

GOLDEN "D" FEDERAL #3
BASS ENTERPRISES PRODUCTION COMPANY
 August 19, 1993

<u>DEPTH</u>	<u>CASING</u>	<u>HOLE SIZE</u>	<u>EVALUATION</u>	<u>ELECTRIC LOGS</u>	<u>CIRC FLUID</u>
40'	>16"	20"	Conductor		FW Spud Mud
1250'	>11-3/4"	14-3/4"			
		11"	1250' to TD Two man logging unit		Brine Water
3050'	>8-5/8"				
		7-7/8"		T/DELAWARE PIL-SFL w/GR <u>3050' to 5200'</u> CNL-LDT w/GR <u>3050' to 5200'</u> GR-CNL <u>3050' to Surface</u>	
5200'	>5-1/2"				Fresh Wtr Mud

BJL:sjw

**EIGHT POINT DRILLING PROGRAM
BASS ENTERPRISES PRODUCTION CO.**

NAME OF WELL: GOLDEN "D" FEDERAL #3

LEGAL DESCRIPTION - SURFACE: 2310' FEL & 1650' FSL, Section 8, T-21-S, R-29-E, Eddy County, New Mexico.

POINT 1: ESTIMATED FORMATION TOPS

(SEE NO. 2 BELOW)

POINT 2: WATER, OIL GAS AND/OR MINERAL BEARING FORMATIONS

Anticipated Formation Tops: KB 3402' (est)
GL 3384.8' (est)

<u>FORMATION</u>	<u>ESTIMATED TOP FROM KB</u>	<u>ESTIMATED SUBSEA TOP</u>	<u>BEARING</u>
T/Rustler Anhydrite	896'	+2506'	Barren
T/Salt	1296'	+2106	Barren
T/Reef	2346'	+1056	Barren
T/1st Delaware Sand	3046'	+356'	Oil/Gas
T/Cherry Canyon	3862'	-460'	Oil/Gas
T/49er Sand	4202'	-800'	Oil/Gas

POINT 3: CASING PROGRAM

<u>TYPE</u>	<u>INTERVALS</u>	<u>PURPOSE</u>	<u>CONDITION</u>
16"	0' - 40'	Conductor	Contractor Discretion
11-3/4" 42# H-40 ST&C	0' - 1250'	Surface	New
8-5/8" 32# K-55 & S-80 ST&C	0' - 3050'	Intermediate	New
5-1/2" 15.5# K-55 LT&C	0' - 5200'	Production	New

See Exhibit D - (Casing Design)

POINT 4: PRESSURE CONTROL EQUIPMENT (SEE ATTACHED DIAGRAMS)

A BOP equivalent to Diagram 1 will be nipped up on the surface casinghead. The BOP stack, choke, kill lines, kelly cocks, inside BOP, etc. will be hydro-tested to the lowest rated working pressure of the equipment being tested. In addition to the rated working pressure test, a low pressure (200 psi) test will be required. These tests will be performed:

- a) Upon installation
- b) After any component changes
- c) Thirty days after a previous test
- d) As required by well conditions

A function test to insure that the preventers are operating correctly will be performed on each trip.

POINT 5: MUD PROGRAM

<u>DEPTH</u>	<u>MUD TYPE</u>	<u>WEIGHT</u>	<u>FV</u>	<u>PV</u>	<u>YP</u>	<u>FL</u>	<u>Ph</u>
0' - 1250'	FW Spud Mud	8.5-9.2	35-40	NC	NC	NC	NC
1250' - 3050'	BW	9.6-10.0	29-30	NC	NC	NC	NC
3050' - 5200'	FW Mud	8.6-9.0	34-40	10-14	12-18	<10	9-9.5

POINT 6: TECHNICAL STAGES OF OPERATION**A) TESTING**

Drill stem tests will be performed on significant shows in Delaware.

B) LOGGING

GR-CNL-LDT, GR-PIL-MSFL run from TD (5200') to 3050', GR-CNL run from TD (5200') to surface.

C) CORING

No cores are anticipated.

D) CEMENT

<u>INTERVAL</u>	<u>AMOUNT SXS</u>	<u>FT OF FILL</u>	<u>TYPE</u>	<u>GALS/SX</u>	<u>PPG</u>	<u>FT/SX</u>
Surface	900 (100% excess circ to surface)	1250'	Class "C" with 2% CaCl ₂ and 1/4 ppg Cello-Flake	6.3	14.8	1.32
Intermediate	930 (100% excess circ to surf)	3050'	Class "C" with Salt	6.3	14.8	1.32
Production	440 (25% excess tie back to 2550')	2650'	Class "C" w/additives	10.6	13.2	1.92

E) DIRECTIONAL DRILLING

No directional services anticipated.

POINT 7: ANTICIPATED RESERVOIR CONDITIONS

Normal pressures are anticipated throughout Delaware section.

Est BHP 2000-2400 psi, Est BHT 112°F max

Lost circulation in the Delaware group is not anticipated in this area.

H₂S in this area is less than 100 ppm.

POINT 8: OTHER PERTINENT INFORMATION

A) Auxiliary Equipment

Upper and lower kelly cocks. Full opening stab in valve on the rig floor.

B) Anticipated Starting Date

Upon approval

Anticipated drilling days is 15

Anticipated completion days is 10

MULTI-POINT SURFACE USE PLAN

NAME OF WELL: GOLDEN "D" FEDERAL #3

LEGAL DESCRIPTION - SURFACE: 2310' FEL & 1650' FSL, Section 8, T-21-S, R-29-E, Eddy County, New Mexico.

POINT 1: EXISTING ROADS

A) Proposed Well Site Location:

See Exhibit "A".

B) Existing Roads:

From Carlsbad, go northeast on U.S. 62, approx 14 miles to it's intersection with Hwy 31. Continue 1 mile east on U.S. 62 and turn on caliche road due south for 1/4 mile, turn west for 1/4 mile then south again for 2 miles to Big Eddy Unit #8-1 location. From here, go east to the location.

C) Existing Road Maintenance or Improvement Plan:

See Exhibit "A".

POINT 2: NEW PLANNED ACCESS ROUTE

A) Route Location:

See Exhibit "B". The new road will be 12' wide and approximately 900' long. The road will be constructed of watered and compacted caliche.

B) Width

Not applicable.

C) Maximum Grade

Not applicable.

D) Turnouts

Turnouts will be constructed as required.

E) Culverts, Cattle Guards, and Surfacing Equipment

None.

POINT 3: LOCATION OF EXISTING WELLS

Exhibit "A" indicates existing wells within the surrounding area.

POINT 4: LOCATION OF EXISTING OR PROPOSED FACILITIES

- A) Existing facilities within one mile owned or controlled by lessee/operator:

Production facilities and wells as shown on Exhibit "A" at Big Eddy Unit #73, Big Eddy Unit #85, and Big Eddy Unit #113 (Golden 8 Federal #1).

- B) New Facilities in the Event of Production:

Additional production facilities will be installed at an existing facility as required.

- C) Rehabilitation of Disturbed Areas Unnecessary for Production:

Following the construction of production facilities, those access areas required for continued production will be graded to provide drainage and minimize erosion. The areas unnecessary for use will be graded to blend in the surrounding topography - See Point 10.

POINT 5: LOCATION AND TYPE OF WATER SUPPLY

- A) Location and Type of Water Supply

Fresh water and brine will be hauled from the City of Carlsbad. Brine water will be hauled from Champion Brine Water Station, 3.5 miles east and 2.5 miles south of Carlsbad. Alternate source of fresh water may come from water well located approximately 1.75 miles northeast of location.

- B) Water Transportation System

Water hauling to the location will be over the existing and proposed roads.

POINT 6: SOURCE OF CONSTRUCTION MATERIALS

A) Materials

Exhibit "A" shows location of caliche source.

B) Land Ownership

Federally owned.

C) Materials Foreign to the Site

No construction materials foreign to this area are anticipated for this drill site.

D) Access Roads

No additional access roads are required.

POINT 7: METHODS FOR HANDLING WASTE MATERIAL

A) Cuttings

Cuttings will be contained in the reserve pit.

B) Drilling Fluids

Drilling fluids will be contained in the reserve pit.

C) Produced Fluids

Water production will be contained in the reserve pit.

Hydrocarbon fluid or other fluids that may be produced during testing will be retained in test tanks. Prior to cleanup operations, any hydrocarbon material in the reserve pit will be removed by skimming or burning as the situation would dictate.

D) Sewage

Current laws and regulations pertaining to the disposal of human waste will be complied with.

E) Garbage

Portable containers will be utilized for garbage disposal during the drilling of this well.

F) Cleanup of Well Site

Upon release of the drilling rig, the surface of the drilling pad will be graded to accommodate a completion rig if testing indicates potential productive zones. In any case, the "mouse" hole and the "rat" hole will be covered. The reserve pit will be fenced and the fence maintained until the pit is backfilled. Reasonable cleanup will be performed prior to the final restoration of the site.

POINT 8: ANCILLARY FACILITIES

None required

POINT 9: WELL SITE LAYOUT

A) Rig Orientation and Layout

Exhibit "C" shows the dimensions of the well pad and reserve pits, and the location of major rig components. Only minor leveling of the well site will be required. No significant cuts or fills will be necessary.

B) Locations of Pits and Access Road

See Exhibits "A" and "C"

C) Lining of the Pits

The reserve pit will be lined with plastic.

POINT 10: PLANS FOR RESTORATION OF THE SURFACE

A) Reserve Pit Cleanup

A pit will be fenced at the time of rig release and shall be maintained until the pit is backfilled. Previous to backfill operations, any hydrocarbon material on the pit surface shall be removed. The fluids and solids contained in the pit shall be backfilled with soil excavated from the site and soil adjacent to the reserve pit. The restored surface of the pit shall be contoured to prevent impoundment of surface water flow. Water- bars will be constructed as needed to prevent excessive erosion. Topsoil, as available, shall be placed over the restored surface in a uniform layer. The area will be seeded according to the Bureau of Land Management stipulations during the appropriate season following restoration.

B) Restoration Plans - Production Developed

The reserve pit will be backfilled and restored as described under Item A. In addition, those areas not required for production will be graded to blend with the surrounding topography. Topsoil, as available, will be placed upon those areas and seeded. The portion of the site required for production will be graded to minimize erosion and provide access during inclement conditions. Following depletion and abandonment of the site, restoration procedures will be those that follow under Item C.

C) Restoration Plans - No Production Developed

The reserve pit will be restored as described above. With no production developed, the entire surface disturbed by construction of the well site will be restored. The site will be contoured to blend with the surrounding topography and provide drainage of surface water. The topsoil, as available, shall be replaced in a uniform layer and seeded according to the Bureau of Land Management's stipulations.

D) Rehabilitations Timetable

Upon completion of drilling operations, the initial cleanup of the site will be performed as soon as weather and site conditions allow economic execution of the work.

POINT 11: OTHER INFORMATION

A) Terrain

Relatively flat.

B) Soil

Caliche and sand.

C) Vegetation

Sparse, primarily grasses and mesquite with very little grass.

D) Surface Use

Primarily grazing.

E) Surface Water

There are no ponds, lakes, streams, or rivers within several miles of the wellsite.

F) Water Wells

There is a water well approximately 1-1/2 miles northeast of location.

G) Residences and Buildings

None

H) Historical Sites

None observed

I) Archeological Resources

An archeological survey will be obtained for this area. Before any construction begins, a full and complete archeological survey will be submitted to the Bureau of Land Management. Any location or construction conflicts will be resolved before construction begins.

J) Surface Ownership

The well site and new access road is on Federally owned land.

K) Well signs will be posted at the drilling site.

L) Open Pits

All pits containing liquid or mud will be fenced and bird-netted.

POINT 12: OPERATOR'S FIELD REPRESENTATIVE

(Field personnel responsible for compliance with development plan for surface use).

DRILLING

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Midland, Texas 79702
(915) 683-2277

PRODUCTION

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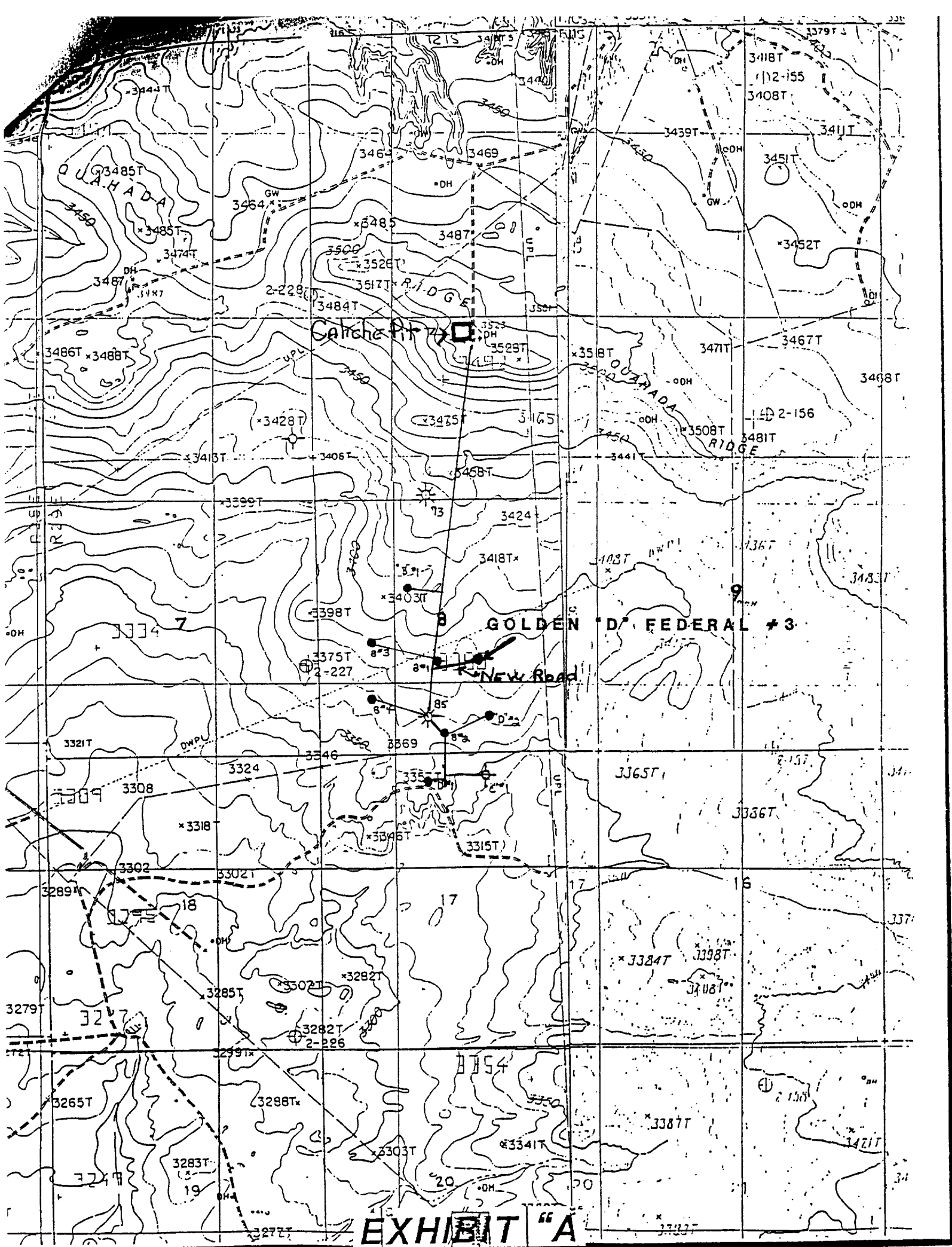
POINT 13: CERTIFICATION

I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in the plan are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Bass Enterprises Production Co. and it's contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

8/20/93
Date

W. R. Dannels
W. R. (Bill) Dannels

MJE:tlw



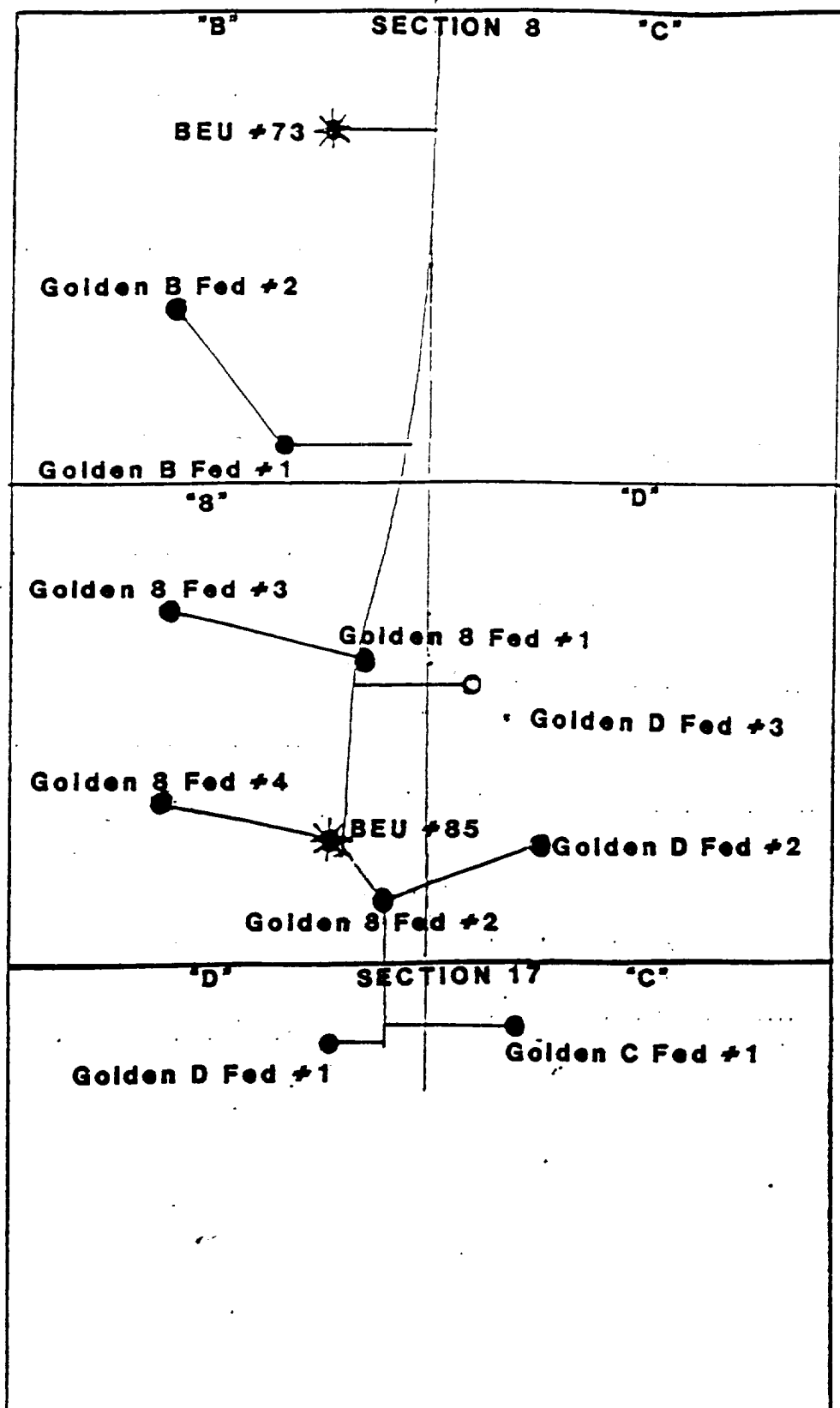


EXHIBIT "B"

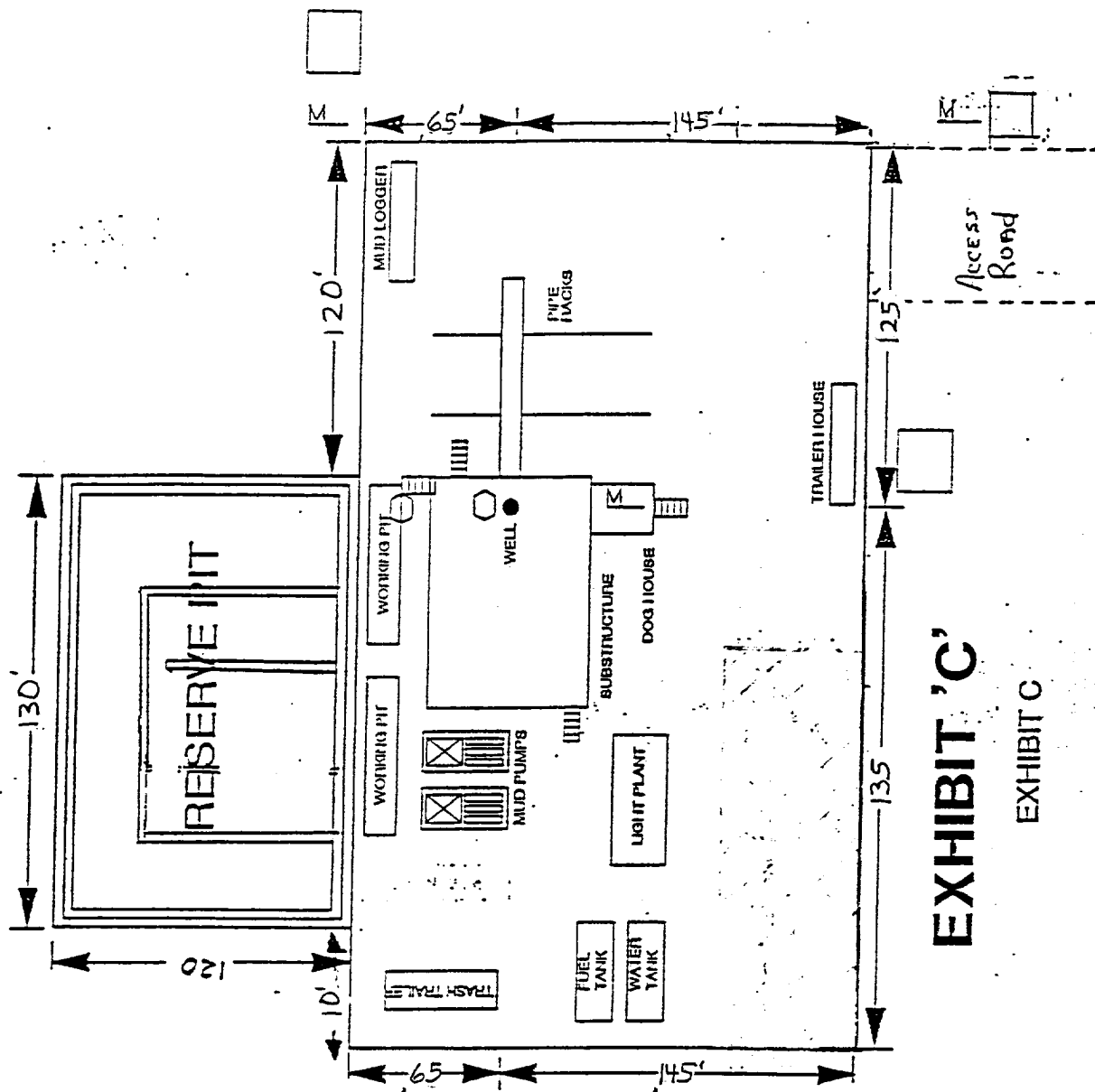
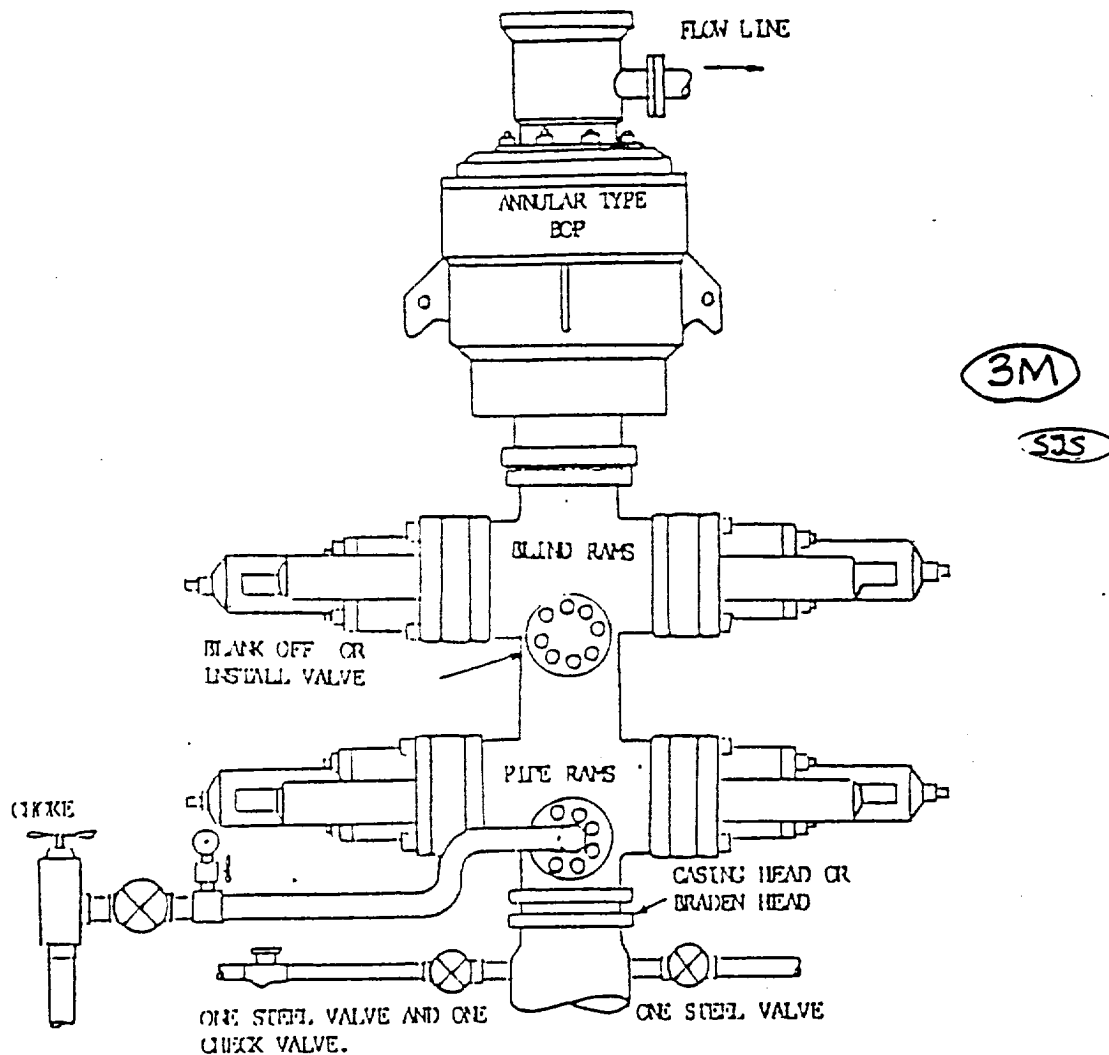


EXHIBIT 'C'

EXHIBIT C

- WIND DIRECTION INDICATORS
- 129 MONITORS WITH ALARMS AT THE BELL NECKLE AND THE BALE SHOWN
- SAFE BRIEFING AREA WITH CAUTION SIGNS AND PROTECTIVE BREATHING EQUIPMENT (MIN. 150 FEET FROM WELL HEAD)



THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

- A. Conditions may be met with an annular type blowout preventer and pipe ram type blowout preventer above a choke spool, and a blind ram below the choke spool.
- B. Opening on preventers between rams to be flanged, studded or clamped and at least two inches diameter.
- C. All connections from operating manifold to preventers to be all steel hose or tube a minimum of one inch in diameter.
- D. The available closing pressure shall be at least 15% in excess of that required with sufficient volume to operate (close, open, and re-close) the preventers.
- E. All connections to and from preventers to have a pressure rating equivalent to that of the BOP's.
- F. Manual controls to be installed before drilling cement plug.
- G. Valve to control flow through drill pipe to be located on rig floor.
- H. Choke may be either positive or adjustable. Choke spool may be used between rams.

H₂S DRILLING OPERATIONS PLAN

A. H₂S Training

All personnel involved in this drilling operation, whether assigned, contracted or employed on a regular basis, will receive training from a qualified instructor prior to commencing drilling operations on this well.

B. Well Site Diagram

- 1) Drilling Rig orientation: See Exhibit "C"
- 2) Prevailing wind direction: SW
- 3) Terrain of surrounding area: See Point 11
- 4) Location of briefing areas: See Exhibit "C"
- 5) Location of access road: See Exhibit "B" & "C"
- 6) Location of flare line and pits: See Exhibit "C"
- 7) Location of caution or danger signs: See Exhibit "C"

C. Description of H₂S Safety Equipment/Systems

- 1) Well control equipment: See BOP Diagram
 - a. Flare line and means of ignition: NA
 - b. Remote controlled choke: NA
 - c. Flare gun/flares: NA
 - d. Mud-gas separator and rotating head: NA
- 2) Protective Equipment for Essential Personnel
 - a. Location, type, storage and maintenance of all working and escape breathing apparatus: Scott breathing packs located at briefing areas shown on Exhibit "C" and on the floor. Stored in water-proof container and maintained on a monthly basis by third party safety company.
 - b. Means of communication when using protective breathing apparatus: Hand signals or microphones in the breathing packs are used for communication.
- 3) H₂S Detection and Monitoring Equipment
 - a. H₂S sensors and associated audible/visual alarm(s): Otis sensors are used with a visual light @ 10 ppm and siren @ 20 ppm.
 - b. Portable H₂S and SO₂ monitor(s): Bendix Pumps

- 4) Visual Warning Systems
 - a. Wind direction indicators: See Exhibit "C"
 - b. Caution/danger sign(s) and flag(s): See Exhibit "C"
- 5) Mud Program
 - a. Mud systems and additives: See Point 5
 - b. Mud degassing system: NA
- 6) Metallurgy
 - a. Metallurgical properties of all tubular goods and well control equipment which could be exposed to H₂S: All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.
- 7) Means of Communication from Wellsite: Phones in trailer and on rig floor.

D. Plans for Well Testing

Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill stem testing operations conducted in an H₂S environment will use the closed chamber method of testing.

DASS ENTERPRISES

Operator: DASS ENTERPRISES	Well Name: GOLDEN D FEDERAL #1
Project ID:	Location: EDDY CO., NM

Design Parameters:

Mud Weight (9.00 ppq) : 0.468 psi/ft
 Shut in casing pressure : 2100 psi
 Internal gradient (burst): 0.046 psi/ft
 Annular gradient (burst) : 0.400 psi/ft
 Tensile load is determined using air weight
 Service rating is "Sweet"

Design Factors:

Collapse : 1.000
 Burst : 1.00
 8 Round : 1.60 (J)
 Buttress : 1.60 (J)
 Other : 1.60 (J)
 Body Yield : 1.60 (B)

Length (feet)	Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost		
1	5,200	5.500	15.50	K 55	LT&C	5,200	4.025		
	Collapse Load (psi)	Strgth (psi)	S.F.	Burst Load (psi)	Min Int Strgth (psi)	Yield S.F.	Tension Load (kips)	Strgth (kips)	S.F.
1	2431	4040	1.662	2190	4810	2.20	80.60	239	2.97 J

Prepared by : BJJ, Midland, TX

Date : 08 17 1993

Remarks :

Minimum segment length for the 5,200 foot well is 1,000 feet.

SICP is based on the ideal gas law, a gas gravity of 0.60, and a mean gas temperature of 100°F (Surface 74°F, DHT 120°F & temp. gradient 1.000°/100 ft.)

An annular mud weight of 9.000 ppq was used for burst purposes. The differential mud gradient below any lost circulation depth is 0.421 psi/ft and the bottom hole pressure load is 0 psi.

NOTE: The design factors used in this casing string design are as shown above. As a general guide-

line, Lone Star Steel recommends using minimum design factors of 1.125 - Collapse (with

evacuated casing), 1.0 Burst, 1.0 8 Round Tension, 1.0 - Buttress Tension, and 1.5 - Body

Yield. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and

Kemler curve. Engineering responsibility for use of this design will be that of the purchaser.

Costs for this design are based on a 1997 pricing model. (Version 1.06)

BASS ENTERPRISES

Operator: BASS ENTERPRISES	Well Name: GOLDEN D FEDERAL #1
Project ID:	Location: EDDY CO., NM

Design Parameters:

Mud Weight (10.00 ppg) : 0.519 psi/ft
 Shut in casing pressure : 1488 psi
 Internal gradient (burst): 0.031 psi/ft
 Annular gradient (burst) : 0.519 psi/ft
 Tensile load is determined using air weight
 Service rating is "Sweet"

Design Factors:

Collapse : 1.000
 Burst : 1.00
 8 Round : 1.60 (J)
 Buttress : 1.60 (J)
 Other : 1.50 (J)
 Body Yield : 1.60 (B)

Length (feet)	Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost		
1	3.050	8.625	32.00	K-55	ST&C	3.050	7.875		
Collapse Load (psi)		Strgth S.F. (psi)	Burst Load (psi)	Min Int Strgth (psi)	Yield S.F.	Tension Load (kips)		Strgth S.F. (kips)	
1	1584	2530	1.597	1488	3930	2.64	97.60	402	4.12 J

Prepared by : BJJ, Midland, TX

Date : 08 17 1993

Remarks :

Minimum segment length for the 3,050 foot well is 1,000 feet.

SICP is based on the ideal gas law, a gas gravity of 0.60, and a mean gas temperature of 92°F (Surface 74°F, BHT 104°F & temp. gradient 1.000°/100 ft.)

Surface/Intermediate string:

Next string will set at 3,050 ft. with 10.00 ppg mud (pore pressure of 1,584 psi.) The frac gradient of 1.000 at the casing seat results in an injection pressure of 3,050 psi. Effective BHP (for burst) is 1,584 psi, the BHP load is 0 psi (using an annular mud of 10.00 ppg) and the differential gradient is 0.400 psi/ft.

NOTE: The design factors used in this casing string design are as shown above. As a general guide-

line, Lone Star Steel recommends using minimum design factors of 1.125 - Collapse (with

evacuated casing), 1.0 - Burst, 1.8 - 8 Round Tension, 1.6 - Buttress Tension, and 1.5 - Body

Yield. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and

Kemler curve. Engineering responsibility for use of this design will be that of the purchaser.

Costs for this design are based on a 1997 pricing mode

1. (Version 1.06)

BASS ENTERPRISES

Operator: BASS ENTERPRISES	Well Name: GOLDEN D FEDERAL #1
Project ID:	Location: EDDY CO., NM

Design Parameters:

Mud Weight (9.90 ppg) : 0.514 psi/ft
 Shut in casing pressure : 643 psi
 Internal gradient (burst): 0.000 psi/ft
 Annular gradient (burst) : 0.000 psi/ft
 Tensile load is determined using air weight
 Service rating is "Sweet"

Design Factors:

Collapse : 1.125
 Burst : 1.00
 8 Round : 1.80 (J)
 Buttress : 1.60 (J)
 Other : 1.50 (J)
 Body Yield : 1.50 (B)

Length (feet)	Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost			
1	1.250	11.750	42.00	H 40	ST&C	1,250	11.000			
		Collapse		Burst	Min Int	Yield		Tension		
		Load	Strgth	S.F.	Load	Strgth	S.F.	Load	Strgth	S.F.
		(psi)	(psi)		(psi)	(psi)		(kips)	(kips)	
1		643	1070	1.664	643	1980	3.08	52.50	307	5.85

Prepared by : BJJ, Midland, TX

Date : 08-17-1993

Remarks :

Minimum segment length for the 1,250 foot well is 1,000 feet.

Surface/Intermediate string:

Next string will set at 1,250 ft. with 9.90 ppg mud (pore pressure of 643 psi.) The frac gradient of 1.000 at the casing seat results in an injection pressure of 1,250 psi. Effective BHP (for burst) is 643 psi.

NOTE: The design factors used in this casing string design are as shown above. As a general guide

line, Lone Star Steel recommends using minimum design factors of 1.125 - Collapse (with evacuated casing), 1.0 Burst, 1.0 8 Round Tension, 1.6 - Buttress Tension, and 1.5 - Body

Yield. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser.

Costs for this design are based on a 1997 pricing mode 1. (Version 1.06)