

SEP 27 1995

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

API # 47- 17-04205

12-Jul-95

Permitting

Office of Oil & Gas Well Operator's Report of Well Work

Farm name: BEE, LIVINGSTON S. ; Operator Well No.: Bee #9

LOCATION: Elevation: 1,100.00 Quadrangle: WEST UNION

District: WEST UNION County: DODDRIDGE
Latitude: 8950 Feet South of 39 Deg. 17Min. 30 Sec.
Longitude 8450 Feet West of 80 Deg. 47 Min. 30 Sec.

Company: KEY OIL CO.

22 GARTON PLAZA
WESTON, WV 26452-0000

Agent: JAN E. CHAPMAN

Inspector: MIKE UNDERWOOD

Permit Issued: 07/12/95

Well work Commenced: 07-15-95

Well work Completed: 07-21-95

Verbal Plugging

Permission granted on: _____

Rotary Cable _____ Rig

Total Depth (feet) 5488'

Fresh water depths (ft) -0-

Salt water depths (ft) -0-

Is coal being mined in area (Y/N)? N

Coal Depths (ft): None reported

OPEN FLOW DATA

Balltown
Riley
Benson

Producing formation Alexander

Gas: Initial open flow 21 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 1,517 MCF/d Final open flow Show Bbl/d
Time of open flow between initial and final tests N/A Hours
Static rock Pressure 1700 psig (surface pressure) after 96 Hours

Second producing formation _____

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 _____ psig (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: KEY OIL CO.

BY:  President

Date: September 18, 1995

SEP 27 1995

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4"	132	132	70 sks. to surface
8 5/8"	1660	1660	445 sks. to surface
4 1/2"		5410	390 sks.
1.5"		5300	

3920-4202
4516-4583
5036-5042

Pay zone depth (ft) 5294-5364

Bee #9 (47-017-4205)
Four Stage Foam Frac - Halliburton

1st Stage: Alexander (12 holes)
(5320.50' - 5356.50')
60 Quality Foam, 750 gal. 15% HCl,
60,000 lbs. 20-40 sand, 490,000
SCF N₂, 811 bbls. foamed fluid.

2nd Stage: Benson (10 holes)
(5036.00' - 5038.25')
75 Quality Foam, 750 gal. 15% HCl,
30,000 lbs. 20-40 sand, 423,000
SCF N₂, 521 bbls. foamed fluid.

3rd Stage: Riley (10 holes)
(4519.50' - 4624.25')
60 Quality Foam, 750 gal. 15% HCl,
10,000 lbs. 80-100 sand, 30,000 lbs.
20-40 sand, 508,000 SCF N₂, 613 bbls.
foamed fluid.

4th Stage: Balltown (10 holes)
(3951.50' - 4002.25')
60 Quality Foam, 750 gal. 15% HCl,
10,000 lbs. 80-100 sand, 30,000 lbs.
20-40 sand, 445,000 SCF N₂, 603 bbls.
foamed fluid.

Well Log

Formation	Top Feet	Bottom Feet	Remarks
F111	0	10	
Shale & Red Rock	10	148	No water reported on drillers log.
Shale	148	185	
Sand	185	190	
Shale & Red Rock	190	636	
Sand	636	729	
Sand & Shale	729	822	Gas Checks:
Red Rock & Shale	822	1007	
Sand & Shale	1007	2020	1911' N/S
Little Lime	2020	2046	2005' N/S
Pencil Cave	2046	2060	4/10 thru 1" w/water
Big Lime	2060	2150	2999' 4/10 thru 1" w/water
Big Injun	2150	2194	3501' 2/10 thru 1" w/water
Shale	2194	2356	3625' 2/10 thru 1" w/water
Weir	2356	2470	4337' 4/10 thru 1" w/water
Sand & Shale	2470	3450	4803' 4/10 thru 1" w/water
Warren	3450	3480	5113' 4/10 thru 1" w/water
Sand & Shale	3480	3588	5488' T.D. 4/10 thru 1" w/water
Speechley	3588	3598	
Sand & Shale	3598	3920	
Balltown Sands	3920	4020	
Sand & Shale	4020	4516	
Riley Sands	4516	4631	
Sand & Shale	4631	5036	
Benson	5036	5042	
Shale	5042	5294	
Alexander	5294	5364	
Shale	5364	5488	
T.D.	5488		

Permitting STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
WELL WORK PERMIT APPLICATION
415 Key Oil Company 25650 (8) 671
page -06
Issued 07/12/95
Expire 07/12/97

20856

Well Operator: Key Oil Company
Operator's Well Number: Bee #9
Well type: (a) OIL or Gas
3) Elevation: 1100'

(b) If Gas: Production Underground Storage
Deep Shallow
43a Alexander

- Proposed Target Formation(s):
- 6) Proposed Total Depth: 5425 feet
- 7) Approximate fresh water strata depths: 100', 695'
- 8) Approximate salt water depths: -0-
- 9) Approximate coal seam depths: None
- 10) Does land contain coal seams tributary to active mine? Yes No
- 11) Proposed Well Work: Drill, Stimulate, Produce *New Well*
- 12)

CASING AND TUBING PROGRAM

TYPE	SIZE	GRADE	WEIGHT PER FT.	FOOTAGE FOR DRILLING	LEFT IN WELL	FILL-UP (cu. ft.)	CEMENT
Conductor	16	Used		30	0	3000000	
Fresh Water	11 3/4	ERW	42	132	132	70 SKS. to surface	
Coal							
Intermediate	8 5/8	ERW	23	1645	1645	443 SKS. to surface	
Production	4 1/2	J-55	10.5	5375	5375	400 SKS.	
Tubing	1.5						
Liners							

PACKERS : KIND
SIZES
Depths sec

53 33
53
53
Fees: PAID: *[Signature]* Well Work Permit *[Signature]* Rec. Information Fund *[Signature]* WE
DATE: *[Signature]* 3000000000 *[Signature]*

RECEIVED
Permitting
Office of Oil & Gas

1) Date: July 5, 1995
2) Operator's well number
Bee #9
3) API Well No: 47 - 017 - 4205
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 Livingston S. Bee
Address Rt. 1 Box 240A
West Union, WV 26456
- (b) Name
Address
- (c) Name
Address
- 6) Inspector Mike Underwood
Address Rt. 2 Box 135
Salem, WV 26426
Telephone (304) - 782-1043
- 5) (a) Coal Operator:
Name None
Address
- (b) Coal Owner(s) with Declaration
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:
X Personal Service (Affidavit attached)
____ 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 Key Oil Company
By _____
Its _____ President
Address 22 Garton Plaza
Weston, WV 26452
Telephone 304-269-7102

Subscribed and sworn before me this 5th day of July 19 95

My commission expires March 24, 2003

J. H. Hays Clerk

OFFICIAL SEAL NOTARY PUBLIC
KAREN COOK
S. Notary Public
ROUTE 2, BOX 1
JANIE LEW, WV 25378
My Commission Expires Mar. 24, 2003