at at	
Coal 1661' to 1663'; 1774' to 1784'; 1824	
Plat X Plotted X Completion	Report X
Drillers Log X Geologic Log	
Samples Interval Sheet X	
Sample Interval 20' to 5040'	
Remarks	
Geophysical Logs S.P. Res X G	amma X Neutron
Density X Sonic Other TEM	
INDUCTION, CEMENT BOND	
THEORY OF THE POINT	

Market - Mil	lak Lake	AND SECTION AND ADDRESS.	<b>第</b> 注人 第	1
		Datum		
Formation	Top	(Subsea)	Thickness	
10 PH 10 10 10 10 10 10 10 10 10 10 10 10 10				
of the contribution of the contribution of	of let			
Contract to the Contract of th	Aller of the		-	
ATI Gorporation)		-	-	
and the second of the second o				
Like I was all the manufacture				
Love & Medell 20		***********	a security	
7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 4 4 May 17 5	-	-	
II APPENDING		307-3-4-	1.5 4.50	
ra ja marima kanti in a ake-18-6				
FR. Paragraphical Control of the State of th				
The late of the second second second second	10000	12/11/20		
emarks	117.55			
			The Marie Control	A60 -1
A CONTRACTOR OF THE CONTRACTOR				
Santa State Comment	1	Value of the same	range of the Property	
The state of the s				
		-		
_27045-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	15.52576			
eferences				
1000000	13305			
				1
eleased to Open File: Comp	pletion _	JUNE 5, 19	978	
	Samples _	VEC		

(Note: UTM measurements in meters, all others in feet)

TO: Division of Mines and Quarries

Drawer V

## COMMONWEALTH OF VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY DIVISION OF MINES AND QUARRIES BIG STONE GAP, VIRGINIA 24219

## NCTICE OF INTENTION TO (DRILL) (REDRILL) (DEEPEN) OIL OR GAS WELL

(One copy of this report and three identical copies of a plat or map, on a scale not smaller than 400 feat to the inch, and showing information required by Section 45.1-114, Code of Virginia, 1950, 1954 and the 1966 Cumulative Supplement, must be submitted to the Division of Mines and Quarries, and copies sent by registered mail to all persons defined in above law, prior to obtaining a permit to dril!.)

Charleston, West Virginia

Place

Big Stone Gap, Virginia 24219	October 1,	,19 77
	Date	
Gentlemen:		
The undersigned proposes to begin as soon as a per and Quarries, to drill, redrill or deepen (strike or Farm, comprising 2117.24	at two) a well for oil or gas on the Georgia-	Pacific Pacific
Buchanan County, Virginia, havi	ng the fee title thereto, or as the case may be	, under
to Island Creek Coal Companyand recorded		, (see be
in the office of the County Clerk for said County in The proposed location of the well, as shown on the		-
	de 37° 17° 30"	and
cbout 2850 (feet/miles)	West of Longitude 82000	- State Control of the Control of th
It is proposed to drill this well to a depth of about or will not be available for examination by a mem Cuttings will or will not be furnished the Survey.	5000 feet. Samples or cutting therefrom ber of the staff of the Virginia Geological Sur	will vey.
A plat or map, in triplicate, on a scale not smalle action of the well and other information, required and the 1966 Cumulative Supplement is attached hadrill, redrill or deepen the aforementioned well had Section 45.1-114, above cited, as follows (list no additional space is required):	in Section 45.1–114, Code of Virginia, 1950 pereto. Copies of the plat and notice of intent ave been sent to all interested persons as requi	, 1954 tion to red by
1. Mr. Richard M. George, Manager, Ge	orgia-Pacific Corporation, P.O. Bo	ox 909,
2Au	gusta, Georgia 30903	
3. Mr. Richard Bolen, Chief Engineer,	Jewell Coal & Coke Corp., Vansan	t. Va.
4. Mr. Guy Richardson, Director of En Ke		
6.	en Mountain, Virginia	
	Very truly yours,	*************
Signature of officer or certifying party:	Texas International Petroleum Con Drilling Company or C perafor	orp.
Name	Valley Square, Suite 1020	
Marger Of Operations and Gnamering	Street Address	
Tifle	Charleston, West Virginia	-
	City or Town and State	
File BU-163 Date Received	10-11-77 Well No. I.C1-	7

# COMMONWEALTH OF VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY DIVISION OF MINES AND QUARRIES BIG STONE GAP, VIRGINIA 24219 PHONE 703-523-0335

## APPLICATION FOR PERMIT TO (DRILL) (REDRILL) (DEEPEN) CIL OR GAS WELL

	rginia, 1950, 1954 and the 1966 Cumulative Supplement.
	-five dollars and bond and surety therefor, as specified by
	e, one copy to be returned to applicant after action by
Division of Mines and Quarries.	
TO: Division of Mines and Quarries	
Drawer V	Charleston, West Virginia
Big Stone Gap, Virginia 24219	Place
	October 1, 1977
	Date
Gentlemen:	
	or a Permit to drill, redrill, or deepen (strike out two) a
	1 Earm, comprising 2117.24 acres, in the South
	County, Virginia, having the fee title thereto, or as the
case may be, under grant on the same of the m	July 11, ,19 72 made by Yukon Pocahontas
Coal Company etal. (Form 2) to ]	
and recorded on the 31st day of A	And the state of t
Clerk for the said County in Book 209	page 27
	on a location plat or map submitted to the Division of Mines
	with Notice of Intention to Drill, Redrill or Deepen a Well
for Oil or Gas on the day of	19.
the proposed well will be known as Well N	o.I.CHof Texas International Petroleum Corp.
(company, etc.) It is proposed to drill this	
	feet distant from the nearest property or lease line; about
	it mining opening, or quarry (strike out words not applicable)
Building a consequence of the co	earest drilling, abandoned, producing, or applied for (strike
out words not applicable) oil or gas (strike	
	k or U.S. Postal Money Order, in the amount of twenty-five
	a, covering fee fro a Permit to Drill a Well for Cil or Gas,
	Virginia, 1950, 1954 and the 1966 Cumulative Supplement.
	nce with the provisions of Chapter 8, Title 45, Code of Vir-
ginia, 1950 and the 1966 Supplement, for t	The state of the s
with of (give status of) Sinety Bond	48 S 105 14 15CH
Correspondence regarding this well should be	pe addressed to Mr. Jim Blanton, Texas
Total and I Detection Community	Walley Sware Swite 1020 Charleston W Va
International Petroleum Corp.,	Valley Spuare, Suite 1020 Charleston, W. Va. Very truly yours,
Signature of officer of certifying party:	very noty yours,
Signature of certifying party:	Marca Intermedianal Detroloum Comp
Name	Texas International Petroleum Corp.  Drilling Company or Operator
- Managen of Jouann and The	Street
Title	
	Charleston City or Town
	WEst Virginia State
Songa balow this	ine is for the use of the Board only.
	SION OF MINES AND QUARRIES
Possived on 10-11-	1077
Received on 10-11- Approved and Permit (no. 280 ) gr	anted on 10-27- 1977
Denied Denied	direct off
Reacons for denial	
Page 1 to 1 t	DIVISION OF MINES AND QUARRIES
	By Cle Weller Se State And Carlinger
	Title
File No. BII-163 Wall No	I.C 14 Permit No. 280
10. 10. VIII 110.	4.00
	1 WEST OF 820-00
CO-ORDIN	LATES SHOULD BE BASOL WEST OF 820-05
ORNBABL	SHOULI
Trong	

DM Form 7			7		
(To be filled in by Division of Mines)		OMMONWEALTH ENT OF LAB	of Virginia OR AND INDUSTRY		filled in by of Mines)
BUCHANAN		IVISION O		Well No.	I.C14
SOUTH GRUNDY		BIG STONE GAI		Permit No	280
District GRUNDY	OIL AND G		MPLETION REPORT	Office No	(643)
Map		ABANDON	IMENT	Location Plat	
BU- 163 File	be submitted abandonment	to the Division of	electrical log, if made, must Mines within 30 days after well, as required by Section		
Company <u>Texas Interr</u> Corporation Farm Georgia Pacifi	national Petrol	eum TO NRM	Address Suite 740	) - One Valley West Virginia	and the second s
County Buchanan			District South Grun		
Well No. (Company) <u>Islar</u>	nd Creek #14		Elevation (ground sur	face)1865	ft.
Location: (Give direction and nates shown on loc graphic map of area	cation plat or map	previously filed	nile from two (2) location of Multiple with the Division of Multiple Latitude 37° 17' 30	ines or shown on	
2,850 Gee	West	of.	Longitude 82		
Mineral rights are owned by Address P. O. Box 909. Location made by Guy Ric Drilling commenced 1/31. Drilling completed 2/12. Well completed as oil well	, Augusta, Geor chardson /78 /78	gia 30903			
Well abandoned atN/A			: Re		
1 00			Affidavit filed Steel line measurement _		
Total depth5038 Commenced producing on		ng on pipel	ine, 19	204	teet teet
Oil Well Initial production, oil: 1st 24			×		
After shot on				lbs.	
After shot on	from	feet to	feet with	qua.	
				gis.	4
1st 24 hours	bbls.; 2nd	24 hours			bbls days
Settled production		bbls. per	day after producing		week
Gravity and grade of oil					
Oil pays at (1)				feet to	
	feet to			feet to	
	feet to			feet to	
Main production at			(5)	feet to	feet
Gas Well Initial open flow, gas:		(	Gaged20	/10ths. Water in ./10ths. Mercury i	2 inch
Volume 189M		cu. ft.			
After shot on	from	feet to	feet with	lbs	
After abot an	from	fact to	feet with		
After shot on				1	
1st 24 hours		cu ft.,	2nd 24 hours		cu f
Rock pressure: Initial	9	80 lbs.; after _	36 hours		_ lbs. days

on ft per day after producing

weeks

Control conduction

Gas pays	at (1)	3942 feet to	3950 feet. Gas	shows at (1)	None	_ feet to	fort
	(4)	teet to	feet.	(2)		_ feet to	feet.
	(3)	feet to	feet.	(3)	)	_ feet to	fcet
Main prov	hustian	feet to		(4)	)	_ feet to	feet
========	metion	3942 feet to	3950_ feet.	(5)		_ feet to	feet
Coal: from	1661 feet	inches to	GPM; (2)	fe _ inches : from	et; (4) n _1774_ feet	fee	r.
Well acidize  Remarks: Loaded	ed from39 from from Ran gamma hole w/15% 0	042 feet to3950 feet to feet to ray_collar_log	feet inches, feet with 5000 & feet with feet with Perforated Big Big Lime w/5000 ga	gal. (quanti —— (quanti —— (quanti Lime 3942 11. 15% CRA	ty) of ty) of ty) of 3950' 2 A. AIR 10	acid. acid. acid. SPF, 17 s	shots. 2850 PSI,
		Casing and Tubing			р.	CKERS	
Size	USED IN DRILLING	LEFT IN WELL	PERFORATED	KIND	Size	CRERS	SET AT
(inch)			(6.1) + (6.1)				
	(feet) 20	(feet)	(feet) to (feet)		None		
16	268	268			-		
8-5/8	1975	1975			-		
4-1/2	4053	4053	Perforated @				
	4000	4075	3942 - 3950'		-		
			17 shots				
1			11 511005				
					L	INERS	
				Size	USED IN DRILLING	LEFTIN WELL	PERFORATED
				(inch)	(ft.)	(ft.)	(ft. to ft.)
				_			
				-	None	·	
		-		-			
				-			
						-	-
Casing	Cemented: 11- 8- 4-	5/8 inch. from	Surface feet to	975' D	Date _2/3/78 Date _2/7/78 Date _2/12/7		
			obs, depths, dates; cavin 334 - 498'; 720 -		5)		
C .				1 17	1.10		((Yes))
Samples or	cuttings will be	available for exami	nation by a member of				(No)
Will be furn	nished the Virgin	ia Geological Surve	y upon request	(Yes	, if sacks for	same are fu	rnished by the
		3	79	(No.	)		
			,				
Copy furnish	hed herewith	or not made or will b	e submitted on or by _	Logg	ing Compan	y	, 19
		information given hed by this report	erein and log or logs b	e kept confide	ential for a pe	eriod of nin	ety days after
		,	(No)				

mound

.....

0

Permit No. 280

# LOG

Furnished by	 Date	
Compiled by	Date	

Sample No.	FORMATION	Color	Hard or Soft	Top (feet)	Borrom (feet)	THICKNESS (feet)	REMARKS OIL, GAS, WATER DEPTHS SHUT DOWN FISHING, ETC.
Soil				0	15		
Sand				15	38		
Sand & Shale				38	213		
o Circulation				213 286	286 334		
and & Shale o Circulation				334	498		
and & Shale				498	720		
o Circulation				720	1040		
Sand & Shale				1040	1120		
and				1120	1218		
Rock & Shale				1218	1360		
Sand & Shale		7.7		1360	1623		
Sand		5.55 - 11		1623	1661		
Coal			P. C. C.	1661	1663 1774		
and & Shale				1663 1774	1784		
Coal Sand & Shale				1784	1824		
Coal				1824	1830		
Sand				1830	1857		
Sand & Shale				1857	2120		
Sand				2120	2160		
Sand Shale				2160	2415		
Ravencliff				2415	2495		
Sand & Shale				2495 2550	2550 2615		
Sand Shale				2615	2720	and the second	
Jpper Maxton				2720	2780		
R. Rock Sand & Sh	ale			2780	2926		
Maxton		1		2926	2997		
R. Rock Sand & Sh	ale			2997	3180		
Lower Maxton			1	3180	3212		
Sand & Shale				3212	3535		
Little Lime				3535 3640	3640 4125		
Sand & Shale				4125	4190		
Sand				4190	4210		1
Sand & Shale				4210	4261		
Weir Sand				4261	4450		
hale				4450	4786		
Berea Sand				4786	4811	T D	
Shale				4811	5038	T.D.	
			1				
							1
					1		
			10.03				
					1		
				, , , , , , , , , , , , , , , , , , ,			

OM Form 7 (To be filled in by	Co	MMONWEALTH	OF VIRGINIA	(To be fi	lled in by
Division of Mines)	DEPARTME	NT OF LAB	OR AND INDUSTRY		of Mines)
BUCHANAN		IVISION O		Well No.	T.C14
County		BIG STONE GAI		Permit No	280
SOUTH GRUNDY District	-			Permit No	(643)
GRUNDY Map	OIL AND G	DEEPE AS WELL CO ABANDON	MPLETION REPORT		
BU- 163 File	be submitted to	o the Division of	electrical log, if made, must Mines within 30 days after well, as required by Section		
Company <u>Texas Interna</u>	tional Petrol	eum'	Address Suite 74	0 - One Valley	Square
Corporation Comparis Posific	RE-PERHITTED	ORP.		West Virginia	25301
Farm Georgia Pacific County Buchanan	TETHOCEUM C		Acres 2117.24	- 4	
Well No. (Company) Island	Creek #14		District South Grund Sur Elevation (ground sur		
Location: (Give direction and nates shown on locat graphic map of area.)	tion plat or map	r tenths of a r previously filed	nile from two (2) locati	on reference points lines or shown on	or map coordi- quadrangle topo-
14,700 feet miles	South	of	Latitude 37° 17' 30	0"	and
2,850 feeb miles	West	of	Longitude 82		
Address P. O. Box 909,  Location made by Guy Rich  Drilling commenced 1/31/7  Drilling completed 2/12/7  Well completed as oil well completed	ardson 8 8	]	Orilling contractor ADI Address Charleston,		
		N/A		N/A	
	feet on .		: Re Affidavit filed:		. 19
Well plugged on N/A Total depth 5038		, 19	Steel line measurement _	5040	, 19 0 feet.
Commenced producing on S	hut-in waiti	ng on pipel	ine, 19	sples -	
Oil Well					
Initial production, oil: 1st 24 ho	oursN/A		bbls.; 2nd 24 hours .		bbls.
After shot on	from	feet to	feet with	lbs.	
After shot on	from	feet to	feet with	qts. lbs. qts.	
1st 24 hours	bbls.; 2nd 2	4 hours			bbls.
Settled production		bbls. per			days weeks
Gravity and grade of oil					· · · · · · · · · · · · · · · · · · ·
Oil pays at (1)			Oil shows at (1)	feet to _	
(2)				feet to _	
(4)				feet to _	
Main production at				feet to _	
Gas Well Initial open flow, gas:		C	Gaged 20	/10ths. Water in _ /10ths. Mercury in	
Volume 189M		cu ft			

cu. ft.

feet with .

feet with

on ft per day after provincing

\_ hours

cu ft., 2nd 24 hours .

feet to \_\_\_

feet to \_\_\_

980 lbs.; after \_\_\_\_\_36

from .

from \_

lbs.

qts. lbs.

qts.

. lbs.

cu ft.

days

weeks

Volume \_\_

After shot on .

After shot on

1st 24 hours \_

Rock pressure: Initial -

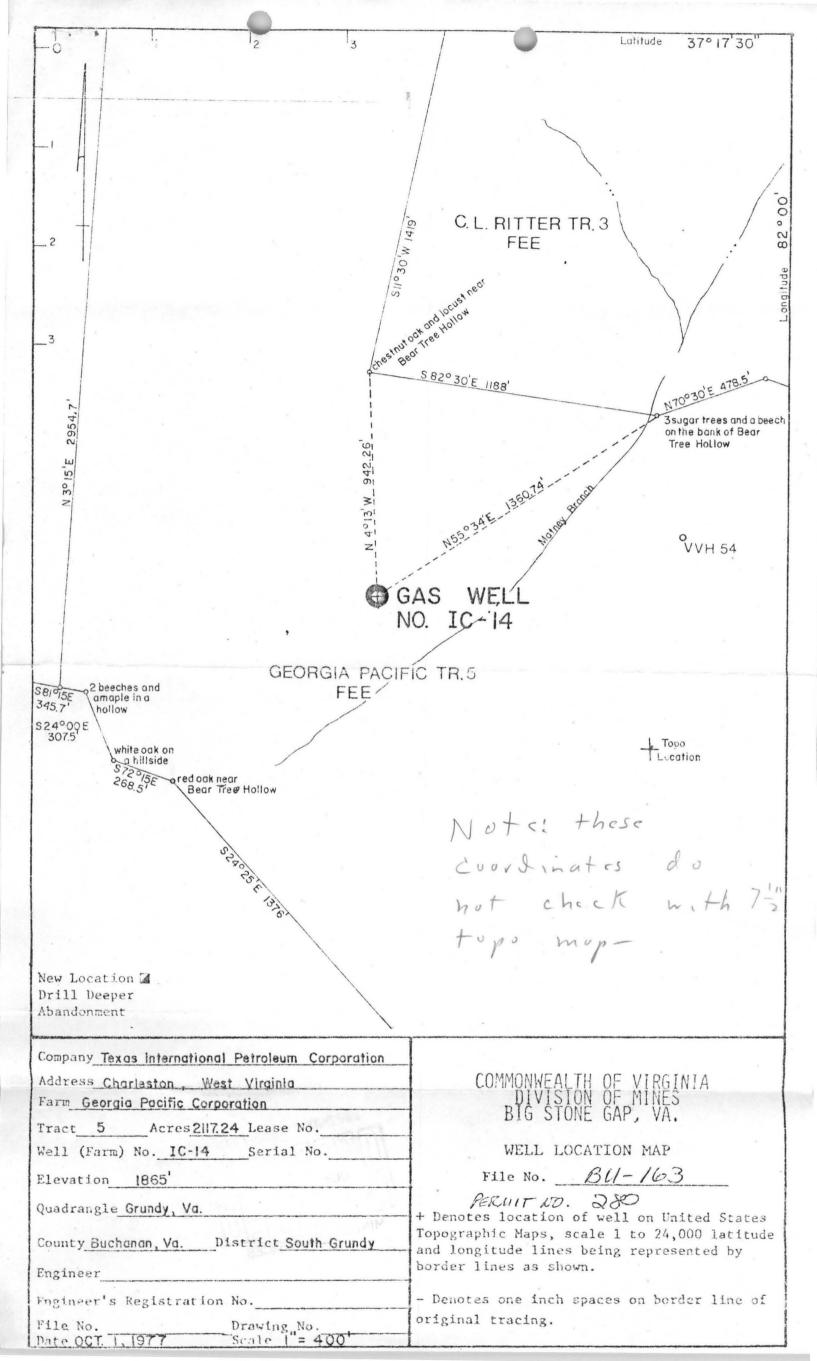
Santa . malantina

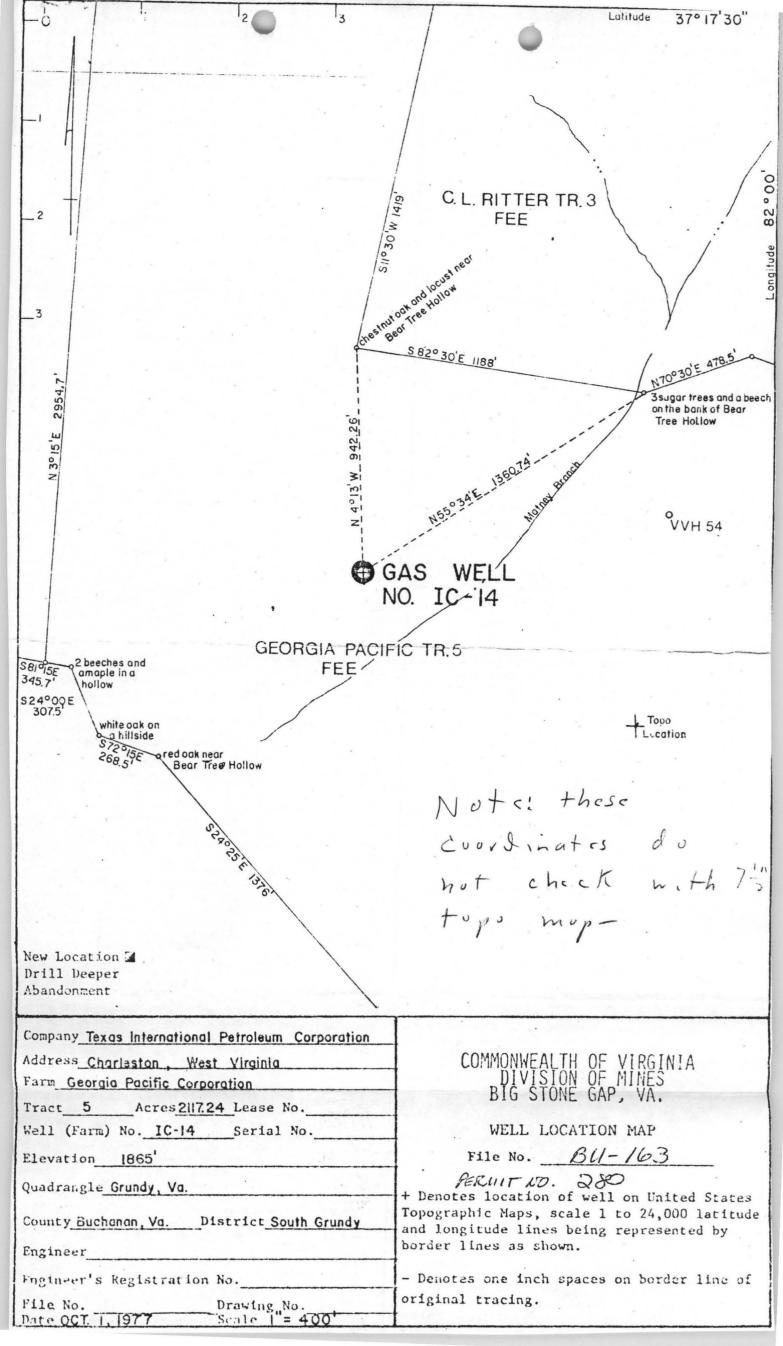
Gas pays	at (1)	3942 feet to	3950	feet. Gas	shows at (1)	None	feet to	f.,,,
	(2)	teet to		teet.	(2)		feet to	fee
	(3)	feet to		feet.	131		foot to	
	(4)	feet to		feet.	(4)	12-1-1-1-1	_ feet to	fee
Main prod	uction	3942 feet to	3950	feet.	(5)	1	_ feet to	fee
Salt water a	at (1) None h	eport ed eport feet; (2) inches to	f	eet; (3)	fe	et ; (4)	feet	t. "
feet -	incl	es; from1824	feet	inches,	to _1830	feet	inches.	
Well acidize	ed from3	942_ feet to _3950	feet v	vith 5000	gal (quanti	ty) of15	%acid.	
	from	feet to	feet v	vith	(quanti	ty) of	acid.	
	from	feet to	feet v	vith	(quanti	ty) of	acid.	
Remarks: _	Han gamma	ray collar log	Perfor	ated Big	Lime 3942	3950' 2	SPF, 17 s	shots.
2 min	2500 PST	CRA. Acidized SICP - 900 PSI.				ALR 10	BPM, ATP	2850 PST,
_ <u> </u>	2500 131,	SICF - 900 FSI.					- 1 2 mars 1 - 1	
			- Lagrangia				-1199.A	
		Casing and Tubing	100	TA NEWS		P <sub>A</sub>	CKERS	188.4
Size	Used in		Don	Same and	V	Line of the late o	CKERS	S
SIZE	DRILLING	LEFT IN WELL	PER	FORATED	Kind	Size		SET AT
(inch)	(feet)	(feet)	(feet)	to (feet)		None		100000000000000000000000000000000000000
16	20	20					100	
11-3/4	268	268						
8-5/8	1975	1975				A3 (32) (4)		e e dellast d
4-1/2	4053	4053	Perfor			HARRIST ST.	100 No. 1	
			3942 -					148 SE-10
			17 sho	LS				
			- 25-818/952			L	INERS	
11 187 13								1992
					Size	Used in Drilling	LEFT IN WELL	PERFORATED
	1 1				(inch)	(ft.)	(ft.)	(ft. to ft.)
						None		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
			-2000				1100	1137-4-5
			70%60.700			The particular section	Colonia de la co	Conference of
				69 Sept. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			20 Sept. 12	an applicant
Casing	Cemented: 11.	-3/4 inch. from	Surface	feet to	268' D	ate _2/3/78	人 的复数百一	Calle of 1
		-5/8 inch. from				ate _2/7/78	10000000000000000000000000000000000000	
	_4	-1/2 inch. from	3360	feet to _4	053' D	ate _2/12/7	8	The second
10000								
		oths, dates; fishing jo				5)		
Lost	circulation	@ 213 - 286';	334 - 498	'; 720 -	1040'			
		10 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	
					VA-1			
Samples or	cuttings will be	available for examin	nation by a	member of	the Virginia G	eological Surv	ey	(Yes)
								(No)
Will be furn	ished the Virg	nia Geological Surve	y upon requ	iest	(No	, if sacks for	same are fu	irnished by the
Survey				(Yes) (No)				
				(No)				1
		or not made			Logg	ing Compan		1.
Copy furnish	ned herewith _	or will t	e submitted	on or by _	Logg	ing Compan	y	, 19
Depths								
				-				
The operator	or requests that	information given h	erein and lo	g or logs h	e kept confide	ential for a pe	eriod of nine	ety days after
		red by this report		(Yes)		, , , , , , , , , , , , , , , , , , ,		H Silvery 1
compaction (	the field cove	.ca by this report		(No)		1		

## LOG

Furnished by	Date

SAMPLE No.	FORMATION	Color	HARD OR SOFT	Top (feet)	BOTTOM (feet)	THICKNESS (feet)	REMARKS OIL, GAS, WATER DEPTE SHOT DOWN FISHING, ETC
oil				0	15		
and				15	38		
and & Shale				213	213 286		
o Circulation				286	334		
o Circulation				334	498		
and & Shale				498	720		
o Circulation				720	1040		
and & Shale				1040	1120		
and				1120	1218	F	
. Rock & Shale				1218	1360		
and & Shale				1360	1623		
and		1000		1623	1661		
Coal				1661	1663		
Sand & Shale				1663	1774		
and & Shale				1784	1824		
Coal				1824	1830		
and				1830	1857		
Sand & Shale				1857	2120		
Sand				2120	2160		
Sand Shale				2160	2415		
Savencliff				2415	2495		
Sand Shale				2495	2550		
pper Maxton				2615	2720	The state of the state of the state of	West of the second
. Rock Sand & Sha	le			2720	2780		
laxton				2780	2926		
. Rock Sand & Sha	le			2926	2997		
ower Maxton				2997	3180		
and & Shale				3180	3212		7
ittle Lime				3535	3535		
ig Lime				3640	3640 4125		
and & Shale		2-17-27-1		4125	4190		
and & Shale			0	4190	4210		
eir Sand				4210	4261		
nale				4261	4450		
erea Sand				4450	4786		
nale			7	4786	4811	N. Y.	
				4811	5038	T.D.	
					14		
A STATE OF THE STA					1000		





#### VIRGINIA DIVISION OF MINERAL RESOURCES Box 3667, Charlottesville, VA 22903

#### INTERVAL SHEET

Page 1 of 4 Well Repository No.: W-5166

Date rec'd Date Processed: 5/31/78 Sample Interval: from 20 to:5040'

PROPERTY: Georgia-Pacific Corporation Number of samples: 431

No. IC-14

COMPANY: Texas International Petroleum Corporation Total Depth: 5040' SLM

COUNTY: Buchanan Oil or Gas:X Water: Exploratory:

From-To	Fr	om-To	From-To	From-To
_		_	500-510	-
-		_	510-520	-
20-30		-	520-530	-
30-40		-	530-540	-
40-50		_	540-550	_
50-60	300	<b>-</b> 310	550 <b>-</b> 560	-
-		320	560 <b>-</b> 570	-
70 -80	310		570 <b>-</b> 580	-
80 -90		_	580 <b>-</b> 590	-
90 100		-	590-600	-
100 110		_	600-610	-
110 -120		_	610 -620	-
120 -130		¬	620 -630	-
130 -140		_	630 -640	-
140 150		-	640 -650	
150 160		-	650 -660	-
160 170		_	660 -670	-
170 180		<del>-</del>	670 -680	-
180 190		-	680 -690	-
190 200		-	690 <del>-7</del> 00	$\tau$
200 -210		-	-	-
210 -220		-	-	-
-		-	-	-
-		-	-	-
_	490	500	-	-
	150			

# VIRGINIA DIVISION OF MINERAL RESOURCES Box 3667, Charlottesville, VA 22903

# INTERVAL SHEET Continued

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From-To	From-To	From-To	From-To	From-To
1000-1010	1300-1310	1600-1610	1900 1910	2200_2210
1010-1020	1310-1320	1610-1620	1910 1920	2210_2220
1020-1030	1320-1330	1620-1630	1920 1930	2220 _2230
1030-1040	1330-1340	1630-1640	1930 1940	2230_2240
1040-1050	1340-1350	1640-1650	1940 1950	2240 2250
1050-1060	1350-1360	1650-1660	1950 1960	2250 2260
1060-1070	1360-1370	1660-1670	1960 1970	2260 2270
1070-1080	1370-1380	1670-1680	-	2270 2280
1080-1090	1380-1390	1680-1690	1980 1990	2280 2290
1090-1100	-	1690-1700	1990 2000	2290 2300
1100-1110	1400-1410	1700-1710	2000 -2010	2300 72310
1110-1120	1410-1420	1710 <i>-</i> 1720	2010 <b>-</b> 2020	2310 72320
1120-1130	1420-1430	1720 <b>-</b> 1730	2020 <del>-</del> 2030	2320 72330
1130-1140	1430-1440	1730-1740	2030 - 2040	2330 72340
1140-1150	1440-1450	_	2040 <del>-</del> 2050	2340 72350
1150-1160	1450 <b>-</b> 1460	1750 -1760	2050 <b>-</b> 2060	2350 72360
1160-1170	1460-1470	1760 - 1770	2060 - 2070	2360 72370
1170-1180	1470-1480	1770 -1780	2070 <b>-</b> 2080	2370 72380
1180-1190	1480-1490	1780 - 1790	2080 -2090	2380 72390
1190-1200	1490-1500	1790-1800	2090 <b>-</b> 2100	2390 72400
1200-1210	1500-1510	_ ~	2100 -2110	2400 72410
1210-1220	1510-1520	1810 - 1820	2110 -2120	2410 72420
1220-1230	1520-1530	1820 - 1830	2120 <del>-</del> 2130	2420 72430
1230-1240	1530-1540	1830 1840	2130 -2140	2430 72440
1240-1250	1540-1550	1840 - 1850	2140 <del>-</del> 2150	2440 72450
1250-1260	1550 <b>-</b> 1560	1850 1860	2150 72160	2450 72460
1260-1270	1560 <b>-</b> 1570	1860 1870	2160 72170	2460 72470
1270-1280	1570 -1580	1870 1880	2170 72180	2470 72480
1280-1290	1580 -1590	1880 1890	2180 72190	2480 72490
1290-1300	1590 -1600	1890 1900	2190 72200	2490 72500

#### VIRGINIA DIVISION OF MINERAL RESOURCES Box 3667, Charlottesville, VA 22903

# INTERVAL SHEET Continued

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Well Repository No.: W-5166

From-To	From-To	From-To	From-To	From-To
2500-2510	2800-2810	3100-3110	3400-3410	3700-3710
2510-2520	2810-2820	3110-3120	3410-3420	3710 <sup>-</sup> 3720
2520-2530		3120-3130	3420 3420	3/10 3/20
	2830-2840	3130-3140	3430 3430	3730-3740
2540-2550	2840-2850	3140-3150	3440 <sup>-</sup> 3450	3740 <sup>-</sup> 3750
		3140 3130	3440 3450	3/40 3/30
2550-2560	2850-2860	,	3450-3460	3750-3760
2560-2570	2860-2870	3160-3170	3460 <sup>-</sup> 3470	3760-3770
2570 <del>-</del> 2580	2870-2880	3170-3180	3470~3480	3770 <sup>-</sup> 3780
2580 <del>-</del> 2590	2880-2890	-	3480-3490	3780 3790
2590 <del>-</del> 2600	2890-2900	3190-3200	3490~3500	-
			0130 0000	
2600-2610	2900-2910	3200-3210	3500-3510	3800-3810
2610-2620	2910-2920	3210-3220	3510-3520	-
2620-2630	2920 <del>-</del> 2930	3220-3230	3520 <b>-</b> 3530	-
2630-2640	2930-2940	3230-3240	3530 <sup>-</sup> 3540	3830 3840
2640 <del>-</del> 2650	2940 <del>-</del> 2950	3240-3250	3540-3550	3840 3850
2650 <del>-</del> 2660	2950 <del>-</del> 2960	3250-3260	3550 <b>-</b> 3560	3850 3860
2660 <del>-</del> 2670	2960 <del>-</del> 2970	3260-3270	3560 <sup>-</sup> 3570	3860 3870
-	2970 <del>-</del> 2980	3270-3280	3570 <sup>-</sup> 3580	3870 3880
2680 <del>-</del> 2690	2980 <del>-</del> 2990	3280-3290	3580 <sup>-</sup> 3590	3880 3890
2690-2700	2990-3000	3290-3300	3590 <sup>-</sup> 3600	3890-3900
_	3000-3010	3300-3310	3600 <sup>-</sup> 3610	3900 3910
2710-2720	3010-3020	3310-3320	3610 3620	3910 3920
2720-2730	3020-3030	3320-3330	3620 <b>-</b> 3630	3920 3930
2730-2740	3030-3040	3330-3340	3630 3640	3930 3940
2740-2750	3040-3050	3340-3350	3640 3650	3940 3950
0750 0750	0050 0050			
2750-2760	3050-3060	3350-3360	3650 <sup>-</sup> 3660	3950_3960
2760-2770	3060-3070	3360 <sup>-</sup> 3370	3660 <b>3</b> 670	3960 3970
2770-2780	3070-3080	3370-3380	3670 <b>3</b> 680	3970 3980
2780-2790	3080-3090	3380~3390	3680 <b>3</b> 690	3980 3990
2790-2800	3090-3100	3390 <sup>-</sup> 3400	3690 3700	3990 4000

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From-To	From-To	From-To	From-To	From-To
4000-4010	4300-4310	4600-4610	4900 74910	- "
4010-4020	4310-4320	4610-4620	4910 74920	-
4020-4030	4320-4330	4620-4630	4920 - 4930	-
4030-4040	4330-4340	4630-4640	4930 -4940	-
4040-4050	4340-4350	4640-4650	4940 -4950	
4050-4060	4350-4360	4650-4660	4950 -4960	-
4060-4070	4360-4370	4660-4670	4960 - 4970	-
4070-4080	4370-4380	4670-4680	4970 - 4980	-
4080-4090	4380-4390	4680-4690	4980 - 4990	_
4090-4100	4390-4400	4690-4700	4990 - 5000	-
4100-4110	4400-4410	4700-4710	5000 <b>-</b> 5010	-
4110-4120	4410-4420	4710 -4720	5010 <sup>-</sup> 5020	-
4120-4130	4420-4430	4720-4730	5020 <b>-</b> 5030	-
4130-4140	4430-4440	4730-4740	5030 <sup>-</sup> 5040	_
4140-4150	4440-4450	4740 -4750	-	-
4150-4160	4450-4460	4750 -4760	-	-
4160-4170	4460-4470	4760 - 4770	-	-
4170-4180	4470-4480	4770 -4780	-	_
4180-4190	4480-4490	4780 -4790	-	-
4190-4200	4490 <i>-</i> 4500	4790 -4800	-	_
4200-4210	4500-4510	4800 -4810	-	- , ,,
4210-4220	-	4810 4820	-	-
4220-4230	4520 -4530	4820 74830	-	-
4230-4240	4530 -4540	4830 74840	-	_
4240-4250	<b>4540 -45</b> 50	4840 74850	- ,	_
4250 <b>-</b> 4260	4550 -4560	4850 74860	-	-
4260 - 4270	4560 -4570	4860 74870	-	-
4270 - 4280	4570 -4580	4870 74880	-	-
4280 -4290	4580 -4590	4880 74890	-	-
4290 -4300	4590 -4600	4890 74900	-	