Form OGCC-1 a

RECEIVED

STATE OF UTAH

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

OIL & GAS CONSERVATION COMMISSION

DIVISION OF OIL, GAS, AND MINING

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO. Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME GPC Fee

9. WELL NO. 36-1

10. FIELD AND POOL, OR WILDCAT ~~Altamont~~ Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 36, T2S-R7W

12. COUNTY OR PARISH Duchesne

13. STATE Utah

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: Grace Petroleum Corporation

3. ADDRESS OF OPERATOR: Ste 200, 3 Park Central, 1515 Arapahoe St., Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1646' ~~1686'~~ FNL, 1276' ~~1365'~~ FEL (loc. change 2/20/81 - REFER TO NEW SURVEY PLAT) SENE ~~SE NE~~
At proposed prod. zone: Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 16.5 miles from Duchesne

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. line, if any): 1365'

16. NO. OF ACRES IN LEASE: 640

17. NO. OF ACRES ASSIGNED TO THIS WELL: 640

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: N/A

19. PROPOSED DEPTH: 13,000' Wasatch

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 6932 GR

22. APPROX. DATE WORK WILL START*: 2/1/81

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
14-3/4"	10-3/4"	40.5	2500'	1500 sx Circ to surface
9-7/8"	7-5/8"	29.7 & 26.4	9932'	1000 sx
6-3/4"	5-1/2"	23#	13000	200 sx

A 14-3/4" hole will be drilled to 2500' with water. 10-3/4" casing will be set to 2500' and cemented to surface. A 9-7/8" hole will be drilled to 9932' (projected top of the Watsatch Fm) with mud. 7-5/8" casing will be run to 9932' and cemented to 5000' (projected top of the Green River). A 6-3/4" hole will be drilled to 13,000' TD with weighted mud and a 5½" liner will be set if the well is determined to be commercial. The logging program will consist of a dual induction, CNL-FDC, BHC Sonic. 10 drill stem tests are anticipated, 2 cores are anticipated in the Wasatch Fm. The Wasatch is anticipated to be overpressured. No H_2S is anticipated. The BOPE program is attached along with the location plat.

Use BOP equipment sufficient to control Wasatch pressures.

APPROVED BY THE DIVISION OF OIL, GAS, AND MINING
DATE: 1-22-81
BY: M. J. Minder

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 subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED Gary Strasburg, Jr. TITLE Drilling Engineer DATE 1/9/81

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

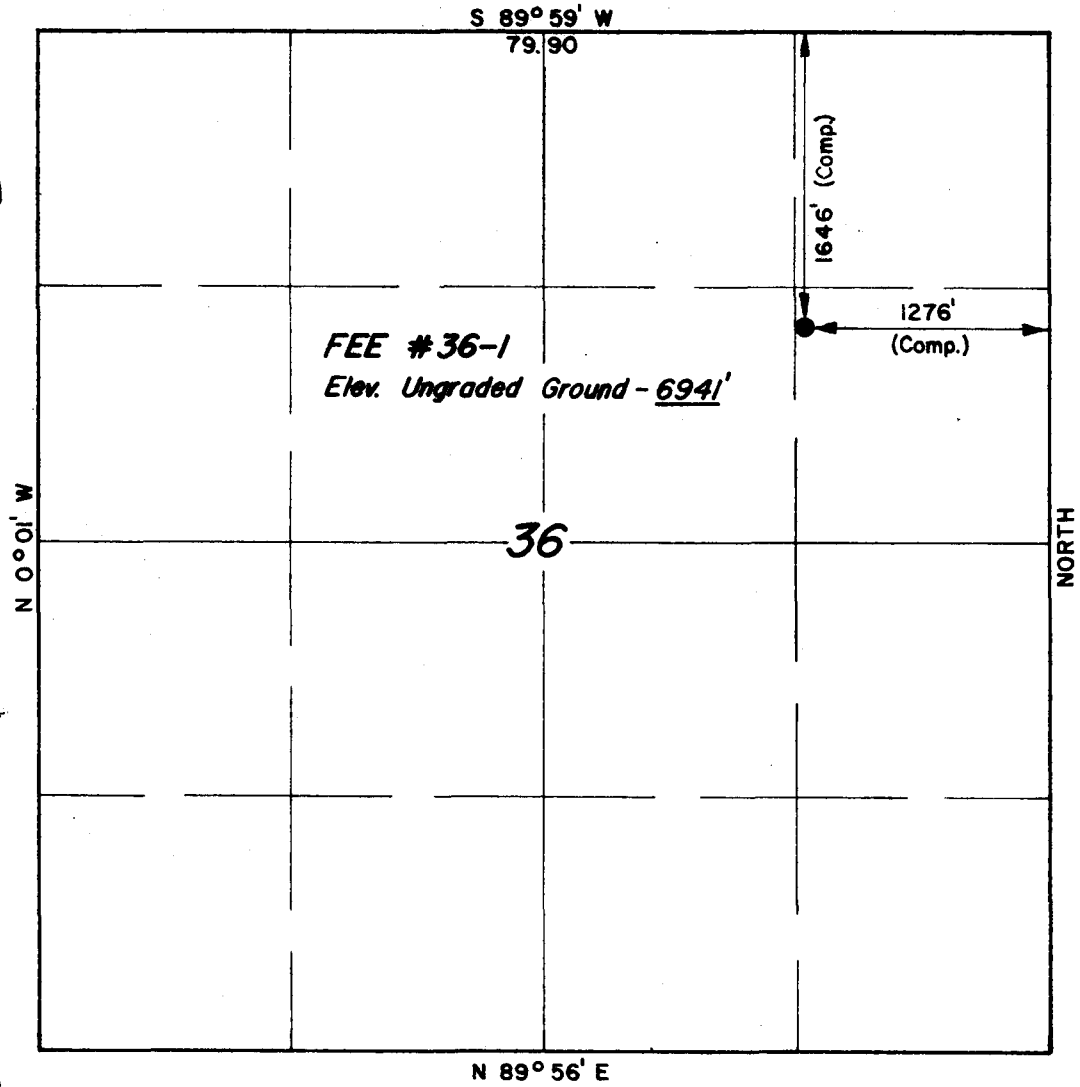
*See Instructions On Reverse Side

PROJECT

GRACE PETROLEUM CORP.

Well location, *FEE #36-1*, located as shown in the SE 1/4 NE 1/4 Section 36, T 2 S, R 7 W, U.S.B. & M. Duchesne County, Utah.

T 2 S, R 7 W, U.S.B. & M.



X = Section Corners Located

RECEIVED
FEB 23 1981
DIVISION OF OIL, GAS, & MINING

CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Gene Stewart

REGISTERED LAND SURVEYOR
REGISTRATION Nº 3154
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING
P. O. BOX Q ~ 85 SOUTH - 200 EAST
VERNAL, UTAH - 84078

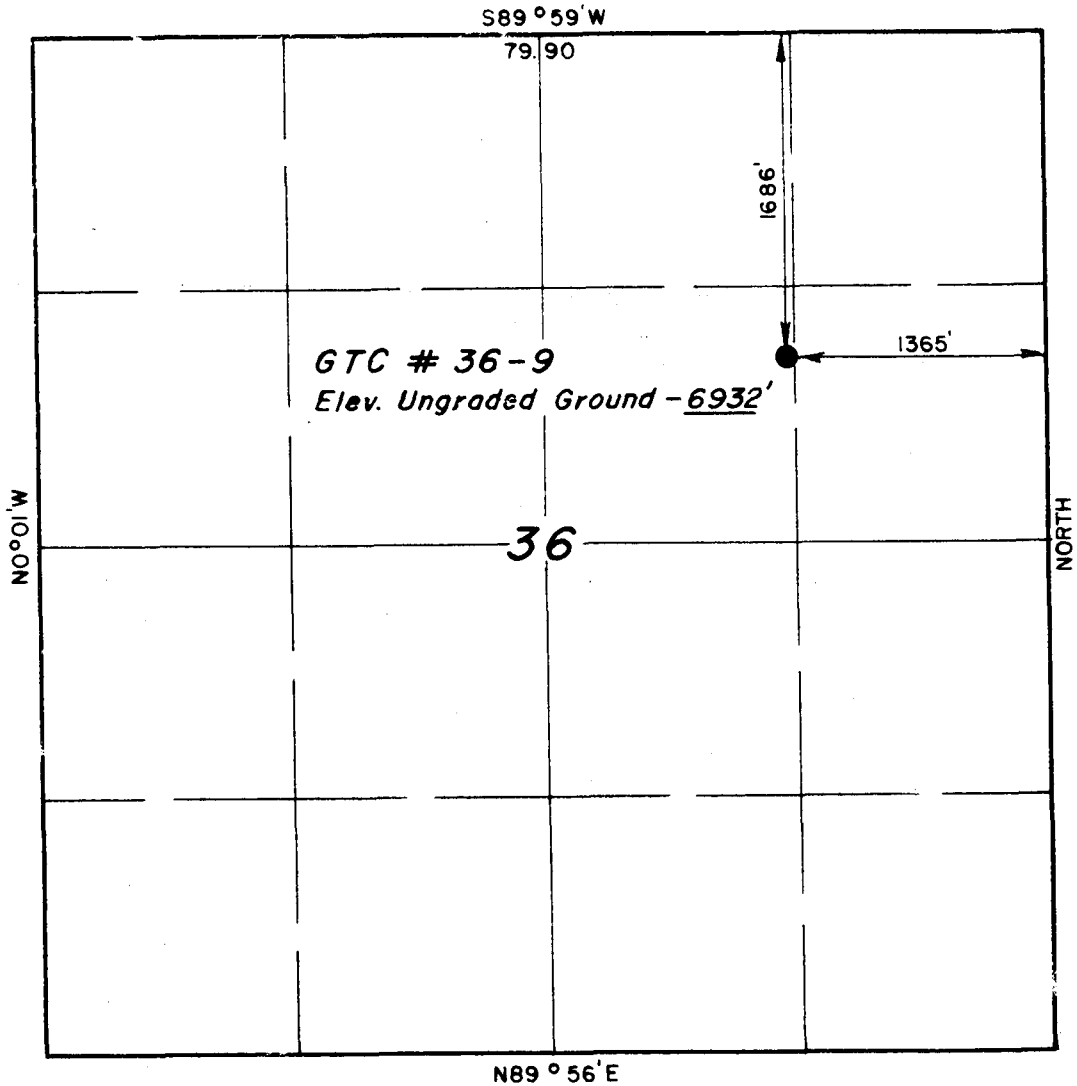
SCALE 1" = 1000'	DATE 2/13/81
PARTY GS GS SH WB	REFERENCES GLO Plat
WEATHER Clear / Cool / Calm	FILE GRACE PETROLEUM CORP.

PROJECT

GRACE PETROLEUM CORP.

Well location, *G.T.C. #36-9*, located as shown in the SW 1/4 NE 1/4 Section 36, T2S, R7W, U.S.B.&M. Duchesne County, Utah.

T2S , R7W , U.S.B.&M.



CERTIFICATE

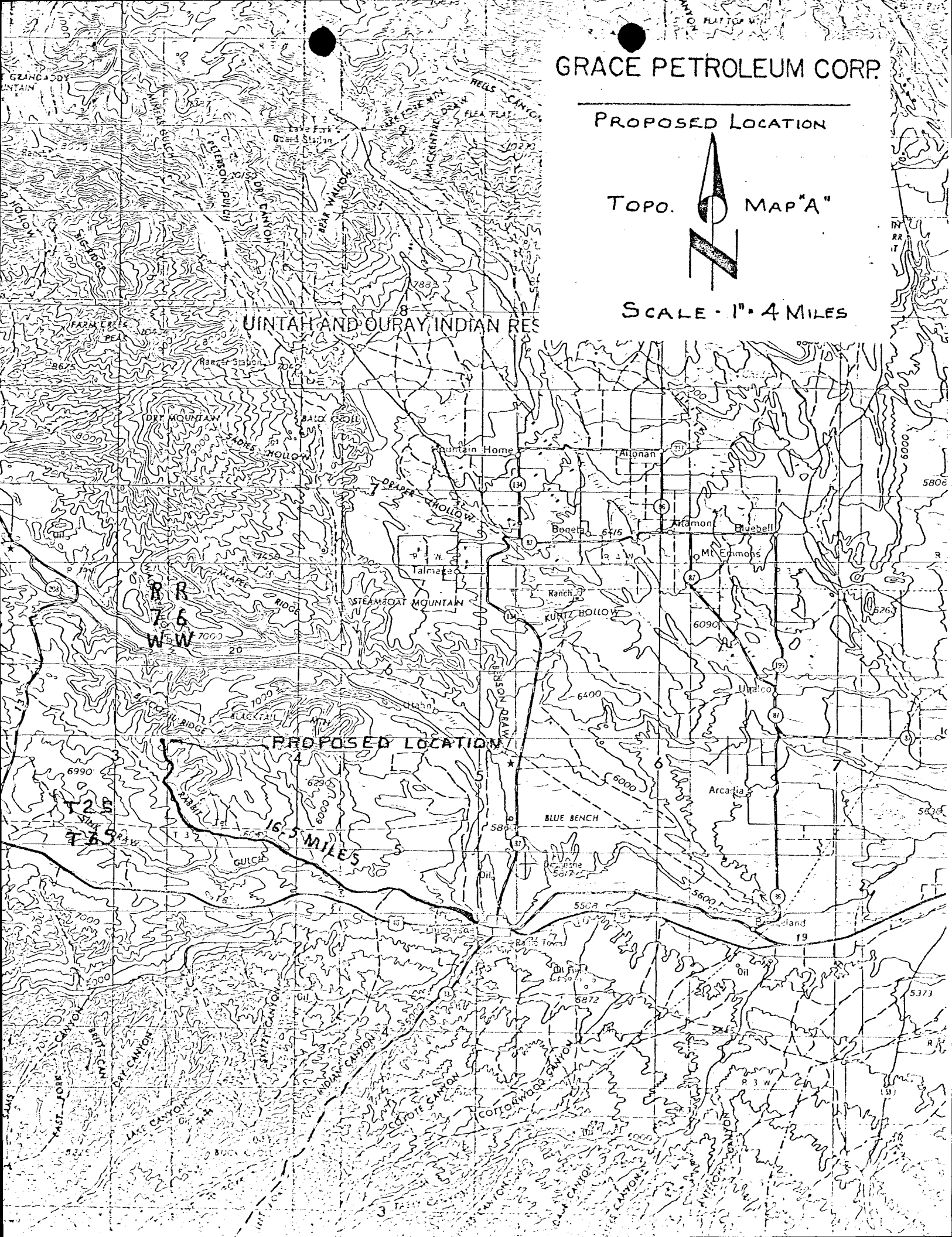
THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

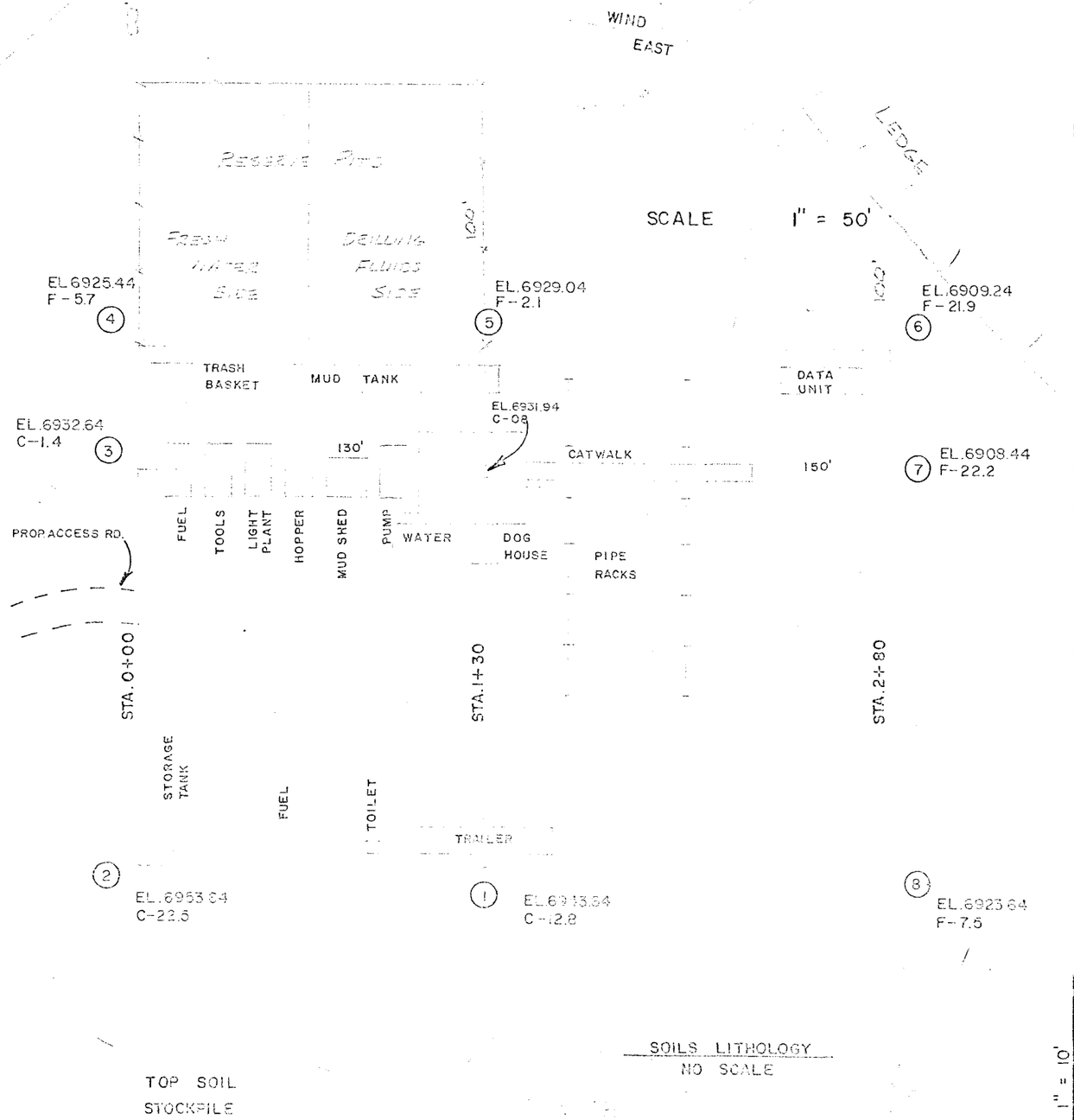
REGISTERED LAND SURVEYOR
REGISTRATION № 3154
STATE OF UTAH

X = Section Corners Located

UINTAH ENGINEERING & LAND SURVEYING
P. O. BOX Q ~ 85 SOUTH - 200 EAST
VERNAL, UTAH - 84078

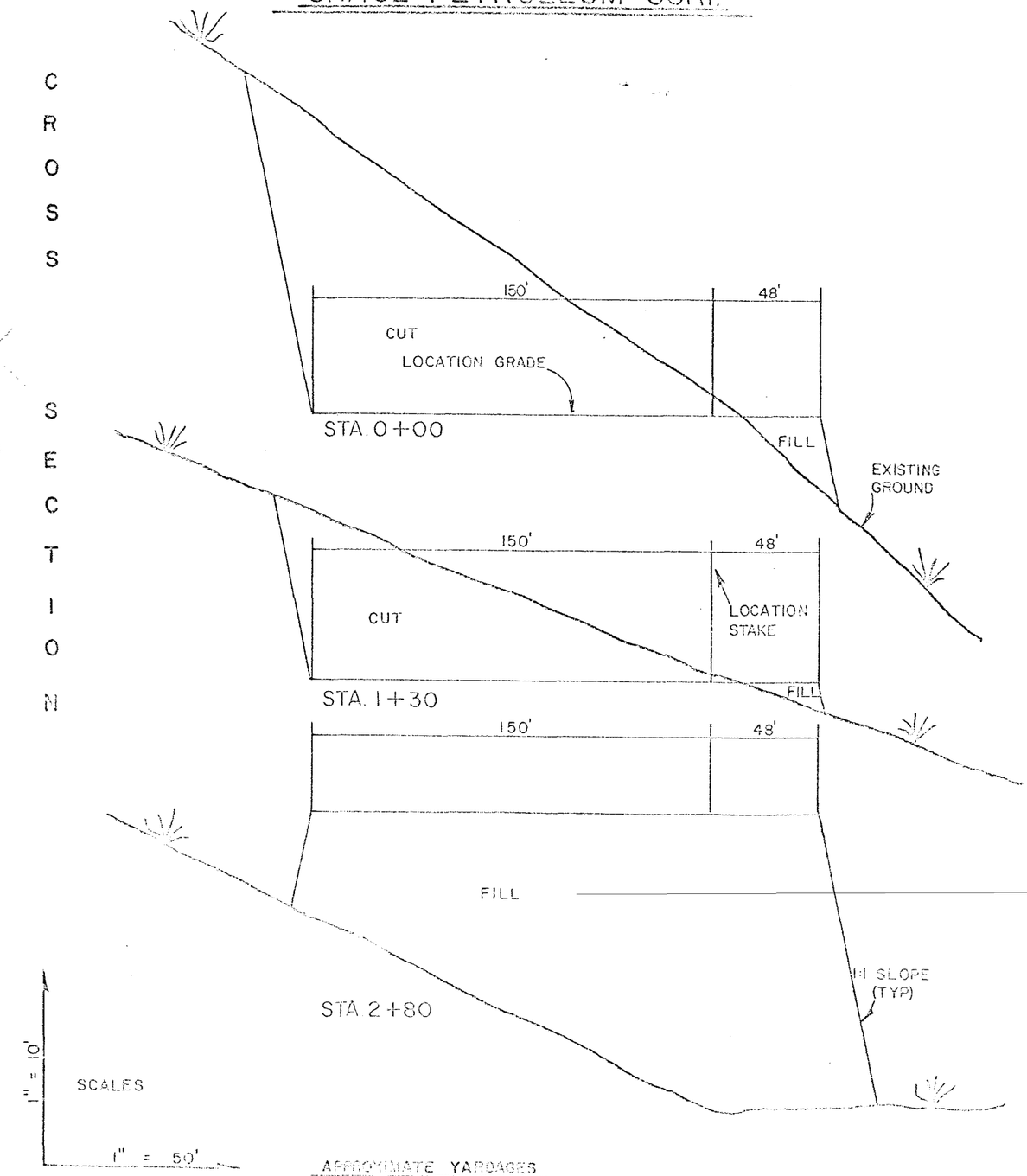
SCALE 1" = 1000'	DATE 12 / 31 / 80
PARTY GS GS SH FO	REFERENCES GLO Plat
WEATHER Clear Cool Calm	FILE GRACE PETROLEUM CORP.


GRACE PETROLEUM CORP.
PROPOSED LOCATION
TOPO. MAP "A"
SCALE - 1" = 4 MILES
UINTAH AND OURAY INDIAN RES
Mountain Home
Altonah
Bogeta
Altamont
Bluebell
Mt. Emmons
Talmage
Ranch
STEAMBOAT MOUNTAIN
KUNTZ HOLLOW
DRAPER HOLLOW
DRY MOUNTAIN
LADIES HOLLOW
BALD KNOLL
MCAPEE RIDGE
BLACKTAIL MTN.
BLACKTAIL RIDGE
BENSON DRAW
Utahn
Lapoint
Arcadia
BLUE BENCH
Roosevelt
Duchesne
PROPOSED LOCATION
16.5 MILES
R 7 W
T 2 S
T 3 S
R 3 W
COTTONWOOD CANYON
INDIAN CANYON
COYOTE CANYON
DRY CANYON
LAKE CANYON
EAST FORK
SAWMILL CANYON
WHITE CANYON
Oil



GRACE PETROLEUM CORP.

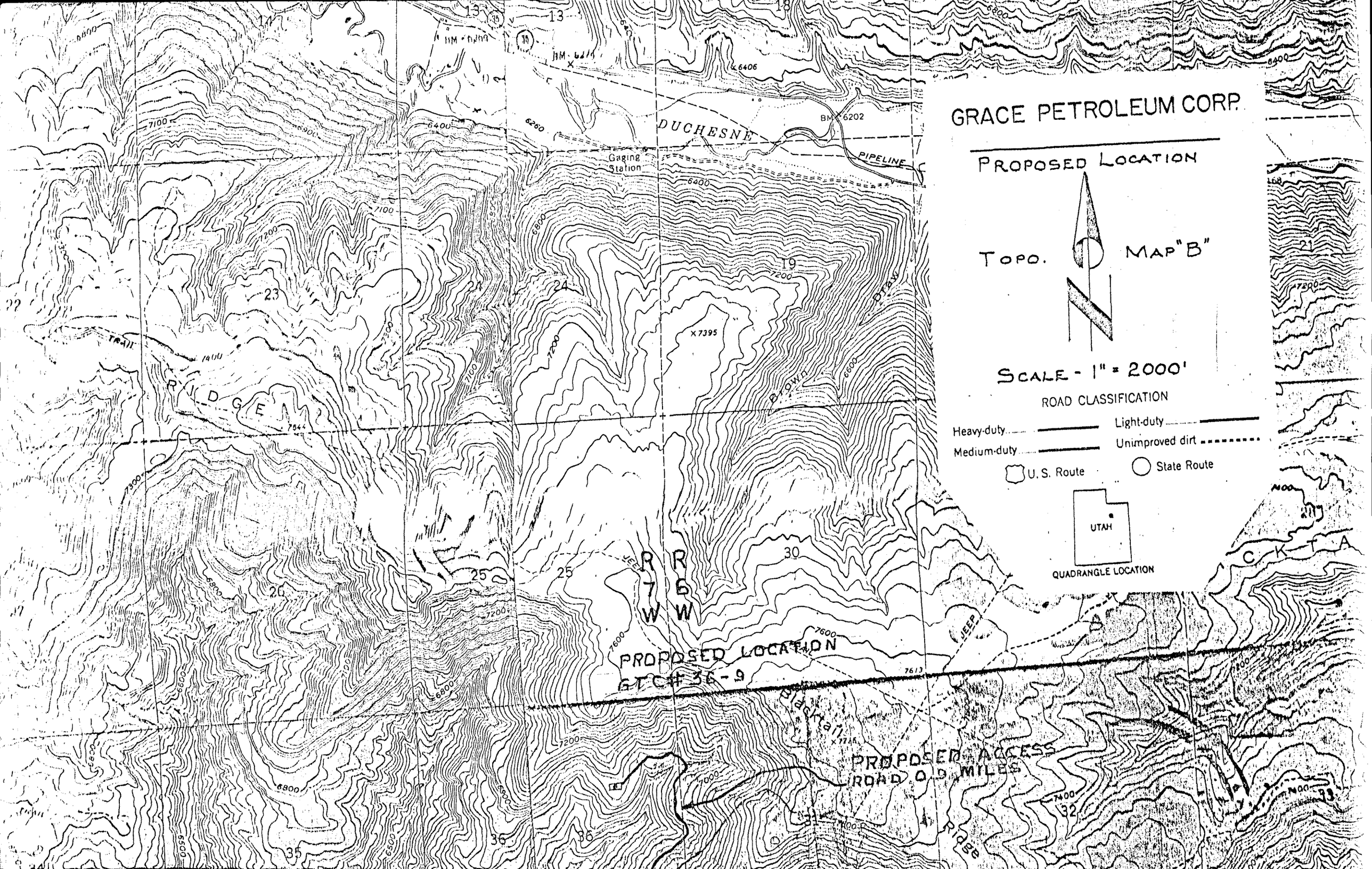
CROSS SECTION



APPROXIMATE YARDAGES

Cubic Yards Cut = [illegible]

Cubic Yards [illegible]


GRACE PETROLEUM CORP.
PROPOSED LOCATION
TOPO. MAP "B"
SCALE - 1" = 2000'
ROAD CLASSIFICATION
Heavy-duty
Medium-duty
Light-duty
Unimproved dirt
U. S. Route
State Route
UTAH
QUADRANGLE LOCATION
DUCHESNE
PIPELINE
Gaging Station
RIDGE
Brown
Blacktail
Ridge
R 7 W
R 6 W
PROPOSED LOCATION
GTC# 36-9
PROPOSED ACCESS
ROAD 0.5 MILES
JEEP
TRAIL
BM 6202
X 6406
X 7395
X 7746
7613
7544
7400
7600
7200
7100
7000
6800
6600
6500
6400
6260
13
14
18
19
20
21
22
23
24
25
30
31
32
33
35
36

Gulch
Rabbit
Gulch
JEEP TR
Black
Ridge
16.5 MILE TO DUHESNE
Rabbit
JEEP
TRAIL
Gulch
TRAIL
6837 X
6873
6186
6329
6167
6856
7013
7200
6602
6900
6700
6500
6400
6300
6200
6100
6000
6600
6800
12
13
18
17
8
6
1

** FILE NOTATIONS **

DATE: Jan. 20 1981

OPERATOR: Grace Petroleum Corporation

WELL NO: G.P.C. Fee 36-1

Location: Sec. 36 T. 2S R. 7W County: Duchesne

File Prepared: ✓ Entered on N.I.D: ✓

Card Indexed: ✓ Completion Sheet: ✓

API Number 43-013-30560

CHECKED BY:

Petroleum Engineer: M.J. Minder 1-22-81

Director:

Administrative Aide: Order # 139-8 9-20-72 / No other wells on sec. 36 (2S, 7W) OK on location as per spacing order

APPROVAL LETTER:

Bond Required: ✓ Blanket Bond filed Survey Plat Required:

Order No. 139-8, 9-20-72 O.K. Rule C-3

Rule C-3(c), Topographic Exception - company owns or controls acreage within a 660' radius of proposed site

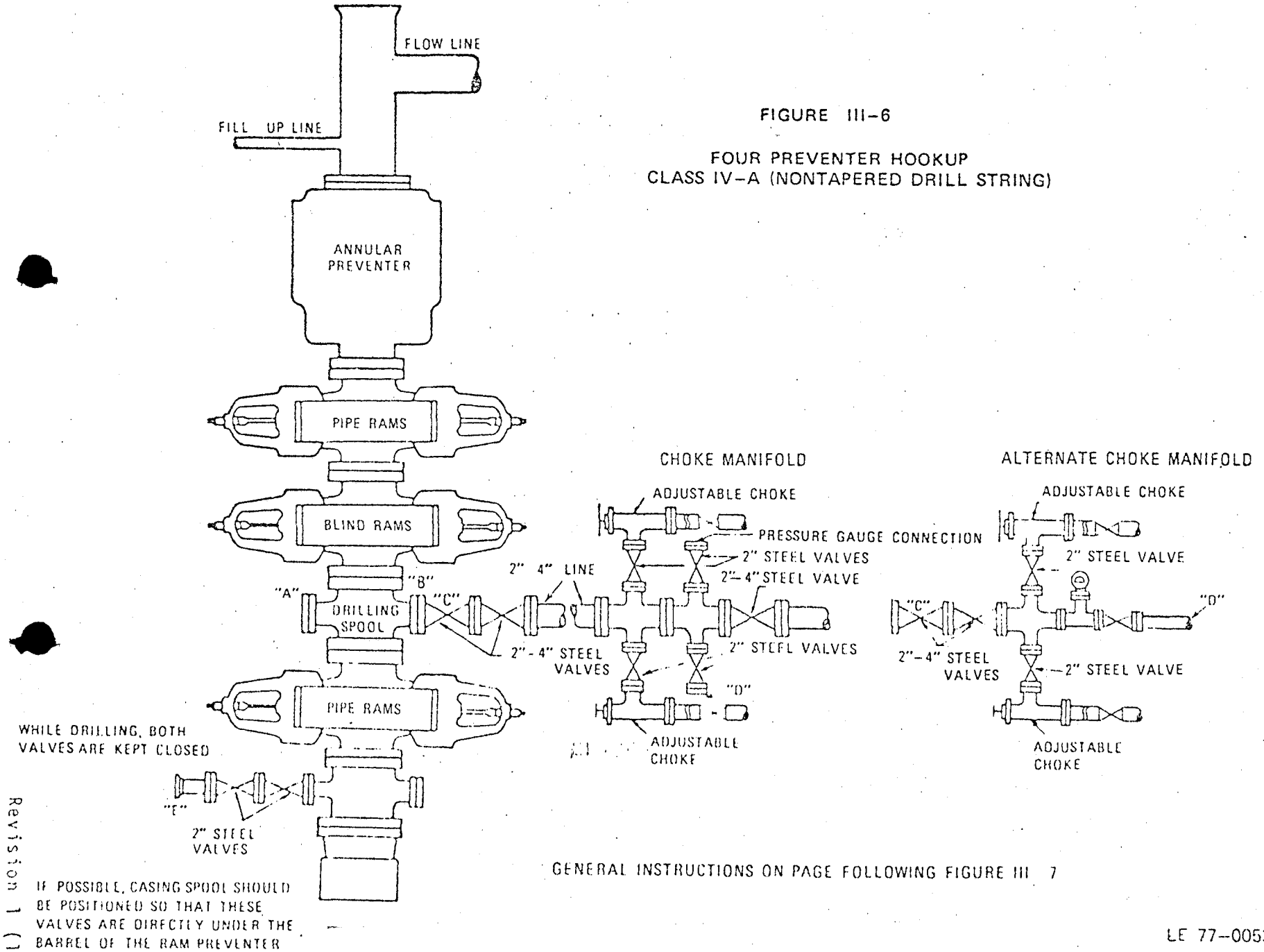
Lease Designation Fee Plotted on Map

Approval Letter Written ✓

Hot Line ✓ P.I. ✓

FIGURE III-6

FOUR PREVENTER HOOKUP
CLASS IV-A (NONTAPERED DRILL STRING)



GENERAL INSTRUCTIONS ON PAGE FOLLOWING FIGURE III 7

LE 77-0053

RETURN RECEIPT REQUESTED
CERTIFIED MAIL NO. 900342

Grace Petroleum Corporation
Subsidiary of W.R. Grace & Co.

Three Park Central Suite 200
1515 Arapahoe Street
Denver, Colorado 80202
Phone (303) 825-8193

February 20, 1981

Division of Oil, Gas & Mining
1588 West North Temple
Salt Lake City, Utah 84116

Attention: Mr. Cleon B. Feight
Director

Re: Fee #36-1
SENE Section 36, T2S-R7W
Duchesne County, Utah

Dear Sir:

Enclosed please find three copies of Form OGCC-1b, Sundry Notice and Report and three copies of the new plat of the referenced well.

If you have any questions please do not hesitate to call me.

Very truly yours,

GRACE PETROLEUM CORPORATION

Donald C. Smith

Donald C. Smith
Operations Engineer
Northern District

Enclosures (6)

DCS:rlm

RECEIVED
FEB 23 1981

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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 "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR
Grace Petroleum Corporation

3. ADDRESS OF OPERATOR
3 Park Central, Ste. 200, 1515 Arapahoe St., Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
1276' FEL, 1646' FNL

5. LEASE DESIGNATION AND SERIAL NO.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
GPC Fee

9. WELL NO.
36-1

10. FIELD AND POOL, OR WILDCAT
Altamont

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 36, T2S-R7W

12. COUNTY OR PARISH: Duchesne

13. STATE: Utah

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
6941' Ground

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other) move location			[ ]
(Other)			[ ]	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Grace Petroleum Corporation has moved the Fee #36-1 location from 1686' FNL, 1365' FEL to 1646' FNL, 1276' FEL of Section 36 because of terrain.

APPROVED BY THE DIVISION OF OIL, GAS, AND MINING
DATE: 2-27-81
BY: [signature]

RECEIVED FEB 23 1981 DIVISION OF OIL, GAS & MINING

18. I hereby certify that the foregoing is true and correct

SIGNED Donald C. Smith TITLE Operations Engineer DATE 2/20/81

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

April 3, 1981

Grace Petroleum Corporation
Suite 200, 3 Park Central
1515 Arapahoe Street
Denver, Colorado 80202

Re: Well No. GPC Fee #36-1
Sec. 36, T. 2S, R. 7W, SE NE
Duchesne County, Utah

Insofar as this office is concerned, approval to drill the above referred to oil well is hereby granted in accordance with the Order issued in Cause No. 109-8, dated September 20, 1972.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

MICHAEL T. MINDER - Petroleum Engineer
Office: 533-5771
Home: 876-3001

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (acquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API number assigned to this well is 43-013-30560.

Sincerely,

DIVISION OF OIL, GAS, AND MINING

M. T. Minder

Michael T. Minder
Petroleum Engineer

MTM/ko
cc:

2

GEOLOGICAL REPORT

ON

GRACE PETROLEUM CORPORATION

GPC FEE 36-1

SW/NE SEC. 36, T2S, R7W

DUCHESNE COUNTY, UTAH

RECEIVED
JAN 05 1992
DIVISION OF
OIL, GAS & MINING

BY
RANDY T. LANEY
FOR
LARSEN GEO LOGGING

WELL SUMMARY

OPERATOR: Grace Petroleum Corp.

WELL:	GPC Fee 36-1
LOCATION:	SW/NE Sec. 36, T2S, R7W
COUNTY:	Duchesne
STATE:	Utah
FIELD:	Altamont/Cedar Rim
ELEVATION:	gl. 6932' kb. 6956'
SPUD DATE:	4-29-81
COMPLETION DATE:	
TOTAL DEPTH:	Drillers: 13,360' Loggers: 13,358'
ENGINEER:	Ray Morris
GEOLOGIST:	Randy T. Laney, in association with Larsen Geo Logging
CONTRACTOR:	Bomac Drilling; Rig #29
TOOL PUSHER:	Leonard Steele
DRILL COLLARS:	5 1/2"; 4 3/4"
DRILL PIPE:	4 1/2", Type XH; 3 1/2", Type IF
HOLE SIZE:	14 3/4" to 3211'
	8 3/4" reamed to 9 7/8", to 7011'
	7 1/2" to 10,154'
	6 1/8" to T.D.
CASING:	10 3/4" set at 3209'
	8 5/8" set at 7011'
	7" set at 10,143'
DRILLING MUD:	Gel base mud
MUD ENGINEER:	Frank Wilson, Dave Fields, Drilling Mud Inc.
MUD LOGGERS:	R. Laney, R. Strobel, B. Thomas, J. Friedel,
	E. Sandin - Larsen Geo Logging
CORING DONE BY:	American Coldset Corp.
CORE INTERVAL:	10,378'-10,407'
ELECTRIC LOGGING BY:	Schlumberger

TYPE LOGS RUN WITH DEPTHS:		
	FDC-CNL-GR	2998'-6976'
	BHC-CAL-GR	2690'-7008'
	DIL-SFL-SP-GR	2998'-7002'
	DIL-FDC-CAL-SP-GR	6997'-10,108'
	DIL-SFL-BHC-GR-SP-CAL	10,133'-13,128'

WELL SUMMARY

OPERATOR: Grace Petroleum Corp. WELL: GPC Fee 36-1

FDC-CNL-GR-CAL	10,133'-13,048'
NGT-GR	6650'-13,330'

OBJECTIVE: Wasatch

STATUS: Awaiting completion work

FORMATION TOPS

OPERATOR: Grace Petroleum Corp. WELL: GPC Fee 36-1

g.l. 6932'

k.b. 6956'

FORMATION/MEMBER	DRILL DEPTH PROG.	DRILL DEPTH GPC FEE 36-1	S.L. DATUM	E-LOG	S.L. DATUM
Uinta	surface	-	-	-	-
Green River Form.	4956	(1)	-	4856	+2100
Evacuation Cr. Mem.	4956	(1)	-	4856	+2100
Parachute Cr. Mem.	6456	(1)	-	6350	+ 606
Mahogoney Marker	6656	(1)	-	6564	+ 392
Douglas Creek	7956	7885	- 929	7840	- 884
Lower Green River	8956	8910	-1954	8860	-1904
Lower Green River/ Wasatch Transition Interval	9956	9932 (2)	-2976	9930 (2&5)	-2974
Wasatch Red Beds	N/A	10125 (3)	-3169	(3)	-
Wasatch/North Horn Transition Interval	N/A	12578 (4)	-5622	12590 (5)	-5634

(1) Not determinable due to little or no sample returns caused by loss circulation problems. Rate of penetration not strictly definitive.

(2) E-logs non-diagnostic. Based on first appearance of trace amounts of of oolitic and fossiliferous LS.

(3) E-logs non-diagnostic. E-log coverage over interval poor, or interval behind 7" casing. Based on first appearance of reddish silty Shale.

(4) Based on appearance of lacustrine pyritic black Shales and carbonaceous Claystones.

(5) Approximate

WELL CHRONOLOGY

OPERATOR: Grace Petroleum Corp. WELL: GPC Fee 36-1

DATE	DEPTH (0700)	FTG (24HR)	OPERATIONS
11-7-81	10171	17	Drlg 5 1/2 hrs; rig ser, drlg packer-cement-shoe, drlg, circ, brace wellhead, T.O.O.H. for NB #53, change D.P. rubbers, rig ser, check B.O.P. - o.k., change BHA, T.I.H. WOB 15/20, RPM 48, PP 1800, SPM 44
11-8-81	10256	85	Drlg 20 hrs; T.I.H., rig ser, wash 60' to bottom - 4' fill, break in bit, drlg, rig ser, drlg, rig ser, drlg WOB 20/30, RPM 48/50, PP 1000/1600, SPM 40/50
11-9-81	10378	122	Drlg 21 hrs; drlg, rig ser, drlg, circ for samples, survey @ 10378'-3°, T.O.O.H. for core attempt WOB 30, RPM 48, PP 1700, SPM 38
11-10-81	10378	0	Drlg 0 hrs; T.O.O.H., junk basket contained 2 of 10 bolts from Hydril Flo-seal flange, rig ser, w.o. fishing magnet, pick up BHA, T.I.H., pick up rotating head, T.I.H., ream junk and circ, T.O.O.H. (recovered 1 more bolt), rig ser, check B.O.P. - o.k., pick up core barrel, W.O. sub, T.I.H. with ACC core bit
11-11-81	10407	29	Coring 8 hrs, rig ser, T.I.H., break circ, swap 4 jts. D.P., coring - cut 29' of core,

WELL CHRONOLOGY

OPERATOR: Grace Petroleum Corp. WELL: GPC Fee 36-1

DATE	DEPTH (0700)	FTG (24HR)	OPERATIONS
			T.O.O.H., break out core - recovered 27' 8" of core, T.I.H. with NB #55 WOB 10/12, RPM 55, PP 1700, SPM 40
11-12-81	10453	46	Drlg 20 hrs; rig ser, T.I.H., circ and work tight spot @ 8100', T.I.H., ream 30' to bottom, drlg WOB 25, RPM 60, PP 1700, SPM 47
11-13-81	10534	81	Drlg 23 1/2 hrs; drlg, rig ser, drlg WOB 25, RPM 90, PP 1700, SPM 46
11-14-81	10586	52	Drlg 17 1/2 hrs; rig ser, drlg, short trip into casing, repair wash pipe, trip to bottom, drlg WOB 25, RPM 60/90, PP 1900, SPM 50
11-15-81	10673	87	Drlg 22 1/2 hrs; drlg, rig ser, drlg, rig ser, drlg, rig ser WOB 25, RPM 90, PP 1800, SPM 37
11-16-81	10766	93	Drlg 23 hrs; drlg, rig ser, drlg, rig ser, drlg WOB 25, RPM 90/120, PP 1800, SPM 36
11-17-81	10847	81	Drlg 23 hrs; drlg, rig ser, drlg, rig ser, drlg WOB 25, RPM 80/115, PP 1600, SPM 36
11-18-81	10915	68	Drlg 22 1/2 hrs; drlg, rig ser, drlg, rig ser, work on compound

WELL CHRONOLOGY

OPERATOR: Grace Petroleum Corp. WELL: GPC Fee 36-1

DATE	DEPTH (0700)	FTG (24HR)	OPERATIONS
			chain, drlg WOB 25, RPM 80, PP 1700, SPM 37
11-19-81	10955	40	Drlg 11 hrs; rig ser, drlg, rig ser, drlg, T.O.O.H., repair steam lines, T.I.H. with NB #56, drlg WOB 25, RPM 80, PP 1700, SPM 37
11-20-81	11100	145	Drlg 23 1/2 hrs; drlg, rig ser, drlg WOB 15/20, RPM 75/85, PP 2000, SPM 44
11-21-81	11217	117	Drlg 23 hrs; rig ser, drlg, rig ser, drlg WOB 17/25, RPM 80/100, PP 2000, SPM 45
11-22-81	11378	161	Drlg 22 1/2 hrs; drlg, rig ser, drlg, rig ser, drlg, rig ser, drlg WOB 20/25, RPM 80/95, PP 2100, SPM 42
11-23-81	11463	85	Drlg 13 1/2 hrs; drlg, rig ser, drlg, rig ser, drlg, circ for trip, drop survey (misfire), T.O.O.H., pick up NB #57, cut 90' drlg line, T.I.H. WOB 25, RPM 85, PP 2100, SPM 42
11-24-81	11579	116	Drlg 18 1/2 hrs; rig ser, T.I.H., wash and ream 50' to bottom, drlg, rig ser, drlg WOB 15, RPM 85, PP 2100, SPM 34
11-25-81	11755	176	Drlg 23 hrs; drlg, rig ser, drlg, rig ser, drlg WOB 15/22, RPM 85, PP 2100, SPM 39

WELL CHRONOLOGY

OPERATOR: Grace Petroleum Corp. WELL: GPC Fee 36-1

DATE	DEPTH (0700)	FTG (24HR)	OPERATIONS
11-26-81	11905	150	Drlg 23 hrs; drlg, rig ser, drlg, rig ser, drlg WOB 18/22, RPM 85, PP 2100, SPM 35
11-27-81	11992	87	Drlg 17 hrs; drlg, rig ser, drlg, drop survey @ 11992' - 3 1/2°, T.O.O.H., check B.O.P. - o.k., T.I.H. with NB #58 WOB 15/20, RPM 85, PP 2200, SPM 38
11-28-81	12098	106	Drlg 18 hrs; rig ser, T.I.H., dress rotating head, T.I.H., wash 50' to bottom, drlg, rig ser, drlg WOB 13/20, RPM 85/95, PP 2200, SPM 32
11-29-81	12270	172	Drlg 24 hrs; drlg WOB 13/20, RPM 95, PP 2200, SPM 31
11-30-81	12411	141	Drlg 23 hrs; drlg, rig ser, drlg, rig ser, drlg WOB 13/20, RPM 95, PP 2100, SPM 30
12-1-81	12529	118	Drlg 23 hrs, drlg, rig ser, drlg, rig ser, drlg WOB 15/20, RPM 95, PP 2100, SPM 30
12-2-81	12619	90	Drlg 20 1/2 hrs; drlg, short trip (5 stds), pump repair, trip to bottom, drlg, rig ser, drlg WOB 10/20, RPM 95, PP 2100, SPM 30
12-3-81	12682	63	Drlg 17 1/2 hrs; drlg, rig ser,

WELL CHRONOLOGY

OPERATOR: Grace Petroleum Corp. WELL: GPC Fee 36-1

DATE	DEPTH (0700)	FTG (24HR)	OPERATIONS
			short trip (6 stds), repair pumps, trip to bottom WOB 15/20, RPM 95, PP 2100, SPM 30
12-4-81	12782	100	Drlg 23 hrs; rig ser, drlg, rig ser, drlg WOB 15/20, RPM 95, PP 2300, SPM 30
12-5-81	12868	86	Drlg 20 1/2 hrs; drlg, rig ser, drlg, rig ser, drlg, T.O.O.H., lay down 10 jts. D.P., T.O.O.H. WOB 10/15, RPM 75/95, PP 2300, SPM 47
12-6-81	12868	0	Drlg 0 hrs; T.O.O.H., inspect D.C., T.I.H. with NB #59, rig ser, T.I.H., hit bridge @ 12575', work stuck pipe, ream to bottom WOB 2/4, RPM 50, PP 2000, SPM 23
12-7-81	12912	44	Drlg 12 hrs; ream, rig ser, ream, drlg, rig ser, drlg WOB 12/16, RPM 85, PP 2000, SPM 41
12-8-81	13000	88	Drlg 23 hrs; drlg, rig ser, drlg, rig ser, drlg WOB 10/18, RPM 80/95, PP 2200, SPM 40
12-9-81	13081	81	Drlg 22 1/2 hrs; rig ser, drlg, rig ser, drlg, rig ser, drlg WOB 10/17, RPM 90/100, PP 2100, SPM 40
12-10-81	13153	72	Drlg 22 1/2 hrs; drlg, repair torque ind., drlg, rig ser, drlg, rig ser, drlg

WELL CHRONOLOGY

OPERATOR: Grace Petroleum Corp. WELL: GPC Fee 36-1

DATE	DEPTH (0700)	FTG (24HR)	OPERATIONS
			WOB 15/20, RPM 85/90, PP 2200, SPM 40
12-11-81	13222	69	Drlg 22 hrs; drlg, rig ser, drlg, repair air line/pump clutch, drlg, rig ser, drlg WOB 15/20, RPM 88/100, PP 2100, SPM 30
12-12-81	13300	78	Drlg 23 hrs; rig ser, drlg, work tight spot @ 12355', drlg WOB 15/20, RPM 88/95, PP 2200, SPM 30
12-13-81	13360 (T.D.)	60	Drlg 23 1/2 hrs; drlg, rig ser, drlg, T.D. @ 6:45 a.m. - 13360', circ and cond hole for logging WOB 15/20, RPM 88/95, PP 2200, SPM 31
12/14/81	13360 (T.D.)	0	Drlg 0 hrs; circ and cond hole, rig ser, pump pill, short trip to casing (36 stds), trip to bottom, circ and cond hole, drop survey, survey @ 13360' - 6°, T.O.O.H. (chain out), rig up Schlumberger, tool hit bridge @ 13134', logging
12-15-81	13360 (T.D.)	0	Drlg 0 hrs; logging, rig down Schlumberger, T.I.H., cut drlg line, rig ser, T.I.H., break circ @ casing bottom, T.I.H., hit bridge @ 13060', reaming, circ and cond hole, short trip (20 stds), trip to bottom, circ and cond hole

WELL CHRONOLOGY

OPERATOR: Grace Petroleum Corp. WELL: GPC Fee 36-1

DATE	DEPTH (0700)	FTG (24HR)	OPERATIONS
12-16-81	13360 (T.D.)	0	Drlg 0 hrs; pump pill, drop survey, survey @ 13360' - 6°, T.O.O.H. (chain out), rig up Dresser Atlas (loggers T.D.-13358'), logging (computer malfunction), rig down Dresser Atlas, w.o. Schlumberger, rig up Schlumberger, tool hit bridge @ 13339', logging
12-17-81	13360 (T.D.)	0	Drlg 0 hrs; logging, w.o. Schlumberger, logging, rig down Schlumberger
12-18-81	13360 (T.D.)	0	Drlg 0 hrs; rig ser, T.I.H., break circ & casing bottom, T.I.H., wash and ream 100' to bottom, circ and cond hole, short trip (35 stds), trip to bottom, circ and cond hole, T.O.O.H. (chain out)
12-19-81	13360 (T.D.)	0	Drlg 0 hrs; T.O.O.H., rig up casing crew, w.o. elevator bales, run 5" casing, rig down casing crew, rig up to go in hole, make up hanger, T.I.H. (chain in), tight spot in 7" casing (hanger would not pass), T.O.O.H., break down casing hanger, w.o. new hanger, make up tool, T.I.H., circ, cement with Dowell

SAMPLE DESCRIPTION

OPERATOR: Grace Petroleum Corp. WELL: GPC Fee 36-1

Sample Quality: Good; Samples lagged and caught by mudloggers.

9900-9910	SH	20%	dk brn, sub plty-blky, slty, mod calc, frm-hd
	SS	80%	clr, lt gy, vf gr, sme crs gr, subang, p srtd, dol, mod hd-v hd i.p., p vis ϕ, tr bitum stn
9910-9920	SH	60%	brn-dk brn, sub plty, tr pyr, yel min flor
	SS	40%	aa
9920-9930	SH	75%	dk brn, sme gy, subwxy, disseminated pyr, mod calc
	SS	20%	pred clr, vf gr, p-fr srting, frm, sli calc, p vis ϕ
	LS	5%	brn, frm, packed Ostracodal biomicrite
9930-9940	SH	50%	brn, lt gy, calc, pyritic
	SS	40%	aa
	LS	10%	lt brn-brn, mod frm, Ostracodal biomicrite, sme oomicrite
9940-9950	SH	40%	gy, lt gn-gy, lt brn, subwxy, pyritic, sli calc, mod sft
	SS	50%	clr, lt brn, ang-subrnd, p-fr srting, f gr, fri, mod calc, no-v wk yel flor, tr bit oil stn, no cut
	LS	10%	brn, frm-hd, sparse-packed biomicrite, biosparite, p intergranular ϕ
9950-9960	SH	30%	aa
	SS	50%	aa
	LS	20%	aa
9960-9970	SH	20%	gy, lt gn, med-dk brn, erthy, slty i.p., frm, sme pale yel flor
	SS	60%	clr, lt brn, fri, mod w srtd, calc, sub-ang, foss

	LS	20%	aa
9970-9980	SH	50%	variegated, lt-med gy, med-dk brn, gn, sft-frm, subwxy-dull, slty i.p., sl-mod calc, tr pyr
	SS	50%	gen aa, sme with tr bit oil stn, no cut
9980-9990	SH	60%	aa
	SS	10%	aa
	LS	30%	lt brn, brn-gy, sparse-packed biosparite, oosparite, p vis ϕ
9990-10000	SH	45%	aa
	SS	10%	clr, gy, subang, w srtd, calc
	LS	45%	aa
10000-10010	SH	60%	lt-med gy, lt gy-gn, plty, fairly calc, subwxy
	SS	20%	aa
	LS	20%	oomicrite, biomicrite w/sme sparry cem
10010-10020	SH	50%	aa
	SS	30%	clr, lt brn, f grn, w cem w/calc, tt, fair srting
	LS	20%	brn-dk brn, buff, tan, frm-hd, sli arg, micrite-oomicrite, sme oosparite, sme packed biomicrite, v dull orng flor, tr ring cut
10020-10030	SS	20%	aa
	LS	80%	aa, mod hd
10030-10040	SH	20%	lt gy, lt gn-gy, brn, frm, subplty, erthy, slty i.p., dol-sli calc, tr pyr
	SS	20%	aa
	LS	60%	pred oosparite, Ostracodal biosparite, sme micrite
10040-10050	SH	20%	aa
	SS	30%	gy, clr, fri-hd, vf-f gr, p-fr srting, calc, o_{cc} foss, NFSC
	LS	50%	aa
10050-10060	SH	10%	aa
	SS	30%	aa, sme w/dd blk oil lamin, no cut

	LS	60%	aa
*10060-10070	SH	40%	lt gy, lt gn-gy, sli calc
	SS	20%	clr, wh, vf-f gr, fri-well cem w/calc, fair srting, subang, sptty lt brn-blk oil stn, orng flor, wk milky cut, p-fr vis ϕ
	LS	40%	lt brn, brn, frm, sme mod hd, sli arg, micrite-biomicrite, oomicrite-oosparite, v dull orng flor, no-v wk milky-ring cut
*10070-10080	SH	20%	aa
	SS	60%	clr, lt brn, sme wh, mod srtd, subang-subrnd, mod fri, sli-v calc, dull orng flor, tr lt brn sptty oil stn, fr-gd milky cut, p-gd vis ϕ
	LS	20%	aa, NFSC
*10080-10090	SH	10%	aa
	SS	40%	clr, wh, lt brn, vf-f gr, ang-subrnd, cln-fair srting, mod fri-frm, sli-mod calc, sptty lt brn oil stn, orng-yel flor, fair-gd yel milky cut
	LS	50%	aa
10090-10100	SH	40%	lt gn-gy, frm, subblky, pyr i.p.
	SS	10%	aa, tt, NFSC
	LS	50%	lt brn-brn, frm-hd, micrite-sparse biomicrite, oosparite w/sme micrite cem
10100-10110	SH	30%	aa
	SS	20%	clr, gy, vf-f gr, subang, p-fr srting, mod fri, calc, p-fr vis ϕ, sme w/tr dd blk oil stn, no cut
	LS	50%	aa
10110-10120	SH	40%	gy, brn, lt gn-gy, sft-mod frm, wxy-erthy, v sli calc, subplty, disseminated pyr
	SS	10%	aa
	LS	50%	lt brn-brn, frm, packed biomicrite,

*Denotes show interval

			oomicrite-oosparite, p-fr interparticle ϕ
10120-10130	SH	60%	aa
	SS	20%	clr, gy, p srting, NFSC
	LS	10%	aa
	SLTST	10%	rd, pk, mot, sft, arg, mod calc, sli sndy i.p., tr ANHY
10130-10140	SH	50%	gy, lt gn-gy, dk brn, mod frm, sli calc, subwxy
	SS	20%	aa
	SLTST	30%	aa, rd-brn, grdng to slty SH i.p., occ sndy
10140-10150	SH	50%	aa
	SS	20%	clr, wh, vf-f gr, gen p srtd, subang, calc
	SLTST	30%	aa
10150-10160	SH	70%	rd-brn, gy, lt gn-gy, subplty, sli-fairly calc, mod sndy i.p., grdng to SLTST i.p.
	SS	30%	clr, wh, vf gr, fri-well cem w/calc, p vis ϕ, dk orng flor, wk milky cut, no stn
10160-10170	SH	80%	pred gy, gn, brn-dk brn, f tex, subplty, sli pyr
	SS	20%	aa, NFSC
10170-10180	SH	80%	pred rd-brn, sme gy-dk gy, brn-dk brn, f tex, flky, slty-sndy i.p.
	SS	20%	aa
*10180-10190	SH	60%	aa
	SS	30%	wh, buff, clr, vf-f gr, ang-subrnd, p-mod srtd, mod well cem w/calc, arg i.p., occ tr res oil stn, dull yel flor, v wk flo cut, poor vis ϕ
	LS	10%	brn, blky, hd, oomicirte, biomicrite, sme tan micrite
10190-10200	SH	85%	pred rd-brn, slty-sndy i.p.
	SS	15%	aa, NFSC

*Denotes show interval

10200-10210	SH	95%	aa
	SS	5%	clr, fri, f gr, fairly calc
10210-10220	SH	90%	rd-brn, gy-dk gy, lt gn-gy, lt brn, non-fairly calc, mod sft-frm, erthy-subwxy, slty-mod sndy i.p.
	SS	10%	aa
10220-10230	SH	100%	aa, sme CLYST, orng-brn, orng, mot orng, sft, sli calc
10230-10240	SH	60%	pred rd-brn, slty, sme gy, brn
	SS	40%	clr, wh, vf-med gr, mod-well srtd, sub-ang-subrnd, fri, sli-mod calc, NFSC
10240-10250	SH	90%	aa, pred rd-brn
	SS	10%	aa
10250-10260	SH	95%	rd-orng, mot orng-wh, mod sft, sli-mod calc, grdng to SLTST, v sndy i.p.
	SS	5%	aa
10260-10270	SH	90%	aa
	SS	10%	clr, wh, lt gy, f gr, fri-frm, calc, tt, NFSC
10270-10280	SH	70%	rd-brn, flky, sli calc, slty-sli sndy
	SS	30%	pred wh, sme clr, buff, w/clr crs qtz grns, mod well srtd, subang-rnd, calc, NFSC
10280-10290	SH	40%	aa
	SS	60%	aa, poor vis ϕ, NFSC
10290-10300	SH	80%	pred rd-brn, sli sndy, tr clr gypsum
	SS	20%	aa, wh, clr, f gr
10300-10310	SH	70%	pred rd, mot rd-gy, sft-frm, slty-mod sndy i.p.
	SS	20%	wh, clr, vf-f gr, subang-subrnd, fair srting, calc cem, p vis ϕ, NFSC
	LS	10%	dk brn, hd, micrite-biomicrite, sme oomicirte
10310-10320	SH	75%	aa, sme wh CLYST, sme m-dk gy, gn-gy, wh part sft, v sli calc, sndy in pt
	SS	25%	aa
10320-10330	SH	40%	aa, mod-v sndy i.p., fairly abnt gyp strgs

	SS	60%	wh, clr, vf-f gr, subang-rnd, mod w cem w/calc, p-fr vis ϕ, NFSC
10330-10340	SH	80%	pred rd, sme dk gy, flky, mod frm, calc, tr pyr, sme gyp strngs
	SS	20%	aa
10340-10350	SH	90%	rd, salmon, sft-frm, sli calc, sndy
	SS	10%	clr, w srtd, subang-subrnd, mod fri, calc, p vis ϕ
10350-10360	SH	90%	rd, rd-brn, mot rd-wh, v sft-frm, subplty-subblky, sli-mod calc, mod-v sndy, grdng to SLTST i.p.
	SS	10%	clr, lt pk, subrnd, vf-m gr, f srting, fri, calc cem
10360-10370	SH	90%	aa, grdng to CLYST i.p., sme gy, lt gn SH
	SS	10%	clr, sme wh, lt pk, f-m gr, fri, subang, calc cem, mod-well srtd, NFSC
10370-10380	SH	90%	aa, pred rd-brn, slty-sndy i.p.
	SS	10%	aa
CORE #1			
10378-10379	SH	100%	rd-brn, mod calc, non-lam, erthy, sli slty, several lenses (1/4" across) of gn-gy, sndy, calc SH
10379-10380	SH	100%	rd-brn, calc, slty-sli sndy i.p., several thn calc vns at low angle to core axis
10380-10381	SH	100%	rd-brn, mod calc, slty, sme gy-clr gyp stringers
10381-10382	SH	100%	rd-brn, calc, frm, non-lam, sme strngs & isolated lenses of clr xln gypsum
10382-10383	SH	100%	rd-brn, mod calc, becoming less slty, sme gn, noncalc CLYST present as discontinous lenses
10383-10384	SH	100%	rd-brn, erthy, nonslty, v sli calc, mod abnt clr gyp strngs
10384-10385	SH	100%	rd-brn, sli calc, nonslty, mot w/gy-gn, sli sndy CLYST, sme gyp
10385-10386	SH	100%	rd-brn, mod calc, becoming increasingly

			more slty, several prominent gn SH strngs subparallel to core axis
10386-10387	SH	100%	rd-brn, nonlam, mot w/gn SH, several calc lenses
10387-10388	SH	100%	aa, sli calc
10388-10389	SH	100%	rd-brn, gn SH mottling becoming increasingly prominent
10389-10390	SH	100%	rd-brn, mod calc, slty-sli sndy i.p., occ erratic lenses of gn-gy, arg SS, mod calc, frm, tt
10390-10391	SH	100%	rd-brn, mod calc, slty-sli sndy i.p., w/gn calc sndy SH mottlings
10391-10392	SH	100%	rd-brn, v sli calc, nonlam, gn SH mottlings absent
10392-10393	SH	100%	rd-brn, sli calc, slty
10393-10394	SH	100%	rd-brn, rd-gy, becoming increasingly sndy, vf gr, mod calc, arg mtx, no flor
10394-10395	SH	100%	rd-brn, calc, mod sndy i.p., mot w/gn-gy sndy SH
10395-10396	SH	50%	rd-brn, mod calc, frm
	SS	50%	gn-gy, well cem w/calc, vf gr, p vis ϕ, mot w/rd SH strngs, sme arg infilling, discontinuous wavy beds at low angle to core axis, no flor, no stn or cut
10396-10397	SH	70%	aa
	SS	30%	aa, no flor, stn or cut
10397-10398	SH	100%	rd-brn, v sli calc, sli slty, w/gn SH mottlings, no sndy part present
10398-10399	SH	100%	rd-brn, mod calc, sli slty i.p., several gn sndy SH strngs, sli calc
10399-10400	SH	100%	rd-brn, v sli calc, erthy, frm, nonslty, w/gn sli sndy, sli calc, subwxy SH strngs
10400-10401	SH	100%	gen aa, nonslty
10401-10402	SH	100%	rd-brn, deep rd-brn, nonlam, sli slty, sli-mod calc, tr clr gypsum

10402-10403	SH	100%	rd-dk rd-brn, sl slty i.p., mod calc
10403-10404	SH	100%	rd-brn, nonlam, sli slty i.p., sli-mod calc, mot w/gn-gy sndy, sli calc CLYST
10404-10405	SH	100%	aa, sli calc
10405-10406	SH	100%	rd-brn, sli slty i.p., sli calc, no gn-gy SH mottlings
10410-10420	SH	100%	rd-brn, erthy, sli calc, slty-sli sndy i.p., sme gn CLYST mottling, tr gypsum
10420-10430	SH	100%	pred aa, sme lt gy-dk gy, subplty, non-calc, non-slty SH
10430-10440	SH	100%	rd-brn, sli calc, becoming increasingly slty-sndy, mott w/gn SH
10440-10450	SH	95%	aa
	SS	5%	clr, wh, sme gn-gy, vf-med gr, mod hd, p-fair srting, subang, sli-fairly calc, poor vis ϕ, arg infilling
10450-10460	SH	100%	pred rd-brn, sme med gy, orng, rd-brn part mod sft, dol, mot w/gn, mod sndy CLYST
10460-10470	SH	100%	aa, becoming less sndy-slty i.p.
10470-10480	SH	100%	aa, slty i.p., sme v sft, calc orng CLYST
10480-10490	SH	95%	rd-brn, dk rd-brn, sme orng CLYST, sme gy, rd-brn pt mot w/sndy gn CLYST, mod sft, sli calc, sndy, tr gypsum
	SS	5%	clr, lt gn, f gr, fri, lt gn pt noncalc, arg, NFSC
10490-10500	SH	100%	aa
10500-10510	SH	95%	aa, slty-mod sndy i.p.
	SS	5%	aa, fair amt clr xln calc
10510-10520	SH	95%	rd-brn, mod sft, slty-sli sndy, gn CLYST, v sft, calc
	SS	5%	clr, fri, sli calc, subrnd, fair srting, occ dull yel flor grains, wk milky cut, no stn
10520-10530	SH	95%	aa
	SS	5%	aa

10530-10540	SH	100%	pred rd-brn, sme lt-med gy, orng, rd-brn pt mod sft, non-sli calc, sli sndy i.p., occ mot w/gn CLYST
10540-10550	SH	100%	pred lt orng CLYST, sli calc, v sft
10550-10560	SH	95%	rd-brn, sli calc, sli sndy-slty i.p.
	SS	5%	wh, clr, f-vf gr, subrnd, fri, p-mod srtd, sli calc
10560-10570	SH	100%	rd-brn, slty i.p., occ mot w/gy-gn CLYST
10570-10580	SH	100%	lt orng CLYST, rd-brn, med gy SH, lt orng pt v sft, mod-v calc
10580-10590	SH	100%	rd-brn, lt purp, orng-rd, rd-brn pt mod frm, fairly calc, flky-subblky, slty-sli sndy i.p.
10590-10600	SH	100%	aa, mot w/gy-gn sli calc CLYST
10600-10610	SH	100%	pred rd-brn, erthy, flky-subblky, non-fairly calc, slty-sli sndy, sme v sft wh-buff calc CLYST
10610-10620	SH	100%	aa, mot w/gy-gn CLYST
10620-10630	SH	95%	aa, no mottling
	SS	5%	clr-fros, ang-subang, f gr, well srtd, mod calc, p-fair vis ϕ
10630-10640	SH	100%	orng-brn, lt orng, sme med gy, purp, orng-brn pt flky-subblky, non-mod calc, slty-sli sndy i.p., mod sft, occ mot w/ noncalc gy-gn CLYST
10640-10650	SH	100%	aa
10650-10660	SH	95%	rd-brn, lt orng, purp, v sft-frm, slty-sli sndy
	SS	5%	lt gn, clr, f gr, cln, mod fri, mod-v calc, tt, arg i.p.
10660-10670	SH	100%	pred lt orng, v sft, calc, sme lt gy CLYST
10670-10680	CLYST	100%	lt orng-rd, v sft, sli-fairly calc, sli slty i.p.
10680-10690	SH	95%	rd-brn, purp, gy-dk gy, orng CLYST, purp pt sli calc, mod-v sndy, frm, flky
	SS	5%	clr, gy, vf gr, well cem w/calc, subang-subrnd

10690-10700	SH	95%	aa, slty-mod sndy i.p.
	SS	5%	aa
*10700-10710	SH	90%	rd-brn, mod sndy i.p., flky, sli calc
	SS	10%	clr, gy, lt brn, subang, calc, p-fair srting, f gr, occ v dull orng flor, wk yel flo cut, v sli tr brn oil stn
10710-10720	SH	90%	aa
	SS	10%	aa, NFSC
10720-10730	SH	95%	pred orng CLYST, v sft
	SS	5%	aa
10730-10740	SH	95%	rd-brn, lt purp, orng CLYST, v sft-frm, non-sli calc, lt purp pt sndy
	SS	5%	lt gn, clr, vf-f gr, lt gn pt arg, sli calc
10740-10750	SH	95%	aa, becoming increasingly sndy
	SS	5%	aa, occ crs qtz grains
10750-10760	SH	75%	aa, pred rd-brn, slty
	SS	25%	clr, sme wh, f-med gr, sme crs grains, subang-rnd, mod frm, sli-fairly calc, cln, fair vis ϕ, NFSC
10760-10770	SH	95%	rd-brn, subplty, erthy, sli-fairly calc, frm, slty-sndy i.p., orng CLYST, v sft
	SS	5%	aa
10770-10780	SH	90%	aa
	SS	10%	wh, vf-f gr, sli calc, frm
10780-10790	SH	95%	pred orng-rd, slty-sli sndy i.p.
	SS	5%	clr, sme wh, gy, f gr, tt
10790-10800	SH	100%	rd-brn, gy-gn, sme gy, wh, orng CLYST, rd-brn pt mot w/sli sndy, dol, gn CLYST, rd-brn pt slty-sndy, sli-mod calc, mod sft
10800-10810	SH	95%	aa, pred rd-brn
	SS	5%	clr, wh, lt gn, wh pt vf gr, sli calc, arg mtx, frm, no vis ϕ, grdng to sndy CLYST i.p.

*Denotes show interval

10810-10820	SH	90%	aa, rd-brn, slty-sli sndy i.p., sme v sft orng CLYST
	SS	10%	aa
10820-10830	SH	100%	pred v sft, orng, fairly calc CLYST
10830-10840	SH	95%	rd-brn, slty-sli sndy i.p., sme orng CLYST, tr lt brn micrite LS
	SS	5%	aa, clr lt gy, vf gr, sli calc
10840-10850	SH	100%	aa
10850-10860	SH	100%	rd-brn, gy-dk gy, brn, orng, gy-gn CLYST, SH pt subplty-blky, frm, sli calc, slty-sli sndy, CLYST pt v sft, calc, occ sndy i.p., tr brn micrite LS strnger
10860-10870	SH	100%	aa
10870-10880	SH	100%	pred lt orng-orng, v sft CLYST
10880-10890	SH	90%	pred rd-brn, slty-sli sndy, fairly calc, mod frm, mot w/gn sndy CLYST
	SS	10%	clr gy, f gr, subang, mod frm, well srtd, calc, NFSC
10890-10900	SH	95%	pred orng, v sft CLYST
		5%	aa
10900-10910	SH	95%	aa
	SS	5%	aa
10910-10920	SH	95%	pred rd-brn, mod sft, flky-subplty, slty-sndy, sli calc, mot w/fairly calc, slty gn CLYST
	SS	5%	clr, lt gy, vf-f gr, subang, mod fri, calc, mod well srtd
10920-10930	SH	90%	aa
	SS	10%	clr, lt gn, lt gy, vf gr
10930-10940	SH	90%	pred rd-brn, sme orng CLYST, sme sndy gn CLYST
	SS	10%	aa
10940-10950	SH	90%	aa, tr lt gy-brn micrite LS
	SS	10%	lt gy, clr, lt gn, vf gr, arg i.p., fairly-v calc, p-fr vis ø, NFSC
10950-10960	SH	95%	pred rd-brn, sme mot w/gn CLYST, slty-sndy i.p., non-fairly calc, mod sft-frm

	SS	5%	aa
10960-10970	SH	95%	aa, sme dk brn, sli calc SH, tr brn micrite LS
	SS	5%	lt gy, lt gn, vf gr, subang, p srtd, calc cem, mod frm
10970-10980	SH	90%	rd-brn, mot w/sndy gn calc CLYST, sme orng, wh, sft-frm, v calc CLYST
	SS	10%	aa
10980-10990	SH	95%	rd-brn, dk gy, lav, sft-frm, erthy-sub-wxy, fairly calc, rd-brn pt slty, tr brn LS
	SS	5%	aa
10990-11000	SH	90%	aa, pred rd-brn, tr lt brn-brn micrite LS
	SS	10%	clr, lt gy, f gr, calc, mod frm
11000-11010	SH	95%	pred rd-brn, frm, sli calc, mot w/gn CLYST, slty-sndy i.p.
	SS	5%	aa
11010-11020	SH	100%	aa, mod abnt gn, sli sndy, sli calc CLYST
11020-11030	SH	90%	aa, tr gy micrite LS
	SS	10%	clr, sme wh, ang-subrnd, f-med gr, mod w srtd, calc, NFSC
11030-11040	SH	95%	rd-brn, lt orng, frm, slty-sndy, non-fairly calc, sme gn CLYST mottling
	SS	5%	aa
11040-11050	SH	100%	pred aa, slty-fairly sndy, tr lt gy-brn LS
11050-11060	SH	95%	rd-brn, orng, purp, gy-gn, non-sli calc, sft-frm, slty-sli sndy, tr LS
	SS	5%	clr, lt gy, poor-fair srting, calc cem
11060-11070	SH	95%	gen aa
	SS	5%	aa
11070-11080	SH	100%	pred rd-brn, slty, sli calc, mod frm, mot w/sli calc, sli sndy gn CLYST
11080-11090	SH	40%	aa, tr lt brn micrite LS
	SS	60%	clr, sme wh, f-med crs gr, sme crs unconsolidated qtz grains, poor-fair srting, conglomeratic i.p., ang-subrnd,

			calc cem, sil i.p., p-gd vis ϕ, NFSC
11090-11100	SH	95%	aa, rd-brn, sli slty i.p.
	SS	5%	aa
11100-11110	SH	100%	rd-brn, dk orng-wh, erthy, plty-subblky, mod frm, sli-fairly calc, slty-sli sndy, mot w/calc, sndy gn CLYST, dk orng-wh pt brit, noncalc, sli slty
11110-11120	SH	100%	aa, sme lt orng v sft, mod calc CLYST
11120-11130	SH	100%	pred aa, rd-brn, sme lt gy, v sli calc, brit-v frm, sli slty CLYST
11130-11140	SH	100%	rd-brn, lt-dk orng, v sft-frm, fairly calc, rd-brn pt mot w/fairly calc gn CLYST
11140-11150	SH	95%	pred rd-brn, tr brn LS
	SS	5%	clr, lt gn, vf-f gr, mod well srtd, sub-ang, arg i.p., calc cem, poor vis ϕ, NFSC
11150-11160	SH	95%	aa, sme med-dk gy, tr xln calc frac fill
	SS	5%	aa
11160-11170	SH	90%	pred rd-brn, slty-sli sndy, mod calc, sft-mod frm, tr lt brn micrite LS
	SS	10%	clr lt gn, gy, f-med gr, poor-fair srting, calc, mod fri
11170-11180	SH	95%	aa, sme lt-med gy, subwxy, frm, tr tn LS, tr lt orng chert
	SS	5%	aa
11180-11190	SH	95%	pred rd-brn, sme lt orng, slty-sil sndy, fairly calc, mod sft, increasing amt lt-med gy, frm, sli calc SH
	SS	5%	aa
11190-11200	SH	95%	aa, slty-sndy, mot w/v sli calc, sli sndy, gn CLYST
	SS	5%	clr, lt gn, sme wh, vf-f gr, poor srting, subang, fri, calc cem, arg, i.p., NFSC
11200-11210	SH	100%	aa
11210-11220	SH	100%	pred rd-brn, sme purp, non-fairly calc, sft-mod frm, slty-sndy i.p., mot w/sndy calc gn CLYST, tr lt brn LS, tr gypsum

11220-11230	SH	95%	aa
	SS	5%	clr, lt gn, vf-med gr, subang, gen p srtd, calc, arg i.p., NFSC
11230-11240	SH	95%	aa, rd-brn, lav, lt gn CLYST, slty-sndy, blky, subblky, tr LS
	SS	5%	aa
11240-11250	SH	90%	aa, sme lt gy, tr xln calc
	SS	10%	clr, lt gn, f-med crs gr, subang-subrnd, mod fri, sli conglomeratic i.p., p-fair srting, calc cem, fair vis ϕ, NFSC
11250-11260	SH	95%	pred rd-brn, slty, sme lt orng, v sft CLYST
	SS	5%	aa
11260-11270	SH	100%	aa
11270-11280	SH	95%	rd-brn, frm, f calc, slty, subblky, abnt gn, v sli calc CLYST mot, tr cl xln gyp
	SS	5%	clr, lt gy, lt gn, vf-f gr, subang, mod fri, calc, fair srting, NFSC
11280-11290	SH	85%	aa, tr lt brn LS, tr milky wh chert
	SS	15%	pred clr, f-med crs gr, ang-subrnd, poor-fair srting, sli-fairly calc, fri-frm, poor-fair vis ϕ, tr bit oil stn, NFC
11290-11300	SH	85%	aa, tr LS
	SS	15%	aa, sme lt gn w/arg mtx
11300-11310	SH	50%	rd-brn, slty, non-fairly calc, mot w/gn CLYST
	SS	50%	pred clr, f-crs gr, sme unconsolidated ang-subrnd, well srtd, fri, calc cem, NFSC
11310-11320	SH	80%	aa, slty-sndy i.p.
	SS	20%	aa
11320-11330	SH	85%	rd-brn (85%), lt purp, lt gy (5%), rd-brn pt aa, lt gy pt mica, sufiss-subplty, sft, sli calc, pyrsum strngs, tr cht
	SS	15%	clr, lt brn, f-med gr, fri, calc, fair srting
11330-11340	SH	90%	aa
	SS	10%	aa

11340-11350	SH	95%	pred rd-brn, sft-frm, slty-sli sndy, non-fairly calc, mot w/gn CLYST, sme lt gy, calc, mod sft, subplty, subwxy, micaceous SH
	SS	5%	clr, lt gy, vf-med gr, subang, fair srting, calc, mod fri, NFSC
11350-11360	SH	95%	aa
	SS	5%	aa
11360-11370	SH	95%	pred rd-brn, slty, mod sft, mot w/gn CLYST, sme lt gy, micaceous, fairly calc SH, tr gypsum
	SS	5%	aa
11370-11380	SH	100%	aa, slty-sndy, fairly-v calc
11380-11390	SH	90%	aa, tr lt gy micaceous SH
	SS	10%	clr, lt gy, lt gn, vf-med gr, p srting, subang, poor vis ∅, sli-fairly calc, NFSC
11390-11400	SH	90%	pred rd-brn, mod sft-frm, slty-v sndy i.p., sli-fairly calc, tr LS
	SS	10%	aa
11400-11410	SH	100%	aa, frm, mot w/mod calc gn CLYST, sme v sft orng CLYST
11410-11420	SH	90%	aa, tr dk brn micrite LS, tr gypsum
	SS	10%	pred clr, vf-f gr, subang-subrnd, fri, calc cem, w srtd, NFSC
11420-11430	SH	95%	aa
	SS	5%	aa
11430-11440	SH	90%	pred rd-brn, mot w/gn CLYST, frm, tr gypsum, tr lt brn LS
	SS	10%	clr, subrnd, fri, poor-fair srting, calc
11440-11450	SH	95%	aa
	SS	5%	aa
11450-11460	SH	95%	rd-brn, lt purp (5%), orng (5%), sme lt gy (5%), rd-brn pt mod frm, slty-v sli sndy, non-mod calc, erthy, mot w/gn CLYST, lt gy pt micaceous, orng pt v sft, calc, sme brn micrite LS w/sme sparry calc

	SS	5%	clr, sme wh, f-med crs gr, ang-subrnd, poor-fair srting, calc, fri-well cem
11460-11470	SH	95%	aa, tr brn LS
	SS	5%	aa
11470-11480	SH	90%	rd-brn (90%), crm, lt gy, sme gn CLYST, brit-frm, non-fairly calc, rd-brn pt slty, tr lt brn micrite LS
	SS	10%	clr, lt gn, f-med gr, poor-fair srting, subang-subrnd, calc, mod fri, NFSC
11480-11490	SH	80%	aa, sme lt brn, lt gy, sli calc, sli sndy i.p.
	SS	15%	wh, clr, vf-f gr, poor-mod srting, subang-rnd, calc arg i.p., dull yel flor, wk yel flo cut, no oil stn, poor-fair vis ϕ
	LS	5%	brn, lt gy, micrite, hd, dull gold flor, NFC, no ϕ
11490-11500	SH	95%	pred rd-brn, slty i.p., fairly calc
	SS	5%	aa, NFSC
11500-11510	SH	95%	pred rd-brn (90%), sme lt gn-gy (5%), lt orng CLYST, lt gn-gy pt sft, wxy, fairly calc, sli sndy i.p.
	SS	5%	clr, f gr, calc
11510-11520	SH	95%	aa, rd-brn pt mot w/gn CLYST, sme lt purp, sli sndy i.p.
	SS	5%	aa
11520-11530	SH	90%	rd-brn, lt gn-gy, gy, lt brn, frm, splty-subblky, sli-fairly calc, slty i.p., tr gypsum, tr lt brn LS
	SS	10%	clr, lt gn, fri-mod frm, subang-rnd, fair-well srtd, mod calc, lt gn pt arg, NFSC
11530-11540	SH	90%	aa
	SS	10%	aa
11540-11550	SH	90%	rd-brn (60%), increasing amt (30%) lt gn-gy, subwxy, f tex, frm, sli calc SH, rd-brn pt sft, mod calc, slty-sndy, tr lt brn LS
	SS	10%	clr, lt gn, fri, f-med gr, subang-rnd,

			poor-fair srting, fairly-very calc, sli arg in gn pt, NFSC
11550-11560	SH	85%	aa
	SS	15%	aa
11560-11570	SH	85%	rd-brn, gn-gy, gy, lt brn, mod frm, sli-fairly calc, rd-brn pt slty-sli sndy
	SS	15%	clr, gy, fri, f-med gr, subang-subrnd, calc, mod well srtd
11570-11580	SH	95%	rd-brn (75%), gn-gy (20%), lt brn, rd-brn pt sft-mod frm, sli calc slty-sndy, gn-gy pt wxy, subplty, frm, sli calc
	SS	5%	aa
11580-11590	SH	90%	aa, tr gypsum, tr tan LS
	SS	10%	clr, wh, gy, vf-f gr, very-mod fri, poor-fair srting, poor-fair vis ϕ, arg i.p., NFSC
11590-11600	SH	95%	rd-brn, gn-gy (10%), m-dk gy (10%), lt brn (5%), sme orng CLYST, rd-brn pt slty-sndy, tr lt tan LS
	SS	5%	aa
11600-11610	SH	90%	pred rd-brn (95%), slty-sndy
	SS	10%	clr, gy, vf-f gr, mod calc
11610-11620	SH	90%	aa, gn-gy pt subplty, mod sft, wxy, f tex, tr carb strks, tr brn micrite LS
	SS	10%	aa
11620-11630	SH	95%	mod abnt orng (60%), v sft, calc CLYST, sme rd-brn, gn-gy, dk gy
	SS	5%	clr, lt gn, f-med gr, poor-fair srting, calc, NFSC
11630-11640	SH	95%	pred rd-brn (80%), gn-gy, slty-sndy, mod frm, sli calc, no orng CLYST, tr dk brn LS
	SS	5%	aa
11640-11650	SH	95%	aa, pred rd-brn (90%)
	SS	5%	clr, lt gn, arg i.p., f-med gr, subang-subrnd, fri, poor-fair vis ϕ, calc

11650-11660	SH	95%	rd-brn, gn-gy, gy, lt brn, lt orng, rd-brn pt frm, slty-sndy, sli-mod calc, mot w/calc gn CLYST, gn-gy pt wxy, f tex, subplty, mod frm, fairly calc
	SS	5%	aa
11660-11670	SH	95%	rd-brn, orng-brn, brit-frm, slty-sndy, tr lt brn LS
	SS	5%	clr, gy, lt gn, lt brn, vf-med grn, gen poorly srtd, ang-subrnd, fri-frm, non-mod calc, lt brn pt w/sil cem, lt gn pt arg infilling, poor vis ϕ, NFSC
11670-11680	SH	95%	aa, pred rd-brn (85%), sme gn-gy (10%), lt-med gy
	SS	5%	aa
11680-11690	SH	95%	rd-brn, lt gy (15%), gn-gy (10%), purp (5%), rd-brn pt frm, subblky, mod-v calc, slty, lt gn-gy pt subplty-splty, wxy, tr carb strks, mod calc, mod sft
	SS	5%	aa
11690-11700	SH	90%	aa, tr dk brn LS
	SS	10%	clr, lt gy, f-med gr, poor srting, fri-frm, any-subang, poor vis ϕ, mod calc
11700-11710	SH	90%	pred rd-brn (90%), frm-v frm, sli-mod calc, mot w/gn, sli calc CLYST, sme gn-gy, gy, wxy, subplty, non-v sli calc SH
	SS	10%	aa
11710-11720	SH	90%	increasing amt (40%) gn-gy, frm, sli calc SH, tr lt tan LS
	SS	10%	clr, lt gn-gy, gy, vf-med gr, subang-sub-rnd, poor-fair srting, mod-v calc, poor-fair vis ϕ, NFSC
11720-11730	SH	95%	aa, tr lt brn micrite LS
	SS	5%	aa
11730-11740	SH	85%	pred rd-brn, sme gn-gy (10%), rd-brn pt frm, slty, sli calc, sli mot w/gn CLYST, tr gypsum

	SS	15%	clr, gy, poor-fair srting, f-med grn, subang-subrnd, gen poor vis ϕ, calc, NFSC
11740-11750	SH	90%	aa, pred rd-brn, sme gn-gy
	SS	10%	aa
11750-11760	SH	100%	pred rd-brn (70%), gn-gy (10%), gy (10%), orng-buff, rd-brn pt slty-sli sndy, sft-mod frm, sli calc, orng-buff pt v sft, calc
11760-11770	SH	95%	aa, pred rd-brn, sme gy, tr lt brn LS
	SS	5%	clr, wh, gy, vf-med grn, ang-subrnd, v-mod fri, poor-fair srting, sli conglomeratic i.p., calc, one frag w/calc lined frac, NFSC
11770-11780	SH	90%	pred rd-brn, orng-brn, gn-gy, med-dk gy, tn, rd-brn pt frm, slty-v sndy, tr buff, v hd, sil, v sli calc, finely lam CLYST
	SS	10%	aa, arg i.p.
11780-11790	SH	90%	aa
	SS	10%	gy, clr, lt gn, poorly srtd, f-med gr, sme crs grn, fri, mod-v calc, sme arg mtx, poor-fair vis ϕ
11790-11800	SH	100%	rd-brn (50%), lt orng-buff (35%), gn-gy (15%), rd-brn pt frm, slty, sli calc, lt orng-buff pt v sft, v calc, gn-gy pt frm-brit, fairly calc, subwxy
11800-11810	SH	95%	pred rd-brn (80%), sme gn-gy, med gy, orng-buff, lav, rd-brn pt frm, slty-sndy, erthy, fairly calc, tr buff, v hd, sil CLYST, tr lt brn LS
	SS	5%	gy, clr, lt brn, vf-med gr, poor srting, fri, calc, NFSC
11810-11820	SH	95%	aa, rd-brn, gn-gy (25%), orng-buff
	SS	5%	aa
11820-11830	SH	95%	pred rd-brn, sme orng v sft CLYST (25%), gn-gy, gy, gn-gy pt wxy, plty, brit, sli calc

	SS	5%	clr, lt gn, vf-f gr, poor-fair srting, fairly calc, subang-subrnd, poor vis ϕ, NFSC
11830-11840	SH	100%	rd-brn (50%) slty-sndy, lt orng v sft CLYST (25%), gn-gy wxy SH (25%)
11840-11850	SH	100%	pred lt orng, mot orng-wh, v sft, calc, sli sndy CLYST, sme rd-brn, gn-gy, gy
11850-11860	SH	95%	pred rd-brn, slty-v sli sndy, frm, non-sli calc, sme gn-gy, gy, subwxy, mod frm, non-sli calc
	SS	5%	clr, gy, lt brn, poor-well srtd, fri, vf-med gr, subang-subrnd, calc, NFSC
11860-11870	SH	95%	aa, pred rd-brn (90%), frm-hd, tr brn LS
	SS	5%	aa
11870-11880	SH	85%	pred rd-brn, frm-v frm, slty-mod sndy, sli-fairly calc, sme gn-gy (10%), m-dk gy (10%), plty, sft, wxy, gen sli calc
	SS	15%	clr, wh, f-med gr, sme crs unconsolidated qtz grains, mod fri, any-subrnd, poor srting, sli-fairly calc, poor vis ϕ, NFSC
11880-11890	SH	90%	aa, pred rd-brn
	SS	10%	aa
11890-11900	SH	90%	aa, sme (20%) lt orng, sft, calc CLYST
	SS	10%	pred clr, f gr, calc
11900-11910	SH	100%	rd-brn, orng-brn, lt orng, mot orng-wh, mar, gn-gy, gy, rd-brn pt frm, subblky, slty, v sli calc, mot w/gn, sli calc CLYST
11910-11920	SH	100%	aa, mod abnt (30%) gn-gy, subwxy, sft-mod frm, non-sli calc SH
11920-11930	SH	95%	aa, pred rd-brn, non-mod slty, non-mod sndy i.p., non-sli calc, sme lt orng, sft CLYST
	SS	5%	clr, wh, vf-f gr, poor-fair srting, calc, poor vis ϕ, NFSC

11930-11940	SH	100%	rd-brn, orng-brn, gn-gy (15%), lav (5%), lt orng (5%), lav pt subblky, v frm, f tex, noncalc, tr crm micrite LS
11940-11950	SH	100%	pred rd-brn, orng-brn, sli slty-sli sndy i.p.
*11950-11960	SH	90%	aa, pred rd-brn, slty-sli sndy
	SS	10%	gy, clr, wh, vf-med gr, fri-frm, poor-fair vis ϕ, tr lt brn oil stn, gold flor, lt ring cut-wk milky cut
11960-11970	SH	95%	aa, mod abnt (20%) orng sft calc CLYST
	SS	5%	aa, NFSC
11970-11980	SH	95%	rd-brn, orng-brn, gy, gn-gy, lt orng, lav, rd-brn pt mod frm, slty-sndy, non-f calc, tr crm LS
	SS	5%	clr, gy, vf-f gr, calc, poor-f vis ϕ, NFSC
11980-11990	SH	95%	aa, mod abnt (30%) orng, sft, calc CLYST
	SS	5%	aa
11990-12000	SH	100%	pred rd-brn (75%), orng-brn (25%), sli calc
12000-12010	SH	100%	orng-brn, rd-brn, gn-gy, lav, lt orng, orng-brn pt frm, non-sli calc, nonslty-mod slty-sndy, mot w/gn CLYST
12010-12020	SH	95%	pred orng-brn to rd-brn (90%), aa, tr crm micrite LS
	SS	5%	gy, lt gn, pred vf gr, fri, fair srting, v calc, NFSC
12020-12030	SH	100%	pred orng-brn, gn-gy, lav, gy, orng-brn pt erthy, flky-subblky, sli calc, v frm, gn-gy pt subwxy, frm, sli-fairly calc
12030-12040	SH	100%	aa, orng-brn pt non-fairly slty-sndy
12040-12050	SH	95%	orng-brn (50%), gn-gy (40%), sme gy, lav, orng CLYST, gn-gy pt flky-subplty, mod frm, non-sli calc, sli sndy i.p.
	SS	5%	clr, lt gn, gy, vf-med gr, arg i.p., mod calc
12050-12060	SH	100%	aa

12060-12070	SH	95%	pred rd-brn, frm-vf frm, sli calc, sme med brn micrite LS
	SS	5%	gy, lt gn, vf-f gr, v fri-frm, mod srting, arg i.p., poor vis ϕ, mod calc, NFSC
12070-12080	SH	95%	aa
	SS	5%	aa
12080-12090	SH	100%	pred rd-brn (80%), sme gn-gy (15%), rd-brn pt frm, slty-sli sndy, sli calc
12090-12100	SH	100%	aa
12100-12110	SH	90%	rd-brn & orng-brn (70%), gn-gy (30%), rd-brn pt frm, non-sli calc, slty-sndy, sme mot w/gn CLYST, gy-gy pt mod frm, splty-subblky, sli calc, sndy i.p., tr buff-lt brn micrite LS
	SS	10%	clr, wh, gy, vf-med gr, ang-subrnd, mod srting, mod calc, poor vis ϕ, NFSC
12110-12120	SH	95%	aa
	SS	5%	aa
12120-12130	SH	95%	pred rd-brn (75%), sme gn-gy (15%), lt brn (5%), med gy (5%), tr lav, tr micrite LS
	SS	5%	clr, wh, vf-f gr, calc
12130-12140	SH	95%	aa
	SS	5%	wh, clr, lt gy, subang-rnd, mod fri-frm, fairly calc, NFSC
12140-12150	SH	90%	rd-brn (70%), gn-gy (15%), med-dk gy (10%), rd-brn pt frm-v frm, slty-sndy i.p., med-dk gy pt sli carbonaceous
	SS	10%	aa
12150-12160	SH	95%	rd-brn (85%), gn-gy, gy, slty-sndy i.p., tr crm-lt brn LS
	SS	5%	aa
12160-12170	SH	95%	pred rd-brn, orng-brn, gn-gy (20%), med-dk gy, gn-gy pt wxy, splty, mod frm, med-dk gy pt with occ carb strks, tr crm LS
	SS	5%	clr, lt gy, lt gn, vf-med fr, ang-subrnd,

			fri, poor-fair srting, fairly-v calc, poor-fair vis ϕ, NFSC
12170-12180	SH	95%	pred rd-brn (75%), gn-gy, lav (10%), lt brn, gy, lav pt subwxy, frm, non-sli calc, subplty, tr crm LS
	SS	5%	aa, one frag w/tr dd oil stn, NFC
12180-12190	SH	90%	rd-brn, lt gn-gy (30%), aa
	SS	10%	clr, wh, vf-f gr, fri, calc
12190-12200	SH	100%	aa, pred rd-brn, slty, sli calc, frm, sme sft orng CLYST
12200-12210	SH	95%	aa, rd-brn (80%)
	SS	5%	clr, f-med gr, ang-subrnd, poor-fair srting, mod fri, calc
12210-12220	SH	95%	pred orng-brn & rd-brn (80%), gn-gy (15%), gy, lav, rd-brn pt slty-mod sndy, frm, sli-fairly calc
	SS	5%	aa
12220-12230	SH	90%	pred rd-brn
	SS	10%	clr, gy, vf-f gr, subang, fri, fair vis ϕ, mod well srtd, NFSC
12230-12240	SH	95%	rd-brn, gn-gy, m-dk gy, gn-gy pt subwxy, subplty-subblky, mod frm, fairly calc, sli sndy i.p.
	SS	5%	aa
12240-12250	SH	95%	aa, rd-brn, gn-gy (30%)
	SS	5%	wh, clr, vf-med gr, subang, arg i.p., mod calc, poor vis ϕ
12250-12260	SH	90%	rd-brn & orng-brn (70%), gn-gy, lav, m-dk gy, brn, lt orng CLYST, gn-gy pt mod frm, subwxy, subplty, sme f lam, sli calc
	SS	10%	clr, lt gn, gy, v fri-fri, subang-subrnd, f-med gr, poor-fair srting, fair vis ϕ, calc, lt gn pt arg, NFSC
12260-12270	SH	90%	rd-brn (80%), gn-gy (15%), gy-dk gy (10%), rd-brn pt slty-mod sndy, fairly calc, tr gy micrite LS

12270-12280	SH	95%	aa, pred rd-brn, slty, occ mot w/gn CLYST, sme lav, subwxy
	SS	5%	gy, f gr, mod hd, poor vis ϕ, arg-slty i.p.
12280-12290	SH	95%	rd-brn (70%), gn-gy (20%), dk gy, lav, gn-gy pt mod sft, plty, non-sli calc, tr lt brn micrite LS
	SS	5%	aa
12290-12300	SH	100%	rd-brn (60%), gn-gy & gy (40%), gy pt subwxy, subplty, mod frm, slty, strkd w/carb mat, v sli calc
12300-12310	SH	95%	rd-brn & orng-brn (60%), gy & gn-gy (40%), rd-brn pt slty-v sndy, frm, sli calc, gy pt mod frm, slty-v sli sndy, sli calc, tr mica, tr crm-lt brn LS
	SS	5%	clr, wh, buff, f-med gr, ang-subrnd, fri-v hd, mod calc
12310-12320	SH	85%	aa, pred rd-brn, tr LS
	SS	15%	wh, gy, vf-med gr, subang-rnd, fri-well cem with calc, arg-slty i.p. tr dull yel flor, NSC
12320-12330	SH	95%	rd-brn (75%), mot w/fairly calc gn-gy CLYST, gy (20%), plty, subwxy, brit, sme dk brn-blk, slty, v frm SH
	SS	5%	aa, NFSC
12330-12340	SH	90%	rd-brn, gy, gn-gy, lav, tr dk brn-blk, gy pt subplty, sli micaceous, sli calc, tr lt brn micrite LS
	SS	10%	clr, wh, gy-dk gy, vf-f gr, arg-slty i.p., calc, poor vis ϕ
12340-12350	SH	90%	aa, rd-brn (60%), lt-med gy (30%)
	SS	10%	aa
12350-12360	SH	90%	rd-brn & orng-brn (80%), mod frm, erthy, subblky, slty-mod sndy i.p., fairly calc, mot w/gn-gy CLYST
	SS	10%	wh, gy-dk gy, lt gn, poorly srtd, conglomeratic i.p., f-med gr, ang-subang,

			mod fri-hd, calc w/sme sil cem, arg i.p., poor vis ø, NFSC
12360-12370	SH	95%	aa, rd-brn, gy, sme gn-gy, dk gy, lav, tr lt brn LS, tr cht
	SS	5%	aa
12370-12380	SH	90%	rd-brn (70%), lt gy (25%), frm, subwxy, subplty, mod calc
	SS	10%	gy, sme clr, f gr, poor srting, ang-sub ang, fri-frm, one grain w/blk res oil stn, NFC
12380-12390	SH	95%	aa, pred rd-brn (75%), gy, gn-gy, lav, rd-brn pt slty-sndy, frm-v frm, tr wh-crm, v hd dol LS
	SS	5%	aa, NFSC
12390-12400	SH	90%	rd-brn (70%), gn-gy (15%), lt-med gy (10%), sme lav, lt brn, gy pt mod frm, slty-subblky, v sli calc, subwxy, tr mica
	SS	10%	wh, clr, gy, vf-f gr, subang-rnd, v fri-fri, poorly srtd, mod-v calc, poor-fair vis ø, NFSC
12400-12410	SH	90%	rd-brn (50%), slty-sndy, lt-med gy (40%), slty, non-mod calc, carb mat
	SS	10%	aa
12410-12420	SH	95%	aa, rd-brn, lt-med gy, sme dk gy, sme gn-gy, tr med gy hd micrite LS, tr dk cht
	SS	5%	pred gy-dk gy, f gr, poor srting, frm, calc, slty i.p., p vis ø, NFSC
12420-12430	SH	95%	rd-brn (60%), slty-sndy, frm, non-mod calc, sme mot w/gn CLYST, lt-med gy & gn-gy (35%), mod sft-frm, splty-subblky, sli-f calc, med gy pt slty, tr brn micrite LS
	SS	5%	wh, gy, vf-med gr, ang-subrnd, p srtd, fri, mod calc, p vis ø
12430-12440	SH	100%	aa, gn-gy pt subwxy, flky, sli calc, mod frm

12440-12450	SH	95%	pred rd-brn (70%), gn-gy (20%), lt-med gy (10%), gn-gy pt subwxy, frm, lt-med gy pt occ strkd w/carb mat, non-v sli calc, tr crm-blk cht, tr LS
	SS	5%	wh, gy, lt orng, lt gn, f-med gr, sme crs qtz grns, fri, mod calc, arg-slty i.p., p vis ϕ, NFSC
12450-12460	SH	95%	rd-brn (75%), slty-mod sndy, frm, non-f calc, gy (25%), sft-frm, subwxy, sli calc, tr mica, tr lt brn micrite LS
	SS	5%	gy, clr, lt gn, vf-f gr, poor-fair srting, mod fri, sli-mod calc, arg i.p., p vis ϕ, NFSC
12460-12470	SH	95%	aa, sme lav (10%), lt brn, lav pt plty, mod frm, noncalc, tr lt brn LS
	SS	5%	aa, sme dk gy, slty i.p., sli conglomeratic i.p. fairly calc
12470-12480	SH	95%	rd-brn (70%), lt-dk gy, gn-gy, sme lav, lt brn, tr orng cht, tr lt brn LS
	SS	5%	wh, clr, gy, vf-med gr, p srting, mod calc, fri, arg-slty, p vis ϕ, NFSC
12480-12490	SH	90%	pred rd-brn & orng brn, sme lt-med gy, lav
	SS	10%	aa
12490-12500	SH	90%	aa, rd-brn (70%), lt-med gy (10%), gn-gy (10%)
	SS	10%	clr, wh, gy, f-med gr, subang-rnd, fri-mod frm, arg i.p., non-mod calc, poor-fair vis ϕ, NFSC
12500-12510	SH	85%	orng-brn (70%), slty-sli sndy, frm, mod calc, erthy, sme mot w/gn CLYST, lt-med gy (15%), mod sft, slty i.p., tr carb mat, gn-gy (10%), frm, subplty, wxy, noncalc, tr lt brn LS, tr vn pyrite
	SS	15%	wh, clr, gy, fri-v frm, sli-mod calc, f-med crs gr, gy pt slty, p vis ϕ,NFSC

12510-12520	SH	95%	aa, orng-brn, rd-brn (70%)
	SS	5%	aa
12520-12530	SH	95%	rd-brn (60%), slty-sli sndy, v sli calc, mod frm, mot w/gn-gy CLYST, lt-med gy (25%), gn-gy (10%), sme lav, gy pt gen non-sli calc
	SS	5%	gy, wh, lt gn, f gr, subang, p srting, fri, arg-slty, p vis ϕ, NFSC
12530-12540	SH	90%	aa, rd-brn (70%), gy, gn-gy, sme lav
	SS	10%	wh, clr, gy, sme crs qtz gr, p vis ϕ
12540-12550	SH	95%	aa, sme m-dk gy, frm, splty, slty, carb, tr pyr, tr orng cht
	SS	5%	aa, poor srting, mod fri, f calc, no-p vis ϕ
12550-12560	SH	95%	rd-brn & orng-brn (60%), gy (30%), sme dk gy, rd-brn pt mod frm, f calc, slty, tr brn micrite LS
	SS	5%	gy, lt brn-gy, f-med gr, subang, n-p vis ϕ, lt ring cut, NFS
12560-12570	SH	95%	aa
	SS	5%	aa, NFSC
12570-12580	SH	85%	rd-brn (50%), gy & gn-gy (50%), rd-brn pt slty-v sli sndy, mod frm, non-mod calc, gy pt frm-v frm, non-sli calc, sli slty, subwxy, tr lt brn LS
	SS	15%	clr gy, lt gn, f-med gr, sme crs unconsolidated gr, p-f srting, ang-subrnd, mod calc, poor vis ϕ, NFSC
12580-12590	SH	100%	rd-brn (15%) aa, gy (25%) aa, variegated CLYST (60%), buff, crm, lt gy, v sft, v calc, v sli sndy i.p., sme lam w/carb mat
12590-12600	SH	100%	rd-brn (10%), gy-med gy (20%), CLYST (70%), v sft, calc, aa
12600-12610	SH	95%	rd-brn (25%), gy & gn-gy (25%), buff-gy CLYST (50%), aa

	SS	5%	gy, wh, vf-f gr, p srting, arg-slty, p vis ϕ, NFSC
12610-12620	SH	90%	rd-brn (50%), m-dk gy (40%), gy-buff CLYST (10%, rd-brn pt frm-v frm, slty-sndy, sli-mod calc, CLYST pt v sft, calc
	SS	10%	wh, clr, gy, f-med gr, ang-subang, vp-p srting, conglomeratic i.p., frm-hd, cemented w/calc & sme silica, w/blk carb gr, sme brn mica, gn & orng gr inclusions, no-p vis ϕ, NFSC
12620-12630	SH	95%	rd-brn (60%), gy, buff CLYST aa, sme lav
	SS	5%	gy, vf-f gr, slty-arg, p vis ϕ, v sli calc
12630-12640	SH	95%	aa, sme sft, calc orng CLYST
	SS	5%	sme clr, conglomeratic i.p., hd, fairly calc, poor vis ϕ
12640-12650	SH	95%	rd-brn & orng-brn (30%), m-dk gy (60%), sme blk, m gy pt flky, frm, noncalc w/ sme carb mat, blk pt slty, calc, mod frm, subfiss
	SS	5%	gy, vf-f gr, p srting, calc, p vis ϕ, NFSC
12650-12660	SH	100%	rd-brn (20%), lt-med gy (20%), blk (10%), crm-buff CLYST (50%), v sft, v calc, blk pt frm, sli calc, plty-subfiss, pyritic i.p.
12660-12670	SH	95%	rd-brn (60%), lt-med gy (30%), blk (5%), gy pt subwxy, slty, gen noncalc
	SS	5%	gy, clr, f-med gr, ang-subang, v sli-mod calc, clr pt conglomeratic, hd, no-p vis ϕ, sil cem, NFSC
12670-12680	SH	95%	aa, lt-med dk gy (50%)
	SS	5%	aa
12680-12690	SH	95%	rd-brn (20%), mod frm, slty, mod calc, lt-med gy & gn-gy (70%), plty-splty, frm, noncalc, sme mot purp, sme blk, sli fos, pyritic SH

	SS	5%	gy, clr conglomeratic in clr pt, vf-med gr, ang-subrnd, fri-hd, calc & sil cem, p vis ϕ, NFSC
12690-12700	SH	95%	rd-brn (50%) aa, gy (40%) aa, blk pt pyritic, tr mas vn pyrite
	SS	5%	aa, one gr w/orng flor, lt ring cut, NS
12700-12710	SH	95%	aa, dk brn-blk (15%), erthy, subplty, carb, sli slty, sli calc, tr diss pyr
	SS	5%	gy, wh, clr, f-med gr, poor-fair srting, subang, calc, frm, poor-fair vis ϕ, NFSC
12710-12720	SH	90%	pred rd-brn (70%), lt-med gy, gn-gy, blk, tr brn biomicrite LS
	SS	10%	gy, lt brn, clr, vf-med gr, fri-frm, calc, poor vis ϕ, p srting, NFSC
12720-12730	SH	90%	pred rd-brn & orng-brn (80%), slty-mod sndy, mod sft-frm, fairly calc, sme gy, gn-gy, blk
	SS	10%	aa
12730-12740	SH	95%	rd-brn (60%), lt-med gy (25%), blk (10%), blk pt frm, plty, sli calc, pyritic i.p.
	SS	5%	gy, vf-f gr, p srting, slty, calc, v fri, NFSC
12740-12750	SH	95%	rd-brn (50%), lt-med gy (40%), sme blk, lav, lt-med gy pt frm, subplty-blky, subwxy, sli-fairly calc, slty i.p., tr lt brn LS
	SS	5%	aa
12750-12760	SH	100%	rd-brn (60%), slty-mod sndy, lt-med gy gn-gy (30%), sme blk, lav
12760-12770	SH	95%	aa, rd-brn pt mot w/gn, sli calc CLYST, tr blk SH
	SS	5%	gy, sme clr, gy tp vf-f gr, fri, calc, fair srting, slty, p vis ϕ, NFSC
12770-12780	SH	95%	rd-brn (50%), slty, sft-frm, sli calc, lt-med dk gy (35%), subwxy, frm, sli calc, blk-dk brn (10%), flky-splty, frm, sli

			calc, tr pyrite, tr lt brn micrite LS
	SS	5%	gy, wh, sme clr, vf-f gr, subang-subrnd, frm, p-fair srting, mod calc, clr pt conglomeratic i.p., gy pt slty, p-fair vis ϕ, NFSC
12780-12790	SH	95%	pred rd-brn (80%), mot w/gn CLYST
	SS	5%	aa
12790-12800	SH	90%	aa, rd-brn, gy, gn-gy, blk, sme purp, tr gy-lt brn cht, tr brn LS
	SS	10%	pred gy, fri, vf-f gr, p srting, slty-arg i.p., calc, NFSC
12800-12810	SH	85%	pred rd-brn, slty-v sndy, sli-v calc, mod frm, gy pt subwxy, flky, frm, non-calc, sli sndy, tr carb mat
	SS	15%	gy, wh, sme clr, subrnd, fri, mod calc, p-f srting, p-f vis ϕ, NFSC
12810-12820	SH	85%	aa, blk (10%), subfiss, frm, mod calc, tr diss pyr, tr xln calc, tr med brn LS
	SS	15%	aa, sme lt gn, f gr, arg i.p.
12820-12830	SH	90%	rd-brn (70%), lt-med gy, (25%), sme blk, lav, sme gy, v sft CLYST, tr gypsum, tr buff micrite LS
	SS	10%	aa, pred gy, vf gr, mod calc, p vis ϕ, NFSC
*12830-12840	SH	95%	rd-brn (30%), lt-med gy (20%), m gy-buff CLYST (50%), v sft, calc, sme lam w/carb mat
	SS	5%	gy, lt brn, clr, f-med gr, subang-subrnd, mod fri-hd, poor-fair srting, clr pt sli conglomeratic, sme gr w/tr lt brn oil stn, dull yel flor, wk milky cut
12840-12850	SH	100%	rd-brn (15%), lt-med gy (15%), gy CLYST (60%) aa, sme lt brn, limy, mod frm SH
12850-12860	SH	95%	rd-brn (60%), gn-gy & lt-med gy (30%), gy CLYST (10%), tr orng cht, sme brn LS
	SS	5%	gy, sme wh, vf-f gr, poor-fair srting, sli-fairly calc, p vis ϕ, NFSC

*Denotes show interval

12860-12870	SH	90%	rd-brn, gy, gy-med by CLYST (60%), v sft-frm, non-v calc, tr LS
	SS	10%	aa
12870-12880	SH	90%	rd-brn (30%), slty-v sndy, frm, sli-mod calc, gy-dk gy (50%), slty, plty-subblky, frm, mod calc, gy-lt brn CLYST, v sft, v calc, sme w blk lam, sme blk SH, sme gy, arg dol LS, cryptoxln micrite, grdng to limy SH, tr lt orng cht
	SS	10%	med gy, wh, sme clr, vf-f gr, n-p vis ϕ, NFSC
12880-12890	SH	95%	pred aa, gy-lt brn CLYST (40%), sme lt gy, fine crystalline-cryptoxln LS to dol LS
	SS	5%	aa
*12890-12900	SH	85%	rd-brn (30%), gy-dk gy & gn-gy (40%), blk (15%), mod frm, flky, mod calc, pyr i.p., gy-brn CLYST (15%), v sft, gy pt grding to SLTST, sme gy-lt brn LS
	SS	15%	gy, clr, sme wh, vf-med gr, subang-subrnd, p-well srtd, v hd-fri, non-mod calc, sme sil cem, arg-slty, no-fair vis ϕ, sme clr pt conglomeratic, sme clr pt w/brn-blk oil stn, no-dull orng flor, no-fast, wk flo cut, fair vis ϕ
*12900-12910	SH	90%	aa, pred rd-brn, no CLYST
	SS	10%	aa, tr res blk-brn oil stn, tr dull yel flor, lt ring cut
12910-12920	SH	95%	pred rd-brn (70%), slty-v sndy, frm, mod calc, m-dk gy pt subwxy, frm, non-sli calc, brn-blk pt non-fairly calc, tr diss pyr, sme gy-brn v sft CLYST, tr gy-brn dol LS. arg i.p., tr gypsum
	SS	5%	gy, f gr, subrnd, p srting, frm-hd, sli-mod calc, tr ring cut, NFS
12920-12930	SH	95%	aa, brn-blk (30%), mod sft-frm, slty, pyr i.p., splty-subblky, sme lt buff

*Denotes show interval

			CLYST, tr mas vein pyr, tr crm-dk brn f xln-cryptoxln LS
	SS	5%	aa
12930-12940	SH	95%	pred rd-brn, v slty-v sndy, mod calc, sme gy, sme brn-blk, sme gy CLYST
	SS	5%	gy, sme wh, vf-f gr, p-f srting, arg-slty i.p., sli-v calc, gen p vis ø
12940-12950	SH	95%	rd-brn (25%), gy-dk gy & gn-gy (65%), subwxy, non-sli calc, sme blk, mar, tr crm micrite LS
	SS	5%	aa, mod fri-hd, f-med gr, p vis ø, sme w LS inclusions
12950-12960	SH	95%	aa, dk brn-blk (20%), frm, mod calc, sli slty, subfiss-subblky, pyr
	SS	5%	gy, wh, vf-med gr, mod fri-frm, subang-subrnd, gen poor srting, arg-slty i.p., sli-fairly calc, poor vis ø, NFSC
12960-12970	SH	100%	rd-brn (50%), v slty-v sndy i.p., sft-frm, mod calc, sme lt-med dk gy, gn-gy, lav, purp, blk, tr brn micrite-biomicrite LS
12970-12980	SH	100%	orng-brn & rd brn (25%), gn-gy (25%), mar & lt purp (30%), mod frm, subwxy, subplty, noncalc
12980-12990	SH	100%	pred aa
12990-13000	SH	90%	pred rd-brn (85%), sme gn-gy, brn-blk, mar, med-dk gy, rd-brn pt v frm, mod-v calc, slty-v sndy
	SS	10%	gy, wh, sme clr, vf-f gr, fri-frm, sli-mod calc, arg-slty, p vis ø, sme w/dull yel flor, no vis oil stn, NC
13000-13010	SH	95%	orng-brn (30%), m-dk gy, lt purp (40%), sme blk, sme buff-gy v slty, v sft, mod calc CLYST, tr lt gy micrite LS
	SS	5%	aa, NFSC
13010-13020	SH	90%	aa, blk (10%), frm, plty-subblky, mod calc, tr diss pyr, tr carb mat

	SS	10%	gy, clr, wh, lt gn, vf-med crs tr, subang-subrnd, poor-mod well srtd, clr pt conglomeratic i.p., lt gn pt grdng to SLTST, sli-mod calc, gen p vis ∅, NFSC
13020-13030	SH	95%	rd-brn & orng-brn (50%), slty-v sndy i.p., mar-deep purp (20%), frm, erthy, subblky, non-v sli calc, sme mot w/gn CLYST
	SS	5%	pred gy, vf-med gr, fri, p srting, slty, mod-v calc, p vis ∅, NFSC
13030-13040	SH	95%	aa, tr cht, tr lt gy-crm dol LS
	SS	5%	aa, sme w/dull orng flor, ring cut, NS
13040-13050	SH	100%	rd-brn (50%), slty-mod sndy, sli calc, lt-dk gy (40%), frm, sli slty, gen non calc, subwxy-erthy, blk (5%), frm, mod calc, sli slty, pyritic i.p., sme lav, tr buff CLYST, tr lt gn-gy LS
10350-13060	SH	95%	gen aa, rd-rn (35%), lav & purp (20%), tr brn cht, tr gypsum
	SS	5%	gy, sme wh, lt gn, tr clr, vf-med gr, subrnd-rnd, gen p srtd, mod fri-hd, cem w/calc & arg mat, clr pt sli conglomeratic p vis ∅, no-v dull orng flor, tr ring cut, NS
13060-13070	SH	95%	rd-brn (25%), gn-gy & lt-med gy, (60%), plty-subblky, sft-frm, slty i.p., wxy-erthy, tr carb mat, non-sli calc, sme blk, lav, purp
	SS	5%	aa
13070-13080	SH	95%	pred gn-gy & med gy (70%), frm, subblky, sli-non calc, to pyr, slty, rd-brn & orng-brn (10%), blk (10%), carb, sli calc, sme lav, tr lt brn LS
	SS	5%	gy, vf gr, grdng to SLTST i.p., fri, mod calc, mod srtd, NFSC
13080-13090	SH	95%	aa, rd-brn, (40%), v slty-sndy, mod-v calc
	SS	5%	gy, sme clr, vf-med gr, subrnd, p-mod srtd

			sli calc
13090-13100	SH	95%	rd-brn & orng-brn, m-dk gy, gn-gy, purp (15%), blk (10%), tr mas vein pyrite
	SS	5%	aa
13100-13110	SH	95%	rd-brn (40%), med-dk gy (40%), blky, frm-hd, sli-mod calc, grdng to SLTST i.p., sme mar, sme blk, tr sparse bio-micrite
	SS	5%	gy, lt gn, gen vf gr, arg-slty mtx, p srting, mod calc, NFSC
13110-13120	SH	85%	aa, tr lt gn dol LS
	SS	5%	aa
	SLTST	10%	med gy, gn-gy, hd, blky, suc tex, tr carb mat, arg-sli sndy i.p., mod calc
13120-13130	SH	80%	rd-brn (30%), med-dk gy & gn-gy (50%), subwxy, non-sli calc, sme blk, lav
	SS	5%	clr, gy, vf-f gr, mod fri, mod calc, NFSC
	SLTST	15%	aa
13130-13140	SH	95%	rd-brn (25%), slty-sndy, lt-dk gy (60%), dk gy pt grdng to SLTST, med gy pt v sft, mod calc CLYST, tr crm dol LS
	SS	5%	gy, vf gr, p srting, arg mtx, sli calc, NFSC
13140-13150	SH	80%	pred aa, rd-brn (40%), tr brn micrite LS
	SS	10%	aa
	SLTST	10%	lt brn, dk gy, grdng to vf gr SS i.p., non-sli calc, carb, frm
13150-13160	SH	95%	rd-brn (30%), sft, v slty-v sndy, mod-v calc, lt-dk gy (50%), wxy-slty tex, frm, non-sli calc, tr mica, dk brn-blk (10%), sft, carb, non-sli calc, pyritic in pt, tr lav
	SS	5%	gy, lt gn, vf-f gr, subang, p srting, lt gn pt arg, fri-v frm, mod calc, NFSC
13160-13170	SH	90%	aa, rd-brn (40%), dk gy pt grdng to SLTST, tr cht, tr wh-gy micrite LS
	SS	10%	aa

13170-13180	SH	90%	aa, gn-gy & lt dk gy (50%), non-fairly slty, non-sli calc, lav (10%), noncalc, tr buff LS
	SS	10%	gy, sme wh, arg-slty mtx, mod calc, NFSC
13180-13190	SH	95%	rd-brn (20%), lt-dk gy (30%), dk brn, v sft, v calc CLYST (50%), carb, subfiss, tr pyrite
	SS	5%	aa
13190-13200	SH	100%	aa, sme buff-crm v sft, mod calc CLYST (25%), sme dk brn v sft CLYST (40%)
13200-13210	SH	85%	rd-brn (20%), v slty-v sndy, sli-mod calc, lt-dk gy (70%), frm-hd, non-mod slty, non-sli calc, blk (10%), no sft CLYST
	SS	15%	wh, clr, gy, vf-med gr, p-mod srting, ang-subrnd, arg i.p., v fri-hd, clr pt sli comglomeratic, gen p vis ϕ, no-dull orng-yel flor, v wk milky cut, no stn
13210-13220	SH	75%	aa, rd-brn (30%), slty-sndy, blk (25%), slty, pyritic i.p.
	SS	25%	aa, no vis oil stn, wk milky cut
13220-13230	SH	90%	aa
	SS	10%	gy, wh, sme clr, sme lt orng, vf-med gr, gy pt grdng to SLTST, subang-rnd, p-mod well srtd, clr pt sli conglomeratic, fri-mod hd, mod calc, poor-fair vis ϕ, NFSC
13230-13240	SH	80%	rd-brn (40%), slty-sndy, sli-mod calc, mod frm, med-dk gy & gn-gy (50%), subwxy-erthy, dk gy pt slty, carb i.p., sli-mod calc, tr pyrite, sme blk (5%), tr brn micrite LS
	SS	20%	pred clr, sme wh, f gr, mod srt, sli calc, no-v dull orng flor, tr wk ring cut, NS
13240-13250	SH	90%	aa, blk (15%), frm, carb, slty-mod calc, sme dk brn-blk v sft, calc, lam CLYST,

			tr cht
	SS	10%	aa, NFSC
13250-13260	SH	90%	aa, blk pt with mas pyrite veins
	SS	10%	gy, wh, sme clr, lt gn, vf-med gr, conglomeratic i.p., lt gn pt arg, v fri-frm, calc, no-p vis ø, NFSC
13260-13270	SH	95%	rd-brn (20%), lt-dk gy (40%), grdng to SLTST i.p., dk brn-blk SLYST & SH (40%), dk CLYST pt v sft, v calc, subfiss
	SS	5%	aa
13270-13280	SH	90%	aa, sme gy v sft, calc CLYST, tr brn cht, tr brn micrite-biomicrite LS
	SS	10%	gy, wh, f gr, subang p-fair srting, sli calc, fri-v frm, poor vis ø, NFSC
*13280-13290	SH	70%	orng-brn (30%), v slty-v sndy, gn-gy & m-dk gy (50%), subwxy, plty-splty, non-sli calc, blk (15%), pyritic, sme dk brn, v sft CLYST, sme free calc xls
	SS	15%	pred clr, gy, f-med gr, subang-rnd, p-well srtd, mod fri-hd, calc & sil cem, poor-fair vis ø, sme clr pt w/bit oil stn, v wk ring cut, NF
	LS	15%	dk gy, brn, hd, blky, cryptoxln micrite, sli foss, sme w/sparry calc cem, sme w/ calc frac fill
*13290-13300	SH	75%	aa
	SS	15%	aa, sme w/bit oil stn, weak ring cut, NF
	LS	10%	aa
13300-13310	SH	80%	rd-brn, med-dk gy, blk, gn-gy, brn, sme med gy pt brit, mod calc, subblky, sme gy pt grdng to SLTST
	SS	10%	clr, gy, f-med gr, poor-fair srting, mod fri-hd, tr bit oil stn, NFC
	LS	10%	brn-dk brn micrite-sparse biomicrite, arg i.p.
13310-13320	SH	85%	orng-brn (20%), med-dk gy (50%), dk brn-blk (15%), lt-dk brn, sft CLYST (15%),

*Denotes show interval

			med gy pt grdng to SLTST, v frm, mod calc, blk pt with diss pyr
	SS	10%	clr, gy, f gr, v frm-mod fri, sli calc, sme w/pale yel flor, v wk milky cut, NS
	LS	5%	aa
13320-13330	SH	95%	orng-brn (5%), gy, crm, dk brn CLYST (75%), v sft, calc, lam, blk (15%), tr blue-gn cht, sme brn micrite LS
	SS	5%	aa
13330-13340	SH	90%	orng-brn (10%), gn-gy (5%), buff, brn-dk brn CLYST (80%), v sft-frm, erthy tex, mod-v calc, lam-subfiss, sme blk, pyritic SH, tr clr calc xls
	SS	5%	dk gy, sme clr, f gr subang, vp-p srting, sli calc, frm, p vis ∅, NFSC
	LS	5%	brn-dk brn, arg i.p., micrite
13340-13350	SH	100%	aa, pred brn-dk brn, buff CLYST
13350-13360	SH	95%	pred brn-dk brn, gy CLTST, v sft-mod frm, tr carb mat, calc-v calc, lam, tr pyrite, sme orng-brn, gy, blk, tr brn LS
	SS	5%	clr, gy, f gr, mod fri, calc, NFSC

GEOLOGICAL SUMMARY

OPERATOR: Grace Petroleum Corp. WELL: GPC Fee 36-1

Green River Formation

The Tertiary Green River Formation was encountered in GPC Fee 36-1 at a depth of approximately 4856' (E-logs). The Green River Formation is an extensive (~5200' thick), dominately lacustrine sequence exhibiting 4-5 major facies changes.

The stratagraphically uppermost facies unit of the Green River Formation is termed the Evacuation Creek Member. The Evacuation Creek underlies a saline facies of the Uinta Formation and the transition is marked by a general increase in resistivity on E-logs.

Sample control was poor due to numerous lost circulation zones. Generally however, the Evacuation Creek Member is composed of light to medium gray and light brown shales, buff, gray, and brown very fine grain sandstones and siltstones, and minor amounts of grayish-brown micritic limestones.

The Evacuation Creek Member exhibits a gradational, facies-type relationship with the underlying Parachute Creek Member of the Green River Formation. Sample control was again poor due to difficult drilling conditions. The top of the Parachute Creek was picked at a depth of 6350' (E-logs) in GPC Fee 36-1. The most notable feature of the Parachute Creek unit is the presence of numerous so-called "oil shales", the most distinctive of which is termed the Mahogoney Marker. In this case, "oil shale" is probably a misnomer since these rocks are kerogenous-rich dolomites that exhibit very small scale laminae and varves. Other lithologies present in the Parachute Creek Member include light to dark gray and brown, slightly calcareous, slightly pyritic shales, light to medium gray, light brown, and some white to buff colored sandstones and siltstones that are generally very fine to fine grain, poor to moderately sorted, and moderately calcareous.

A marked decrease in resistivity at approximately 7840' in GPC Fee 36-1 indicates a facies change to the Douglas Creek Member of the Green River Formation. The Douglas Creek consists of rocks deposited in a predominately deltaic and interdeltaic environment, as apposed the the open lacustrine environment which produced the sediments of the overlying Evacuation Creek and Parachute Creek and the underlying Lower Green River units.

The Douglas Creek consists of light gray, green and light brown shales, brown, buff, and gray fine grain calcareous sandstones, and buff, cream, and light brown dolomites and limestones that occasionally contain ostracodes.

The lower part of the Douglas Creek exhibits a gradational facies relationship with the underlying Lower Green River Member, and the change from a predominately deltaic to lacustrine environment is best marked by an increase in resistivity, which occurred at a depth of approximately 8860' in GPC Fee 36-1 (drill depth of approximately 8910').

The lacustrine sediments of the Lower Green River consist predominately of medium to dark gray, dark brown and black, slightly calcareous to dolomitic, pyritic shales. Also present are gray, light brown and clear, very fine grain sandstones exhibiting poor visible porosity with occasional traces of light brown oil staining that generally fluoresced pale yellow and gave weak milky to weak flowing cuts.

The Lower Green River and Douglas Creek Members were notable for difficult drilling conditions, including persistent lost circulation zones, extensive sloughing shale sections, and hole deviation problems.

Wasatch

At a drill depth of approximately 9932' in GPC Fee 36-1, a Lower Green River/Wasatch transition zone was encountered. This zone, approximately 200' thick, is composed of sediments deposited in a marginal lacustrine environment. It separates the lacustrine sediments of the Lower Green River Member from the alluvial-fluvial deposits of the Wasatch Formation.

This transition zone contained a good gas show (one of the few encountered in GPC Fee 36-1) along with approximately 30' of section that had light brown oil stained sandstones with dull orange to yellow fluorescence and yellow milky cuts. Other lithologies present included light brown oolitic and fossiliferous (ostracodal) mud-to-grain supported (micrite to packed biomicrite) limestones. These limestones are indicative of a marginal (beach or shoal) lacustrine environment.

At a drill depth of approximately 10125', reddish silty shale of the Wasatch Formation first appeared. This marked the top of a thick (2450')

lithologically monotonous sequence of Wasatch red-beds. These alluvial-fluvial red-bed deposits consist of reddish-brown to orange-brown, silty to sandy, moderately calcareous shales and mudstones that are occasionally mottled with greenish-gray claystones. Also present are light to medium gray and greenish gray shales, and gray, white, and light green channel-form sandstones. These sandstones are generally very fine to medium grain, occasionally argillaceous to conglomeratic, calcareous, and exhibit generally poor visible porosity. Several minor shows were noted throughout the Wasatch, and these sandstones had light brown oil staining, generally dull orange to yellow fluorescence and light ring to weak yellow flowing cuts.

At a drill depth of 12578', sediments of marginal to open lacustrine environments were again encountered. These sediments marked the top of a 780' thick interval (12580' to T.D.) that appears to be complex sequence of intertonguing alluvial-fluvial (red beds), marginal lacustrine (oil-stained sandstones and ostracodal limestones), and open lacustrine (black pyritic shales and dark brown carbonaceous claystones) sediments. At least seven separate intertonguing red bed deposits were noted indicating a fluctuating lake shore line. At least 14 minor shows, or non oil-stained sandstone intervals that gave light ring cuts, were noted in presumably marginal lacustrine sediments occurring in this Wasatch/North Horn transition interval.

Sincerely,

Randy T. Laney

LOG OF d_c EXPONENT FOR GPC FEE 36-1

OPERATOR: Grace Petroleum Corp. WELL: GPC Fee 36-1

Values for the d_c exponent were calculated for the interval 10100' to 13350' (bottom of the 7" casing to T.D.). These values (Table 1) were plotted at 50' intervals and the resulting log is presented as Figure 1.

The most notable feature of this log is the "apparent" dramatic increase in pore pressure for the interval 10950' to 11000'. No change in lithology or rock characteristics over this interval was noted from cuttings analysis.

A possible explanation for this feature comes from the fact that a different type diamond bit was run in the hole at 10952'. Bit #55, an ACC ST-III diamond, averaged 3.4 ft/hr. The following four bit runs (#56-#59) employed HYCALOG 901 diamond bits. Bits #56-#58 averaged 5.2 to 6.5 ft/hr. The change in formation drillability (doubling the rate of penetration) using the HYCALOG 901 bits is apparently reflected in the d_c exponent plot, and the log feature noted above is probably not attributable to any change in formation pore pressure.

If the normal trend line (8.25 ppg) is assumed to lie close to the heavy dashed line in Figure 1, then pore pressures over the interval 11500' to T.D. generally fall between 9.0 and 10.0 ppg. That is, no significant overpressured zones were encountered in GPC Fee 36-1. The highest indicated pore pressures (10.0 to 10.4 ppg) occurred over the interval 12800' to 12900'.

STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

January 12, 1982

Grace Petroleum Corporation
Suite 200, 3 Park Central
1515 Arapahoe Street
Denver, Colorado 80202

Re: Well No. GPC Fee #36-1
Sec. 36, T. 2S, R. 7W
Duchesne County, Utah

Gentlemen:

In reference to the above mentioned well, considerable time has gone by since approval was obtained from this office.

This office has not received any notification of spudding. If you do not intend to drill this well, please notify this Division. If spudding or any other activity has taken place, please send necessary forms. If you plan to drill this location at a later date, please notify as such.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS AND MINING

Cari Furse

Cari Furse
Clerk Typist

Board/Charles R. Henderson, Chairman • John L. Bell • E. Steele McIntyre • Edward T. Beck
Robert R. Norman • Margaret R. Bird • Herm Olsen

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Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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 "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [XX] GAS WELL [ ] OTHER

2. NAME OF OPERATOR
Grace Petroleum Corporation

3. ADDRESS OF OPERATOR
Three Park Central, #200, Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
1276' FEL & 1646' FNL

5. LEASE DESIGNATION AND SERIAL NO.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
GPC Fee

9. WELL NO.
36-1

10. FIELD AND POOL, OR WILDCAT
Altamont

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 36, T2S-R7W

12. COUNTY OR PARISH: Duchesne

13. STATE: Utah

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
6941' GL

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other) Spudding			[XXX]
(Other)			[ ]	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

This report serves as notification that Grace Petroleum Corporation has spudded the subject well on 4/28/81. This well reached a total depth of 13,360' by 12/13/81 and a production liner was run and cemented on 12/19/81. The completion procedure is now being implemented.

18. I hereby certify that the foregoing is true and correct

SIGNED M. J. Flanigan TITLE Senior Drilling Engineer DATE 1/19/82

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Grace Petroleum Corporation
Subsidiary of W.R. Grace & Co.

Three Park Central Suite 200
1515 Arapahoe Street
Denver, Colorado 80202
Phone (303) 825-8193

January 19, 1982

RECEIVED
JAN 25 1982
DIVISION OF
OIL, GAS & MINING

State of Utah
Natural Resources and Energy
4241 State Office Bldg.
Salt Lake City, Utah 84114

RE: GPC Fee #36-1
SENE Sec. 36, T2S-R7W
Duchesne County, Utah

Gentlemen:

Enclosed please find 3 copies of Form OGCC-1b, Sundry Notice and Report On Wells, to notify you of the spudding of the subject well.

Thank you for your letter dated January 12, 1982, to remind us of this oversight. A completion report and copies of the logs will follow.

Any questions regarding this matter, please contact the undersigned.

Sincerely,

GRACE PETROLEUM CORPORATION

M. J. Flanigan

Michael J. Flanigan
Senior Drilling Engineer

MJF:jbj

Encls.

STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

May 25, 1982

Grace Petroleum, Inc.
Three Park Central, Suite 200
1515 Arapahoe Street
Denver, Colorado 80202

Re: Well No. GPC Fee #36-1
Sec. 36, T. 2S, R. 7W.
Duchesne County, Utah

Gentlemen:

This letter is to advise you that the Well Completion or Recompletion Report and Log for the above mentioned well is due and has not been filed with this office as required by our rules and regulations.

Please complete the enclosed Form OGC-3, in duplicate, and ~~forward them~~ to this office as soon as possible.

Thank you for your cooperation relative to the above.

Very truly yours,

DIVISION OF OIL, GAS AND MINING

Cari Furse

Cari Furse
Clerk Typist

Board/Charles R. Henderson, Chairman • John L. Bell • E. Steele McIntyre • Edward T. Beck
Robert R. Norman • Margaret R. Bird • Herm Olsen

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Grace Petroleum Corporation
Subsidiary of W.R. Grace & Co.

Three Park Central Suite 200
1515 Arapahoe Street
Denver, Colorado 80202
Phone (303) 825-8193

CERTIFIED MAIL NO. P268282827
RETURN RECEIPT REQUESTED

June 7, 1982

State of Utah
Natural Resources & Energy
Oil, Gas & Mining
4241 State Office Building
Salt Lake City, UT 84114

Re: GPC Fee #36-1
Sec. 36, T2S-R7W
Duchesne Co., UT

Attention: Ms. Cari Furse

Gentlemen:

Enclosed in triplicate you will find Sundry Notice of "Continued Drilling" (Form OGCC-1B) for the subject well. We are submitting 8 sundries for the months from 4/27/81 through 12/22/81.

If you have any questions in regards, please advise.

Very truly yours,

GRACE PETROLEUM CORPORATION

Jeff Altman /rlm

Jeff Altman
Assistant Engineer

/rlm

JA:rlm

Encs. (8/24)

xc Jim Johnson
Mark Griffin

RECEIVED
MAY 09 1982
DIVISION OF
OIL, GAS & MINING

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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 "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [XX] GAS WELL [ ] OTHER

2. NAME OF OPERATOR
Grace Petroleum Corporation

3. ADDRESS OF OPERATOR
3 Park Central, Ste. 333, 1515 Arapahoe St., Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
Section 36, T2S-R7W, 1646' FNL & 1276' FEL

5. LEASE DESIGNATION AND SERIAL NO.
Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
GPC Fee

9. WELL NO.
1

10. FIELD AND POOL, OR WILDCAT
Altamont

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 36, T2S-R7W

12. COUNTY OR PARISH: Duchesne

13. STATE: Utah

14. PERMIT NO.
43-013-30560

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
6941' GL

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other) Continued Drilling			[XX]
(Other)			[ ]	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

4/27/81 to 5/27/81 Drilling at 2876'. Spotting 1300 sxs cement to stop lost circulation problems.

18. I hereby certify that the foregoing is true and correct

SIGNED Jeff Altman TITLE Assistant Engineer DATE June 7, 1982

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

SUNDRY NOTICES AND REPORTS ON WELLS

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1. OIL WELL [XX] GAS WELL [ ] OTHER

2. NAME OF OPERATOR
Grace Petroleum Corporation

3. ADDRESS OF OPERATOR
3 Park Central, Ste. 333, 1515 Arapahoe St., Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
Section 36, T2S-R7W, 1646' FNL & 1276' FEL

5. LEASE DESIGNATION AND SERIAL NO.
Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
GPC Fee

9. WELL NO.
1

10. FIELD AND POOL, OR WILDCAT
Altamont

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 36, T2S-R7W

12. COUNTY OR PARISH: Duchesne

13. STATE: Utah

14. PERMIT NO.
43-013-30560

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
6941' GL

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]
(Other)			[ ]

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
(Other) Continued Drilling			[XX]

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

5/27/81 to 6/27/81 Drilling at 3821'. 72 joints of 10-3/4", 40.5#, K-55 landed at 3209'. Cemented casing with 2150 sxs cement, 24 sxs sawdust, 3 sxs gypsum. Additional cement spotted to combat lost circulation problems, 3025 sxs. Total cement to set casing 5175 sxs of cement.

18. I hereby certify that the foregoing is true and correct

SIGNED Jeff Altman TITLE Assistant Engineer DATE June 7, 1982

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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 "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [XX] GAS WELL [ ] OTHER

2. NAME OF OPERATOR
Grace Petroleum Corporation

3. ADDRESS OF OPERATOR
3 Park Central, Ste. 333, 1515 Arapahoe St., Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
Section 36, T2S-R7W, 1646' FNL & 1276' FEL

5. LEASE DESIGNATION AND SERIAL NO.
Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
GPC Fee

9. WELL NO.
1

10. FIELD AND POOL, OR WILDCAT
Altamont

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 36, T2S-R7W

12. COUNTY OR PARISH: Duchesne

13. STATE: Utah

14. PERMIT NO.
43-013-30560

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
6941' GL

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]
(Other)			[ ]

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
(Other) Continued Drilling			[XX]

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

6/27/81 to 7/27/81 Drilling at 7011'. Hole size 8-3/4".

18. I hereby certify that the foregoing is true and correct

SIGNED Jeff Altman TITLE Assistant Engineer DATE June 7, 1982

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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 "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [XX] GAS WELL [ ] OTHER

2. NAME OF OPERATOR
Grace Petroleum Corporation

3. ADDRESS OF OPERATOR
3 Park Central, Ste. 333, 1515 Arapahoe St., Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
Section 36, T2S-R7W, 1646' FNL & 1276' FEL

5. LEASE DESIGNATION AND SERIAL NO.
Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
GPC Fee

9. WELL NO.
1

10. FIELD AND POOL, OR WILDCAT
Altamont

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 36, T2S-R7W

12. COUNTY OR PARISH: Duchesne

13. STATE: Utah

14. PERMIT NO.
43-013-30560

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
6941' GL

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]
(Other)			[ ]

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
(Other) Continued Drilling			[XX]

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

7/27/81 to 8/27/81 Drilling at 8638'. Landed 180 joints 8-5/8", 44#, N-80 casing at 7008'. Cemented with 500 sxs cement.

18. I hereby certify that the foregoing is true and correct

SIGNED Jeff Altman TITLE Assistant Engineer DATE June 7, 1982

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

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 "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [XX] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: Grace Petroleum Corporation

3. ADDRESS OF OPERATOR: 3 Park Central, Ste. 333, 1515 Arapahoe St., Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: Section 36, T2S-R7W, 1646' FNL & 1276' FEL

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: GPC Fee

9. WELL NO.: 1

10. FIELD AND POOL, OR WILDCAT: Altamont

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 36, T2S-R7W

12. COUNTY OR PARISH: Duchesne

13. STATE: Utah

14. PERMIT NO.: 43-013-30560

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6941' GL

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TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other) Continued Drilling			[XX]
(Other)			[ ]	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

8/27/81 to 9/27/81 Drilling at 8662'. Spot 425 sxs cement to combat lost circulation problems.

18. I hereby certify that the foregoing is true and correct

SIGNED Jeff Altman TITLE Assistant Engineer DATE June 7, 1982

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7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: GPC Fee

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13. STATE: Utah

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FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other) Continued Drilling			[XX]
(Other)			[ ]	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

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9/27/81 to 10/27/81 Drilling at 10,160'. Landed 253 joints, of 7", 29# & 26#, P-110 & N-80, & L-80 casing at 10,143'. Cemented with 325 sxs cement.

18. I hereby certify that the foregoing is true and correct

SIGNED Jeff Altman TITLE Assistant Engineer DATE June 7, 1982

(This space for Federal or State office use)

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6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

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8. FARM OR LEASE NAME: GPC Fee

9. WELL NO.: 1

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11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 36, T2S-R7W

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FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]
(Other)			[ ]

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
(Other) Continued Drilling			[XX]

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

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10/27/81 to 11/27/81 Drilling at 11,992'. Hole size 6-1/8".

18. I hereby certify that the foregoing is true and correct

SIGNED Jeff Altman TITLE Assistant Engineer DATE June 7, 1982

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

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OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
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SUNDRY NOTICES AND REPORTS ON WELLS

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2. NAME OF OPERATOR
Grace Petroleum Corporation

3. ADDRESS OF OPERATOR
3 Park Central, Ste. 333, 1515 Arapahoe St., Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
Section 36, T2S-R7W, 1646' FNL & 1276' FEL

5. LEASE DESIGNATION AND SERIAL NO.
Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
GPC Fee

9. WELL NO.
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Altamont

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 36, T2S-R7W

12. COUNTY OR PARISH: Duchesne

13. STATE: Utah

14. PERMIT NO.
43-013-30560

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6941' GL

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TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]
(Other)			[ ]

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
(Other) Continued Drilling			[XX]

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

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11/27/81 to 12/22/81 Drilling completed. 5", 18#, N-80 liner hung from 9660' to 13,360'. Total Depth at 13,360'.

18. I hereby certify that the foregoing is true and correct

SIGNED Jeff Altman TITLE Assistant Engineer DATE June 7, 1982

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

June 15, 1982

Grace Petroleum Corporation
3 Park Central, Suite 333
1515 Arapahoe Street
Denver, Colorado 80202

Re: Well No. GPC Fee #36-1
Sec. 36, T. 2S, R. 7W.
Duchesne County, Utah

Gentlemen:

This letter is to advise you that the Well Completion or Recompletion Report and Log for the above mentioned well is due and has not been filed with this office as required by our rules and regulations.

**If we do not hear from your office within fourteen days, this file will be turned over to the Attorney at the Division of Oil, Gas and Mining for legal action.

Please complete the enclosed Form OGC-3, in duplicate, and forward them to this office as soon as possible.

Thank you for your cooperation relative to the above.

Very truly yours,

DIVISION OF OIL, GAS AND MINING

Cari Furse

Cari Furse
Clerk Typist

Board/Charles R. Henderson, Chairman • John L. Bell • E. Steele McIntyre • Edward T. Beck
Robert R. Norman • Margaret R. Bird • Herm Olsen

an equal opportunity employer • please recycle paper

CERTIFIED MAIL NO. P26 8282896
RETURN RECEIPT REQUESTED

Grace Petroleum Corporation
Subsidiary of W.R. Grace & Co.

Three Park Central Suite 200
1515 Arapahoe Street
Denver, Colorado 80202
Phone (303) 825-8193

June 25, 1982

State of Utah
Natural Resources & Energy
Oil, Gas & Mining
4241 State Office Bldg.
Salt Lake City, Utah 84114

Re: GPC Fee 36-1
Sec. 36, T2S-R7W
Duchesne County, Utah

Attention: Cari Furse

Gentlemen:

Enclosed are Sundry Notice forms. The recompletion form will be submitted after the well has been completely tested and put on production. Presently we are still testing the well.

Very truly yours,

Donald C. Smith

Donald C. Smith
Sr. Operations Engineer

Attachments
DCS:mc

Perforation Interval | GPC Fee # 36-1 | Altamont Field Duchesne Co, Uta

all perfs .35"

June 23, 1982

Depth	holes	
10162-64	3	acidized interval 4-2-82 w/ 8000 gal 7½% HCl
10332	1	
10347	1	
10380-84	5	
10422	1	
10482-84	3	
10897	1	
10924	1	
11060-70	11	
11144	1	
11254-56	3	acidized interval 5-6-82 w/ 7000 gal 15% MSR w/ 450 SCF. N2/Bbl
11276	1	
11280-96	17	
11405-20	16	
11440-42	3	
11542-44	3	
11595 (4-1)	1	
CIBP@ 11850		
11974-76	3	acidized on 3-28-82 w/ 6500 gal 7½% HCl
12138-40	3	
12201-10	10	
12289	1	acidized on 3-22-82 w/ 7000 gal 7½% HCl
12393	1	
12411-13	3	
12541-44	4	
12601-03	3	
12698-708	11	
12776-83	8	
12831-33	3	
12868-71 (3-27)	4	
CIBP@12920		
12973	1	
12978	1	
12982-89	3	
12989	1	
12994-96	3	
12998	1	
13149-312	15	acidized on 3-14-82 w/ 1500 gal 7½% HCl squeezed on 3-19-82 w/ 125 sx class "G"

42-381 50 SHEETS 5 SQUARE
42-382 100 SHEETS 5 SQUARE
42-389 200 SHEETS 5 SQUARE
NATIONAL

WELL COMPLETION SKETCHES GPC-1125

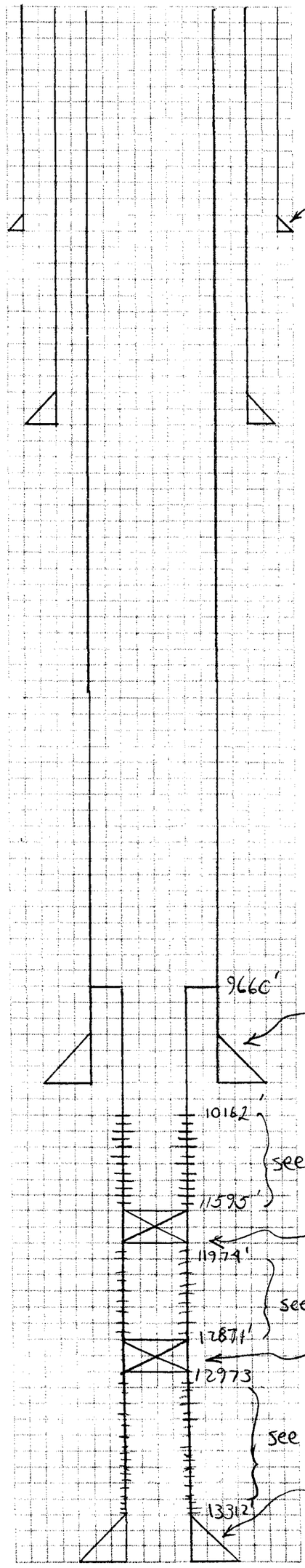
WELL	FIELD	DATE
GPC # 36-1	Altamont, Duchesne Co, Ut.	June 23, 1982

☑ PRESENT COMPLETION ☐ SUGGESTED COMPLETION ☐ ORIGINAL COMPLETION

WELL CLASS

PERMANENT WELL BORE DATA

DATA ON THIS COMPLETION



10 3/4", 40.5#, K-55, STHC set @ 3209' w/ 30,000 sx.

8 5/8", 44#, N-80, Buttress set @ 7008' w/ 500 sx.

7", 29# + 26#, P-110 + N-80 + I-80, set @ 10,193' w/ 325 sx

see perf interval attached

CIBP @ 11850'

see perf interval attached

CIBP @ 12920'

see perf interval attached

5", 18#, N-80 set @ 9660 - 13360' w/ 600 sx

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

SUNDRY NOTICES AND REPORTS ON WELLS

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1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: Grace Petroleum Corporation

3. ADDRESS OF OPERATOR: 3 Park Central, Ste 333, 1515 Arapahoe St., Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface

Sec. 36, T2S-R7W
1646' FNL & 1276' FEL

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: GPC Fee

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11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 36, T2S-R7W

12. COUNTY OR PARISH: Duchesne

13. STATE: Utah

14. PERMIT NO.: 43-013-305601

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6941' GL

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other) Completing			[XX]
(Other)			[ ]	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

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1-7-82 to 1-26-82 picking up drill pipe; circulating mud out; drilling cmt.
1-26-82 perf 12,491 w/6 shots (.37")
1-27-82 to -1-29-82 pressure test csg.
1-29-82 spot 160 sx Class "G" below 9748'
1-29-82 to 2-7-82 drilling cmt. PBTD @ 13,360

18. I hereby certify that the foregoing is true and correct

SIGNED Donald C Kurtz TITLE Sr. Operations Engineer DATE 6/25/82

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

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SUBSEQUENT REPORT OF:

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FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
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2-8-82 to 2-20-82 milling cmt. PBTD @ 13,360'
2-20-82 perforated 11,660'-61' w/4 spf
2-21-82 squeezed w/225 sx. Class "H" cmt.
2-22-82 to 3-2-82 squeezed w/200 sx Class "H" cmt.
perforated 4 holes (3/8") @ 11,015'
squeezed w/100 sx Class "H" cmt.
3-3-82 perforated 10,583'-84' w/4 spf
squeezed w/110 sx Class "H" cmt
3-3-82 to 3-8-82 milling cmt. PBTD @ 13,350'.

18. I hereby certify that the foregoing is true and correct

SIGNED Donald C. [illegible] TITLE Sr. Operations Engineer DATE 6/25/82

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

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STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

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Sec. 36, T2S-R7W
1646' FNL & 1276' FEL

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3-9-82 to 3-10-82 logged hole (CBL/VDL/GR) 9640' to 13,200'
prepare hole for perf from 13,298'-13,149'
3-11-82 RIH w/13,345' of 2-7/8" tbg
3-12-82 to 3-14-82 swabbing well down, prepare to acidize
3-14-82 acidize w/1500 gal. 7½% HCl thru perfs 13,149'-312' in 4 stages
3-15-82 to 3-19-82 swabbing well down
3-19-82 squeezed perfs 13,149'-312' w/125 sx Class "G" cmt
3-20-82 perforated 12,138'-12,998'
3-21-82 swabbed well down
3-22-82 acidize well with 7000 gal 7½% HCl thru above perfs
3-23-82 to 3-27-82 swabbing well down
3-27-82 perforated from 11,974' to 12,871' (see attached perf interval)
total 54 effective perfs @ this date. Set CIBP @ 12,920'
3-28-82 acidize well w/6500 gal 7½% HCl thru above perfs
3-29-82 to 4-1-82 swabbing well down
4-1-82 perforated from 10,162' to 11,695' (see attached perf interval)
set CIBP @ 11,850'
4-2-82 acidize w/8000 gal 7½% HCl thru above perfs
4-3-82 to 4-9-82 swabbing well down

18. I hereby certify that the foregoing is true and correct

SIGNED Donald C. [illegible] TITLE Sr. Operations Engineer DATE 6/25/82

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

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 "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: Grace Petroleum Corporation

3. ADDRESS OF OPERATOR: 3 Park Central, Ste 333, 1515 Arapahoe St., Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: Sec. 36, T2S-R7W; 1646' FNL & 1276' FEL

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: GPC Fee

9. WELL NO.: 1

10. FIELD AND POOL, OR WILDCAT: Altamont

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 36, T2S-R7W

12. COUNTY OR PARISH: Duchesne

13. STATE: Utah

14. PERMIT NO.: 43-013-305601

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6941' GL

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]
(Other)			[ ]

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
(Other) Completing			[XX]

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

4-10-82 to 5-6-82 swab testing well
5-6-82 acidize w/7000 gal 15% MSR w/450 SCF N_2/bbl in 7 stages thru perfs 10,162'-11,595'
5-6-82 to 5-10-82 swabbing well down

18. I hereby certify that the foregoing is true and correct

SIGNED Donald C Smith TITLE Sr. Operations Engineer DATE 6/25/82

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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 "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: Grace Petroleum Corporation

3. ADDRESS OF OPERATOR: 3 Park Central, Ste 333, 1515 Arapahoe St., Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface
Sec. 36, T2S-R7W
1646' FNL & 1276' FEL

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: GPC Fee

9. WELL NO.: 1

10. FIELD AND POOL, OR WILDCAT: Altamont

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 36, T2S-R7W

12. COUNTY OR PARISH: Duchesne

13. STATE: Utah

14. PERMIT NO.: 43-013-305601

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6941' GL

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]
(Other)			[ ]

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
(Other) Completing			[XX]

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

5-11-82 to 5-25-82 swab testing well
5-25-82 to 6-2-82 run production test equipment and hook up same
6-2-82 to 6-11-82 test well w/production equipment

18. I hereby certify that the foregoing is true and correct

SIGNED Donald C Smith TITLE Sr. Operations Engineer DATE 6/25/82

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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 "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: Grace Petroleum Corporation

3. ADDRESS OF OPERATOR: 3 Park Central, Ste 333, 1515 Arapahoe St., Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface
Sec. 36, T2S-R7W
1646' FNL & 1276' FEL

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: GPC Fee

9. WELL NO.: 1

10. FIELD AND POOL, OR WILDCAT: Altamont

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 36, T2S-R7W

12. COUNTY OR PARISH: Duchesne

13. STATE: Utah

14. PERMIT NO.: 43-013-305601

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6941' GL

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]
(Other)			[ ]

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
(Other) Completing			[XX]

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

6-11-82 - present testing well w/production equipment for possible stimualtion treatment. GPC will file Form 3 Well Completion Report log after treatment.

18. I hereby certify that the foregoing is true and correct

SIGNED Donald C. [signature] TITLE Sr. Operations Engineer DATE 6/25/82

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Grace Petroleum Corporation
Subsidiary of W.R. Grace & Co.

Three Park Central Suite 200
1515 Arapahoe Street
Denver, Colorado 80202
Phone (303) 825-8193

CERTIFIED MAIL NO. P26 8282842
RETURN RECEIPT REQUESTED

July 26, 1982

RECEIVED
JUL 28 1982
DIVISION OF
OIL, GAS & MINING

State of Utah
Oil, Gas & Mining Division
4241 State Office Building
Salt Lake City, Utah 84114

Re: GPC Fee #36-1
Section 36, T2S-R7W
Altamont Field
Duchesne County, Utah

Gentlemen:

Enclosed in duplicate you will find Form OGS-3 Well Completion Report for the Fee #36-1 referenced above. Also enclosed is an attachment of Perforation Intervals.

We have verified with your office that logs have been previously mailed to you.

If you have any questions in regards, please advise.

Very truly yours,

GRACE PETROLEUM CORPORATION

Donald C Smith

Donald C. Smith

/rlm

xc Gene Brewer, OKC
Dan Dye, OKC
Marvin Fowler, OKC
Hank Willis, OKC
WI Owners

Form OGC-3

SUBMIT IN DUPLICATE*
(See other instructions on reverse side)

56 64 01

8

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☐ Other

b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other

2. NAME OF OPERATOR: Grace Petroleum Corporation

3. ADDRESS OF OPERATOR: 3 Park Central, Ste. 333, 1515 Arapahoe St., Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface: 1646' FNL - 1276' FEL
At top prod. interval reported below
At total depth: Same

5. LEASE DESIGNATION AND SERIAL NO.: Fee
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Fee
9. WELL NO.: 36-1
10. FIELD AND POOL, OR WILDCAT: Altamont Wildcat
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 36 T2S-R7W

14. PERMIT NO.: 43-013-30560 DATE ISSUED: 1-22-81
12. COUNTY OR PARISH: Duchesne
13. STATE: Utah

15. DATE SPUDDED: 4-28-81
16. DATE T.D. REACHED: 12-22-81
17. DATE COMPL. (Ready to prod.): 6-2-82
18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*: 6932' GL 6956' KB
19. ELEV. CASINGHEAD: 6932'

20. TOTAL DEPTH, MD & TVD: 13,360'
21. PLUG, BACK T.D., MD & TVD: 11,850'
22. IF MULTIPLE COMPL., HOW MANY*:
23. INTERVALS DRILLED BY: →
ROTARY TOOLS: All
CABLE TOOLS:

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: Wasatch 10,162-11,595
25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: Induction, Sonic, CNL/FDC
27. WAS WELL CORED: No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
10-3/4"	40.5#	3209'		30,000 sx	
8-5/8"	44.0#	7008'		500 sx	
7"	29.0#	10,143'		325 sx	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
5"	9660'	13,360'	600	

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-1/16"	5000'	
2-7/8"	9575'	9550'

31. PERFORATION RECORD (Interval, size and number)

See attachment.

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
10,162-11,595'	8000 gals. 15% HCl
12,289-12,998'	7000 gals. 15% HCl
11,974-12,978'	6500 gals. 15% HCl
13,149-13,312'	1500 gals. 15% HCl

33.* PRODUCTION

DATE FIRST PRODUCTION: 6-3-82
PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump): Hydraulic pump V25 21-063
WELL STATUS (Producing or shut-in): Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
6-5-82	107		→	281	TSTM	850	TSTM

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
NA	NA	→	63		190	42

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.): None
TEST WITNESSED BY: Butch Wisener

35. LIST OF ATTACHMENTS: Perforation interval.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Donald C. Smith TITLE Sr. Operation Engineer DATE 7-26-82

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.
If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.
Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.
Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.
Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.
Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.
Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Green River	4932'	6140'	Possible producing.
Wasatch	9932	12,800'	Objective zone.

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH

GPC Fee #36-1
Altamont Field
Duchesne County, Utah

June 26, 1982

PERFORATION INTERVAL

Depth	Holes	Comments
10,162 - 64'	3	Acidized interval from 10,162' to 11,595' on 4-2-82 with 8,000 gallons 7-1/2% HCl.
10,332'	1	
10,347'	1	Acidized same interval on 5-6-82 with 7,000 gallons of 15% MSR with 450 SCF N_2 per barrel.
10,380 - 84'	5	
10,422'	1	
10,482 - 84'	3	
10,897'	1	
10,924'	1	
11,060 - 70'	11	
11,144'	1	
11,254 - 56'	3	
11,276'	1	
11,280 - 96'	17	
11,405 - 20'	16	
11,440 - 42'	3	
11,542 - 44'	3	
11,595'	1	

CIBP @ 11,850'

GPC Fee #36-1
Altamont Field
Duchesne County, Utah

June 26, 1982

PERFORATION INTERVALS - CONTINUED

Depth	Holes	Comments
11,974 - 76'	3	Acidized interval 11,974' to 12,871' on 3-28-82 with 6500 gallons 7-1/2% HCl.
12,138 - 40'	3	
12,201 - 10'	10	Acidized interval 12,289' to 12,998' with 7000 gallons 7-1/2% HCl.
12,289'	1	
12,393'	1	
12,411 - 13'	3	
12,541 - 44'	4	
12,601 - 03'	3	
12,698 - 708'	11	
12,776 - 83'	8	
12,831 - 33'	3	
12,868 - 71'	4	
CIBP @ 12,920'		
12,973'	1	
12,978'	1	
12,982 - 84'	3	
12,989'	1	
12,994 - 96'	3	
12,998'	1	
13,149 - 312'	15	Acidized (13,149-312') on 3-14-82 with 1500 gallons 7-1/2% HCl. Squeezed on 3-19-82 with 125 sxs Class "G".

DCS/rlm

BILL BASWELL
303-980-9130
GRACE PETROLEUM

8/14/85

(1) VERBAL APPROVAL WAS GIVEN BY JOHN BAZA
TO PLUG GPC 36-1 Section 36 2S/7W
Duchesne, Co.

PLUGS TO BE SET:

(1.) 10,050' to 10150' - Squeeze Perfs or Set A BALANCE PLUG

(2) SET PLUG AT The BASE of the 8 5/8" CASING
6950'-7050'

(3) PLUG at The BASE of 10 3/4" CASING
3150 - 3250'

* Perf 7" AND 8 5/8".

(4) PLUG 10-15 SAX'S TO SURFACE INSIDE 7"

(5.) Pump DOWN ENOUGH CEMENT TO EQUAL The length of SURFACE PLUG INSIDE ALL SURFACES ANNULAS.

* If CASING is Cut AND PULLED
(1.) A BALANCE PLUG is To Be Set AT CASING STUB
(2.) SET A PLUG AT The NEXT HIGHEST CASING SHOE.

* 1. SEND IN A SUNDRY ON WORK

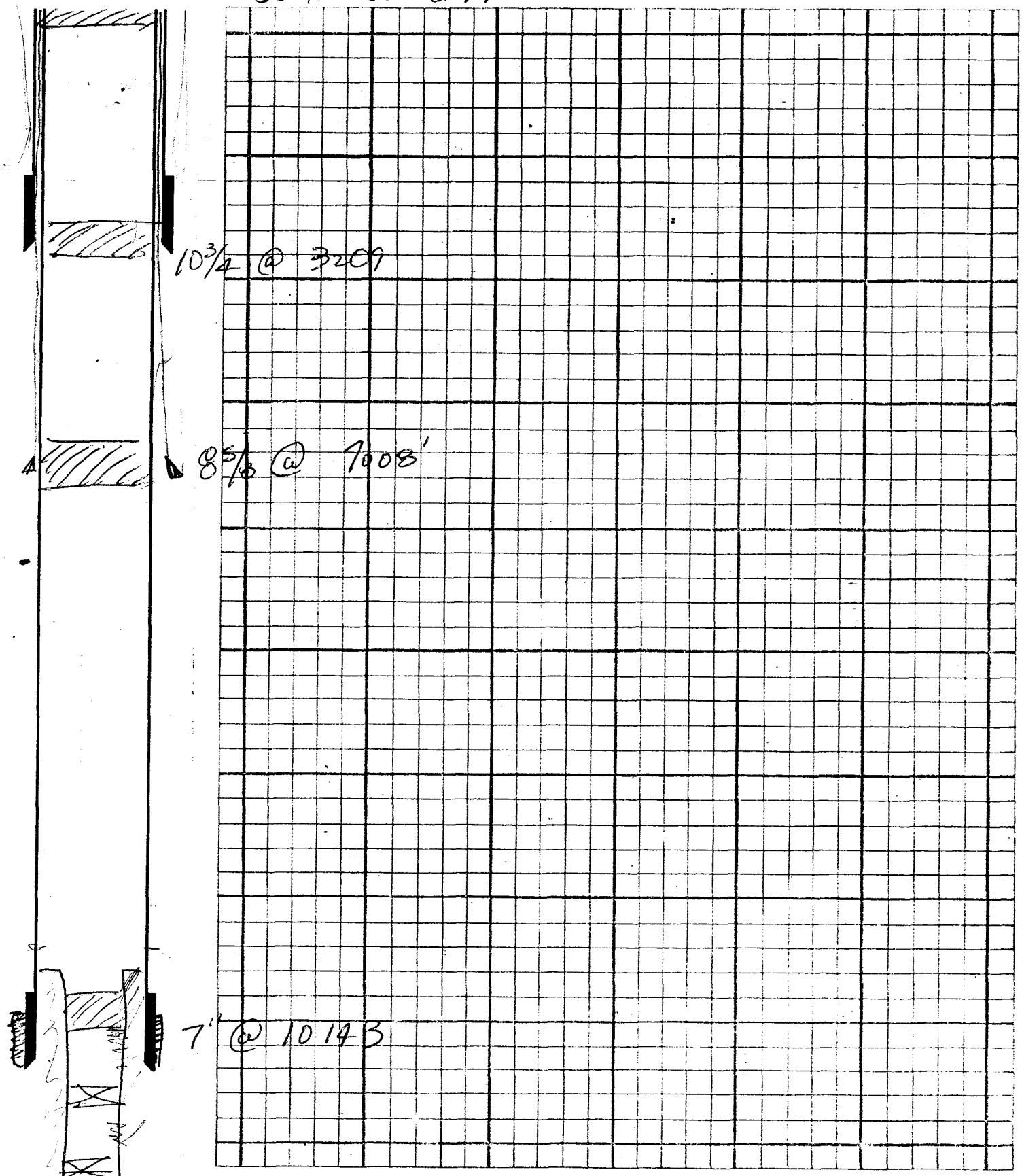
2. start date: BY The END of The Year

PETRO-LOG, INCORPORATED

SERVING THE ROCKY MOUNTAIN AREA

DATE 8/14/85 WELL NO. 36-1 LEASE GRACE FEE FIELD WILDCAT

SECTION 36 2S/7W



BRIDGE PLUG PACKER CENTRALIZER SCRATCHER BASKET PERFORATION

(Use reverse side for additional remarks & sketches.)

Form OGC-1b

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

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 "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: Grace Petroleum Corporation

3. ADDRESS OF OPERATOR: 143 Union Blvd - Ste 760, Lakewood, CO 80228

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1646' FNL & 1276' FEL, Section 36, T2S-R7W

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: GPC Fee

9. WELL NO.: #1

10. FIELD AND POOL, OR WILDCAT: Altamont

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Section 36, T2S-R7W

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): KB 6956', GL 6941'

12. COUNTY OR PARISH: Duchesne

13. STATE: Utah

16. **Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON* P&A	[X]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			[ ]
(Other)			[ ]				

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

1. Contact Jimmy ~~Thomas~~ Thompson w/Utah Division of Oil & Gas @ (801) 538-5340 48 hrs prior to commencing w/P&A operation.
2. MIRU service unit.
3. POOH w/tbg & pkr.
4. Set 5" cement retainer on WL @ 10,150'. Squeeze under retainer w/200 sxs Class 'G' cement.
5. Spot 2 bbl Class 'G' cement on top retainer (approx. 100' cmt from 10,150-10,050').
6. Roll hole over w/370 bbl 9.2 ppg mud.
7. Spot 100' cement plug from 7050-6950'.
8. Spot 100' cement plug from 3250-3150'.
9. Spot 20 sxs cement plug in 7" to surface.
10. Pump 30 sxs Class 'G' cement down 10-3/4"-8-5/8" annulus.
11. Cut off pipe 4' below GL.
12. Weld ID plate on, clean up and restore location.

RECEIVED
MAR 18 1986
DIVISION OF
OIL, GAS & MINING

18. I hereby certify that the foregoing is true and correct

SIGNED William P. Baswell III TITLE Operations Engineer DATE 3/14/86

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 3-21-86
BY: John R. Baza

*See Instructions on Reverse Side

RETURN RECEIPT REQUESTED
CERTIFIED MAIL No. [illegible]327323

Grace Petroleum Corporation
Subsidiary of W. R. Grace & Co.

Suite 760
143 Union Blvd.
Lakewood, Colorado 80228
Phone (303) 980-9130

March 14, 1986

RECEIVED
MAR 18 1986
DIVISION OF
OIL, GAS & MINING

Department of Natural Resources of Utah
Division of Oil, Gas and Mining
355 W. North Temple
Salt Lake City, Utah 84180

Attention: Jimmy Thomas

Re: Grace Fee #36-1
1646' FNL & 1276' FEL Section 36, T2S-R7W
Duchesne County, Utah

Gentlemen:

As of your conversation August 14, 1985 with the undersigned, please find attached a Sundry Notice of intention to plug and abandon the Grace Fee #36-1. The procedure is as was discussed and a 48-hour prior notice will be given to your office before commencing with the P&A.

Thank you for your consideration in this matter and we will be awaiting your approval.

Very truly yours,

William P. Baswell III
Operations Engineer

cc: Jack Nance
W/F

Well file

STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

082505 P-A

April 10, 1986

Mr. Lee Roberts
Grace Petroleum Corporation
143 Union Blvd., Suite 760
Lakewood, Colorado 80228

Dear Mr. Roberts:

RE: Reclamation of Well No. 1 GPC FEE, Sec. 36, T. 2S, R. 7W, Duchesne County, Utah 43-013-30560

Pursuant to your phone conversation with Jim Thompson of this office, information is enclosed which concerns the reclamation and reseeding of the subject well location. This information was received from Mr. Max Wall, Land Specialist for the Division of State Lands and Forestry.

For best revegetation results, the reseeding should be done in September or October of 1986. After regrading the location and returning the topsoil to the surface, the seed mixture should be broadcast and the seed buried with a thin layer of soil by dragging a chain or other suitable device across the location.

The seed should be purchased in Utah to ensure that local varieties of the seed are utilized. Also enclosed is a list of suggested seed companies which carry the necessary seed. If one of the designated seeds is not available, please consult the seed company for a similar variety which can be substituted.

Upon completion of the reclamation work, please submit to the Division a sundry notice describing the seed mixture and amount used in the reseeding. If you have any questions concerning this procedure please contact Jim Thompson at the above address and phone number.

Sincerely,

John R. Baza

John R. Baza
Petroleum Engineer

JLT/sb
Enclosure
cc: D. R. Nielson
R. J. Firth
0265T-77

SEED MIXTURE FOR DRILL SITES

SCIENTIFIC NAME	COMMON NAME	SEEDING RATE (lbs./acre)
*Agropyron spicatum**	Bluebunch Wheatgrass	4.0
Oryzopsis hymenoides	Indian Ricegrass	4.0
*Poa ampla**	Sherman Big Bluegrass	4.0
*Balsamorhiza sagitata***	Arrowleaf Balsamroot	1.0
Onobrychis viciaefolia	Sainfoin	1.0
Melilotus officianalis	Yellow Sweetclover	2.0
Atriplex canescens	4-wing Saltbush	1.0
	Total	17.0

* = *Agrophyron spicatum inerme* (Beardless Bluebunch Wheatgrass) may be substituted for *Agropyron spicatum* if the latter is unavailable; *Poa fendleriana* (Fendler Bluegrass) may be substituted for *Poa ampla* for the same reason. Substitution rates will be the same as for the original species.

** = If available.

If the aforementioned seed mixture cannot be obtained, the following alternative seed mixture may be utilized:

SPECIES	LIFEFORM	SEEDING RATE (lbs/acre)
Winter Fat	Shrub	1
Nuttall Saltbush	Shrub	1
Fourwing Saltbush	Shrub	1
Indian Rice Grass	Grass	1
Galleta	Grass	1
Sand Drop Seed	Grass	1
Needle Threow Grass	Grass	1
Pacific Aster	Forb	0.5
Yellow Sweet Clover	Forb	0.5
Scarlet Glovemallow	Forb	0.5
Pubescew Wheatgrass	Grass	3
Whitmar Wheatgrass	Grass	2
	Total	13.5

SEED COMPANIES

Native Plants Inc.
Salt Lake City, Utah
(801) 582-0144

Plummer Plant and Seed Supplies
Ephraim, Utah
(801) 283-4428

Northrup King Company
West Jordan, Utah
(801) 566-7733

C & S Intermountain Seed
Ephraim, Utah
(801) 283-4383

Mile High Seed Co.
Grand Junction, Colorado

Form OGC-1b

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

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 "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: Grace Petroleum Corporation

3. ADDRESS OF OPERATOR: 143 Union Blvd - Ste 760, Lakewood, CO 80228

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1646' FNL & 1276' FEL Section 36

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: GPC Fee

9. WELL NO.: #36-1

10. FIELD AND POOL, OR WILDCAT: Altamont

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Section 36, T2S-R7W

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): KB 6956', GL 6941'

12. COUNTY OR PARISH: Duchesne

13. STATE: Utah

16. **Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[X]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			[ ]
(Other)			[ ]				

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Subsequent P&A Notice

"See attached workover report for details of daily operation."

RECEIVED
MAY 05 1986
DIVISION OF
OIL, GAS & MINING

18. I hereby certify that the foregoing is true and correct

SIGNED William P. Baswell III TITLE Operations Engineer DATE 4/30/86

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 5-7-86
BY: John R. Baza

*See Instructions on Reverse Side

WELL: Grace Fee #36-1 PROSPECT: Altamont PTD: N/A
OBJECTIVE: P&A OPERATOR: GPC CONTRACTOR: Lee Roberts
LOCATION: NW SE NE Sec. 36, T2S-R7W, Duchesne Co., Utah DATE: 4/7/86
AFE NO: 98015 AFE DHC: $ N/A AFE TWC: $ 22,000 WI: 100%
CASING:(Size&Depth) 10-3/4"@3209',8-5/8"@7008',7"@10,143',5"liner 9660-13,360'
ELEVATION: GL 6932' DF _____ KB 6956' DEPTH: TD 13,360' PBTD 11,850'(CIBP)

4/8/86 FIRST REPORT
Recondition road into location
Costs: Supervision $450
DWC: $450 CWC: $450

4/9/86 Finished reconditioning road into location. Moved in some of the equipment. Will MIRU service rig next AM.
Costs: Supervision $450
DWC: $450 CWC: $900

4/10/86 MIRU Pool Well Service (rig, mud tank, mud pump). Bleed off well. ND production tree. NU BOP. TOOH laying dn 2-1/16" N-80 tbg (heat string). Total 290 jts. SWFN
Costs: Rig $1,800, BOP $650, Roustabout $450, Wtr $500, Supervision $450, Misc. $200, Trkg (equipment, BOP, wtr from previous day) $1,200, Dirt Work (road recondition, reclaim location, stand by pulling equipment in & out) $5,500.
DWC: $10,750 CWC: $11,650

4/11/86 Release Baker Model 'R-3' double grip pkr. TOOH w/312 jts 2-7/8" Rucker Atlas Bradford DSS-HT flush jt N-80 tbg. SLM = 9553.05'. LD pkr & National pump cavity. String was badly paraffined plugged 40 stds (6000-8400'). RIH w/5" Howco EZSV. Set on WL @ 10,150'. FL @ 6100'. RD WL. TIH w/25 stds tbg. SWFN
Costs: Rig $1,650, Roustabouts $450, Wtr $500, WL $1,660, Howco (EZSV) $1,089, Supervision $450, Misc. $200.
DWC: $5,999 CWC: $17,649

4/12/86 RU hot oiler. Flushed paraffin plugged tbg 5 stds at a time w/250 °F wtr. TOOH w/40 stds. PU stinger. TIH w/312 jts Bradford Altas 2-7/8" tbg. PU xo & 15 jts 8rd 2-7/8" tbg. Displace tbg & hole w/395 bbls 9.2 ppg 37 vis mud. Sting into 5" retainer. Press. test annulus to 1500 psi. Bled to 1000 psi in 5 min. Pump dn tbg & circ. up 7" csg @ 2 BPM 1000 psi. Set stinger in middle of retainer & test tbg to 1500 psi. Tbg held OK. Sting out. TOOH w/20 stds. SWFN
Costs: Rig $1,780, Hot Oiler $425, Roustabout $450, Wtr $500, Supervision $450, Misc. $200.
DWC: $3,805 CWC: $21,454

4/13/86 TOOH w/tbg. LD stinger. PU 7" Howco EZSV retainer. RU WL. RIH w/retainer (very slow due to heavy paraffin from 600-3500') to 9540'. Retainer would not set. Short in WL. POOH & repair WL. RIH to ± 9540'. Set retainer. POOH w/setting tool. RD WL. SWFN
Costs: Rig $1,635, Howco $1,919, WL $2,550, Roustabout $450, Supervision $450, Misc. $200.
DWC: $7,204 CWC: $28,658

WELL: Grace Fee #36-1 PROSPECT: Altamont PTD: N/A
OBJECTIVE: P&A OPERATOR: GPC CONTRACTOR: Lee Roberts
LOCATION: NW SE NE Sec. 36, T2S-R7W, Duchesne Co., Utah DATE: 4/7/86
AFE NO: 98015 AFE DHC: $ N/A AFE TWC: $ 22,000 WI: 100%
CASING:(Size&Depth) 10-3/4"@3209',8-5/8"@7008',7"@10,143',5"liner 9660-13,360'
ELEVATION: GL 6932' DF _____ KB 6956' DEPTH: TD 13,360' PBTD 11,850'(CIBP)

4/14/86 PU stinger. TIH. Sting into retainer. Press. test backside to 1500 psi. Establish rate dn tbg @ 3 BPM 1000 psi. RU Howco. Sting out. Spot cmt to retainer. Sting into retainer & cmt w/300 sxs Class 'H' w/.2% retarder. Press. start at zero psi. Press. increased slowly & steadily to 2750 psi. Sting out leaving 5 bbls slurry on top of retainer. TOOH w/4 stds & reverse circ. tbg clean. TOOH laying dn tbg to ± 7050'. Spot 20 sxs Class 'G' or 100' cmt plug from 7050 to 6950'. TOOH w/5 stds. Reverse circ. tbg clean. TOOH laying dn tbg. SWFN. Approx. 140 jts laid dn.
Costs: Rig $1,500, Wtr $500, Supervision $450, Misc. $200.
DWC: $2,650 CWC: $31,308

4/15/86 Finished TOOH laying dn tbg to 3250'. Spot (100') 20 sxs Class 'G' cmt plug in 7" from 3250 to 3150'. TOOH laying dn all tbg. Attempt to circ. 10-3/4" X 8-5/8" annulus. Would not circ. RU WL & RIH w/5" csg gun to 150'. Perf 4 - 3/4" holes @ 150'. POOH & RD WL. Pump 120 BW dn 7" w/partial returns out the 8-5/8" & no returns out the 10-3/4" @ 3 BPM 300 psi. Press. up on 10-3/4" X 8-5/8" to 1000 psi & bled off to 400 psi in 10 min. Ran out of wtr. SWFN
Costs: Rig $1,650, WL $1,250, Wtr $500, Roustabout $450, Supervision $450, Misc. $200.
DWC: $4,500 CWC: $35,808

4/16/86 ND BOP & 7" production spool. Weld 20' jt of 7" to 7" csg string. RU csg jacks. Pick up off slips @ 315,000#. Remove slips & set csg dn 9'. SDFN
Costs: Rig $1,780, Trkg $750, Weld $275, Roustabout $450, Supervision $450, Misc. $200.
DWC: $3,905 CWC: $39,713

4/17/86 Weld 20' jt of 8-5/8" csg to 8-5/8" csg string. Jack csg up above slips - took 219,000#. Remove slips & set dn approx. 4'. RD csg jacks. Cut off csg head. RU Howco & cmt w/50 sxs Class 'G' w/2% CaCl. Pump dn 7" & let run into 8-5/8" & 10-3/4" annulus. Weld ID plate on. State representative witnessed & approved of all operations. SDON
Costs: Rig $1,500, Csg Jacks $3,025, Tools $1,710, Howco $6,770, Welder $620, Roustabout $450, Supervision $450, Misc. $200.
DWC: $14,725 CWC: $54,438

4/18/86 SD all operations due to heavy rains & unable to get up on the mountain.

4/19/86 SD due to rain.

WELL: Grace Fee #36-1 PROSPECT: Altamont PTD: N/A
OBJECTIVE: P&A OPERATOR: GPC CONTRACTOR: Lee Roberts
LOCATION: NW SE NE Sec. 36, T2S-R7W, Duchesne Co., Utah DATE: 4/7/86
AFE NO: 98015 AFE DHC: $ N/A AFE TWC: $ 22,000 WI: 100%
CASING:(Size&Depth) 10-3/4"@3209',8-5/8"@7008',7"@10,143',5"liner 9660-13,360'
ELEVATION: GL 6932' DF _____ KB 6956' DEPTH: TD 13,360' PBTD 11,850'(CIBP)

4/20/86 Trkd swab tank, mud tank, & 1 load of tbg off location.
Costs: Trkg $1,000.
DWC: $1,000 CWC: $55,438

4/21/86 Trkg off other load of tbg. Moved off rig, mud pump & all other equipment.
Costs: Rig $750, Trkg $450.
DWC: $1,200 CWC: $56,638

4/22/86 Finished location dirt work. Finished misc. trucking. Start reseeding location.
Costs: Seeding $1,000, Trkg $1,000.
DWC: $2,000 CWC: $58,638

4/23/86 Finished all reseeding.
"FINAL REPORT" P&A completed.
CWC: $58,638 No Supplement Required.

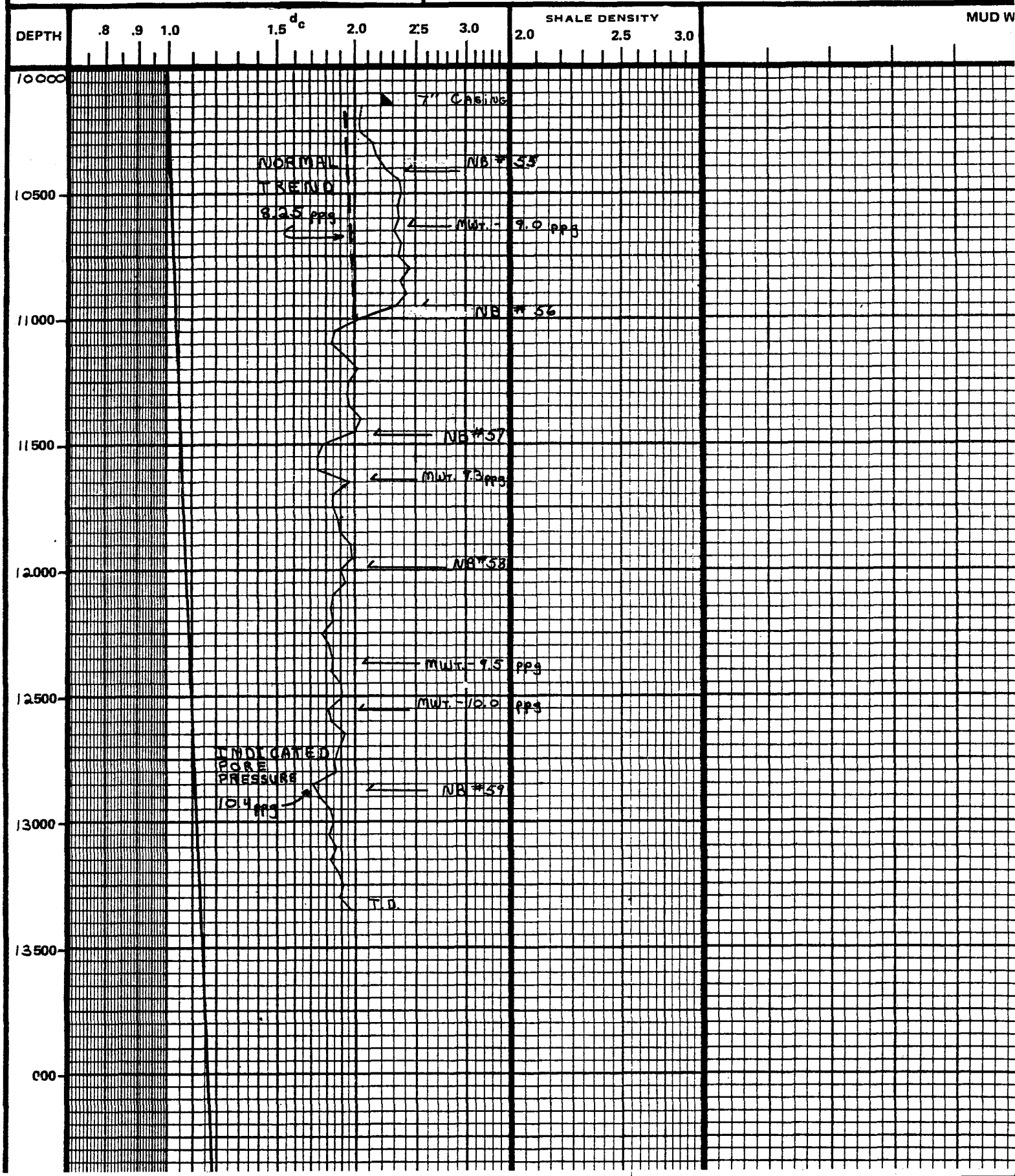
COMMANDER SERVICE

IMCO Services

A Division of HALLIBURTON Company
2400 West Loop South, P.O. Box 22605
Houston, Texas 77027 A/C 713 671-4800

Fig. 1

COMPANY GRACE PETROLEUM CORP.
WELL GPC Fee 36-1
FIELD ALTAMONT / CEDAR RIM
LOCATION SW/NE Sec 36 T2S R7W
COUNTY DUCHESNE STATE UTAH



IMCO SERVICES
A Division of HALLIBURTON Company

COMPANY Grace Petroleum Corp.
WELL GPC Fee 36-1
FIELD Altamont/Cedar Rim
LOCATION SW/NE Sec. 36, T2S, R7W
COUNTY Duchesne STATE Utah

"d" EXPONENT WORK SHEET
TABLE 1

DEPTH	ROTARY SPEED	PENETRATION RATE (fph)	INDEX A	WEIGHT ON BIT	HOLE SIZE	INDEX B	"d" EXPONENT	MUD WEIGHT	"dc" EXPONENT
10100-10150	48	4.9	2.80	20	6 1/8	1.31	2.19	8.7	2.05
10150-10200	48	4.3	2.83	20	6 1/8	1.33	2.13	8.7	2.03
10200-10250	50	5.5	2.74	25	6 1/8	1.23	2.22	9.0	2.04
10250-10300	48	6.0	2.69	30	6 1/8	1.15	2.34	9.0	2.15
10300-10350	48	5.5	2.73	30	6 1/8	1.15	2.38	9.0	2.18
10350-10400	50	3.0	3.0	25	6 1/8	1.23	2.44	9.0	2.24
10400-10450	60	2.43	3.17	25	6 1/8	1.23	2.57	9.0	2.36
10450-10500	90	3.24	3.22	25	6 1/8	1.23	2.62	9.1	2.38
10500-10550	90	3.46	3.19	25	6 1/8	1.23	2.59	9.1	2.35
10550-10600	90	3.33	3.21	25	6 1/8	1.23	2.60	9.1	2.37
10600-10650	90	4.41	3.09	25	6 1/8	1.23	2.51	9.0	2.31
10650-10700	90	3.47	3.19	25	6 1/8	1.23	2.59	9.0	2.38
10700-10750	110	4.59	3.16	25	6 1/8	1.23	2.56	9.0	2.36
10750-10800	110	3.57	3.27	25	6 1/8	1.23	2.66	9.0	2.44
10800-10850	90	3.62	3.17	25	6 1/8	1.23	2.58	9.0	2.37
10850-10900	80	2.85	3.23	25	6 1/8	1.23	2.62	9.0	2.41

IMCO SERVICES
A Division of HALLIBURTON Company

COMPANY Grace Petroleum Corp.
WELL GPC Fee 36-1
FIELD Altamont/Cedar Rim
LOCATION SW/NE Sec. 36, T2S, R7W
COUNTY Duchesne STATE Utah

"d" EXPONENT WORK SHEET

DEPTH	ROTARY SPEED	PENETRATION RATE (fph)	INDEX A	WEIGHT ON BIT	HOLE SIZE	INDEX B	"d" EXPONENT	MUD WEIGHT	"dc" EXPONENT
10900-10950	80	3.44	3.15	25	6 1/8	1.23	2.56	9.1	2.33
10950-11000	80	6.00	2.90	20	6 1/8	1.33	2.24	9.1	2.03
11000-11050	80	6.59	2.86	17	6 1/8	1.40	2.04	9.1	1.86
11050-11100	80	6.51	2.87	17	6 1/8	1.40	2.05	9.2	1.84
11100-11150	90	5.10	3.03	17	6 1/8	1.40	2.16	9.2	1.94
11150-11200	80	4.93	2.99	20	6 1/8	1.33	2.24	9.2	2.02
11200-11250	90	7.00	2.89	20	6 1/8	1.33	2.18	9.2	1.96
11250-11300	90	6.99	2.89	20	6 1/8	1.33	2.18	9.2	1.95
11300-11350	90	6.60	2.91	20	6 1/8	1.33	2.19	9.2	1.97
11350-11400	85	6.56	2.89	22	6 1/8	1.29	2.24	9.2	2.05
11400-11450	85	6.30	2.91	22	6 1/8	1.29	2.26	9.3	2.00
11450-11500	85	6.00	2.93	15	6 1/8	1.46	2.00	9.3	1.78
11500-11550	85	6.68	2.88	15	6 1/8	1.46	1.97	9.3	1.75
11550-11600	85	7.23	2.85	15	6 1/8	1.46	1.95	9.2	1.75
11600-11650	85	7.32	2.85	22	6 1/8	1.29	2.21	9.3	1.96
11650-11700	85	8.95	2.76	20	6 1/8	1.33	2.08	9.3	1.85

IMCO FORM 800

"d" EXPONENT WORK SHEET

OPERATOR: Grace Petroleum Corp. WELL: GPC Fee 36-1

DEPTH	ROTARY SPEED	PENETRATION RATE (fph)	INDEX A	WEIGHT ON BIT	HOLE SIZE	INDEX B	"d" EXPONENT	MUD WEIGHT	"dc" EXPONENT
11700-11750	85	8.85	2.76	20	6 1/8	1.33	2.08	9.3	1.85
11750-11800	85	7.84	2.81	20	6 1/8	1.33	2.12	9.3	1.88
11800-11850	85	7.61	2.82	20	6 1/8	1.33	2.12	9.2	1.90
11850-11900	85	6.35	2.91	20	6 1/8	1.33	2.19	9.2	1.97
11900-11950	85	5.38	2.98	20	6 1/8	1.33	2.24	9.3	1.99
11950-12000	85	5.73	2.95	18	6 1/8	1.38	2.14	9.3	1.90
12000-12050	90	5.60	2.99	18	6 1/8	1.38	2.16	9.3	1.93
12050-12100	90	7.50	2.86	18	6 1/8	1.38	2.07	9.3	1.85
12100-12150	90	7.87	2.84	18	6 1/8	1.38	2.06	9.3	1.83
12150-12200	95	7.76	2.87	18	6 1/8	1.38	2.08	9.3	1.85
12200-12250	95	8.49	2.83	17	6 1/8	1.40	2.02	9.4	1.78
12250-12300	95	7.14	2.90	17	6 1/8	1.40	2.07	9.4	1.82
12300-12350	95	6.42	2.95	17	6 1/8	1.40	2.10	9.4	1.85
12350-12400	95	6.32	2.96	17	6 1/8	1.40	2.12	9.5	1.84
12400-12450	95	5.48	3.02	18	6 1/8	1.38	2.19	9.5	1.90
12450-12500	95	5.26	3.03	18	6 1/8	1.38	2.19	9.5	1.91
12500-12550	90	7.46	2.89	19	6 1/8	1.35	2.13	9.7	1.81
12550-12600	95	5.47	3.04	18	6 1/8	1.37	2.21	10.0	1.84
12600-12650	95	3.94	3.16	18	6 1/8	1.37	2.30	9.8	1.93
12650-12700	90	3.83	3.16	18	6 1/8	1.37	2.30	10.1	1.89
12700-12750	95	4.67	3.09	18	6 1/8	1.37	2.26	10.0	1.86
12750-12800	95	4.93	3.07	18	6 1/8	1.37	2.24	9.9	1.87

"d" EXPONENT WORK SHEET

OPERATOR: Grace Petroleum Corp. ; WELL: GPC Fee 36-1

DEPTH	ROTARY SPEED	PENETRATION RATE (fph)	INDEX A	WEIGHT ON BIT	HOLE SIZE	INDEX B	"d" EXPONENT	MUD WEIGHT	"dc" EXPONENT
12800-12850	95	4.53	3.11	12	6 1/8	1.54	2.03	9.8	1.71
12850-12900	85	3.68	3.16	12	6 1/8	1.55	2.13	9.8	1.76
12900-12950	95	3.69	3.17	15	6 1/8	1.46	2.18	9.9	1.83
12950-13000	85	4.48	3.05	17	6 1/8	1.40	2.18	9.8	1.85
13000-13050	90	3.89	3.17	15	6 1/8	1.46	2.17	9.9	1.81
13050-13100	90	3.34	3.22	16	6 1/8	1.43	2.28	9.8	1.87
13100-13150	90	3.59	3.17	15	6 1/8	1.46	2.16	9.9	1.83
13150-13200	88	3.18	3.22	16	6 1/8	1.43	2.26	9.9	1.88
13200-13250	88	3.11	3.25	16	6 1/8	1.43	2.27	9.9	1.91
13250-13300	95	3.59	3.20	17	6 1/8	1.40	2.27	9.9	1.89
13300-13350	88	2.72	3.26	18	6 1/8	1.38	2.35	9.8	1.98

BIT RECORD

OPERATOR Grace Petroleum Corp. WELL GPC Fee 36-1

BIT NO.	SIZE	MFR.	TYPE	DEPTH IN	DEPTH OUT	FEET	HOURS	FT/HR
1	14 3/4	STC	F-3	184	903	719	35 1/2	20.3
2	14 3/4	STC	F-4	903	2069	1166	125 1/2	9.3
3	14 3/4	STC	F-4	2069	2876	807	115 1/2	7.0
4	14 3/4	HTC	OWV	2876	2898	22	3 1/2	6.3
5	14 3/4	STC	RR#3	2898	3211	313	56 1/2	5.5
6	8 3/4	HTC	J-33	3211	3821	610	33	18.5
7	8 3/4	HTC	OSC1G	2743	2760	17	18 1/2	0.9
8	8 3/4	STC	V2HJ	2760	2996	236	15	15.7
9	8 3/4	STC	V2HJ	2996	3211	215	15 1/2	13.9
10	8 3/4	STC	V2HJ		3828	0	8	--
11	8 3/4	STC	V2HJ	3828	3828	0	8 1/2	--
12	8 3/4	STC	V2HJ	3828	3838	10	5 1/2	1.8
13	8 3/4	STC	F-4	3838	4976	1138	89	12.8
14	8 3/4	STC	F-4	4976	5702	726	70	10.4
15	8 3/4	HTC	J-44	5702	6548	846	60	14.1
16	8 3/4	STC	F-5	6548	7011	463	50 1/2	9.2
17	8 3/4	HTC	RR#6	7011	7011	0	0	--

BIT RECORD

OPERATOR Grace Petroleum Corp. WELL GPC Fee 36-1

BIT NO.	SIZE	MFR.	TYPE	DEPTH IN	DEPTH OUT	FEET	HOURS	FT/HR
18	9 7/8	MILL			3394	0	1 1/2	--
19	8 3/4	HTC	RR#6		7011	0	8	--
20	10	SEVCO	H.O.	3746	6637	2891	15 1/2	186.5
21	10	SEVCO	H.O.	6491	7011	520	7 1/2	69.3
22	9 7/8	STC	SDT	7011	7011	0	0	--
23	9 7/8	REED	HPSMJ	7011	7011	0	0	--
24	9 7/8	REED	HPSMJ	7011	7011	0	0	--
25	7 1/2	DAVIS	DHX	7011	7075	64	16	4
26	7 1/2	STC	F-7	7075	7329	254	41	6.2
27	7 1/2	STC	F-7	7329	7533	204	54 1/2	3.7
28	7 1/2	DAVIS	DHX	7533	7547	14	5	2.8
29	7 1/2	STC	RR#27	7557	7656	99	18 1/2	5.4
30	7 1/2	STC	F-7	7656	8358	702	110 1/2	6.4
31	7 1/2	STC	F-5	8358	9497	1139	125 1/2	9.1
32	7 1/2	SEC	S3J	9497	9542	45	8 1/2	5.3
33	7 1/2	STC	F-7	9542	9637	95	35	2.7
34	7 1/2	ACC	MFG	9637	9653	16	6	2.7

BIT RECORD

OPERATOR Grace Petroleum Corp. WELL GPC Fee 36-1

BIT NO.	SIZE	MFR.	TYPE	DEPTH IN	DEPTH OUT	FEET	HOURS	FT/HR
35	7 1/2	HTC	OSC3J	9653	9660	7	5	1.4
36	7 1/2	STC	RR#33	9660	9660	0	0	--
37	7 1/2	HYCLG	901	8168	8239	71	56	1.3
38	7 1/2	HTC	OSC	8239	8295	56	17	3.3
39	7 1/2	DAVIS	DHD	8295	8476	181	18	10.1
40	7 1/2	DAVIS	RR#39	8476	8557	81	42	1.9
41	7 1/2	STC	F-7	8557	8867	310	83 1/2	3.7
42	7 1/2	SEC	S3J	8867	8973	106	18 1/2	5.7
43	7 1/2	HYCLG	RR#37	8973	9352	379	118	3.2
44	7 1/2	DAVIS	DHXM	9352	9376	24	7	3.4
45	7 1/2	HYCLG	RR#37	9376	9508	132	40 1/2	3.3
46	7 3/8	STC	GR55	9508	9536	28	15	1.9
47	7 1/2	HTC	OSC3	9536	9553	17	18 1/2	0.9
48	7 1/2	HYCLG	RR#37	9553	9650	97	45	2.2
49	7 1/2	STC	F-7	9650	10123	473	147 1/2	3.2
50	7 1/2	STC	RR#27	10123	10154	37	14	2.6
51	7 1/2	STC	RR#33	10154	10154	--	--	--

BIT RECORD

OPERATOR Grace Petroleum Corp. WELL GPC Fee 36-1

BIT NO.	SIZE	MFR.	TYPE	DEPTH IN	DEPTH OUT	FEET	HOURS	FT/HR
52	6 1/8	STC	FDT	10154	10171	17	5 1/2	3.1
53	6 1/8	STC	F-3	10171	10378	207	41 1/2	5.0
54	6 1/8	ACC	CORE	10378	10407	29	8	3.6
55	6 1/8	ACC	ST-3	10407	10952	545	162 1/2	3.4
56	6 1/8	HYCLG	901	10952	11463	511	81 1/2	6.3
57	6 1/8	HYCLG	901	11463	11992	529	81 1/2	6.5
58	6 1/8	HYCLG	901	11992	12868	876	169 1/2	5.2
59	6 1/8	HYCLG	901	12868	13360	492	150	3.3

MUD RECORD

OPERATOR Grace Petroleum Corp. WELL GPC Fee 36-1

DATE	11-6-81	11-7-81	11-8-81	11-9-81	11-10-81	11-11-81	11-12-81	11-13-81	11-14-81
DEPTH	10154	10171	10253	10378	10378	10407	10451	10530	10583
WEIGHT	8.7	8.7	9.0	9.0+	9.0	9.0+	9.0+	9.1	9.1
MUD GRADIENT	.452	.452	.468	NC	NC	.468	.468	.473	.473
FUNNEL VISCOSITY	38	41	52	64	48	45	55	47	47
PLASTIC VISCOSITY	11	11	18	19	19	16	22	18	20
YIELD POINT	7	11	18	17	16	10	11	10	9
GEL STRENGTH	7/12	10/16	17/18	16/21	14/16	12/27	9/31	4/25	3/18
Ph	11	11.5	10.5	9.5	9.5	10	10	10	9.0
FILTRATE API	9.2	8.8	5.6	5.8	7.2	8.4	8.4	9.2	8.8
CAKE	1/32	1/32	1/32	2/32	2/32	2/32	2/32	2/32	2/32
ALKALINITY FILTRATE	.6/1.0	.6/.9	.5/.8	.5/.9	.6/1.4	.5/.9	.2/.6	.2/.7	.1/.5
CHLORIDE PPM	500	700	1000	1100	1100	800	1000	1000	800
CALCIUM PPM	60	40	80	120	120	100	120	80	100
SAND % CONTENT	-	TR	TR	TR	TR	TR	TR	TR	TR
SOLID % CONTENT	3	3	5	5	5.3	5	5	6	6
OIL % CONTENT	-	-	-	-	-	-	-	-	-
WATER % CONTENT	97	97	95	95	94.7	95	95	94	94
LCM	-	-	-	-	-	-	-	-	-
CHROMATES	300	400	400	450	400	400	500	400	600

MUD RECORD

OPERATOR Grace Petroleum Corp. WELL GPC Fee 36-1

DATE	11-15-81	11-16-81	11-17-81	11-18-81	11-19-81	11-20-81	11-21-81	11-22-81	11-23-81
DEPTH	10677	10762	10845	10914	10980	11103	11200	11374	11463
WEIGHT	9.0	9.0	9.0+	9.0	9.1	9.1	9.2	9.2	9.3
MUD GRADIENT	.468	.468	.468	.468	.473	NC	.478	.478	NC
FUNNEL VISCOSITY	48	50	34	42	50	45	48	52	55
PLASTIC VISCOSITY	18	17	15	18	18	16	22	21	22
YIELD POINT	9	8	4	6	11	11	13	14	13
GEL STRENGTH	4/19	3/15	4/19	3/15	4/15	5/7	3/7	4/15	4/14
Ph	10	9.5	9.0	9.5	10.0	8.5	10.0	10.0	9.0
FILTRATE API	8.4	8.2	8.3	8.8	4.6	4.0	5.6	4.2	7.6
CAKE	2/32	2/32	2/32	2/32	2/32	1/32	2/32	2/32	1/32
ALKALINITY FILTRATE	.2/.8	.2/.7	.2/.9	.3/1.0	.6/1.6	.1/.9	.4/.9	.4/.9	NC
CHLORIDE PPM	400	800	800	1000	800	850	800	800	900
CALCIUM PPM	120	80	100	160	160	120	120	120	120
SAND % CONTENT	-	TR	TR	TR	TR	TR	TR	TR	0.3
SOLID % CONTENT	5	5	5	5	6	6	7	7	7
OIL % CONTENT	-	-	-	-	-	-	-	-	-
WATER % CONTENT	95	95	95	95	94	94	94	93	93
LCM	-	-	-	-	-	-	-	-	-
CHROMATES	600	500	600	600	900	450	600	500	450

MUD RECORD

OPERATOR Grace Petroleum Corp. WELL GPC Fee 36-1

DATE	11-24-81	11-25-81	11-26-81	11-27-81	11-28-81	11-29-81	11-30-81	12-1-81	12-2-81
DEPTH	11572	11753	11903	11992	12095	12286	12407	12524	12618
WEIGHT	9.2	9.3	9.2	9.3	9.3	9.4	9.5	9.8	9.7
MUD GRADIENT	NC	.480	.478	NC	.484	.488	.494	NC	.504
FUNNEL VISCOSITY	43	43	42	53	44	41	44	46	41
PLASTIC VISCOSITY	17	15	17	18	17	14	17	16	18
YIELD POINT	11	11	12	11	12	7	8	8	14
GEL STRENGTH	7/16	5/11	5/15	4/9	6/26	5/22	7/27	5/21	4/23
Ph	9.0	10.5	10	11.0	11.5	11.5	10.5	10.0	9.5
FILTRATE API	4.6	6.0	6.4	6.2	8.4	8.0	8.4	8.0	9.2
CAKE	1/32	1/32	1/32	1/32	2/32	2/32	2/32	1/32	2/32
ALKALINITY FILTRATE	.1/1.3	.3/1.5	.3/.3	.6/2.0	.4/1.5	.5/1.5	.2/1.0	.4/1.0	.3/1.0
CHLORIDE PPM	800	900	800	800	850	700	600	800	500
CALCIUM PPM	480	200	160	120	400	600	320	160	600
SAND % CONTENT	0.3	0.2	0.2	TR	-	TR	TR	TR	TR
SOLID % CONTENT	7	7	7	8	7.5	8.25	9.0	9.0	10.5
OIL % CONTENT	-	-	TR	-	-	-	-	-	-
WATER % CONTENT	93	93	93	92	92.5	91.75	91	91	89.5
LCM	-	-	-	-	-	-	-	-	-
CHROMATES	300	450	450	400	450	450	450	450	NC

MUD RECORD

OPERATOR Grace Petroleum Corp. WELL GPC Fee 36-1

DATE	12-3-81	12-4-81	12-5-81	12-6-81	12-7-81	12-8-81	12-9-81	12-10-81	12-11-81
DEPTH	12682	12773	12868	12868	12913	13002	13077	13154	13224
WEIGHT	10.1	10.0	10.0	10.0	10.0	9.9	10.0	9.9	9.9
MUD GRADIENT	.525	.520	.520	.520	.520	.514	.520	.514.	.514
FUNNEL VISCOSITY	59	41	40	44	38	46	42	44	52
PLASTIC VISCOSITY	21	17	15	17	13	20	19	20	23
YIELD POINT	13	9	9	14	7	10	10	10	19
GEL STRENGTH	5/26	1/6	0/10	4/23	0/12	2/13	1/7	1/12	4/21
Ph	10.5	10	9.0	9.5	10.0	9.5	9.0	9.0	10.0
FILTRATE API	12.8	10.4	8.0	8.0	8.4	6.2	8.2	8.6	8.0
CAKE	2/32	2/32	2/32	2/32	2/32	2/32	2/32	2/32	2/32
ALKALINITY FILTRATE	.6/1.6	.2/1.1	.2/1.3	.3/1.2	.3/1.2	.3/1.1	.2/1.2	.3/1.0	.4/1.4
CHLORIDE PPM	800	600	500	500	420	470	500	500	500
CALCIUM PPM	100	145	80	60	100	100	120	100	120
SAND % CONTENT	TR	TR	TR	TR	TR	TR	TR	TR	TR
SOLID % CONTENT	10	9	9	12	12	12	12	12	12
OIL % CONTENT	-	-	-	-	-	-	-	-	-
WATER % CONTENT	90	91	91	88	88	88	88	88	88
LCM	-	-	-	-	-	-	-	-	-
CHROMATES	NC	1200	900	1000	1000	900	1000	1000	900

MUD RECORD

OPERATOR Grace Petroleum Corp. WELL GPC Fee 36-1

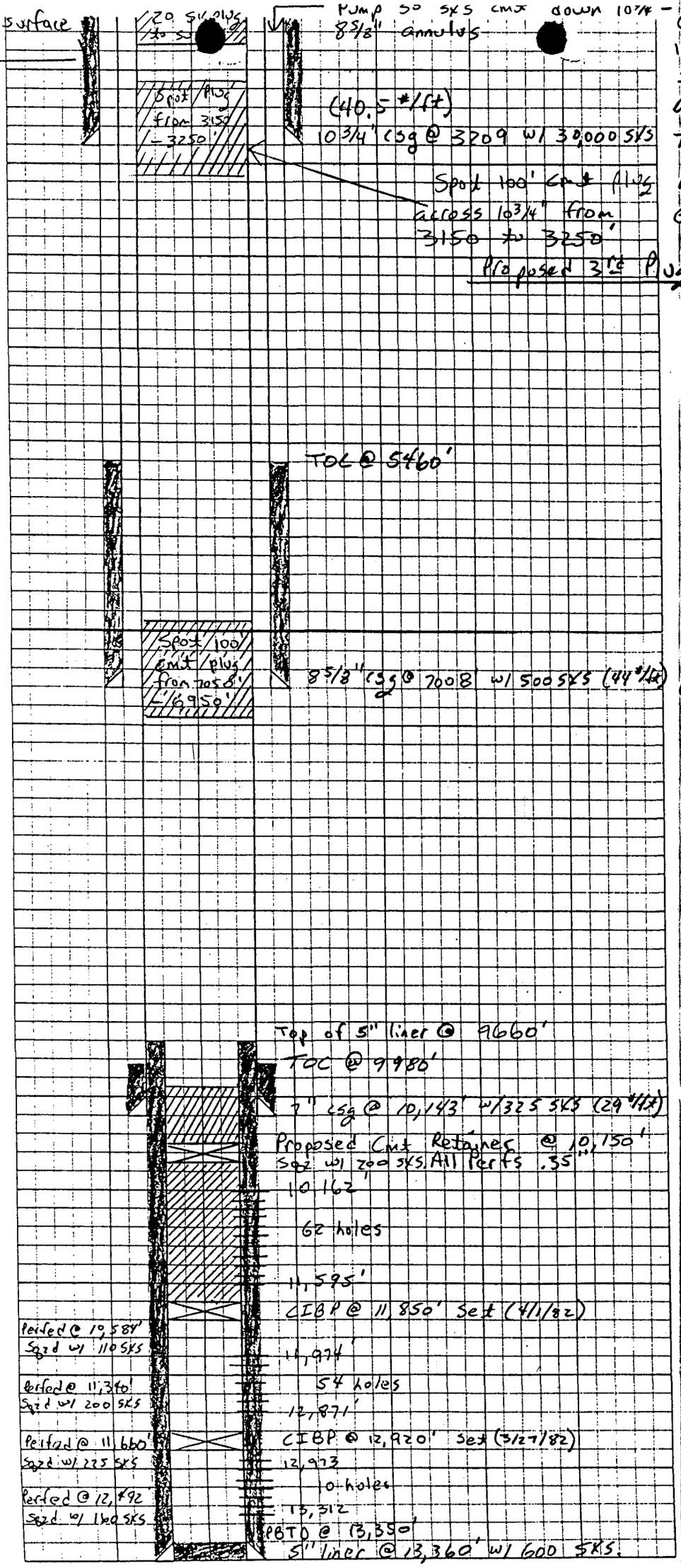
DATE	12-12-81	12-13-81	12-14-81	12-15-81	12-16-81	12-17-81	12-18-81		
DEPTH	13299	13359	13360	13360	13360	13360	13360		
WEIGHT	10.0	9.9	9.8+	9.9+	10.0+	10.1+	10.0		
MUD GRADIENT	.520	.514	.509	.514	.520	.525	.520		
FUNNEL VISCOSITY	45	55	44	64	53	61	60		
PLASTIC VISCOSITY	22	25	14	30	25	30	35		
YIELD POINT	13	10	7	21	16	16	15		
GEL STRENGTH	2/10	3/18	2/5	5/28	7/11	3/14	4/11		
Ph	8.5	9.8	9.5	11.5	10.5	10.5	9.5		
FILTRATE API	6.6	6.8	6.4	6.4	4.4	6.0	6.2		
CAKE	2/32	2/32	2/32	2/32	2/32	2/32	2/32		
ALKALINITY FILTRATE	.3/1.1	.3/1.1	.3/1.3	.4/1.3	.4/1.5	.4/1.3	.3/1.4		
CHLORIDE PPM	NC	500	500	500	500	500	550		
CALCIUM PPM	140	100	100	100	100	100	100		
SAND % CONTENT	TR	TR	TR	TR	TR	TR	TR		
SOLID % CONTENT	12	12	11	11	11	11	11		
OIL % CONTENT	-	-	-	-	-	-	-		
WATER % CONTENT	88	88	89	89	89	89	89		
LCM	-	-	-	-	-	-	-		
CHROMATES	700	900	800	800	800	1000	1000		

DEVIATION SURVEYS

OPERATOR Grace Petroleum Corp. WELL GPC Fee 36-1

DEPTH	DEVI-ATION	DEPTH	DEVI-ATION	DEPTH	DEVI-ATION	DEPTH	DEVI-ATION
4536	1 1/8°			8743	5 3/4°		
4940	2 1/4°			8867	6 1/4°		
5304	2 1/2°			8961	6 1/4°		
5462	2 3/4°			9052	6 3/4°		
5702	3°			9263	7°		
6011	2 3/4°			9352	3 3/4°		
6291	2 1/2°			9505	3°		
6548	3°			9651	3 3/4°		
6857	3 1/8°			10123	3°		
7489	2°			10378	3°		
8358	8°			11992	3 1/2°		
9542	11 1/2°			13360	6°		
9637	12 1/2°						
8900	13°						
whipstock 8267	5 3/4°						
8476	4 1/2°						
8637	4 1/2°						

Grace Fee # 36-1
1646' FNL, 1276' FEL
Section 36, T2S-R1W
Duchesne County, Utah
TD 13,360'
KB 6956'
GL 6932'



Proposed 2nd Plug

Spot Cmt Plug across 8⅝" from 7050' to 6950'

Proposed 1st Plug

Spot Cmt plug on top of retainer from 10,150 - 10,050'

K·E 5 X 5 TO THE INCH • 7 X 10 INCHES KEUFFEL & ESSER CO. MADE IN U.S.A.
46 0410

HALLIBURTON SERVICES

JOB LOG

FORM 2013 R-2

WELL NO. 56-1 LEASE FEC TICKET NO. 411905

CUSTOMER Grace Pet PAGE NO. Two.

JOB TYPE P.T.A. DATE 4-14-86

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
	0700							Crew on Location
	0745							P.T.P.
3	0945	2	10			450		Load Hole w/ 10.0 Brine
	0947	2	5					Fresh H_2O Ahead of Cmt.
	1000	2	4					Mix + Pump Cmt @ 15.8 (20 Sks)
	~~1004~~		—					Plug @ 3250-3150
	1004	2	1			200		Fresh H_2O behind Cmt.
	1004	3.5	17			300		Displace w/ 10.0# Brine.
	1008		-					Shut Down Plug Balanced.
	1010							Pull 10 Stands
	1021	2.5					—	Rev. out.
	1031	2.5	2.5				500	Shut Down.
3.	1110						1000	Try to Pump into 7" + 8 5/8
								Could not Pump Into.
	1123						1500	Still Could not Pump Into.
								Stand By To Perf.
4	1140	2.5						Try to Circulate 7" + 8 5/8
	1500	2.5	15			500		Circulated.
	1530	4				300		Try to Circulate 8 5/8 + 10 3/4
	1535	4	13					Circulate 7" + 8 5/8
								Close Annulus - Try 8 5/8 + 10 3/4
	1605	4	100			300		Could not Circulate.
								Shut Down for the Night
								Crew to Be Back on Loc
								Date 4-15-86.
								Co. also called extra that night
								He will call back for crew.
	[illegible]							on location
	[illegible]							[illegible] Pump 75 sk [illegible]
								[illegible] @ [illegible]
								To [illegible]
								[illegible]
	[illegible]							[illegible]

RETAIN

HALLIBURTON SERVICES
JOB LOG

FORM 2013 R-2

WELL NO. 56-1 LEASE Grace tc TICKET NO. 411903
CUSTOMER Grace Petroleum PAGE NO. 1
JOB TYPE Mix To Abandon DATE 4/19-86

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
								On Location 0700 For Job
1	945	4-12-20						On Location
	1101	2				750		Circulate
	1107	2	5			1000		Fresh H2O Ahead of Cmt
	1114	2.5	—					Mix & Pump Cmt @ 15.8 #/gal - (Slot)
	1135	2.5	50			1000		Shut Down & Strip Tbg Out F2 30's 1-40
	1137	2.5				0		Continue To Mix Cmt @ 15.8 #/gal
	1142	2.5	63					Finish Mixing Cmt
	1142	2.5	5			0		Fresh H2O Behind Cmt
	1145	2.5				0		Displace w/ 10.0 #/gal Brine.
	1149	1.5	15 TOTAL		X			Catch Cmt - Slow Rate To 1.5 BPM.
	1155	1.0				500		Slow Rate 1 BPM
	1158	.75	50 TOTAL			2250		Shut Down Strip Out.
								Pull of Stands
	1244	3	10					Rev Out
	1300	2	100					Shut Down
								Rig Up & Go To 25
	1430	2	5					Fresh H2O Ahead of Cmt
	1440	2	45					Pump Cmt @ 15.8 #/gal
	1445	2	1					Fresh H2O Behind Cmt
	1446	2.0	39					Displace
	1500							Shut Down & Pull Tbg
	1515	2.5	50				100	Rev Out
	1530		50					Shut Down
	1545							Cleaned For The Day
								Crew To Be Back On Location
								@ 0700

RETAIN

HALLIBURTON SERVICES
A DIVISION OF HALLIBURTON COMPANY

TICKET NO. 246213-0

FORM 1906 R9

PAGE 1 OF ____ PAGES

WELL NO. – FARM OR LEASE NAME	COUNTY	STATE	CITY/OFFSHORE LOCATION	DATE
Fee 36-1	Duchesne	UTAH		

CHARGE TO: Grace Petroleum

OWNER: Same

TICKET TYPE (CHECK ONE): SERVICE ☐ SALES ☐

NITROGEN JOB: YES ☐ NO ☐

ADDRESS:

CONTRACTOR: Pool

LOCATION 1: CODE:

CITY, STATE, ZIP:

SHIPPED VIA: Co Tuk

FREIGHT CHARGES: ☐ PPD ☐ COLLECT

LOCATION 2: CODE:

DELIVERED TO: Loc

LOCATION 3: CODE:

ORDER NO.:

REFERRAL LOCATION:

WELL TYPE:

WELL CATEGORY:

WELL PERMIT NO.:

TYPE AND PURPOSE OF JOB:

B–

DUNCAN USE ONLY

As consideration, the above-named Customer agrees to pay Halliburton in accord with the rates and terms stated in Halliburton's current price lists. Invoices payable NET by the 20th of the following month after date of invoice. Upon Customer's default in payment of Customer's account by the last day of the month following the month in which the invoice is dated, Customer agrees to pay interest thereon after default at the highest lawful contract rate applicable but never to exceed 18% per annum. In the event it becomes necessary to employ an attorney to enforce collection of said account, Customer agrees to pay all collection costs and attorney fees in the amount of 20% of the amount of the unpaid account. These terms and conditions shall be governed by the law of the state where services are performed or equipment or materials are furnished.

Halliburton warrants only title to the products, supplies and materials and that the same are free from defects in workmanship and materials. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE WHICH EXTEND BEYOND THOSE STATED IN THE IMMEDIATE PRECEDING SENTENCE. Halliburton's liability and customer's exclusive remedy in any cause of action (whether in contract, tort, product liability, breach of warranty or otherwise) arising out of the sale or use of any products, supplies or materials is expressly limited to the replacement of such products, supplies or materials on their return to Halliburton or, at Halliburton's option, to the allowance to the customer of credit for the cost of such items. In no event shall Halliburton be liable for special, incidental, indirect, punitive or consequential damages.

PRICE REFERENCE	SECONDARY REF OR PART NO.	LOC.	ACCOUNT	DESCRIPTION	UNITS 1 QTY	UNITS 1 MEAS	UNITS 2 QTY	UNITS 2 MEAS	UNIT PRICE	AMOUNT
R100-115				MILEAGE 4-10 00 35800	75	mi			.90	67 50
94	802-341			52-50 5"	1	EA				1206 00
R100-115				Mileage 4-12-86 IN 33804	75	Mi			.90	67 50
94	802-349			7" E2SU	1	EA				1369 00
R100-115				MILEAGE 35822	75	mi			.90	67 50
R112-730				OPERATOR SERVICE chg	1	EA				160 00
R128-653				HP MANIFOLD	1	EA				150 00
R116-939				HP SWIVEL	1	EA				210 00

THIS IS NOT AN INVOICE

AS PER ATTACHED BULK MATERIAL DELIVERY TICKET NO. B–

WAS JOB SATISFACTORILY COMPLETED?

WAS OPERATION OF EQUIPMENT SATISFACTORY?

WAS PERFORMANCE OF PERSONNEL SATISFACTORY?

x Lee Roberts
CUSTOMER OR HIS AGENT (PLEASE PRINT)

x Lee Roberts
CUSTOMER OR HIS AGENT (SIGNATURE)

TAX REFERENCES

LESS 1570

SUB TOTAL	3392 50
TAX	509 00
TAX	
TAX	
TOTAL	2883 50

Bryan Fairchild
HALLIBURTON OPERATOR

CUSTOMER

WE CERTIFY THAT THE FAIR LABOR STANDARDS ACT OF 1938, AS AMENDED HAS BEEN COMPLIED WITH IN THE PRODUCTION OF GOODS AND OR WITH RESPECT TO SERVICES FURNISHED UNDER THIS CONTRACT.

INVOICE NO. B

COPIES
White
Green
Gold
Pink
Canary

CHARGE TO
ADDRESS
FIELD
COUNTY
STATE
CUSTOMER
OPERATOR
CREW
CSG
ZERO
FLUID
LEVEL
CO TD
OWPTD
DEPTHS REFER TO

JOB DATA	DATE	TIME	HRS
REPORT			
ARRIVE LOC			
RIG UP		OA	
START WAIT			
END WAIT			
END JOB		7:00 AM	
UNLOAD		10:00 AM	

REMARKS: 7" CMT RETAINER SUPPLYED BY HALIBURTON

PERFORATING INTERVALS
FROM

OPERATION CHARGE	7" CEMENT RETAINER	11 HOURS		
OTHER	RS PRESSURE CONTROL (0-1000)	N/C		4-10
	HOIST TRK MILES 180 R/T = 30 MILE	60	00	3-27
		3581	40	
	LESS 30% =	2492	98	
	+ MILES =	2552	98	

TOTAL STANDBY HRS.			
HOIST TRK. MILES			
	SUB TOTAL	2552	98
STATE UTAH	TAX %		
	TOTAL		

COPIES
White — Denver
Green — Customer
Gold — Denver
Pink — Denver
Canary — Station

OILWELL PERFORATORS

303-377-6664

INVOICE NO. B-[illegible]5969

REMIT: SUITE 117 CHERRY CREEK PLAZA
600 SOUTH CHERRY CREEK
DENVER, COLORADO 80222

TERMS: NET [illegible] DAYS

FROM

TRUCK NO. [illegible]56

CHARGE TO: [illegible]

ADDRESS: [illegible]

FIELD: [illegible]

COUNTY: [illegible] STATE: [illegible] CUST. NO.

TO OIL WELL PERFORATORS, INC.:
You are hereby requested to furnish the service and [illegible] upon the [illegible] of this service ticket and invoice outlined by your current published price manual. [illegible]
Received the below [illegible] according to the terms and [illegible] shown above [illegible] have read and [illegible] the terms agree.

CUSTOMER: [illegible] AGENT: [illegible] DATE: 4-10-86

OPERATOR: Wombolt			
CREW: Christy			
CSG 7" x 5"	ZERO	24 Flat	
FLUID Water	LEVEL	Full	
CO. TD	OWPTD		
DEPTHS REFER TO: BWP			

JOB DATA	DATE	TIME	HRS
REPORT	4-10-86	8:00 A	
ARRIVE LOC.		12:00 P	
RIG UP		O.A	
START WAIT			
END WAIT			
END JOB		5:00 P	
UNLOAD		8:30 P	

REMARKS: Cement Retainer Furnished By Halliburton

#319

PERFORATING INTERVALS

SHOTS	FROM	TO

	SERVICE CHG.	FROM	TO	TOTAL	AMOUNT		PAGE
	SERVICE CHG. 4-10-86				530	00	3-1A
	PERF TYPE			TOTAL SHOTS			
DEPTH CHARGE	5" Cement Retainer	Surf	10150	10150	1624	00	15B1
OPERATION CHARGE	5" Cement Retainer	4:00 P	5:00 P	1 HR	85	00	15-6
OTHER	RS Pressure = 0-1000				265	00	4-10
	Hoist TR = 155 RT Miles				N/C		3-2A
	Sub Total				2524	00	

TOTAL STANDBY HRS.			
HOIST TRK. MILES			
	SUB TOTAL- 30 %	1766	80
STATE	TAX %		
	TOTAL		