

PLAINTIFF'S EXHIBIT

TEX-41

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

15

WA-TEX 009034

WA-TEX009034

STANDARD EXPENSES

UNIT

PLANT

YEAR

Plant South

1970

	Total Current Expenses	Vacuum Pipe Strips	Rechargeable Batteries	Wharf & Recovery	Flow
ESTIMATED DIVISOR - Barrels	22,711,500.00				831,800.00
CAPACITY - Barrels	21,900,000.00				712,500.00
Direct Variable Charges					
Fuel @ \$1.40					
Direct Fuel	10,520.00	11,718,500.00			1,846,000.00
Fuel in Sinter	10,217.00	6,215,800.00			2,226,500.00
Fuel in Auxiliaries					
Total Fuel	20,737.00	17,934,300.00			
Miscellaneous - Fuel Only (1)	10,150.00	6,385,500.00			4,131,000.00
Purchased Power	1,011.00	2,050.00	15,900.00		4,352,000.00
Purchased Water	1,005.00	2,220.00	4,000.00		4,450.00
Purchased Utilities in Auxiliaries	1,001.00	3,215.00			5,900.00
Chemicals					
Acid	10,180.00	4,112,900.00			
Hydrogen Catalyst					
Other Catalyst	10,218.00	6,211,850.00			
Chemicals - Auxiliaries					
Total Chemicals	20,398.00	10,324,750.00			5,277,000.00
Royalties (Running Royalties)	10,418.00	10,909,000.00			5,325,000.00
TOTAL DIRECT VARIABLE CHARGES	112,700.00	28,776,240.00			6,770,000.00
SEMI-VARIABLE CHARGES					
Operators - (ex T&I)	10,244.00	7,113,500.00			1,141,000.00
Test and Inspection - Labor	10,211.00	4,400.00			
Maintenance - Labor	10,211.00	4,400.00			
Test and Inspection - Contract Work	10,211.00	4,400.00			
Maintenance - Contract Work	10,211.00	4,400.00			
Test and Inspection - Material	10,211.00	4,400.00			
Maintenance - Material	10,211.00	4,400.00			
Employs Benefits	10,211.00	4,400.00			
Indirect Plant - Labor	10,211.00	4,400.00			
Indirect Plant - Other	10,211.00	4,400.00			
SEMI-VARIABLE CHARGES OTHER THAN FUEL & POWER UTILITIES	10,211.00	4,400.00			
Auxiliaries - Other Than Fuel, Chemicals & Purch. Util.	10,211.00	4,400.00			
Miscellaneous - Other	10,211.00	4,400.00			
Rentals and Royalties	10,211.00	4,400.00			
TOTAL SEMI-VARIABLE CHARGES	112,700.00	28,776,240.00			6,770,000.00
TOTAL VARIABLE CHARGES	225,400.00	57,552,480.00			13,540,000.00
NON-VARIABLE CHARGES					
Depreciation	11,180.00	4,240,850.00			7,337,000.00
Insurance & Taxes Related to Investment	3,115.00	7,114,000.00			1,410,000.00
General Office and General Overhead					
Auxiliaries (F&O)					
Rentals and Royalties					
TOTAL NON-VARIABLE CHARGES	14,295.00	11,354,850.00			8,747,000.00
TOTAL EXPENSE	240,695.00	68,907,330.00			22,287,000.00

WA-TEX 009035

Notes: (1)

WA-TEX009035

STANDARD EXPENSES

UNIT

PLANT Plant School

YEAR 1970

	Payroll	Contract	Hydroelectricity	Auxiliary	Special Services
ESTIMATED DIVISOR -- Barrels	302,600				
CAPACITY -- Barrels	401,500				
Direct Variable Charges					
Fuel @ \$1.00					
Direct Fuel	153	76,700			
Fuel in Steam					
Fuel in Auxiliaries					
Total Fuel	153	76,700			
Miscellaneous -- Fuel Only (1)					
Purchased Power	059	11,950			
Purchased Water	050	15,000			
Purchased Utilities in Auxiliaries					
Chemicals					
Acid					
Hydrazine Catalyst					
Other Catalyst	111	33,650			
Chemicals -- Auxiliaries					
Other Chemicals	038	11,450			
Total Chemicals	149	45,100			
Royalties (Mining Royalties)					
TOTAL DIRECT VARIABLE CHARGES	301	154,700			
SEMI-VARIABLE CHARGES					
Operators -- (ex T&I)	114	67,900			
Test and Inspection -- Labor	015	11,000			
Maintenance -- Labor	061	18,500			
Test and Inspection -- Contract Work					
Maintenance -- Contract Work					
Test and Inspection -- Material	024	8,000			
Maintenance -- Material	007	2,000			
Employee Benefits	068	20,600			
Indirect Plant -- Labor	163	49,272			
Indirect Plant -- Other	214	64,599			
SP&W -- Charges Other Than Fuel/Auxiliary Expenses	142	43,059			
	374	82,900			
Auxiliaries--Other Than Fuel, Chemicals & Purch. Util.					
Miscellaneous -- Other					
Rentals and Royalties					
TOTAL SEMI-VARIABLE CHARGES	1144	361,230			
TOTAL VARIABLE CHARGES	1705	515,930			
NON-VARIABLE CHARGES					
Depreciation					
Insurance & Taxes Related to Investment					
General Office and General Overhead					
Auxiliaries (R&OH)					
Rentals and Royalties					
TOTAL NON-VARIABLE CHARGES					
TOTAL EXPENSE					

Notes: (1)

WA-TEX 009036

WA-TEX009036

PUGET SOUND PLANT

	DIRECT		INDIRECT		OTHER		FRINETS
	AMOUNT	%	AMOUNT	%	AMOUNT	%	
VPS	123700	17.84	159200	106.100	106.100		121442
DECARBONIZING	34500	2.75	24571	16878	16878		18776
BOSYU	115000	0.40	3574	2382	2382		2706
WASTE ON REPT.	5000	0.40	3574	2382	2382		2706
FCCU	284000	22.04	202284	134835	134835		152408
FLU	90800	7.23	64599	43059	43059		49272
CLRU	101400	8.08	72194	48121	48121		55064
CTU	91600	7.30	65005	43474	43474		49749
ALRY	113000	9.01	80563	53660	53660		61402
SHIPPING-RPS	305800	24.39	211744	145138	145138		166286
TOTALS	1755000	100.0	893440	59559	59559		681490
OTHER INDIRECT							
CONTRACT	118970				VACATION -		170700
MATL	22012				ASRS		21000
FUEL	75994				TOTAL		195900
UTILITIES	91801				FRANKE BENEFITS		358110
OTHER	53735				FICA		127480
MISC	54800				TOTAL		681490
TOTAL	395599						

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. REQMS.		
MGR. EDPM		
MGR. EMP. REL.		
MGR. EC & AAWPG.		
MGR. MAINT.		
MGR. PRODESS		
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 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	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 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 Employees	\$ Amt.	\$ Amt.	\$ Amt.				
1. VPS	22,715,000 (1)	14.0	135,800✓	87,900✓	223,700			59,000✓	59,000
2. Decarbonizer	8,318,000			34,500✓	34,500				
3. FCCU	302,600	18.0	174,000✓	110,200✓	284,200			9,210✓	9,210
4. Poly (Bbls. Polym.) (4)	3,369,600	7.0	67,900✓	18,500✓	90,800			8,000✓	8,000
5. Catalytic Reform.	1,003,000	7.0	67,900✓	33,500✓	101,400			25,600✓	25,600
6. Alky (Bbls. Alky-late)	8,632,000	7.0	67,900✓	45,300✓	113,200			25,800✓	25,800
7. Hydrotreating	22,014,400 (2)	7.0	67,900✓	23,700✓	91,600			25,600✓	25,600
8. Shipping Bulk				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	00	178,750		178,750
13. S.P.&W.		13.0	133,000		263,000		3,000		3,000
14. Indirect Plant		15.0	147,000	746,490	893,490		118,970		118,970
15. 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
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.	Material	T&I	Maint.	Total	Misc. Expense	Fuel Consumed		
						Total Gas Std. Bbls.	Liquid Std. Bbls.	Total Fuel \$ Amount
1	VPS		60,300✓	60,300		329,300✓	161,300✓	927,627
2	Decarbonizer		23,700✓	23,700		23,300✓	0	53,357
3	FCCU		79,400✓	79,400		46,600✓	140,000✓	257,324
4	Poly(Bbls. Polymer)	2,000	20,600✓	22,600	(834,262)✓			
5	Catalytic Reform.		20,600✓	20,600				
6	Alky(Bbls. Alkylate)		23,600✓	23,600		180,300✓	45,700✓	462,045
7	Hydrotreating		28,100✓	28,100				
8	Shipping Bulk		28,500	28,500		252,000✓	0	577,080
9	RP&S		76,800	76,800				
10	BS&W		1,300✓	1,300				
11	Waste Oil Recovery		1,300✓	1,300				
12	Total Direct	2,000	364,200✓	366,200	(834,262)✓	840,500✓	347,000	2,277,433
13	SP&W		87,900	87,900	1,239,862✓	61,000✓	262,000✓	421,562✓
14	Indirect Plant		220,750	220,750	250,750✓	4,500✓		10,305✓
15	GRAND TOTAL	2,000	672,850	674,850	656,360✓	941,000 906,000	609,000	2,709,300

WMC-KPS

JRL (2)

JFF(Stat. Refg.)

	Std. Bbls.	\$/Bbl. Amount
Gas Produced	882,000	2.29
Liquid Fuel	609,000	1.076
Purchased Gas	15,000	2.29
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

FORM R-1211-E
Exhibit III
Sheet 1 of 2

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.								
8	Caustic Soda-Lbs.			169,300	5,300	169,300	5,300	90,000	2,800
9	Monothanolamine-Lbs					25,200	5,950		
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	17,206	412,900

WWC-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:-							
4.	HDS-2 Hydrotreater-Lbs.	2,400	2,150					2,150
5.	Davison XZ-25-Tons							527,200
6.	UOP #1 Poly-Lbs.					20,650	61,000	33,650
7.	UOP-R-11 Platinum Lbs.					87,400	2,700	61,000
8.	Caustic Soda-Lbs.							16,100
9.	Monoethanolamine-Lbs.							5,950
10.	Nalco 537D			479,000	7,250			15,550
11.	Sodium Chloride-Lbs.							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 /

WNC-LKC

JRL(2)

JFF(Stat. Refg.)

WA-TEX 009043

WA-TEX009043

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

Line No.	FUEL Barrels	Amount	Purchased Power	Purchased Water	Other Cost	Total SP&W	Total Plant
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 FCCU	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 RP&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
Total SP&W Fuel from Exhibit II 323,000
Plus FCCU Waste Heat Fuel Credit 352,010

TOTAL SP&W FUEL TO DISTRIBUTE 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)

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 & ASWFO		
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.

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 \$ Amt.	Maint. \$ Amt.	Total \$ Amt.	I&T	Maint.	Total
VPS							
Decarbonizer	24.0	135,800	87,900	223,700		59,000	59,000
FCCU	18.0	174,000	34,500	34,500			
Poly (Bols. Polym.) (4)	7.0	67,900	110,200	284,200		9,210	9,210
Catalytic Reform.	7.0	67,900	18,500	90,800		8,000	8,000
Alky (Bols. Alky- late)	7.0	67,900	33,500	101,400		25,600	25,600
			45,300	113,200		25,800	25,800
Hydrotreating	7.0	67,900	23,700	91,600		25,600	25,600
Shipping Bulk	20.0	182,100	40,600	40,600			
RP&S	0.5	5,000	83,100	265,200		25,540	25,540
BS&W	0.5	5,000		5,000			
Waste Oil Recov.	81.0	773,500	4,400	477,300	00	178,750	178,750
Total Direct	13.0	133,000		130,000		3,000	3,000
S.P.&W.	15.0	147,000		746,490		118,970	118,970
Indirect Plant							
GRAND TOTAL	109.0	1,053,500	4,400	1,353,790	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-14C 1-23-70
1(2)
F(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.	T&I	Material		Misc. Expense	Total Gas Std. Bbls.	Fuel Consumed		Total Fuel \$ Amount
		Maint.	Total			Liquid Std. Bbls.	\$ Amount	
1 VPS		60,300	60,300		329,300	161,300	927,627	
2 Decarbonizer		23,700	23,700		23,300	0	53,357	
3 FCCU		79,400	79,400		46,600	140,000	257,324	
4 Poly(BBls. Polymer)	2,000	20,600	22,600	(834,262)				
5 Catalytic Reform.		20,600	20,600					
6 Alky(Bbbs. Alkylate)		23,600	23,600		180,300	45,700	462,045	
7 Hydrotreating		28,100	28,100		252,000	0	577,080	
8 Shipping Bulk		28,500	28,500					
9 RP&S		76,800	76,800					
10 BS&W		1,300	1,300					
11 Waste Oil Recovery		1,300	1,300					
12 Total Direct	2,000	364,200	366,200	(834,262)	840,500	347,000	2,277,433	
13 SP&W		87,900	87,900	1,239,862	61,000	262,000	421,562	
14 Indirect Plant		220,750	220,750	250,760	4,500		10,305	
15 GRAND TOTAL	2,000	672,850	674,850	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
ESTIMATED CRUDE REFINING OPERATING EXPENSES - YEAR 1970
SHEET 1 OF 2

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					17,206	412,900
3	Catalyst:-								
4	HDS-2 Hydrotreater-Lbs.								
5	Davison XZ-25-Tons			1,095	527,200				
6	UOP #1 Poly-Lbs.					108,800	33,650		
7	UOP-R-4 Platinum-Lbs.								
8	Caustic Soda-Lbs.			169,300	5,300	169,300	5,300	90,000	2,800
9	Monothanolamine-Lbs.					25,200	5,950		
10	Nalco 537D	6,325	15,550						
11	Sodium Chloride-Lbs.					13,900	200	347,100	5,250
12	Hydrogen-Cu. Ft.								
TOTAL		17,150		532,500		45,100			420,950

WVC-KLK

JRL(2)

CF(STAT. REFG.)

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							
2.	Anti-Foam DC-200-Lbs.							
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.					20,650	61,000	33,650
7.	UOP-R-11 Platinum Lbs.					87,400	2,700	61,000
8.	Caustic Soda-Lbs.							16,100
9.	Monocethanolamine-Lbs.							5,950
10.	Naico 537D			479,000	7,250			15,550
11.	Sodium Chloride-Lbs.	13,000	200					12,700
12.	Hydrogen-Cu. Ft.					115,000	1,900	2,100
13.	TOTAL		2,350		7,250		65,600	1,090,900

WA-TEX 009052

WNG-LKO

JRL(2)

JFF(Stat. Refg.)