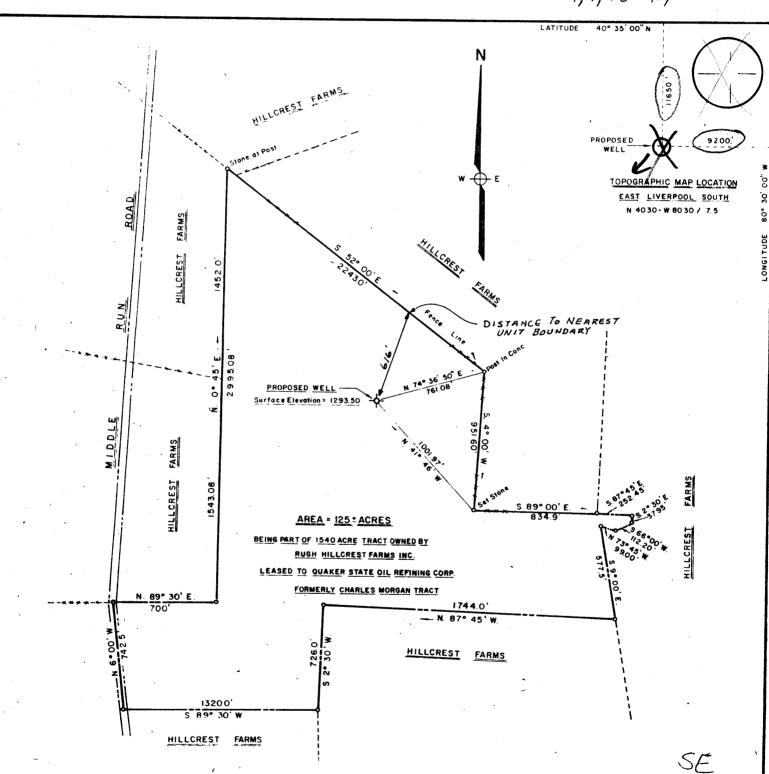
TOPOGRAPHIC MAP LOCATION EVAL FIREMACON SECOND ARY JEVANE SELECTION CONTROL OF THE SELECTION OF T VATO - INT Allusans State Lands 320.0 HILLCREST PARMS LOCATION PLAT NO I RUGH: HILLCREST FARMS WELL
BITUATE IN

BITUATE IN 87-PR-FRAC 47-029
FRAC -3/22/76
PART. PLUG 3/15/76 REGISTERED SURVEYOR

1,7,75 8



Hellsville 15' LOCATION PLAT

NO I RUGH HILLCREST FARMS WELL

SITUATE

CLAY DISTRICT-HANCOCK COUNTY-WEST VIRGINIA

MADE AT THE INSTANCE OF
OUAKER STATE OIL REFINING CORPORATION

SCALE 1: 8000 OR /= 3666 DECEMBER - 1974

FRANKLIN D. HANEY BEAVER FALLS, PA REGISTERED SURVEYOR

HAN 87-PP-FRAC

-37: Convertion

FRAC -3/22/76 PART. PLUG 3/15/76

1976 APR 6

w

15' Wallsville qual SE

40 31 55
40 33 05

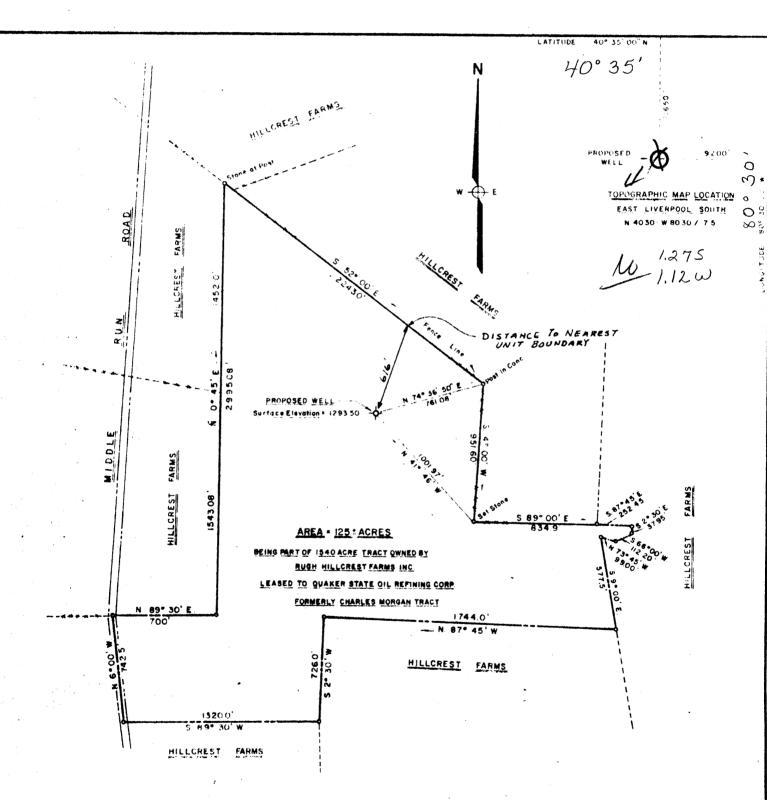
DISTANCE TO NORMANY

DISTANCE TO NORMANY

11 7

HAN-87(1)

Doep well



clevation shows obtained by unimply 0.5.2.9 define at Newmon street tenated N to the $32\cdot15$

All volid times indicate a survey on the ground with a minimum accuracy of one park to 2000.

HAN-87 47-029), results to teamy, hereign certify that this lest is represent to the heat of my heardedge and belief and moves all the information required by law and the raises and regulation issued and presented by the decartment of Vines.

REGISTRATION NO. 287

SE 15' Wellsville Quad

LOCATION PLAT

NOT RUGH HILLCREST FARMS WELL

CLAY DISTRICT HANCOCK COUNTY-WEST VIRGINIA

MADE AT THE INSTANCE OF QUAKER STATE OIL REFINING CORPORATION

SCALE I HOOD OR 1" MAGE DECEMBER 1974

FRANKLIN D. HANEY HEAVER FALLS, PA.
HEGISTEHED SUNVEYOR

Jusc.

Deep well

JAN 23 1975



STATE OF WEST VIRGINIA

DEPARTMENT OF MINES

Oil and Gas Division WELL RECORD

Rotary XX Oil

Quadrangle				Cable	
				Recycling_	
Permit No. HAN-87-PP-FRAC.					i Storage
				Disposal	(Kind)
Company OHAKER STATE OIL DEELNIN	IC CONDODATE		1	+	
Company QUAKER STATE OIL REFINING Address P.O. Box 1327, Parkersbur	G CURPURATI	ON Casing and	Used in	Left	Cement fill up
		Tubing	Drilling	in Well	Cu. ft. (Sks.)
FarmRugh Hillcrest Farms Ac					
Location (waters)		Size			
Well No Ele		20-16			
District Clay County Hance	ock	Cond.			
The surface of tract is owned in fee by		13-10"	10	None	
Rugh Hillcrest Farms		9 5/8			
Address Bolivar, Pennsylvania		8 5/8	1250	1250	Cemented to
Mineral rights are owned by Same		7			Surface
Address		5 1/2			
Drilling Commenced		4 1/2	5290	5290	250 sacks
Drilling Completed		3			
Initial open flow Show cu. ft.	0 bbls.	2			
Final production 50,000 cu. ft. per day	0 bbls.	Liners Used			
Well openhrs. before test_	RP.				
Well treatment details: All depths are		rAttach copy of	camantina roa	~-d	
Perforated from 5027 to 5098)	and fracture	ad with 1005	LL111		1000
32,000 # 20-40 sand	PONDE A	I card the part	DDI, gell	ed water	4000 gal HCL,
Perforated from (4700 to 4840)	and fracture	od anich 1165	SIL 8 303	30 - 5/0/	
Perforated from 4700 to 4840	ind Tracture	Z with 1165	bbl gelle	d water a	nd 32,000 #
Perforated from 1522 to 1622	en- 2h /.	I cardo propo	ns 201 a :	<u> 4772- 40</u>	84D
Perforated from 4532 to 4636 and.	and fracture	ed with 1090	bbl. gelle	ed water a	and 32,000#
	same is the	in d		5	MCF
Coal was encountered atNone	Feet_		Inche	es .	
Fresh water None Fee	t	Salt V	Water		Feet
Producing Sand Onondaga and Devonia	an Share	Deptl	1		
		1	T		
Formation Color Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or	. Watan 🛊	. D. 1
		Bottom reet	Oil, Gas of	water	Remarks
Soo and advers					
See original completion report	•				
Well re-completed in					
Onondaga & Devonian Shale					
onomada a Devonian Share					
			!		
				3	
	ļ				
	(ove	er)			





STATE OF WEST VIRGINIA **DEPARTMENT OF MINES**

OIL & GAS DIVISION DETT. OF MINES

Oil and Gas Division

RECORD

• .		1 1/4	
Quadrangle	East	Liverpool	So.
-			

otary XX	Oil
able	Gas XX
ecycling	Comb
ater Floor	Storage
isposal	2sus

Permit No. MAIN-07	,		•	Disposal	Kind)
Company Quaker State Oil Refinin	g Corporatio	on Casing and	Used in	Left	Cement fill up
Address P.O. Box 1327, Parkersbu	Tubing	Drilling	in Well	Cu. ft. (Sks.)	
Farm Rugh-Hillcrest Farms A	cres 125	1 doing	Drining	III Well	Cu. It. (Sks.)
Location (waters)		Size	;		
Well No. 1 Elev. 1293.5		20-16			
District Clay County Ha	ncock	Cond.	:		
The surface of tract is owned in fee by		13-10"	10	None	
		9 5/8			
Address Bolivar, Pennsylvania	· · · · · · · · · · · · · · · · · · ·	8 5/8	1250	1250	Cemented to s
Mineral rights are owned by Same		7			
Address		5 1/2			
Drilling Commenced	· .	4 1/2	7601	7601	200 sacks
Drilling Completed 3/1/75		3			
Initial open flow cu. ft		2			
Final production cu. ft. per day	Obbls.	Liners Used			7 × 1
Well openhrs. before test					
Well treatment details:		Attach copy of	cementing reco	ord.	
Perforated from 7334 to 7400 a	nd fractured		_		
30,000# of 20-40 sand, 30,000#	of 80-100 s	and PI can	do ha nal	1 11/10 7	324-7374
			The same of the sa	100 00	<i>557 1511</i>
			- 1		
Market Committee					
Coal was encountered atNone			Inche	·····	
Fresh water None F					Faat
Producing Sand Clinton		Dent	h	······································	- 100L
Formation Color Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or	Water	• Remarks
			Electric	Log: Ton	6
Siltstone & Shale	0	75	DIECCIAC	nog tob	3
Sandstone	75	95			4 <u>.</u>
Shale	95	280			
Siltstone & Shale	280	400	1 .		
Sandstone Shale	400	480			
Sandstone	480 615	615			
Shale	685	685 1228			# ·
Sandstone	1228	1262	Berea		9679
Shale	1262	4860	Deres		10/2
Limestone Tully?	4860	4890			7679 1262 6417
Shale	4890	5020	1		
Limestone Onondaga	5020 ⊘ ~ :	5230			7330
Sandstone Oriskany	5230	5250			1,700
Limestone & Dolomite Held Dolomite & Hydrite Solina	5250/- 1/2	5595			7330 1294 6036
Dolomite Inckenzie	5595 6710	6710 6970			6036
Shale Rose 14:11	10170	103/0	1		
1 ** * * * * * * * * * * * * * * * * *	6970	7250	I		
Dolomite	6970 7250 *	7250 7270			
Shale	7250 🛳	7270			
Shale Sandstone Tuscarera	l .	Ł .	Clinton -	broken	
Shale	7250 * 7270	7270 7330	Clinton -	broken	

* Indicates Electric Log tops in the remarks section.

(over). TD 7679 Junista





OIL & GAS DIVISION DEFT. OF MINES

Oil and Gas Division OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,			
Charleston, W. Va.	DA'	re March 16, 1976	and the second s
Surface Owner Rugh Hillcrest Farms In	Con	npany QUAKER STATE OI	L REFINING CORPORATION
Address_ Bolivar, Pennsylvania 15923	3 Add	ress P.O. Box 1327, P	arkersburg, W.Va. 2610
Mineral Owner Same	Far	nRugh Hillcrest	Acres 125
Address	Loc	ation (waters)	
Coal Owner Same	Wel	No. 1	Elevation 1293.5
Address	Dist	rict Clay	County_ Hancock_
Coal Operator None	Qua	drangle	
Address			
THIS PERMIT MUST BE POSTED AT THE WELL S	ITE		
Il provisions being in accordance with Chapter 2 of the W. Va. Code, the location is hereby approv			i
for <u>fracturing</u> . This permit shall expire	e if		
operations have not commenced by 7-22-76	•		
Notest & loss			
Deputy Director - Oil & Gas Division	ON SOMBAGENT	BE NOTIFIED Donald	Conner
GENTLEMEN:		ADDRESS <i>_Mineral</i>	
The undersigned well operator is entitled to			
title thereto, (or as the case may be) under gra	-		
Farms, Inc. made to QUAKER STATE			
19 73, in Hancock County, Book			day of April
NEW WELLDRILL D			ACTURE OR STIMULATE
OIL AND GAS WELL ORIGINAL	LY DRILLED BEFO	ORE JUNE 5, 1969.	
The enclosed plat was prepared by a register have been notified as of the above date.	ed engineer or licen	sed land surveyor and all o	coal owners and/or operators
The above named coal owners and/or operato to make by Section 3 of the Code, must be rece	r are hereby notified	I that any objection they want the Department of Mines	rish to make, or are required within ten (10) days. *
Copies of this notice and the enclosed plat we or coal owners at their above shown respective same day with the mailing or delivery of this co	address	day	before, or on the
/	Very t	ruly yours ONAKEA STAT	e oil reflying corp.
PUE AGE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:	(Sign 1	Name) (A) Well Oper	minest,
West Virginia Geological and Economic Surv	еу		•
P. O. Box 879	Address	1226 Putnam Ho Street	ME DITAE
Morgantown, W. Va. 26505	of Well Operator	Do1n	
AC 304-296-4461	Well Operator	<u>Belpre</u> City or Tow	/n
		Ohio 45714	

*SECTION 3.... If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

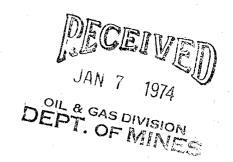
HAN-87-FRAC. PERMIT NUMBER

THIS IS AN ESTIMATE ONLY ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO DRILL DRILLING CONTRACTOR: (If Known) NAME Canton Oil Well Service		DEEPEN XX FR	DEEPEN XX FRACTURE-STIMULATE			
		RESPONSIBLE AGENT:				
		NAME R.C. Pingrey	NAME R.C. Pingrey / QUAKER STATE OIL REFINIT			
	44700		327, Parkersburg, CORP.			
			543 W.Va. 26101			
	MPLETED WELL: 5900		CABLE TOOLS XX			
	ORMATION: Shale & Che	•				
			DISPOSAL			
TIPE OF WELL.			ODOTHER			
TENTATIVE CASING PROG	·					
CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.			
20 - 16						
13 - 10						
9 - 5/8						
8 - 5/8	1306	1306	To surface			
7						
5 ½						
4 1/2	5300	5300	250 sacks			
3			Perf. Top			
2			Perf. Bottom			
Liners			Perf. Top Perf. Bottom			
and the second s			Tett. Bottom			
	PIES OF OG - 1, \$100.00 PE	RMIT FEE, PERFORMANCE BO	OND AND PERMANENT COPY			
OF PLAT.	NDI I					
TO DRILL DEEPER OR REI		DIGINAL DODAMO NUMBER AN	D DEDEODMANCE DOND ON			
	OR TO 1929, A PERMANENT	RIGINAL PERMIT NUMBER AN C COPY OF THE PLAT AND T				
TO FRACTURE - STIMULAT	TE:					
	L ORIGINALLY DRILLED BE LAT AND ORIGINAL WELL	EFORE JUNE 5, 1929, FIVE (5) (RECORD.	COPIES OG - 1, PERFORMANCE			
	L ORIGINALLY DRILLED OF NUMBER, AND PERFORMAN	N AND/OR AFTER JUNE 5, 192 NCE BOND.	9, FIVE COPIES OG - 1, SHOW-			
Required forms must be four (24) hours in advan		of completion for bond release.	Inspector to be notified twenty-			
	•					
The following waiver mathereof.	just be completed by the coal	operator if the permit is to be	issued within ten days of receipt			
WAIVER: I the undersigned,			or Operator of the coal under			
this lease have ex	amined and place on our min	e maps this proposed well locat	ion.			
	•		ell being drilled at this location,			
providing operator Code.	has complied with all rules and	regulations in Articles 4, 5, and	7, Chapter 22 of the West Virginia			
•						
		I	or Coal Company			

Official Title





Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

	RTMENT OF MINES,	1. (1) · (
	ton, W. Va.	DATE January 6	, 1975
Surface Owner	Rugh Hillcrest Farms	Company Quaker State	Oil Refining Corporation
Address	Bolivar, Pennsylvania		e Dr. Belpre, Ohio 45714
Mineral Owner	Same	D 11177 F	arms Acres 125
Address			
Coal Owner	N 1	` ·	Elevation 1293.5'
		Clav	County Hancock
Coal Operator	A1	E livernoo	1 South
of the W. Va. (being in accordance with Chapter 22 Code, the location is hereby approve ID		r Incrector at Large
Detail	or - Oil & Gas Division	Colfax, W.Va.	r-Inspector-at-Large Fairmont - 363-910 E NOTIFIED Richard J. Mori W.Va. _{PH:} 354-7259
GENTLEMEN:			mont - 366-1913
The undersigne	d well operator is entitled to drill upon	the above named farm or tract of la	and for oil and gas, having fee
The undersigne title thereto, (or Farms, Inc.	d well operator is entitled to drill upon as the case may be) under grant or le made to Quaker State Oil f	the above named farm or tract of lace dated March 21 12 fining CO and recorded on the	and for oil and gas, having fee 9 73 by Rugh Hillcrest
The undersigne title thereto, (or Farms, Inc.	as the case may be) under grant or leading to made to Quaker State Oil F	the above named farm or tract of lated March 21 1 efining CO and recorded on the Page 159	and for oil and gas, having fee 9.73 by Rugh Hillcrest 11th. day of April
The undersigne title thereto, (or Farms, Inc. 1973, in XXXX NEW	as the case may be) under grant or le	the above named farm or tract of lated March 21 1 efining CO and recorded on the Page 159 REDRILL F	and for oil and gas, having fee 9.73 by Rugh Hillcrest 11th. day of April
The undersigne title thereto, (or Farms, Inc. 1973 in	as the case may be) under grant or leading made to Quaker State Oil Formula County, Book	the above named farm or tract of lated March 21 12 fining Co and recorded on the 15 Page 159 REDRILL FILED BEFORE JUNE 5, 1969.	and for oil and gas, having fee 19_73 byRugh Hillcrestllthday ofApril RACTURE OR STIMULATE
The undersigne title thereto, (or Farms, Inc. 1973 in	as the case may be) under grant or leading to Quaker State Oil For County, Book	the above named farm or tract of late dated March 21 12 fining and recorded on the 15 Page 159 REDRILL FILED BEFORE JUNE 5, 1969. The above named farm or tract of late and surveyor and all by notified that any objection they	and for oil and gas, having fee 19 73 by Rugh Hillcrest 11th. day of April RACTURE OR STIMULATE coal owners and/or operators wish to make, or are required
The undersigne title thereto, (or Farms, Inc. 1973 in	as the case may be) under grant or leading to Quaker State Oil for the made to Quaker State Oil for the made to County, Book	the above named farm or tract of late dated	and for oil and gas, having fee 19_73 by Rugh Hillcrest 11th. day of April RACTURE OR STIMULATE coal owners and/or operators wish to make, or are required es within ten (10) days. * the above named coal operators before, or on the
The undersigne title thereto, (or Farms, Inc. 1973 in	as the case may be) under grant or leading to Quaker State Oil for County, Book	the above named farm or tract of late dated March 2l 1 efining Condition recorded on the 159 REDRILL FI LED BEFORE JUNE 5, 1969. er or licensed land surveyor and all by notified that any objection they or filed with the Department of Mine by registered mail, or delivered to the day Department of Mines at Charleston, Very truly yours, Quaker Sta	and for oil and gas, having fee 19_73 by Rugh Hillcrest 11th. day of April RACTURE OR STIMULATE coal owners and/or operators wish to make, or are required es within ten (10) days. * the above named coal operators West Virginia. ate Oil Refining Corporat
The undersigne title thereto, (or Farms, Inc. 1973 in	as the case may be) under grant or leading to Quaker State 0il for County, Book	the above named farm or tract of late dated	and for oil and gas, having fee 19_73 by Rugh Hillcrest 11th. day of April RACTURE OR STIMULATE coal owners and/or operators wish to make, or are required es within ten (10) days. * the above named coal operators West Virginia. ate Oil Refining Corporat Signed
The undersigne title thereto, (or Farms, Inc. 1973 in XXXX NEW OIL The enclosed phave been notified The above name to make by Section Copies of this or coal owners at same day with the coal owners at the coal owners at same da	as the case may be) under grant or leader to Quaker State 0il for the Medical	the above named farm or tract of late dated	and for oil and gas, having fee 19_73 byRugh Hillcrest
The undersigne title thereto, (or Farms, Inc. 1973 in XXXX NEW OIL The enclosed phave been notified The above name to make by Section Copies of this or coal owners at same day with the s	as the case may be) under grant or leader to Quaker State Oil For County, Book	the above named farm or tract of late dated	and for oil and gas, having fee 19_73 byRugh Hillcrest 11thday ofApril RACTURE OR STIMULATE coal owners and/or operators wish to make, or are required es within ten (10) days. * the above named coal operators West Virginia. ate Oil Refining Corporat Signed erator tam Howe Drive
The undersigne title thereto, (or Farms, Inc. 1973 in	as the case may be) under grant or leader to Quaker State Oil For County, Book	the above named farm or tract of late dated March 2l 1 efining Co recorded on the 159 REDRILL FI LED BEFORE JUNE 5, 1969. er or licensed land surveyor and all by notified that any objection they or filed with the Department of Mine by registered mail, or delivered to the day Department of Mines at Charleston, Very truly yours, Quaker States (Sign Name) Original Well Ope 1226 Putness of Relaxonery.	and for oil and gas, having fee 19_73 by Rugh Hillcrest 11th. day of April RACTURE OR STIMULATE coal owners and/or operators wish to make, or are required es within ten (10) days. * the above named coal operators before, or on the West Virginia. ate Oil Refining Corporat Signed erator nam Howe Drive t

*SECTION 3.... If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall formwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved

HAN-87

47 - 029

__PERMIT NUMBER

and the well operator authorized to proceed.

MARKET BOLD

THIS IS AN ESTIMATE ONLY ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

DEEPEN >	X FRACTURE	WELL		
ADDRESS 1226 Pt	ADDRESS 1226 Putnam Howe Drive, Belpre.			
TELEPHONE 614	-423-9543	· .		
LAND OWNER: NAME Rugh F	illcrest Farms			
TELEPHONE 412-6	76-4742	·		
ROTARY XX				
e CABLE TOOLS_				
X STORAGE_	DISPOSAL	y		
WATER FLOOD	OTHER_			
FOR DRILLING	TO BE LEFT			
10'	None			
1250'	1250			
7509 *	7509 °			
STRATA Well above	protective casing	<u>, </u>		
SEAMS? 304'	.,,	;		
	Coal Company,	owner		
examined and plac	ed on our mine maps t	his		
•				
Company have no ob	jections to said well			
rator has complied	with all rules and			
22 of the West Vir	ginia Code.			
Fo	r Coal Company	·		
	Seiceal minio			
	RESPONSIBLE AGENT NAME Robert C. ADDRESS 1226 Pt TELEPHONE 614 LAND OWNER: NAME Rugh H TELEPHONE 412-6 ROTARY XX CABLE TOOLS K STORAGE WATER FLOOD FOR DRILLING 10' 1250' 7509' STRATA Well above SEAMS? 304' For the West Virginian of the second of the Second of the West Virginian of the second of	LAND OWNER: NAME Rugh Hillcrest Farms TELEPHONE 412-676-4742 ROTARY XX CABLE TOOLS X STORAGE DISPOSAL, WATER FLOOD OTHER FOR DRILLING TO BE LEFT 10' None 1250' 1250' 7509' 7509' STRATA Well above protective casing SEAMS? 304', , , ,		

Date:	March	19,		., 19 <u>79</u>
Opera Well	tor's No	_		
API W	ell No.	47 - State	County	- 87PP Permit

STATE OF WEST VIRGINIA DEPARTMENT OF MINES, OIL AND GAS DIVISION

AFFIDAVIT OF PLUGGING	AND FILLING WELL
	nd storage/ Deep/ ShallowXX_/
OCATION: Elevation: 1293.5 Watershed: District: Clay County: I	Hancock Quadrangle: East Liverpool South
ELL OPERATOR QUAKER STATE OIL REFG. CORP.	DESIGNATED AGENT Robert C. Pingrey
Address P.O. Box 1327	Address P.O. Box 1327
Parkersburg, WV 26101	Parkersburg, WV 26101
COUNTY OF WOOD SS:	
Michael C. Brannock	
being first duly sworn according to law, depose and	d say that they are experienced in the work of
nlugging and filling oil and gas wells; that they	were employed by <u>QUAKER STATE OIL REFG. CORP.</u>
the well operator, and participated in the work of	plugging and filling the above well; that the work
was commenced on March 16, , 1979, and	d completed on <u>March 18</u> , 19 <u>79</u> , in the
following manner: Plug back PERMITTED WORK: PXHKXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	MAR 2 0 1979
PLUGGING MATERIALS	COAL SEAMS (NAMES AND DEPTHS)
Type of Other Cement Materials Depth Thickness	DEPT. OF Indiana
cal seal 7200' 30'	
	DESCRIPTION OF WELL MONUMENT
	4 1/2" cut off at 7200'. cal seal
	on top of bridge plug. Pipe cut off at
Bridge Plugs UsedType and Depth	5750' and rerun to 5290'. Cemented
4 1/2" at 7200'.	with 250 sacks Pozmix. Re-completed
	in the top of the Onondaga and Devonian
VENT PIPE	
MISCELLANEOUS MATERIALS	
CASING LOST	
TYPE OF RIG:	001100
Owner: Well Op'r/ Contractor XX/	Michael C. Branner (SEAL)
Rig time: 3 days plus hours	Waster Millon (SEAL)
Subscribed and sworn to before 19 day of March My commission expires Africa	, 1979

(hulley). forborch