

WELL REFERENCES:
 N80°45'E 108' TO 16" FORKED ASPEN
 S38°30'E, 107' TO 6" TWIN PERSIMMON

Jamie 6/30/88

11,060'

LATITUDE 39°17'30"

CLARK

JENKINS

KOCH

RANDEL

LONGITUDE 80°32'30"

NO. 3
S-732

BAILEY

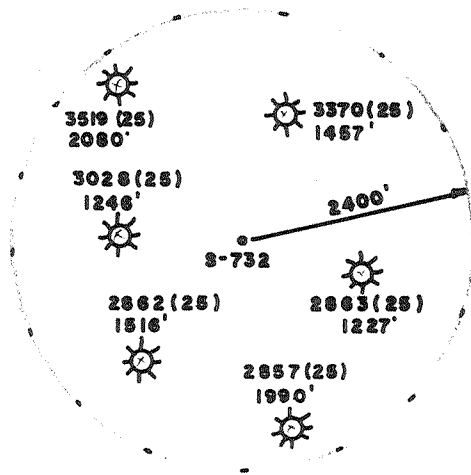
E. CASWELL
92.75 AC.

BAILEY

BAILEY

DAVIS

CARDER



*2.725
2000
5.60
431*

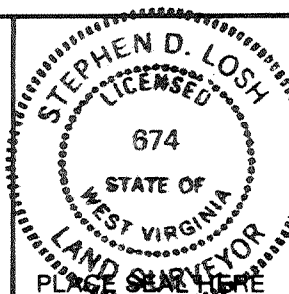
LAND SURVEYING SERVICES
 21 CEDAR LANE
 BRIDGEPORT, WV 26330
 PHONE : 304-842-2018

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

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION EXIST. WELL 2862
 ELEV. - 1007'

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) *Stephen D. Losh*
 R.P.E. _____ L.L.S. 674



STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION



DATE JUNE 09, 19 88
 OPERATOR'S WELL NO. S-732
 API WELL NO. _____

WELL TYPE: OIL ___ GAS LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION STORAGE ___ DEEP ___ SHALLOW
 LOCATION: ELEVATION 1110' WATER SHED GREENBRIER CREEK
 DISTRICT GREENBRIER COUNTY DODDRIDGE
 QUADRANGLE SALEM 7.5 min. *Order SE*
 SURFACE OWNER CARL W. KOCH ACREAGE 92
 OIL & GAS ROYALTY OWNER EVA CASWELL LEASE ACREAGE 92.75
 LEASE NO. 311

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 ALEXANDER ESTIMATED DEPTH 5400'

WI Cabot Oil & Gas Corporation
 AC 400 Fairway Drive, Suite 400
 Ceraepelis, Pa. 15108

DESIGNATED AGEN
 ADDRESS _____

Thomas H. Blake
 P.O. Box 1473
 Charleston, Wva. 25325-1473

COUNTY NAME DODD
 PERMIT 3652

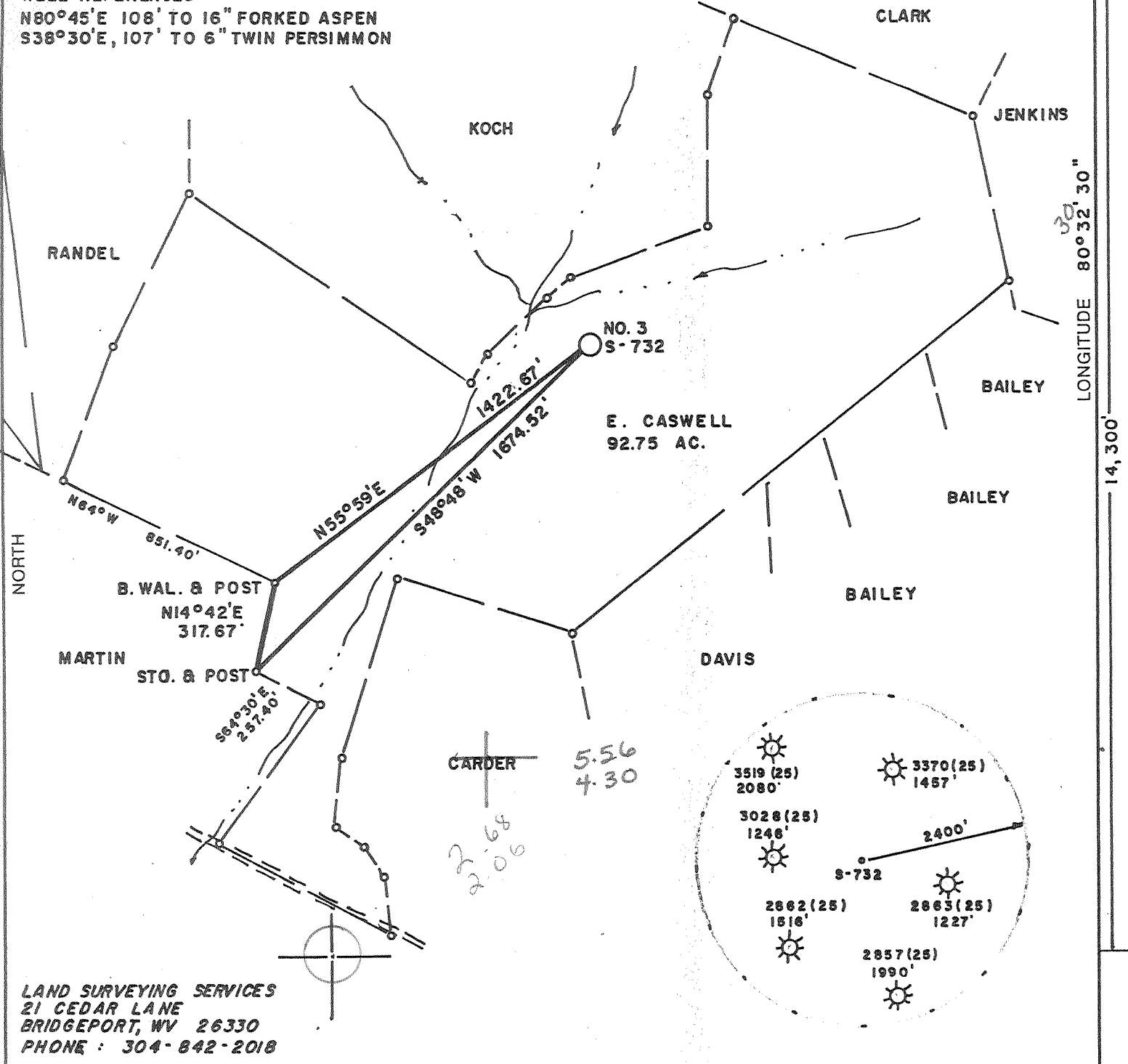
FORM WW-6
 H.T. HALL 48673

June 6/30/88

11,060' 20

WELL REFERENCES:
 N80°45'E 108' TO 16" FORKED ASPEN
 S38°30'E, 107' TO 6" TWIN PERSIMMON

LATITUDE 39°17'30"

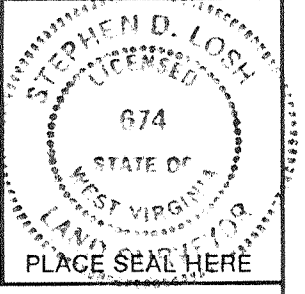


LAND SURVEYING SERVICES
 21 CEDAR LANE
 BRIDGEPORT, WV 26330
 PHONE: 304-842-2018

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

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION EXIST. WELL 2862
 ELEV. - 1007'

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) *Stephen D. Losh*
 R.P.E. _____ L.L.S. 674
 STEPHEN D. LOSH



STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION

DATE JUNE 09, 19 88
 OPERATOR'S WELL NO. S-732
 API WELL NO. 47-017-3652

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

LOCATION: ELEVATION 1110' WATER SHED GREENBRIER CREEK
 DISTRICT GREENBRIER 4 COUNTY DODDRIDGE
 QUADRANGLE SALEM 7.5 min. 596 022 9 Centerpoint SE

SURFACE OWNER CARL W. KOCH ACREAGE 92
 OIL & GAS ROYALTY OWNER EVA CASWELL LEASE ACREAGE 92.75
 LEASE NO. 311

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 ALEXANDER ESTIMATED DEPTH 5400'
 WELL OPERATOR SCOTT OIL COMPANY DESIGNATED AGENT DARREL WRIGHT
 ADDRESS P.O. BOX 112 ADDRESS P.O. BOX 112
 SALEM, WV 26426 774 SALEM, WV 26426

JUL 15 1988

COUNTY NAME PERMIT

FORM WW-6 H.T. HALL 4-673

6-6 Salem (102.1)

47-17-03652

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: Koch, Karl

Operator Well No.: Caswell 3-S-732

LOCATION: Elevation: 1110.00 Quadrangle: Salem

District: Greenbrier County: Doddridge
Latitude: 14300 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude: 11060 Feet West of 80 Deg. 32 Min. 30 Sec.

Company: CABOT OIL & GAS CORPORATI
400 FAIRWAY DRIVE, SUITE 400
CORAOPOLIS, PA 15108-4308

Agent: DAVID G. McCLUSKEY

Inspector: Mike Underwood
Permit Issued: 12/13/95
Well work Commenced: 12/29/95
Well work Completed: 1/17/96
Verbal Plugging _____
Permission granted on: _____
Rotary Cable _____ Rig _____
Total Depth (feet) 5570
Fresh water depths (ft) 438'

Salt water depths (ft) _____

Is coal being mined in area (Y/N)? N
Coal Depths (ft): _____

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 ³ / ₄ "	30'		
8 ⁵ / ₈ "	922'	922'	To Surface
4 ¹ / ₂ "	5495'	5495'	625 sks

OPEN FLOW DATA

Producing formation Benson/Alexander Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/
Final open flow 492 MCF/d Final open flow _____ Bbl/
Time of open flow between initial and final tests _____ Hour
Static rock Pressure 1600 psig (surface pressure) after _____ Hour

Second producing formation 4th Sand Pay zone depth (ft) 2980'-29
Gas: Initial open flow -- MCF/d Oil: Initial open flow N/A Bbl/
Final open flow comm 300 MCF/d Final open flow N/A Bbl/
Time of open flow between initial and final tests 4 Hour
Static rock Pressure 155 psig (surface pressure) after 36 Hour

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATE 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: CABOT OIL & GAS CORPORATION

By: DL McCluskey
Date: 9/16/96

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

Perf 4th Sand @ 2980' - 2984'. Broke down with 250 gals 15% HCL acid. Breakdown pressure - 2412 psi. Frac with 425 bbls 30# linear gel with 40,000# 20/40 sand. ATP - 2420 psi. A.I.R. - 15 BPM. ISIP - 3100 psi.

Perf Gordon sand @ 2834' - 2846'. Broke down with 250 gals 15% HCl acid. Breakdown pressure - 2720 psi. Frac with 250 gals 30# linear gel with 18,600# 20/40 sand.

FORMATION	TOP	BOTTOM
Fill	0	20
Sand/Shale	20	214
Coal	214	220
Sand/Shale	220	2135
Lime	2135	2160
Sand	2160	2250
Sand/Shale	2250	2750
Sand	2750	2770
Sand/Shale	2770	2830
Sand	2830	2885
Sand/Shale	2885	2975
Sand	2975	2985
Sand/Shale	2985	5050
Sand	5050	5070
Sand/Shale	5070	5400
Sand	5400	5468
Sand/Shale	5468	5570 TD

OPEN FLOW DATA

Third producing formation Gordon Pay zone depth (ft) 2834' - 284'

Gas: Initial open flow MCF/d Oil: Initial open flow

Final open flow comm 300 MCF/d Final open flow N/A

Time of open flow between initial and final tests N/A

Static rock Pressure 155 psig (surface pressure) after 4 36

producing formation Pay zone depth (ft)

Gas: Initial open flow MCF/d Oil: Initial open flow

Final open flow MCF/d Final open flow

Time of open flow between initial and final tests

Static rock Pressure psig (surface pressure) after

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

Well Operator's Report of Well Work

Farm name: KOCH, CARL Operator Well No.: CASWELL 3-S-732

LOCATION: Elevation: 1110.00 Quadrangle: SALEM

District: GREENBRIER County: DODDRIDGE
Latitude: 14300 Feet South of 39 Deg. 17Min. 30 Sec.
Longitude: 11060 Feet West of 80 Deg. 32 Min. 30 Sec.

Company: SCOTT OIL CO.
P. O. BOX 8
GREENWOOD, VA

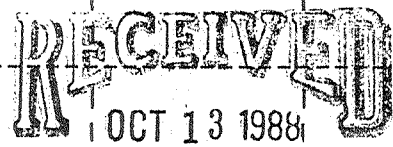
Agent: JOHN T. HASKINS

Inspector: MIKE UNDERWOOD
Permit Issued: 07/12/88
Well work Commenced: 7/14/88
Well work Completed: 7/18/88

Verbal Pluggings
Permission granted on:
Rotary Cable Rig
Total Depth (feet) 5571
Fresh water depths (ft) 438

Salt water depths (ft)
Is coal being mined in area (Y/N)?
Coal Depths (ft):

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Cu. Ft.
11 3/4	30'		
8 5/8		922'	to surface
4 1/2		5495	625 sks



DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

OPEN FLOW DATA

Producing formation: Benson, Alexander Pay zone depth (ft)
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 492 MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure 1600 psis (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft)
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psis (surface pressure) after _____ 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: SCOTT OIL CO. *David Wright* OCT 17 1988
By: _____
Date: 10/12/88

RECEIVED
OCT 13 1988

Alexander 5418-5440 Sand 80/100 5000#
20/40 35000#

Benson 5055-5066 Sand 80/100 5000#
20/40 45000#

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Fill	0	20
Sand & Shale	20	214
Coal	214	220
Sand & Shale	220	2135
Lime	2135	2160
Sand	2160	2250
Sand & Shale	2250	2750
Sand	2750	2770
Sand & Shale	2770	2830
Sand	2830	2885
Sand & Shale	2885	2975
Sand	2975	2985
Sand & Shale	2985	5050
Sand	5050	5070
Sand & Shale	5070	5400
Sand	5400	5468
Sand & Shale	5468	5570 TD

Gamma Ray

Big Lime	2112	2160
Big Injun	2160	2250
Gordon Stray	2753	2772
Gordon	2832	2884
5th Sand	2978	2984
Benson	5053	5070
Alexander	5417	5468

7293

47 - 017 - 3652
 Issued 7/12/88 Expired 7/12/90
 Page ___ of ___

FORM WW-2B

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

- 1) Well Operator: Scott Oil Company 44315, 4, 595
- 2) Operator's Well Number: S-732 Eva Caswell #3 3) Elevation: 1110
- 4) Well type: (a) Oil / or Gas /
 (b) If Gas: Production / Underground Storage /
 Deep / Shallow /
- 5) Proposed Target Formation(s): Alexander
- 6) Proposed Total Depth: 5400 feet
- 7) Approximate fresh water strata depths: 420'
- 8) Approximate salt water depths: _____
- 9) Approximate coal seam depths: 12'-18', 130'-133', 760'-765'
- 10) Does land contain coal seams tributary to active mine? Yes / No /
- 11) Proposed Well Work: _____
- 12) _____

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT	
	Size	Grade	Weight per ft.	For drilling		Left in well
Conductor	11 3/4			30		
Fresh Water						
Coal						
Intermediate	8 5/8				925	38CSR18-11.3 38CSA10-11.2.2 to surface
Production	4 1/2				5550	38CSR18-11.1 400 sks
Tubing						
Liners						

PACKERS : Kind _____
 Sizes _____
 Depths set _____

RECEIVED
 JUN 24 1989

For Division of Oil and Gas Use Only

DIVISION OF OIL & GAS
 DEPARTMENT OF ENERGY

Fee(s) paid: 1417 Well Work Permit 119 Reclamation Fund 119 WPCP

Plat 119 WW-9 119 WW-2B 119 Bond 50 Blanket Agent

(Type)

RECEIVED
JUN 24 1988

DIVISION OF OIL & GAS 3)
DEPARTMENT OF ENERGY

Date: June 23, 1988
Operator's well number
S-732 Eva Caswell #3
API Well No: 47 - 017 - 3652
state - County - Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:
(a) Name Carl Koch
Address Route 1, Box 318A
Salem, WV 26426
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Mike Underwood
Address Route 2
Salem, WV 26426
Telephone (304)-782-1043

5) (a) Coal Operator:
Name _____
Address _____
(b) Coal Owner(s) with Declaration
Name Consolidation Coal Co.
Address Box 1314
Morgantown, WV 26505
Name _____
Address _____
(c) Coal Lessee with Declaration
Name _____
Address _____

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 _____ 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 Scott Oil Company
By: [Signature]
Its: Agent
Address P. O. Box 112
Salem, WV 26426
Telephone 304-623-9600

Subscribed and sworn before me this 23 day of June, 1988

[Signature] Notary Public
My commission expires April 23, 1993

017-3652-W

FORM WW-2B SEP 14 1995

Page ___ of ___

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
 Office of Oil & Gas WELL WORK PERMIT APPLICATION

Issued 12/13/95
 Expires 12/13/97

- 1) Well Operator: Cabot Oil & Gas Corporation 8145 - (4) 596
- 2) Operator's Well Number: Eva Caswell #3 3) Elevation: 1110'
- 4) Well type: (a) Oil ___ / or Gas X /
 (b) If Gas: Production ___ / Underground Storage ___ /
 Deep ___ / Shallow X /
- 5) Proposed Target Formation(s): Gordon, 4th Sand
- 6) Proposed Total Depth: 5571 feet
- 7) Approximate fresh water strata depths: 438'
- 8) Approximate salt water depths: n/a
- 9) Approximate coal seam depths: 214'
- 10) Does land contain coal seams tributary to active mine? Yes ___ / No ___ /
- 11) Proposed Well Work: Recomplete Gordon and 4th Sands and Produce Commingled With Existing Alexander and Benson.
- 12) **EXISTING**

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	11-3/4"			30'	30'	
Fresh Water						
Coal/Water	8-5/8"			922'	922'	CTS
Intermediate						
Production	4-1/2"			5495'	5495'	625 sks
Tubing						
Liners						

PACKERS : Kind N/A
 Sizes _____
 Depths set _____

For Division of Oil and Gas Use Only

013371
39
 Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond _____ Agent
 (Type)

21088

SEP 14 1995

Permitting
Office of Oil & Gas

- 1) Date: September 13, 1995
- 2) Operator's well number
Eva Caswell #3-S-732
- 3) API Well No: 47 - 017 - 36524
State - County - Permit

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

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served:
 - (a) Name Teikyo University Foundation
Address P.O. Box 500
Salem, WV 26426
 - (b) Name _____
Address _____
 - (c) Name _____
Address _____
- 5) (a) Coal Operator:
 - Name N/A
Address _____
 - (b) Coal Owner(s) with Declaration
Name Consolidation Coal Co.
Address Box 1314
Morgantown, WV 26505
 - Name _____
Address _____
 - (c) Coal Lessee with Declaration
Name _____
Address _____
- 6) Inspector Mike Underwood
Address Route 2
Salem, WV 26426
Telephone (304)-782-1043

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

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

Well Operator Capot Oil & Gas Corporation
 By: Thomas A. Steen
 Its: Regional Engineering Manager
 Address 400 Fairway Drive, Suite 400
Coraopolis, PA 15108
 Telephone (412) 299-7000

Subscribed and sworn before me this 13th day of SEPTEMBER, 1995

My commission expires JUNE 17, 1996

Notarial Seal, Public
 Cynthia M. Bowles, Notary Public
 Charters Twp., Washington County
 My Commission Expires June 17, 1996
 Member, Pennsylvania Association of Notaries