



STATE OF WEST VIRGINIA DEPARTMENT OF MINES

#### Oil and Gas Division

WELL RECORD 23

Cottageville Quadrangle.

JAC-1466 Permit No.\_\_\_

Well treatment details:

47-035-1466

OIL & GAS DIVISION Dan Maria de Mines

RG 1477 minolehil X.	I bearing a supering a
Control Contro	Casaman XXX
Recycling	COTTO
Water Flood	Storago
Disposition	armanian jaganaria (jamanaria KKSKKA

				de on without the life and one
Company DEVON CORPORATION  Address PO BOX 1433, Charleston, WY  Form Maywood Garnes Acres 135 ac	Casing and Tubing	Used in Drilling	Left in Well	Coment fill up Cu. ft. (Six.)
Location (waters) Isaacs Run  Well No. 902  Ripley County Jackson	Size 20-16 Cond.	enter a constant cons		
The surface of tract is owned in fee by	1 3 - 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	er de januaren eta erre erre paren terre erre paren de erre paren eta erre paren eta erre eta esta eta eta eta La Garcia erre eta	e l'a es comencia en 2 instrucción com a seu vaca con	100 sax=to surface
Mineral rights are owned by Maywood Garnes  Evans, W. Va.  November 1, 1978	The state of the s	pologic (tomus e tradició en deleta en entreta constitució en tradició en tradició del deleta en en entreta de La Companya de la Companya del Companya de la Companya de la Companya del Companya de la Companya del Companya del Companya del Companya de la Companya del	endigenera anno entre cingi proprio anno en concerno. La segli de la segli de la La segli de la	75 sax=625 feet 200 sax-2400'
Drilling Commenced November 9, 1978  Drilling Completed November 9, 1978  Initial open flow bbis.	de participa de la companie de la co	an vallet om det state er etter kan kritiske fra state er etter ett i state kritiske ett state ett state ett s State fra er er en ett i 19 tillste ett state ett	E and Sinte W	200 - 100 TW
Final production washington by State of the	Liners Ved		en general en	

Attach copy of cementing record.

Perforated 45" csg. 4550' to 4658' with 20 shots. Frac Marcellus Shale with 347 bbl water, 407,000 SCF nitrogen and 60,000% sand. Set drillable bridge plug at 4500' perforated 42" csg 3979' to 4718' with 20 shots. Foam frac Br. Shale with 300 bbl water. 609 SCF nitrogen and 60.000% sand.

247 MCF

Coal was encountered atNone	LCPOTTEC	E E resulta estra la trata trata trata trata trata trata de la constante estra considerar en el servicio estra estra constante estra estra estra el constante estra el constante estra el constante estra el constante el constant	nches
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Producing Sand_Brown_Shale.		en de la laction de la company	IG#ANIE-AMASSANIESE. 1e : 5 h
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Formation	Color	Hard or Soft	Top Fost	Bottom Feet	OR, Gas or Water	* Round's
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Shale Sand Shale Sand Shale Sand Shale Sand Broken Sand Shale			935 1130 1145 1195 1245 1285 1375 1488	70000000000000000000000000000000000000		

(over)

<sup>\*</sup> Indicates Electric Log tops in the remarks section.

47-035-1466

Formation Color Hard or Soft	Top Feet 2 2	Bottom Feet	Oil. Gas or Water Remarks
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Shale Maxon Sand Big Lime	1690 1720	1720 1812	A PARTICULAR DE CONTRA DE
Shale	1812 1965	1965 1982	
Injun Sand Shale	1982 2074	2074 2433	
Coffee Shale Berea Sand	2433 2459	2459 2467	
Shale	2467	3660	
Brown Shale Shale	3660 4154	4154 4580	
Marcellus Shale Onondaga L. S.	4580 4745	4745 4829	
Oriskany Sand	4829	4879	
Helderberg L. S. Log Total Depth	4879	4931 *** 4931 ***	
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## STATE OF WEST VIRGINIA

DEPARTMENT OF MINES



### Oil and Gas Division

OIL & GAS DIVISION DEPT. OF MINES

#### OIL AND GAS WELL PERMIT APPLICATION

	RTMENT OF MINES, ton, W. Va.	DATE	September 22, 1	978
0.00	Maywood Garnes	Company	DEVON CORPORATI	ON
	Evans, W. Va.			eston, WV 25325
	Maywood Garnes, et al	The second contract of the property	e Marine Salari (1986) alemania de la compania del compania del compania de la compania del compania del compania de la compania de la compania de la compania de la compania del compania	Acres135_ac
Address	Evans, W. Va. 25241		•	<u></u>
	Same as above		000	Elevation768
			Ripley	County_Jackson
	Not Operated		Cottageville 7½	. 11
Address			· ·	
THIS PERMIT MU	ST BE POSTED AT THE WELL SITE			
All provisions being of the W. Va. C	ing in accordance with Chapter 22, ode, the location is hereby approved			
for drilli	ng . This permit shall expire if			
	of commenced by 1-22-79			
1	7 Add TREET	מס חוז מחודה	NOTIFIED Riche	2.15.2
6 1 4 4 4 4 4 4	A 23 to de de		ADDRESSGrand	
GENTLEMEN:	L'21 %	Daniel Company of the	ADDITION - GIGIN	esville, w. va.
The undersione	d well operator is entitled to drill upon th	ie ahove namer	d farm or tract of land	for oil and gas, having fee
	as the case may be) under grant or lease			
	as the case may be) under grant or lease made to Devon & Eason			
				day or
	Jackson County, Book 131			
	W WELLDRILL DEEPER			TURE OR STIMULATE
OIL	AND GAS WELL ORIGINALLY DRILLE	D BEFORE J	UNE 5, 1969.	
	plat was prepared by a registered engineer d as of the above date.	or licensed lar	nd surveyor and all coa	al owners and/or operators
The above nan to make by Section	ned coal owners and/or operator are hereby on 3 of the Code, must be received by, or	notified that filed with the	any objection they wish Department of Mines w	n to make, or are required rithin ten (10) days. *
or coal owners at	notice and the enclosed plat were mailed be t their above shown respective address e mailing or delivery of this copy to the D		day	before, or on the
PLEASE SUBNIT	COPIES OF ALL	Very truly ye	ours. DEVON CORI	PORATION
GEOPHYSICAL LO	OGS DIRECTLY TO:	(Sign Name).	4.6,	Dans
West Virginia P. O. Box 879	Geological and Economic Survey		A. C. Youse, T. P. O. Box	fstrict Geologist
Morgantown, W	. Va. 26505 Addr	ess	Street	
	of Well Ope	erator	Charleston	
			City or Town	
			West Virginia	a
			State	

\*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. JAC-1466 PERMIT NUMBER

47-035

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

DRILLING CONTRACTOR: (If Know NAME FWA Drilling Co.  ADDRESS BOX 448, Elkview,  TELEPHONE 965-3379  ESTIMATED DEPTH OF COMPLETED PROPOSED GEOLOGICAL FORMATIC  TYPE OF WELL: OIL TENTATIVE CASING PROGRAM:  CASING AND TUBING SIZE  20 - 16 13 - 10 9 - 5/8	W. Va.  WELL: _5000  ON: _Oriskany  GASxxx _ CO  RECYCLIN	ADDRESS Box 143 TELEPHONE 342 ROTARY STORAG	Endicott  3, Charleston, WV  -3171  CABLE TOOLS
ADDRESS Box 448, Elkview, TELEPHONE 965-3379  ESTIMATED DEPTH OF COMPLETED PROPOSED GEOLOGICAL FORMATIC TYPE OF WELL: OIL  TENTATIVE CASING PROGRAM:  CASING AND TUBING SIZE  20 - 16 13 - 10	W. Va.  WELL: 5000  ON: Oriskany  GAS XXX CO  RECYCLING  USED FOR	ADDRESS Box 143 TELEPHONE 342 ROTARY STORAG	3, Charleston, WV -3171 _ CABLE TOOLS  GE DISPOSAL
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CASING AND TUBING SIZE  20 - 16 13 - 10	USED FOR		
SIZE 20 - 16 13 - 10			
SIZE 20 - 16 13 - 10			
20 - 16 13 - 10	UKILLING	LEFT IN WELL	OR SACKS - CUBIC FT.
13 - 10			
			- War
	200	200	100 sax = to surface
8 - 5/8			
7	2500	2500	75 sax = 625 feet
5 ½	1. 1		
4 1/2		5000	200 sax = 2400 feet
3			Perf Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom
OF PLAT.  TO DRILL DEEPER OR REDRILL: SUBMIT FIVE (5) COPIES OF O WELLS DRILLED PRIOR TO 19 MUST ALSO BE SUBMITTED.  TO FRACTURE - STIMULATE: OIL AND/OR GAS WELL ORIGIN BOND, PERMANENT PLAT AND OIL AND/OR GAS WELL ORIGIN ING ORIGINAL PERMIT NUMBER	G - 1, SHOWING ORIGIN 929, A PERMANENT CO NALLY DRILLED BEFOR O ORIGINAL WELL REC NALLY DRILLED ON AN R, AND PERFORMANCE	NAL PERMIT NUMBER PY OF THE PLAT AN REJUNE 5, 1929, FIVE ( ORD. D/OR AFTER JUNE 5, 1900)	BOND AND PERMANENT COPY  AND PERFORMANCE BOND. ON D THE ORIGINAL WELL RECORD  5) COPIES OG - 1, PERFORMANCE  1929, FIVE COPIES OG - 1, SHOW- se. Inspector to be notified twenty-
The following waiver must be co thereof.	ompleted by the coal oper	rator if the permit is to	be issued within ten days of receipt
WAIVER: I the undersigned, Agent fo	or	Coal Company, Ow	oner or Operator of the coal under
this lease have examined ar	nd place on our mine ma	aps this proposed well lo	ocation.
WY7 . *			d well being drilled at this location,
	lied with all rules and regi	niations in Articles 4, 5, a	nd 7, Chapter 22 of the West Virginia
providing operator has comp	lied with all rules and regu	niations in Articles 4, 5, a	nd 7, Chapter 22 of the West Virginia

Official Title