







OFFICE USE ONLY

PERMIT MODIFICATIONS AND CONDITIONS (IF ANY) TO THE PROPOSED WELL WORK

1) WELL LOCATION: District: Pocahontas; County: Boone; Elevation: 2571; Well Name: H (H Gas Production); Underdrain: X; Shallow: /

2) WELL OPERATOR: Name: Gentry Holcomb; Address: 300 Box 623, Charleston, WV 25302

3) DESIGNATED AGENT: Name: S. D. Fox; Address: 300 Box 623, Charleston, WV 25302

4) BRILLING CONTRACTOR: Name: [Blank]; Address: [Blank]

5) PROPOSED WELL WORK: Dull: X; Drill: /; Depth: [Blank]; Other physical changes in well (specify): [Blank]

6) GEOLOGICAL TARGET FORMATION: [Blank]

7) APPROXIMATE CRUST DEPTH: [Blank]

8) APPROXIMATE CRUST DEPTH: [Blank]

9) ESTIMATED DEPTH OF COMPLETED WELL: [Blank]

10) IS COAL BEING MINED IN THE AREA? Yes: /

11) CASING AND TUBING PROGRAM: [Blank]

12) SPECIFICATIONS: [Table with columns for Casing or Tubing Type, Size, Weight, etc.]

13) FOOTAGE INTERVALS: [Table with columns for Footage Interval, Cement, etc.]

14) PACKERS: [Table with columns for Cement, etc.]

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OIL & GAS DIVISION

OFFICE USE ONLY

This part of Form IV-2(b) is to record the dates of certain occurrences and any follow-up inspections.

Date

Date(s)

Application received

Follow-up inspection(s)

Well work started

Completion of the drilling process

Well Record received

Reclamation completed

OTHER INSPECTIONS

Reason:

Reason:

Permit No.	47-079-1118
Permit Type	Oil & Gas
Permit Status	Active
Permit Fee	618-

NOTE: Keep one copy of this permit posted at the drilling location.

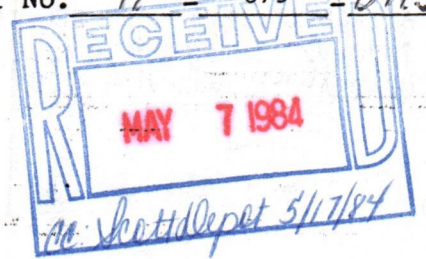




DATE April 4, 1984  
WELL NO. Black Betsey Land Corp. No. 13  
API NO. 47 - 079 - 0113

State of West Virginia  
Department of Mines  
Oil and Gas Division

Construction and Reclamation Plan



COMPANY NAME Cabot Oil & Gas Corporation  
ADDRESS P.O. Box 628, Chas. WV 25322  
TELEPHONE 304-347-1600  
LANDOWNER P. Benjamin Grosscup, Jr.

DESIGNATED AGENT Steve Turk  
ADDRESS P.O. Box 628 Chas. WV 25322  
TELEPHONE 304-347-1600  
SOIL CONS. DISTRICT Western

Revegetation to be carried out by \_\_\_\_\_ Company Contractor \_\_\_\_\_ (Agent)

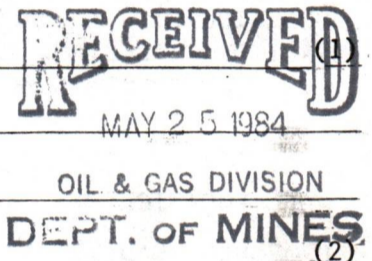
This plan has been reviewed by Western SCD. All corrections and additions have become a part of this plan.

4-27-84  
(Date)

Clay Edwards  
(SCD Agent)

ACCESS ROAD	LOCATION
STRUCTURE <u>Ditch Relief Cross Drain</u> (A)	STRUCTURE _____
SPACING <u>Per Plan</u>	MATERIAL _____
PAGE REF. MANUAL <u>2-1, 2-2, 2-3, 2-4</u>	PAGE REF. MANUAL _____
STRUCTURE _____ (B)	STRUCTURE _____
SPACING _____	MATERIAL _____
PAGE REF. MANUAL _____	PAGE REF. MANUAL _____
STRUCTURE _____ (C)	STRUCTURE <u>Sediment Barrier</u> (3)
SPACING _____	MATERIAL <u>Straw Bales</u>
PAGE REF. MANUAL _____	PAGE REF. MANUAL <u>2:16 &amp; 2:18</u>

ACCESS ROAD	LOCATION
STRUCTURE <u>Ditch Relief Cross Drain</u> (A)	STRUCTURE _____
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STRUCTURE _____ (B)	STRUCTURE _____
SPACING _____	MATERIAL _____
PAGE REF. MANUAL _____	PAGE REF. MANUAL _____
STRUCTURE _____ (C)	STRUCTURE <u>Sediment Barrier</u> (3)
SPACING _____	MATERIAL <u>Straw Bales</u>
PAGE REF. MANUAL _____	PAGE REF. MANUAL <u>2:16 &amp; 2:18</u>



All structures should be inspected regularly and repaired if necessary. All commercial timber is to be cut and stacked and all brush and small timber to be cut and removed from the site before earth work begins.

TREATMENT AREA I		Revegetation	TREATMENT AREA II	
Lime	_____ Tons/acre	Lime	_____ Tons/acre	
or correct to pH	<u>6.5</u>	or correct to pH	<u>6.5</u>	
Fertilizer	<u>500</u> lbs/acre	Fertilizer	<u>500</u> lbs/acre	
	(10-20-20 or equivalent)		(10-20-20 or equivalent)	
Mulch	<u>Hay or Straw @ 1 1/2</u> Tons/acre	Mulch	<u>Hay or Straw @ 1 1/2</u> Tons/acre	
Seed*	<u>Ky 31 Tall Fescue</u> 40 lbs/acre	Seed*	<u>Ky 31 Tall Fescue</u> 40 lbs/acre	
	<u>Redtop</u> 5 lbs/acre		<u>Redtop</u> 5 lbs/acre	
	_____ lbs/acre		_____ lbs/acre	

\*Inoculate all legumes such as vetch, trefoil and clovers with the proper bacterium. Inoculate with 3X the recommended amount.

PLAN PREPARED BY Steve Turk  
Cabot Oil and Gas Corporation  
ADDRESS P.O. Box 628  
Charleston, WV 25322  
PHONE NO. (304) 347-1600

Note: Please request landowner cooperation to protect new seedlings for one growing season. Attach separate sheets as necessary for comments.



ATTACH OR PHOTOCOPY SECTION OF INVOLVED TOPOGRAPHIC MAP. QUADRANGLE Bancroft 7.5'

LEGEND


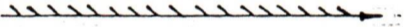




WELL SITE ⊕  
ACCESS ROAD = = = = =

PHOTOCOPY ATTACHED

WELL SITE PLAN

SKETCH TO INCLUDE WELL LOCATION, EXISTING ACCESS ROAD, ROADS TO BE CONSTRUCTED, WELLSITE, DRILLING PITS AND NECESSARY STRUCTURES NUMBERED OR LETTERED TO CORRESPOND WITH THE FIRST PART OF THIS PLAN. INCLUDE ALL NATURAL DRAINAGE.

LEGEND

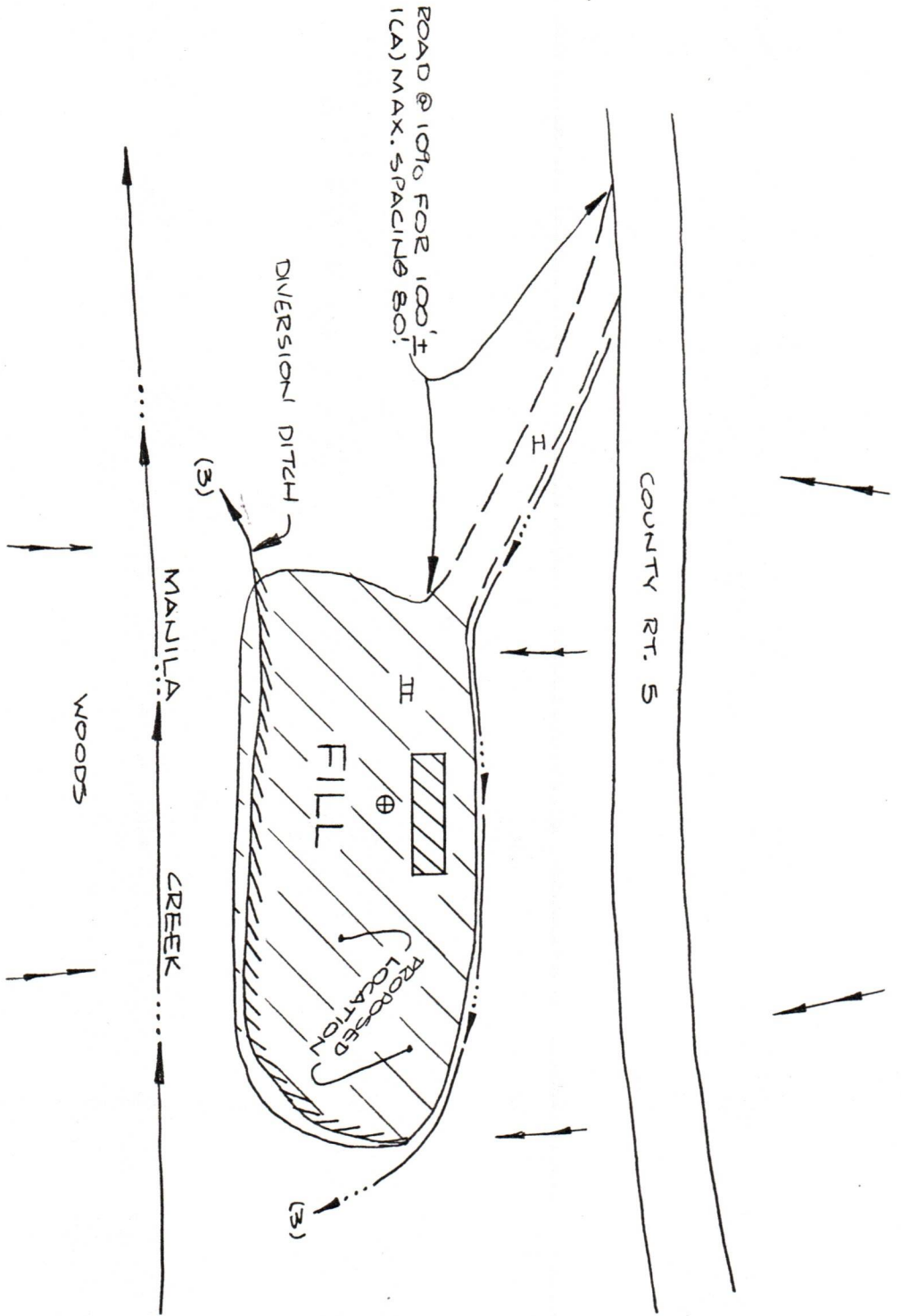
WELL LOCATION	⊕	DRILLING PIT	
PROPOSED ROAD	= = = = =	EXISTING ROAD	— — — — —
PROPERTY BOUNDARY	▲ — ▼ — ▲ — ▼ — ▲ — ▼ — ▲ — ▼ —	DIVERSION	
EXISTING FENCE	— × — × — × —	PROPOSED FENCE	— / — / — / —
STREAM	— — — — —	SPRING	○ —
WET SPOT		OPEN DITCH	— — — — —
DRAIN PIPE	— ○ — ○ —	BUILDING	□
WATERWAY		CULVERT	
RIP RAP		SLOPE OF LAND	— — — — —

SKETCH ATTACHED

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



- AREA I CONTAINS APPROX. .07 ACRE
- AREA II CONTAINS APPROX. 1 ACRE.
- LOCATION TO BE BUILT-UP ABOVE CREEK LEVEL WITH FILL MATERIAL.



**CABOT OIL & GAS CORPORATION**

CHARLESTON, W. VA.  
 BLACK BETSEY LAND CORP. NO. 13

**KOLB ENTERPRISES Ltd.**  
 CHARLESTON, W. VA.



# CABOT OIL & GAS CORPORATION

CHARLESTON, W. VA.

BLACK BETSEY LAND CORP. NO. 13

QUADRANGLE

Bancroft 7.5'

COUNTY: Putnam

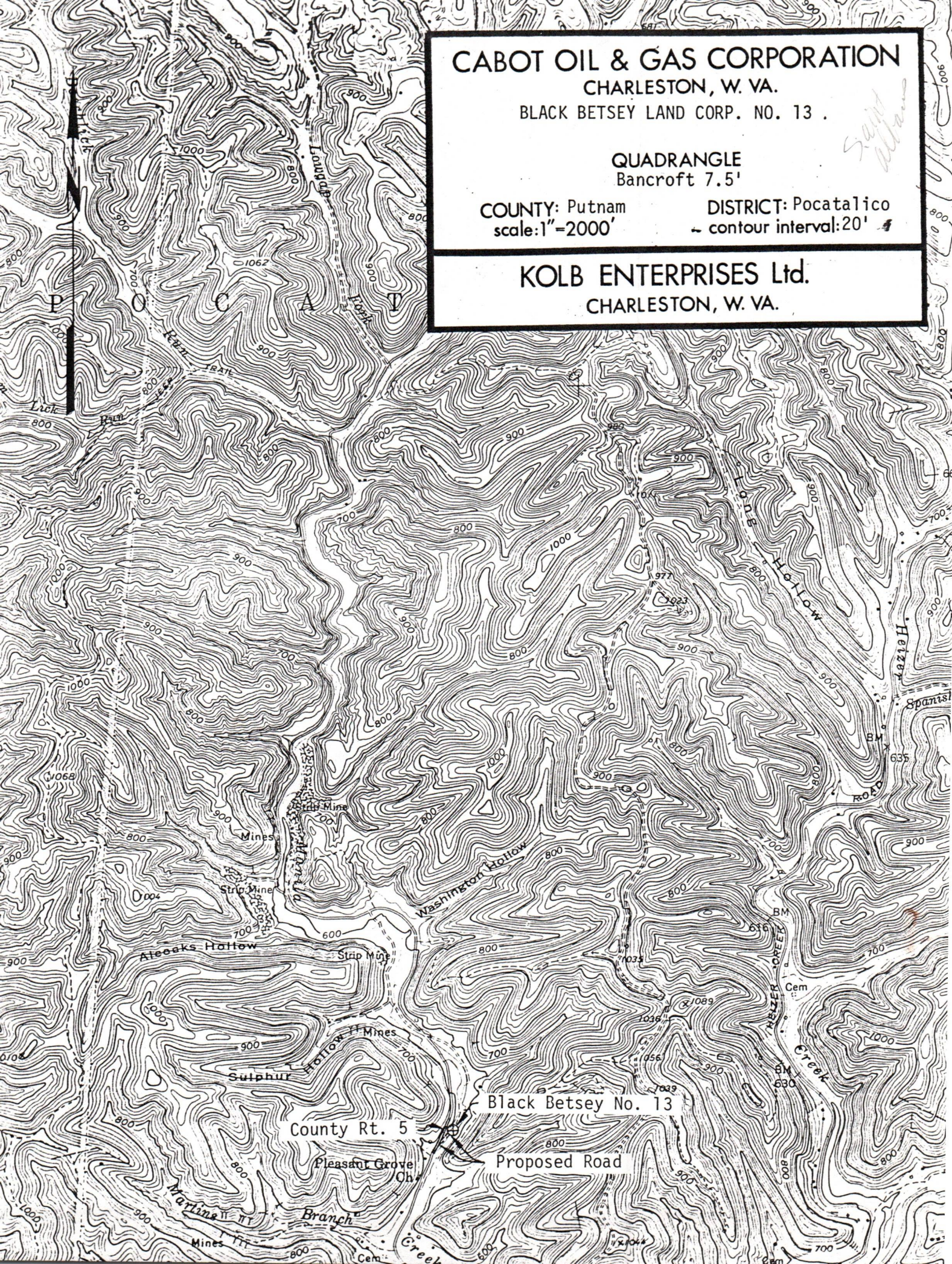
DISTRICT: Pocatalico

scale: 1" = 2000'

contour interval: 20'

## KOLB ENTERPRISES Ltd.

CHARLESTON, W. VA.



Black Betsey No. 13

County Rt. 5

Proposed Road



1) Date: May 21, 19 84  
2) Operator's  
Well No. Black Betsy #13  
3) API Well No. 47 - 079 - 1113  
State County Permit

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES, OFFICE OF OIL & GAS

NOTICE OF APPLICATION FOR A WELL WORK PERMIT

4) SURFACE OWNER(S) OF RECORD TO BE SERVED

(i) Name P. Benjamin Grosscup, Jr.  
Address 37 Woodland Avenue  
Greensburg, Pennsylvania 15061

(ii) Name Charles Tillis  
Address Rt. 1, Box 218  
Poca, West Virginia 25159

(iii) Name \_\_\_\_\_  
Address \_\_\_\_\_

5(i) COAL OPERATOR NOT OPERATED

Address \_\_\_\_\_

5(ii) COAL OWNER(S) WITH DECLARATION ON RECORD:

Name I.V. Cummingham  
Address 431 McKinley Avenue  
Charleston, WV 25314

Name \_\_\_\_\_  
Address \_\_\_\_\_

COAL LESSEE WITH DECLARATION ON RECORD:

Name \_\_\_\_\_  
Address \_\_\_\_\_

Form and the following documents:

(B) (or Form IV-4 if the well is in the drilling or other work, applicable, the proposed casing and on Form IV-6; and unless the well work is only to and sediment control and for

RIGHTS REGARDING THE APPLICATION OF THE COPY OF THE APPLICATION ARE NOT REQUIRED TO TAKE ANY

code, the undersigned well operator and accompanying documents of Oil and Gas, West Virginia described on attached Application the Application, the plat, and the red or certified mail or delivered (certain circumstances) on or

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OIL & GAS DIVISION

**DEPT. OF MINES**

tract or contracts by which (see reverse side for specifics.)

based upon a lease or leases royalty or any similar provision which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes No X

TO THE PERSON(S)

- (1) The Applicant to be and de cement
- (2) The plat
- (3) The Coal plug a reclam

THE REASON WHICH ARE SUMMARY (FORM IV-2(B) C ACTION AT ALL.

Take notice erator proposes for a Well Work Department of Mines and depicted or Construction at by hand to the before the day

- 6) EXTRACTION I
- Check and plat  Included
  - I hold  The requ
  - The requ

- 7) ROYALTY PRO
- Is the right or other compensation for the volume of oil or gas so extracted, produced or marketed? Yes No X

P522 264 326

**RECEIPT FOR CERTIFIED MAIL**

NO INSURANCE COVERAGE PROVIDED—  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to	
Mr. P. Benjamin Grosscup,	
Street and No.	
37 Woodland Avenue	
P.O., State and ZIP Code	
Greensburg, PA 15061	
Postage	\$
Certified Fee	75
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	60
Return Receipt Showing to whom, Date, and Address of Delivery	
<b>TOTAL Postage and Fees</b>	<b>\$1.89</b>
Postmark or Date	MAY 23 1984

If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.

See the reverse side for line item instructions, and for instructions concerning the required copies of the Notice and Application, plat, and Construction and Reclamation Plan.

The truth of the information on the Notice and Application is verified and sworn to and the Notice is signed on behalf of the Well Operator in my County and State by

Steven D. Turk

this 23<sup>rd</sup> day of MAY, 19 84.

My commission expires Sept. 8, 19 88.

Kadolph A. Collins  
Notary Public, Kanawha County,  
State of West Virginia

WELL

OPERATOR Cabot Oil & Gas Corporation of WV

By Steven D. Turk

Its District Drilling Superintendent

Address P.O. Box 628

Charleston, West Virginia 25322

Telephone (304) 347-1600



INSTRUCTIONS TO APPLICANT

CONC

P522 264 324

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

4) 8

5(ii),

CON

Sent to <b>Mr. I.V. Cunningham</b>	
Street and No. <b>431 McKinley Avenue</b>	
P.O., State and ZIP Code <b>Charleston, WV 25314</b>	
Postage	\$
Certified Fee	75
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	60
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$1.72
Postmark or Date	MAY 23 1984

PS Form 3800, Feb. 1982

Betsy #13

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PS Form 3800, Feb. 1982

P522 264 325

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to <b>Mr. Charles Tillis</b>	
Street and No. <b>Route 1, Box 218</b>	
P.O., State and ZIP Code <b>Poca, West Virginia 25159</b>	
Postage	\$
Certified Fee	75
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	60
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$1.89
Postmark or Date	MAY 23 1984

Betsy #13

INFORMATION SUPPLIED UNDER CODE § 22-4-11(d)

IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on the obverse side of this Notice, I depose and say that I am the person who signed the Notice for the Applicant, and that--

- (1) the tract of land is the same tract described in the Application to which this Notice applies, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

\_\_\_\_ Grantor, lessor, etc.      \_\_\_\_\_ Grantee, lessee, etc.      \_\_\_\_\_ Royalty      \_\_\_\_\_ Book Page

Black Betsey Consolidated Coal Company      Godfrey L. Cabot, Inc. (COGC of WV)      72      483

COGC of WV holds O/G rights in fee







DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Perf Shale 3320-43 (7 holes), 3546-52 (3 holes), 3562-64 (2 holes), 3674-92' (5 holes), 3723-74 (7 holes), 3806-3813' (3 holes). Total 27 holes. Prep to frac. R/U B. J. Hughes. Dumped 750 gal, 15% HCL. Displaced w/55,000 SCF of N<sub>2</sub>. BD @ 2300 psi. ISIP 1300 psi. Pumped 1,000,000 SCF of N<sub>2</sub> w/95 bbls foam pad. Treated w/40 sks 20/40 Sand @ 1#/gal, 160 sks @ 2#/gal & 100 sks 10/20 @ 2#/gal. Pumped 10 bbls/min treated H<sub>2</sub>O & 15,000 SCF N<sub>2</sub>/min for 75 quality foam. AIR 40 bbls/min foam. ATP for N<sub>2</sub> 1970 psi. ATP for foam, 1600 psi. TF 160 bbls, S/L 101 bbls. Total N<sub>2</sub> 1,280,000 SCF. ISIP 1200#, 5 min 410#, 10 min 400#, 15 min 400#. Shut down to fix N<sub>2</sub> leak after pumping 20 bbls of 20/40 sand @ 2#/gal. Pumped 64 bbls of foam before going back to 20/40 sand @ 2#/gal to be sure well did not sand off. Released thru 1/8" choke for 8 hrs. Changed to 1/4" choke. Flowing & cleaning up.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Shale			0	340	
Sand			340	430	
Shale			430	622	
Sand and Shale			622	850	
Shale			850	1150	
Sand			1150	1444	
Big Lime			1444	1631	
Shale			1631	1660	
Big Injun			1660	1725	
Shale			1725	2120	
Sunbury			2120	2139	
Berea			2139	2152	
Shale			2152	3350	
Huron			3350	3834	
Shale			3834	T.D.	Gas check @ T.D. NSR
DTD			4130'	KB	
LTD			4136'	KB	

(Attach separate sheets as necessary)

Cabot Oil & Gas Corporation of West Virginia

Well Operator

By:

*David M. Cluskey*

Date: October 4, 1984

Note: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."





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OIL & GAS DIVISION  
DEPT. OF MINES

State of West Virginia

Department of Mines

Oil and Gas Division

Charleston 25305

FINAL INSPECTION REPORT  
INSPECTORS COMPLIANCE REPORT  
November 8, 1984

COMPANY Cabot, Oil & Gas Corp. of WV

PERMIT NO 079-1113

P. O. Box 628

FARM & WELL NO P.B. Grosscup

Black Betsy #13

Charleston, West Virginia 25322

DIST. & COUNTY Pocatalico/Putnam

RULE	DESCRIPTION	IN COMPLIANCE	
		YES	NO
23.06	Notification Prior to Starting Work	_____	_____
25.04	Prepared before Drilling to Prevent Waste	_____	_____
25.03	High-Pressure Drilling	_____	_____
16.01	Required Permits at Wellsite	_____	_____
15.03	Adequate Fresh Water Casing	_____	_____
15.02	Adequate Coal Casing	_____	_____
15.01	Adequate Production Casing	_____	_____
15.04	Adequate Cement Strenght	_____	_____
15.05	Cement Type	_____	_____
23.02	Maintained Access Roads	_____	_____
25.01	Necessary Equipment to Prevent Waste	_____	_____
23.04	Reclaimed Drilling Pits	_____	_____
23.05	No Surface or Underground Pollution	_____	_____
23.07	Requirements for Production & Gathering Pipelines	_____	_____
16.01	Well Records on Site	_____	_____
16.02	Well Records Filed	_____	_____
7.05	Identification Markings	_____	_____

I HAVE INSPECTED THE ABOVE CAPTIONED WELL AND RECOMMEND THAT IT BE RELEASED:

SIGNED Carlos W. Husley

DATE 1-17-85

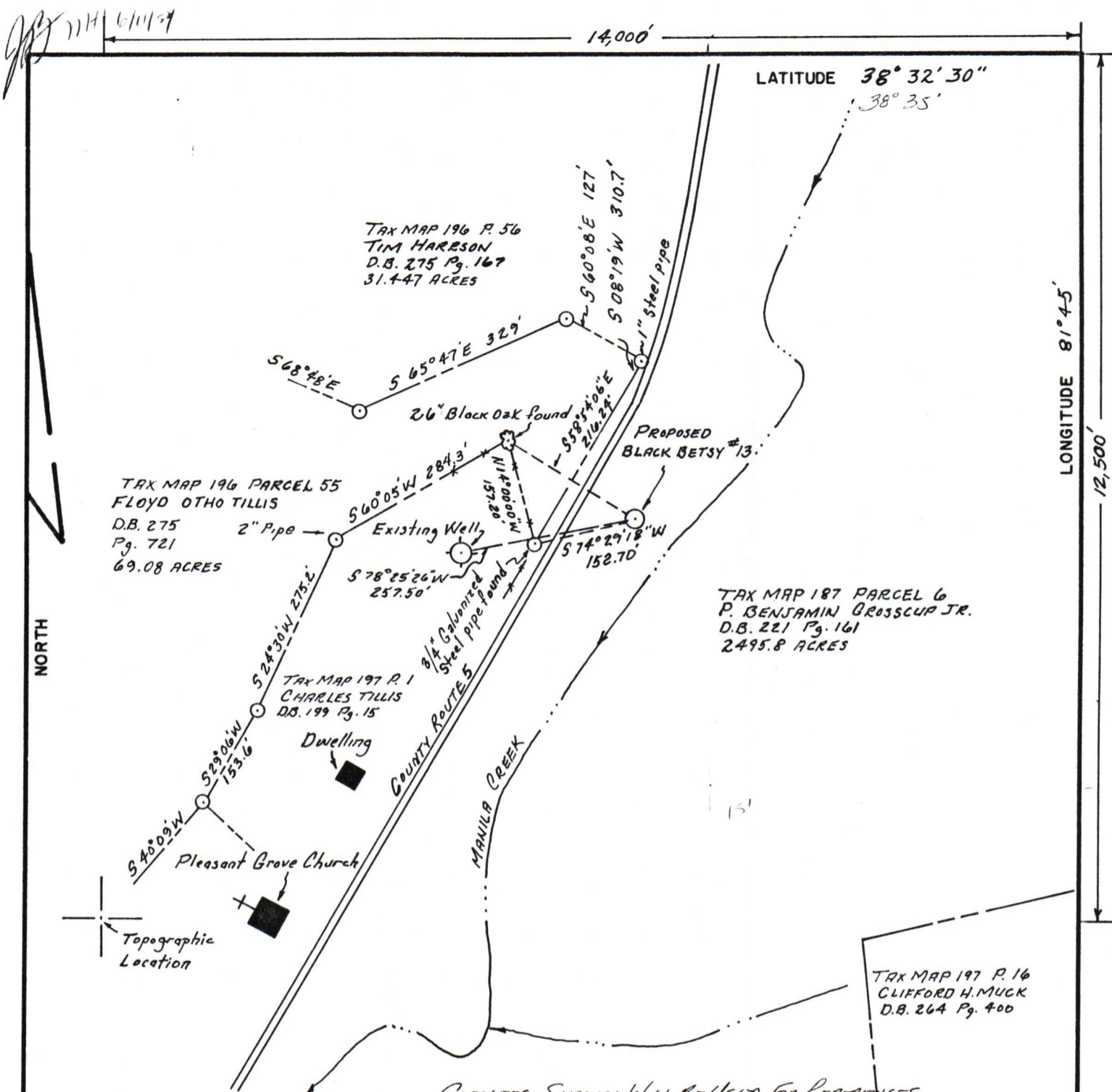
Your well record was received and reclamation requirements approved. In accordance with Chapter 22, Article 4, Section 2, the above well will remain under bond coverage for the life of the well.

T. H. ...  
Administrator-Oil & Gas Division

January 25, 1985

DATE





CORNERS SHOWN WILL BE USED FOR REFERENCES

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 200'  
 MINIMUM DEGREE OF ACCURACY 1 IN 500  
 PROVEN SOURCE OF ELEVATION EXISTING WELL  
592.5

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.  
 (SIGNED) Sydney Dowman  
 R. P. E. \_\_\_\_\_ L. L. S. 736

NEW SEAL APPLIED FOR PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-6 (8-78)



DATE 5/1, 1984  
 OPERATOR'S WELL NO. Black Betsy #13  
 API WELL NO. 47-079-1113  
 STATE COUNTY PERMIT

Department of Mines  
 Oil & Gas Division

WELL TYPE: OIL \_\_\_ GAS  LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS", PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_)  
 LOCATION: ELEVATION 591 WATER SHED MANILA CREEK  
 DISTRICT POCOTALICO COUNTY PUTNAM  
 QUADRANGLE BANCROFT  
 SURFACE OWNER P. BENJAMIN GROSSCUP JR. ACREAGE 2495.8  
 OIL & GAS ROYALTY OWNER CABOT OIL & GAS CORP. OF W.VA LEASE ACREAGE 2409  
 LEASE NO. 3-468  
 PROPOSED WORK: DRILL  CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE \_\_\_ PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_  
 PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION DEVONIAN SHALE ESTIMATED DEPTH 4000  
 WELL OPERATOR CABOT OIL & GAS WVA DESIGNATED AGENT TIM CRAMBERT  
 ADDRESS PO BOX 628 CHARLESTON, WVA. ADDRESS PO BOX 628 CHARLESTON, WVA.

PUT 1113