#### SUBMIT IN TRIPLICATE\*

(Other instructions on reverse side)

Form approved. Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR

30-039-22452
5. LEASE DESIGNATION AND SERIAL NO.

	GEOLO	GICAL SURVEY			SF-078563	
APPLICATION	6. IF INDIAN, ALLOTTEE OR TRIBE NAME					
la. TYPE OF WORK			PLUG BA		7. UNIT AGREEMENT NAME	
b. TYPE OF WELL	ILL X	DEEPEN [	PLUG BA			
OIL G	SINGLE COMULTIPLE				8. FARM OR LEASE NAME	
NAME OF OPERATOR	THE CONTRACTOR OF THE CONTRACT				Grace-Federal 23	
Grace Petrol	eum Corporation		-		9. WELL NO.	
ADDRESS OF OPERATOR					1	
1515 Arapaho	e St., 3 Park C	entral, Ste.	200, Denver, CO	30202	10. FIELD AND POOL, OR WILDCAT	
At surface		in accordance with any State requirements.*)			Devils Fork Gally  11. SEC., T., R., M., OR BLE.	
/ 1190' FNL, 1	685' FWL	DE	CEIVED	AND SURVEY OR AREA		
At proposed prod. zor	ae		CEIVED		Sec. 23. T24N-R7W	
A	AND DIRECTION FROM NEA	DWOT TOWN OF POST A	Banes (CO)		12. COUNTY OR PARISH   13. STATE	
		A. Tool H	A OK POSTAPREZ E 17.5")		Rio Arriba New Mexic	
	of Bloomfield	11 4 16	LF MO. COM CARRES UNR VEASE	17. NO.	OF ACRES ASSIGNED	
LOCATION TO NEARES PROPERTY OR LEASE	T 1190' FNL, 1	1685' FWL FAR			326/80	
(Also to nearest dri	8. 0210 1110) 11 11-0,		). PROPOSED DEPTH	20. ROTARY OR CABLE TOOLS		
TO NEAREST WELL, I OR APPLIED FOR, ON TE	ORILLING, COMPLETED,		5500'	,	Rotary	
	nether DF, RT, GR, etc.)		3300	<u>'</u>	22. APPROX. DATE WORK WILL START*	
6778' Ungrad	led Ground				July, 1980	
23.		PROPOSED CASING	AND CEMENTING PROGR	AM		
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	1	QUANTITY OF CEMENT	
	8-5/8"	24#	300'	Ceme	Cement to Surface	
12-1/4" 7-7/8"	4-1/2"	10.5#	TD		300 sx, Class "G"	
It is p	coposed to dril	l and test the	e Gallup Formatic	n at t	he above location.	
Total Depth A 4½" pr	will be approximately appr	<pre>imately 5500' g will be run</pre>	and cemented, or test indicates.			
See atta	ached for perti	nent data.			and the latest the lat	
IN ABOVE SPACE DESCRII zone. If proposal is to preventer program, if a	drill or deepen direction	proposal is to deepen	or plug back, give data of ata on subsurface locations	JUL S	30 1980 COM. Polictive 20ne and proposed new productive and true vertical depths. Give blowou	
SIGNED STORY	the Some	TITLE	Southern Distractions Management		DATE 4-18-50	
(This space for Fed	ieral or State office use)					
PERMIT NO.			APPROVAL DATE		ATTORINED	
				1 4	APPROVED	

NMOCC

conditions of approvations NAUTHORIZED ARE
SUPPOSE AND ANALY WITH ATTACHED
AGREEMENTS.

\*See Instructions On Reverse Side

**V** 

DISTRICT ENGINEER

## N. MEXICO OIL CONSERVATION COMMISSI WELL LOCATION AND ACREAGE DEDICATION PLATERY $\delta$

Form C-102
Supersedes C-12
Effective 1-1-65

All distances must be from the outer boundaries of the Section Operator Grace Federal 23 Grace Petroleum Corporation Section Township Range County Unit Letter 24N 7W Rio Arriba 23 Actual Footage Location of Well: 1685 West North feet from the line and feet from the Dedicated Acreage: Producing Formation Pool Ground Level Elev. Devil's Fork 80 <del>320</del> 6778 Gallup 1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below. 2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty). Single lease 3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc? If answer is "yes," type of consolidation 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 Commis-CERTIFICATION I hereby certify that the information contained herein is true and complete to the 16851 Scotty A. Smith Position Southern District Operations Manager Grace Petroleum Corporation March 26, 1980 Sec 23 I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief. EXHIBIT 1

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#### NTL-6 ENVIRONMENTAL STATEMENT

#### SURFACE USE PLAN

OPERATOR: Grace Petroleum Corporation

LEASE & WELL NAME: Grace-Federal 23-1

LOCATION: NENW Sec. 23, T24N-R7W (1190' FNL, 1685' FWL)

COUNTY & STATE: Rio Arriba, New Mexico

TO: The United States Geological Survey (USGS) and the Bureau of Land Management (PLM).

The following information, maps, plats, and descriptions of various surface characteristics should fulfill the requirements of the various agencies as to the environmental commitment of the operator at the above named well site.

## 1. Geologic Name of the Surface Formation

San Jose

#### 2. Estimated Tops of Important Geologic Markers

Ojo Alamo	1378'
Kirtland	1470'
Fruitland	1858'
Picture Cliffs	2053'
Lewis	2143'
Chacra	2858 <b>'</b>
Mesa Verde	2940 <b>'</b>
Cliff House	3683 <b>'</b>
Point Lookout	4333'
Mancos	4518'
Gallup	5378 <b>'</b>

3. Estimated Depths at which Anticipated Water, Oil, Gas, or Other Mineral-Bearing Formations are Expected to be Encountered

Possible oil and/or gas zones are Picture Cliffs (2053'), Point Lookout (4333') and Gallup (5378').

4. Proposed Casing Program (including the size, grade, and weight-per-foot of each string and whether new or used)

8-5/8" K-55, 24#/ft., new to approximately 300'. 4-1/2" K-55, 10.5#/ft., new to TD, approximately 5500'.

\* 14 × 1 \*\*\*

#### 4. Location of Existing and/or Proposed Facilities:

A. Within 1-mile radius of location showing the following existing facilities owned or controlled by lessee/operator: (1) tank batteries, (2) production facilities, (3) oil gathering lines, (4) gas gathering lines, (5) injection lines, (6) disposal lines.

Exhibit 4 shows existing operator-owned facilities.

B. New facilities in the event of production.

It is proposed to utilize facilities at LOVE 2-23 location, approximately ½ mile South of proposed well site. New facilities will consict of approximately ½ mile of surface line and will follow existing R.O.W.

(1) Dimensions of facilities:

Actual production facilities will utilize a beam pumping unit and will require approximately 50' X 50'.

(2) Construction methods and materials:

Any construction will utilize soil materials native to the site. Construction methods will be employed to assure no drainage flows are impounded.

(3) Protective measures to protect livestock & wildlife:

Fences will be installed around equipment and pits to protect wildlife and livestock.

C. Rehabilitation of Disturbed Areas Unnecessary for Production:

Areas unnecessary for use will be graded to blend with the surrounding topography. Topsoil will be replaced on these areas and seeded according to BLM requirements.

5. Lessee's or Operator's Minimum Specifications for Pressure Control Equipment which is to be used, a Schematic Diagram thereof Showing Sizes, Pressure Ratings (or API series), and the Testing Procedures and Testing Frequency

B.O.P. will be as shown on Exhibit 3. The blind and pipe rams will be tested to 2000 psi and held for 20 minutes for each set of rams before the surface casing shoe is drilled out. During drilling, the pipe rams will be closed once a day and a check made for seating, fluid loss, and operations. On each trip, the blind rams will be closed and a check made for seating, fluid loss and operation.

6. Type and Characteristics of the Proposed Circulating Medium or Mediums to be Employed for Rotary Drilling and the Quantities and Type of Mud and Weighting Material to be Maintained

Circulating medium for  $12\frac{1}{4}$ " surface hole will be gel and lime mud to set 8-5/8" surface casing. For 7-7/8" hole, we propose a CMC mud system weighing 8.8 to 9.1 ppg with a fluid loss of 10 cc or less.

7. Auxiliary Equipment to be Used (such as kelly cocks, floats at the bit, monitoring equipment on the mud system, a sub on the floor with a full opening valve to be stabbed into the drill pipe when the kelly is not in the string, etc.)

A kelly cock will be used on the kelly, and a bottom hole float will also be installed. A full opening safety valve subbed to drill pipe threads will be on the floor at all times. Monitoring of the mud system will be performed using floats and daily measurements by a mud engineer.

8. Testing, Logging, and Coring Programs to be Followed with Provision Made for Required Flexibility

2 DST's may be run in the assumed productive intervals (see No. 3), if samples, shows in the mud or drilling breaks indicate possible hydrocarbons. Logging will be DIL from TD to base of surface casing. Formation Density-Compensated Neutron Log will be run across zones of interest. No cores are anticipated. If the well is determined to be commercial, 4½" casing will be run and cemented. The cement program will include the following: 1) Cement from TD to approximately 4500' with a "G" class cement with salt and gel. 2) Cement the upper water sands from approximately 3800' to surface with a pozmix cement with gel. This will be sufficient to cover the Ojo Alamo zone. The stimulation procedure will consist of perforating all of the Gallup interval acidizing with a mud acid @ a volume of approximately 50 gal/ft and fracturing the Gallup with approximately 40,000 gals. gelled water with 60,000# sand.

9. Anv Anticipated Abnormal Pressures or Temperatures Expected to be Encountered or Potential Hazards such as Hydrogen Sulfide Gas, Along with Plans for Mitigating Such Hazards

No abnormal pressures or temperatures are anticipated. Also no potentially hazardous hydrogen sulfide gas is expected.

#### 10. Anticipated Starting Date and Duration of the Operations

Anticipated spud date is July, 1980, with subsequent drilling and completion operations lasting 30-60 days.

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- 1. A Legible Map Showing Existing Roads (See Exhibit 2 ):
  - A. Proposed well site location as staked (staking to include two (2) each 200-foot directional reference stakes):

Exhibit 1 shows proposed well site as staked by a registered land surveyor.

B. Planned Access Road (route and distance from nearest town or locatable referenced point to where well access route leaves the main road:

To reach the Grace Federal 23-1 location from Bloomfield, New Mexico, go Southeast on New Mexico Highway 44 for approximately 50 miles. Turn left immediately past Southern Union Gas Refining-Lybrook plant onto existing dirt road. Continue on dirt road for approximately 6.5 miles (Marker: windmill @ 3.6 miles). Turn west onto existing road (El Paso Natural Gas P/L signs), continue on existing dirt road for approximately 4.4 miles, parallel to power line wires (Markers:\*\*

C. Access road(s) to location color-coded or labeled:

Access road is color-coded red on Exhibit 2.

D. If exploratory well, all existing roads within a 3-mileradius (type of surface, conditions, etc.):

N/A

- E. If development well, all existing roads within a 1-mile radius of wellsite: Exhibit 2 shows existing roads within a 1-mile radius.
- F. Plans for improvement and/or maintenance of existing roads: Improvements and/or maintenance will be according to BLM specifications.
- \*\* railroad car and windmill @ 2.1 miles). Proceed North onto existing dirt road approximately 1500' to flagged location.

1.4

- 2. Map Showing All Necessary or Planned Access Roads to be Constructed or Reconstructed (See Exhibit 2 ):
  - A. Width: 16-20'
  - B. Maximum Grades: Approximately 2%
  - C. Turnouts: None are necessary
  - D. Drainage Design: No drainage design will be incorporated for the drilling phase. Brush will be cleared and windrowed.
  - E. Location and size of culverts and brief description of any major cuts and fills: No culverts are necessary. A 6-10' cut will be taken from the North side of the location and fill distributed to the South side, and as required to level the location.
  - F. Surfacing Material: None is planned
  - G. Necessary gates, cattleguards, or fence cuts: None are necessary.

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- H. New or reconstructed roads are to be center-line flagged at the time of location staking: Access road was centerlined flagged at time of location staking.
- 3. Location of Existing Wells (See Exhibit 4 ):

A two-mile radius map, if exploratory, or a 1-mileradius map, if development well, showing and identifying existing (1) water wells, (2) abandoned wells, (3) temporarily abandoned wells, (4) disposal wells, (5) drilling wells, (6) producing wells, (7) shut-in wells, (8) injection wells, and (9) monitoring or observation wells for other resources is attached.

Exhibit 4 shows existing wells within a 1-mile radius.

1.1

#### 5. Location and Type of Water Supply

Water will be supplied from water storage tank located in Sec. 24, T24N-R7W, approximately one miles east of proposed location.

- A. Water Transportation System: Vacuum trucks will be utilized to haul water to the well site.
- B. Water Wells: No water wells will have to be drilled.

## 6. Source of Construction Materials

- A. Materials: Construction materials will consist of soil encountered within the boundaries of proposed well site.
- B. Land Cwnership: BLM
- C. Materials Foreign to Site: N/A
- D. Access Roads: Approximately 600' of access road approching the well from the Southwest will utilize soil encountered within the road boundary,

#### 7. Methods for Handling Waste Disposal

- A. Cuttings: Cuttings will be contained in the reserve pit, Exhibit 5.
- B. Drilling Fluids: Drilling fluids will be retained in the reserve pit, Exhibit 5.

#### 7. Methods for Handling Waste Disposal, (Cont'd)

C. Produced Fluids:

Produced fluids will be stored in tanks on the location and hauled off by truck.

#### D. Sewage:

Sewage disposal will be necessary during drilling operations only. A portable toilet will be provided for human waste.

#### E. Garbage:

A burn pit will be constructed and fenced with small mesh wire, overhead and around. Any refuse will be burned.

F. Cleanup of Well Site:

Clean-up of this location will proceed after the rig moves off, as outlined in Section 10 of this report.

#### 8. Ancillary Facilities

None required.

#### 9. Well Site Layout

. . . . .

A. Cross-Section of Drill Pad:

See Exhibit 5.

B. Location of Burn, Trash, and Reserve Pits, Soil Material Stockpiles, Access Roads, Mud Tanks, Pipe Racks, Living Facilities:

See Exhibit 5.

#### 2. <u>Manual de la Tarmina - Jana'd</u>

C. Rig Orientation and Lavout:

See Exhibit 6.

D. Lining of Pits:

No liners are planned.

#### 10. Plans for Restoration of Surface Upon Completion of Operations:

A. Backfilling, Leveling, Contouring, and Waste Disposal; Segregation of Spoils Materials as Needed:

Prior to backfill operations, any hydrocarbon material on the pit surface will be removed. The fluids and solids contained in the pit will be backfilled when the pit dries. The entire area will be contoured, graded or leveled to its previous condition, such that no drainage will be impounded. The topsoil will be replaced and the area reseeded per BIM recommendations.

B. Revegetation and Rehabilitation - Including Access Roads:

The reseeding will be BLM specifications. Access road will be maintained for vehicular traffic if production results, or regarded to original condition if well is not productive. The area will be reseeded with seed mixture selected by BLM.

C. Prior to Rig Release, Pits Will be Fenced and so Maintained Until Cleanup:

This will be adhered to until pits are dry and backfilled, and the area is restored.

D. Oil on Pit:

Oil will be removed or overhead flagging will be installed.

- 10. Plans for Restoration of Surface Upon Completion of Operations, (Cont'd):
  - E. Rehabilitation Timetable: 3 to 6 months upon completion of operations.

#### 11. Other Information

- A. Surface Description (Topography, Soil Characteristics, Geologic Features, Flora and Fauna): Topography is broken canyon bottom with southerly drainage, alluvial surface deposits and sandstone outcrops. Soil is sandy loam. Principle vegetation consists of Western wheat grass, thread and needle grass, wolfberry, juniper, pinion, slatbrush, snakeweed, rabbitbrush, squirreltail, dock, cholla, blue grama, prickly pear and barrel cacti.
- B. Surface Ownership and Use: BLM

- C. Proximity of Water, Dwellings, Historical Sites:
  - (1) Water: Nearest source of water is approximately 1 mile east of proposed location.

(2) Occupied Dwellings:

Nearest dwelling is approximately  $4\frac{1}{2}$  miles northeast of proposed location.

(3) Sites: None found.

Refer to Report 80-SJC-097 of the Cultural Resource Management Program, San Juan Campus, New Mexico State University.

#### 12. Operators Field Representative

Scotty A. Smith Work: 303/825-8193 3 Park Central - Ste 200 Home: 303/234-0257

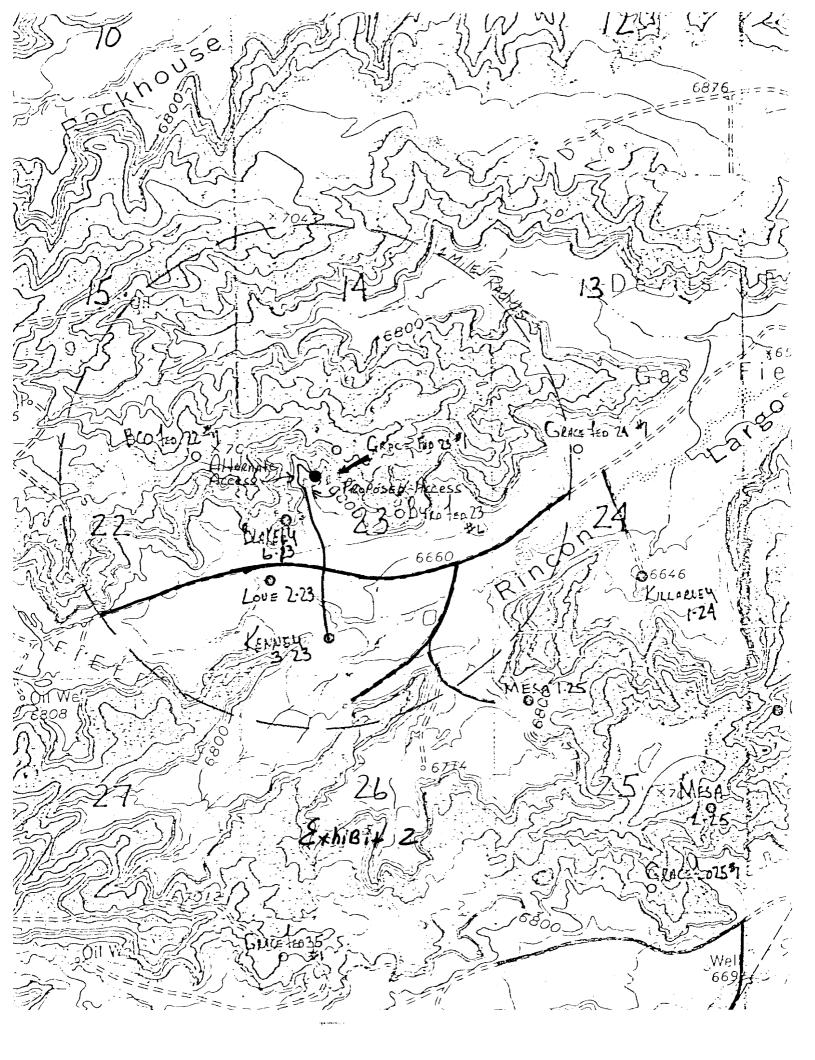
1515 Arapahoe Street Denver, CO 80202

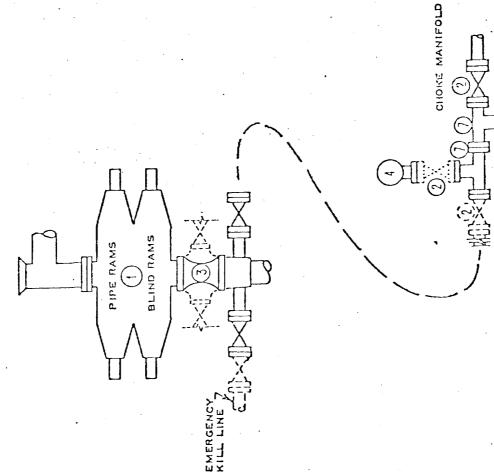
Benjamin C. Stromberg Work: 303/825-8193 Same as above Home: 303/733-9076

#### 13. Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site 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 Grade Petroleum Corp. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Scotty A. Smith, Southern District Operations Manager





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- SERIES 900 RAM-TYPE BOP
- 2 2" SERIES 900 VALVE
- SERIES 900 DRILLING SPOOL

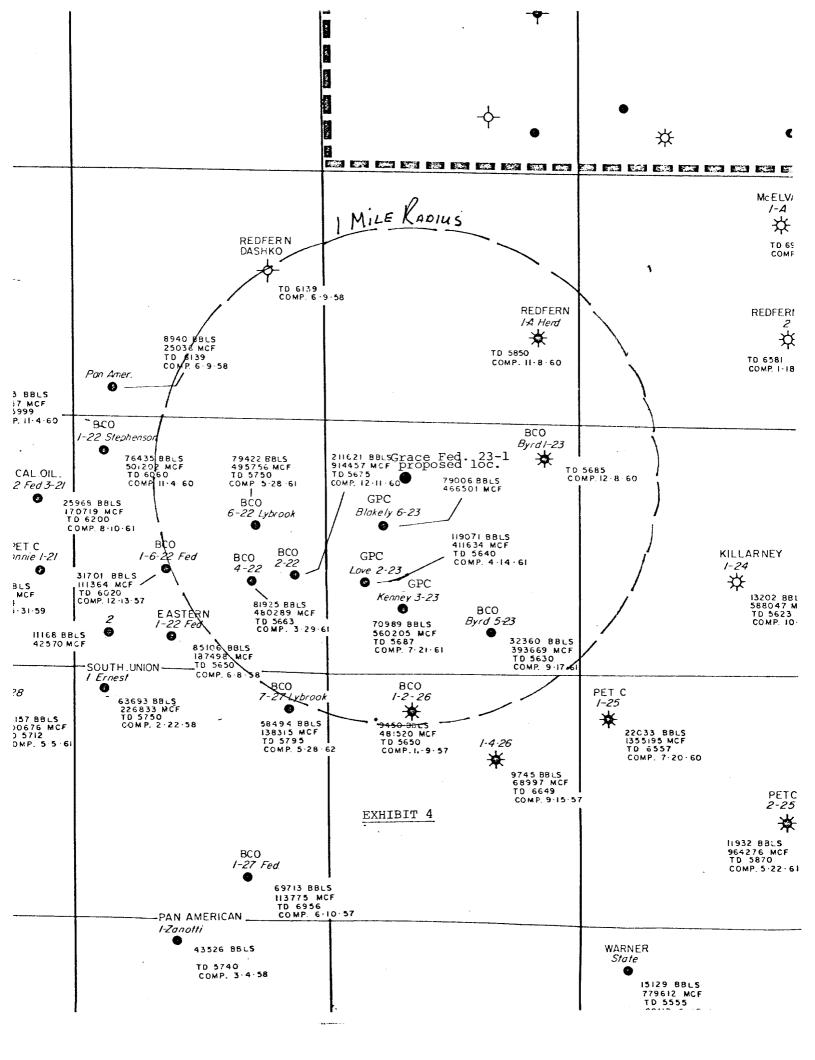
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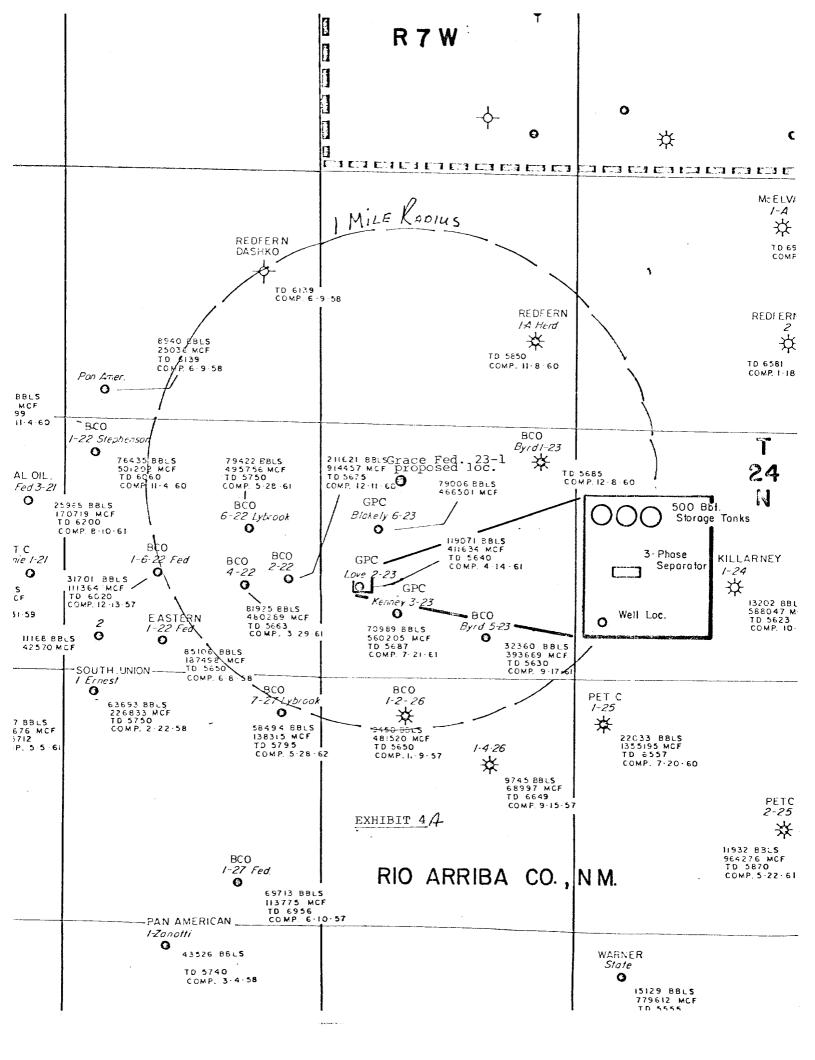
- 4 2" MUD PRESSURE GAUGE
- S 2" SERIES 900 CHOKE
- © 2" SERIES 900 CHECK VALVE
- (7) 2" SERIES 900 STEEL TEE
- 1. 3000 PSI WP CLAMP HUBS MAY BE SUBSTITUTED FOR FLANGES
- 2. VALVES MAY BE EITHER HAND OR POWER OPERATED, THE VALVES FLANGED TO THE BOP RUN MUST BE CAPAULE OF BEING OPERED AND CLOSED MANUALLY OR CLOSE ON POWER FAILURE AND BE CAPABLE OF BEING OPENED MANUALLY

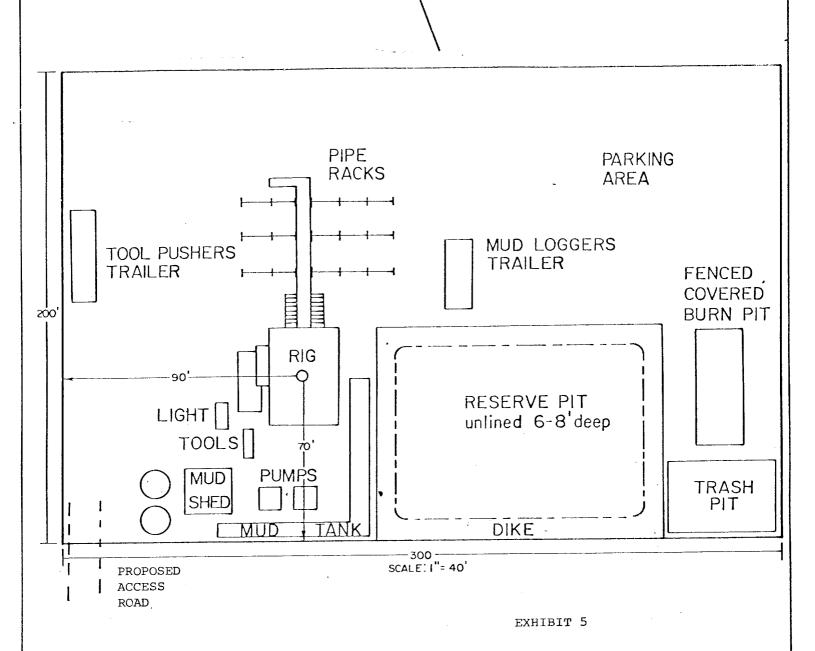
..... OPTIONAL EQUIPMENT

3000 PSI WORKING PRESSURE BLOWOUT PREVENTER HOOK-UP

EXHIBIT NO. 3







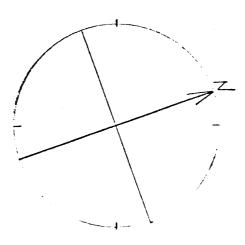
GRACE FEDERAL 23-1 NE NW Sec. 23-T24N-R7W Rio Arriba County, New Mexico



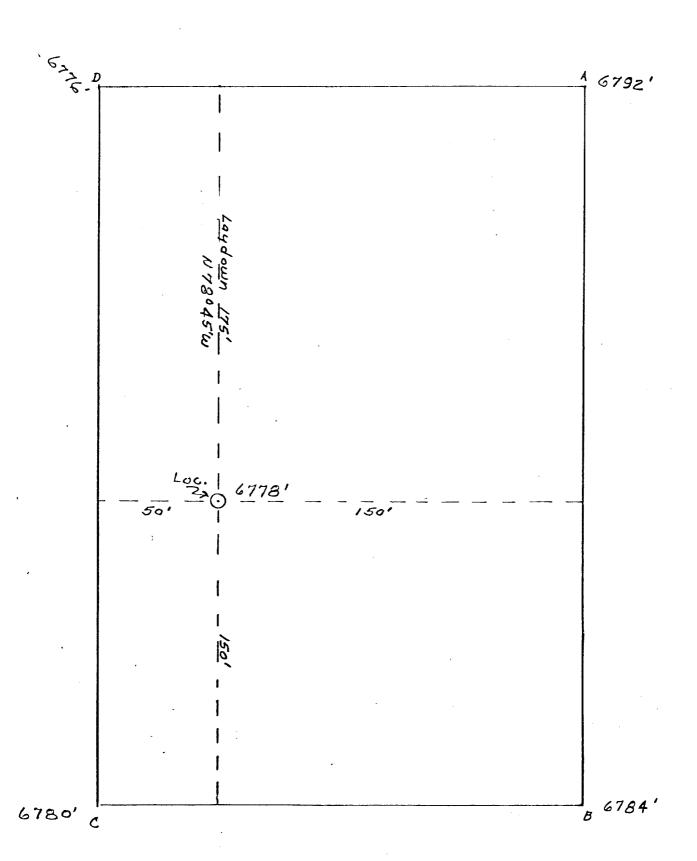
GRACE Petroleum Corp.
Rocky Mountain Region
1515 Arapahoe Suite 200 Three Park Central
Denver, Colorado 80202 (303) 825-8193

Profile for GRACE PETROLEUM CORP. #1 GRACE-FEDERAL 23 1190'FNL 1685'FWL Sec. 23-T24N-R7W RIO ARRIBA COUNTY, NEW MEXICO

#### EXHIBIT 6



Scale: 1"=40'



# UNITED STATES

DEPARTMENT OF THE INTERIOR  GEOLOGICAL SURVEY	SF-078563  6. IF INDIAN, ALLOTTEE OR TRIBE NAME		
SUNDRY NOTICES AND REPORTS ON WELLS  (Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9–331–C for such proposals.)	7. UNIT AGREEMENT NAME		
reservoir, use form 9-331-C for such proposals.)	8. FARM OR LEASE NAME		
1. oil gas other	Grace Federal 23		
Well Street	9. WELL NO.		
2. NAME OF OPERATOR	#1		
Grace Petroleum Corporation	10. FIELD OR WILDCAT NAME		
3. ADDRESS OF OPERATOR Denver, CO 80202	Devil's Fork - Gallup		
Three Park Central, St. 200, 1515Arapahoe	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA		
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)			
AT SUPFACE.	Sec. 23-T24N-R7W  12. COUNTY OR PARISH 13. STATE		
AT TOP PROD. INTERVAL: 1190' FNL & 1685' FWL	Rio Arriba N.M.		
AT TOTAL DEPTH:	14. API NO.		
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE,			
REPORT, OR OTHER DATA	15. ELEVATIONS (SHOW DF, KDB, AND WD) 6778' ungraded		
REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	· · · · · · · · · · · · · · · · · · ·		
FRACTURE TREAT			
REPAIR WELL			
PULL OR ALTER CASING	(NOTE: Report results of multiple completion or zone change on Form 9-330.)		
MULTIPLE COMPLETE			
CHANGE ZONES   ARAMPONIS			
ABANDON*	-		
Commy Correct Spacing allocation of Wil -0			
17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly stati- including estimated date of starting any proposed work. If well is d measured and true vertical depths for all markers and zones pertinen	irectionally drilled, give subsurface locations and		
The original NTL-6 application specified that	320 acres would be		
allocated to the well whereas only the East h			
is actually allocated to the well (80 acres).			
is accually allocated to the well (oo acres).			
	•		
	· · ·		
Subsurface Safety Valve: Manu. and Type	Set @ Ft.		
18. I hereby certify that the foregoing is true and correct			
18. I hereby certify that the foregoing is true and correct Operations Man	ager		
SIGNED TITLE Southern Distr	ict DATE May 2, 1980		
(This space for Federal or State offi	ce use)		

\*See Instructions on Reverse Side

\_ DATE

All distances must be from the outer boundaries of the Section. Operator Well No. Grace Federal 23 Grace Petroleum Corporation 1 Unit Letter Section Township Range С 23 24N **7W** Rio Arriba Actual Footage Location of Well: North feet from the line and West feet from the Ground Level Elev. Producing Formation Dedicated Acreage: 6778 Devil's Fork Gallup 320 1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below. 2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty). Single lease 3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc? N/A If answer is "yes," type of consolidation 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. CERTIFICATION I hereby certify that the information contained herein is true and complete to the 1685 Scotty A. Smith Position Southern District Operations Manager Company Grace Petroleum Corporation Date March 26, 1980 Sec 23 I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief. EXHIBIT 1

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1980 2310 2640