SUBMIT IN T LICATE Of the control of reverse side)

30-043-2049 0 Form approved. Budget Bureau No. 12-R1425.

## UNITED STATES DEPARTMENT OF THE INTERIOR

1	O. LEASE DESIGNATION AND SECTION NO.
	NJANI 248 1980
	G. IS INDIAN, ALLOTTEE OF TRIBE NAME
-	II. S. GEOLOGICAL SURVEY

GEOLOGICAL SURVEY						<b>NAMI 248</b> 1980		
PLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK					K	G. IN INDIAN, ALLOTTER OR TRIBE NAME		
DR	LL X	DEEPEN	P	LUG BACK [		U. S. GEOLOGICAL SI		
5 TYPE OF WELL    SINGLE   MULTIPLE						S. FARM OR LEASS NAM Candy Butte 9. WELL NO.		
To some ass of operator						#5		
	515, Roswell, N			ments.*)		Wildcat Entrada		
4. Legistring of Well (Report location clearly and in accordance with any State requirements.*)  At proposed prod. zone Sec. 5, T.17N, R.2W, N.M.P.M.						11. SEC. T. R., M., OR S AND SURVEY OR AS Sec. 5, T. 17N	LK. YA	
14. DISTANCE IN MILES			ST OFFICE*		1	12. COUNTY OR PARISH		
						Sandova 1	New Mexico	
10. POTANCE FROM PROPERTION TO NEARES PROPERTY OR LEASE I	660 <b>'</b>	2000	IN LEASE   17		og actes assersed title well.			
18. D' CANCE FROM PROI 10 NUMBERT WELL, D 11 APPLIED FOR, ON TH	COSED LOCATION'S RILLING, COMPLETED,		4500'	20	. B)TAK	Rotary		
21. 1. MARIONS (Show whether DF, RT, GR, etc.) 6595 G.L.						March 6,		
4311		PROPOSED CAS	ING AND CEMENT	ING PROGRAM				
MIZE OF HOLE	SIZE OF CASIN:	WEIGHT PER	POOP SETTIN	d parts		QUASTITY OF CRM.	······································	
18"	16" Cond.		10:		20	SX		
12½"	8-5/8"	24#	300			_\$X		
7-7/8"	5-1/2"	15.5#	4500'		350	SX		

It is proposed to drill the above captioned well to 4500' or a depth sufficient to test the Entrada formation.

If oil or gas is encountered in commercial quantities the well will be perforated and stimulated as conditions require.

B.O.P. will be used during drilling and completion operations.

OIL CON COM. is a space describe the respondentant. If he posel is to despen or plantack, rise that on present produc productive se iff promosal is to drill or deepen directionally, give pertinent data or subsurface legations and measured a erne**DiST**i Johns. live blowout

out or program, if any,

TITLE Vice-Pres., Production

colds space for Pederal or State office use)

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT 10 COMPLIANCE WITH ATTACHED

"GEHERAL REQUIREMENTS".

oh Sal

# WELL DOATION AND ACREAGE DEDICATION AT

		All distances must	be from the outer	boundaries of	the Section.		<u> </u>
Op. 13 to 1				.eose Candy Butte			Well No. #5
Hanson Oil Componation				<u> </u>			#3
Unit Letter Section Township			<b>,</b>		County Sandov	T <sub>C</sub>	
Actual Footage Locat	5 I	<u> 17N</u>	2W		Sandov	a i	
660.00		St line o	md	660.00 feet	t from the	South	line
Ground Level Elev.	Producing Form		P∞1				Dedicated Acreage:
6595	E	ntrada	Wi	ldcat ·			40 Acres
1. Outline the	acreage dedicat	ed to the subject	well by colo	red pencil o	r hachure i	marks on the	e plat below.
2. If more that interest and		dedicated to the v	vell, outline e	each and ide	ntify the o	wnership th	ereof (both as to working
dated by co	mmunitization, ur	nitization, force-po	oling. etc?			aterests of	all owners been consoli-
Yes [	No If an:	swer is "yes," typ	e of consolida	ation			***************************************
If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)  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 Commission.							
	1		1				CERTIFICATION
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	i		!			Date	
	1		1			January	/ 16, 1980
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	i ! ! !	·	!			I hereby show of notes of a under of	well location well location field from field surveys made by me or
	<u> </u>					- \	DIST. 3
Date Surveyed						d	
CANDY ≺660 —> ⊙ ∤	BUTE NO. 5		1			Registered F and or Land	rolessional Engineer
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		2210 2250		1000 5	00 0	Certificate I.	10. U

## SURFACE USE AND OPERATIONS PLAN

## CANDY BUTTE #5

## SANDOVAL COUNTY, NEW MEXICO

The following multipoint requirements and surface use plan is submitted for the subject well by Harson Oil Corporation.

## 1. Existing Roads

- A. Proposed well as staked. See surveyor's plat.
- B. As shown, the planned well is approximately twenty-nine (29) miles Southeast of Cuba, New Mexico. To reach the planned well, take paved Highway 44 South out of Cuba for approximately eighteen (18) miles; at this point turn Southwest on improved road and continue in a Southwesterly direction for approximately 10 miles to a crossroad, then follow pipeline road Northwesterly 3-1/4 miles to a point in the Southwest of the Northwest of Section 13, T.17N, R.3W, then turn North Northeasterly approximately three (3) miles to beginning of proposed access road (SW4SW4 Section 32-18N-2W); thence turn South on existing access road 1 mile to proposed location as shown on Exhibit 1. Location is situated in the SW4SW4 of Section 5, T. 17 N, R. 2 W, N.M.P.M., one mile down existing access road to Hanson Oil Corporation's Candy Butte #3 well.
- C. Existing Roads: See Exhibit =1.
- D. See Exhibit #1.
- E. Not Applicable
- F. Existing roads will be bladed and watered as is necessary to maintain a useable road.
- 2. Planned Access Roads: See Exhibit =1.
  - 1. Width: See Exhibit #5.
  - 2. Miximum grades: See Exhibit #5.
  - 3. Turnouts: See Exhibit #1.
  - 4. Drainage Design: See Exhibit #5.
  - 5. Culverts will be installed as per B.L.M. requirements.

# SURFACE USE AND OPERATIONS PLAN (Continued)

(

#### CANDY BUTTE #5

## SANDOVAL COUNTY, NEW MEXICO

- 6. Surfacing Material: All construction materials will be of local origin and no surface material will be disturbed except for the grading of the actual roads and locations.
- 7. Gates or cattleguards will be used if fence cuts are made.
- 8. The planned access road has been center-line flagged.
- 3. <u>Location of existing wells</u> in a one-mile radius are shown on attached Exhibit #1.
  - (1) Water Wells: None
  - (2) Abandoned Wells: None
  - (3) Temporarily Abandoned Wells: None
  - (4) Disposal Wells: None
  - (5) Drilling Wells: Proposed Hanson Oil Corporation Candy Butte #3
  - (6) Producing Wells: None
  - (7) Shut-In Wells: None
  - (8) Injection Wells: None
  - (9) Monitoring or observation wells for other resources: None
- 4. Location of Existing and/or Proposed Facilities:
  - A. There is no Existing facility within a one-mile radius from location owned or controlled by Hanson Oil Corporation.
    - (1) Tank Batteries: None
    - (2) Production facilities: None
    - (3) Oil gathering lines: None
    - (4) Gas gathering lines: None
    - (5) Injection lines: None
    - (6) Disposal lines: None
  - B. In the event production is established, Hanson Oil Corporation will build a tank battery on the well pad.
    - (1) Proposed location of tank battery to be on well pad.
    - (2) Dimensions of facilities See Exhibit #2.
    - (3) All construction material will be of local origin and no surface material will be disturbed except those necessary for the actual grading of well pad. Scoria or gravel will be from a private source.
    - (4) The entire tank battery will be surrounded by a 3' ditch and 2'z' fire wall to prevent overflow spillage into surrounding drainage areas. The entire tank battery will then be fenced. Any pits left open will be flagged to protect water fowl if this precautionary measure is deemed necessary by Wildlife Management.

Page -3-

# SURFACE USE AND OPERATIONS PLAN (Continued)

#### CANDY BUTTE #5

#### SANDOVAL COUNTY, NEW MEXICO

## C. Rehabilitation of disturbed areas:

If production is established, following completion of tank battery erection, necessary well producing equipment, etc. all pits with the exception of a flare pit, will be filled, after all fluids have been removed and the surrounding location leveled. Disturbed area no longer needed for operations will then be reseeded using as much topsoil as possible and utilizing seed types and quantities as recommended for this area by agronomist and the Bureau of Land Management. All reseeding will be done with a reasonable effort to establish as near as possible a growth of vegetation as previously existed. Reseeding will take place at the first opportunity following completion of well in accordance with the recommended seasonal seeding periods (late Spring). The unused disturbed area then will be fenced from time of reseeding until grass is established.

# 5. Location and Type of Water Supply

- A. Water to be used in drilling the proposed well will be hauled from private sources.
- B. Said water will be transported by truck over improved and proposed access road shown on Exhibit  $\pm 1$ .
- C. No water wells are planned to be drilled on the lease in connection with the drilling of the proposed well.

# 6. Source of Construction Materials

- A. All construction material will be of local origin and no surface areas will be disturbed except for the actual grading of the road and drilling site.
- B. No construction material will be moved from Federal or Indian land.
- C. Materials such as sand, gravel and stone, if used, will be moved from a private source.
- D. See Exhibit #1.

# 7. Methods of Handling Waste Disposal

(1) <u>Cuttings</u>: Drill cuttings will be accumulated in the earthen reserve pit and after the pit has dried will be bladed into the bottom of the pit and buried.

## SURFACE USE AND OPERATIONS PLAN (Continued)

#### CANDY BUTTE #5

#### SANDOVAL COUNTY, NEW MEXICO

- (2) <u>Drilling Fluids</u>: The drilling fluids will be pumped out of the reserve pit and disposed of in a more suitable pit, after any oil accumulation in the pit has been removed and hauled to the production facility for recovery.
- (3) Produced Fluids (oil, water): If production is established, oil will be trucked by the purchaser over access road shown on Exhibit #1. Water will be trucked to an approved water disposal system over the same road.
- (4) Sewage: Sewage will be contained in a chemical latrine.
- (5) Trash and garbage will be contained in a earthen pit. See Exhibit #4, and buried following drilling operations. Said pit to be fenced with small mesh wire to prevent wind from scattering trash before being burned or buried.
- (6) Following completion of drilling operations, all pits will be filled (after they dry up) and area surrounding the location leveled.

# 8. <u>Ancillary Facilities</u>

No ancillary facilities will be constructed.

# 9. Well Site Layout

- (1) Cross sections of drill pad See Exhibit #3
- (2) See Exhibit #4(3) See Exhibit #4
- (4) Statement as to whether pits are to be lined or unlined: There are plans to reline the earthen pit with a polyethylene liner if deemed necessary by the B.L.M. or U.S.G.S.

# 10. Plans for Restoration of Surface

(1) Following completion of drilling operations, any oil accumulation in pits will be removed and hauled to a production facility to be recovered. All pits will be filled (after they dry up) and the area surrounding the location leveled. The location will then be graded to conform with the original topography and contours made as are necessary to achieve the same. All waste material will be buried in an earthen pit following completion of operations.

## SURFACE USE AND OPERATIONS PLAN (Continued)

#### CANDY BUTTE #5

### SANDOVAL COUNTY, NEW MEXICO

## 10. Plans for restoration of surface (Continued)

- (2) Reseeding of the drillsite, including access roads, will take place at the first opportunity following completion of operations in accordance with the recommended seasonal seeding periods. All reseeding will be as recommended for this area by agronomist and the Bureau of Land Management.
- (3) Prior to rig release, pits will be fenced and so maintained until clean-up operations are complete. After the location has been leveled and all pits backfilled, said location will be fenced from time of reseeding until grass is established.
- (4) Any oil accumulations in pits shall be removed and hauled to production facility for recovery. In the event it becomes necessary to leave oil in any pit for any reason, we will install overhead flagging.
- (5) Commencement of rehabilitation operations shall begin immediately after rig release and shall continue in a good and workmanlike manner until complete.

## 11. Other Information

- (1) The area around the drilling site is gently sloping small valley floors with steep inclines to a small mesa where location is proposed. The vegetation in the area is a sparse cover of blue grama, galleta, cholla and prickly pear with scattered stands of juniper and sagebrush.
- (2) There are no other surface use activities planned. The surface at the location is FEDERALLY owned.
- (3) There are no fresh water wells in the area of the proposed location. There are no occupied dwellings; no known archeological, historical or cultural sites in the general area of the location.
- 12. The Hanson Oil Corporation representative conducting this drilling operation is:

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# SURFACE USE AND OPERATIONS PLAN (Continued)

## CANDY BUTTE #5

## SANDOVAL COUNTY, NEW MEXICO

Mr. A. J. Deans Post Office Box 1515 Roswell, New Mexico 88201 Phone No. (505) 622-7330 - Office Phoen No. (505) 623-7364 - Home

## CERTIFICATION

I hereby certify that I, or persons under my direct supervision 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 work associated with the operations proposed herein will be performed by Hanson Oil Corporation and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

1-16-80 (Date)

A. J. DEANS, VICE-PRESIDENT, PRODUCTION

#### APPLICATION FOR DRILLING

#### CANDY BUTTE #5

#### SANDOVAL COUNTY, NEW MEXICO

In conjunction with permitting subject well for drilling in Section 5, T.17N, R.2W, N.M.P.M., Hanson Oil Corporation submits the following Ten (10) points of pertinent information in accordance with United States Geological Survey letter of July 1, 1976:

- 1. The surface formation is of the Travessilla-Persayo-Rockland association.
- 2. The estimated tops of geologic markers are as follows:

Gallup	1275'
Sanastee	1775'
Granerous	2480'
Dakota	2640 <b>'</b>
Morrison	28001
Todilto	3660'
Entrada	3770'

- 3. The depth at which water is expected to be encountered is at approximately 200'. The depth at which oil and gas is expected to be encountered is at 3000' 4500'.
- 4. Casing Program:

- Blowout preventer: Ram type, series 900 with double hydraulic 10# Rams. This is a Shaffer blowout preventer (3000# working pressure) with a Payne Closing unit. In the event a different brand of blowout preventer is used, the different blowout preventer will be of a like or better quality. The fill, kill, and choke lines are indicated on the blowout preventer specification sheet Exhibit #6.
- 6. Circulating Medium: Steel pits will be used to hold mud and cuttings and the drilling fluid as follows:

DEPTH	WEIGHT	VISCOSITY	FLUID LOSS
0-30'	8.6 - 8.9	As required	N\C

Drill this interval with a Gel/lime slurry with sufficient viscosity to clean hole, land and cement surface casing.

DEPTH	WEIGHT	VISCOSITY	FLUID LOSS
300' - TD	8.9 - 9.6	34-42	6cc

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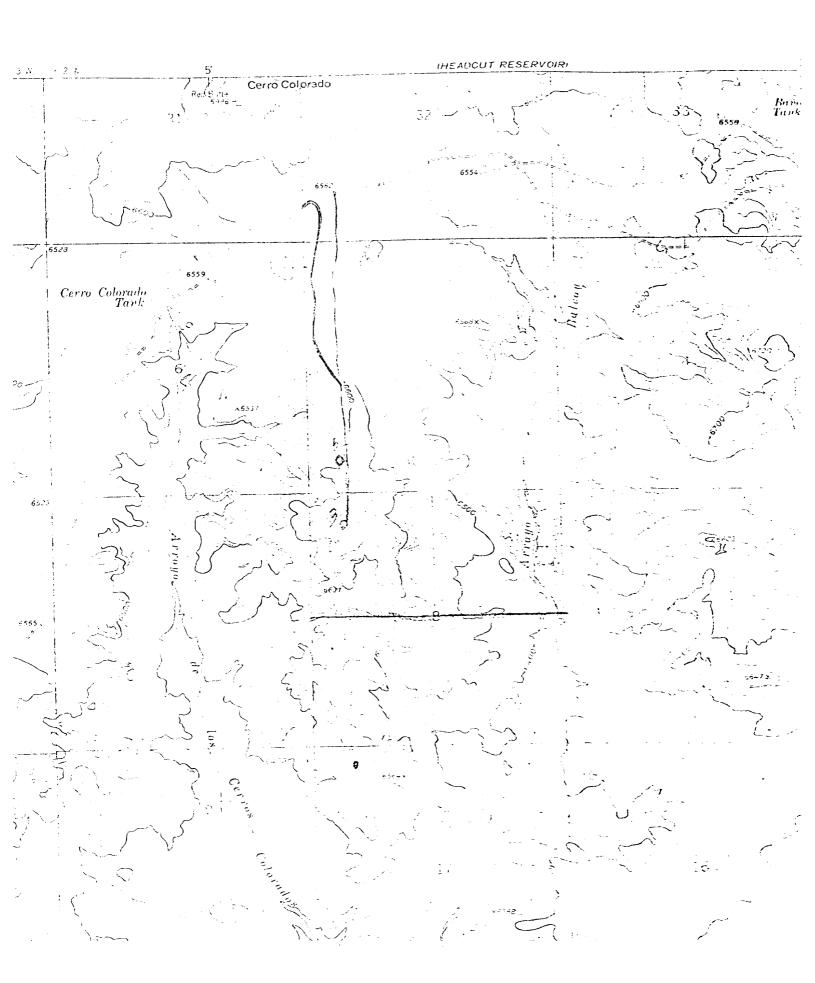
Page -2-

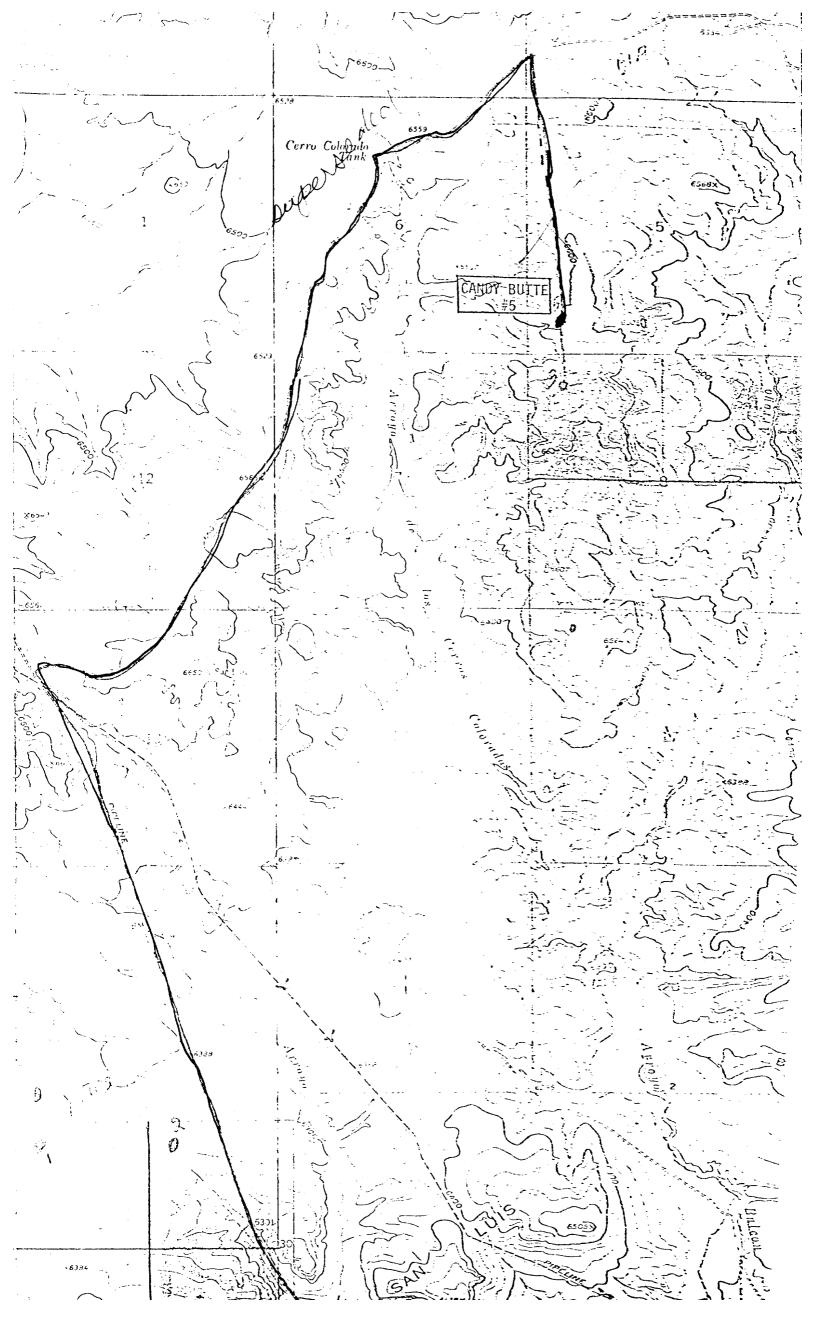
# APPLICATION FOR DRILLING (Continued)

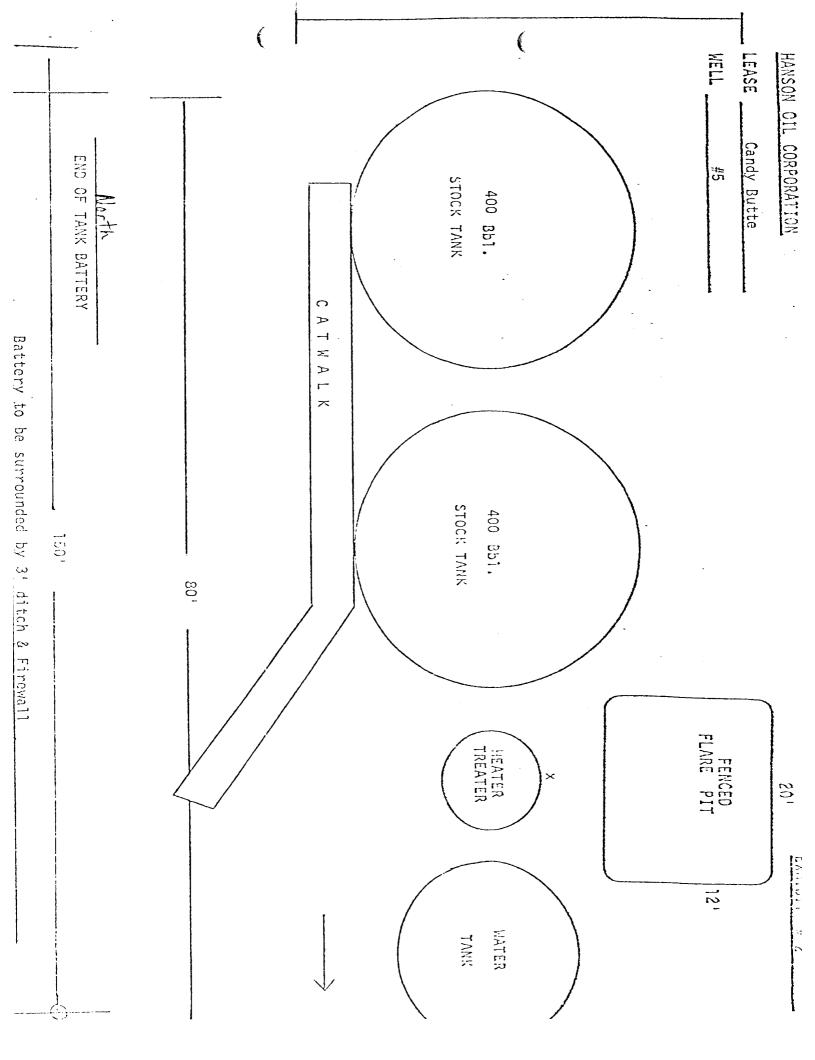
## CANDY BUTTE #5

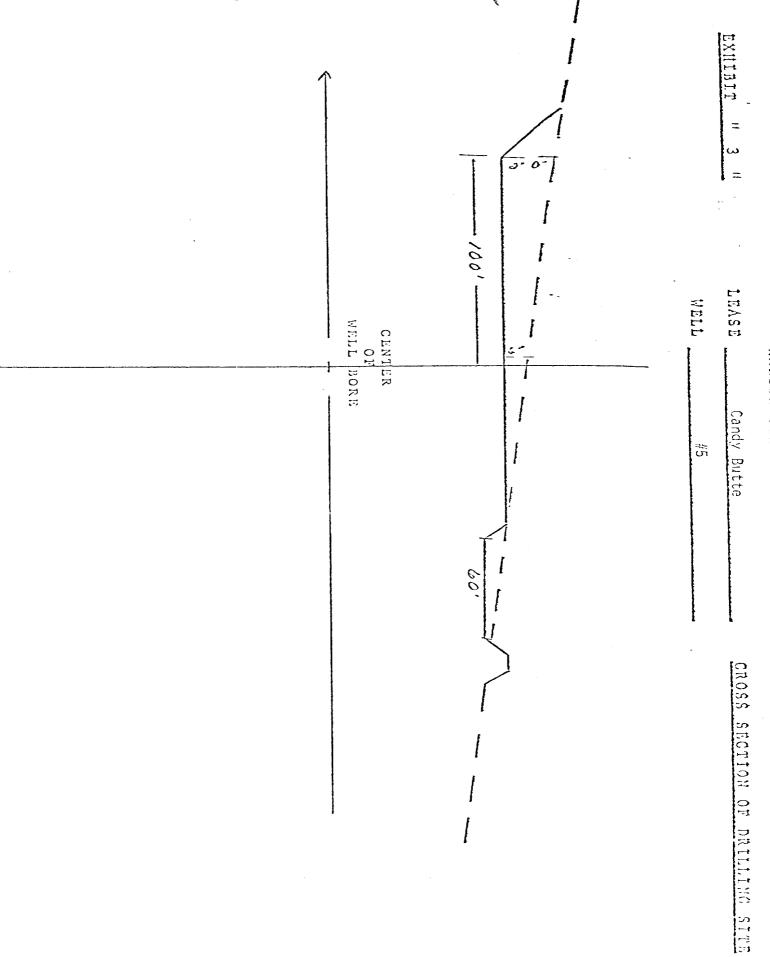
## SANDOVAL COUNTY, NEW MEXICO

- 7. Auxiliary Equipment: Kelly cocks or floats at the bit will not be used in drilling the subject well. The mud system (pit levels) will be monitored visually by the rig crew. A sub with a full opening valve in good working order for stabbing into the drill pipe will be available on the drilling rig floor.
- 8. Testing and Logging Program: D.S.T.'s will be taken in the Entrada formation as well conditions dictate. No cores are planned. Gamma-Ray Caliper, Dual Laterlog, Borehole Compensated-Neutron logs will be run at the direction of Geologist.
- 9. Anticipated bottom hole pressure (BHP): The BHP in subject well is anticipated to be 1800# @ 4500'. This is equivalent to a pressure gradient of .40 lbs. per foot of depth.
- The anticipated starting date is March 6, 1980, with completion of drilling operation on April 1, 1980. Stimulating and completion of well would be immediately after drilling operations are finished.

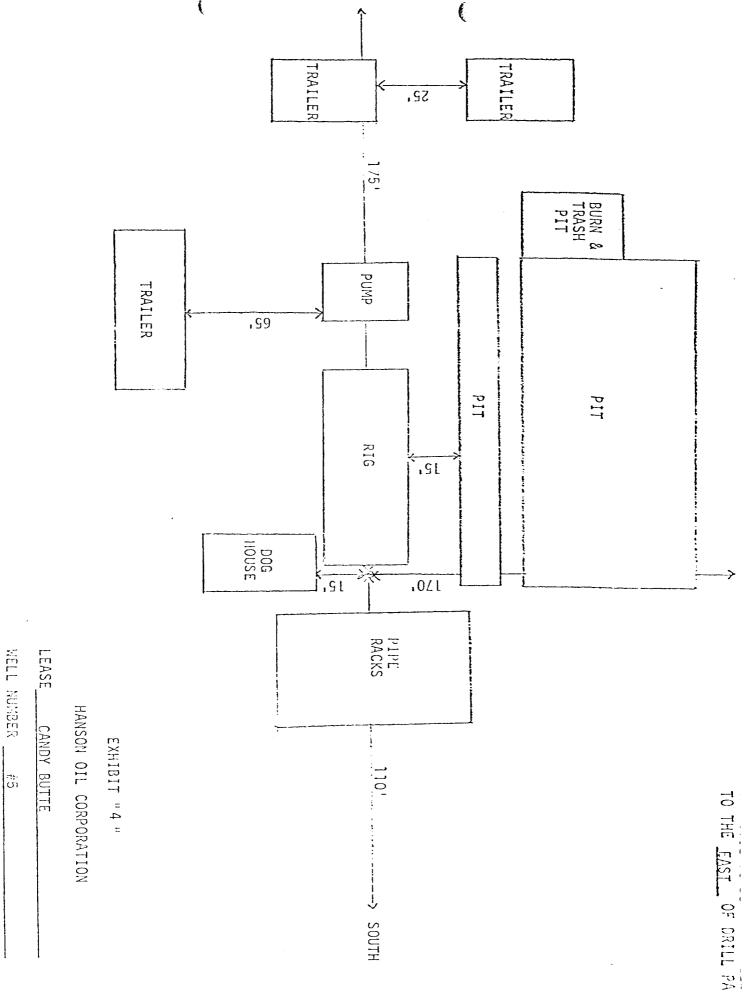








HUHAAN AFR CAM ......



HANSON OIL CORPORATION

EXHIBIT

= 51

CROSS-SECTION OF PLANNED ACCESS ROAD LEASE WELL Candy Butte *1* 5

TOP VIEW

SECTION

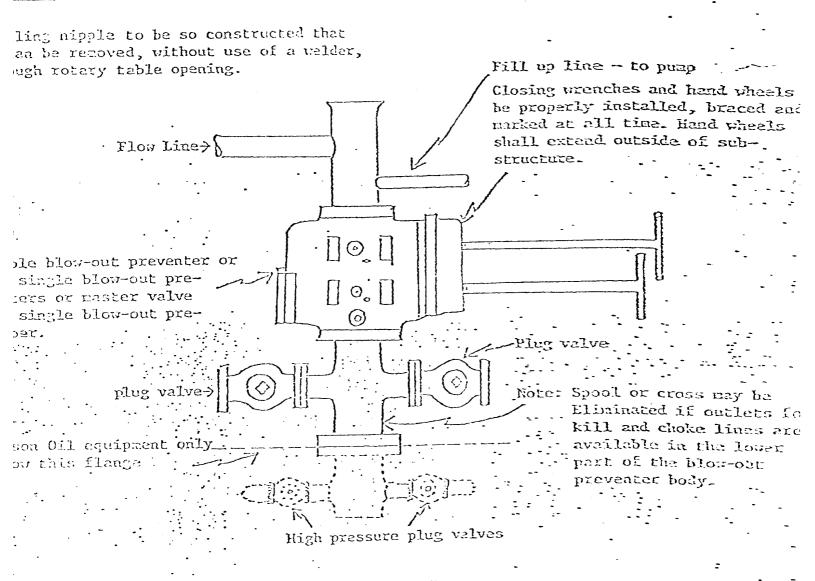
CROSS -

EXISTING SURFACE

12" DRAINAGEY

PLANNED SURFACE AFTER GRADING

#### SIT 6



Ē.:

n drilling use:
Preventer-Blind rans or master valve
ton Preventer-Drill pipe rans

n running casing use:
 Preventer-Casing rams
ton Preventer-Blind rams or master valve

#### NOTE:

- Blow-out preventers, master valve and all fittings must be in good condition 2,000% W.P. (4,000 P.S.I. test) minimu
- 2. Equipment through which bit must pass shall be as large as inside diameter of the casing that is being drilled through
- hipple above blow-out preventer shall same size as casing being drilled thro
- 4. All fittings to be flanged.
- Safety Valve (2<sup>n</sup> minimum opening) with sub or connection to drill pipe on rig floor at all times.

CANDY BUTTE #5 Exhibit #6