

PLAINTIFF'S EXHIBIT

TEX-39

NO.

M-580-13 - Standard Expense - 18

Puget Sound Plant
Year - 1968

WA-TEX 008980

WA-TEX008980

PLANT Puger Sound

YEAR 1968

1970

	Polymerization	CATALYTIC REFORMING	HYDROFRACTIONATING	ALKYLATION	STOCKING & SHIPPING
ESTIMATED DIVISOR — Barrels	618 000	2359000	10711000	4414800	25481000
CAPACITY — Barrels	4251600	24480000	-	10980000	-
Direct Variable Charges					
Fuel @ \$1.00					
Direct Fuel					
Fuel in Steam	143	227868	084	241148	
Fuel in Power		006	001	9300	0014
Fuel in Water				120000	93100
Fuel in Auxiliaries					
Total Fuel	143	227868	084	241148	
Miscellaneous — Fuel Only (1)		0073	0023	250448	004
Purchased Power	035				93100
Purchased Water		0023	0003	28100	001
Purchased Utilities in Auxiliaries	023	0016	0011	5600	43100
Chemicals					
Acid					
Hydrogen Catalyst				271	400000
Other Catalyst	003	0016		4800	
Chemicals — Auxiliaries					
Other Chemicals	018	001	0001	17300	4900
Total Chemicals	021	0017	0002	22100	4900
Royalties (Running Royalties)					
TOTAL DIRECT VARIABLE CHARGES	278	323794	009	310248	148300
SEMI-VARIABLE CHARGES					
Operators — (ex T&I)					
Test and Inspection — Labor	024	018	002	61400	007
Maintenance — Labor	026	003	001	9200	10400
Test and Inspection — Contract Work					
Maintenance — Contract Work					
Test and Inspection — Material	014	004	001	13700	002
Maintenance — Material	021	001		4100	003
Employee Benefits	031	0014	001	8700	003
Indirect Plant — Labor	080	015	004	48145	007
Indirect Plant — Other	081	015	004	48145	007
Steam — Charges Other Than Fuel	074	013	003	38826	002
Water — Charges Other Than Fuel & Purch. Power	141	006	001	8100	003
Auxiliaries — Other Than Fuel, Chemicals & Purch. Util.					
Miscellaneous — Other					
Rentals and Royalties					
TOTAL SEMI-VARIABLE CHARGES	483	314368	023	267408	041
NON-VARIABLE CHARGES	015	189	004	577656	047
Depreciation					
Insurance & Taxes Related to Investment					
General Office and General Overhead					
Auxiliaries (F&OH)					
Rentals and Royalties					
TOTAL NON-VARIABLE CHARGES					
TOTAL EXPENSE					

Notes (1)

WA-TEX 008981

WA-TEX008981

PLANT Puget Sound

YEAR 1968

	TOTAL CHARGE REFINING EXPENSE	VACUUM ST	PIPE	DECKHOUSE-12ER	B3W	WASTE OIL Recovery	FCCU	
ESTIMATED DIVISOR - Barrels	23487	24	101,000				988400	
CAPACITY - Barrels	21960000	24	560,000				988400	
Direct Variable Charges								
Fuel @ \$1.00								
Direct Fuel	051	100398	022	182014	25487		012	159474
Fuel in Steam	033	76150	004	83500	47800	77000	030	275900
Fuel in Power								
Electric Power								
Fuel in Auxiliaries								
Total Fuel	084	176548	004	83700	57700	110900	040	436374
Miscellaneous - Fuel Only (1)	50217	1706100	030	712808			040	1706100
Purchased Power	010	235600	001	24000	22500	4400	007	62100
Purchased Water	005	117400	001	20000	4600	700	004	38000
Purchased Utilities in Auxiliaries								
Chemicals								
Acid	017	40000	001	32300	227100	2100	001	38000
Hydrobion Catalyst	4300							
Other Catalyst	026	221300					018	727700
Chemicals - Auxiliaries								
Total Chemicals	007	53200		1700			01	5400
Royalties (Running Royalties)	045	1074520		1700			018	532900
TOTAL DIRECT VARIABLE CHARGES	143	283724	033	805808			007	1635874
SEMI-VARIABLE CHARGES								
Operations - (ex 10)	030	707000	005	124000	4000		017	151000
Test and Inspection - Labor	003	64000	001	22400			001	4000
Maintenance - Labor	019	360100	003	70300	32700		010	25800
Test and Inspection - Contract Work	005	175100	003	66000				700
Maintenance - Contract Work	005	117500	001	12700	5700		007	18900
Test and Inspection - Material	001	241000	001	24600			001	1200
Maintenance - Material	010	231100	001	35500	26200		001	48100
Employ's Benefits	026	607370	004	126701	15780	1800	014	127500
Indirect Plant - Labor	026	617000	001	108715	26000	1800	014	127500
Indirect Plant - Other	024	150500	004	90721	16800	16800	013	117700
Steam - Charges Other Than Fuel & Packed Utilities	033	753101	003	37500	44500	7600	030	272800
Power - Charges Other Than Fuel & Packed Utilities								
Water - Charges Other Than Fuel & Packed Utilities								
Auxiliaries - Other Than Fuel, Chemicals & Purch. Util	021	449800	008	181614	174030	174950	013	1497801
Miscellaneous - Other								
Rentals and Royalties	121	378600	030	94100			030	483400
TOTAL SEMI-VARIABLE CHARGES	284	6677400	074	1796599			115	1047638
TOTAL VARIABLE AND SEMI-VARIABLE CHARGES								
NON-VARIABLE CHARGES								
Depreciation								
Insurance & Taxes Related to Investment								
General Office and General Overhead								
Auxiliaries (FAOH)								
Rentals and Royalties								
TOTAL NON-VARIABLE CHARGES								
TOTAL EXPENSE								

Notes (1) CREDIT FOR FUEL ONLY IN STEAM PRODUCED FROM CO & WASTE HEAT BOILERS

FLUID CATALYTIC CRACKING UNIT 506,100 BBL @ \$1.00

TOTAL CHARGE REFINING EXPENSE 506,100 BBL @ \$1.00

THE ESTIMATED DIVISOR REPRESENTS CHARGE TO UNIT EXCEPT POLYMERIZATION

UNIT LIGHT SECTION

TEXACO

Anacortes, Washington 98221, January 31, 1968

FORM R-1211-E
ESTIMATED OPERATING EXPENSES
YEAR 1968

REFINING DEPT. HOUSTON OFFICE		
FEB 15 1968		
VICE PRES.		
GEN. MGR.		
MGR. OPR.		
ASST. MGR. OPR.		
Supvr. Cost & Stat.		
SUPVR. EMP. REL.		
SUPVR. PROCESS		
SUPVR. EXP. CONT.		
SUPVR. PRODUCTION		
Supvr. Cr. Reqmts.		
SUPVR. (EDPM)		
SUPVR. MAINT.		

AIR MAIL

PERSONAL AND
CONFIDENTIAL

M E M O R A N D U M

✓ Mr. J. R. Lemmer
Houston, Texas 77052

We are submitting herewith Estimated Crude Refining Expenses, Form R-1211-E, Exhibits 1, 2, 3 and 4.

The activities shown on the attached statements are in agreement with those shown in the Annual Budget, Form R-1259 as submitted. No new equipment is to start up and none of the present equipment is to be shut down during the year.

The following is a breakdown of expenses included under Miscellaneous Expense:

FCCU - Credit for Steam	\$ (1,095,101)	
Sub-Total Direct Plant		\$ (1,095,101)
Charge Steam Dept. for above item	1,095,101	
Purchased Power	286,000	
Purchased Water	120,600	
Total SP&W		1,501,701
Vacation Pay	170,000	
A&S Benefits	28,400	
Telephone	10,220	
Telegraph	2,100	
Contributions & Donations	200	
Memberships & Subscriptions	50	
Postage	1,900	
Traveling & Personal	8,400	
All Other Expenses	31,750	
Marine Dept. Services	4,400	
Sales Dept. - Electric Sign & Services	3,600	
Rentals	6,528	
Sub-total Indirect		251,548
Grand Total Miscellaneous Expense		\$ 658,148

WA-TEX 008983

WA-TEX008983

Mr. J. R. Lemmer

- 2 -

1-31-68

Included in Material Operating is an estimate of \$6,300.00 for Printing & Stationery and excluded from Material Operating is an estimate of \$3,000.00 for Hydrogen which has been included with Chemicals.

Labor costs are based on the following manpower:

	<u>No. Men</u>	<u>Cost</u>
Calendar Personnel & Other Staff	6	0
Construction & Outside Charges	2	12,700
Plant Expense - Form R-1259	257	2,296,000
Total Labor	265	2,308,700
Less: Vacation Pay		170,000
A&S Benefits		28,400
Construction & Outside		12,700
Labor Distributed on Form R-1211-E as Labor		\$ 2,097,600

The following is a breakdown of the component costs used in pricing out steam produced from C.O. and waste heat boilers:

	<u>FCCU</u>
M Lbs. Steam	2,671,000
BTU's/Lb.	1,318.2
MM BTU's	3,521,000
Total Steam Cost Basis Unit Cost Previous Report	.31102
Credit for Steam	\$ 1,095,101
Component Costs:	
Labor	346,700
Material	81,000
Contract Work	3,900
Fuel - Ebbs.	506,500
Fuel - Cost	605,300
Transfers of Steam	(28,900)
Transfers from Power	58,000
Transfers from Water	29,101
	\$ 1,095,101

429 801


G. V. CARROLL

JPE-IKC 1-31-68

JRL(2)

JFF(Stat. Refg.)

Attachments

ARP
REC

WA-TEX 008984

WA-TEX008984

PLANT LABOR AND CONTRACT WORK
ESTIMATED OPERATING EXPENSES - YEAR
PUGET SOUND PLANT

Line No.	Activities Barrels	L A B O R				Contract Work		
		Operators-Ex. I&T	I&T	Maint.	Total	I&T	Maint.	Total
		Number	\$ Amt.	\$ Amt.	\$ Amt.			
		Employees						
1	VPS	14.0	124,000	22,400	70,200	66,000	12,700	78,700
2	Decarbonizer	(1)			32,200		5,700	5,700
3	FGCU	18.0	155,000	8,000	95,800	700	18,900	19,600
4	Poly (Bbls. Polym.)	7.0	62,000	4,200	41,000		7,700	7,700
5	Catalytic Reform.	7.0	62,000	9,600	28,600	17,600	14,700	32,300
6	Alky (Bbls. Alkylate)	7.0	62,000	10,400	37,200	13,200	6,700	19,900
7	Hydrotreating	7.0	62,000	9,600	16,300	17,600	13,700	31,300
8	Shipping Bulk	(2)			40,800		8,000	8,000
9	RP&S	20.0	172,000		98,400		29,400	29,400
10	BS&W	0.5	4,000					
11	Waste Oil Recovery	0.5	4,000					
12	Total Direct	81.0	707,000	64,200	460,500	115,100	117,500	232,600
13	S.P.&W.	13.0	109,000		139,300		5,000	5,000
14	Indirect Plant	(3)14.0	123,000		494,600		63,660	63,660
15	GRAND TOTAL	108.0	939,000	64,200	1,094,400	115,100	186,160	301,260

(1) Operated by VPS Personnel
(2) Included in RP&S Dock Forces
(3) Includes 13 from Laboratory and 1 from Effluent Treating

GVC-MJC 1-31-68

JRL (2)

JFF (STAT. REFG.)

MATERIAL, MISCELLANEOUS EXPENSE AND FUEL CONSUMED
ESTIMATED OPERATING EXPENSES - YEAR 1968
PUGET SOUND PLANT

Line No.	Material	I&T	Maint.	Total	Misc. Expense	Fuel Consumed		
						Total Gas Std. Bbls.	Liquid Std. Bbls.	Total Fuel \$ Amount
1	VPS	27,000	35,200	62,200		500,050	49,971	964,200
2	Decarbonizer		16,200	16,200		25,487		46,400
3	FOCU	1,200	48,100	49,300		25,666	133,808	198,780
4	Poly (Ebls. Polymer)	500	20,600	21,100	(1,095,101)			
5	Catalytic Reforming	4,100	14,300	18,400				
6	Alky (Ebls. Alkylate)	5,000	18,700	23,700				
7	Hydrotreating	4,100	8,200	12,300		190,725	37,143	387,100
8	Shipping Bulk		20,500	20,500		241,148		438,900
9	RF&S		49,360	49,360				
10	B&W							
11	Waste Oil Recovery							
12	Total Direct	41,900	231,160	273,060	(1,095,101)	983,076	220,922	2,035,380
13	SP&W		70,000	70,000	1,501,701	50,934	268,019	381,100
14	Indirect Plant		248,400	248,400	251,548	3,053		5,520
15	GRAND TOTAL	41,900	549,560	591,460	658,148	1,037,063	488,941	2,422,000

GVC-AMH 1-31-68

JRL (2)

JFF (Stat. Refg.)

	Std. Bbls.	\$ /Bbl.	Amount
Gas Produced	1,023,023	1.82	1,861,820
Liquid Fuel	488,941	1.076	526,100
Purchased Gas	14,040	2.427	34,080
TOTALS	1,526,004	1.587	\$2,422,000

DETAILED DISTRIBUTION OF CHEMICALS CONSUMED
ESTIMATED CRUDE REFINING OPERATING EXPENSES - YEAR 1968
PUGET SOUND PLANT

Line No.		V P S		F C C U		Poly		Alkylation	
		Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
1	Acid, Alky Sulfuric-Tons								
2	Anti-Foam DC-200 Lbs.							16,470	400,000
3	Catalyst: -	771	1,700						
4	HDS-2 Hydrotreater - Lbs.								
5	Davison XZ-25 - Tons			1,095	527,700	115,000	35,000		
6	UOP #1 Poly-Lbs.								
7	UOP-R-11 Platinum - Lbs.					15,600	5,200		
8	Caustic Soda - Lbs.			15,600	5,200	27,600	5,800		
9	Monoethanolamine - Lbs.								
10	DeSal 960					12,400	200	283,400	4,900
11	Sodium Chloride - Lbs.								
12	Hydrogen - Cu. Ft.					1,570	700		
13	Dow Corning B								
14	TOTAL		1,700		532,900		46,900		404,900

GVC-MJC 1/31/68

JRL (2)

JFF (Stat. Refg.)

DETAILED DISTRIBUTION OF CHEMICALS CONSUMED
ESTIMATED CRUDE REFINING OPERATING EXPENSES - YEAR 1968
PUGET SOUND PLANT

LINE NO.	CHEMICAL	HYDROTREATING Quantity Amount	RP&S Quantity Amount	CAT. REFORMING Quantity Amount	TOTAL Amount
1	Acid, Alky Sulfuric - Tons				400,000
2	Anti-Foam DC-200-Lbs.				1,700
3	Catalyst: -				
4	HDS-2 Hydrotreater - Lbs.	5,400	4,800		4,800
5	Davison XZ-25 - Tons				527,700
6	UOP #1 Poly - Lbs.			16,400	35,000
7	UOP-R-11 Platinum - Lbs.			7,800	59,800
8	Caustic Soda - Lbs.				13,000
9	Monoethanolamine - Lbs.				5,800
10	Nalco 537-D - Gals.	4,900	17,000		17,000
11	Sodium Chloride - Lbs.		395,400		12,000
12	Hydrogen - Cu. Ft.	20,000	300	180,000	3,000
13	Dow Corning E			2,700	700
14	TOTAL	22,100	6,900	65,100	1,000,500

~~1,000,500~~
~~1,000,500~~
1,074,500

GVC-LKC 1-31-68

JRL (2)

JFF (Stat. Refg.)

STEAM, POWER, & WATER EXPENSES
ESTIMATED OPERATING EXPENSES - YEAR 1968
PUGET SOUND PLANT

Line No.		USE L		Purchased Power	Purchased Water	Other Cost	Total SP&W	Total Plant
		Barrels	Amount					
1	VPS	88,500	105,800	24,000	20,000	87,200	237,000	1,560,400
2	Decarbonization	45,200	54,000	22,500	4,600	44,500	125,600	226,100
3	FCU	276,900	330,900	62,100	39,000	272,800	704,800	669,079
4	Polymerization	93,900	112,200	22,800	15,000	92,500	242,500	425,400
5	Catalytic Reforming	19,000	22,700	10,100	7,700	18,700	59,200	662,300
6	Alkylation	120,000	143,400	16,900	13,300	118,201	291,801	849,901
7	Hydrotreating	9,300	11,100	28,100	9,600	9,100	57,900	650,400
8	Shipping Bulk	7,700	9,200	8,100	600	7,600	25,500	94,800
9	RP&S	85,400	102,100	35,300	4,300	84,200	225,900	581,960
10	BS&W	7,700	9,200	2,400	700	7,600	19,900	23,900
11	Waste Oil Recovery	10,900	13,000	1,300	800	10,700	25,800	29,800
12	TOTAL	764,500	913,600	233,600	115,600	753,101 / 2,015,901		5,774,040
13	S. P. & W.					(2,206,101)		
14	Indirect Plant	60,953	72,800	52,400	5,000	60,000	190,200	1,377,028
15	GRAND TOTAL	825,453	986,400	286,000	120,600	813,101	0,000	7,151,068

WA-TEX 008989

WA-TEX008989

STEAM, POWER & WATER EXPENSES
ESTIMATED OPERATING EXPENSES - YEAR 1968
PUGET SOUND PLANT

Distribution	Steam	Power	Water	Total
Fuel - Barrels	819,675		5,778	825,453
Fuel - Cost	979,495		6,905	986,400
Purch. - Power	34,300	189,200	62,500	286,000
Purch. - Water	30,100		90,500	120,600
Other Cost	715,517	3,535	94,049	813,101
TOTAL COST	1,759,412	192,735	253,954	2,206,101

Avg. Steam Cost/M Lbs. \$.248489
Avg. Power Cost/KW \$.00500302
Avg. Water Cost/M Gals.

Purchased Utility Rates
Last Increment of Power / KW \$.000000
Last Increment of Water / M Gal. \$.10251

SP&N Fuel Summary
Total SP&N Fuel From Exhibit II Barrels 318,953
Plus FCCU Waste Heat Fuel Credit Barrels 506,500
TOTAL SP&N FUEL TO DISTRIBUTE Barrels 825,453

* PSP has a power contract based on a peak demand of 8000 KW. No additional payment is required unless demand exceeds 8000 KW, and if demand exceeds 8000 KW the monthly charge will be increased by \$2.31 per KW in excess of 8000.

GVC-LKC 1-31-68

JREL (2)
JFF (Stat. Refs.)

MAIL-O-GRAM

Anacortes, Washington 98221, March 22, 1965 '63

PLATINUM CATALYST - WRITE ON

[illegible]

AIR MAIL-O-GRAM

Mr. J. R. Lemmer
Houston, Texas 77052

Please refer to your Mail-O-Gram above subject
of March 19, 1968.

We have written off 15,330# in the amount of \$45,893.00 in 1967.

Since we are replenishing our catalyst in April, 1968, we stepped up our write off to 2,241# per month for January and February in the amount of \$6,698 leaving a balance of 2,270# - \$6,779.76 for March.

After reviewing our R-1211-E for 1968, we find we were in error. Our new supply is expected to last 24 months and therefore we will write-off 1,310# = \$3,930 per month @ ~~\$3.00~~/lb. which we will begin in May, 1968. ✓

3.85

H. P. CREEP

May - DEC

40.348

13,478

13.82

JPE-LKC

WA-TEX 008991

WA-TEX008991

MAIL-O-GRAM

Houston, Texas 77052, March 19, 1968

FORM G-227 11-67

REFINING DEPT. HOUSTON OFFICE	
VICE PRES.	
GEN. MGR.	
MGR. OPR.	
ASST. MGR. OPR.	
Supvr. Cost & Stat.	✓
SUPVR. EMP. REL.	✓
PLATINUM CATALYST WRITE-OFF	
SUPVR. EXP. CONT.	
SUPVR. PRODUCTION	
Supvr. Cr. Regs.	
SUPVR. (EDPM)	
SUPVR. MAINT.	

Mr. H. P. Greel
Anacortes, Washington

Review of Puget Sound Form R-472 (Equivalent), Cost of Chemicals Consumed for Year 1967, indicates write-off of \$45,893 for year 1967, but shows no quantities. Please advise equivalent pounds of catalyst written off for year 1967. Also we note that for months of January and February of 1968 your write-off of CRU catalyst is \$6,698 each month. Please advise equivalent pounds for these two months.

Form R-1211-E for year 1967 PSP indicates you estimated 18,800 pounds totaling \$56,400. Further, we note that Form R-1211-E for year 1968 indicates an estimated consumption of 16,400 pounds totaling \$59,800.

In addition to advising equivalent quantities of CRU catalyst write-off for year 1967 and first two months of 1968 please advise basis for difference in R-1211-E dollars per pound for 1967 versus 1968, as well as estimated life on which the write-off is based.

J. R. LEMMER

WPH:DJL
3:35 PM

TJM

WA-TEX 008992

WA-TEX008992

TEXACOREF AACT

1968 JUN 3 PM 4 39

6/3

RUSH

J R LEMMER

REURTEL OUR R-1211-E EXHIBIT IV STEAM, POWER AND WATER EXPENSES

PAGE 2. AVERAGE WATER COST PER M GAL IS \$.253765.

H P CREEL

TEXACO HOU

T

REFINING DEPT. HOUSTON OFFICE	
JUN 4 1968	
VICE PRES.	
GEN. MGR.	
MGR. OPR.	
ASST. MGR. OPR.	
SUPV. COST & S&L	
SUPV. EMP. REL.	
SUPV. PROCESS	
SUPV. EXP. CONT.	
SUPV. PRODUCTION	
SUPV. O. & REPAIRS	
SUPV. (EDPM)	
SUPV. MAINT.	

WA-TEX 008993

WA-TEX008993

TELEGRAM

(DO NOT USE WIRES FOR BUSINESS THAT CAN WAIT FOR THE MAIL)

Houston, Texas 77052, June 3, 1968

R U S H

H. P. GRIEL

ANACORTES, WASHINGTON

REFINING DEPT. HOUSTON OFFICE	
CCN. MGR.	
MGR. OPR.	
ASST. MGR. OPR.	
Supvr. Cost & Stat.	
SUPVR. EMP. REL.	
SUPVR. PROCESS	
SUPVR. TYP. CONT.	
SUPVR. PRODUCTION	
Supvr. Cr. Reqm.	
SUPVR. (EDPM)	
SUPVR. MAINT.	

Refer R-1211-E Exhibit IV Steam, Power and Water

Expenses page 2 and advise average water cost per M gallons by
return wire.

J. R. LEMMER

DNW:DLK

10:40 AM

WA-TEX 008994

WA-TEX008994

TEXACO HOU

EHF

TEXACOREF AACT

RUSH

5/29

J R LEMMER

REURTEL MAY 29 FORM R-1211-E. CURRENT POLYMER PRODUCTION CONTAINS
SOME LIGHT SR GASOLINE MIXED WITH PROPYLENE POLYMER. R-1503 CAL-
CULATED ONLY THE NET TRUE POLYMER. FOR R-1211-E SUGGEST POLYMER
PRODUCTION 658,000 BARRELS BE USED BECAUSE THIS MORE NEARLY
REPRESENTS ACTUAL OPERATION.

H P CREEL

TEXACO HOU

REFINING DEPT. HOUSTON OFFICE	
MAY 28 1969	
VICE PRES.	
GEN. MGR.	
MGR. OPR.	
ASST. MGR. OPR.	
S. pvt. Cost & Stat.	
SUPPLY. EXP. REL.	
SUPVR. PROCS.	
SUPVR. *XP. CONT.	
SUPVR. PRODUCTION	
S. pvt. Cr. Reg.-ls.	
ST. MGR. (ECPX)	
SUPVR. MINT.	

1023 MAY 29 PM

WA-TEX 008995

WA-TEX008995

TELEGRAM

(DO NOT USE WIRES FOR BUSINESS THAT CAN WAIT FOR THE MAIL)

Houston, Texas 77052,

REFINING DEPT.	
HOUSTON OFFICE	
MAY 29, 1968	
VICE PRES.	
GEN. MGR.	
MGR. OPS.	
ASST. MGR. OPS.	
S. Dir. Cost & Sta.	
SUPV. EMP. REL.	
BUYER PROD. SE.	
SUPV. EXT. COMM.	
SUPV. TRANSPORT.	
SUPV. (HONOR.)	

R U S H

H. P. CREEL

ANACORTES, WASHINGTON

Reur Form R-1211-E. Polymer production listed on

Form R-1503 dated 8-26-67 was 307,901 barrels. R-1211-E listed
production at 658,000 barrels. Current production is exceeding
the R-1503 figures. Please advise if we should use production
listed on R-1211-E.

J. R. LEMMER

WJD:DLK

9:30 AM

WA-TEX 008996

WA-TEX008996

TEXACO HOU

TEXACOREF AACT

5/27/68

RUSH RUSH

J R LEMMER

RUSH

MAY 28 PM 12 38

REFINING DEPT	
HOUSTON OFFICE	
MAY 28 1968	
VICE PRES.	
GEN. MGR.	
MGR. OPN.	
ASST. MGR. OPN.	
SUPV. CUST. & Mkt.	
SUPV. EMP. REL.	
SUPV. PROCESS.	
SUPV. EXP. CONT.	
SUPV. PRODUCTION	
SUPV. Q. CONTROL	
SUPV. TQM	
SUPV. MAINT.	

REURTEL 5/27/68 OUR FORM R-1211-E FOR 1968. FOLLOWING IS THE ESTIMATED VERSUS THE ACTUAL FOR 1966 AND 1967. IT APPEARS THE 1967 ESTIMATE WAS IN ERROR. ON THE BASIS OF THE ACTUAL FIGURES, WE DO NOT FEEL OUR 1968 ESTIMATE IS OUT OF LINE.

UNIT	R-1211-E			ACTUAL	
	1966	1967	1968	1966	1967
VPS	.021	.014	.024	0.0208	0.0222
BDU	-	-	-	0.0090	0.0107
FCCU	.015	.027	.017	-	-
CRU	.071	.048	.067	0.0693	0.0661
HTU	.025	.028	.023	0.0313	0.0227

H P CREEL

*Use 1968
R-1211-E
presented
5/28/68
jm*

CORRECTION PLS CHANGE SENDING DATE TO 5/28

TEXACO HOU

M

TELEGRAM

(DO NOT USE WIRES FOR BUSINESS THAT CAN WAIT FOR THE MAIL)

Houston, Texas 77052, May 27, 1968

RUSH

H. P. CREEL

ANACORTES, WASH.

Reur Form R-1211E for 1968, Direct fuel consumption

appears out of line compared with previous years.

REFINING DEPTS (7-57) 200M	
HOUSTON OFFICE	
VICE PRES.	
PER. MGR.	
GR. OPR.	
ASST. MGR.-OPR.	
S. prty, Dist & Stk.	
SUPVR. EMP. REL.	
SUPVR. PROC. SS.	
SUPVR. EXP. CONT.	
SUPVR. PRODUCTION	
SUPVR. C. REPAIRS	
SUPVR. IEDMA	
SUPVR. MAINT.	

	Total Gas Std. Bbls.	Liquid Std. Bbls.	Fuel Unit
1966-Crude Running 21,493,000			
VPS	426,759	10,058	.021
Decarbonizer	21,554	-	
FCCU	60,300	60,300	.015
CRU	199,729	21,554	.071
HTU	241,399	-	.025
Totals	949,741	91,912	
1967-Crude Running 23,617,000			
VPS	273,010	24,902	.014
Decarbonizer	27,314	-	
FCCU	98,567	143,028	.027
CRU	128,240	24,902	.048
HTU	281,029	-	.028
Totals	808,160	192,832	
1968-Crude Running 24,101,000			
VPS	500,050	49,971	.024
Decarbonizer	25,487	-	
FCCU	25,666	133,808	.017
CRU	190,725	37,143	.067
HTU	241,148	-	.023
Totals	983,076	220,922	

WA-TEX 008998

WA-TEX008998

TELEGRAM

(DO NOT USE WIRES FOR BUSINESS THAT CAN WAIT FOR THE MAIL)

Mr. H. P. Greel

- 2 -

May 27, 1968

Please recheck and advise promptly.

J. R. LEMMER

WJD:JEB

3:50 PM

WA-TEX 008999

WA-TEX008999

Pulver Sound Plant DISTRIBUTION OF INDIRECT PLANT 1968

PRINCES
 VACATION PENALTY

	DIRECT		INDIRECT		VACATION PENALTY		TOTAL
	LABOR %	LABOR	OTHER		PA+SLS	PHYSICIAN'S	
VPS	17.6	108,715	98,723				106,901
DECARB	2.6	16,660	14,884				15,964
BSPW	0.3	1,853	1,683				1,822
WAR	0.3	1,853	1,683				1,822
FECU	21.0	129,717	117,795				127,553
Reby	8.7	53,740	48,800				51,843
CRU	8.1	50,334	45,435				49,199
HTU	7.1	43,857	39,846				43,125
BLKY	1.9	54,915	49,423				54,058
SHIPBOARD PPS	25.4	157,816	141,716				154,278
TOTAL -	100 %	617,700	560,828	117,868	198,400	40,843	607,393
		+ 63,460	95,613	+ 158,423	+ 22,460	+ 152,123	+ 174,503
INDIRECT -							
LABOR		617,700					
OTHER INDIRECT							
CONTINENT			63,460	158,423			
MATL			248,400	41,460			
MISCL			53,148	18,318			
FUEL			78,510	41,15			
PP			12,400	30,00			
PHRO			5,000	1,100			
OTHER			60,000	113,70			
Pen-Savings						293,400	
Physicoll Taxes						115,193	
VACATION							
PA+SLS					170,000		
					28,400		

T E X A C O

Anacortes, Washington 98221, January 31, 1968

FORM R-1211-E
ESTIMATED OPERATING EXPENSES
YEAR 1968

REFINING DEPT. HOUSTON OFFICE		
FEB 15 1968		
VICE PRES.		
GEN. MGR.		
UGR. OPS.		
ASST. MGR. OPR.		
Supvr. Cost. & Stal.		
SUPVR. EMP. REL.		
SUPVR. PROCESS		
SUPVR. EXP. CONT.		
SUPVR. PRODUCTION		
Supvr. Cr. Reqmts.		
SUPVR. (EDPM)		
SUPVR. MAINT.		

AIR MAIL

PERSONAL AND
CONFIDENTIAL

M E M O R A N D U M

Mr. J. R. Lemmer
Houston, Texas 77052

We are submitting herewith Estimated Crude Refining Expenses, Form R-1211-E, Exhibits 1, 2, 3 and 4.

The activities shown on the attached statements are in agreement with those shown in the Annual Budget, Form R-1259 as submitted. No new equipment is to start up and none of the present equipment is to be shut down during the year.

The following is a breakdown of expenses included under Miscellaneous Expense:

FCCU - Credit for Steam	\$ (1,095,101)	
Sub-Total Direct Plant		\$ (1,095,101)
Charge Steam Dept. for above item	1,095,101	
Purchased Power	286,000	
Purchased Water	120,600	
Total SP&W		1,501,701
Vacation Pay	170,000	
A&S Benefits	28,400	
Telephone	10,220	
Telegraph	2,100	
Contributions & Donations	200	
Memberships & Subscriptions	50	
Postage	1,900	
Traveling & Personal	8,400	
All Other Expenses	31,750	
Marine Dept. Services	(4,400)	
Sales Dept. - Electric Sign & Services	(3,600)	
Rentals	6,528	
Sub-total Indirect		251,548
Grand Total Miscellaneous Expense		\$ 658,148

WA-TEX 009001

WA-TEX009001

1-31-68

Included in Material Operating is an estimate of \$6,300.00 for Printing & Stationery and excluded from Material Operating is an estimate of \$3,000.00 for Hydrogen which has been included with Chemicals.

Labor costs are based on the following manpower:

	<u>No. Men</u>	<u>Cost</u>
Calendar Personnel & Other Staff	6	0
Construction & Outside Charges	2	12,700
Plant Expense - Form R-1259	257	2,296,000
Total Labor	265	2,308,700
Less: Vacation Pay		170,000
A&S Benefits		28,400
Construction & Outside		12,700
Labor Distributed on Form R-1211-E as Labor		\$ 2,097,600

The following is a breakdown of the component costs used in pricing out steam produced from C.O. and waste heat boilers:

	<u>FCCU</u>
M Lbs. Steam	2,671,000
BTU's/Lb.	1,318.2
MM BTU's	3,521,000
Total Steam Cost Basis Unit Cost Previous Report	.31102
Credit for Steam	\$ 1,095,101
Component Costs:	
Labor	346,700
Material	81,000
Contract Work	3,900
Fuel - Bbls.	506,500
Fuel - Cost	605,300
Transfers of Steam	(28,900)
Transfers from Power	58,000
Transfers from Water	29,101
	\$ 1,095,101


G. V. CARROLL

JPE-LKC 1-31-68

JPL(2)
JFF(Stat. Refg.)

Attachments

ARP
REC

PLANT LABOR AND CONTRACT WORK
ESTIMATED OPERATING EXPENSES - YEAR
PUGET SOUND PLANT

Line No.	Activities Barrels	L A B O R				Contract Work	
		Operators-Ex. I&T	I&T	Maint.	Total	I&T	Maint. Total
		Number	\$ Amt.	\$ Amt.	\$ Amt.		
1	VPS	14.0	124,000	22,400	70,200	66,000	12,700 78,700
2	Decarbonizer	(1)			32,200		5,700 5,700
3	PCU	18.0	155,000	8,000	95,800	700	18,900 19,600
4	Poly (Bbls. Polym.)	7.0	62,000	4,200	41,000		7,700 7,700
5	Catalytic Reform.	7.0	62,000	9,600	28,600		14,700 32,300
6	Alky (Bbls. Alkylate)	7.0	62,000	10,400	37,200	17,600	6,700 19,900
7	Hydrotreating	7.0	62,000	9,600	16,300	13,200	13,700 31,300
8	Shipping Bulk	(2)			40,800	17,600	8,000 29,400
9	RP&S	20.0	172,000		98,400		
10	BS&W	0.5	4,000		4,000		
11	Waste Oil Recovery	0.5	4,000		4,000		
12	Total Direct	81.0	707,000	64,200	460,500	115,100	117,500 232,600
13	S.P.&W.	13.0	109,000		139,300		5,000 5,000
14	Indirect Plant	(3)14.0	123,000		494,600		63,660 63,660
15	GRAND TOTAL	108.0	939,000	64,200	1,094,400	115,100	186,160 301,260

- (1) Operated by VPS Personnel
(2) Included in RP&S Dock Forces
(3) Includes 13 from Laboratory and 1 from Effluent Treating

GVC-MJC 1-31-68

JRL (2)

JFF (STAT. REFG.)

MATERIAL, MISCELLANEOUS EXPENSE AND FUEL CONSUMED
ESTIMATED OPERATING EXPENSES - YEAR 1968
PUGET SOUND PLANT

Line No.		Material		Misc. Expense	Fuel Consumed	
		I&T	Maint.		Total Gas Std. Bbls.	Liquid Std. Bbls. Total Fuel \$ Amount
1	VPS	27,000	35,200		500,050	49,971 964,200
2	Decarboxitizer		16,200		25,487	46,400
3	FGCU	1,200	48,100		25,666	133,808 198,780
4	Poly (Bbls. Polymer)	500	20,600	(1,095,101)		
5	Catalytic Reforming	4,100	14,300		190,725	37,143 387,100
6	Alky (Bbls. Alkylate)	5,000	18,700		241,148	438,900
7	Hydrotreating	4,100	8,200			
8	Shipping Bulk		20,500			
9	RP&S		49,360			
10	BS&W					
11	Waste Oil Recovery					
12	Total Direct	41,900	231,160	(1,095,101)	983,076	220,922 2,035,380
13	SP&W		70,000	1,501,701	50,934	268,019 381,100
14	Indirect Plant		248,400	251,548	3,053	5,520
15	GRAND TOTAL	41,900	549,560	658,148	1,037,063	488,941 2,422,000

GVC-AMH 1-31-68

JRL (2)

JFF (Stat. Refg.)

	Std. Bbls.	\$/Bbl.	Amount
Gas Produced	1,023,023	1.82	1,861,820
Liquid Fuel	488,941	1.076	526,100
Purchased Gas	14,040	2.427	34,080
TOTALS	1,526,004	1.587	\$2,422,000

DETAILED DISTRIBUTION OF CHEMICALS CONSUMED
ESTIMATED CRUDE REFINING OPERATING EXPENSES - YEAR 1968
PUCKET SOUND PLANT

Line No.		V P S		F C C U		Poly		Alkylation	
		Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
1	Acid, Alky Sulfuric-Tons								
2	Anti-Foam DC-200 Lbs.	771	1,700					16,470	400,000
3	Catalyst: -								
4	HDS-2 Hydrotreater - Lbs.								
5	Davison XZ-25 - Tons			1,095	527,700				
6	UOP #1 Poly-Lbs.					115,000	35,000		
7	UOP-R-11 Platinum - Lbs.								
8	Caustic Soda - Lbs.			15,600	5,200	15,600	5,200		
9	Monoethanolamine - Lbs.					27,600	5,800		
10	Desal 960								
11	Sodium Chloride - Lbs.					12,400	200	283,400	4,900
12	Hydrogen - Cu. Ft.								
13	Dow Corning B					1,570	700		
14	TOTAL		1,700		532,900		46,900		404,900

GVC-MTC 1/31/68

JRL (2)

JFF (Stat. Refg.)

DETAILED DISTRIBUTION OF CHEMICALS CONSUMED
ESTIMATED CRUDE REFINING OPERATING EXPENSES - YEAR 1968
PUGET SOUND PLANT

LINE NO.	CHEMICAL	HYDROTREATING		RP&S		CAT. REFORMING		TOTAL Amount
		Quantity	Amount	Quantity	Amount	Quantity	Amount	
1	Acid, Alky Sulfuric - Tons							400,000
2	Anti-Foam DC-200-Lbs.							1,700
3	Catalyst: -							
4	HDS-2 Hydrotreater - Lbs.	5,400	4,800					4,800
5	Davison XZ-25 - Tons							527,700
6	UOP #1 Poly - Lbs.							35,000
7	UOP-R-11 Platinum - Lbs.					16,400	59,800	59,800
8	Caustic Soda - Lbs.					7,800	2,600	13,000
9	Monocethanolamine - Lbs.							5,800
10	Malco 537-D - Gals.	4,900	17,000					17,000
11	Sodium Chloride - Lbs.			395,400	6,900			12,000
12	Hydrogen - Cu. Ft.	20,000	300			180,000	2,700	3,000
13	Dow Corning B							700
14	TOTAL		22,100		6,900		65,100	1,080,500

GVC-LKC 1-31-68

JRL (2)

JFF (Stat. Refg.)

STEAM, POWER, & WATER EXPENSES
ESTIMATED OPERATING EXPENSES - YEAR 1968
PUGET SOUND PLANT

Line No.		USE L		Purchased		Other Cost	Total SP&W	Total Plant
		Barrels	Amount	Power	Water			
1	VPS	88,500	105,800	24,000	20,000	87,200	237,000	1,560,400
2	Decarbonization	45,200	54,000	22,500	4,600	44,500	125,600	226,100
3	FGU	276,900	330,900	62,100	39,000	272,800	704,800	669,079
4	Polymerization	93,900	112,200	22,800	15,000	92,500	242,500	425,400
5	Catalytic Reforming	19,000	22,700	10,100	7,700	18,700	59,200	662,300
6	Alkylolation	120,000	143,400	16,900	13,300	118,201	291,801	849,901
7	Hydrotreating	9,300	11,100	28,100	9,600	9,100	57,900	650,400
8	Shipping Bulk	7,700	9,200	8,100	600	7,600	25,500	94,800
9	RP&S	85,400	102,100	35,300	4,300	84,200	225,900	581,960
10	BS&M	7,700	9,200	2,400	700	7,600	19,900	23,900
11	Waste Oil Recovery	10,900	13,000	1,300	800	10,700	25,800	29,800
12	TOTAL	764,500	913,600	233,600	115,600	753,101	2,015,901	5,774,040
13	S. P. & W.						(2,206,101)	
14	Indirect Plant	60,953	72,800	52,400	5,000	60,000	190,200	1,377,928
15	GRAND TOTAL	825,453	986,400	286,000	120,600	813,101	0,000	7,151,068

WA-TEX 009007

WA-TEX009007

STEAM, POWER & WATER EXPENSES
ESTIMATED OPERATING EXPENSES - YEAR 1968
PUGET SOUND PLANT

Distribution	Steam	Power	Water	Total
Fuel - Barrels	819,675		5,778	825,453
Fuel - Cost	979,495		6,905	986,400
Purch. - Power	34,300	189,200	62,500	286,000
Purch. - Water	30,100		90,500	120,600
Other Cost	715,517	3,535	94,049	813,101
TOTAL COST	1,759,412	192,735	253,954	2,206,101

AVG. Steam Cost/M Lbs. \$.248489
AVG. Power Cost/KW \$.00500302
AVG. Water Cost/M Gals.

Purchased Utility Rates		
* Last Increment of Power / KW	\$.000000	\$.10251
Last Increment of Water / M Gal.	\$.039000	
SP&W Fuel Summary		
Total SP&W Fuel From Exhibit II		Barrels 318,953
Plus FCCU Waste Heat Fuel Credit		Barrels 506,500
TOTAL SP&W FUEL TO DISTRIBUTE		Barrels 825,453

* PSP has a power contract based on a peak demand of 8000 KW. No additional payment is required unless demand exceeds 8000 KW, and if demand exceeds 8000 KW the monthly charge will be increased by \$2.31 per KW in excess of 8000.

GVC-LKC 1-31-68

JRL (2)
JFF (Stat. Refg.)