Submit to Appropriate District Office State Lease - 6 copies Fee Lasse - 5 copies

### State of New Mexico Energy, Minerals and Natural Resources Department

Form C-101 **Revised 1-1-89** 

DISTRICT I P.O. Box 1980, Hoobs, NM 88240 OIL CONSERVATION DIVISION/ P.O. Box 2088 Santa Fe, New Mexico 87504-2088

API NO. ( assigned by OCD on New Wells) 30-045-23197

DISTRICT II P.O. Drawer DD, Anesia, NM 88210

5. Indicate Type of Lease

FEE XX STATE 6. State Oil & Gas Lease No.

DISTRICT III	6. State on a can among the
1000 Rio Brazos Rd., Aziec, NW 8/410	XIIIIIIIIIIIIIIII
APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK	Million Indiana
a. Type of Work:	7. Lease Name or Unit Agreement Name
DRILL RE-ENTER DEEPEN SINGLE MULTIPLE OIL OAS WELL WELL X OTHER	Montoya 27
	8. Well No.
Name of Operator Hallwood Petroleum, Inc.	9. Pool name or Wildcat
2 Address of Country	· ·
P. O. Box 378111, Denver, Colorado 80237	Basin Fruitland Coal
4. Well Location Unit Letter P: 790 Feet From The South Line and 790	Feet From The East Line
Section 27 Township 32N Range 13W	NMPM San Juan County
Section 27	Formation   12. Rotary or C.T.
11.	Formation 12 Rockly of C.1.
	x 16. Approx. Date Work will start
13. Elevations (Show whether DF, RT, GR, etc.) 14. Kind & Status Plug. Bond 15. Drilling Contractor	X 16. Approx Deta Wat 12
5850' KB 5838' GL	RAM
5850' KB 5838' GL  PROPOSED CASING AND CEMENT PROC	SACKS OF CEMENT EST. TOP
5850' KB 5838' GL	SACKS OF CEMENT EST. TOP
5850' KB 5838' GL  17. PROPOSED CASING AND CEMENT PROG	SACKS OF CEMENT EST. TOP
5850' KB 5838' GL  17. PROPOSED CASING AND CEMENT PROG	SACKS OF CEMENT EST. TOP

Hallwood Petroleum, Inc. proposes to plug and abandon the Dakota and Mesaverde zones in the subject well and recomplete to the Fruitland Coal formation (Basin Fruitland Coal Field) per the attached procedure. This is an unorthodox coal gas well location. However, a location exception order has been granted and is attached - Case No. 10728, Order No. R-9905.



ZONE GIVE BLOWOUT PREVENTER PREDICANT, IF ACT.	F PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PLOTS THE ONE AND PROPOSED NEW PROPOSED.
I hereby certify that the information above in the and complete of the	pess of my knowledge and belief.  TILE Drlg. & Prod. Supervisor DATE 6/24/93
TYPE OR PRINT NAME Kevin (Connell	(303) TELEPHONE NO. 850-6393 7-17-93
(This space for State Use)	1007
APPROVED BY Mice DOWN	TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #3 DATE JUL 1 9 1993
CONDITIONS OF AFFROVAL IF ANY: R-9985 Shicking e 1787 - 4 (45)	convert water packer in 4th lines to
Cover Creenhow	Farmation C-184 For Plat

### Montoya #27-1 (FC) SE SE Section 27-T32M-R13W 790' FSL X 790' FEL San Juan County, New Mexico

### WELL DATA:

ELEVATIONS: 5,850' KB

5,838' GL

12' KB-GL Difference

SPUD DATE: 11/24/78

TD: 6,953'

PBTD: 6,868'

CASING:

Surface: 9-5/8" 36# at 243' KB. Cement to

surface with 275 sacks.

Intermediate: 7" 20# K-55 at 4,898' KB.

Cement in one-stage with 300 sacks RFC. Full returns. Top

11

of cement at 4,000'.

Liner: 4-1/2" 11.60# X 10.50# K-55 STXC set at 4,791' to 6,942' KB cement with

225 sacks POZ and 250 sacks class

"B".

#### PROCEDURE:

1. Set anchors and grade location.

- 2. MIRUSU. Kill well with 8.4 ppg, 40 Vis plug mud, ND tree and NU BOP's.
- 3. RU to pull 2-1/16" 3.25# IJ (short string) tubing for Mesaverde side landed at 4,692.'.
- 4. RU Wireline and RIH down Dakota 2-3/8" X 2-1/16" tubing to 1.143" seating nipple at 6,764.9'.
- 5. Set a blanking plug in the seating nipple, or set a tubing plug in the tubing at 5,975' (just above Baker Model F packer).
- 6. Blow down tubing, PU out of hanger slightly and cut tubing  $30'(\pm)$  above packer.
- 7. Pull up to insure tubing is free, circulate hole with 8.4 ppg 40 Vis plug mud.

- 8. Spot a 100' (25 sacks) cement plug on top of the packer and cut.
- 9. TOH with tubing.
- 10. RIH with Wireline and set a 7" 20# CIBP at 4,470' (35' above top Mesaverde perf at 4,505'): Cap this plug with 35 feet of cement.
- 11. RIH and perforate about 8 holes at 2,300'.
- 12. TIH with 7" cement retainer on tubing and set at 2,270'.
- 13. Unsting from retainer, test casing and plug to 1000 psi, then sting in to retainer and test backside to 1000 psi.
- 14. Attempt to pump in or break circulation with water, open bradenhead.
- 15. RU Western Company and try pumping some nitrogen to unload or lighten the mud column, then break hole over to water prior to cementing.
- 16. Pump about 20 barrels of mud flush followed by cement. Details of the cement procedure are still being worked out and will be sent later. However, we are going to try and cement about 1000' minimum if the hole will circulate. Assuming an 11" enlarged hole, 1000 feet of 11" X 7" annulus is 393 cubic feet.
- 17. Pump cement, pull out of retainer, TOH and WOC.
- 18. Depending on how cement job actually went we may want to run a bond log or temperature survey.
- 19. RU Wireline and prepare to perforate. Consider running a gauge ring or junk basket to check PBTD an insure that retainer check valve held OK. Then correlate to Schlumberger Log dated 12/3/78, Compensated Neutron/Formation Density Log. Perforate 2,005-2,038' with 8SPF (2-4 SPF runs) at 90° phasing.
- 20. Breakdown perfs with water and prep to frac.
- 21. Frac well per forthcoming procedure but the preliminary estimate is about 90,000 gallons of 30# fluid, 18,000# of 40/70 sand and 250,000# of 12/20 Brady sand at 45 BPM down casing.
- 22. Flowback and swab well, then put on pump.

# Hallwood Energy Companies

Well History Record

MELLBONE STATUS RECOMPLETED TO FULLTLAND COAL

	<del></del>	na
1411 1 1 1		WELL: MONTOYA # 27-1
	95/8 ". 36 "	LOCATION: SE'SE SECTION 27-T32N-RI3W
	948 Gr K-55 @ 243'	(790'FSL X 790'FEL)
7, 1 2	243' Cmt.w/ 275 Sxs.	SPUD DATE: 11/24/78
	FINITIAN OF SURFACE	COMPL. DATE:
* 1	Peles Hole Size 12/4"	T.D.: 6953' PBTD: 6868'
	2038' Max Mud Wt. 8.6 #	FIELD: BASIN DAKOTA BLANCO MESAVENDE
		ZONES: DAKOTA & MESAVENDE
(2)	Myperfs	PERFS: DAKOTA 6706 - 6840 gross
	4505' <u>Intermediate</u> 4754' 7 20	Mesoverde 4505 - 4754 gross
	#	NEW ZONE: BASIN FRUITZAND CON
	7" Gr K-55 @ 4898'	Perfs: 2005' - 2038'
dovis,	4998' Cmt.w/ 300 sxs.	D 100' (255x) COMENT DIVE ON
(/2/)	тос <u>@ 400'</u>	D 100' (255x) CEMENT Plug ON PACKEN AT 5980' SECTION
plugmud	Hole Size 8.75 "	(8%0
1/ & /	Max Mud Wt#	2) 7" CIBP AND 35' OF CEMENT
1/		AT 4470' ABOVE MV PERFS
0 +75 54	— 41/2" BAKCA MODEL" F € 5980'	3-8 saveeze pens @ 2300'
	Production LINEAL	-7" COMENT RETAINER @ 2270"
1/1 山事為	1,706 PARS 41/2", 11.60 #	- ATTEMPT to CEMENT OUTSIDE
1'/1 <b>55</b> I//	840' Gr <u>K-55</u> @ 4791-6942	[ement (1300-2300')
S. S. Sours Milo	Cmt.w/ 225 Sxs.	(4) PERFORME FRUITIAND COAL
を //	TOC @ LINER TOP	@ 2005 - 2038' FRACTURE
50////	Hole Size 6/4"	STIMULATE AND PUMP
20	Max Mud Wt. 9-0 #	TEST.
•	***************************************	

X40 6/23/93

# Hallwood Energy Companies

Well History Record

CUKILANT WELLBOILE STATUS

6/23/93

Surface	WELL: MONTOYA # 27-1
95/8 : 36 "	LOCATION: SESE SECTION 27-T32N-RI3W
97/8". 36 # 98/8 Gr K-55 @ 243' Cmt.w/ 275 Sxs.	(790'FSL X 790'FEL) SPUD DATE: 11/24/78
TOC @ SURFACE	COMPL. DATE:
Hole Size	т.D.: 6953' РВТО: 6868'
Max Mud Wt#	FIELD: BASIN DAKOTA BLANCO MESAVENDE
4692'OF 21/16" IJ	ZONES: DAKOTA & MESAVENCE
4505, penes Intermediate 4754, 7 " 20 #	PERFS: DAKOTA 6706 - 6840' gross Mesavende 4505 - 4754' gross
	TOTAL HOURS:
Gr K-55 @ 4898'	STIMULATION:
TOC @ 400'	
Hole Size 8.75"	NOTE: WELL HAS BEEN SHOT-IN
Max Mud Wt. 9.0 #	Since Manch, 1992. UNECONOMIC X deplered.
41/2" BAKER Model F @ 5980'	Mecondatic in display-
E 6706 Production LINER	
DAKOTAPENES 4/2", 11.60 #	
(1) \$16840' Gr K-55 @ 4791-194.	2
Cmt.w/ 225 Sxs.	·
Hole Size 6/4"	
Max Mud Wt. 9.0 #	
23/8" AND 21/16" TUBING TO 6.	798'

# STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 10728 ORDER NO. R-9905

APPLICATION OF HALLWOOD PETROLEUM INC. FOR AN UNORTHODOX COAL GAS WELL LOCATION, SAN JUAN COUNTY, NEW MEXICO.

RECEIVED JUN 18 1993

## ORDER OF THE DIVISION

### BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on May 6 and 20, 1993 at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 4th day of June, 1993, the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

### FINDS THAT:

- (1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) The applicant, Hallwood Petroleum Inc., seeks authority to recomplete its F Montoya "27" Well No. 1 from the Basin-Dakota and Blanco-Mesaverde Gas Pools to the Basin-Fruitland Coal Gas Pool at an unorthodox coal gas well location 790 feet from the South and East lines (Unit P) of Section 27, Township 32 North, Range 13 West, NMPM, San Juan County, New Mexico. The S/2 of Section 27 is to be dedicated to the subject well forming a standard 320-acre gas spacing and proration unit for said pool.
- (3) The subject well is located within the Basin-Fruitland Coal Gas Pool and is therefore subject to the Special Rules and Regulations for said pool as promulgated by Division Order No. R-8768, as amended, which require standard 320-acre gas spacing and proration units and which further require that wells be located in either the NE/4 or SW/4 of a single governmental section no closer that 790 feet from any outer boundary of the proration unit nor closer than 130 feet from any quarter section line nor closer than 10 feet from any quarter-quarter section line or subdivision inner boundary.

- (4) The location of the F Montoya "27" Well No. 1 is standard in the Basin-Fruitland Coal Gas Pool with respect to the setback requirements but is unorthodox with respect to the quarter section location.
- (5) The applicant's geologic evidence indicates that the F Montoya "27" Well No. 1 is located less than two miles from the outcrop of the monocline containing the Fruitland Coal bed. The evidence further indicates that the SE/4 of Section 27 is the only quarter section which contains substantial acreage believed to be below the point of flexure of that monocline and therefore potentially productive of gas from the Basin-Fruitland Coal Gas Pool.
- (6) Applicant's evidence and testimony indicate that its gas reserves underlying the S/2 of Section 27 are best tested for production with a well at the current location.
- (7) Due to the geologic nature of the Fruitland Coal bed, it is unlikely that any other well will be drilled to test the Basin-Fruitland Coal Gas Pool within Section 27.
- (8) Applicant's evidence and testimony indicate that current producing rates from the Dakota and Mesaverde within the subject well are such that they are uneconomic to produce.
- (9) No other offset operator and/or interest owner appeared at the hearing in opposition to the application.
- (10) Approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the gas in the affected pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells and will otherwise prevent waste and protect correlative rights.

## IT IS THEREFORE ORDERED THAT:

- (1) The applicant, Hallwood Petroleum Inc., is hereby authorized to recomplete its F Montoya "27" Well No. 1 from the Basin-Dakota and Blanco-Mesaverde Gas Pools to the Basin-Fruitland Coal Gas Pool at an unorthodox coal gas well location 790 feet from the South and East lines (Unit P) of Section 27, Township 32 North, Range 13 West, NMPM, San Juan County, New Mexico.
- (2) The S/2 of Section 27 shall be dedicated to the above-described well forming a standard 320-acre gas spacing and proration unit for said pool.

Jurisdiction is hereby retained for the entry of such further orders as (3) the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

WILLIAM J. LEMAY Director

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