



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

·Well Operator's Report of Well Work

Farm name: Cecil H. & Hovah H. Underwood Operator Well No.: Key/Underwood #1

LOCATION: Elevation: 1094' Quadransle: Shirley 7.5'

District: Centerville County: Tyler

Latitude: 6750' Feet South of 39 Des. 25 Min. 00 Sec. Longitude 3210' Feet West of 80 Des. 50 Min. 00 Sec.

Company: EASTERN AMERICAN ENERGY CORP.			<u></u>	
E. E. W. A	l Casing	l Used in	l Left	Cement
GLENVILLE, WV	2	ı		IFill Upl
Adent: DONALD C. SUPCOE	Tubing	l Drilling	in Well	ICu. Ft.i
		1	1	,
Inspector: Mike Underwood	2126	11061	, I	CTS
' = ' 1	8-5/8"	1136'	1136'	275 exe 1
Well work Commenced: $11/08/93$		1136'		
Well work Completed:		1	l	1
Verbal Plussins	4-1/2"	· !	5119.45'	1175 sxs 1
Permission granted on:				
Rotary_XX Cable Ris	1	I	1	1 1
	l	1	1	1 1
Total Depth (feet)5260' Fresh water depths (ft) _341'		· 		i
		I	!	i i
Salt water depths (ft)	I	1	Ì	i i
Is coal being mined in area (Y/N) ? N	I	1	1	1
Coal Derths (ft): None	l	1	Ł	1
OPEN FLOW PATA				
OPEN FLOW DATA (COMMINGLED)				50501
				5052'-
Producing formation Benson, Riley		baa sove	derth (ft) _ 4621
Gas: Initial open flow_223_MCF. Final open flow89_MCF.	/d Oil: I	nitial open	flow N_{I}	<u>A</u> Bb1/d
Final open flowMCF	/d F	inal open f	low $^{ m N/}$	ABb1/d
Time of open flow between i	nitial an	d final tes	ts15	Hours
Static rock Fressure975psi	surfac	e pressure)	after	24Hours
Conned annulus to a first		_		
Second producing formation		_ Pay zone	derth (ft)
Gas: Initial open flowMCF.				
Final open flowMCF		inal open f		
Time of open flow between in	ur ieljie	d final tes	ts	Hours

NOTE: ON BACK OF THIS FORM FUT 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.

Static rock Pressure_____psid (surface pressure) after _____Hours

For: EASTERN AMERICAN ENERGY CORF.

Ry: Ronald L. Rech, Regional Drilling Manager
Date: December 7, 1993

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

Benson: 12 holes (5046'-5052'), fraced w/energized water (200 scf/bbl), Stage One

30 lbs gel/1000 gals, 45,000 lbs of 20/40 sand, 500 gals of 15%

HCL acid and 141,000 scf of N2.

化化多类 人名马克马格 13 holes (4621'-4688'), fraced w/energized water (250 scf/bb1), Riley:

 $30\ lbs\ ge1/1000\ gals$, $40,000\ lbs\ of\ 20/40\ sand$, $500\ gals\ of\ 15\%$

HCL acid and 152,000 scf of N2.

WELL LOG

O OR SOFT	TOP	0 3 7 15 40 72	3 7 - 15 40 72 93	Including : and salt wa			
	1	3 7 15 40 72	7 - 15 40 72	and salt wa	ater, coa	1, oil and	<u>1 g</u>
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		136	173		•	• •	
•		173	186			•.	
	1	186	208			,	
**		208	263		••		
		263	284		•		
67 . 64		284	317	:		_	
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		341	408	Hole Damp	a 3/1.	•	
		408	437	noie bamp	G 241		
		437	540		:	•	
		540	580				
•		580	740				
•		740	756				
		756	. 850	•			
		350	870		•	•	
		370	945				
	<u>-</u>	945	975	· .			
	و.	975	1510				
	15	510	1580	1515' - 1	1/2" strea	am H2O	
.:.	15	580	1730		_,		
	17	730	1770	1			
	17	770	1923				
	19	923	1936				
	19	936	1962	•			
			∖ 2053				
	20	053	2075				
	20	075	2198				
		.					
		19	1936 1962 2053 2075	1936 1962 2053 2075 2075 2198	1936 1962 2053 2075 2075 2198	1936 1962 2053 2075 2075 2198	1936 1962 1962 2053 2053 2075

		T	
FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Shale Sandy Shale Sand Shale Sandy Shale Sandy Shale Sandy Shale Sandy Shale Riley Shale Sandy Shale Randy Shale Riley Shale Sandy Shale Sandy Shale Sandy Shale Sandy Shale Benson Sandy Shale	2198 2200 2419 2451 2539 2546 2581 3470 3500 3935 3953 4620 4670 4755 5046 5054	2200 \ 2419 \ 2451 \ 2539 \ 2546 \ 2581 \ 3470 \ 3500 \ 3935 \ 3953 \ 4620 \ 4670 \ 4755 \ 5046 \ 5054 \ \(5260 \) \(\gamma\ga	Gas Checks: 1949' - No Show 2043' - No Show 2107' - No Show 2200' - No Show 3145' - 24/10 thru 2" w/water 3494' - 22/10 thru 2" w/water 4564' - 24/10 thru 2" w/water 4692' - 24/10 thru 2" w/water 5007' - 24/10 thru 2" w/water DF - 424 DF - 435
	·		

FORM WW-

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U 1 0 ☐ DEPARTMENT	STATE OF WEST VI OF ENERGY, DIVIS	RGINIA Expues	Pageof 7/29/04
Our MET	L WORK PERMIT AP	PLICATION	GAS

1)	Well o	Derata.		5	1 . 1		
2)	2-	bergeof:		KEY OIL. INC	25635 (1) 606	•
	Operat	or's Well	Number:_	Governor Und	erwood #1	3) F	1094'
4)	Well t	ype: (a)	0i1 X/	or Ga	s <u>x</u> /		
		(b)	If Gas:	Production Dee	on <u>X</u> / Underg	round Storae Shalle	ge/
5)	Propose	ed Target	Formatio	n(s):	Benson	ond I I	 /
6)	Propose	ed Total	Depth:	5,100	feet		
7)	Approxi	mate fres	sh water :	strata dep	.	50'	
8)	Approxi	mate salt	: water de	epths:	-0-	9U.	
9)				oths:			
10)							
11)	Propose	d Well Wo	er.	ans Clibu	tary to act:	ive mine? Y	es/ NoX
12)			r. Ur	ill, Stimulat	e, Produce	lew Well.	
			CASIN	G AND TUB	ING PROGRAM		
M 1100							
TYPE		3	PECIFICAT	IONS	FOOTAGE IN	ITEDUAL C	
TYPE				Weight	FOOTAGE IN	ITERVALS Left in	CEME Fill-up
	ctor	Size	Grade	Weight per ft.	For		Fill-up (cu. ft
Condu	Ctor	Size	Grade Used	Weight	For drilling	Left in well	Fill-up (cu. ft
<u>Condu</u>	<u>Ctor</u> Water	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft
Condu Fresh	Water	Size 11-3/4 8-5/8	Grade Used	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft
Condu Fresh Coal	Water	Size 11-3/4 8-5/8	Grade Used	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft
Condu Fresh Coal Inter	Water mediate	Size 11-3/4 8-5/8 4-1/2	Grade Used	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft by rule 38 CSR 18-11.3
Condu Fresh Coal Inter Produ	Water mediate ction	Size 11-3/4 8-5/8	Grade Used ERW	Weight per ft. 42 23	For drilling	Left in well -0-	Fill-up (cu. ft by rule 38 CSR 18-11.3
Condu Fresh Coal Inter Produ Tubin	Water mediate ction	Size 11-3/4 8-5/8 4-1/2 2-3/8	Grade Used ERW	Weight per ft. 42 23	For drilling	Left in well -0-	Fill-up (cu. ft by rule 38 CSR 18-11.3
Condu Fresh Coal Inter Produ Tubin Liner:	Water mediate ction g RS: Kin	Size 11-3/4 8-5/8 4-1/2 2-3/8	Grade Used ERW	Weight per ft. 42 23	For drilling	Left in well -0-	Fill-up (cu. ft by rule 38 CSR 18-11.3
Condu Fresh Coal Inter Produ Tubin Liner:	Water mediate ction g RS: Kin	11-3/4 8-5/8 4-1/2 2-3/8 d es ths set	Grade Used ERW J-55	Weight per ft. 42 23	For drilling	Left in well -0- 1988 /200	Fill-up (cu. ft by rule 38 CSR 18-11.3