

1)	Date:_	March	5	, 19	83
21	0				

2) Operator's Well No. 1 RENEWAL

Well No. 1 113112WALL

3) API Well No. 47 001 1760

			D	EPART		ATE OF WEST VI		ogram Sill ridgia ON sellic visino b	County
30Series 414.		4 to 2 to				AS WELL PERMI			
es to no lose				o non	W 52/h	g Bentiner (1982)	more quiable	in fiquid form tv	llow sets to
WELL TYPE			_/ Gas _			MANUSCH STATE		es undergrounde	
LOCATION:			360 ft			_/ Underground st Watershed:	Sugar Cree	Deep	/ Shallow/)
recarder stor	Distri	ict: Ba	arker		100	County: Bar	bour	Quadrangle: B	elington,7½
	ATORES	sterr	1 Inte					AGENT Georg	e Williams
Address		ingt	on, $WI$		250	MARIE LE DS MEN	Address	P.O. Box 9 Belington,	
OIL & GAS		Ingu	)11 9 W	~0	~)0				WV 20230
ROYALTY O		all the contribution of	Marie Chicago, et al constitución	A CONTRACTOR OF THE PARTY OF TH			2) COAL OPERA		12.44 (3.17) U.AA (C.
Address	Beli	ngtor	, WV	262	50	Markov nos	Address	that of the states	La 9201011 fd
Acreage	7.5	acre	25			1	COAL OWNER	(S) WITH DECLAR	ATION ON PECOPD
SURFACE O		Same					Name Sar	ie in December	ATION ON RECORD:
Address	-	1 4 4				- ADS/0 (	Address	HI TE TERMO SAFTI	na inadati i ina
Acreage						The second second	Name		Fartpite() (9
FIELD SALE	(IF,MAD	E) TO:					Address	as of Buckley for	प्रक्रम व्हर्ट सार
Address	Unkn	own	<u>acirence</u>	2 9 00	deseigl	partiner do <u>n tha</u>	, r. way, excessing	rational measure	(2) (Cpal Opt
011 1 6161	Vannons	D TO DE			ing and a	14		WITH DECLARAT	ION ON RECORD:
OIL & GAS I				D			Name	4.20 Septimb	DOGGGGG
Address	Box	345	Jane		, WI	Set Suppo	destinos A el	element of His	
montous en			7728		dolfw	TOTAL COLF SITE AND		ighimber yarib	
PROPOSED	WORK:	Drill				/ Redrill			X MAR 9 - 198
			ysical char				ew formation	d formasi 🚾 🥙	OIL AND GAS D
GEOLOGICA	L TARGE	T FORM	ATION, _	Have	erty			y y your	WY DEPARTMENT C
17) Estimated	depth of	completed	well,	5500	250	feet		Jaw Geeric teornée	contined (31
<ul><li>18) Approxim</li><li>19) Approxim</li></ul>	nate water	strata dept	hs: Fresh	own	, 2)(		salt,		/ No. X
						Is coal	being mined in the	area? Yes	No_A
CASING ANI		PROGR	AM			eria cedelle	e sultanner un	asing program c	20) Proposed
CASING OR TUBING TYPE			ECIFICATION   Weight		ı	FOOTAGI	E INTERVALS	CEMENT FILL-UP OR SACKS	PACKERS
of the logical	Size 11 3/4	Grade	per ft.	New	Used	For drilling	Left in well 40 ft	(Cubic feet)	20 60 00
onductor resh water	11/7		100			40 ft	40 10	CO Suria	Rinds
oal							A Company of the	7007	Sizes
ntermediate	8 5/8					1100 ft	1100 ft	to surface	
roduction	4불	La Carrie	distribution of			5500 ft	5500 ft	to 2600 f	Depths set
iners						5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1201-101-1	ton to Head to	Perforations:
			A STATE OF THE STA	0.00				Henry Lieuwin Lie	Top Bottom
							100	** 13 bus (4)1.1-	-225-23 (22
EXTRACTION	N DICHT		Prior Kar	1		A State Section	738	o Charleson	obeligast (EC)
Check and pro			wing:			iet ett it illig il		e Departite at lac	ni 1339 bo.
Included	d is the lea	se or lease	es or other	continu	uing co	ntract or contracts l	by which I hold the	right to extract oil or	gas.
ROYALTY PR	THE TOTAL PROPERTY.		-4-1-(c) (1)	through	gh (4).	(See reverse side fo	r specifics.)	viorski paktron th	and scotting
Is the right to e	xtract, pro	duce or m	arket the o	il or ga	s based	upon a lease or othe	r continuing contrac	et or contracts providir	ng for flat well royalty or any
similar provision or m	on for con	npensation	to the ow	vner of	the oil	or gas in place whi	ch is not inherently	related to the volum	e of oil or gas so extracted,
				eeded.	If the a	nswer is Yes, you n	nay use Affidavit Fo	orm IV-60.	10.3980.01
Required Copi	es (See rev	erse side.)				General Sections		A service of	mila yeh
named coal or	perator, co	pplication al owner(s	and the end), and coa	l lessee	on or	d reclamation plan before the day of the	nave been mailed by the mailing or deliver	registered mail or de	livered by hand to the above ication to the Department of
Mines at Char	leston, W	est Virgini	a./)				a		2.1.1.
lotary:	fren	ce	Toss	100	7 /	itia qo saos aft	Signed:	ong si	Uhlliams
ly Commission	Expires_	MAY	1 20,	199	1/_	State Process	Its: Degrig	nated Agent	Den authoriwa
					(	OFFICE USE O	NLY		6180
	47-001	-1760-	REN.	SEP.	THE RESERVE THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TWIND TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN	DRILLING PE		March 23	19 83
it number				Market 1				Date	
permit coverin	g the well	operator a	and well lo	cation	shown	below is evidence of	f permission grante	to drill in accordance	e with the pertinent legal re-
ments subject	to the con	ditions con	ntained her	rein and	d on the	reverse hereof. No	otification must be	given to the District O	il and Gas Inspector. his contractor shall notify the
er district oil a	nd gas ins	pector 24 l	hours befo	re actua	al perm	itted work has com	menced.)	out of the state	haldeno see norshede
it expires			r 23,	1983		unless dri	illing is commenced	orior to that date and r	prosecuted with due diligence.
ond:	Agent		Plat:	17/	Casing	1 4500.00		11/	$\times$
11/2		IDX	XX	1	1	no H	Adı	ninistrator, Office of	Oil and Gas

### Line Item Explanation

- 1) Date of Application
- 2) Your well name and number
- 3) To be filled out by office of oil & gas
- 4A) "Oil" means natural crude oil or petroleum and other hydrocarbons, regardless of gravity, which are produced at the well in liquid form by ordinary production methods and which are not the result of condensation of gas after it leaves underground reservoirs: "Gas" means all natural gas and all other fluid hydrocarbons not defined as oil.
- 4B) "Shallow well" means any well drilled and completed in a formation above the top of the uppermost member of the "Onondaga Group" or a depth less than six thousand feet, whichever is shallower.
  - "Deep well" means any well drilled and completed in a formation at or below the top of the uppermost member of the "Onondaga Group" or at a depth less then six thousand feet, whatever is shallower.
  - 5) Where well is located
  - 6) Before a permit can be issued in a corporation, company partnership, or fictitious name, the name must be registered with the Secretary of State Office
  - 7) Use separate sheet if necessary
  - 8) Present surface owner at time application is filed.
  - 9) Optional
- 11) See Reg. 7.01 relating to code §22-4-1k
- 12) "Coal Operator" means any persons, firm, partnership, partnership association or corporation that proposes to or does operate a coal mine. See Note 24
- 13 & 14) As per §22-4-20; See Note 24
  - Work that will be attempted—A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.
  - 16) Anticipated formation for which well will be completed
  - 17) Self explanatory
  - 18) Depth to deepest freshwater, and shallowest salt water, taken from nearby wells corrected for differences in elevation
  - 19) All coal seam depths
  - 20) Proposed casing program and cementing refer to Code 22-4-5, 22-4-6, 22-4-7, 22-4-8, 22-4-8a Reg 9.01, 15.01, 15.02, 15.03, 15.04, 25.01, 25.02, 25.03, 25.04
  - 21) Code 22-4-11(c) In lieu of filing the lease or leases or other continuing contract or contracts, the applicant for a permit described herein may file the following:
    - (1)A brief description of the tract of land including the district and county wherein the tract is located;
    - (2) The identification of all parties to all leases or other continuing contractual agreements by which the right to extract, produce or market the oil or gas is claimed;
    - (3) The book and page number wherein each such lease or contract by which the right to extract, produce or market the oil or gas is recorded;
    - (4) A brief description of the royalty provisions of each such lease or contract.
  - 22) Code 22-4-11(d) and 22-4-11(e).
  - 23) Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code §22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code §22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code §22-4-12a, and (v) if applicable, the consent required by Code §22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.
  - 24) The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code §22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof.

..... usubañ cost obrratut, cost a were (s), sod cost lesser on ar before the day of the matitue ar deligere, at this Parmit Acally than to the Department of

	TIME	WAIVER			
The undersigned coal operatoramined this proposed well location. If added to the mine map. The undersign operator has complied with all applications.	a mine map exists ved has no objection	which covers the are to the work propo	ea of the well loo	cation, the well let this location, p	ocation has been rovided, the well
to the water and in owners with the difference.	liting is commenced prior	ah sashu		LOCALIDA VOVALIDA	Pennil cxpires
Date:, 19	Admini	Ву		101	49:

# THIS IS AN ESTIMATE ONLY ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK OR	DER TO X DRILL	DEEPEN X	FRACTURE-STIMULATE			
DRILLING CONTRACTO	OR: (If Known)	RESPONSIBLE AGENT:				
NAME unkr	newn	NAME William E	. Bennett			
ADDRESS	• 🛲	ADDRESS Box 268	33, Charlesten, WV 25330			
TELEPHONE	ZZ001		216			
	COMPLETED WELL: 5500 •		CABLE TOOLS			
	AL FORMATION: Haverty Sd.					
TYPE OF WELL:	OIL GAS_X	COMB STORAGE	E DISPOSAL			
	RECYCL	ING WATER FLO	OODOTHER			
TENTATIVE CASING P	ROGRAM:					
CASING AND TUBING	G USED FOR DRILLING	LEFT IN WELL	OR SACKS - CUBIC FT.			
20 - 16		TT C.E.E.	OK SACKS - COBIC FT.			
13 - 10	40 •.	40 °	to surface			
9 - 5/8	10012 2.814.11		9 80			
8 - 15/8	1100 °	1100	to surface			
7	- NO 1781		C. Sta			
5 ½	7.000		9606			
4 ½	5500	5500 •	back to 2600°			
2			Perf. Top Perf. Bottom			
Liners		275 21357 367-1	Perf. Top			
			Perf. Bottom			
		* 1	1000			
OF PLAT.  TO DRILL DEEPER OR  SUBMIT FIVE (5) ( WELLS DRILLED I MUST ALSO BE SU TO FRACTURE - STIMU OIL AND/OR GAS I BOND, PERMANEN OIL AND/OR GAS I ING ORIGINAL PER	COPIES OF OG - 1, SHOWING ORIGIPRIOR TO 1929, A PERMANENT CUBMITTED.  LATE: WELL ORIGINALLY DRILLED BEFOUNT PLAT AND ORIGINAL WELL REGULATION AND PERFORMANCE OF THE STATE OF	INAL PERMIT NUMBER AN OPY OF THE PLAT AND TO THE PLAT AND TO THE JUNE 5, 1929, FIVE (5) (CORD.  ND/OR AFTER JUNE 5, 1928, BOND.	ID PERFORMANCE BOND. ON THE ORIGINAL WELL RECORD COPIES OG - 1, PERFORMANCE 9, FIVE COPIES OG - 1, SHOW-			
			1			
The following waive	NA r must be completed by the coal ope	erator if the permit is to be i	issued within ten days of receipt			
lereot.						
VAIVER: I the undersign this lease have	ned, Agent for examined and place on our mine m	Coal Company, Owner	or Operator of the coal under			
We the	tor has complied with all rules and reg	have no objections to said we	ell being drilled at this location,			
		Ea	or Coal Company			
		Po	or Coal Company			
			Official Title			

4/20



# RECEIVED

APR 1 3 1982

## Oil and Gas Division

OIL AND GAS DIVISION WY DEPARTMENT OF MINES

## OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,			
Charleston, W. Va.	DATE	9 April,1982	
Surface Owner Alva McLean	Company	astern Interme	untain Energy Ltd
Address Belington, WV	Address B	ex 2683, Charles	sten, WV 25330
Mineral Owner Same	Farm	A.McLean	Acres15
Address Same	Location (w	vaters) Sugar Creel	k
Coal Owner same	Well No.	1111	Elevation 1860 17
Address		arker	County Barbeur
Coal Operatornone		Belingten 7	
Address			
HIS PERMIT MUST BE POSTED AT THE WELL SI	TE		
ILL PROVISIONS PERIOD IN ACCOUNT	ic.		
ALL PROVISIONS BETT'G IN ACCORDANCE WIT	CHAPTER 22 ECTOR		
THE W. VA. CODE, THE LOCATION	ON IS HEREOV BE NOTIFI	ED Robert Stews	art
PPROVED FOR drilling . THIS PER	MIT SHALL EXPIRE OF BOTH	3/15 Tana Tam	ATV
OPERATIONS HAVE NOT COMMENCED BY 1	2=20-82	Jane Lew,	V V
THOM	PHONE 884-	7728	
ENTLEMEN:			
	rill upon the above named	farm or tract of land for	r oil and gas having fee
The undersigned well operator is entitled to d	26	H'A AMILAMIT	
The undersigned well operator is entitled to detect the thereto, (or as the case may be) under gran	nt or lease dated	February 19 92	by Alva & Anna
The undersigned well operator is entitled to detect the thereto, (or as the case may be) under grand McClean made to Eastern In	nt or lease dated	corded on the	
The undersigned well operator is entitled to detect the thereto, (or as the case may be) under grand McClean made to Eastern In	nt or lease dated	corded on the	by Alva & Anna February
The undersigned well operator is entitled to detect the thereto, (or as the case may be) under grand McClean made to Eastern In Barbour County, Book	nt or lease dated	rebruary 19_92 corded on the	by Alva & Anna Location February Location day of February
The undersigned well operator is entitled to detect the thereto, (or as the case may be) under grand McClean made to Eastern In Barbour County, Book	termeuntain and recomposition	rebruary 19 92 26 corded on the LL X FRACTION	by Alva & Anna Location February Location day of February
The undersigned well operator is entitled to detect the thereto, (or as the case may be) under grand McClean made to Eastern In Barbour County, Book	termeuntain and recomposition	rebruary 19 92 26 corded on the LL X FRACTION	by Alva & Anna Location February Location day of February
The undersigned well operator is entitled to detect the thereto, (or as the case may be) under grand McClean made to Eastern In 82, in Barbour County, Book X NEW WELL DRILL DOLL AND GAS WELL ORIGINALL The enclosed plat was prepared by a registered	termeuntain and received and re	rebruary 19 92 26 26 26 26 26 26 26 27 26 27 26 27 26 27 27 27 27 27 27 27 27 27 27 27 27 27	by Alva & Anna Location day of February  URE OR STIMULATE
The undersigned well operator is entitled to detect the thereto, (or as the case may be) under grand McClean made to Eastern In 82, in Barbour County, Book X NEW WELL DRILL DO OIL AND GAS WELL ORIGINALL	termeuntain and received and re	rebruary 19 92 26 26 26 26 26 26 26 27 26 27 26 27 26 27 27 27 27 27 27 27 27 27 27 27 27 27	by Alva & Anna Location day of February  URE OR STIMULATE
The undersigned well operator is entitled to detect the thereto, (or as the case may be) under grand McClean made to Eastern In M	termeuntain and recomposition and recomposition and recomposition and recomposition and recomposition and recomposition are hereby notified that an expectation are hereby notified that are	rebruary 19 92 26 corded on the  ILL X FRACTI NE 5, 1969.  surveyor and all coal of	by Alva & Anna  day of February  URE OR STIMULATE  owners and/or operators  o make, or are required
The undersigned well operator is entitled to detect the thereto, (or as the case may be) under grand McClean made to Eastern In Section 1982, in Barbour County, Book X NEW WELL DRILL DOLL AND GAS WELL ORIGINALL The enclosed plat was prepared by a registere average been notified as of the above date.	termeuntain and recomposition and recomposition and recomposition and recomposition and recomposition and recomposition are hereby notified that an expectation are hereby notified that are	rebruary 19 92 26 corded on the  ILL X FRACTI NE 5, 1969.  surveyor and all coal of	by Alva & Anna  day of February  URE OR STIMULATE  owners and/or operators  o make, or are required
The undersigned well operator is entitled to detect the thereto, (or as the case may be) under grand McClean made to Eastern In Parbour County, Book Market Medical Me	termeuntain and received by, or filed with the Dress of the mailed by registered mail	rebruary 19 92 26  Corded on the  ILL X FRACTION NE 5, 1969.  Surveyor and all coal of the surveyor and the	by Alva & Anna day of February  URE OR STIMULATE  owners and/or operators  o make, or are required in ten (10) days. *  we named coal operators
The undersigned well operator is entitled to detect the thereto, (or as the case may be) under grand McClean made to Eastern In 982, in Barbour County, Book X NEW WELL DRILL DE OIL AND GAS WELL ORIGINALL The enclosed plat was prepared by a registere ave been notified as of the above date.  The above named coal owners and/or operator or make by Section 3 of the Code, must be received to coal owners at their above shown respective in coal owners at their above shown respective in the section of the code of	termeuntain and received by or filed with the Draw mailed by registered mailed address	rebruary 19 92 26  Corded on the  ILL X FRACTO NE 5, 1969.  Surveyor and all coal of the surveyor and the su	by Alva & Anna  day of February  URE OR STIMULATE  owners and/or operators  o make, or are required ain ten (10) days. *  ve named coal operators  before, or on the
The undersigned well operator is entitled to detect the thereto, (or as the case may be) under grand McClean made to Eastern In Parbour County, Book Market Medical Me	termeuntain and received by or filed with the Draw mailed by registered mailed address	rebruary 19 92 26  Corded on the  ILL X FRACTO NE 5, 1969.  Surveyor and all coal of the surveyor and the su	by Alva & Anna  day of February  URE OR STIMULATE  owners and/or operators  o make, or are required ain ten (10) days. *  ve named coal operators  before, or on the
The undersigned well operator is entitled to detect the thereto, (or as the case may be) under grand McClean made to Eastern In 982, in Barbour County, Book X NEW WELL DRILL	termeuntain and received by or filed with the Department of Min	rebruary 19 92 26  Corded on the  ILL X FRACTO NE 5, 1969.  Surveyor and all coal of the surveyor and all coal of the partment of Mines with the partment of Mines with the partment of the above day	day of February  LURE OR STIMULATE  Description of the properties
The undersigned well operator is entitled to detect the thereto, (or as the case may be) under grand McClean made to Eastern In 82, in Barbour County, Book X NEW WELL DRILL D. OIL AND GAS WELL ORIGINALL The enclosed plat was prepared by a registere ave been notified as of the above date.  The above named coal owners and/or operator or make by Section 3 of the Code, must be received and the enclosed plat were coal owners at their above shown respective is the day with the mailing or delivery of this copulation.	termeuntain and received and are hereby notified that any ved by, or filed with the Department of Min very truly your	rebruary 19 92 26  Corded on the  ILL X FRACTO NE 5, 1969.  Surveyor and all coal of the surveyor and all coal of the partment of Mines with the partment of Mines with the partment of the above day	by Alva & Anna  day of February  URE OR STIMULATE  owners and/or operators  o make, or are required ain ten (10) days. *  ve named coal operators  before, or on the
The undersigned well operator is entitled to detect the thereto, (or as the case may be) under grand McClean made to Eastern In 982, in Barbour County, Book X NEW WELL DRILL	termeuntain and received by or filed with the Department of Min	rebruary 19 92 26  Corded on the  ILL X FRACTO NE 5, 1969.  Surveyor and all coal of the surveyor and all coal of the partment of Mines with the partment of Mines with the partment of the above day	day of February  LURE OR STIMULATE  Description of the properties
The undersigned well operator is entitled to detect the thereto, (or as the case may be) under grand McClean made to Eastern In 82 made to Eastern In 982, in Barbour County, Book X NEW WELL DRILL DE OIL AND GAS WELL ORIGINALL The enclosed plat was prepared by a registere ave been notified as of the above date.  The above named coal owners and/or operator of make by Section 3 of the Code, must be received as a coal owners at their above shown respective is the mailing or delivery of this copulation. The support of the coal owners at their above shown respective is the coal owners at their above shown respective is the coal owners at their above shown respective is the coal owners at their above shown respective is the coal owners at their above shown respective is the coal owners at their above shown respective is the coal owners at their above shown respective is the coal owners at their above shown respective is the coal owners at their above shown respective is the coal owners at their above shown respective is the coal owners at their above shown respective is the coal owners at their above shown respective is the coal owners at their above shown respective is the coal owners at their above shown respective is the coal owners at their above shown respective is the coal owners at their above shown respective is the coal owners at their above shown respective is the coal owners at their above shown respective is the coal owners at their above shown respective is the coal owners at their above shown respective is the coal owners at the coal owners at the coal owners and coal owners and coal owners are coal owners.	termeuntain and received and are hereby notified that any ved by, or filed with the Department of Min very truly your	corded on the  26  ILL X FRACTI  NE 5, 1969.  Surveyor and all coal of the	day of February  LURE OR STIMULATE  Description of the properties
The undersigned well operator is entitled to detect the thereto, (or as the case may be) under grand McClean made to Eastern In 82 made to Eastern In 82 made to Eastern In 982, in Barbour County, Book X NEW WELL DRILL DOIL AND GAS WELL ORIGINALL The enclosed plat was prepared by a registered two been notified as of the above date.  The above named coal owners and/or operator of make by Section 3 of the Code, must be received to coal owners at their above shown respective is me day with the mailing or delivery of this copulation.  LEASE SUBMIT COPIES OF ALL EOPHYSICAL LOGS DIRECTLY TO:	termeuntain and received and are hereby notified that and ved by, or filed with the Department of Min Very truly you (Sign Name)	corded on the  26  ILL X FRACTI  NE 5, 1969.  Surveyor and all coal of the	day of February  LURE OR STIMULATE  Description of the properties
The undersigned well operator is entitled to detect the thereto, (or as the case may be) under grand McClean made to Eastern In McClean McCl	termeuntain and received and are hereby notified that any ved by, or filed with the Department of Min very truly your	corded on the  26  ILL X FRACTI  NE 5, 1969.  Surveyor and all coal of the	day of February  LURE OR STIMULATE  Description of the properties
The undersigned well operator is entitled to detect the thereto, (or as the case may be) under grand McClean made to Eastern In McClean McCl	termeuntain and received and are hereby notified that an ved by, or filed with the Dre mailed by registered mailed address y to the Department of Min Very truly you (Sign Name) Address	corded on the  26  ILL X FRACTI  NE 5, 1969.  Surveyor and all coal of the	day of February  LURE OR STIMULATE  Description of the properties
The undersigned well operator is entitled to detect the thereto, (or as the case may be) under grand McClean made to Eastern In 982 in Barbour County, Book X NEW WELL DRILL DOLL AND GAS WELL ORIGINALL OIL AND GAS WELL ORIGINALL The enclosed plat was prepared by a registered average been notified as of the above date.  The above named coal owners and/or operator or make by Section 3 of the Code, must be received and the enclosed plat well or coal owners at their above shown respectives are coal owners at their above shown respectives are day with the mailing or delivery of this copulation. LEASE SUBMIT COPIES OF ALL EOPHYSICAL LOGS DIRECTLY TO:  EST VIRGINIA GEOLOGICAL AND CONOMIC SURVEY  O. BOX 879 ORGANTOWN, WEST VIRGINIA 26505	termeuntain and received and are hereby notified that an end by registered mail address y to the Department of Min Very truly you (Sign Name)  Address of	corded on the 26  ILL X FRACTIONS 5, 1969.  Surveyor and all coal of the s	day of February  LURE OR STIMULATE  Description of the properties
The undersigned well operator is entitled to detect the thereto, (or as the case may be) under grand McClean made to Eastern In 182 made to Eastern In 183 made to Eastern In 184 made	termeuntain and received and are hereby notified that an end by registered mail address y to the Department of Min Very truly you (Sign Name)  Address of	corded on the  26  ILL X FRACTI  NE 5, 1969.  Surveyor and all coal of the	day of February  LURE OR STIMULATE  Description of the properties

\*SECTION 3 . . . . If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.



47-001-1760

PERMIT NUMBER

FILE COPY



1)	Date: November	18	, 19 83
-/		The second second	

2) Operator's Renewal 1 Well No.\_

47 3) API Well No.

1760-REN

State

County

Permit

## STATE OF WEST VIRGINIA DEPARTMENT OF MINES, OIL AND GAS DIVISION

				AL	FLICATIO	N FUR A WELL	WORKTERMIT			
A WELLTYDE			39 // Go	XX	r oz (v	AN ED PROT	PHOMOVOLETICA	DIFICATIONS	DIM THAT	a
) WELL ITE								_/ Deep		
N LOCATION		vation:					ugar Creek		_/ Silanow	37 10 10 10
) LOCATION:		strict: Ba	COLUMN TO PROPERTY.				bour		Belingto	on $7\frac{1}{2}$
WELL OBEL	ATORI	Tact o	rn In	ermo	nıntai	n Energy	DESIGNATED	AGENT Geor	ge Wil	Liams
	TATORI	0 0	Box 9	22	Juitoai	ii mioi 6j	Address	P. O.	Box 90	)2
Address			gton,		26250		Audress	Bel:	ngton.	WV 2625
OIL & GAS					0000		DRILLING CO			
								Unknown		
			racy				Address	OHMHOWH		£ 5 48
Address							Address			
	Service of the servic	The second secon	-8798						Х ,	
) PROPOSED	WELL '	WORK:			/ Drill		_/ Redrill		<u> </u>	
							te new formation_	/		
			Other p	hysical c	hange in w					
) GEOLOGIC	AL TAR	GET FOR	RMATION	Ha:	verty	Sd.				
12) Estimate	d depth o	of comple	ted well,		5500	feet				
13) Approxi	mate trat	a depths:	Fresh, _	60, 2	50	feet; salt,_				77.77
14) Approxi	mate coa	l seam de	pths: Un	know	n	Is coa	l being mined in the	area? Yes	/ No_	XX
) CASING AN										
CASING OR			CIFICATIONS		11	FOOTAGE IN	TERVALS ]	CEMENT FILL-UP	PAC	KERS
TUBING TYPE			Weight		Uned	For drilling	Left in well	OR SACKS (Cubic feet)		
	Size 11 3	Grade /4	per ft.	New	Used	40ft	Left in well 40ft	(Cubic feet)	Kinds	
onductor	<u> </u>	17							Kinds	
esh water										
oal	2 = /	A				1100ft	1100ft	to surfa	Sizes	
termediate	8 5/	R				5500ft		to 2600ft		
roduction	4章					990010	7,0010	00 200010	Depths set	
ubing						I USB ONL	DEFI		-	
iners									Perforations:	
		200015	obser qu	mollo	uma han	e occurrentes.	dares ni certai	dr broger of at o	Тор	Bottom
6	-61			- 6			Pinte		*	
				7-10-0					- having	ak daylori day
* 12 F F F				V Cyal Gara	Ol	FFICE USE O	NLY			
1 2 3 3 4 4 7				4.43	DI	RILLING PER	RMIT		hafa	utz shew HeV
		47 00	1 1760	Don				Decem	ber 5.	1983
ermit number		47-00	1-1760-	Ken			-			
								Da		ompletion o
his permit coveri	ng the w	ell operat	tor and wel	l locatio	n shown be	elow is evidence o	f permission granted	d to drill in accordan	nce with the pe	ertinent legal re-
uirements subject	to the c	onditions	contained	herein an	nd on the re	everse hereof. Not	ification must be giv	en to the District Oi	l and Gas Insp	ector, (Refer to
o. 8) Prior to the	constru	ction of r	oads, locati	ons and	pits for any	y permitted work.	In addition, the we	ll operator or his cor	itractor shall r	iotify the proper
						k has commenced				
	k is as d	escribed i	n the Notic	e and A	pplication,	plat, and reclama	tion plan, subject to	any modifications a	and conditions	specified on the
everse hereof.		Decer	mber 5,	1985						41. 4 4:1:
ermit expires						unless well	work is commenced	prior to that date and		
			1						ECHONS	THER INSE
Bond:	Ager	nt:	Plat:	Casing	g F	ee ,				
11		-			. 11	,4		-11	1	
CD	mh	/ /	MH	mo	1 1.6		-	11.	1	
						STATE OF STATE	/	TE	Y	поввой
							Admir	nistrator, Office of (	Oil and Gas	
OTE: Keep on	е сору о	f this peri	mit posted	at the dr	illing locati	ion.				
				100						File

Permit

ORM IV-2(B)



STATE OF WEST VIRGINIA

		OFF	TCE USE ONLY	APPLICA			
PERMIT M	ODIFICATIONS	AND CONDI	TIONS (IF ANY	() TO THE P	ROPOSED V	WELL WOR	WELLTN
X wollad2 \	Z Deup E		/ Underground stor	X	as", Production	D" 11), B	
The Program Piles					UUSI :::	4: Elevatio	S) LOCATIO
Ent. E.E.I. two sea	Quadranne, Bo AGRINT (F6 OT)	A STANSON	Country Dest 19		Parker.		
100 x08		Address	(LES TATES THE		00 0E .		
ngton, TV kozgo	ii.fog				Loste di		cestinna
		DREENGCO			TO BE NOTIFI	INSPECTOR	8) OIL & GAS
						Potlatp	
		Address			3678798		
		/ Redelit	deeper	Mid A		S WELL WOR	
			Periorate				
			teet	Haverty	FORMATION		I) GEOLOGIA
	Jost Pec.						
NO NEW YORK		eing maedin the	f lacoatls coat t	TWO		nest coat soar	onna (Al
							S CASING A
PACAFUS	CEMENT HILLER OR SACKS	P.V. 51.8	FOOTAGE ENT		SPECIFICATIONS		CASING OR
		How gills I		New Lines	Weight wide per fr.		TUBING TYPE
						學 大 土上	anductor
	prizze of	#300 ET	13300TL -			4 : 4	
		4,50055	120066				
		OFF	ICE USE ONLY			4	anida'
							y y grans.
This part of Form IV-2(	(b) is to record th	e dates of certa	ain occurrences a	nd any follow	v-up inspection	ons.	
		Date				Date	(s)
							1
Application received		VI	Follow-uj	p inspection(s	)		
Well work started			NEW, LING PER	,,			
well work started						VAE:	
Completion of the drilling	ng						
process manning of the name		permission granted	to someoly a "poled	location shown			avno timesmonio
of tajoga inclination (grapher to	ALL formal(Lod) of the	the ort tagger contact	peverse hereof, North	erein and on the	four contained b		
Well Record received			orichas commenced a				
Reclamation completed		on plan, subject to	plat, and reclamati	none sugg , bas	ed in the Protice	ork is as desprii	he permitted we everse hereof.
		ricis confinenced					erini expires
OTHER INSPECTIONS	S						
			5.7	Casing	d Plats	Agent:	Boild
Reason:	17.7	1000000	40	1 1/2181	mil	mall	10
Danson	and the			T. A.K.K.	1 41 (1)	MILLI	1 4
Reason:	(O to entitle appears)	Admin			- The state of the		

See the reverse side of the APPLICANT'S COPY for instructions to the well aperator.

### $\underline{\mathtt{I}} \; \underline{\mathtt{N}} \; \underline{\mathtt{S}} \; \underline{\mathtt{T}} \; \underline{\mathtt{R}} \; \underline{\mathtt{U}} \; \underline{\mathtt{C}} \; \underline{\mathtt{T}} \; \underline{\mathtt{I}} \; \underline{\mathtt{O}} \; \underline{\mathtt{N}} \; \underline{\mathtt{S}} \quad \underline{\mathtt{T}} \; \underline{\mathtt{O}} \quad \underline{\mathtt{A}} \; \underline{\mathtt{P}} \; \underline{\mathtt{P}} \; \underline{\mathtt{L}} \; \underline{\mathtt{I}} \; \underline{\mathtt{C}} \; \underline{\mathtt{A}} \; \underline{\mathtt{N}} \; \underline{\mathtt{T}}$

#### CONCERNING THE LINE ITEMS:

- 1) Date of Notice.
- 2) Your well name and number.
- 3) To be filled out by the Office of Oil & Gas.
- 4) & 5) Use separate sheet if necessary.
  - 4) Surface owner(s) of record to be served with Notice and Application. However, see also Code § 22-4-lb(b) if "more than three tenants in common or other co-owners of interest described in subsection (a) of this section hold interests in such lands".
  - 5(i) "Coal Operator" means any person, firm, partnership, partnership association or corporation that proposes to or does operate a coal mine.
- 5(ii, iii) See Code § 22-4-20.
  - 6) See Code § 22-4-11(c). However, in lieu of filing the lease(s) or other continuing contract(s), the Applicant may fill out the information in the space provided below.
  - 7) See Code § § 22-4-11(d, e).

#### CONCERNING THE REQUIRED COPIES FOR FILING AND SERVICE:

Filing. Code § 22-4-lk and Regulation 7.02 provide that the original and required copies of the Notice and Application must be filed with the Administrator, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-lk(d) and the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fees required by Code § 22-4-8a from the owner of any water well on dwelling within 200 feet of the proposed well.

Service. In addition, service must be made on the surface owner(s) and the person(s) with an interest in the coal. See Code § § 22-4-lm, 22-4-2a, and 22-4-2b.

## 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-

- 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

7)				1)	Date:	Nov	ember
The same of the sa	,	•		2)	Opera	tor'	S
The same of the sa					Well :	No.	Renew

18 ,1983

Well No. Renewal 1

3) API Well No. 47 - 001 - 1760 Ren

State County Permit

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

	NOTICE OF APPLICATION FOR A WELL WORK PERMIT	
	WNER(S) OF RECORD TO BE SERVED 5(i) COAL OPERATOR None	_
(i) Name_	Alva McLean  S Belington, WV 26250  5(ii) COAL OWNER(S) WITH DECLARATION ON RECO	
		RD
Address	Address	_
	Nome	
(iii) Name	Address	
Address	Address	
	5(iii) COAL LESSEE WITH DECLARATION ON RECORD	:
	Name	
*1	Address	
	TO THE PERSON(S) NAMED ABOVE: You should have received this Form and the following documents:	
	<ul> <li>(1) The Application for a Well Work Permit on Form IV-2(B) (or Form IV-4 if the well is to be plugged, which sets out the parties involved in the drilling or other work, and describes the well and its location and, if applicable, the proposed casing and cementing program;</li> <li>(2) The plat (surveyor's map) showing the well location on Form IV-6; and</li> <li>(3) The Construction and Reclamation Plan on Form IV-9 )unless the well work is only to plug a well), which sets out the plan for erosion and sediment control and for reclamation for the site and access road.</li> </ul>	
	THE REASON YOU RECEIVED THESE DOCUMENTS IS THAT YOU HAVE RIGHTS REGARDING THE APPLICATION WHICH ARE SUMMARIZED IN THE "INSTRUCTIONS" ON THE REVERSE SIDE OF THE COPY OF THE APPLICATION (FORM IV-2(B) OR FORM 4, DESIGNATED FOR YOU. HOWEVER, YOU ARE NOT REQUIRED TO TAKE ANY ACTION AT ALL.	
	Take notice that under Chapter 22 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a Well Work Permit with the Administrator of the Office of Oil and Gas, West Virginia Department of Mines, with respect to a well at the location described on attached Application and depicted on attached Form IV-6. Copies of this Notice, the Application, the plat, and the Construction and Reclamation Plan have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Administrator.	
	6) EXTRACTION RIGHTS	
	X Check and provide one of the following: Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil or gas. The requirement of Code 22-4-1-(c)(1) through (4). (See reverse side for specifics.)	
	7) ROYALTY PROVISIONS	
	Is the right to extract, produce or market the oil or gas based upon a lease or leases or other contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes	
	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 o	of the information on the WELL	
	Application is verified OPERATOR Eastern Intermountain Energy.	I
and sworn t	to and the Notice is	_
	pehalf of the Well Operator  By///////////////////////////////////	_ 1
in my Count	ty and State by	_
thigad days	of / sorter wy 26250	_
this 29 day	of Monday, 1983.  Belington, WV 26250  Telephone 823-1746	
My Collin	15 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	_
thou	a ( Williams	
Notary P State of		

FORM IV-2(B)
Reverse

# INSTRUCTIONS TO SURFACE OWNERS AND EXPLANATION OF METHODS AND TIME LIMITS TO COMMENT ON OIL AND GAS WELL WORK PERMIT

The well operator named in the Notice and this Application and the attached materials is applying for a permit from the State to do oil or gas well drilling or other well work. You are being served with these materials because surface owners have the right to file comments before the permit is issued. (NOTE: If the surface tract is owned by more than three persons, in multiple heirship for example, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22, Article 4 of the W. Va. Code. Permits are valid for 24 months.

If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator named in the materials and the Administrator of the Office of Oil and Gas in the West Virginia Department of Mines immediately.

NOTE: You are not required to file any comment at all.

Where to file comments and obtain additional information:

Administrator of the Office of Oil and Gas West Virginia Department of Mines 1615 Washington Street East Charleston, West Virginia 25311 (304) 348-2057

Who may file comments? If you wish to file comments, you must be an owner of record of (1) an interest in the surface tract on which the well already is or is about to be located, or (2) an interest in any other surface tract under the same oil or gas lease which will be utilized for roads or other land disturbances.

Time limits for comments. The law requires these materials to be delivered on or before the date the operator files his Application. You have FIFTEEN (15) DAYS after the filing date to file your comments as provided in Methods for Filing Comments below. You may call the Administrator's office at the above telephone number to be sure of the date. However, if you have been contacted by the well operator, and if you have signed a "voluntary statement of no objection" to any of the planned work described in these materials, then the permit may be issued at any time.

Comments must be in writing. Your comments must include your name, address and telephone number, the well operator's name and well number, and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Methods for filing comments. Comments must be filed in person or received in the mail at the Administrator's office by the time stated above. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling.

The Administrator for Oil and Gas has the power to deny or condition a well work permit based on your comments on the following grounds:

- "(1) The proposed well work will constitute a hazard to the safety of persons; or
- "(2) The plan for soil erosion and sediment control is not adequate or effective; or
- "(3) Damage would occur to publicly owned lands or resources; or
- "(4) The proposed well work fails to protect fresh water sources or supplies."

If you want a copy of the permit as it is finally issued, or a copy of the order denying the permit, you should request a copy from the Administrator.

List of Water Testing Laboratories. The Administrator maintains a list of water testing laboratories which you can hire to test your water to establish water quality prior to and after drilling. Contact the Administrator's office or an Oil and Gas Inspector to obtain a copy of the list.

## .√-2(B) (Obverse) 7-83

## SURFACE OWNER'S COPY



1)	Date: Nove	mber	18	_, 19
2)	Operator's Well No	Rene	wal 1	
3)	API Well No.	47	001	1760
		State	County	Permit

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

4) WELL TYI	PF· A O	iil	/ Ga	XX	,				
4) WEEE III			Production			Underground	storage	_/ Deep	_/ Shallow/)
5) LOCATIO			1860			Watershed: _	Bugar Creek		
	Dis	strict:	cker					Quadrangle: _	
6) WELL OP						n Energy	7) DESIGNATED	AGENTGOOT	ge Williams
Address	TO 100		30x 90			<u>alia</u> ntes al l	Address	P.O.	Box 902
			rton,		6250			Beli	Ington, WV 26250
8) OIL & GA	S INSPEC	TOR TO	BE NOTIF	TED			9) DRILLING CO		
Name	and the second							Unknown	
Address	STATE OF THE PARTY	ina.	8798				Address		
	FROM								7
10) PROPOSE	D WELL	WORK:						/ Stimulate	
							ate new formation_		
				The second secon					
11) GEOLOGI									
12) Estima 13) Appro	ited depth o	of complet	ed well,	50.25	0	feet		F	
			THE RESERVE OF THE PARTY OF THE				,		/ No XX
				SA 4 W 11 43		IS CC	at being mined in the	area? Yes	/ No/
15) CASING A	II IOBI					FOOTAGE	INTERVALO	CEMENT PHI UP	ll provens
CASING OR TUBING TYPE		1	IFICATIONS Weight				1	OR SACKS	PACKERS
	Size	Grade	per ft.	New 1	Used	For drilling	Left in well	(Cubic feet)	
Conductor	and the same of the								Kinds
Fresh water									
Coal	0 67					11001	110001	to surfac	Sizes
Intermediate	9 2/A					55001v	5500ft	0 26002t	
Production									Depths set
Tubing									D. C. di
Liners	\$-	TO VIEW STATES							Perforations:
									Top Bottom
					l l				
	The l	aw require	es a comme	ent period	for surface	ce owners. How	ever, the permit can b	be issued in less than	15 days from
								ntary Statement of No	
34	on a facsi	mile of th	is surface of	owner's c	opy of the	Application.			
				VOLI	INITADV	STATEMENT	OF NO OBJECTION		
				VOLC	MIAKI	STATEMENT	OF NO OBJECTION		
I hereby star	te that I ha	ve read the	e instructio	ns to surf	face owner	s on the reverse	side of this Application	on for a Well Work P	ermit, and that I have received
									Form IV-2(B), (3) a survey plat
									as described therein.
	te that I ha	ive no obje	ection to th	e planned	i work des	cribed in these n	naterials, and I have r	io objection to a pern	nit being issued based on those
materials.									
(For execution b	y corporat	ion, partn	ership, etc	.)		(Fo	r execution by natura	l persons)	
d	Qua	N	nrt	Dan				1 Lm 1	
NAME:	wa	11	1.09	ean		- u	nna Bel	I Me Lea	n Date:
Ву							(S	ignature)	
(-)						*			Date:
Its				Date	e		(S	ignature)	

# AFFIDAVIT OF PERSONAL SERVICE ON SURFACE OWNER

STATE OF W. VA COUNTY OF Barbon:
The undersigned, being first duly sworn, says that the undersigned served a complete copy of all sides of—  (1) Notice on Form $IV-2(A)$ Form $IV-3(A)$ / Form $IV-4(A)$ /  (2) Application on Form $IV-2(B)$ / Form $IV-3(B)$ / Form $IV-4(B)$ /  (3) Plat showing the well location on Form $IV-6$ , and Construction and Reclamation Plan on Form $IV-9$ (unless the application
is to plug a well) all with respect to operator's Well No. 1760 located in  Barker District, Barbon County, West Virginia,  upon the person or organization named
alva Mc Lean
by delivering the same in Barbar County, State of W. Va- on the 29 day of November, 1983 in the manner specified below.
[COMPLETE THE APPROPRIATE SECTION]
For an individual:  [ Handing it to him / her / or, because he / she / refused to take it when I offered it, by leaving it in his / her / presence.
[ ] Handing it to a member of his or her family above the age of 16 years named who resides at the usual place of abode of the person to be served, and asking the family member to give it to the person to be served as soon as possible.
For a partnership:  [ ] Handing it to  partnership or, because the partner refused to take it when I handed it over, by leaving it in the presence of the partner.
For a limited partnership:  [ ] Handing it to the general partner, named, or, because the general partner refused to take it when I tried to hand it over, by leaving it in the presence of the general partner.
For a corporation:  [ ] Handing it to the corporation's employee // officer // director // attorney in fact // named
(Signature of person executing service)
Taken, subscribed and sworn before me this 29 day of November, 1983.
My commission expires March 7 1993  Allow E. Welliams  Notary Public
(AFFIX SEAL IF NOTARIZED IF OUTSIDE THE STATE)

## LEASE EXTENSION AGREEMENT BOOK 97 PAGE 11

This agreement extends the lease between Alva McLean of Belington, West Virginia and Eastern Intermountain Energy, Inc. for a period of an additional six months in consideration for the sum of one hundred five (105.00) dollars receipt hereby acknowledged.

This original lease is described in Deed Book 90 Page 55 as filed in the office of the County Clerk, Barbour County, West Virginia.

The lease is now valid under all the original terms and conditions for a period of twenty four months from the initial date of this lease.

RECEIVED
NOV 2 1 1983

OIL & GAS DIVISION
DEPT. OF MINES

Alva Mc Lean

Anna Belle McLean

Lessors

I Flow E Williams a Motory Public in and for said country of Barbour do certify that and for me fear a anne Beele Me hear. Also me fear a come Beele Me hear. Signed this writing may commission expenso March 7, 1993

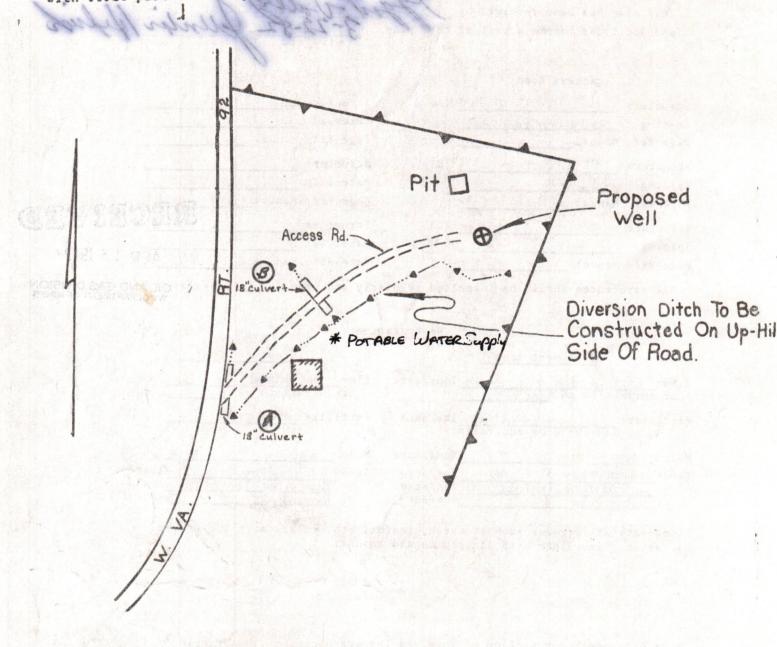
flow E. William

- Form IV-9 (01-80)	O Dronung	Well No McLEAN 1	
	MAR 22 1982  Iygart Validate OF WEST  Conservation Districts OF OIL	VIRCINIA	rbour - 1760-Ren,
Address P.	stern Distermount of En.	Designated Agent Mr. Wil Address P.O. Bo	x 2683
Landowner Al	va Mclean  co be carried out byEast	Telephone Charles Soil Cons. District p	arker
This plan has	been reveiwed by become a part of this plan.	art Vallysco Jai	ner Hefres
	cess Road	, Sea Location	
despressible(s) thresh	Culvert at Road(A)	Structure Material	
Page Ref. Manua	1	Page Ref. Manual	
Structure 18" 300	' Max.	Structure Material	
Page Ref. Manus		Page Ref. Manual	RECEIVED
Spacing	(С)	Structure Material	1 7 1000
Page Ref. Manua	s should be inspected regula	Page Ref. Manual	
All structure	s should be inspected regula	ity and repaired it nece	WY DEPARTMENT OF MINES
with the second	Revegetat		
Lime Estimate	eatment Area I  Tons/acre	Lime Estimated	3 Tons Act
or correct to	Anna contraction agreement	or correct to pH 6.5 Fertilizer - 600	lbs/3.:
Fertilizer (10-2	600 lbs/acre 0-20 or equivalent)	(10-20-20 or e	quivalent)
Mulch Hav Seed* Kentucl Birdsto Rvegra	oot Tretoil 10 lbs/acre	Mulch Hay Seed* Kentuckey 31 Birdsfoot Trefoi Ryegrass	3 Ton. Act.  40 lbs/serv  1 10 lbs/serv  10 lbs/serv
*Inoculate all	legumes such as vetch, trefoculate with 3X recommended	oil and clovers with the	proper
Attach or photo	cocopy section of involved To	opographic map. Quadran	gle Belington W.Va.
Legend	⊕well Site		
	Access Road	Y.A.	
	7,00	100	2000
7 au 7 21034	ACCESS	PROPOSED	
A STATE OF THE STA		Can Son of	
The fact of the same of the sa			VIV COM

Legend: Property Boundry Road = = = = Existing Fence -Planned Fence ----Stream-Open Ditch -

Diversion \* Spring O-Wet Spot Building Drain Pipe - 0-Waterway C

Sketch to include well location, existing access road, roads to be constructed, wellsite, drilling pits and necessary structures numbered or lettered to correspond with first part of this plan. Include all natural drainage.



'omments:	1.) Disturbed area to be kept to a minimum.
and the second second second second	2.) Cut slopes to be 2:1.
	3.) New culverts to be at natural drain areas or at 300' max .
	Ditches to be cut on uphill side of road where necessary.
	4.) Access Roadway shall be constructed so as to protect the
	Potable water supply.
Signature	
and the same of th	Address Phone Number

maration to restect new ing for one growing season.

the sum of one hundred five (105.00) dollars receipt hereby acknowledged.

This original lease is described in Deed Book 90 Page 55 as filed in the office of the County Clerk, Barbour County, West Virginia.

The lease is now valid under all the original terms and NOV 2 1 1983 conditions for a period of twenty four months from the OIL & GAS DIVISION initial date of this lease.

alva Mc Lean anna Bello Mc Lean

Lessors

flow E Williams

I Flow E Williams a Motory Public in and for said country of Barbour do certify that and for me fear at anna Beele Me hear. Also me fear at anna Beele Me hear. Signed this writing may commission expires March 7, 1993

BANGOUR VECOMBED.

2000.000.

STATE OF WEST VIRGINIA, County of Barbour, To-wit:

I, Glenna G. Propst, Clerk of the County Commission of said County, do hereby certify that the foregoing writing, with Certificate thereto annexed, was this day produced to me in my office and duly admitted to record.

Witness my hand. Ilemna I. Großet-CLERK.

1983 SEP -6 AM 10: 57

GLENNA G. PROPST

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

Perf Haverty 5008-5360 (16 holes) Frac with 200 sks 80/100, 300 sks 20/40 560# wg 12 600 bblst reated fluid Avg rate 24 bpm Avg psi 3286#

Perf Benson Alexander 3975-4238 (19 holes) Frac with 200 sks 80/100 300 sks 20/40 560# wg12 500 gal Hcl 583 bbls treated fluid Avg rate 26 bpm Avg psi 1946#

Perf Balltown 2930-3220 (20 holes) Frac with 200 sks 80/100 350 sks 20/40 560# wg12 440 bbls traeted fluid 500 gal Hcl Avg rate 27.3 bpm Avg psi 2129

#### WELL LOG

FORMATION	COLOR	HARD	OR	SOFT	TOP FEE	т	BOTTOM FEET	Including and salt	REMARKS indication water, coa	n of all 1, oil an	fresh l gas
coa sd- coa sd- coa sd- rr	sh 1 sh 1 sh sh ime				0 , 80 , 84 254 260 805 810 1120 1185 1480 1600 1670 5015 5095	43	80 84 254 260 805 810 1120 1185 1480 1600 1670 5015 5090 5444				

(Attach separate sheets as necessary)

Well Operator

By: George Williams

Date: 1/23/85

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."



41

# State of Mest Wirginia

Bepartment of Mines Gil and Gas Bivision

Date 1/23				
Operator's	5			
Well No	#1			_
Farm Mole	an			
API No. 47	- 001	_	1760	

## WELL OPERATOR'S REPORT OF

## DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

LOCATION: Elevation: 1860 Waters	ed Sugar	Creek			
District: Barker County			angle Be	lingto	n 7.5
COMPANY Eastern Intermountain Energy	de Contractor				
ADDRESS PO Box 902 Crim Ave. Belington W	Caşi	ng Used	in L	eft	Cement
DESIGNATED AGENT George Williams	Tubi	1	ling in		fill up Cu. ft.
ADDRESS PO Box 902 Crim Ave. Belington WV	Size	and the same of th	- 5 -		
SURFACE OWNER Alva McTlean	20-1	6			
ADDRESS Rt. 2 Belington WV	Cond	36			
MINERAL RIGHTS OWNER Alva Mc&lean	13-1		_		
ADDRESS Rt. 2 Belington WV	9 5/			1106	005
OIL AND GAS INSPECTOR FOR THIS WORK	8 5/	В		1106	285 sks
ADDRESS	7				
PERMIT ISSUED	5 1/	2			
DRILLING COMMENCED 7-28-84	4 1/	2	54	+27	2300' fi
DRILLING COMPLETED 8-2-84	_ 3				
IF APPLICABLE: PLUGGING OF DRY HOLE ON	_ 2				
CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON	Line use			unes un mentantici filiati e nuclina, dichicul	
GEOLOGICAL TARGET FORMATION Haverty		Andread Street Company and announced Principles and the Street Company of the Com	Depth 5	5000'	feet
Depth of completed well 5444'	eet Rotary	X / (	Cable To	∞ls	
Water strata depth: Fresh 1075'	eet; Salt		feet	***************************************	And the second s
Coal seam depths:80-84, 254-260, 805	810 Is o	oal being	mined :	in the	area? No
OPEN FLOW DATA					
Producing formation Haverty Benso	ı	Day zono	donth 3	3975-53	60 foot
Gas: Initial open flow - M			-		The state of the s
				Charles and Charles and	Bbl/d
	cf/d		-	The second secon	Bbl/d
Time of open flow between			***************************************		
Static rock pressure psig(		urement) a	arter	hou	rs shut in
(If applicable due to multiple comp		_		0000	222
Second producing formation Balltow			Total Contract of the Contract		and the section of th
Gas: Initial open flow 60 M				***************************************	The state of the s
Final open flow M			-		Bbl/d
Time of open flow between Static rock pressurepsig(s			-	ho	

#### STATE OF WEST VIRGINIA

## DEPARTMENT OF MINES

OIL AND GAS WELLS DIVISION



OIL & GAS DIVISION DEPT. OF MINES

## INSPECTOR'S WELL REPORT

Permit No.001- / 7/2	OKEN		Oil or Gas Well					
Company EASTER	N INSERMOUNTAI	CASING AND	USED IN DRILLING	LEFT IN WELL	PACI	KERS		
Address		Size						
Farm A	AM = Clean	16			Kind of Pac	eker		
Well No.	#1	13			Size of			
District	County BARBOUR	818/8 -	-					
Orilling commenced	7-28-84	5 3/16			_ Depth set_			
Orilling completed	Total depth	3			Perf. top			
Date shot	Depth of shot	2			Perf. botton	m		
Initial open flow	/10ths Water inInch	Liners Used			Perf. top	m		
Open flow after tubing	/10ths Merc. inInch				1 611. 50000			
Volume	Cu. Ft.	CASING CEME			No. FT	Date		
lock pressure	lbshrs.	NAME OF SEI	RVICE COMPA	ANY				
Dil	bbls., 1st 24 hrs.	COAL WAS EN	NCOUNTERED	AT	_FEET	INCHES		
Fresh water	feetfeet	FEET	INC	HES	_FEET	INCHES		
Salt water	feetfeet	FEET.	INCI	HES	FEET	INCHES		
Drillers' Names	JACIE - Rig =	+1/				terrory)		
	2			,				
Remarks:	MINING 8 1/8 -	-						

PG Beach

Form 26 2/16/82

### STATE OF WEST VIRGINIA

## **DEPARTMENT OF MINES**

## OIL AND GAS WELLS DIVISION

## **INSPECTOR'S PLUGGING REPORT**

COMPANY	s 40		ADDRESS				
FARM				ator stereous			
	2.25%	JAN 1					
Filling Material Used							
Liner Loc	cation	Amou	ınt	Packer	Loc	ation	
PLUGS USED A	ND DEPTH PLACED		BRIDGE	S	CASING	G AND TU	BING
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION	I-LOCATION	RECOVERED	SIZE	LOST
					n		
ga im					A secondary		18 1 × 3 × 10
				3044.1	Allaest		
is stall as							25 184 184
					1871	19 miles 19	na wit.
at Francisco			regular distri				
	T PARTY	3007103					
	The second secon						
TROME		VA.	N - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	M. Jane			
Drillers' Names					1.701		
Remarks:		The control of the control of the control of the	en e			Try and the system	an stage stage
DATE	I hereby certify I vis	ited the above v	well on this date.				

#### STATE OF WEST VIRGINIA

## DEPARTMENT OF MINES

OIL AND GAS WELLS DIVISION



OIL & GAS DIVISION
DEPT. OF MINES

REBeau

DISTRICT WELL INSPECTOR

## INSPECTOR'S WELL REPORT

Permit No. 00/-//	60K				Oil or		
Company EASIER	N INTERM	ounitain	CASING AND TUBING	USED IN DRILLING	LEFT IN		PACKERS
Address			Size				
Farm	CleAN		16			Kind	of Packer
Well No	#/	7799	10			Size o	of
District	County BAI	280012	81/8 3/8 -	1105	1105		
Drilling commenced			65%			Depth	set
Drilling completed	Total depth		5 3/16			Dest	
Date shot	Depth of shot		2				bottom
Initial open flow	/10ths Water i	nInch	Liners Used			Perf.	top
Open flow after tubing	/10ths Merc. in	Inch				Perf.	bottom
Volume		Cu. Ft.	CASING CEME	NTED	SIZE	No.	FTDate
Rock pressure	lbs	hrs.	NAME OF SEI	RVICE COMPA	ANY		
0i1	bbls.,	1st 24 hrs.	COAL WAS EN	NCOUNTERED	AT	_FEET_	INCHES
Fresh water	feet	feet	FEET	INCE	HES	_FEET_	INCHES
Salt water	feet	feet	FEET	INCH	HES	_FEET_	INCHES
Drillers' Names	JACIZ.	- Rig 1	±11				
		•					
Remarks:	9 @ - 493	30					
	<b>'</b>						

Form 26 2/16/82

#### STATE OF WEST VIRGINIA

## **DEPARTMENT OF MINES**

## OIL AND GAS WELLS DIVISION

## **INSPECTOR'S PLUGGING REPORT**

UMPAN I			ADDRESS			
ARM		DISTRICT _	C	OUNTY		
filling Material Used						
iner Loc	cation	Amour	nt Packer	Loc	cation	
PLUGS USED A	ND DEPTH PLACED		BRIDGES	CASIN	G AND TU	BING
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION-LOCATION	RECOVERED	SIZE	LOST
			1 X 5000 X X 11			
253 days						
					10 W	
estation of the Country of the Artist Countr			and the second s	82400		a escale
			dentina di mano			i mag
		The state of the s	entered that it would work to		3,700	
	1000-100	100 MOST	92.73.4			
	- Matrice	1 2011/10/2019	D Stand			
ednile e maine	Land Care	TO TOUR E PA	William I was a Made Labor			
Orillers' Names						
	799049	1945 TAB	1987	7.00		T-LL-
Remarks:						
	I hereby certify I vis	ited the above w	vell on this date.			
DATE						

#### STATE OF WEST VIRGINIA

## DEPARTMENT OF MINES

OIL AND GAS WELLS DIVISION



OIL & GAS DIVISION

# INSPECTOR'S WELL REPORT DEPT. OF MINES

Permit No.00/- 1766	OK				Oil or	Gas Well	
Company EAST	THTERMO	ONTAIN	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACK	ERS
			Size				
Farm M 5	Clean-		16			Kind of Pac	ker
Well No.	#/	A COMMENTAL OF	13		a pierway is	Size of	manaa.
District	County	ARBOUR	8185/8-	1105'	1105'	Size of	
Drilling commenced			53/14/2	5417	5417	Depth set	
Drilling completed 93	-84 Total dept	h 5444	3	0117		Perf. top	
Date shot	Depth of shot	1	2			Perf. botton	1
Initial open flow	/10ths Wate	er inInch	Liners Used			Perf. top	
Open flow after tubing	/10ths Merc	. inInch				Perf. botton	1
Volume		Cu. Ft.	CASING CEMI	ENTED	SIZE	No. FT	Date
Rock pressure	lbs	hrs.	NAME OF SE	RVICE COMP	ANY		
Oil	bb	ls., 1st 24 hrs.	COAL WAS E	NCOUNTERE	O AT	_FEET	INCHES
Fresh water	feet	feet	FEET	INC	HES	FEET	INCHES
Salt water	feet	feet	FEET	INC	HES	_FEET	INCHES
Drillers' Names	Tres	2 - Rig	# //				S likerali
Remarks:	- T.O-	1/1000	0/6 -				
			0-				

93/84

26 Reace

Form 26 2/16/82

## STATE OF WEST VIRGINIA

## **DEPARTMENT OF MINES**

### OIL AND GAS WELLS DIVISION

## **INSPECTOR'S PLUGGING REPORT**

COMPANY	19 16 July 19 19 19 19 19 19 19 19 19 19 19 19 19		ADDRESS			The State of the
			C			
		Line Lab				
Filling Material Used						
Liner	cation	Amou	nt Packer	Loc	ation	
PLUGS USED AND DEPTH PLACED			BRIDGES	CASING AND TUBING		
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION-LOCATION	RECOVERED	SIZE	LOST
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						
						2502 SAG
		* **	7918V	401	285	1 a -a ( 4 a)
			were the second of the second	2 8482	energy in the last	dr was a
		CISTON TOOL				
	10 TANCO	1 21 22 3 2 2		1.24		
THE THE	9.11	A service of the serv	27			
		Jane 1	The second secon			
Drillers' Names		The second second				
	2777747	28.		200		
Remarks:						
1	I hereby certify I vis	gited the above "	vell on this data			
DATE	i hereby certify I vis	nieu ine above w	ven on tins date.			

STATE OF WEST VIRGINIA DEPARTMENT OF NETTES ENGY OFFICE OF OIL AND GAS CHARLESTON 25305 FINAL INSPECTION REPORT INSPECTORS COMPLIANCE REPORT



Company: EASTERN INTERMOUNTAIN ENERGY Farm: McLEAN, ALVA Well: 1

County: BARBOUR

DIVISION OF OIL & GAS Permit No. 47- 1-1760 DEPARTMENT OF ENERGY County: BARBOUR REW - 12-5-83

		In Compliance
Rule	Description	Yes No
23.06 Noti	ification prior to starting work	
25.04 Pres	red before drilling to prevent wast	te
25.03 High	n pressure drilling	
16.01 Read	sired permits at wellsite	
15.03 Adea	auate Fresh Water Casins	
15.02 Adea	auate Coal Casins	
15.01 Adec	nuate Production Casins	
15.04 Adea	guate Cement Strength	
15.05 Ceme	ent Type	404 MA
23.02 Main	tained Access Roads	V
25.01 Nece	essary Equipment to Prevent Waste	
23.04 Rec1	simed Drillins Pits	
23.05 No S	Surface or Underground Pollution	
23.07 Regu	girements for Production & Gathering	s Pirelines
14.01 Well	Records on Site	OR AN
02 Well	Records Filed	
/.05 Iden	ntification Markinss	2
I HAVE INS	SPECTED THE ABOVE CAPTIONED WELL AND	SIGNED THAT IT BE RELEASED:
		DATE 8-7-85
with Chart	record was received and reclamation ter 22, Article 4, Section 2, the ab for the life of the well.	n requirements approved. In accordance bove well will remain under bond  Administrator
		August 22 1085
		August_22, 1985
		Date

### FERC-121

RECEIVED

JAN 2 9 1985

1.0 API well number: (If not available, leave blank, 14 digits.)	47	7-001-1760	OIL &	GAS DIV
Type of determination being sought:     (Use the codes found on the front of this form.)	107 Devonian S Section of NGPA Category Code		small NES	
3.0 Depth of the deepest completion location: (Only needed if sections 103 or 107 in 2.0 above.)		5360	feet	
4.0 Name, address and code number of applicant: (35 letters per line maximum. If code number not available, leave blank.)	Eastern Interm Name PO Box 902 Cri Street Belington City	im Ave.	WV 26250 State Zip Code	Seller Code
5.0 Location of this well: [Complete (a) or (b).] (a) For onshore wells (35 letters maximum for field name.)	Barker Field Name Barbour County		WV State	
(b) For OCS wells:	Area Name  Date of L  Mo. Day	<u>.</u>	Block Number	
(c) Name and identification number of this well: (35 letters and digits maximum.)	McLean #1			
(d) If code 4 or 5 in 2.0 above, name of the reservoir: (35 letters maximum.)	Tenneco			
6.0 (a) Name and code number of the purchaser: (35 letters and digits maximum. If code number not available, leave blank.)	Name			Buyer Code
(b) Date of the contract:		Mo. Day	Yr.	
(c) Estimated annual production:		17	MMcf.	
	(a) Base Price (\$/MMBTU)	(b) Tax	(c) All Other Prices [Indicate (+) or (-).]	(d) Total of (a), (b) and (c)
7.0 Contract price: (As of filing date. Complete to 3 decimal places.)				
8.0 Maximum lawful rate: (As of filing date. Complete to 3 decimal places.)				
9.0 Person responsible for this application:  Agency Use Only  Date Received by Juris. Agency  JAN 29 1985  Date Received by FERC	George William Name  1/25/85  Date Application is Comple	Tie July	Agent Title	

FT7900806/2 2

e Received

## STATE OF WEST VIRGINIA

DEPARTMENT OF MINES, OIL AND GAS DIVISION

FEB 1 5 1985

# COVER SHEET, STATE APPLICATION FOR WELL CLASSIFICATION

te: 1/23 ,19 85	AGENCY USE ONLY
plicant's Name: Eastern Intermountain Energy	WELL DETERMINATION FILE NUMBER
dress: _ 902 Crim Ave.	000100
Belington Wv 26205	850129 -107-001 - 1760
s Purchaser Contract No.	Use Above File Number on all Communications Relating to This Well
te of Contract	
(Month, day and year)	
rst Purchaser: Tennessee Gas Pipeline	Designated Agent: George Williams
iress: Tenneco Bldg.	Address: 902 Crim Ave.
(Street or P.O. Box) Houston TX 77001	Belington WV 26250
(City) (State) (Zip Code)	
₹C Seller Code	FERC Buyer Code
TE AND TITLE OF PERSON TO WHOM QUESTIONS CONCERN ADDRESSED:	NING THIS APPLICATION SHALL
Name: George Williams	Agent
Signature: (Print)	(Title)
Address: 902 Crim Ave.	and .
(Street or P.O. Box)	
Belington WV (State)	26250
Telephone: (304) 823-3	(Zip Code)
	Number)
(Certificate of Proof of Service to Purch	aser)
NGPA Catagory Ap	plied For
A SECTION/SUBSECTION	
New Natural Gas	108 Stripper Well Natural Gas
102-2 2.5 Mile Test	108- Stripper Well
102-3 1000 Foot Deeper Test 102-4 New Onshore Reservoir	108-1 Seasonally Affected 108-2 Enhanced Recovery
	108-2 Enhanced Recovery 108-3 Temporary Pressure Buildup
New Onshore Production Well  103 New Onshore Production Well	
High Cost Natural Gas	AGENCY USE ONLY
107-0 Deep (more than 15,000 feet)	AGENCY USE UNLY
107-1 Geopressured Brine 107-2 Coal Seams	# 77 · T.A
X 107-3 Devonian Shale	1 Le Arens
107-5 Production enhancement 107-6 New Tight Formation	
107-7 Recompletion Tight Formation	QUALIFIED
DECEIVED	and the state of t
Meser EM	
JAN 2 9 1985	
OIL & GAS DIV.	
DEPT. OF MINES	

Determination Date

FORM IV-55WC (12-78)

### STATE OF WEST VIRGINIA

DEPARTMENT OF MINES OIL AND GAS DIVISION

Date January 25, 1985

Operator's Well No. McLean #1

API Well No.

47 - 001 - 1760 State County Permit

## WELL CLASSIFICATION FORM HIGH COST GAS WELL - DEVONIAN SHALE NGPA Section 107

		DESIGNATED AGENT George Williams
	* .	
		ADDRESS P. 0. Box 902
		Belington, WV 26250
		LOCATION Elevation 1860'
WELL OPERA	TOR Eastern Intermountain Energ	watershed Sugar Creek
ADDRESS	P. 0. Box 902	Dist. Barker County Barbour Quad. Belington
	Belington, WV 26250	Gas Purchase Contract No.
GAS PURCHA	SER Tenneco	
ADDRESS	Tenneco Bldg, P. O. Box 2511	Meter Chart Code
	Houston, TX 77001	Date of Contract
	* * * *	* * * *
Date surface	ce drilling began: 7-28-85	y * * * * * * * * * * * * * * * * * * *
Indicate th	he bottom hole pressure of the w	vell and explain how this was calculated.
	$BHP = Pw e^{xGLS} = 1$	720#
	*	
	AFF	IDAVIT
	MI.	IDAVII
I have calcondental described report described of potential percent of not described reserved.	culated the percentage of footage hale as indicated by a Gamma Ray in subparagraph (3)(i) or (3)(ii cribed in subparagraph (3)(ii)(Bally disqualifying non-shale foothe gross Devonian age interval	first sworn according to law, state that e of the producing interval which is not index of less than 0.7 if a Gamma Ray log )(A) has been filed, or as indicated by the ); I have demonstrated that the percentage tage is equal to or less than five (5); and I have no knowledge of any information inconsistent with a conclusion that the well
STATE OF ME	EST VIRGINIA	
	Barbour, TO-WIT:	
		Public in and for the state and county
·,	f.	Additional and the beauty and country
aforesaid,	do certify that they find	day of January, 1985, has
acknowledge	g above, bearing date the 28 ed the same before me, in my cou	nty aforesaid.
Given under	r my hand and official seal this	7.8 day of Joneson . 19.85
My term of	office expires on theday	28 day of Jonean, 1985. of March, 1993.
(NOTARIAL S		Flore E. Williams Notary Public

N FOR DETERMINATION OF THE MANIMUM LAWFUL DE INDER THE MATURAL GAS POLICY ACT

Operator: Eastern Intermountain Energy Agent: George Williams

Type Determination being sought - 107 (Devonian Shale)

API Well No.: 47-001-1760 Well Name: McClean

West Virginia Office of Oil and Gas County: Barbour

References: SJA File No.

Vol. \_\_\_\_ Page \_\_\_ Line \_\_\_

A Gamma Ray Log has been marked with the (a) Shale Base Line, (b) a line representing  $0.7\ x$  (Shale Base Line), (c) intervals with Gamma Ray units less than  $0.7\ x$  (Shale Base Line) and that log is included with this analysis. I. NOTE:

II. Gamma Ray elevation indices:

- Shale Base Line (API Units)
  - GR Value at Base Line = 140 \* API Units
  - Remarks:

Shale line taken from 4290 to td. where borehole is clean and shale is well developed

- Gamma Ray Log Value at 0.7 x Value at Base Line

  - GR Value = 140 \* API Units Calculation: 0.7 (GR Value at Base Line) 0.7 (140 \*) = 98 API Units

## III. Intervals with GR index less than 0.7 x (Value at Base Line):

Interval		Thickness	Feet of less than*		
From**	To***	of Interval Feet	0.7 (Shale Base L Feet	ine)	
2325	3000	. 675	58		
3000	4000	1000	15		
4000	5000	1000	6		
5000	5404	404	0		

Total Devonial Interval

Total Less Than 0.7 (Shale Base)

79

% Less Than 0.7 (Shale Base Line) =  $.026 \times 100 = 2.57$ 

\*Marked on log included with analysis.

\*\*Top of Devonian Section Recorded on First Interval in this Column.

\*\*\*\*Lesser of TD or Tottom of Devonian Section Recorded as last Interval in this Column.

STATE OF WEST VIRGINIA,	
COUNTY OF Barbary	
1. William B Benous Notary Public do certify that Alva. Molary Public	to-wit:
do certify that Olive Man Man !	in and for said County of Tanawag.
do certify that Alva. Mclian	
signed to the writing hereto ann	whose no said County.  whose no said County.  whose no said County.  A. D., 10
hathis day acknowledged the same before me, in my	said County
Given under my hand and official seal, this 3_6	down of I
autoria tri saglaboran baga sa se	A. D., 16
100 (100 pt 100	Mallion B Bennet
	Notary Public in and for Hannuby County,
My commission expires 6 Lept 1988	County,
	The same of the sa
	and the second s
	the second state of
BARBOUR COUNTY, W.V.  BARBOUR COUNTY, W.V.  STATE OF WEST	
	VIRGINIA, County of Barbour, To-wit:
I, Glenna G	Proper Clark of the C
this day produced to	the foregoing writing, with Certificate thereto annexed, we me in my office and duly admitted to record.
90 TX 9 0 1/A 4 0	office and duly admitted to record.
FEE PAID \$2.0 Witness my hand.	Ilemna S. Großet-CLERK.
GLENNA G. PROPST	A 10, 10
	Notary Public in and for
My commission expires	County, W.
Vide Kibini .	
	the second of the second second second
	I II also f
County	19
	Co. Co.
No.	Les Target Targe
Gas Lease	Y V V V V V V V V V V V V V V V V V V V
S S S	No. o
	Z
amd	
	10,0000
5 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	P. P. S.
No.	Reco
Lease No. O. Add	of_ ok_
J 9 2	Pate Term Location State of Rec'd for Record Recorded In Book
STATE OF WEST VIRGINIA,	
WEST VIRGINIA,	Um Uni.
RESIDENCE TO THE PROPERTY OF T	Sometimes By fractific a copyright
as a Notary Public in and for	or said County of
do certify that	Said County of
signed to the writing hereto annexed bea	whose name
hathis day acknowledged thethe nereto annexed bea	aring dateA. D., 19
hathis day acknowledged the same before me, in my said Co	ounty.
Given under my hand and official seal, thisday	of
Service and the service of the servi	A. D., 19
10 (468 a) 10	
My commission expires	tary Public in and forCounty, W. Va.
CAPITAS	· · · · · · · · · · · · · · · · · · ·

V (UNITED

BOOK 90 PAGE 55

## LEASE EXTENSION AGREEMENT

This agreement extends the lease between Alva McLean of Belington, West Virginia and Eastern Intermountain Energy, Ltd, for a period of twelve months in consideration for the sum of two hundred ten (210.00) dollars receipt hereby acknowledged.

This original lease is described in Book 90 Page 55 as filed in the office of the County Clark, Barbour County, West Virginia.

The lease is now valid under all the original terms and conditions for a period of eighteen months from the initial date of this lease.

alsa McLean anna Bell McLea

Lessors

RECEIVED

MAR 9 - 1983

OIL AND GAS DIVISION WY DEPARTMENT OF MINES



## State of West Wirginia

Department of Mines Charleston 25305 May 2, 1984



OIL & GAS DIVISION
DEPT. OF MINES

WALTER N. MILLER Director

Eastern Intermountain Energy P.O. Box 902 Belington, W.Va. 26250

JOHN D. ROCKEFELLER, IV.

Governor

	In Re:	Permit No.	001-1760-REN.	
4 4 1.11		Farm: A.	McLean	
well not yet drilled	•	Well No:	1	
		District:	Barker	
		County:	Barbour	
		Issued	12-5-83	

#### Gentlemen:

Please send an <u>original and two copies</u> of the completion drilling record for the above described well location. This record must be submitted before we can request the district inspector to make a "Final Inspection".

Administrative Regulations - Rule 16.02 Filing of Well Record and Related Forms.

(a) Within 90 days after the completion of permitted work, three copies of Form IV-35, "Well Operator's Report of Drilling, Fracturing and/or Stimulating or Physical Change", containing the geological information required by Code 22-4-8b in the form specified . . . . . . . shall be filed with the Administrator, Office of Oil & Gas-Dept. Mines.

Sincerely,

Theodore M. Streit Administrator-Oil & Gas

TMS/chm

MENTERS STATE

. Casternaliter omitals Gaerer \*7.1. Sox 932

Wild gron, W. Va. 20250

well not go drilers.

TITE CHE

