SUBMIT IN TRIPLICATE*

(Other instructions on

Form approved, Budget Bureau No. 42 R1425.

HAUTED CTATES

	D.F.E		LD SIMIL		5	reverse m	uc;	30-039-	21237	
DEPARTMENT OF THE INTERIOR							5. LEASE DESIGNATION	ON AND SERIAL NO.		
		GEOLOG	SICAL SURV	ΕY				SF 078343		
APPLICATIO	ON FOR	PERMIT T	O DRILL, I	DEEPEN,	OR PL	LUG B	ACK	6. IN INDIAN, ALLOT	FEE OR TRIBE NAME	
n. Type of work	RILL X		DEEPEN		PLU	IG BAC	к 🗆	7. UNIT AGREEMENT	NAME	
b. TYPE OF WELL OIL WELL []	GAS WELL X	OTHER		SINGLE ZONE		MULTIPI ZONE	E _	San Juan 29- 8. FARM OR LEASE	-5_Unit	
Northwest	Pipeli	ne Corpora	ation					San Juan 29- 9. wein 80.	-5 Unit	
. ADDRESS OF OPERAT	DR							18A		
P.O. Box	90, Farr	mington. N	New Mexico	87401				10, FIELD AND POOL	, OR WILDCAT	
P.O. Box 90, Farmington, New Mexico 87401 Linearion of well (Report location clearly and in accordance with any State requirements.*) At surface							Blanco Mesa Verde			
1810' FNL & 1850' FWL							11. SEC., T., E., M., OR PLK. AND SURVEY OR AREA			
At proposed prod.	zone									
As above 4. distance in miles and direction from nearest town or post office*						Sec. 5, T291	N R5W			
								Rio Arriba	N.M.	
						DF ACKES ASSIGNED HIS WELL 321.00				
(Also to befreet drig, unit line, il trip) S. DISTANCE FROM PROPOSED LOCATION* TO NEARIST WELL, BRILLING, COMPLETED,				19. PROPOS	ED DEPTH		20/ RUTA	CARY OI. CABLE TOOLS		
TO NEAREST WELL, DESILEING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. NA				60	91'			Rotary		
11. ELEVATIONS (Show	whether DF, F			<u>.</u>				22. APFROX. DATE	WORK WILL START*	
3.		Pl	ROPOSED CASI	NG AND CE	MENTING	PROGRA	.М			
SIZE OF HOLE	SIZE	OF CASING	WEIGHT PER F	T00	SETTING DE	PTH	1	QUANTITY OF CEN	IENT	
12 1/4"	9	5/8"	36		200	1		125 sks.		
8 3/4"	7'	1	20		4040	•	150 sks.			
6 1/4"	4	1/2" Liner 10.5			3890'-	T.D.	210 sks.		3 2	
A BOP will subsequer	ll be ins nt operat	stalled af tions will	stimulate ter the su be conducted !	urface content	asing o	has be	en run	and cemented	1. All	
		•								
					•					

Gas is dedicated.

..3T. 3

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on social locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

Production Engineer

(This space for Federal or State office use)

APPROVAL DATE ___

CONDITIONS OF APPROVAL, IF ANY:

DATE __

*See Instructions On Reverse Side

		Air matance	es must be from the outer	Boundaries of t	the Section	1		
Capedator			Leitee	0 0 Ґ 11		wen no. 18A	1	
Northwest Pipeline Corporation San Juan 29-5 Unit						101		
Unit petter	Lest on	Township	Hange		County	••		
F	5	2 9%	5	W	Rio Ar	riba		
Actual Feet ige Loc	atron of Well;							
1810	feet from the - I	Iorth	tine and 1850	freet	from the Me	st Hoe		
Ground Lavel Elev.	Producing 1	formation.	Poo!			Dedicated Acres	ritet	
6729	Mesa V	/erde	l I	Blanco		321.00	Acres	
1. Outline th	e acreage dedi	cated to the s	subject well by colo	red pencil o		ks on the plat below, ership thereof (both as		
interest ar 3. If more the	nd royalty). in one lease of	different own	ership is dedicated t			rests of all owner- be		
Yes	dated by communitization, unitization, force-pooling, etc? Yes No If answer is "yes," type of consolidation							
		e owners and	tract descriptions w	hich have ac	tually been o	consolidated. (Use rev	erse side of	
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commis-								
sion.								
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NORTHWEST PIPELINE CORPORATION

MULTI - POINT SURFACE USE PLAN

for the San Juan 29-5 Unit

Well Number 18A

- 1. Existing Roads: See attached topographic map. All existing roads used, shall be maintained in a serviceable condition at all times during the drilling operation.
- 2. Planned Access Roads: See attached topographic map. Maximum grade is approximately 1%. The road surface will not exceed twenty feet in width. Upon completion of drilling operations, the access road will be adequately drained to control run off and soil crosion. Drainage facilities may include ditches, water bars, culverts or any other deemed necessary. All activities will be confined to the access road and drill pad.
- 3. Location of Existing Wells: See attached topographic map.
- 4. Location of Tack Batteries: Production Facilities: and Production, Cathering and Service Lines: See attached topographic map for locations of existing and proposed gas gathering lines. The pipeline will be constructed adjacent to the access road.
- 5. Location and Type of Water Supply: Water needed for the drilling operation will be hauted from the San Juan 29-6 Unit Water Well in the SW/4 28, T29N, R6W.
- 6. Source of Construction Materials: No additional materials will be needed.
- 7. Methods for Landling Warte Disposal: All garbase, debris, and trash will be buried at least three feet deep. A portable toilet will be supplied for human waste. After drilling operations have been completed the reserve pit will be fenced and the liquid portion will be allowed to evaporate before the location is cleaned up and leveled. The earthen pits will not be located on natural drainages and will be constructed in such a manner so that they will not leak. Any evaporator pit containing towic liquids will be fenced.
- 8. Ancillary Facilities: There will be no camps or airstrips associated with the drilling of this well.
- 9. Well Site Layout: See attached layout sheet.
- 10. Plans for Restoration of the Surface: Upon completion of drilling, the location will be cleaned, and leveled so that no cut or fill tanks will be steeper than 3.1.

All of the area disturbed in connection with the drill site will be seeded as close as possible for any above ground equipment while still allowing for access to the equipment. Seeding will be done within one year after drilling is completed and during the period from July 1 through September 15. Seeding will be done with seed Mixture #1.

All equipment above ground will be painted a non-glare, non-reflective, non-chalking color that simulates the natural color the site. For this well code number 959-34127, Green.

11. Other Information: If, during operations, any historic or prehistoric ruin, monument or site, or any object of antiquity is discovered, then work will be suspended and the discovery will be reported to the District Manager of the BIM.

When drilling with gas, the line used to discharge and burn off the gas will be located so as not to damage vegetation in the area, and if necessary an earthen screen will be constructed to protect the vegetation. All liquids from the line will be contained at the site unless otherwise specified by the surface agency's representative.

Multi-Point Surface Use Plan -San Juan 29-5 Unit #18A Page 2

The area covered by the location and proposed access road is gently sloped with scattered brush and some grasses.

- 12. Operator's Representative: J.P. Slattery, P.O. Box 90, Farmington, N.M., 87401 Phone: 327-5351 Extension 62.
- 13. Certification:

I hereby centify that I have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge true and correct; and, that the work associated with the operations proposed herein will be performed by Northwest Pipelia. Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

3-10-77 Date

J.P. Slattery Drilling Engineer

JPS/ks

Dist. Said.

OPERATIONS PLAN

San Juan 29-5 Unit #18A

Rio Arriba County, New Mexico

1. <u>LOCATION</u>: NW/4 Sec. 5, T29N, R5W

LEASE NUMBER: SF 078343

FIELD: Blanco Mesa Verde

ELEVATION: 6729' GR

II. GEOLOGY:

A. Formation Tops:

San Jose: Ojo Alamo:	Surface 2909'	Cliff House: Menefee:	5532
Kirtland: Fruitland:	3059'	Point Lookout:	
Pictured Cliffs:	3376 ' 3721 '	Total Depth:	6091
Lewis:	3840 '		

B. Logging Program: Gamma Ray-Induction and Density at T.D.

C. Coring Program: None

D. Testing Program: None

III. DRILLING:

A. Anticipated starting date and duration of activities: March 10, 1977. Operations will take approximately 14 days.

B. BOP: Blind rams and pipe rams, $10^{\prime\prime}$, 900 series, double gate, rated at 3000 PSI.

C. Mud Program:

- (a) Spud Mud: Water, lime and gel.
- (b) Surface to 3840'
 Viscosity: 32-38 sec/qt.
 Weight: 8.8-9.2 #/gal.
 Water Loss: 8-20 cc.
 Ph: 8.5-9.5
- (c) From 3840' to 4040'
 Viscosity: 36-45 sec/qt.
 Weight: 8.5-9.5 #/gal.
 Water Loss: 6-12 cc.
 Ph: 8.5-9.5
- (d) From 4040' to total depth with gas.

IV. MATERIALS:

A. Casing Program:

Hole Size	Depth O.H.	Casing Size	Wt. & Grade	Depth Set
12 1/4"	200'	9 5/8"	36# K-55	200'
8 3/4"	4040'	7"	20# K-55	4040'
6 1/4"	4040'-T.D.	4 1/2"	10.5# K-55	3890'-T.D.



Operations Plan San Juan 29-5 Unit #18A Page 2

B. Tubing Program: 6030', 2 3/8", 4.7#, J-55 tubing with seating nipple on top of bottom joint. Expendable check valve on bottom.

V. CEMENTING:

- A. Surface Casing 9 5/8" Use 125 sks. Cl. "B" w/1/4# gel flake/sk. & 3% calcium chloride (100% excess to circulate). WOC 12 hrs. Test surface csg. to 600 PSI for 30 min.
- B. Intermediate Casing Use 100 sks. cl "B" 65/35 poz w/12% gel & 15.52 gal. water/sk. Tail in w/50 sks. Cl. "B" w/2% calcium chloride (80% excess to cover Ojo Alamo). WOC 12 hrs. Run temp. survey after 8 hrs. Test csg. to 600 PSI.
- C. Production liner 4 1/2" -Use 210 sks. Cl. "B" w/4% gel & 1/4 cu. ft. of fine Gilsonite/sk. Precede cmt. w/20 bbls. water mixed w/3 sks. gel (70% excess to circulate liner). Set liner pack off & reverse out excess cmt. Run 6 1/4" bit to top of liner & pressure test (test 12 hrs. after plug is down). Lay down DP & run 3 7/8" bit on & 2 3/8" EUE tubing to clean out liner. Perforate 18 hrs. after plug is down.

DHM/ks

SCALE: 1/2n=20 DATE 3-3-00

Tower FUEL PLSERVE Mus 816 ,081 عء, DOGROUSE PIPE RACKS

NORTHWEST PRING CORPORATION 29-5- KNA ナいっかがフ・ Lucation 24.51 2 V

