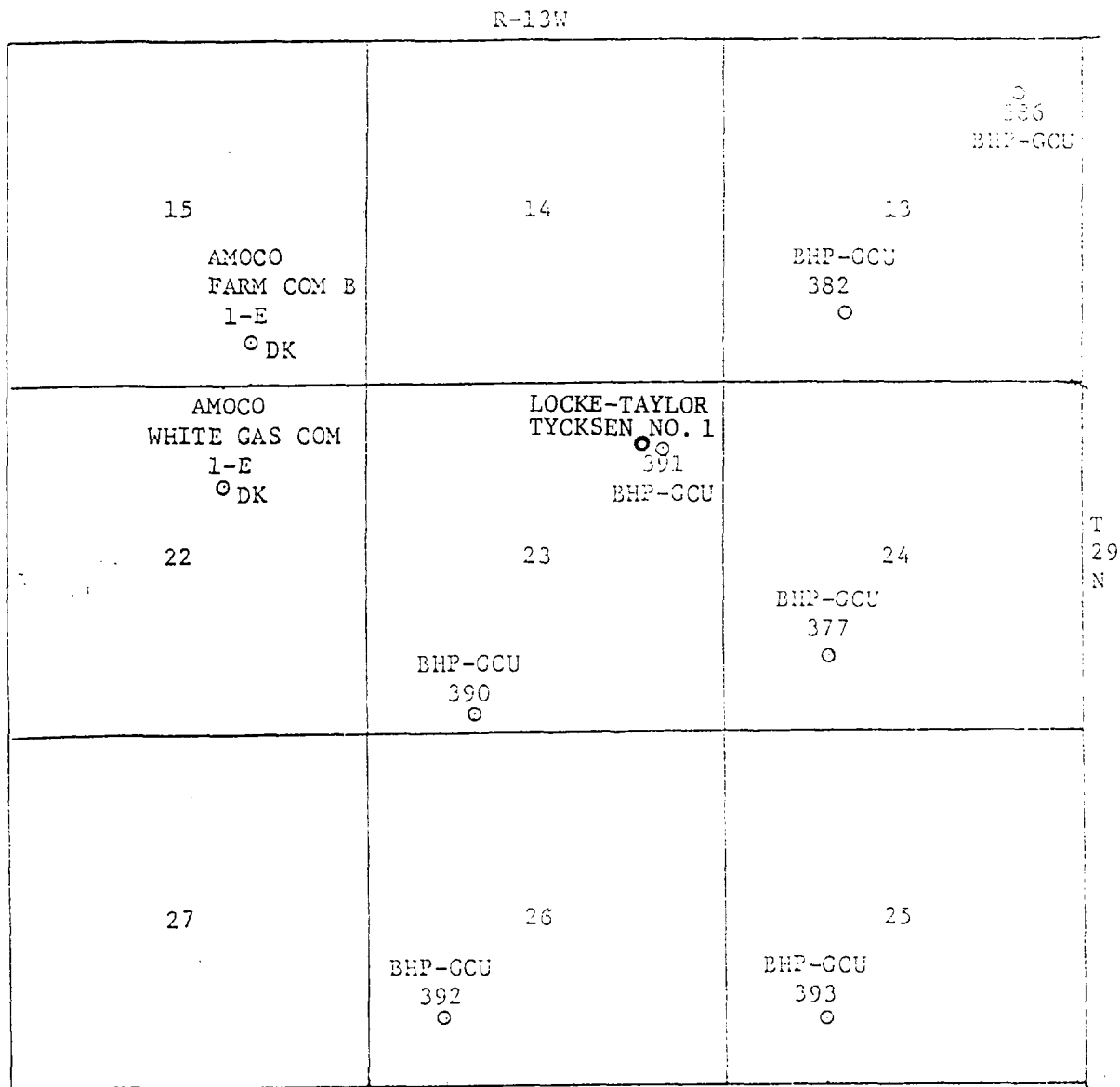


Locke Exhibits 1 through 3
and A
Complete Set

FIGURE NO. 1

LOCKE TAYLOR DRILLING
MAP
WELLS WITH FRUITLAND COAL
INFORMATION FROM SUBSURFACE LOGS
IN AREA OF SECTION 23-R29N-R13W



SECTION EXAMINER STOGNER

DATE INFORMATION EXAMINED

LOCKE

10345-10346

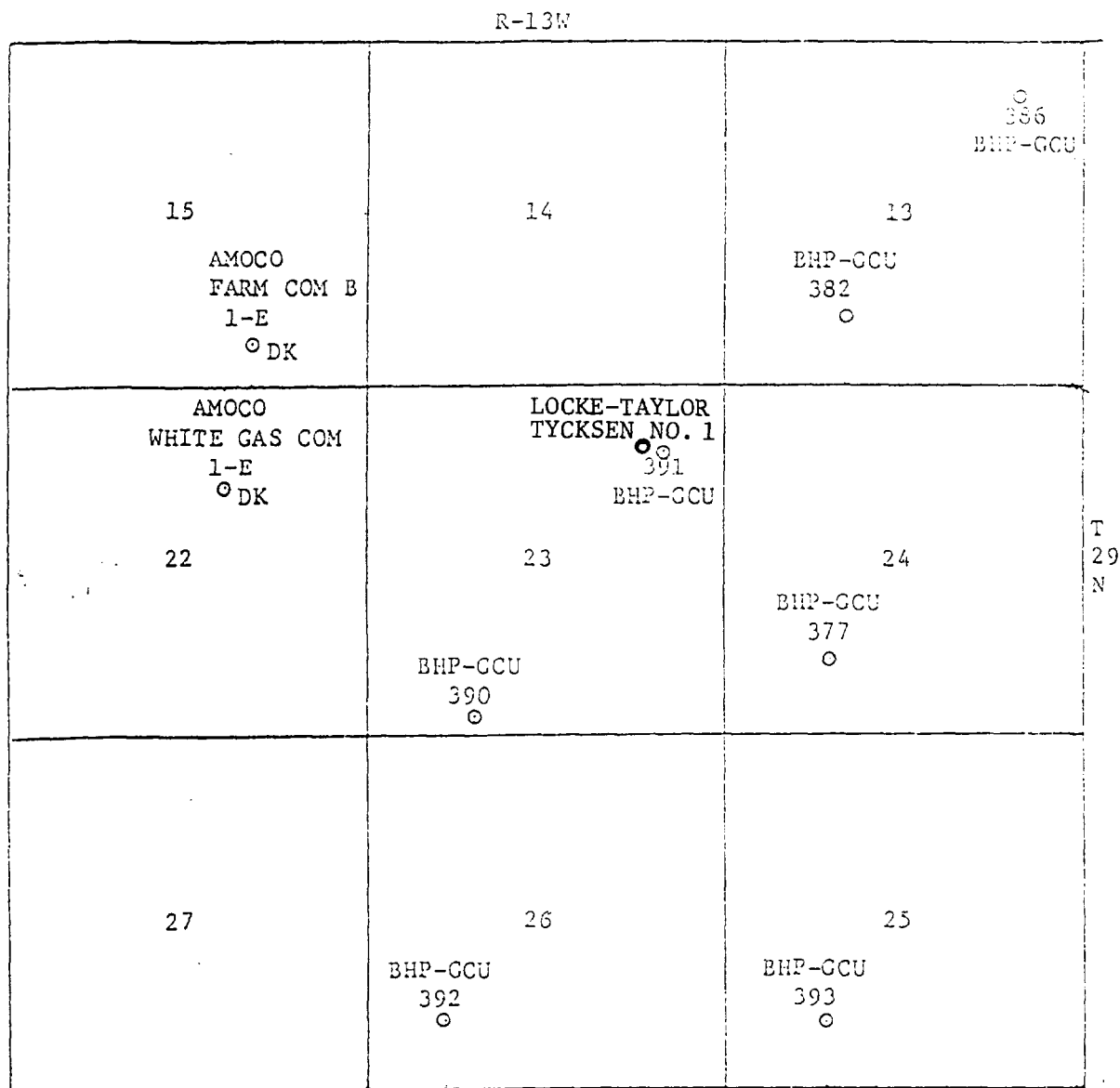
○ DK - Dakota Well

○ - Fruitland Coal Well

Locke Exhibits 1 through 3
and A
Complete Set

FIGURE NO. 1

LOCKE TAYLOR DRILLING
MAP
WELLS WITH FRUITLAND COAL
INFORMATION FROM SUBSURFACE LOGS
IN AREA OF SECTION 23-R29N-R13W



BEFORE EXAMINER STOGNER

OIL CONSERVATION DIVISION

LOCKE EXHIBIT NO. 1

CASE NO. 10345-10346

○ DK - Dakota Well

○ - Fruitland Coal Well

TYCKSEN, MG. 1

291 F.M.L., 990.F.E.L., SECTION 23-729N-FLOW

SAN JUAN COUNTY, NEW MEXICO

BAF PETROLEUM (AMERICAS), INC.
GALLEGOS CANYON UNIT, NO. 391
FORMATION ANALYSIS LOG

BHP PETROLEUM (AMERICAS), INC.
GALLEGOS CANYON UNIT, NO. 391

975' FNL, 870 FEL, SECTION 23-T29N-R13W

SAN JUAN COUNTY, NEW MEXICO

-10 3/4" CASING AT 56'. 25 SACKS CEMENT.

10 3/4" CASING AT 56'. 25 SACKS CEMENT.

10 3/4" CASING AT 56'. 25 SACKS CEMENT.

-8 5/8" CASING AT 520'. NO CEMENT.

James Buchanan

200-250 mm

- " CASING AT 962', NO CEMENT.

~~LOCKE-TAYLOR DRILLING CO.~~
~~FRUITLAND SAND~~

1" TUBING AT 987'.

19 September 1987

-TOP OF CEMENT PLUG-1070'.

-1, D. -1236'.

! - TUBING DR CASING
X - OPEN HOLE

CALCULATED DISTANCE BETWEEN WELLS - 121',
TOP OF CEMENT PLUG TO TOP OF COAL - 82',
BASE OF FRUITLAND SAND TO TOP OF COAL - 233'.

-7" CASING AT 187'. 125 SXS., CIRCULATED.

320

West Kent ~~Forest~~

Frankland Sand. (Lam.)
1662.

Handwritten signature

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
1
date EXHIBIT NO. *2*
CASE NO. *10345-10346*

-4 1/2" CASING AT 1365'. 300 SXS. CEMENT, CIRCULATED.

THE WESTERN COMPANY**NITROGEN FOAM PUMPING SCHEDULE**PROCEDURE

STAGE	DOWNHOLE FOAM VOLUME (GALS)	DOWNHOLE FOAM QUALITY	DOWNHOLE FOAM RATE (BPM)	PROPPANT				CLEAN GEL VOLUME (BBLs)	N2 VOLUME (MSCF)
				CONC. (LB/GL)	MESH	TYPE	LBS		
1	11000	70.0	15.0	0.00	PAD		0	78.6	79.55
2	4000	70.0	15.0	0.50	40/70	SAND	2000	28.6	28.93
3	1500	70.0	15.0	1.00	20/40	SAND	1500	10.7	10.85
4	1500	70.0	15.0	2.00	20/40	SAND	3000	10.7	10.85
5	1500	70.0	15.0	3.00	20/40	SAND	4500	10.7	10.85
6	1500	70.0	15.0	4.00	20/40	SAND	6000	10.7	10.85
7	2000	65.0	15.0	5.00	20/40	SAND	10000	16.7	13.44
8	3000	60.0	15.0	6.00	20/40	SAND	18000	28.6	18.62
9	3000	55.0	15.0	7.00	20/40	SAND	21000	32.1	17.08
10	4000	50.0	15.0	8.00	20/40	SAND	32000	47.6	20.70
FLUSH	950	50.0	15.0	0.00	FLUSH		0	11.3	4.92
	33950						98000	286.3	226.63

TREATMENT SCHEDULE

STAGE	PROPPANT CONC.		CLEAN GEL RATE (BPM)	BLEND SLURRY RATE (BPM)	SLURRY VOLUME (WITHOUT N2)			N2 RATE SCFM	PROP RATE LB/MIN	STAGE PUMP TIME HH:MM:SS
	PERF. LB/GL	BLNDR LB/GL			(BBLs)	(CUM.)	ON PERFS			
1	0.0	0.0	4.50	4.50	78.6	79	7	4556	0	00:17:27
2	0.5	1.7	4.40	4.73	30.7	109	86	4455	308	00:06:29
3	1.0	3.3	4.30	4.96	12.3	122	117	4359	603	00:02:29
4	2.0	6.7	4.13	5.37	14.0	136	130	4177	1155	00:02:35
5	3.0	10.0	3.96	5.76	15.6	151	144	4011	1664	00:02:42
6	4.0	13.3	3.81	6.11	17.2	168	160	3857	2133	00:02:48
7	5.0	14.3	4.28	7.05	27.5	196	179	3451	2568	00:03:53
8	6.0	15.0	4.72	7.93	48.0	244	208	3074	2971	00:06:03
9	7.0	15.6	5.12	8.74	54.8	299	257	2722	3347	00:06:16
10	8.0	16.0	5.50	9.50	82.2	381	313	2393	3698	00:08:39
FLUSH	0.0	0.0	7.50	7.50	11.3	392	392	3261	0	00:01:30
TOTAL PUMP TIME:										01:00:56

BEFORE EXAMINER STOGNER

OIL CONSERVATION DIVISION

EXHIBIT NO. 3

CASE NO. 10345-10346

000041

THE WESTERN COMPANY
WEST-FOAM ANALYSIS
PROPPANT PROFILE STUDY
GEERTSMA-DE KLERK GEOMETRY

FLUID VOLUME (GALS)	PROPPANT TYPE	SURFACE PROPPANT CONC. (LB/GAL)	LOCATION IN FRACT. (FT)		AVERAGE PROPPED WIDTH (IN)	FRACTURE PROPPANT CONC. (LB/FT ²)	CUMULATIVE CUMULATIVE PROPPANT (LBS)
			FROM	TO			
11000	PAD	0.00	501	693	0.0000	0.000	0
4000	SAND	0.50	427	501	0.0466	0.400	2000
1500	SAND	1.00	399	427	0.0900	0.773	3500
1500	SAND	2.00	369	399	0.1713	1.470	6500
1500	SAND	3.00	337	369	0.2448	2.101	11000
1500	SAND	4.00	304	337	0.3114	2.673	17000
2000	SAND	5.00	258	304	0.3712	3.187	27000
3000	SAND	6.00	185	258	0.4234	3.634	45000
3000	SAND	7.00	108	185	0.4684	4.021	66000
4000	SAND	8.00	0	108	0.5062	4.345	98000
TOTAL FOAM VOLUME -					33000 GAL		

000042

to Appropriate
District Office
State Lease - 6 copies
Fee Lease - 5 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-101
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 108
Santa Fe, New Mexico 87501-0108

RECEIVED

AUG 06 1990

OIL CON. DIV
DIST. 3

API NO. (assigned by OCD on New Wells)	30-045-28066
5. Indicate Type of Lease	STATE ☐ FEE ☒
6. State Oil & Gas Lease No.	
7. Lease Name or Unit Agreement Name	Gallegos Canyon Unit
8. Well No.	391 E/320
9. Pool name or Wildcat	Basin Fruitland Coal

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK					
1a. Type of Work: DRILL ☒ RE-ENTER ☐ DEEPEN ☐ PLUG BACK ☐					
b. Type of Well: OIL WELL ☐ GAS WELL ☒ OTHER ☐ SINGLE ZONE ☒ MULTIPLE ZONE ☐					
2. Name of Operator BHP Petroleum (Americas) Inc.					
3. Address of Operator 5847 San Felipe Ste 3600 Houston TX 77057-3005					
4. Well Location Unit Letter A : 975 Feet From The North Line and 870 Feet From The East Line Section 23 Township 29N Range 13W NMPM San Juan County					
10. Proposed Depth 1330'		11. Formation Fruitland Coal		12. Rotary or C.T. Rotary	
13. Elevations (Show whether DF, RT, GR, etc.) 5323 GR		14. Kind & Status Plug. Bond Blanket		15. Drilling Contractor Unknown	
16. Approx. Date Work will start Fall 1990					
17. PROPOSED CASING AND CEMENT PROGRAM					
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
8 3/4"	7"	207	± 130'	50 sx (57.5 cu ft.)	Surf
6 1/4"	4 1/2"	10.5#	±1330'	169 sx (207 cu ft.)	Surf

It is proposed to drill the subject well to 1330' with primary production anticipated in the Fruitland Coal

Estimated Formation Tops: Kirtland 30'
Fruitland 811'
Basal Fruitland Coal 1141'
Pictured Cliffs 1180'
TD 1330'

The proposed well is within the city limits of Farmington, New Mexico. BHP will obtain the required City Permits.

BOPE will consist of 2,000# Reagan Bladder type BOP, pipe rams & blind ram B.O.P.

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. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Chuck Williams TITLE Field Services Administrator DATE 08/01/90
TYPE OR PRINT NAME Chuck Williams TELEPHONE NO.

(This space for State Use)

APPROVED BY Emilia Busch DEPUTY OIL & GAS INSPECTOR, DIST. #3 DATE AUG 06 1990

CONDITIONS OF APPROVAL, IF ANY:

Hold C-104 For City Approval

APPROVAL EXPIRES 2-6-91
UNLESS DRILLING IS COMMENCED.
SPUD NOTICE MUST BE SUBMITTED
WITHIN 10 DAYS.

BEFORE EXAMINER SIGNATURE
OIL CONSERVATION DIVISION
LOCKE
DATE NO.

OIL CONSERVATION DIVISION

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

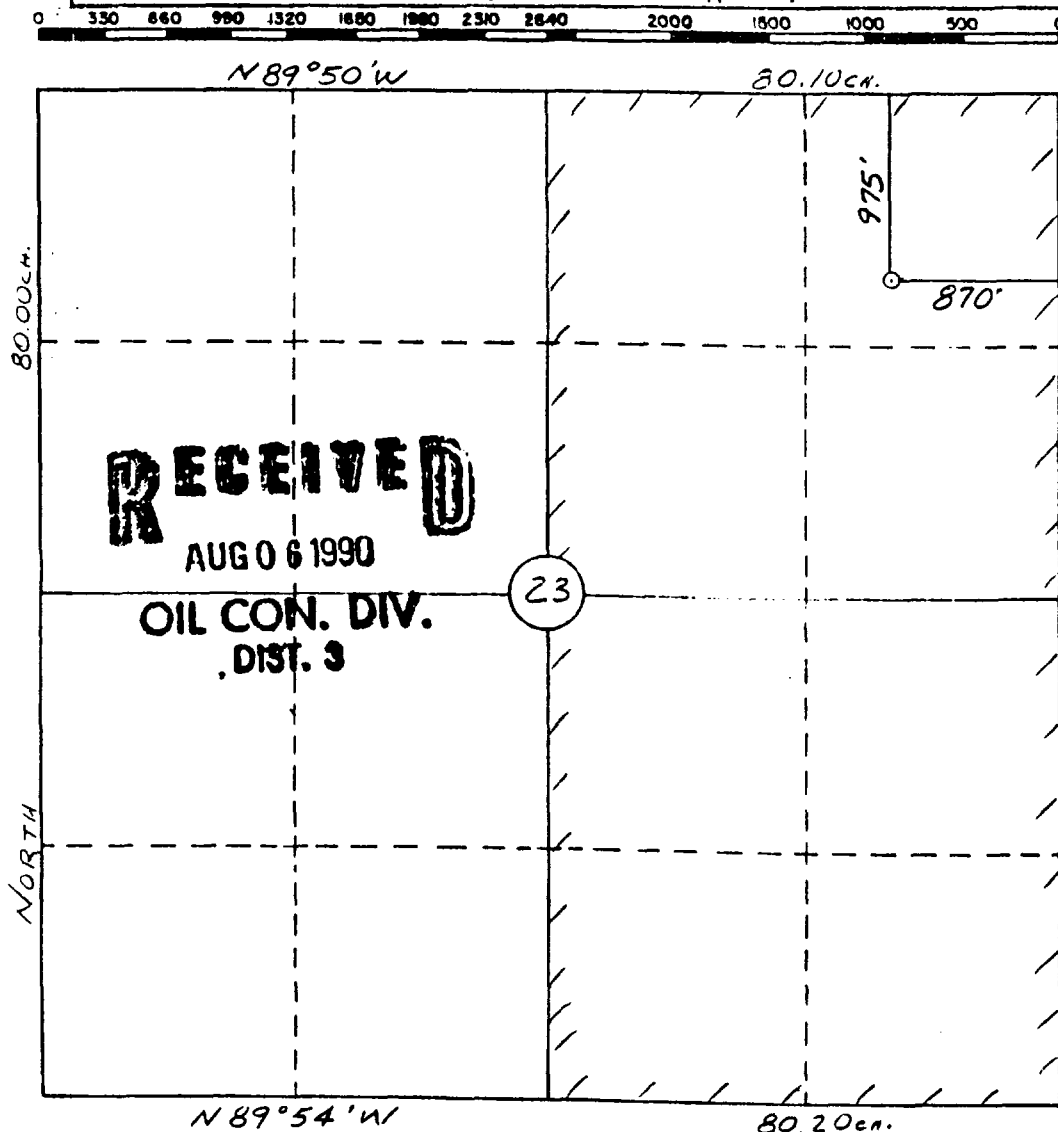
DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator BHP PETROLEUM (AMERICAS) INC.		Lease GALLEGOS CANYON UNIT		Well No. 391
Unit Letter A	Section 23	Township 29 N	Range 13 W	County San Juan
Actual Footage Location of Well: 975 feet from the North line and 870 feet from the East line				
Ground level Elev. 5323	Producing Formation Fruitland Coal		Pool Basin Fruitland Coal	Dedicated Acreage: 320 Acres
1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below. 2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty). 3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.? ☐ Yes ☐ No If answer is "yes" type of consolidation _____ If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____ No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.				



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature _____

Chuck Williams

Printed Name _____

Chuck Williams

Position

Field Services Administrator

Company

BHP Petroleum (Americas) Inc

Date _____

08/01/90

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed _____

~~William F. Mahnke II~~

Signature & Seal of Professional Surveyor

Certificate No. 8466