

PLAINTIFF'S EXHIBIT

TEX-41

M-580-15 - STANDARD EXPENSES -18
PUGET SOUND PLANT
YEAR - 1970

WA-TEX 009034

WA-TEX009034

STANDARD EXPENSES

UNIT

PLANT

YEAR

Plant, Souda

1970

	Total Capital Expenses	Variable Pipe Stru	Rechargeable B&W	What's the Recovery	Flow
ESTIMATED DIVISOR - Barrels	11,711,500.00	22,711,500.00			831,800.00
CAPACITY - Barrels	11,900,000.00	21,900,000.00			912,500.00
Direct Variable Charges					
Fuel @ \$1.00					
Direct Fuel	0.52	11,711,500.00			0.23
Fuel in Steam	0.27	6,225,800.00			0.27
					1,846,000.00
					2,226,500.00
Fuel in Auxiliaries					
Total Fuel	0.79	17,937,300.00			
Miscellaneous - Fuel Only (1)	0.15	3,521,010.00			0.50
Purchased Power	0.10	2,117,150.00			0.42
Purchased Water	0.05	1,116,500.00			0.05
Purchased Utilities in Auxiliaries					0.05
Chemicals					
Acid	0.18	4,129,000.00			
Hydrogen Catalyst					
Other Catalyst	0.28	6,211,850.00			0.28
Chemicals - Auxiliaries					
Other Chemicals	0.02	54,000.00			0.01
Total Chemicals	0.44	10,900,850.00			0.64
Royalties (Running Royalties)					
TOTAL DIRECT VARIABLE CHARGES	1.27	28,762,440.00			0.82
SEMI-VARIABLE CHARGES					
Operators - (ex T&I)	0.24	7,125,000.00			0.24
Test and Inspection - Labor					
Maintenance - Labor	0.21	4,773,000.00			0.13
Test and Inspection - Contract Work					
Maintenance - Contract Work	0.08	1,718,150.00			0.01
Test and Inspection - Material					
Maintenance - Material	0.14	3,642,000.00			0.10
Employee Benefits	0.03	681,400.00			0.01
Indirect Plant - Labor	0.39	8,934,900.00			0.24
Indirect Plant - Other	0.26	5,955,550.00			0.16
SG&W - Charges Other Than Fuel & Power Utilities	0.30	6,750,000.00			0.24
					2,444,000.00
Auxiliaries - Other Than Fuel, Chemicals & Purch. Util.					
Miscellaneous - Other	0.14	3,714,830.00			0.05
Rentals and Royalties					
TOTAL SEMI-VARIABLE CHARGES	1.18	42,440,850.00			0.88
TOTAL VARIABLE CHARGES	2.45	71,203,290.00			1.70
NON-VARIABLE CHARGES					
Depreciation					
Insurance & Taxes Related to Investment					
General Office and General Overhead					
Auxiliaries (F&OH)					
Rentals and Royalties					
TOTAL NON-VARIABLE CHARGES					
TOTAL EXPENSE					

WA-TEX 009035

Notes: (1)

WA-TEX009035

STANDARD LATENT

UNIT

PLANT Pilot SchoolYEAR 1970

	Payroll	Contract	Hydrocarbon	Auxiliary	Special
ESTIMATED DIVISOR - Barrels	3022600	3349600	8632000	1005000	34814000
CAPACITY - Barrels	4071000	2920000	-	1595000	-
Direct Variable Charges					
Fuel @ \$1.00					
Direct Fuel	1453	0677	252000	1048	981000004
Fuel in Steam		0055	155000	0011	162000
Fuel in Auxiliaries					
Total Fuel	253	072	151500	030	981000004
Miscellaneous - Fuel Only (1)					
Purchased Power	059	003	119500	005	415000000
Purchased Water	050	003	9350	001	121000
Purchased Utilities in Auxiliaries					
Chemicals					
Hydrogen Catalyst					
Other Catalyst	1111	018	61000	001	4124000
Chemicals - Auxiliaries					
Other Chemicals	038	001	4600	008	8050
Total Chemicals	1149	019	45600	009	420450
Royalties (Running Royalties)					
TOTAL DIRECT VARIABLE CHARGES	3111	049	314800	037	5353000004
SEMI-VARIABLE CHARGES					
Operations - (ex 16)	224	010	67900	003	6719000008
Test and Inspection - Labor	015		00		00
Maintenance - Labor	061	010	33500	003	453000004
Test and Inspection - Contract Work					
Maintenance - Contract Work	024	008	25600	003	258000001
Test and Inspection - Material	007	002	00		00
Maintenance - Material	068	002	20600	003	236000005
Employee Benefits	163	014	49212	004	674000007
Indirect Plant - Labor	214	022	55644	004	1460000
Indirect Plant - Other	142	022	72194	004	805000010
SP4/ - Charges Other Than Fuel & Purch. Util.	374	005	48121	005	536000004
Auxiliaries - Other Than Fuel, Chemicals & Purch. Util.					
Miscellaneous - Other					
Rentals and Royalties	6144	101	339779	084	4641650048
TOTAL SEMI-VARIABLE CHARGES	1705	148	668179	079	9974650054
NON-VARIABLE CHARGES					
Depreciation					
Insurance & Taxes Related to Investment					
General Office and General Overhead					
Auxiliaries (F&OH)					
Rentals and Royalties					
TOTAL NON-VARIABLE CHARGES					
TOTAL EXPENSE					

NA-TEX 009036

Notes (1)

WA-TEX009036

PUGET SOUND PLANT

	DIRECT CHARGE		INDIRECT		OTHER		FINES
		%					
UPS	223700	17.84	150700	106100			121440
DECARBONIZATION	34500	2.75	24571	16378			18776
BOYSW	115000	0.40	3574	2382			2700
WASTE ON REC.	5000	0.40	3574	2382			2700
FEED	284000	22.04	200284	134835			152689
FEED	90800	7.23	64599	43059			49722
GRU	101400	8.08	72194	48121			55004
GRU	91600	7.30	65115	43472			49749
ALKY	113000	9.01	80503	53660			61602
SHIPPING-RPS	305800	24.34	217744	145133			166280
TOTALS	1255700	100.0	893440	595599			681490
OTHER INDIRECT					VACATIONS -		170700
CONTRACT	118970			ASRS			23000
MAINT	22070			TOTAL			195900
FUEL	7594			FINES BENEFITS			358110
UTILITIES	9110			FICA			127480
OTHER	53735			TOTAL			681490
MISC	54800						
TOTAL	37559						

WA-TEX 009037

TEXACO

Anacortes, Washington 98221, January 23, 1970

FORM R-1211-E
ESTIMATED OPERATING EXPENSES
YEAR 1970

REFINING DEPT. HOUSTON OFFICE		
JAN 29 1970		
VICE PRES.		
GEN. MGR.		
ASST. GEN. MGR.		
ASST. GEN. MGR.		
MGR. COST & STAT.		
MGR. CR. REQMTS.		
MGR. EDPM		
MGR. EMP. REL.		
MGR. EC & AAWPS.		
MGR. MAINT.		
MGR. PRODESS		
MGR. PRODUCTION		

AIR MAIL

PERSONAL & CONFIDENTIAL

MEMORANDUM

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 Request, 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 Expenses:

FCCU - Credit For Steam	(\$834,262)	
Sub-Total Direct Plant		(\$834,262)
Charge Steam Dept. For Above Item	834,262	
Purchased Power	285,600	
Purchased Water	120,000	
Total S. P. & W.		1,239,862
Vacation Pay	170,700	
A. & S. Benefits	25,200	
Telephone	10,400	
Telegraph	2,200	
Contributions and Donations	200	
Membership and Subscriptions	50	
Postage	2,340	
Traveling and Personal	8,900	
All Other Expenses	18,750	
Sales Dept. - Electrical Sigh & Services	(4,300)	
Marine Dept. Services	(3,300)	
Rentals	19,620	
Sub-Total Indirect		250,760
Grand Total Miscellaneous Expense		\$656,360

Included in Material Operating is an estimate of \$6,900 for Printing and Stationery and excluded from Material Operating is an estimate of \$2,100 for Hydrogen which has been included with Chemicals.

WA-TEX 009038

WA-TEX009038

Mr. J. R. Lemmer

- 2 -

1-23-70

Labor costs are based on the following manpower:

	<u>No. Men</u>	<u>Cost</u>
Callendar Personnel & Other Staff	6	00
Construction & Outside Charges	8	34,000
Plant Expense - Form R-1259	253	2,607,590
Total Labor	271	\$2,641,590
Less: Vacation Pay		170,700
A&S Benefits		25,200
Construction & Outside		34,000
Labor Distributed on Form R-1211-E as Labor		\$2,411,690

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

	<u>FCCU</u>
M Lbs. Steam	2,386,000
BTU's/Lb.	1,318
MM BTU's	3,145,000
Total Steam Cost Basis Unit Cost Previous Report	\$265,266
Credit for Steam	\$ 834,262
<u>Component Costs:</u>	
Labor	\$ 249,695
Material	81,424
Contract Work	3,254
Fuel Bbls.	352,010
Fuel Cost	459,427
Transfer of Steam	(20,690)
Transfer from Power	39,878
Transfer from Water	21,274
	\$ 834,262

W. W. Clarke
W. W. CLARKE

WWC-KPS

JRL(2)

JFF(Stat. Refg.)

Attachments

ARP
WPB

WA-TEX 009039

WA-TEX009039

PLANT LABOR AND CONTRACT WORK
ESTIMATED OPERATING EXPENSES - YEAR 1970
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	22,715,000	14.0	135,800	87,900	223,700			59,000	59,000
2. Decarbonizer				34,500	34,500				
3. FCCU	8,318,000	18.0	174,000	110,200	284,200			9,210	9,210
4. Poly (Bbls. Polym.) (4)	302,600	7.0	67,900	18,500	90,800			8,000	8,000
5. Catalytic Reform.	3,369,600	7.0	67,900	33,500	101,400			25,600	25,600
6. Alky (Bbls. Alky-late)	1,003,000	7.0	67,900	45,300	113,200			25,800	25,800
7. Hydrotreating	8,632,000	7.0	67,900	23,700	91,600			25,600	25,600
8. Shipping Bulk	22,014,400 (2)			40,600	40,600				
9. RP&S		20.0	182,100	83,100	265,200			25,540	25,540
10. BS&W		0.5	5,000		5,000				
11. Waste Oil Recov.		0.5	5,000		5,000				
12. Total Direct	22,062,000	81.0	773,500	4,400	1,255,200			178,750	178,750
13. S.P.&W.		13.0	133,000	130,000	263,000			3,000	3,000
14. Indirect Plant		15.0	147,000	746,490	893,490			118,970	118,970
	(3)								
GRAND TOTAL		109.0	1,053,500	4,400 1,353,790	2,411,690		00	300,720	300,720

- (1) Operated by VPS Personnel
(2) Included in RP&S Dock Forces
(3) Includes 14 from Laboratory & 1 from Effluent Treating
(4) Olefins are being alkylated rather than polymerized

WMC-LKC 1-23-70
JPL(2)
JFF(Stat. Refg.)

MATERIAL, MISCELLANEOUS EXPENSE AND FUEL CONSUMED
ESTIMATED OPERATING EXPENSES - YEAR 1970
PUGET SOUND PLANT

R-1211-E
Exhibit II

Line No.	Material		Misc. Expense	Total Gas Std. Bbls.	Fuel Consumed		Total Fuel \$ Amount
	T&I	Maint.			Liquid Std. Bbls.		
1		60,300✓		329,300✓	161,300✓	927,627	
2		23,700✓		23,300✓	0	53,357	
3		79,400✓		46,600✓	140,000✓	257,324	
4	2,000	20,600✓	(834,262)✓				
5		20,600✓		180,300✓	45,700✓	462,045	
6		23,600✓		252,000✓	0	577,080	
7		28,100✓					
8		28,500					
9		76,800					
10		1,300✓					
11		1,300✓					
12	2,000	364,200✓	(834,262)✓	840,500	347,000	2,277,433	
13		87,900	1,239,862✓	61,000✓	262,000✓	421,562✓	
14		220,750	250,760✓	4,500✓		10,305✓	
15	2,000	672,850	656,360✓	906,000	609,000	2,709,300	
				941,000			

WVC-KPS

JRL (2)

JFF(Stat. Refg.)

	Std. Bbls.	\$/Bbl.	Amount
Gas Produced	882,000	2.29	2,019,670
Liquid Fuel	609,000	1.076	655,280
Purchased Gas	15,000	2.29	34,350
TOTALS	1,506,000	1.799	2,709,300

WA-TEX 009041

WA-TEX009041

DETAILED DISTRIBUTION OF CHEMICALS CONSUMED
ESTIMATED CRUDE REFINING OPERATING EXPENSES - YEAR 1970
PUGET SOUND PLANT

Line No.	Chemical	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.	840	1600						
3	Catalyst:-								
4	HDS-2 Hydrotreater-Lbs.			1,095	527,200				
5	Davison XZ-25-Tons					108,800	33,650		
6	UOP #1 Poly-Lbs.								
7	UOP-R-4 Platinum-Lbs.					169,300	5,300	90,000	2,800
8	Caustic Soda-Lbs.			169,300	5,300	25,200	5,950		
9	Monoethanolamine-Lbs								
10	Naico 537D	6,325	15,550			13,900	200	347,100	5,250
11	Sodium Chloride-Lbs.								
12	Hydrogen-Cu. Ft.								
TOTAL		17,150		532,500		45,100		420,950	

WMC-KLK

JRL(2)

FF (STAT. REFG.)

WA-TEX 009042

WA-TEX009042

DETAILED DISTRIBUTION OF CHEMICALS CONSUMED
ESTIMATED CRUDE REFINING OPERATING EXPENSES - YEAR 1970
PUGET SOUND PLANT

Line No.	Chemical	Hydrotreating		RP&S		Cat. Reforming		Total Amount
		Quantity	Amount	Quantity	Amount	Quantity	Amount	
1.	Acid, Alky Sulfuric-Tons							412,900
2.	Anti-Foam DC-200-Lbs.							1,600
3.	Catalyst:-							2,150
4.	HDS-2 Hydrotreater-Lbs.	2,400	2,150					527,200
5.	Davison XZ-25-Tons							33,650
6.	UOP #1 Poly-Lbs.					20,650	61,000	61,000
7.	UOP-R-11 Platinum Lbs.					87,400	2,700	16,100
8.	Caustic Soda-Lbs.							5,950
9.	Monothanolamine-Lbs.							15,550
10.	Nalco 537D			479,000	7,250			12,700
11.	Sodium Chloride-Lbs.							2,100
12.	Hydrogen-Cu. Ft.	13,000	200			115,000	1,900	
13.	TOTAL		2,350 /		7,250		65,600	1,090,900 /

WNC-LKC

JRL(2)

JFF(Stat. Refg.)

WA-TEX 009043

WA-TEX009043

STREAM, POWER & WATER EXPENSES
ESTIMATED OPERATING EXPENSES - YEAR 1970
PUGET SOUND PLANT

Line No.		FUEL		Purchased Power	Purchased Water	Other Cost	Total SP&W	Total Plant
		Barrels	Amount					
1	VPS	72,400/	94,400/	20,500/	22,200/	78,100/	215,200	1,502,977
2	Decarbonization	37,000/	48,300	25,900/	4,000/	39,900/	118,100	229,657
3	FCU	226,500/	295,600	44,500/	39,000/	244,400/	623,500	951,872
4	Polymerization	76,700/	100,200	17,900/	15,000/	82,900/	216,000	382,500
5	Catalytic Reforming	15,500/	20,300	11,950/	9,350/	16,800/	58,400	733,645
6	Alkylation	98,100/	128,100	4,150/	12,100/	106,000/	250,350	833,900
7	Hydrotreating	7,600/	9,900	40,850/	12,000/	8,200/	70,950	795,680
8	Shipping Bulk	6,300/	8,200	10,800/	350/	6,800	26,150	95,250
9	HP&S	69,900	91,200	38,250/	1,500/	75,500	206,450	581,240
10	BS&W	6,300/	8,200	2,350/	500/	6,800/	17,850	24,150
11	Waste Oil Recovery	8,900	11,600	00	500/	9,600/	21,700	28,000
12	TOTAL	645,000	816,000	217,150/	116,500	675,000/	1,824,650	6,158,871
13	S. P. & W.						(2,015,324)	0
14	Indirect Plant	49,810	64,989/	68,450/	3,500/	53,735/	190,674/	1,684,949
15	GRAND TOTAL	675,010/	880,989/	285,600/	120,000/	728,735/	0	7,843,820

9/1
Power *

STEAM, POWER & WATER EXPENSES
ESTIMATED OPERATING EXPENSES - YEAR 1970
PUGET SOUND PLANT

Distribution	Steam	Power	Water	Total
Fuel - Barrels	668,592		6,418	675,010
Fuel - Cost	872,613		8,376	880,989
Purch. - Power	35,967	188,003	61,830	285,800
Purch. - Water	19,038		100,962	120,000
Other Cost	681,635	3,400	43,700	728,735
TOTAL COST	1,609,253	191,403	214,868	2,015,524

AVG. Steam Cost / M Lbs. \$.274868
AVG. Power Cost / KW \$.004722
AVG. Water Cost / M Gals. \$.103970

Purchased Utility Rates
* Last Increment of Power / KW \$.000000
Last Increment of Water / M Gal. \$.039000

SP&W Fuel Summary	Barrels	323,000
Total SP&W Fuel from Exhibit II	Barrels	352,010
Plus FCCU Waste Heat Fuel Credit	Barrels	
TOTAL SP&W FUEL TO DISTRIBUTE	Barrels	675,010

* 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.

WNC-KLK
JRL (2)
JFF (Stat-Refg)

TEXACO

Anacortes, Washington 98221, January 23, 1970

FORM R-1211-E
ESTIMATED OPERATING EXPENSES
YEAR 1970

REFINING DEPT. HOUSTON OFFICE		
JAN 29 1970		
VICE PRES.		
GEN. MGR.		
ASST. GEN. MGR.		
ASST. GEN. MGR.		
MGR. COST & STAT.		
MGR. CR. REQMTS.		
MGR. EDPM		
MGR. EMP. REL.		
MGR. EC & A&WFO		
MGR. MAINT.		
MGR. PROCESS		
MGR. PRODUCTION		

AIR MAIL

PERSONAL & 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 Request, 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 Expenses:

FCCU - Credit For Steam	(\$834,262)	
Sub-Total Direct Plant		(\$834,262)
Charge Steam Dept. For Above Item	834,262	
Purchased Power	285,600	
Purchased Water	120,000	
Total S. P. & W.		1,239,862
Vacation Pay	170,700	
A. & S. Benefits	25,200	
Telephone	10,400	
Telegraph	2,200	
Contributions and Donations	200	
Membership and Subscriptions	50	
Postage	2,340	
Traveling and Personal	8,900	
All Other Expenses	18,750	
Sales Dept. - Electrical Sigh & Services	(4,300)	
Marine Dept. Services	(3,300)	
Rentals	19,620	
Sub-Total Indirect		250,760
Grand Total Miscellaneous Expense		\$656,360

Included in Material Operating is an estimate of \$6,900 for Printing and Stationery and excluded from Material Operating is an estimate of \$2,100 for Hydrogen which has been included with Chemicals.

WA-TEX 009046

WA-TEX009046

Mr. J. R. Lemmer

- 2 -

1-23-70

Labor costs are based on the following manpower:

	<u>No. Men</u>	<u>Cost</u>
Callendar Personnel & Other Staff	6	00
Construction & Outside Charges	8	34,000
Plant Expense - Form R-1259	263	2,607,590
Total Labor	271	\$2,641,590
Less: Vacation Pay		170,700
A&S Benefits		25,200
Construction & Outside		34,000
Labor Distributed on Form R-1211-E as Labor		\$2,411,690

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

	<u>FCCU</u>
M Lbs. Steam	2,386,000
BTU's/Lb.	1,318
MM BTU's	3,145,000
Total Steam Cost Basis Unit Cost Previous Report	265,266
Credit for Steam	\$ 834,262
<u>Component Costs:</u>	
Labor	\$ 249,695
Material	81,424
Contract Work	3,254
Fuel Ebbs.	352,010
Fuel Cost	459,427
Transfer of Steam	(20,690)
Transfer from Power	39,878
Transfer from Water	21,274
	\$ 834,262

Signed: W. W. CLARKE

W. W. CLARKE

WWC-KPS

JRL(2)

JFF(Stat. Refg.)

Attachments

ARP

WPB

WA-TEX 009047

WA-TEX009047

PLANT LABOR AND CONTRACT WORK
ESTIMATED OPERATING EXPENSES - YEAR 1970
PUGET SOUND PLANT

Activities Barrels	L A B O R					Contract Work	
	Operators-Ex. Number	Employees	I&T	Maint.	Total	I&T	Total
VPS.							
Decarbonizer	22,715,000	14.0	135,800	87,900	223,700	59,000	59,000
FCCU	8,318,000	18.0	174,000	34,500	34,500		
Poly (Bbls. Polym.)	302,600	7.0	67,900	110,200	284,200	9,210	9,210
Catalytic Reform.	3,369,600	7.0	67,900	18,500	90,800	8,000	8,000
Alky (Bbls. Alky- late)	1,003,000	7.0	67,900	33,500	101,400	25,600	25,600
Hydrotreating	8,632,000	7.0	67,900	45,300	113,200	25,800	25,800
Shipping Bulk	22,014,400			23,700	91,600	25,600	25,600
RP&S		20.0	182,100	40,600	40,600		
BS&W		0.5	5,000	83,100	265,200	25,540	25,540
Waste Oil Recov.		0.5	5,000		5,000		
Total Direct	22,062,000	81.0	773,500	477,300	1,255,200	178,750	178,750
S.P.&W.		13.0	133,000	130,000	263,000	3,000	3,000
Indirect Plant		15.0	147,000	746,490	893,490	118,970	118,970
GRAND TOTAL		109.0	1,053,500	4,400 1,353,790	2,411,690	00 300,720	300,720

Operated by VPS Personnel
Included in RP&S Dock Forces
Includes 14 from Laboratory & 1 from Effluent Treating
Olefins are being alkylated rather than polymerized

WA-TEX 009048

C-1160 1-23-70
L(2)
T(Stat. Refg.)

WA-TEX009048

STEAM, POWER & WATER EXPENSES
ESTIMATED OPERATING EXPENSES - YEAR 1970
PUGET SOUND PLANT

Distribution	Steam	Power	Water	Total
Fuel - Barrels	668,592		6,418	675,010
Fuel - Cost	872,613		8,376	880,989
Purch. - Power	35,967	188,003	61,830	285,800
Purch. - Water	19,038		100,962	120,000
Other Cost	681,635	3,400	43,700	728,735
TOTAL COST	1,609,253	191,403	214,868	2,015,524

Avg. Steam Cost / M Lbs. \$.274868
Avg. Power Cost / KW \$.004722
Avg. Water Cost / M Gals. \$.103970

Purchased Utility Rates
* Last Increment of Power / KW \$.000000
Last Increment of Water / M Gal. \$.039000

SP&W Fuel Summary
Total SP&W Fuel from Exhibit II Barrels 323,000
Plus FCCU Waste Heat Fuel Credit Barrels 352,010

TOTAL SP&W FUEL TO DISTRIBUTE Barrels 675,010

* 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.

WVC-KLK
JRL (2)
JFF (Stat-Refg)

MATERIAL, MISCELLANEOUS EXPENSE AND FUEL CONSUMED
ESTIMATED OPERATING EXPENSES - YEAR 1970
PUGET SOUND PLANT

R-1211-E
Exhibit II

Line No.	Description	Material		Misc. Expense	Fuel Consumed		Total Fuel \$ Amount
		T&I	Maint.		Total Gas Std. Bbls.	Liquid Std. Bbls.	
1	VPS		60,300		329,300	161,300	927,627
2	Decarbonizer		23,700		23,300	0	53,357
3	FCCU		79,400		46,600	140,000	257,324
4	Poly(BBls. Polymer)	2,000	20,600	(834,262)			
5	Catalytic Reform.		20,600				
6	Alky(BBls. Alkylate)		23,600		180,300	45,700	462,045
7	Hydrotreating		28,100				
8	Shipping Bulk		28,500		252,000	0	577,080
9	RP&S		76,800				
10	BS&W		1,300				
11	Waste Oil Recovery		1,300				
12	Total Direct	2,000	364,200	(834,262)	840,500	347,000	2,277,433
13	SP&W		87,900	1,239,862	61,000	262,000	421,562
14	Indirect Plant		220,750	250,760	4,500		10,305
15	GRAND TOTAL	2,000	672,850	656,360	906,000	609,000	2,709,300

WVC-KPS

JRL (2)

JFF(Stat. Refg.)

	Std. Bbls.	\$/Bbl.	Amount
Gas Produced	882,000	2.29	2,019,670
Liquid Fuel	609,000	1.076	655,280
Purchased Gas	15,000	2.29	34,350
TOTALS	1,506,000	1.799	2,709,300

WA-TEX 009050

WA-TEX009050

DETAILED DISTRIBUTION OF OPERATING EXPENSES - YEAR 1970 Exhibit III
 ESTIMATED CRUDE REFINING OPERATING EXPENSES - Sheet 1 of 2
 PUGET SOUND PLANT

Line No.	Chemical	V P S		F C C U		Poly		Alkylation	
		Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
1	Acid, Alky Sulfuric-Tons	840	1600						
2	Anti-Foam DC-200-Lbs.								
3	Catalyst:-								
4	HDS-2 Hydrotreater-Lbs.			1,095	527,200				
5	Davison XZ-25-Tons					108,800	33,650		
6	UOP #1 Poly-Lbs.					169,300	5,300		2,800
7	UOP-R-4 Platinum-Lbs.			169,300	5,300	25,200	5,950	90,000	
8	Caustic Soda-Lbs.								
9	Monothanolamine-Lbs	6,325	15,550			13,900	200	347,100	5,250
10	Nalco 537D								
11	Sodium Chloride-Lbs.								
12	Hydrogen-Cu. Ft.								
TOTAL		17,150			532,500		45,100	17,206	412,900

WNC-KLK

JRL(2)

CF (STAT. REG.)

WA-TEX 009051

WA-TEX009051

DETAILED DISTRIBUTION OF CHEMICALS CONSUMED
ESTIMATED CRUDE REFINING OPERATING EXPENSES - YEAR 1970
PUGET SOUND PLANT

Line No.	Chemical	Hydrotreating		RP&S		Cat. Reforming		Total Amount
		Quantity	Amount	Quantity	Amount	Quantity	Amount	
1.	Acid, Alky Sulfuric-Tons							412,900
2.	Anti-Foam DC-200-Lbs.							1,600
3.	Catalyst:-							
4.	HDS-2 Hydrotreater-Lbs.	2,400	2,150					2,150
5.	Davison XZ-25-Tons							527,200
6.	UOP #1 Poly-Lbs.							33,650
7.	UOP-R-11 Platinum Lbs.					20,650	61,000	61,000
8.	Caustic Soda-Lbs.					87,400	2,700	16,100
9.	Monothanolamine-Lbs.							5,950
10.	Naico 537D							15,550
11.	Sodium Chloride-Lbs.			479,000	7,250			12,700
12.	Hydrogen-Cu. Ft.	13,000	200			115,000	1,900	2,100
13.	TOTAL		2,350		7,250		65,600	1,090,900

WA-TEX 009052

WNC-LKC

JRL(2)

JFF(Stat. Refg.)

WA-TEX009052