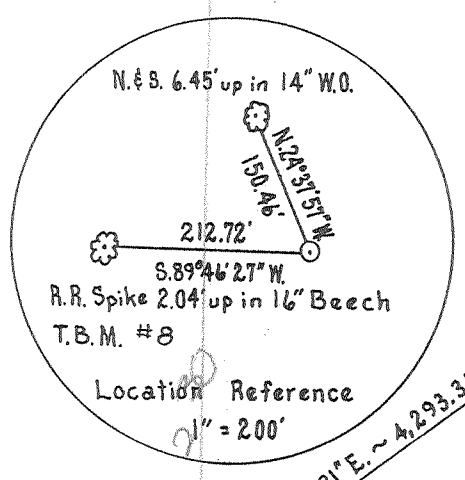


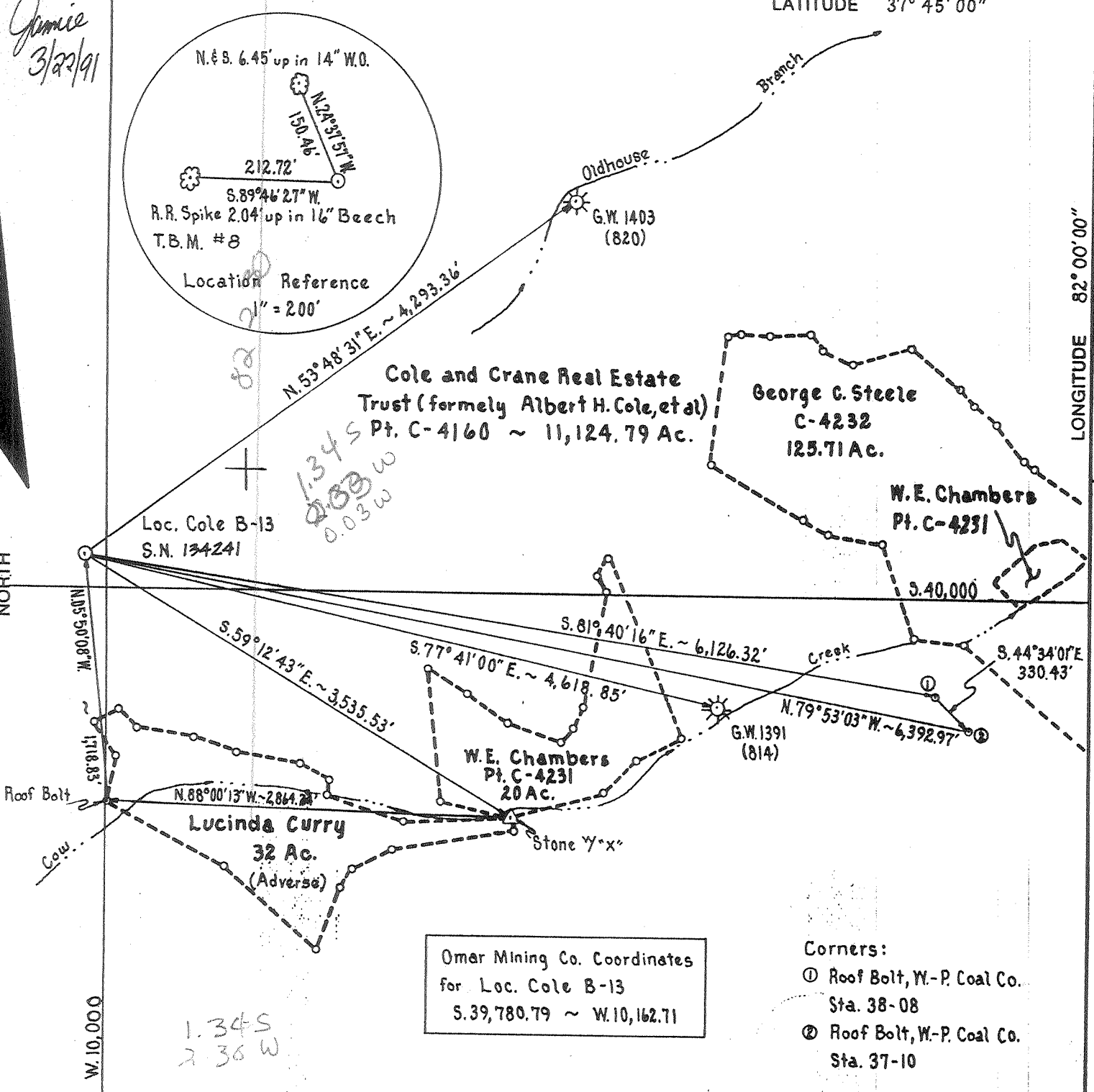
*Janice*  
3/22/91



LATITUDE 37° 45' 00"

LONGITUDE 82° 00' 28"

NORTH



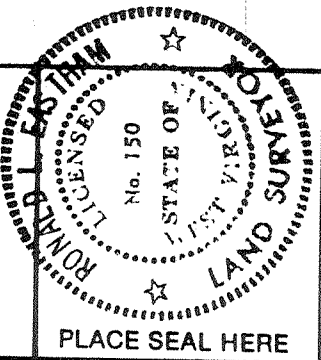
Omar Mining Co. Coordinates  
for Loc. Cole B-13  
S. 39,780.79 ~ W. 10,162.71

- Corners:
- ① Roof Bolt, W.-P. Coal Co. Sta. 38-08
  - ② Roof Bolt, W.-P. Coal Co. Sta. 37-10

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. \_\_\_\_\_  
DRAWING NO. \_\_\_\_\_  
SCALE 1" = 1,000'  
MINIMUM DEGREE OF ACCURACY 1: 33,933  
PROVEN SOURCE OF ELEVATION U.S.G.S. B.M. "142 RHP"  
Elev. = 956.904

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 ENERGY.  
(SIGNED) *Ronald A. East*  
R.P.E. \_\_\_\_\_ L.L.S. 150



STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY  
OIL AND GAS DIVISION



DATE Feb. 26, 19 91  
OPERATOR'S WELL NO. *Albert H. Cole Trustee, et al*  
API WELL NO. B-13, S.N. 134241

WELL TYPE: OIL \_\_\_ GAS  LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
(IF "GAS,") PRODUCTION  STORAGE \_\_\_ DEEP \_\_\_ SHALLOW

LOCATION: ELEVATION 1,225.28 WATER SHED Cow Creek of Island Creek  
DISTRICT Island Creek 4 COUNTY Logan

SURFACE OWNER Cole and Crane Real Estate Trust ACREAGE 13,292.15  
OIL & GAS ROYALTY OWNER Cole and Crane Real Estate Trust LEASE ACREAGE 11,124.79  
LEASE NO. C-4160

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 5,165' K.B.

WELL OPERATOR Ashland Exploration Inc. DESIGNATED AGENT Forrest Burkett  
ADDRESS P.O. Box 391, Ashland, Ky. 41114 4130 ADDRESS P.O. Box 379, Brenton, W.V. 24818

DEEP WELL 6-6 Magnolia (265)

COUNTY NAME PERMIT

APR 8 1991

State of West Virginia  
DEPARTMENT OF ENERGY  
Division of Oil and Gas

Reviewed TMG  
Recorded \_\_\_\_\_

Well Operator's Report of Well Work

Farm name: COLE & CRANE REAL ESTATE Operator Well No.: B 13 S 134241

LOCATION: Elevation: 1225.28 Quadrangle: BARNABUS

District: ISLAND CREEK County: LOGAN  
Latitude: 6900 Feet South of 37 Deg. 45Min. 0 Sec.  
Longitude 12050 Feet West of 82 Deg. 0 Min. 0 Sec.

Company: ASHLAND EXPLORATION, INC.  
P.O. BOX 391, A1-6  
ASHLAND, KY 41114-0391

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
16"	31'	31'	11.8
11 3/4"	441'	441'	271
8 5/8"	2440'	2440'	730
5 1/2"	5091'	5091'	680
1.9" @ 5026'	KB w/ pkr	@ 2756' KB	
1.9" @ 2705'	KB		

Agent: FORREST BURKETT

Inspector: TIM BENNETT  
Permit Issued: 04/01/91  
Well work Commenced: 7-12-91  
Well work Completed: 9-20-91  
Verbal Plugging  
Permission granted on: \_\_\_\_\_  
Rotary X Cable \_\_\_\_\_ Rig  
Total Depth (feet) 5128  
Fresh water depths (ft) 89' 1" stream @ 143'  
Salt water depths (ft) 2 1/2" stream wtr @ 1568'  
Is coal being mined in area (Y/N)? N  
Coal Depths (ft): open mine 349-353

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth (ft) 3350-5068  
 Gas: Initial open flow 0/847 MCF/d Oil: Initial open flow 0 Bbl/d  
 Final open flow 984/812 MCF/d Final open flow 0 Bbl/d  
 Time of open flow between initial and final tests 3 Hours  
 Static rock Pressure 710# psig (surface pressure) after 72 Hours

Second producing formation Big Lime Pay zone depth (ft) 2660-2690  
 Gas: Initial open flow 297 MCF/d Oil: Initial open flow 0 Bbl/d  
 Final open flow 1172 MCF/d Final open flow 0 Bbl/d  
 Time of open flow between initial and final tests 3 Hours  
 Static rock Pressure 280# psig (surface pressure) after 72 Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: ASHLAND EXPLORATION, INC.

By: James L. Stephens James L. Stephens, Engr. Tech.  
Date: October 10, 1991

<u>Formation or Rock Type</u>	<u>Top</u>	<u>Base</u>
Breathitt Formation	0	1109
Lee Formation	1109	1857
Pennington Formation	1857	2397
Maxton 2182-2254		
Little Lime	2397	2461
Big Lime	2461	2698
Borden	2698	3246
Sunbury	3246	3276
Berea	3276	3294
Devonian Shale	3294	5108
Onondaga LS	5108	TD
DTD 5128		
LTD 5122		

Well Treatment

Perf Rhinestreat 20H/4819-5068. N<sub>2</sub> frac Rhinestreet using 803,000 SCF N<sub>2</sub> @ 100,572 SCF/m and 500 gal fe Hcl inh acid. BD @ 3393#, ATP 3772#, MTP 3820#, ISIP 2894#.

Perf Huron 20H/4281-4573. N<sub>2</sub> frac using 804,000 SCF N<sub>2</sub> @ 100,205 SCF/m. BD @ 3920#, ATP 3099, MTP 3920# and ISIP 2001#. Acid used was 500 gal 8% inh fe acid.

Perf Chagrin 20H/3350-3772. N<sub>2</sub> frac using 808,000 SCF N<sub>2</sub> @ 102,818 SCF/min/ BD @ 2536#, ATP 2081#, MTP 2900#, ISIP 1688#.

Perf Big Lime 15H/2660-2692. Foam acidize Big Lime using 2000 gal 28% inh fe acid, 500 gal 15% inh-fe acid and 95,376 SCF N<sub>2</sub> @ 4000 SCF/min. BD @ 1300#, ATP 1114# @ 5 bpm acid rate. MTP 1504#, ISIP 1307# and TF 48 bbls.

11999

045- 1161  
 Issued 04/01/91  
 Page 1 of 1  
 Expires 04/01/93

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS**  
**WELL WORK PERMIT APPLICATION**

- 1) Well Operator: <sup>0043</sup> Ashland Exploration, Inc. 2750 (5) 232
- 2) Operator's Well Number: Albert H. Cole Trustee #B-13 3) Elevation: 1225.28
- 4) Well type: (a) Oil  / or Gas  /  
 (b) If Gas: Production  / Underground Storage  /  
 Deep  / Shallow  /
- 5) Proposed Target Formation(s): Devonian Shale
- 6) Proposed Total Depth: 5165'KB feet
- 7) Approximate fresh water strata depths: 450'KB (Map WV-12)
- 8) Approximate salt water depths: 650'KB (Map WV-12)
- 9) Approximate coal seam depths: Not Operated - Solid Coal
- 10) Does land contain coal seams tributary to active mine? Yes  / No  /
- 11) Proposed Well Work: Drill & Stimulate (New Well)
- 12)

**CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	16	LS	42.0	30	30	CTS
Fresh Water						38 CSR 11.3
Coal						38 CSR 11.2.2
Intermediate	8 5/8	J55	24.0	2420	2420	CTS
Production	5 1/2	J55	15.5	5165	5165	38 CSR 11.1 As Needed
Tubing	1.9	J55	2.76	-	5115	Siphon
Liners						

**RECEIVED**  
 Energy

MAR 13 91

PACKERS : Kind \_\_\_\_\_  
 Sizes \_\_\_\_\_  
 Depths set \_\_\_\_\_

For Division of Oil and Gas Use Only

Fee(s) paid:  Well Work Permit  Reclamation Fund  WPCP  
 Plat  WW-9  WW-2B  Bond  Surety  Agent

1) Date: March 11, 1991  
2) Operator's well number  
Albert H. Cole #B-13, Serial #134241  
3) API Well No: 47 - 045 - 1161  
State - County - Permit

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

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

MAR 13 91

- 4) Surface Owner(s) to be served:
- (a) Name Cole & Crane Real Estate Trust  
Address P.O. Box 610  
Omar, WV 25638
  - (b) Name \_\_\_\_\_  
Address \_\_\_\_\_
  - (c) Name \_\_\_\_\_  
Address \_\_\_\_\_
- 5) (a) Coal Operator:
- Name W-P Coal Company  
Address P.O. Box 570  
Omar, WV 25638
  - (b) Coal Owner(s) with Declaration  
Name Same as No. 4(a)  
Address \_\_\_\_\_
  - Name \_\_\_\_\_  
Address \_\_\_\_\_
  - (c) Coal Lessee with Declaration  
Name Same as No. 5(a)  
Address \_\_\_\_\_
- 6) Inspector Tim Bennett  
Address Route 2, Box 61-B  
Chapmanville, WV 25508  
Telephone (304) - 855-7705

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

\_\_\_\_\_ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR

X Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through 2 on the above named parties, by:

- \_\_\_\_\_ Personal Service (Affidavit attached)
- X Certified Mail (Postmarked postal receipt attached)
- \_\_\_\_\_ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator Ashland Exploration, Inc.  
By: J. T. Mellinger *J. T. Mellinger*  
Its: Vice President  
Address P.O. Box 391  
Ashland, KY 41114  
Telephone 606-329-5450

Subscribed and sworn before me this 11th day of March, 1991

Tim W. Smith  
My commission expires November 23, 1994 Notary Public