S.W. oil - Doyle will

TU 4.8863

X 238

PLAINTIFF'S
EXHIBIT
KRC-338a

SW A/C 51
Williams 883-8723

TDS TS

1/8/69

Job 7514 gen

Per Doyle Williams — Both heaters are finished & ready for it to complete

---

Doyle says they chipped on one of the panels to get fit & he'll need some LHV to patch

---

Told him Brooks would be there Sat Am.

Advised Brooks 1/8

JP

J T THORPE COMPANY

ENGINEERS-CONSTRUCTORS

P. O. BOX 33399 HOUSTON, TEXAS 77033

INVOICE

INVOICE NUMBER **8-472**

SOLD TO
SOUTHWESTERN OIL & REFINING COMPANY
P. O. DRAWER 809
CORPUS CHRISTI, TEXAS 78403

SHIPPED TO

CUSTOMERS ORDER NUMBER	TERMS	DATE	THORPE JOB NUMBER
58037	NET CASH, 35 DAYS	12-30-1968	2514

TO LABOR, MATERIALS, TOOLS, EQUIPMENT, SCAFFOLDING, INSURANCE, PAYROLL TAXES, SALES TAXES, TRANSPORTATION, EXPENSE ITEMS AND SUPERVISION TO INSTALL REFRACTORY LINING IN TWO PLATFORMER HEATERS

AMOUNT OF CONTRACT	$81,000.00	
CONTRACT 100% COMPLETE	$81,000.00	
LESS 90% PREVIOUSLY BILLED	72,900.00	
AMOUNT THIS INVOICE		$8,100.00

THORPE
DEC 31 1968

		MPP	
TDS		KJ	
TH		FT	
MAS		WE	
JCR		JB	
WNC			
GW		BMT	
WAB		CC	
JP			
ELB			
JOB 2514		GEN	
JOB		PURCH	
JOB		D & E	
PROSPECT			
GENERAL FILES			

INVOICE

JOB FILE

J T THORPE COMPANY

ENGINEERS-CONSTRUCTORS

P. O. BOX 33399 HOUSTON, TEXAS 77033

INVOICE

INVOICE NUMBER
8-471

SOLD TO:
SOUTHWESTERN OIL & REFINING COMPANY
P. O. DRAWER 809
CORPUS CHRISTI, TEXAS 78403

SHIPPED TO:

CUSTOMERS ORDER NUMBER	TERMS	DATE	THORPE JOB NUMBER
58037	NET CASH, 10 DAYS	12-30-1968	2514

TO LABOR, MATERIALS, TOOLS, EQUIPMENT, SCAFFOLDING, INSURANCE, PAYROLL TAXES, SALES TAXES, TRANSPORTATION, EXPENSE ITEMS AND SUPERVISION TO INSTALL REFRACTORY LINING IN TWO PLATFORMER HEATERS

AMOUNT OF CONTRACT	$81,000.00
CONTRACT 100% COMPLETE	$81,000.00
LESS 10% WITHHELD	8,100.00
BALANCE NOW DUE	$72,900.00
LESS PREVIOUS BILLINGS	69,255.00
AMOUNT THIS INVOICE	$3,645.00

THORPE
DEC 31 1968

JS		MPP	
TDS		KJ	
TH		FT	
MAS		WE	
CR		JB	
WNC			
CW		BMT	
WAB		CC	
ELB			

JOB 2514 GEN
JOB PURCH
JOB D & E
PROSPECT
CENTRAL FILES

INVOICE

JOB FILE

TDS 75

12/24/68

Job 75 14 gen

Per Doyle Williams

Having Probs w/ welds -

No work til After New years probably

He'll call mon 12/30 & advise

Called Brooks & told him it'd probably be week to 10 days @ least.

will plan to get w/ him 1/2 or 1/3 to visit D. Pan + & look over that job.

JP

12/19/68

Lobring

per call from Doyle Williams —

They've got welding complete on one Heater but no X-Ray or Stress Relieving. He'll call 12/23 or 24 & advise further, but there won't be anything going on till after Xmas.

12/11/68

Job 2514 gen

Brooks Needs Truck 12/13 – Ready to move out.

Does Brick @ End wall come all the way up to top of Door.
After looking @ Drwg's told Brooks I figured Just 2 cses Right.

Brooks will only Lack Packing Around Tubes & Bricking doors After fri.

TDS TS

12/7/68

Job 2514 gen

Per Brooks

X J To pack yet

F.B. Between Burner Tile in 3/4 of one Htr

move - out & Clean up

About 1 Weeks work for small crew

Tentatively plan to go down

& finish up the week of 12/16

Advised Brooks to move Equip out of

Fluor - Amoco to Humble - Baytown

& we'd stay loose on sched for

12/16. Maybe we can get Naval

base that week.

12/4/68

TDS 15

Job 7514 ge

Per Brooks - Will be finished w/ Granite tomorrow.

Will finish this week, except for packing around tubes. Pipefitters Strike ended & fitters back today. However, it'll be several weeks before this item is ready to complete. Will take fitters that long.

Will send one truck down fri @ 8am to move out Granite equip for Texas City. Then when Brooks goes back we can catch the balance.

JC

J T THORPE COMPANY

ENGINEERS-CONSTRUCTORS

P. O. BOX 33399 HOUSTON, TEXAS 77033

INVOICE

INVOICE NUMBER **8-429**

SOLD TO
SOUTHWESTERN OIL & REFINING COMPANY
P. O. DRAWER 809
CORPUS CHRISTI, TEXAS 78403

SHIPPED TO

CUSTOMERS ORDER NUMBER	TERMS	DATE	THORPE JOB NUMBER
58037	NET CASH, 10 DAYS	11-27-1968	2514

THORPE
NOV 27 1968

FCS		MPP	
TDS		KJ	
TH		FT	
MAS		WE	
JCR		JB	
WNC			
GW		BMT	
WAB		CC	
JP			
ELB			
~~JOB~~ 2514		GEN	
JOB		PURCH	
JOB		D & E	
PROSPECT			
GENERAL FILES			

TO LABOR, MATERIALS, TOOLS, EQUIPMENT, SCAFFOLDING, INSURANCE, PAYROLL TAXES, SALES TAXES, TRANSPORTATION, EXPENSE ITEMS AND SUPERVISION TO INSTALL REFRACTORY LINING IN TWO PLATFORMER HEATERS

AMOUNT OF CONTRACT	$81,000.00
CONTRACT 95% COMPLETE	$76,950.00
LESS 10% WITHHELD	7,695.00
BALANCE NOW DUE	$69,255.00
LESS PREVIOUS BILLINGS	57,240.00
AMOUNT THIS INVOICE	$12,015.00

INVOICE

JOB FILE

SPEED LETTER®

TO Mr. E.L. Brooks
405 Blue Bonnet
Orange, Texas 77630

FROM J. THORPE COMPANY
P. O. BOX 33399
HOUSTON, TEXAS 77033

SUBJECT Hauling of Surplus Back - Job #514

—FOLD

MESSAGE

DATE 11/27 19 68

Ed — We have made arrangements w/ Berry Contracting to haul the bulk of Surplus Back on Job. Please Stay in touch w/ Wes Plumer @ Berry for Scheduling this.

—FOLD

SIGNED J. P.

REPLY

DATE 19

—FOLD

SIGNED

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SNAP-A-WAY AND RETAIN YELLOW COPY. SEND WHITE AND PINK COPIES WITH CARBON INTACT

DJB

11/18/68

Jobs [illegible]

Per [illegible]

Needs Saw Blades [illegible]

19's put on Trailways

Has about 1/3 of Brick laid

Should finish 1st wk of Dec.

If not for Thanksgiving Holiday,

Could possibly finish next week.

Has 2 Local (C.C.) s/L - No probs.

11/8/68

Job 2514

Doyle Williams - Southwestern

Smith will start Mon, I told him.

Told him we'd make arr. on the brickwork.

JP JP ~~on FDS.~~ Job 2514 Gen. 11-7-68

1:10 P.M.

Mr. Doyle Williams 512 + T44 - 8863 x 238
Southwestern Oil
Corpus Christi

2- Heaters for UOP.

ready to go Monday if it can be arranged with Brooks. He wants usual thing - Late start - Whirlwind finish

He will call you back this afternoon around 3:30, to see what you have found out.

Bennie
Strike over? No, but want to go on anyway.
All of roof gunite, in fact everything is ready to go.
Could go with both gunite and Skink at same time.
Check to see if we can work w/o getting a picket.
Call Doyle and let him know what we'll do.

TDS 95

11/7/68

Job V514 gen

Talked to Brooks - He's lined up to go back to CC & start work Mon Am. Will order Haydite Fri & Ship Balance of Kaowool etc via MTR Fri.

Talked to M. Berry (Returned his call) - They're anxious for us to go back to work so they can finish up. Told M. we'd be back to work Mon. Am.

Williams Never did call back & I couldn't reach him.

MAS

8/27/68

Job 2514 Gen

Progress ck.

MAS's Del'd to Job

JM 500	495
XP metal	744
S/B sand	260
"V" anchors	955
5m Brick	875
Lumite	6624
Haydite	2000
Vermulite	1898
Fire clay	290
Stalastic	66
	14,207

$\frac{14,207}{25,150} = 56\%$

Labor performed

S/B	50%	= 635
"V" Anch	100%	3280
LHV gunite	50%	2742
LH F&P	100%	1260
Reinf Steel	100%	287
Lath Jts	100%	1179
Plas insul	100%	707
Scaffold	80%	1786
Tube supports		
Painter	100%	350
1/2 unloading		688
Cleanup	40%	527
move in		150
TT		123
		$13,714

$\frac{\$13,714}{28,221} = 48.5\%$

Abt 50-50

$\therefore \frac{56 + 48.5}{2} = 52\%$

Say 55% @ End of month

Bill 55% × 81,000 = $44,550

8/29/68

Job 2514

AP-H1 – Lacks 1' of Collector Flue & Top of Flue Plus Stacks.

AP-H2 1 End complete
2 sides – 2/3 of length 5' High
18' " " 10' "
9' " " side + Hip

None in Collector Flue or Stacks

Had 660 SX when Started on AP-H2
Used Approx 66 ug on AP-H1

Avg'd 85 SX Lumite/Day (10 Days)
incl. S/B Abt 1 hr per day

Lumite Cont 8/29
65 SX @ Mixer
450 " @ Siding

8/29/68

Job 2514 gen

✓ Release Brush for Del during wk of 9/9

✓ Release Burner T.6 & All other mail

✓ Send INV on Reactor Hds to Kemp

Verbal per D. Williams & Handle as Extra to orig P.O.

Get Dimen on 2 vessels to F.P. from Brooks & give Kemp call Re: Handling of Work.

Figure 2 - 5'x9' Panels Replaced Complete on Hp

8/29/68

Job 2514 Punch

AP-H1 Remaining to be done:

Collector Flue:

2 side wall Areas 1'-0" x 67'-10" = 136 ☐
1 Roof 254
390 ☐

390 ☐ x 3/12 = 98 cf

Total LHV in HTR - walls & Arch 1520
Conv. walls 584
outlet flue 198
2302
98
In place 2204

AP-H2

Completed 1 End 275 ☐
2 side Areas 5'-0" x 46' = 460
2 " " 5'-0" x 18' = 180
2 " " 6'-0" x 9' = 108
2 Hip " 7'-4" x 9' = 132
1155 ☐ x 5/12 = 442 cf

Total in place

Both HTR's = 2646 cf

Job 2514

@ Beginning of day 8/29 Had 515 sx
Luminite left

Shipped 1460
Bal 515
945 sx used

22 sx used Job 2603
923 used This Job

923 Batches 1:2:4 LHV used
or 4.5 x 923 = 4160 cf gross / 2646 Net = 1.58 Loss factor

ck
2646 / 4387 = = 60% 945 / .6 = 1570 sx Req'd
for 124 Shot portion of APH1 & APH2
EST Quan for Stacks
Should be ok = 63 sx
Hdr Boxes 14
1647
B/m 1460
187 sx
→ Say 200 sx Req'd

9/26/68

Job 2514 gen

Sept Billing

All mat'l @ Job except Burner tile

Labor to Complete

Gunite	500
Burner tile	935
Joints	310
Floor panels	960
F.B.	6125
	8830

mat'ls	25,000	× 1.2 =	30,000
Labor etc.	70% × 48,000	=	33,600
			63,600

48
70
3360

TDS
V.P. JP

10-17-68

JOB 2514 GEN

Per Doyle Williams —

He has the back (SOUTH END) end out of the heaters —

Wants to know how much advantage this would be to Brooks —

If they close up the heaters, Brooks would have use two ports in the roof and regular access doo

Please advise one way or the other?

10/17

Per call to Doyle Williams w/ Swoi.

They'll leave Heater ends out for us.

Will be quite a bit of Patchwork to do where they tore it up w/ Tuber will be an extra

Looks like B/C gets on Strike tonite.

Other than that, Both Heaters are ready for us to complete.

J T THORPE COMPANY
HOUSTON TEXAS

WORK ORDER

THORPE
OCT 16 1968

FGS		MPP	
TDS		KJ	
TH		FT	
MAS		WE	
JCR		JB	
WNC	2514		
JP		GW	
LAK		WAB	
MW			
ELB		DJT	
JOB	7514	GEN	
JOB		PURCH	
JOB		D & E	
PROSPECT			
GENERAL FILES			

Date October 16, 1968 Job No. 2514

Name of Job HEATER LININGS

Contract with Southwestern Oil & Refining Company

Location of Job Southwestern Refinery
Corpus Christi Plant

Kind of Work Unloading of Rail Car

Customer's Order No. Contract Person in Charge JACK PEIFFER

Date When Job must be Started 10-17-68 and Completed SAME DAY

GENERAL INSTRUCTIONS:

Plans Attached NO

Specifications Attached NO

MR. CECIL SHAW:

We are lining two heaters for Southwestern in Corpus Christi for which we are furnishing all materials.

Due to problems with the job our work was interrupted and we presently have no one working at the jobsite. During our absence a rail car containing the burner tile arrived and we need to get them unloaded and release the car. We would like for you to handle this work for us.

We have a large forklift and pallet jack at the jobsite, and you will not need any equipment from the Houston warehouse. The team track where our material comes in is located about 2 blocks down the street from the main refinery gate. We did have some brick stockpiled at the siding, and they are probably still there. Brooks has been unloading his cars at the siding and stockpiling the material covering it with tarps, and when he needed material, just going down with the forklift and hauling it back to the jobsite inside the refinery. We would like for you to unload the car first of all, and if Brooks has any material still stockpiled there, merely stack the burner tile and cover it securely with tarps. If Brooks has moved all of his material to the heater site, we would like for you to do the same.

Upon arriving in Corpus Christi at the refinery, have the guard at the main gate contact Mr. Doyle Williams to pass you through the gate in order that you might pick-up the forklift and pallet jack. Mr. Williams can direct you to the rail siding.

Continued.....

ALL BLUE PRINTS AND SPECIFICATIONS TO BE RETURNED TO OFFICE UPON COMPLETION OF JOB.

Signed _____

J T THORPE COMPANY
HOUSTON TEXAS

WORK ORDER

Date_____ Job No._____

Name of Job_____

Contract with_____

Location of Job_____

_____

Kind of Work_____

Customer's Order No._____ Person in Charge_____

Date When Job must be Started_____ and Completed_____

GENERAL INSTRUCTIONS:

Plans Attached_____

PAGE - 2 -

Specifications Attached_____

All work is to be done on a straight time basis with scales as follows:

Yourself $4.85/hr. plus $10/day

In addition to the above, we will pay you 4 hours travel time each way to and from the jobsite, plus roundtrip air fare of $31.50. Ed Brown mentioned that you would probably need someone to help you with the pallet jack and you can either hire a laborer locally in Corpus Christi or if you prefer, take someone with you to assist. In the event you take someone from Houston, we will pay them ~~Houston~~ scale or if you hire a laborer in Corpus Christi, we will pay them the local scale which is $2.60 per hour. In the event you hire a Corpus Christi laborer, please call Mary to compute the net wages for you and the deductions and you can fill out a cash pay off slip, copies of which are attached, and give the man cash. Be sure to make a copy for the man and for the office. Ed said you would not need any cash and we will reimburse you for this upon your return.

I have placed a call for Ed Brooks and will write you a note supplementing this work order to advise you of the whereabouts of the key for the forklift or any change from the above. The car number is B&O ~~46457~~ 26457. We also attach to this work order a copy of the shipping ticket so you can check the car contents for the proper quantity and make note of any breakage.

If you have any questions or run into any problems, please give me a call at the office.

J T THORPE COMPANY

JACK PEIFFER
JP/bg cc:file-JP

ALL BLUE PRINTS AND SPECIFICATIONS TO BE RETURNED TO OFFICE UPON COMPLETION OF JOB.

Signed_____

10/14/68

Job v514 gen

per Kemp w/ SW Oil

B# 0-468457 @ Job

TDS TS

10/10/68

Job 2514 gen

per Doyle Williams

Will Have Tubes in Both Heaters by

Wed 10/16 . Will LV. Top open

& End out.

Filters & B/L out.

How Long to Complete ?

2 - 3 wks.

Doyle will get in touch w/ us

When Labor issues settled

JP

Job Risk

Per Doyle Williams

B/c Contract Expires 10/18

No point in Starting back to work

B/c Rumored to be going on strike.

Will Advise As Developments occur.

JP

9/16/68

TDS 95

Job visit gen

Told Brooks It didn't look like we were going to shake the floor job loose this week.

Plan to stay there, start cutting brick & we'd start hauling floor slabs.

1st load there Wed. 9/18.

TDS TS

9/12/68

Job 2514 gen

Per Brooks

How chg Repair of Lining on Panels? - 2514A

Brooks thinks he'll get caught up next week. J.W. Still hasn't got altures in for 1st Htr.

Told Ed we were trying to get small job from Fluor & could he shut down long enough to handle? Thinks he can. Has 3 cars in Now 2 more on way. Would need to hold up on slabs.

Will advise in Am.

We ordered 2005x of limit extra to finish & Brooks says he doesn't know what happened, but looks like lot of it will be left over.

JP

J.P. JP

Heater
Universal Oil Products Company

Southwestern Oil & Refining Co.
Corpus Christi, Texas

JOB 2514

TASK LIST

THRU 9-4

		Unit	Unit Cost	estimate	actual
A.	SAND BLASTING	12,699 ☐	$.10/☐	$1,270-	206-
B.	INSTALL "V" ANCHORS	25,232 ea	$.13/ea	$3,280-	2,237-
C.	FIRE BRICK	49 M	$125/M	$6,125-	
D.	L.H.V. GUNNED	4,387 CF	$1.25/CF	5,484-	2,391-
E.	L.H. GUNNED	168 CF	$3.00/CF	504-	66-
F.	L. H. POURED	50 CF	$2.00/CF	100-	
G.	L. H. FORMED AND POURED	504 CF	$2.50/CF	1,260-	1,146-
H.	BURNER TILE	110 set	$8.50/set	935-	
X.	REINF. STEEL SET	2,866#	$.10/#	287-	287-
J.	LATH JOINT FAB. AND INSTALLING	4,716 LF	$.25/LF	1,179-	1,108-
K.	PLASTIC INSULATION LATH JOINTS	4,716 ☐	$.15/☐	707-	651-
L.	SCAFFOLD	11,158 ☐	$.20/☐	2,232-	690-
M.	TUBE SUPPORT CASTINGS PAINTED	700 ea	$.50/ea	350-	91-
N.	FLOOR PANELS ERECTED	80 ea	$12/ea	960-	
O.	MATERIAL HANDLING	11 cars	$125/ea	1375-	715-
P.	CLEAN UP		5%	1318-	551-
Q.	MOVE IN - OUT			300-	82-
R.	TRAVEL			245-	58-
S.	UNALLOCATED SUPERVISION			310-	238-
				28,221	334
T.	EXP JOINTS PLYWOOD				10,851-

38% OF ESTIMATE
THRU 9-4-68

PER J.P. JOB ACTUALLY 55% COMPLETE 8-31-68

TDS DB

9/9/68

Job visit gen

Per Brooks

Will Finish Shooting 2nd Htr Today

START START Stacks tomorrow

Do 2 skirts Some time this week

SEND SLADS DOWN NEXT week

J T THORPE COMPANY

ENGINEERS-CONSTRUCTORS

P. O. BOX 33399 HOUSTON, TEXAS 77033

INVOICE

INVOICE NUMBER

8-306

SOLD TO

SOUTHWESTERN OIL & REFINING COMPANY
P. O. DRAWER 809
CORPUS CHRISTI, TEXAS 78403

SHIPPED TO

THORPE
AUG 27 1968

CUSTOMERS ORDER NUMBER	TERMS	DATE	THORPE JOB NUMBER
58037	NET CASH, 10 DAYS	8-30-1968	2514

SS			MPP
TDS			KJ
JTH			FT
MAS			WE
JCR			JB
WNC			
GW			BMT
WAB			CC
JP			
ELB			
JOB 2514			GEN
JOB			PURCH
JOB			D & E
PROSPECT			
GENERAL FILES			

TO LABOR, MATERIALS, TOOLS, EQUIPMENT, SCAFFOLDING, INSURANCE, PAYROLL TAXES, SALES TAXES, TRANSPORTATION, EXPENSE ITEMS AND SUPERVISION TO INSTALL REFRACTORY LINING IN TWO PLATFORMER HEATERS

AMOUNT OF CONTRACT	$81,000.00
MATERIALS DELIVERED TO THE JOBSITE AND LABOR PERFORMED TO DATE	$44,550.00
LESS 10% WITHHELD	4,455.00
AMOUNT THIS INVOICE	$40,095.00

INVOICE

JOB FILE

8/23/68

Job 2514 gen

per Brooks — will finish 1st heater

Monday —

Had 870 sx Lumnite left 8/22

Looks like mail will be about right

TDS 93

8/19/68

Job 2514 gen

Per Brooks — Abt 1/2 thru w/ 1st heater.

Brooks says least amt of rebound he's ever had — use of fireclay really works. Just started today on 2nd load of haydite. 4 or 5 wheelbarrows of rebound per day. Started last tues

Will finish 8/20 w/ Anchors in 2nd heater.

Sand blasting each day

No operator used yet

Guinite Crew 2 BL
5 MT

8/13

TDS TS

Job 2514 gen

Brooks Labor Thru 8/7 4462
+2 days @ 300 600
5062

Approx Est Labor Complete: 1/2 Anchors 1640
1/2 Lathing 590
1/2 Plasing Jts 354
(all scaffold up) 75% Scaffold 1674
3 cars unloaded 375
Move in 150
Travel 122
Est Labor $4905

Approx Act Labor $5062

8/7 1394

SPEED LETTER®

TO Mr. E.L. Brooks
Sagewest Apts #101
3002 Antelope
SUBJECT Corpus Christi, Texas

FROM J. THORPE COMPANY
P. O. BOX 33399
HOUSTON, TEXAS 77033
Summary Sheet - Job #716

—FOLD

MESSAGE

DATE 8/13 19 62

Ed — Attached is Summary Sheet showing how various items of Job were figured to be installed. I trust this will be helpful.

—FOLD

SIGNED J Pettie

REPLY

DATE 19

—FOLD

SIGNED

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7/18/68

Job 514 gen

✓ Order Lumnite on pallets.

✓ Will need Champ Fork Lift

Send Ed Summary list of How Various Items of Castable are installed

✓ Make ARR w/ Berry to rent w/m

✓ Ck w/ Marshall on A/C & make ARR for that

✓ Send Ed list of Doctors from Lib mst

8/7/68

Job 2514 gen

Per Brooks

Receiving mat'l

1 wk for 2 men to install XJ

H-W Car - All Fire Clay

All Airset

5000 + F.B.

Car of Lumnite in Town today

Where is Vermiculite?

Has scaffold in 2nd Heater

& mking for anchor

John Weidner @ Job Now.

Laid off 2 welders only has 2 now.

May START S/B+GUNNING monday.

Already Has one load of Haydite

@ Job -

Ck w/ Berry on A/C

7/29/68

Job 2514 ge

Per Brooks -

How is exp metal work coming?

Told Ed to ck back this pm

& we'd advise

Has 4 welders & will just about

Frame Anchors completed in 1st

Heater Tues pm.

Brooks plans to pack "V"'s w/

JM 500 before welding to wall.

SPEED LETTER®

TO Mr. E.L. Brooks
Sagewest Apts. #101
3002 Antelope

FROM J. THORPE COMPANY
P. O. BOX 33399
HOUSTON, TEXAS 77033

SUBJECT Corpus Christi, Texas Accidents – Job 2514 Gen

—FOLD

MESSAGE

DATE 7/29 1968

Ed — In the event of a Jobsite injury, please utilize one of doctors on attached list if possible.

—FOLD

SIGNED J. W. Pettie

REPLY

DATE 19

—FOLD

SIGNED

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SNAP-A-WAY AND RETAIN YELLOW COPY. SEND WHITE AND PINK COPIES WITH CARBON INTACT

7/24/68

Job 2514 gen

4153-2514 Berry P.O. for W/m

Where is Ft Lift & pallet Jack
(W/ Next Truck)

Ck Specs on xp. metal & see how
Attached. Brooks thinks they clip on.
get xp metal "V"'s on down &
Will give Brooks something to do.

7/22/68

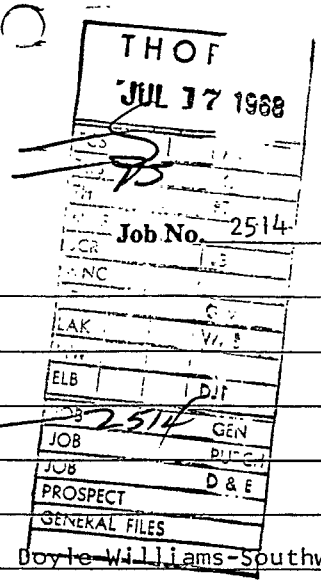
Job 25.4 gen

per Brooks —

Needs 20 - 3' scaffold Pipe

J T THORPE COMPANY
HOUSTON TEXAS

WORK ORDER



Date July 16, 1968 **Job No.** 2514

Name of Job Refractory lining of Two Platforming Heaters

Contract with Southwestern Oil & Refining Company

Location of Job Southwestern Refinery
Corpus Christi, Texas

Kind of Work Firebrick and Castable

Customer's Order No. 58037 **Person in Charge** Mr. Doyle Williams-Southwestern OIL

Date When Job must be Started July 22, 1968 **and Completed** Within Approximately 10 Weeks

GENERAL INSTRUCTIONS:

Plans Attached YES

Specifications Attached YES

Mr. E. L. Brooks:

We have a lump-sum contract with Southwestern Oil & Refining Company to install the refractory lining in two platforming heaters at their Corpus Christi Refinery and would like for you to handle this work for us.

We will verbally review pertinent points of the scope of work covered by our contract with Southwestern, but to facilitate your understanding of the job, we attach several sheets reproduced from our original proposal, a copy of a letter from Universal Oil Products requesting clarification of certain points, and finally, our letter to them in reply to their questions. In addition, we attach a complete set of the drawings and specifications for the work.

All materials for the job are furnished by Thorpe in accordance with the attached bill of materials. You will notice that our quantities differ, generally on the lesser side, from quantities shown on the UOP requisition sheets. These differences result largely from our estimate based on past experience and reflect the fact that this job was very tightly estimated. As the work progresses, we will need to make a detailed periodic review of materials consumed at a given date, and maintain a close running analysis of the job from both a material and labor standpoint. You will note the heaters contain precast floor panels for their floor. We have previously cast these slabs at our Houston warehouse and they are current stock-piled there waiting shipment. These slabs were made with no spares, but in the event one or more should become cracked or damaged in transit or at the jobsite, please notify us as soon as possible in order that the spare might be fabricated.

We have estimated the schedule for the work to require approximately 10 weeks. In our conversations with the customer, we further estimate that there will be an approximate 2 week time lag on progress between the two heaters. This should work nicely to our advantage in completing one phase of the work on a given heater before commencing the same undertaking on the second heater.

ALL BLUE PRINTS AND SPECIFICATIONS TO BE RETURNED TO OFFICE UPON COMPLETION OF JOB.

Signed _____

J T THORPE COMPANY
HOUSTON TEXAS

WORK ORDER

Date_____ **Job No.**_____

Name of Job_____

Contract with_____

Location of Job_____

_____

Kind of Work_____

Customer's Order No._____ **Person in Charge**_____

Date When Job must be Started_____ **and Completed**_____

GENERAL INSTRUCTIONS:

Plans Attached_____

Page 2

Specifications Attached_____

Erection of the heaters is being performed by Berry Contracting, Inc. for Southwestern. While we have no direct contractual relationship with Berry on this project, our past working relationship with them should accrue to our benefit on this job. In addition, we are also afforded the opportunity to continue the favorable impression Berry has of Thorpe with a good performance on this job. Needless to say, we feel quite certain our job relations with Berry will be excellent.

You will notice that our proposal was originally made to UOP. Southwestern has retained UOP has their engineer on this project and we will no doubt have a UOP inspector at the jobsite. UOP will insist on strict adherence to the specifications as you will no doubt infer from reading Mr. Shaw's letter requesting clarification of our proposal. Construction methods will, of course, be our decision to make, however, UOP has made it quite clear that they intend for the heater settings to be constructed in accordance with their drawings and specifications. To further acquaint you with their attitudes in this respect, we attach copies of correspondence regarding the castable anchors for the job. You will appreciate the position that UOP is in as the customer's engineer, in that their design once finalized, is held forth to be the latest and best way to perform the work. Accordingly, any suggestions you might have for change should be first discussed with us in the Houston office, and any proposals resulting therefrom will be made by us in writing to UOP. Along this line, you will need to thoroughly study the construction sequence outlined on the drawings and become thoroughly familiar with the letter of the UOP specifications and drawings for the work.

When you have completed your study of the drawings and specifications, you should then thoroughly plan your construction operations and sequence. You will note that certain items such as the stack linings can be performed on the ground concurrent with other work. On items of work such as installation of the floor slabs, we would appreciate your ingenuity in erecting these slabs in the cheapest most efficient manner possible. It may be that it will be to our advantage to rent a cherry-picker or small crane from Berry to drop these in from the top of the heater and locate them in place, or, the most economical method may be to slip them under the heater shell and by use of a small specially designed dolly hoist them into place from below. Please study the slab support steel carefully in order that we might request certain items of structural steel to be

ALL BLUE PRINTS AND SPECIFICATIONS TO BE RETURNED TO OFFICE UPON COMPLETION OF JOB.

Signed_____

J T THORPE COMPANY
HOUSTON TEXAS

WORK ORDER

Date_____ **Job No.**_____

Name of Job_____

Contract with_____

Location of Job_____

_____

Kind of Work_____

Customer's Order No._____ **Person in Charge**_____

Date When Job must be Started_____ **and Completed**_____

GENERAL INSTRUCTIONS:

Plans Attached_____

Specifications Attached_____

left out if it will be to our advantage.

Regarding the floor slabs, we would like to offer the following suggestions for your consideration. The drawings show a certain space allocated for installation of these slabs along with a suggested clearance between the slabs. We would suggest that you measure the actual distance available in the heaters and subtract the combined width of the specific slabs to go in that location. The difference divided among the spaces should provide the exact spacing you will need to install. This may or may not be that shown on the drawings. To obtain the length or combined dimension of the floor slabs we would suggest that you actually lay the slabs out adjacent to the heater on the side in which they will be installed. While not shown on the drawings, we have provided 2 stainless lifting eyes in the top surface of each slab. This is one item which we did not check with UOP on, thinking it essential to have, and not wishing to risk the possibility that they would turn down our request. If requested, we may have to cut off these eyes or even chip the castable down to the reinforcing steel, and patch the areas. If so, we feel the cost of doing this will be more than offset by the ease of handling which will be provided by the lifting eyes. Please carefully consider the sequence of construction of the bridgewalls. If requested by us, the erector will leave out end panels for access as necessary. On the large ultraformer heater at Suntide last year, Butch McCleskey constructed a ramp and moved brick for the bridgewall into the heater from both ends on pallets with pallet jacks. This method could be used to advantage and we offer it for your consideration. If you elect to use this method, consider also whether the walls should be constructed before or after the slabs are installed. If after, we should use heavy planking to spread the load and eliminate possibility of damage to the slabs.

When you have had time to determine your needs for tools and equipment, please furnish Ed Brown with a list of your needs and we will have the tools and equipment shipped to the job by a Company truck. The type of scaffolding to be used will be determined by whether or not the convection tube bundle currently rests on the bridgewall foundations. If Southwestern will need to install the convection bundles from above, and if the bundles are not in our way during construction, we should be able to use frame-type scaffold to good advantage. If the bundles are indeed setting on the foundation, we will most likely need to use tubular scaffold.

ALL BLUE PRINTS AND SPECIFICATIONS TO BE RETURNED TO OFFICE UPON COMPLETION OF JOB.

Signed_____

J T THORPE COMPANY
HOUSTON TEXAS

WORK ORDER

Date_____ **Job No.**_____

Name of Job_____

Contract with_____

Location of Job_____

_____

Kind of Work_____

Customer's Order No._____ **Person in Charge**_____

Date When Job must be Started _____ **and Completed** _____

GENERAL INSTRUCTIONS: **Plans Attached**_____

Page 4 **Specifications Attached**_____

Our warehouse stock of tubular scaffold is practically nil at this time, and whichever ~~time~~ scaffold you elect to use will probably need to be rented. Frame-type scaffold can readily be obtained in Corpus Christi, however, tubular scaffold may not be available and may necessarily be brought from Houston.

The first items of work, will of course, be sandblasting of the steel surfaces, and installation of the refractory anchors. You will note the large quantity of refractory anchors will necessitate a considerable effort to get completed without undue delay. In addition, you will note that expanded metal strips are to be welded over all panel joints, and filled in with plastic insulation. This plastic insulation is JM-500 which is a very special item, and after completing a portion of this work on the first heater we will need to know immediately whether or not we appear to have ample supply. If not, we will need to order more at the earliest possible moment.

All work on the jobswill be performed on a straight-time basis with scales as follows:

Yourself	$5.625/hr. Plus $10/day Plus Motel
Bricklayers	$5.00/hr Plus $10/day (Assuming Houston based men)
Other crafts	Local Scale

In addition to the above, you may find it necessary to bring a labor foreman or some other craft from Houston in order to secure competent workmen. If this is the case, we will apy these men the Houston scale. Bricklayers brought from Houston will be paid 4 hours travel time each way to and from the jobsite plus roundtrip bus fare to Corpus Christi. Since you are already on the site in Corpus Christi, you have previously been paid travel time. However upon completion of the job, we will pay you 4 hours travel time for return to Houston, plus .08¢ per mile for your car.

ALL BLUE PRINTS AND SPECIFICATIONS TO BE RETURNED TO OFFICE UPON COMPLETION OF JOB.

Signed_____

J T THORPE COMPANY
HOUSTON TEXAS

WORK ORDER

Date_____ **Job No.**_____

Name of Job_____

Contract with_____

Location of Job_____

_____

Kind of Work_____

Customer's Order No._____ **Person in Charge**_____

Date When Job must be Started _____ **and Completed** _____

GENERAL INSTRUCTIONS:

Plans Attached_____

Page 5

Specifications Attached_____

We hope the foregoing, while lengthy, will provide you with a thorough understanding of this sizable job. We are certain you will appreciate the fact that this is a somewhat unusual heater job in that we are furnishing both labor and materials, contrary to the usual practice of these being labor only. Accordingly, we will be more than casually interested in your progress regarding material consumption. Please keep in close contact with us on this item.

We look upon this excellent contract with Southwestern as a good opportunity to ~~submit~~ Cement a significant relationship with this customer, and trust you will perform your usual good job for them. Please let us know how we can help you in any manner to make this job more profitable for Thorpe.

J T THORPE COMPANY

JACK PEIFFER
JP/bg cc:file-JP

P. S. Please keep your time brokendown in accordance with the attached Task List. After we have had a chance to review the job with Southwestern on Thursday July 18, we will then prepare a schedule for release of the materials. Please Advise if you think it would be advantageous to have the Lumnite cement palletize

ALL BLUE PRINTS AND SPECIFICATIONS TO BE RETURNED TO OFFICE UPON COMPLETION OF JOB.

Signed_____

2 Platforming Heaters

Southwestern Oil & Refining Co.
Corpus Christi, Texas

JOB NO. 2514

BILL OF MATERIALS

QUANTITY	ITEM
3300 Lbs. (66 sacks)	JM-500 Plastic Insulation
600 Lbs.	B & W Bulk Kaowool
4960 Sq.Ft.	1/2" x 3.4#/sy Expanded Metal
260 Sacks	Sandblast Sand
4150	1/2" UOP V-Anchors
22,400	2" UOP V-Anchors
49.1 M	Firebrick 9" Straights
500	Firebrick 9" Soaps
1460 sacks	Lumnite Cement
124 Cubic Yds.	Bulk Haydite
1375 Sacks	Vermiculite
124 Sets	Burner tile
9.6 Tons	Air-set Mortar
7.5 Tons	Fireclay
110 Gallons	Eagle Pitcher Stalastic

THORPE
JUL 17 1968

FCS		MPP	
TDS		KJ	
TH		FT	
MAS		WE	
JCR		JB	
WNC			
JP		GW	
LAK		WAB	
MW			
ELB		DJT	
JOB		GEN	
JOB		PURCH	
JOB		D & E	
PROSPECT			
GENERAL FILES			

The 1/2" x 3.4#/sy expanded metal will either be cut and bent in our Houston warehouse and shipped to you next week or we will ship the expanded metal to you and let you fabricate the expanded metal panel joint breaks at Thorpe Insulation's Corpus Christi warehouse. You will note the large quantity of fireclay in the above list. This is for addition to the Lumnite-Haydite-Vermiculite mixes, and should be used in the ratio of 10 lbs. fireclay per sack of Lumnite cement in each batch. This would apply for both the Lumnite-Haydite-Vermiculite mixes and the Lumnite-Haydite mixes, where gunned.

The Eagle Pitcher Stalastic was previously shipped to the jobsite, and is largely for use by the erector in coating the joints between the steel panels during erection. However, there should be approximately 40 gallons of this material left which should be more than ample to paint the tube supports in the area embedded in the refractory lining. The bridgewalls are to be laid in air-setting mortar. We will furnish you with an additional list next week listing the suppliers for the various items, how and when the materials are to be shipped.

Heater
Universal Oil Products Company

Southwestern Oil & Refining Co.
Corpus Christi, Texas

JOB 2514

TASK LIST

A. SAND BLASTING

B. INSTALL "V" ANCHORS

C. FIRE BRICK

D. L.H.V. GUNNED

E. L.H. GUNNED

F. L. H. POURED

G. L. H. FORMED AND POURED

H. BURNER TILE

X. REINFORCING STEEL SET

J. LATH JOINT FAB. AND INSTALLING

K. PLASTIC INSULATION LATH JOINTS

L. SCAFFOLD

M. TUBE SUPPORT CASTINGS PAINTED

N. FLOOR PANELS ERECTED

O. MATERIAL HANDLING

P. CLEAN UP

Q. MOVE IN - OUT

R. TRAVEL

S. UNALLOCATED SUPERVISION

TDS 75

7/15/68

Job 2514 gen

P/C to Doyle Williams —
Just About have All panels
on 1st heater up. Doyle thinks
we can START Scaffold & welding
Anchors Next monday.

Unless Rain again delays them,
will plan to meet w/ him @
Jobsite thursday 7/18 (& have Brooks
there Also) to review Job.
(Looks now like we can leave Butch
@ Reynolds - Gregory). JP

SPEED LETTER

TO Mr. E. L. Brooks
Sagewest Apartments #101
3002 Antelope

FROM J T THORPE COMPANY
P. O. BOX 33399
HOUSTON, TEXAS 77033

SUBJECT Corpus Christi Texas Heaters - Southwestern Oil

—FOLD

MESSAGE Job 2514 DATE 7/15 1968

Ed - I talked to Doyle Williams this Am & It looks like the 1st Heater may be Ready to Start 7/22. I plan to come down for A Jobsite meeting w/ Doyle Thurs 7/18. Will come by Coastal & pick you up. If this changes, I'll let you know. Will have Work order & Drawing for you then.

—FOLD

SIGNED

REPLY

DATE Jack Paffen

—FOLD

SIGNED

GrayLine "SNAP-A-WAY" FORM 44-912 3-PARTS
WILSON JONES COMPANY • © 1961 • PRINTED IN U. S. A.

SNAP-A-WAY AND RETAIN YELLOW COPY. SEND WHITE AND PINK COPIES WITH CARBON INTACT

Area Code 713 MI 4-124

LETTER OF TRANSMITTAL

J T Thorpe Company
P. O. Box 33399
HOUSTON, TEXAS 77033

DATE 7/9/68 JOB NO. # 2514

ATTENTION Mr F. E. Kemp

RE: SW Oil & Ref Job 8664
P.O. # 58037

TO
Southwestern Oil & Ref Co.
Drawer 809
Corpus Christi, Texas

GENTLEMEN:

WE ARE SENDING YOU ☑ Attached ☐ Under separate cover via _____ the following items:

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications

☐ Copy of letter ☐ Change order ☑ P.O. Copy

COPIES	DATE	NO.	DESCRIPTION

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval

☐ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution

☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints

☐ For review and comment ☐ _____

☐ FOR BIDS DUE _____ 19 _____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS

For your information in Handling Tadpole Packing.

PY TO _____

SIGNED: [signature]

If enclosures are not as noted, kindly notify us

New England Business Service, Inc., Townsend, Mass.

6/28/68

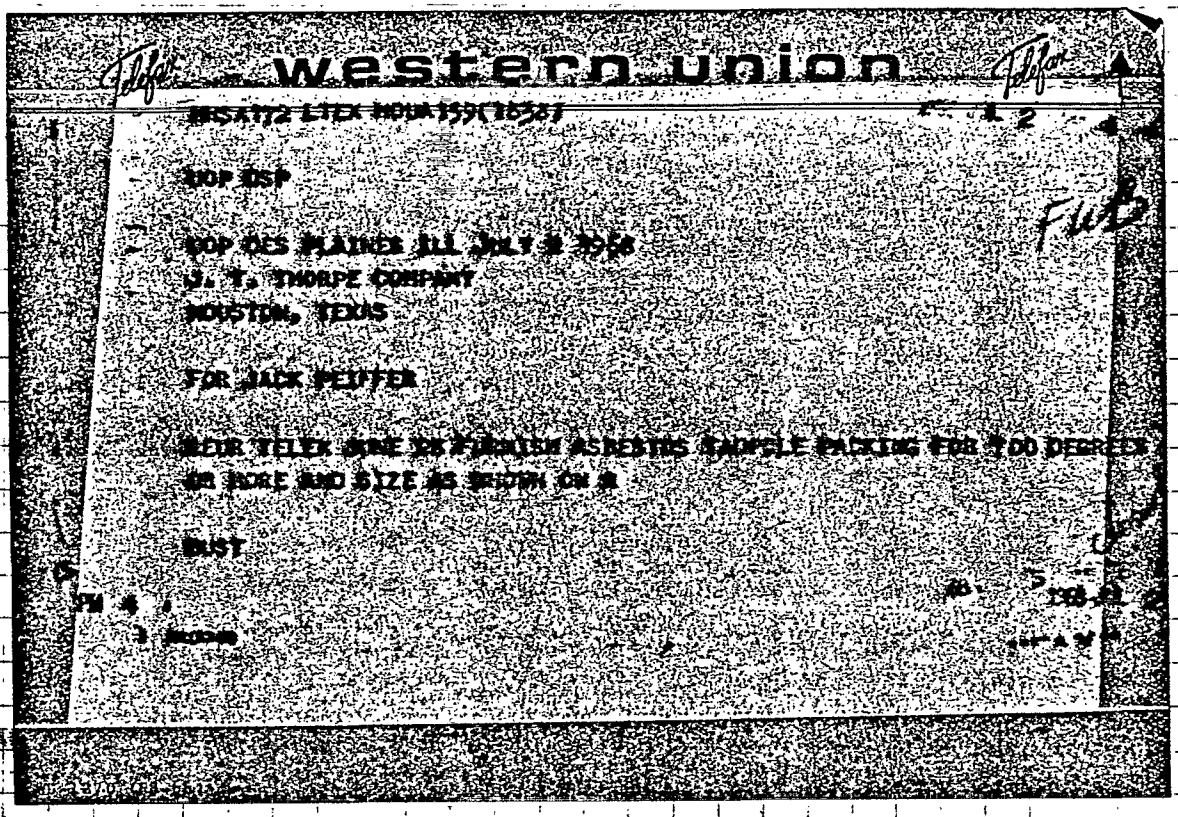
TDS

Job 25148

Called Foster Kemp w/ SW
And Advised that we were
Shipping 2 drums of Soplastic
Via Brown Express /
Use STD. Grade 1st. of
UOP Insp. Don't ok use of High Temp.
We'll Order 20 gal. Add'l STD grade.

JP

C/Arene Bran VN 9.4881



Telefax **western union** Telefax

NHSA172 LTEX HOUA159(1838)

UOP DSP

UOP DES PLAINES ILL JULY 2 1968
J. T. THORPE COMPANY
HOUSTON, TEXAS

FOR JACK PEIFFER

REUR TELEX JUNE 28 FURNISH ASBESTOS TAMPOLE PACKING FOR 700 DEGREES
OR MORE AND SIZE AS SHOWN ON A

BUST

FWB

Frank Tracy still can't identify what they want. What style is req'd? This stuff is not in local stock, approx 3 wk del.

Per Marsh w/ J-M
order style 156-3 & A

THORPE
JUL 2 1968

FCS	3	MPP	
TDS	15	KJ	
TH		FT	
MAS		WE	
JCR		JB	
WNC	JP		
JP		GW	
LAK		W/B	
MW			
ELB			
JOB	2514	GEN	
JOB		PURCH	
JOB		D & E	
PROSPECT			
GENERAL FILES			

6/28/68

Job 2514 gen

Rev Show w/ VOP

VOP 8664 - R.15

EP STALASTIC

VOP 8664 - R.29 & R.35

ASB TAD Pole

Putting up Panels on 1st Heater Now

884 - 8863 X 238

X 211 FOSTER Kemp.

Telefax **WESTERN UNION** Telefax

SENDING BLANK

CALL LETTERS NL EWB PD CHARGE TO HOUSTON, TEXAS 6-28-68

UNIVERSAL OIL PRODUCTS COMPANY
MR. W. B. SHAW
30 ALGONQUIN ROAD
DES PLAINES, ILLINOIS

RE S.W. OIL & REFINING PO 58037, JOB 8664, YOUR REQ. R-21 & R-35. PLEASE ADVISE STYLE J-M ASBESTOS TADPOLE PACKING REQUIRED.

STALASTIC SHIPPED FROM THORPE HOUSTON WHSE. TODAY.

PEIFFER - J T THORPE COMPANY

Send the above message, subject to the terms on back hereof, which are hereby agreed to

PLEASE TYPE OR WRITE PLAINLY WITHIN BORDER—DO NOT FOLD

1269—(R 4-55)

THORPE
JUN 28 1968

FCS		MPP	
~~TDS~~		KJ	
TH		FT	
MAS		WE	
JCR		JB	
WNC			
JP		GW	
LAK		WAB	
MW			
ELB		DJT	
JOB 2514		GEN	
JOB		PURCH	
JOB		D & E	
PROSPECT			
GENERAL FILES			

J T THORPE COMPANY

WAREHOUSE WORK ORDER

From: JP

Date: 6/28/68

To: ELB

Charge: 2514

Truck No.:

Please ~~pickup deliver~~ Ship the following items ~~and send~~ to See Below

on 6/28 via mtr Frt

QUANTITY	ITEM	WHSE.	SOURCE	P.O.
1	Drum Stalastic 40' of Tad Poles to:			
40	Ship To:			
	J.T. Thorpe Co.			
	C/o Southwestern Oil & Refining Co.			
	Corpus Christi, Texas			
	Attn: Doyle Williams			
	P.O. 58037			
	Heaters AP-H1 & AP-H2			

Remarks:

PROCESS DIVISION

30 ALGONQUIN ROAD • DES PLAINES, ILLINOIS 60016

REQUISITION

DRAWING NUMBER

NO. 8661 — P35

SHEET NO. 1

TOTAL SHEETS 1

W. O. NO.

DATE DEC 1 '67

APPROVED

MATERIAL INCLUDES–

HEADER COMPARTMENT DOOR TADPOLE FOR PLATFORMING INTERMEDIATE HEATER AP-H2.

ITEM NO.	QUANTITY	DESCRIPTION OF MATERIAL
1	20	Furnish the following material: Lineal feet 1/2" diameter x 1-1/2" Stem Asbestos Tadpole. SUGGESTED SUPPLIER: Johns-Manville, Inc. 22 East 40th Street. New York, New York

Style

BY ACCEPTING THIS ORDER THE SELLER AGREES TO IDEMNIFY AND HOLD HARMLESS THE PURCHASER AND/OR ITS LICENSEES FROM ANY LOSS, DAMAGE OR INJURY ARISING OUT OF A CLAIM OR SUIT FOR ALLEGED INFRINGEMENT OF PATENTS, RELATING TO THE PROPERTY DESCRIBED HEREIN, AND WILL ASSUME THE DEFENSE OF ANY AND ALL SUCH SUITS AND WILL PAY ALL COSTS AND EXPENSES INCIDENTAL THERETO.

REV.	DATE	APPROVED	REV.	DATE	APPROVED	REV.	DATE	APPROVED	ORDER NUMBER

PROCESS DIVISION

30 ALGONQUIN ROAD • DES PLAINES, ILLINOIS 60016

REQUISITION

DRAWING NUMBER

SHEET NO. 1

TOTAL SHEETS 1

W. O. NO.

DATE [illegible] '87

APPROVED

MATERIAL INCLUDES-

HEADER COMPARTMENT DOOR TADPOLE FOR PLATFORMING CHARGE HEATER A-H1.

ITEM NO.	QUANTITY	DESCRIPTION OF MATERIAL
1	20	Furnish the following material: Lineal Feet 1/2" diameter x 1-1/2" stem asbestos tadpole. SUGGESTED SUPPLIER: Johns-Manville, Inc. 22 East 40th Street New York, New York

STALASTIC

7/GAL

BY ACCEPTING THIS ORDER THE SELLER AGREES TO IDEMNIFY AND HOLD HARMLESS THE PURCHASER AND/OR ITS LICENSEES FROM ANY LOSS, DAMAGE OR INJURY ARISING OUT OF A CLAIM OR SUIT FOR ALLEGED INFRINGEMENT OF PATENTS, RELATING TO THE PROPERTY DESCRIBED HEREIN, AND WILL ASSUME THE DEFENSE OF ANY AND ALL SUCH SUITS AND WILL PAY ALL COSTS AND EXPENSES INCIDENTAL THERETO.

LA

REV.	DATE	APPROVED	REV.	DATE	APPROVED	REV.	DATE	APPROVED	ORDER NUMBER

JP - JP Job 2514 Gen 6/19/68

Doyle Williams - SW Oil Corp. Corpus
Talked to Jack about how long to do job.
Letter of Mar 12, 1968 says 10 wks.

Jack:
Look at job, if both heaters ready at same time, how long to do.
He said, you had talked about shooting walls with tubes in. I objected to that.

Talking now about dropping conv. sect from top, starting gunite ASAP.

Think they will be ready to start gunite approx Aug. 1st or maybe sooner.

Want us to look at schedule and see how rapidly we could get gunite out of way so they could be piping. Wants to complete job by duck season.
Doyle will call you Mon 6/24. HE DID NOT CALL - EACH HEATER ALONE 8 WKS. COMBINED 10 WKS. HOWEVER, THIS INCL. FLOOR SLABS.

6/10

Job 2514 Jan

Ken Vaughan w/ C.C. B/c

B/c 460/HR No Fringe

Exp. inc 9/30/68

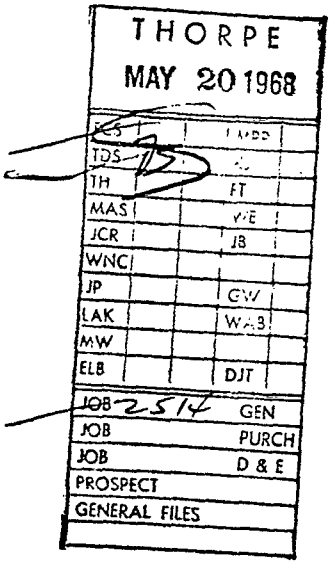
TDS B

6/7/68

Job 4514 gen

per Talk w/ Doyle Williams @ Jobsite — Having problems getting Castings & Tubes for Heaters.

If they can figure out how to drop tubes in from top work could start Approx ~~1st~~ 1st August. If not, looks like Sept.



May 20, 1968

Universal Oil Products Company
Process Division
30 Algonquin Road
Des Plaines, Illinois 60016

ATTENTION: Mr. W. B. Shaw, Purchasing Department

SUBJECT: REFRACTORY LINING OF TWO (2) UOP HEATERS - SOUTHWESTERN OIL & REFINING COMPANY - CORPUS CHRISTI, TEXAS - SOUTHWESTERN PURCHASE ORDER NO. 58037 JOB 866 FOR - THORPE JOB 2514

This letter will confirm our conversation of May 9, 1968. On that date I noted to you that one of our Engineers had noticed the preparations for casting floor slabs on the above heaters. He questioned whether or not the reinforcing steel should be coated with Bitumastic type paint to provide for thermal expansion when the heater was placed in operation.

Since this was not spelled out on the drawings either way, we inquired about this item. In accordance with the instructions from your Engineering Department, we are proceeding with the casting of these slabs leaving the reinforcing steel bare (uncoated) when cast into the floor slabs.

J T THORPE COMPANY

JACK PEIFFER
JP/bg cc:file

In Duplicate

cc: Mr. F. E. Kemp
Southwestern Oil & Refining Company
P. O. Drawer 809
Corpus Christi, Texas 78403

cc: Mr. Doyle Williams, Project Engineer

TDS
JP JP

5-23-68

JOB 2514 GEN

ANALYSIS: SLABS THRU 5-22-68

40% COMPLETE:

LABOR	EST	ACT (TO DATE)
BARE: #1,547 X .40 =	#618.80	#530.45
504 CF X .40 =	201.6 CF	
	#3.07/CF	#2.63/CF

Looks, ok when we add freight for transport to jobsite, should just Abt equal estimate

TDS 75

5/7/68

Job 2514 gm

Per Bill Shaw w/ VOP —

No coating on Reinf Steel for Floor slabs. Told Shaw, ok.

JP

PROCESS DIVISION
30 ALGONQUIN ROAD • DES PLAINES, ILLINOIS 60016

THORPE
APR 22 1968

FCS		MPP	
TDS		KJ	
TH		FT	
MAS		WE	
JR		JB	
WNC			
JP		GW	
LAK		WAB	
MW			
ELB		DJT	
JOB 2514		GEN	
JOB		PURCH	
JOB		D & E	
PROSPECT			
GENERAL FILES			

April 18, 1968

VIA AIRMAIL
File Ref; 8664

J. T. Thorpe Company
P. O. Box 33399
Houston, Texas 77033

Attention: Mr. Jack Peiffer

SUBJECT: Southwestern Oil & Refining Co.
Purchase Order No. 58037
Your Job No. 2514

Gentlemen:

Thank you for your letter of April 15 and information on the Nelson refractory anchor.

At one time UOP specified a machine welded anchor which was a split pin similar to a cotter pin. This cotter pin type required a bending operation after welding. This new Nelson anchor eliminates this operation but does not overcome other objections.

Our experience has shown that handling of individual small pieces which tend to become tangled is very time consuming. The time spent by welders in selecting one anchor and one ferrule and placing these parts in the welding gun is considerable. We also found that it was almost impossible to specify the quantity of anchors because a great number of anchors and ferrules were dropped and lost.

Please note that the UOP type anchor is furnished in sections of ten anchors. The welder attaches the first anchor by striking an arc on one side of the wire and then by lifting of the section, this first anchor will separate from the section at the "nick break" as shown in UOP Specification 296. This operation is repeated until all ten of the anchors have been attached. The welder can apply ten anchors quickly and without being required to pick up additional material.

(continued)

We do not wish to discourage you or anyone from offering suggestions and we are aware of the tight construction schedule, however, we know from experience that the present anchor applied in accordance with Specification 296 will provide excellent reinforcing for the insulation and can be attached in less time and probably at lower cost. Please proceed in accordance with Specification 296.

Thank you again for your suggestion and your desire to give Southwestern a good job on schedule.

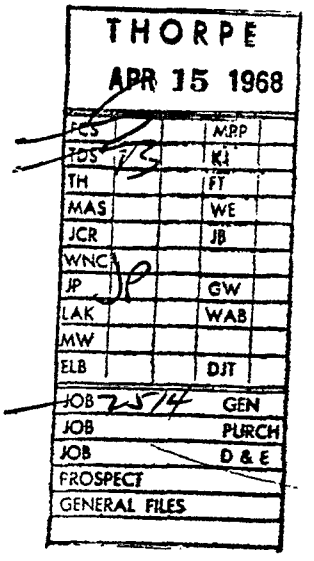
Very truly yours,

UOP PROCESS DIVISION

W. B. Shaw
W. B. Shaw
Purchasing Department

WBS:lms

cc: Southwestern Oil & Refining Co.
1 - Mr. F. E. Kemp
1 - Mr. Doyle Williams



April 15, 1968

Universal Oil Products Company
30 Algonquin Road
Des Plaines, Illinois 60016

ATTENTION: Mr. W. B. Shaw, Purchasing Department

REFRACTORY LINING OF TWO (2) UOP HEATERS -- SOUTHWESTERN OIL & REFINING COMPANY - - CORPUS CHRISTI, TEXAS - - SOUTHWESTERN PURCHASE ORDER NO. 58037 THORPE JOB NO. 2514

Refractory anchors for the castable refractory lining of the above heaters are to be as outlined in UOP Specification No. 296, Page 2. The Nelson Stud Welding Division of Gregory Industries, Inc., has only recently developed a very similar refractory anchor which can be machine-applied. We request approval of this Nelson refractory anchor.

While the cost of the Nelson anchor is greater than the one manufactured by Fabricated Steel Products Company, we feel this additional cost can be largely overcome by the labor savings of machine application. The large quantity of anchors required for this job as well as the tight construction schedule, we feel, make it very desirable to speed up the refractory anchor applications as much as possible.

Nelson is just starting production of these anchors, and regular production samples were not available. However, we enclose a hand-made sample, which along with the enclosed drawing will give you the details on this anchor. The anchors for the Southwestern job would, of course, be of the specified size and all anchors would have flux-loaded ends.

Continued.....

4/15/68

TDS

Lab 2514 gen

Called Doyler Williams w/ S.W.
Re: Approval of Nelson Stvo -

Send letter to UOP w/ copy to
S.W. Req. Approval.

Heater
Universal Oil Products Company

Southwestern Oil & Refining Co.
Corpus Christi, Texas

JOB 2514

TASK LIST

A. SAND BLASTING

B. INSTALL "V" ANCHORS

C. FIRE BRICK

D. L.H.V. GUNNED

E. L.H. GUNNED

F. L. H. POURED

G. L. H. FORMED AND POURED

H. BURNER TILE

X. REINFORCING STEEL SET

J. LATH JOINT FAB. AND INSTALLING

K. PLASTIC INSULATION LATH JOINTS

L. SCAFFOLD

M. TUBE SUPPORT CASTINGS PAINTED

N. FLOOR PANELS ERECTED

O. MATERIAL HANDLING

P. CLEAN UP

Q. MOVE IN - OUT

R. TRAVEL

S. UNALLOCATED SUPERVISION

J T THORPE COMPANY
HOUSTON TEXAS

WORK ORDER

THORPE
APR 4 1968

FCS		MPP	
TDS		KJ	
TH		FT	
MAS		WE	
WNC			
JP		GW	
LAK		WAB	
MW			
ELB		DJT	
JOB 2514		GEN	
JOB		PURCH	
JOB		D & E	
PROSPECT			
GENERAL FILES			

Date April 4, 1968 Job No. 2514

Name of Job Casting of Heater Floor Slabs

Contract with Southwestern Oil & Refining Company - Corpus Christi, Texas

Location of Job Thorpe Houston Warehouse

Kind of Work Formed and Poured Castable Refractory

Customer's Order No. Contract Person in Charge Jack Peiffer

Date When Job must be Started April 4, 1968 and Completed As Efficient

GENERAL INSTRUCTIONS:

Plans Attached YES

Specifications Attached SEE BELOW

Mr. K. H. Reynolds:

We have a lumpsum contract to install the refractory lining in 2 heaters for Southwestern Oil & Refining in Corpus Christi. As a part of this job, we are to furnish the pre-cast floor slabs for these heaters. We would like for you to handle the casting of these floor slabs here in our Houston Warehouse.

These slabs are as shown on the 2 drawings which I reviewed with you this morning. As we discussed, it appears to be advantageous to cast about 8 slabs at one time. The most important thing is to ensure that all slabs are square, even, and flat. It is also important that side notches for the eventual installation of soap firebrick at the joints are installed properly. You will further need to ensure that all reinforcing steel is properly placed.

While you are fabricating the forms and setting up your casting bench, we will order the reinforcing steel, and stainless steel pick-up hooks. We will furnish you later with a bill of materials, and give you the quantity required for each slab. Materials will be ordered for delivery when you are ready.

Please work with Ed Brown on the casting space, and storage of the finished slabs. We would like to stack the completed slabs 4 to a pallet, with a 2 x 4 divider between each. Ed will probably want to store these slabs out in the yard, and they should be covered from the weather. Please secure any needed tools and equipment from Ed for this work.

The Job is to be run on a straight time basis with scales as follow:

Yourself	$5.625/hr
Bricklayer	$5.00/ hr
Masontenders	$3.175/hr

Continued.....

ALL BLUE PRINTS AND SPECIFICATIONS TO BE RETURNED TO OFFICE UPON COMPLETION OF JOB.

Signed _____

J T THORPE COMPANY
HOUSTON TEXAS

WORK ORDER

Date_____ Job No._____

Name of Job_____

Contract with_____

Location of Job_____

_____

Kind of Work_____

Customer's Order No._____ Person in Charge_____

Date When Job must be Started _____ and Completed _____

GENERAL INSTRUCTIONS:

Plans Attached_____

Page 2

Specifications Attached_____

When the reinforcing steel arrives, please let me know and I will assist you in getting the proper spacing on the bars and installation of the bar support chairs for the first slab.

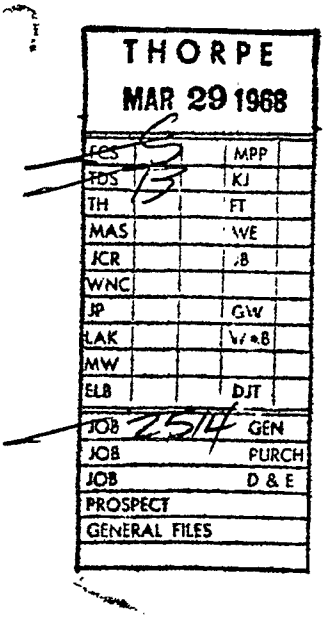
If you have any questions on this work as it progresses, please let me know. As I noted to you, this is a fill-in job and we may need to interrupt this operation from time to time.

J T THORPE COMPANY

JACK PEIFFER
JP/bg cc:file

ALL BLUE PRINTS AND SPECIFICATIONS TO BE RETURNED TO OFFICE UPON COMPLETION OF JOB.

Signed_____



March 29, 1968

Southwestern Oil & Refining Company
Drawer 809
Corpus Christi, Texas 78403

ATTENTION: Mr. F. E. Kemp, Purchasing Agent

REFRACTORY LINING OF TWO PLATFORMER HEATERS, AP-H1 AND AP-H2 -
SOUTHWESTERN OIL & REFINING COMPANY - CORPUS CHRISTI, TEXAS -
YOUR PURCHASE ORDER NO. 58037 - THORPE JOB 2514

We have received your order noted above, and thank you very much for this nice contract.

Our Bill of Materials for this job has been completed, and most items have been placed on order, particularly the long delivery items. We will maintain contact with your Mr. Doyle Williams to coordinate the field construction schedule.

We are instructing our Insurance Carriers to forward to you Certificates of Insurance covering this work.

It is our understanding that Berry Contracting, Inc., will perform the steel erection on this job. We have performed a number of jobs working in close conjunction with Berry Contracting in the past, and feel this experience will accrue to Southwestern's benefit on this job.

Again, we appreciate receipt of this order, and welcome the opportunity to once again be of service to Southwestern Oil & Refining Company.

J T THORPE COMPANY

3-29-68 -

JACK PEIFFER
JP/bg cc:file

Insurance Certificates
Have been ordered today.
Bennie

30 ALGONQUIN ROAD • DES PLAINES, ILLINOIS 60016

THORPE
MAR 21 1968

FCS		MPP	
TDS		KJ	
TH		FT	
MAS		WE	
JCR		JB	
WHC			
JP		GW	
KK		WAB	
MW			
EB			
JOB 2514		GEN	
JOB		PURCH	
JOB		D & E	
PROSPECT			
GENERAL FILES			

VIA AIRMAIL
File Ref: 8664

March 19, 1968

J. T. Thorpe Company
P. O. Box 33399
Houston, Texas 77033

Attention: Mr. Jack Peiffer

SUBJECT: Southwestern Oil & Refining Co.
Purchase Order No. 58037
Insulation of Heaters

Gentlemen:

In accordance with our telephone instructions of March 18, 1968 you are hereby authorized to enter Southwestern Oil & Refining Company's Purchase Order No. 58037. This order to cover labor and material to insulate two (2) heaters in accordance with UOP specifications and your proposal for a total lump sum of $81,000.00.

We attach two copies each of the following:

REQUISITION	REV.	DRAWING	REV.	SPEC.	REV.
8664-R12	1	57316-F	3	211	8
-R26	1				
-R11	0	62602-F	1		
-R25					
-R18	0				
-R32	0				
-R17	0			293	5
-R31	0				
-R13	0	84908-J	0	296	6
-R27	0	84909-J	0		
-R16	0				
-R30	0				
-R15	0				
-R29	0				

(continued)

REQUISITION	REV.	DRAWING	REV.	SPEC.	REV.
8664-R14					
-R28					
-R39		68064-G	0	292	5
-R40		84913-A	0		
-R21					
-R35					
		84905-J	0		
		84906-J	0		
		84907-J	0		
		84840-G	0		

Proceed immediately to place your orders for the burner blocks and any other long delivery items.

We estimate that this work will be ready to begin about July 1, 1968. We will advise you as soon as we can establish a firm date.

Very truly yours,

UNIVERSAL OIL PRODUCTS COMPANY

W. B. Shaw
Purchasing Department

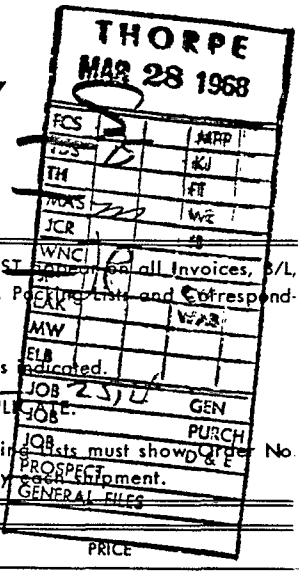
WBS:lms
Attach.
Letter in duplicate

cc: Mr. Doyle Williams,
Southwestern (2)

PURCHASE ORDER

SOUTHWESTERN OIL & REFINING COMPANY

CORPUS CHRISTI, TEXAS



Date March 21, 1968

To J. T. Thorpe Company
P. O. Box 33399
Houston, Texas 77033

Deliver To Southwestern Oil & Refining Company
Corpus Christi, Texas

1. Order No. MUST appear on all Invoices, B/L, Cases, Bundles, Packing Lists and Correspondence.
2. Tag all items as indicated.
3. Invoice in TRIPLICATE.
4. Complete Packing Lists must show Order No. and accompany each shipment.

ITEM	QUANTITY	ARTICLES	PRICE
		CONFIRMING ORDER	
		INSULATION OF HEATERS AP-H1 & AP-H2	
		Furnish all labor, materials, tools, equipment, scaffolding, insurance, payroll taxes, Texas State Sales Taxes, transportation, expense items and supervision to install refractory lining to two (2) platformer heaters in accordance with UOP Specifications and Drawings listed on attached letter dated March 19, 1968.	
		TOTAL	$81,000.00
		This order confirms UOP letter dated March 19, 1968 and is in accordance with your Proposal dated February 12, 1968 and addendum letter dated March 12, 1968, except price which was negotiated by phone.	
		Send insurance certificates to: Southwestern Oil & Refining Company Drawer 809 Corpus Christi, Texas 78403 Attn: Mr. F. E. Kemp	
		Work schedules to be arranged by contacting Mr. Doyle Williams of Southwestern Oil & Refining Company.	
	WBS/lws		

CONDITIONS

The right is reserved to cancel this order if not filled within the time and in accordance with the terms specified. All material subject to inspection and approval of buyer notwithstanding prior payment to obtain cash discount. Seller must pay all transportation charges both ways on rejected material No charges allowed for boxing, packing or drayage unless otherwise agreed. Do not invoice material covered by more than one purchase order on an invoice. Separate invoices must be rendered on material covered by each purchase order. The vendor agrees that all requirements of the federal and state laws referring to employment and Labor Standards have been complied with in the production and manufacture of the material called for on this order. The Seller shall have provided Workman's Compensation and Public Liability Insurance and shall hold the Purchaser harmless from and against any and all damages suffered or done to any and all persons or property while engaged on the work covered by this order, in the event that any work is performed under this order. Unless otherwise agreed upon in writing the seller agrees to assume the defense of any suits for infringement of patents, brought against the buyer by reason of the use of these goods and to indemnify the buyer against any decree of costs in such suits. If these conditions are not acceptable please advise us upon receipt of the orders, and before you make shipment.

ORDER NO. 58037

By F. E. Kemp
Purchasing Agent

VIA AIRMAIL
File Ref: 8664

March 19, 1968

J. T. Thorpe Company
P. O. Box 33399
Houston, Texas 77033

Attention: Mr. Jack Peiffer

SUBJECT: Southwestern Oil & Refining Co.
Purchase Order No. 58037
Insulation of Heaters

Gentlemen:

In accordance with our telephone instructions of March 18, 1968 you are hereby authorized to enter Southwestern Oil & Refining Company's Purchase Order No. 58037. This order to cover labor and material to insulate two (2) heaters in accordance with UOP specifications and your proposal for a total lump sum of $81,000.00.

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-R31	0				
-R13	0	84908-J	0	296	6
-R27	0	84909-J	0		
-R16	0				
-R30	0				
-R15	0				
-R29	0				

(continued)

REQUISITION	REV.	DRAWING	REV.	SPEC.	REV.
8664-R14					
-R28					
-R39		68064-G	0	292	5
-R40		84913-A	0		
-R21					
-R35					
		84905-J	0		
		84906-J	0		
		84907-J	0		
		84840-G	0		

Proceed immediately to place your orders for the burner blocks and any other long delivery items.

We estimate that this work will be ready to begin about July 1, 1968. We will advise you as soon as we can establish a firm date.

Very truly yours,

UNIVERSAL OIL PRODUCTS COMPANY

W. B. Shaw
Purchasing Department

WBS:lms
Attach.
Letter in duplicate

cc: Mr. Doyle Williams,
Southwestern (2)

30 ALGONQUIN ROAD • DES PLAINES, ILLINOIS 60016

VIA AIRMAIL
File Ref: 8664

March 19, 1968

J. T. Thorpe Company
P. O. Box 33399
Houston, Texas 77033

Attention: Mr. Jack Peiffer

SUBJECT: Southwestern Oil & Refining Co.
Purchase Order No. 58037
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(continued)

REQUISITION	REV.	DRAWING	REV.	SPEC.	REV.
8664-R14					
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Very truly yours,

UNIVERSAL OIL PRODUCTS COMPANY

W. B. Shaw
Purchasing Department

WBS:lms
Attach.
Letter in duplicate

cc: Mr. Doyle Williams,
Southwestern (2)

FCS 9

3/18/68

Job v SIK gen

per Doyle Williams w/ S.W. Oil —

If getting Job for L.S. $81,000 (Lkm)

($986 cut okd by JP from EST)

Williams will instruct VOP to

issue us an order today.

We'll probably get skirts & other work

(skirts ≅ $4,000)

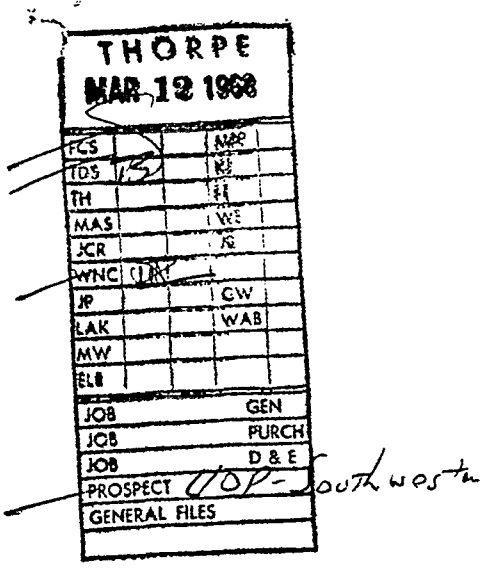
JP

3/18/68

Job 2514 gen

P/c from Bill Shaw @ UOP

~~UOP~~ SW P.O. # 58037



March 12, 1968

Universal Oil Products Company
30 Algonquin Road
Des Plaines, Illinois 60016

ATTENTION: Mr. W. B. Shaw, Purchasing Department

REFRACTORY LINING OF PLATFORMER HEATERS - SOUTHWESTERN OIL & REFINING COMPANY-CORPUS CHRISTI, TEXAS - INQUIRY REFERENCE NO. 8664

We have received your letter regarding our proposal of February 12, 1968, and offer the following comments and clarifications.

We have attached to this letter a list of the manufacturers and the quality or brand of the various items of material figured in our proposal.

We list below our comments again keyed to the item numbers of our original proposal.

1. We have included the asphalt mastic and the labor to paint the embedded portion of all tube support castings.

2. We appreciate the reasoning behind your comments regarding lining sequence, and will comply with that noted on the drawings as qualified by your March 8 letter.

3. Upon reading item 4 of our proposal again, we agree that it would be difficult for one not knowing our mind to understand. Your comments regarding this item expresses our intent very well.

5. The economies to be gained by using bulk Haydite are such that we feel in the best interest of Southwestern to do so. Accordingly, we will construct a temporary storage bin at the jobsite to prevent loss of "fines". The Haydite will be moistened 24 hours prior to using.

Continued.....

8. We are agreeable to furnishing the burner tile. The alternate in our original quotation is for burner tile as noted on your requisitions R-12 and R-26 including spares, delivered to the jobsite in Corpus Christi. Installation of these tile was included in our original proposal base bid. The quality of these tile and the manufacturer is shown on the attached sheet.

10. In addition to furnishing and installing the V-Anchors, our original proposal also included furnishing, fabrication, and installation of the expanded metal lath at the panel joints per UOP Specification No. 296.

14. The rail siding at the jobsite is suitable and Thorpe will unload all refractory materials with no change in our quotation.

BY STEEL ERECTOR OR OTHERS

1. We had included the mastic for heater panel joints in our original proposal. This is still acceptable to us.

Our price is firm for completion prior to August 31, 1968, as stated in Paragraph 4 of our original proposal. We would expect that all materials would be purchased and delivered to the jobsite well in advance of that date, and therefore anticipate no material escalation on this job. Labor escalation would be applicable only if work continues beyond September 1. We would then expect to be reimbursed our cost for the differential between wages and benefits paid a given craft at that time, and those that would have been necessary on February 12, 1968, the date of our original proposal. Escalation would apply only to labor expended on or after September 1, and then only if a wage rate change had been introduced since February 12, 1968. We trust this clarifies the seeming contradiction between Paragraph 2 and 4 of our bid conditions.

Regarding job schedule, we would expect that both heaters could be completed in approximately 10 weeks, if steel erection was telescoped sufficiently. Our proposal is not based on performing lining of both heaters simultaneously, but we see no difficulty in maintaining approximately a two week time lag between the two heaters. Either of the heaters alone would require approximately 8 to 9 weeks by itself.

Continued.....

We are pleased that you find our proposal attractive, and again, hope to be favored with your order for this work.

We hope the foregoing has clarified the points of our proposal in question. As noted to you in our telephone conversation, we spent a considerable amount of time preparing our proposal in accordance with your specifications. Please rest assured that we have figured it accordingly, and propose to perform a firstclass job. As you will see from the attached sheet, all materials are of quality manufacture, and our original proposal is for a complete refractory setting of the two heaters.

Please let us know how we can serve you and our good customer, Southwestern Oil & Refining Company

J T THORPE COMPANY

JACK PEIFFER
JP/bg cc:file

In Duplicate

2cc: Southwestern Oil & Refining Company
Drawer 809
Corpus Christi, Texas 78403
Attention: Mr. Doyle Williams

J T THORPE COMPANY

ENGINEERS-CONSTRUCTORS

REFRACTORY, INSULATED AND ACID PROOF STRUCTURES

P. O. BOX 33399 MI 4-1247 HOUSTON, TEXAS 77033

Refractory Lining of Platformer Heaters

Southwestern Oil & Refining Company
Corpus Christi, Texas

UOP REFERENCE NO. 8664

PROPOSED MATERIAL DATA:

ITEM	MANUFACTURER	BRAND OR QUALITY
Calcium Aluminate Cement	Universal Atlas (USS)	Lumnite
Haydite	Texas Industries	
Vermiculite	Texas Vermiculite	
Fireclay	Harbison-Walker Refractories Company	High Heat Duty Fire Clay
Firebrick	" " "	Coleman XX
Airset Mortar	" " "	Harwaco Bond
Burner Tile	" " "	Walsh XX
Block Insulation & Loose Mineral Wool	Johns-Manville	HT Banroc
Insulating Cement	" "	JM-500
Ceramic Fiber	Babcock & Wilcox	Kaowool
Mastic For Panel Joints	Eagle-Pitcher Company	Stalastic (Regular Grade)

Refractory Lining of Platformer Heaters

Southwestern Oil & Refining Company
Corpus Christi, Texas

UOP REFERENCE NO. 8664

PROPOSED MATERIAL DATA:

ITEM	MANUFACTURER	BRAND OR QUALITY
Calcium Aluminate Cement	Universal Atlas (USS)	Lumnite
Haydite	Texas Industries	
Vermiculite	Texas Vermiculite	
Fireclay	Harbison-Walker Refractories Company	High Heat Duty Fire Clay
Firebrick	" " "	Coleman XX
Airset Mortar	" " "	Harwaco Bond
Burner Tile	" " "	Walsh XX
Block Insulation & Loose Mineral Wool	Johns-Manville	HT Banroc
Insulating Cement	" "	JM-500
Ceramic Fiber	Babcock & Wilcox	Kaowool
Mastic For Panel Joints	Eagle-Pitcher Company	Stalastic (Regular Grade)

30 ALGONQUIN ROAD • DES PLAINES, ILLINOIS 60016

THORPE
MAR 11 1968

FCS		MPP	
TDS		KJ	
TH		FT	
MAS		W.	
JCR		JB	
WNC			
JP		GW	
LAK		VAB	
MW			
ELB			
JOB		CON	
JOB		PURCH	
JOB		D & E	
PROSPECT		UOP - SW	
GENERAL FILES			

VIA AIRMAIL
File Ref: 8664

March 8, 1968

J. T. Thorpe Company
P. O. Box 33399
Houston, Texas 77033

Attention: Mr. Jack Peiffer

SUBJECT: Southwestern Oil & Refining Co.
Insulation of Heaters
Your Proposal February 12

Gentlemen:

We have reviewed your proposal and list below our comments and items for clarification. Please check and advise promptly.

Please advise supplier and quality of brick, cement and block insulation you propose to use.

Exceptions and Clarifications. (We are using the same item numbers as listed on your proposal.)

ok 1. This is to be done by Thorpe. yes We assume this is not an exception. Please confirm.

ok 2. We could not at this time determine whether or not you could leave off the entire hip lining until the tube bundle is installed.

We do not want to become involved in technical extras. We would place the order on the basis that you follow the sequence noted on the drawings. If it develops that it is impossible for you to finish these small areas around the tube supports while your crew is on the job, you would be excused, and Southwestern could complete this portion. It's too small to warrant extras, however, if the entire section is left out it becomes a major item. We expect you would cooperate and make an effort to complete the job.

(continued)

4. This item is difficult to understand. We would prefer that you state, that with reasonable notice you are in a position to begin the job. When the job has begun, you will be allowed to complete both heaters without work stoppage due to erection schedule. If your proposal is based on a required sequence, please define.

   We could not say at this time that if you determined to begin one heater on a specific day that you could do the same work or other work on the other heater the next day.

   The starting date and sequence of work will have to be scheduled after delivery of steelwork. You can be sure of one thing, Southwestern will do everything possible to have the insulation crew in and out as soon as possible.

5. If bulk Haydite is used, you must furnish a storage bin at job site lined or so constructed to prevent loss of "fines". Also the Haydite must be moistened 24 hours before using.

6. Standard paper bags OK for Vermiculite. Protection is your responsibility.

7. Membrane Curing in accordance with manufacturer's recommendations and industry practice for this type work is acceptable.

8. We prefer that you furnish burner tile. Attached are two copies of burner tile requisitions and drawings. Supplier of tile to be one of those shown on the requisitions.

9. Top of foundation will be above grade.

10. Yes - insulation contractor to furnish and install V-Anchors as shown, also expanded metal lath at panel joints per UOP Spec. 296.

11. Yes (no comment).

12. Yes (no comment).

13. This is your option.

(continued)

14. What is a reasonable distance to rail siding? You were at job site. Please determine whether the rail siding at Southwestern is suitable at the price quoted.

BY STEEL ERECTOR OR OTHERS:

1. All steel erection by others - mastic applied at this time and by erection crew. Please advise if you have included the mastic material in your proposal.

   Refer to Requisitions 8664-R15 and R29. We could purchase this material if desired.

2. Chain links installed by stack fabricator.

3. Correct as stated.

4. Correct as stated.

BID CONDITIONS:

Please clarify price protection, the second and fourth paragraphs seem to contradict each other.

Please refer to the final paragraph of your proposal and advise best estimated time required to complete the actual field work after all material is on hand and job ready to begin.

We find your proposal attractive, however we want a first-class job and want to avoid any misunderstandings.

Please reply promptly as some materials are long delivery.

Very truly yours,

UNIVERSAL OIL PRODUCTS COMPANY

W. B. Shaw
Purchasing Department

WBS:lms
Attach.
Letter in duplicate

cc: Mr. Doyle Williams,
Southwestern (2)

30 ALGONQUIN ROAD • DES PLAINES, ILLINOIS 60016

INQUIRY

To:

J. T. Thorpe Company
P. O. Box 33399
Houston, Texas 77033

Attn: Mr. Jack Peiffer

Date January 17, 1968

THE FOLLOWING REFERENCES MUST APPEAR ON ALL QUOTATIONS:

PROJECT: SOUTHWESTERN OIL & REFINING C(

UNIT: PLATFORMER

MATERIAL: INSULATION FOR HEATERS

REFERENCE NO. 8664

PLEASE SUBMIT QUOTATION IN TRIPLICATE **FOR FURNISHING THE MATERIAL LISTED BELOW. IN ORDER TO RECEIVE CONSIDERATION YOUR QUOTATION MUST CONTAIN ALL THE INFORMATION ENUMERATED IN THE RIGHT HAND COLUMN. QUOTATION MUST BE IN OUR HANDS NOT LATER THAN** JANUARY 30, 1968 WITH TWO ADDITIONAL COPIES MAILED TO SOUTHWESTERN OIL & REFINING CO., DRAWER 809, CORPUS CHRISTI, TEXAS 78403, ~~ATTENTION MR. DOYLE WILLIAMS.~~

MATERIAL	INFORMATION REQUIRED
Quote the following material in accordance with the attached copies of the UOP Co. Requisitions, Project Specifications, Drawings and/or Standard Specifications as listed below. (SEE ATTACHED LIST)	1. Unit and extended prices for each item, and grand total F.O.B. your plant. 2. Complete specifications of equipment offered. Any exceptions to our specifications must be indicated in your quotation. 3. Best possible shipment from P.O. date. 4. Approximate shipping weight, each item. 5. Estimated freight to jobsite. 6. Number of calendar days after receipt of order required to submit certified shop drawings for approval. 7. Additional information required Quote total lump sum price for all labor, material and freight.

THORPE
JAN 19 1968

FCS	MPP
TDS	KJ
TH	FT
MAS	WE
JCR	JB
WHC	
JP	GW
KHA	WAB
MW	
EJB	
JOB	GEN
JOB	PURCH
JOB	D & E
PROSPECT	
GENERAL FILES	

lms

Please immediately acknowledge receipt and confirm that you are in position to submit your quotation by the required day.

Very truly yours,
UNIVERSAL OIL PRODUCTS COMPANY

W. B. Shaw
Purchasing Department

Attach.
cc: Mr. Doyle Williams,
Southwestern (2)

UCB - Southwestern Oil 1/19/68

Jack - JP

Will you est please. OK

Better get MW cracking on math prices.

We should see if we can get a discount somewhere so as to be in the best possible position on the math.

DUE 1/30

1/30/68

UOP - SW Ref Prospect
Corpus Christi Heaters

Talked to Bill Shaw w/ UOP -
Need to get better understanding of
Erection on heaters. Shaw says
best bet is to contact Williams
& get w/ SW & their erector.

No prob on add'l time for HTR price.
Take another week or 10 days if necessary.

Called Williams - will meet in
Corpus on 2/6 to discuss - He'll
pull out Drugs in meantime & review.
Send Williams letter on items to be discussed -

1/23/68

MATERIAL Summary from UOP
B/M for HTRC AP-H1 & AP-H2

	AP-H1	AP-H2	c/v	
Lumnite	1055 sk	982	2	2037 sk
Haydite	2378 cf	2264	3	4642 cf
Vermiculite	3675 cf	3310	2	6985 cf
Fireclay	9680#	8945	1/3	18,625#
2" HT Bonroc	16 sf	16	–	32 sf
2½" Sen 1st Qual Str	25.8 m	29.3 m	6	55.1 m
Soap	370	370	–	740 pcs
Air Set	11,400#	12,800	1/2	24,200#
Stalastic	36 gal	35	–	71 gal.
~~Bio Cement~~				
Insul Cement	800#	760#	–	1560#
Loose mw	4 sk	4 sk	–	8 sk
Bulk Kaowool	280#	230#	–	510#

Approx 14 c/v

ck Cement-Fondu

Scaffold	3 days
S/B	2 days
Anchors & Lath	10 days
Gunite	12 days
Brown Tile	2 days
Floor Panels	3 days

$$5 \overline{)32}$$
$$-6$$

2/23/68

TDS TS

Southwestern Oil & Ref Co. Prospect
2 UOP HEATERS

Called Doyle Williams @ 883-8723
Says they will probably do something on this job next week. Have been waiting for other price.

Now looks like it might be July now before Job is ready to go, judging from way Heater steel is coming along.
I advised that I'd be glad to come down if he had any questions. JP

3/4/68 called Williams & Shaw - Still Active
No decision yet - Offered to come up to UOP & Discuss Job w/ them. Shaw said good, he'd keep in mind

THORPE
FEB 12 1968
FCS | MPP
RBS | KJ
TH | FT
MAS | WE
JCR | JB
WNQ
GW | BMT
WAB | CC
JP
ELB
JOB | GEN
JOB | PURCH
JOB | D & E
PROSPECT
GENERAL FILES

J T THORPE COMPANY

ENGINEERS - CONSTRUCTORS

REFRACTORY, INSULATED AND ACID PROOF STRUCTURES

P. O. BOX 33399 MI 4-1247 HOUSTON, TEXAS 77033

February 12, 1968

Universal Oil Products Company
30 Algonquin Road
DesPlaines, Illinois 60016

ATTENTION: Mr. W. B. Shaw - Purchasing Department

SUBJECT: REFRACTORY LINING OF PLATFORMER HEATERS - SOUTHWESTERN OIL AND REFINING COMPANY - CORPUS CHRISTI, TEXAS - INQUIRY REFERENCE NUMBER 8664

We are pleased to submit our quotation for the above work in accordance with your inquiry dated January 17, 1968 and our discussions with Mr. Doyle Williams in Corpus Christi on February 6, 1968.

We propose and will agree to furnish all labor, materials, tools, equipment, scaffolding, insurance, payroll taxes, Texas state sales taxes, transportation, expense items, and supervision necessary to install the refractory linings in two platformer heaters at Southwestern Oil and Refining Company in Corpus Christi, Texas, in a complete and workmanlike manner, and in accordance with the following, terms, and specifications.

SPECIFICATIONS

The work upon which we quote is as shown on the UOP process division drawings and specifications furnished to us with the inquiry. However, we list below a few exceptions to the specifications, along with a number of clarifications having direct bearing upon the scope of work to be performed by Thorpe. This list of items applies to both the platforming charge heater AP-H1, and the platforming intermediate heater AP-H2.

BY J T THORPE COMPANY

1. Paint the imbedded portion of all tube support castings with an asphalt type mastic.

2. The erection sequence noted on the drawings requires insulation blockouts around several of the tube support castings. We propose to leave the lining off of the entire heater hip until the convection tube bundle is erected. The hip refractory would then be installed entirely.

3. Both stacks would be lined on the ground.

Continued....

4. Portions of both heaters would be under erection simultaneously, to allow the most efficient jobsite scheduling of men and materials. While we do not plan to work on both heaters in all phases simultaneously, our proposal is not based on completing one heater prior to start of any work on the other heater.

5. Our proposal is based on using bulk Haydite, delivered to jobsite via covered trucks. We do not include furnishing Haydite in paper lined burlap bags per the UOP specifications.

6. Vermiculite will be packed in the manufacturer's standard paper bag.

7. Our proposal is based on the use of membrane curing compound. We have not included a 24-hour water curing of the refractories, as we have no control of the erection schedule and have no way of knowing how much overtime would be involved. This method of curing refractory linings is in rather common use throughout the industry, and gives satisfactory results.

8. We have provided our alternate price for furnishing all burner tile necessary, but in any event have included the installation of these tile in our proposal.

9. We have based our proposal on the top of foundations shown on the drawings being approximately 1'-6" above grade.

10. Thorpe includes the furnishing and installation of all "V" anchors for the refractory linings.

11. Our proposal includes furnishing the reinforcing steel and pre-casting of the floor panels. We have included the subsequent erection of these panels, as well.

12. We note the convection coils are to be set on the center wall foundations temporarily and that lining of a portion of the heater would then proceed. During this period, we have included provisions for covering the coils with polyethylene sheet and tarpaulins to protect them from gunite. We would scaffold and work around this obstruction.

13. Our proposal is based upon several lower end panels being left off of each end of both heaters for access and efficient material handling during the construction of heater bridgewalls.

14. Unloading of refractory materials (our proposal assumes a rail siding within reasonable distance of the heaters).

Continued....

PRICE

Seventy Eight Thousand One Hundred Forty Four Dollars.....$78,144.00

For Thorpe to furnish all burner tile, add..... 3,842.00

We appreciate very much the opportunity to submit our proposal. We hope to be favored for your order for this work, and once again have the opportunity to be of service to Southwestern Oil & Refining Company.

If awarded a contract for this work, all field work could be completed in approximately 14 weeks. We would suggest early placement of order for this work, so that long-delivery items may be placed in manufacture. We trust our proposal meets with your approval, but if you have any questions or if we can furnish you with any additional information, please let us know.

J T THORPE COMPANY

JACK PEIFFER
jp/mw cc: file 3

In Triplicate

2cc: Southwestern Oil & Refining Company Attn: Mr. Doyle Williams
Drawer 809
Corpus Christi, Texas 78403

BY STEEL ERECTOR OR OTHERS

1. All steel erection, including mastic at the panel joints.

2. Chain link fence pickets in the stack.

3. All metal work such as bolting up of cast iron peep doors, installation of burners and related items, and installation of tube support castings. With the exception of refractory anchors and expanded lath panel dividers, Thorpe's work is basically that performed by masons and their helpers only.

4. Turning or cribbing of stacks as may be required for lining, temporary placement of panels and other components for lining, etc.

GENERAL

You will furnish free to us all utilities of power, water, hook-up and disconnect of our electrical equipment, conveniences for our men, and adequate working and storage space adjacent to the heater to be lined. Compressed air necessary for the pneumatic lining application has been included by Thorpe.

We plan to schedule our crews to work closely with your field erection forces for all phases of the work. As noted above, we anticipate being able to efficiently use our forces on the job, and our proposal is based on performing all work with one trip to the jobsite.

OUR BID IS CONDITIONED UPON

Our bid is conditioned upon a five-day work week with one eight-hour shift per day, availability of labor and materials at the time of installation, and existing labor rates and material costs at this date.

It is understood and agreed that additional compensation shall be paid by you to reflect increases in the cost of labor and/or materials above today's prices. The cost of overtime deemed necessary for the work, and the cost of delays or interference in the work not due to our fault will be for your account.

You will make payments before the 10th of each month of our invoice for 90% of labor expended and materials delivered during the preceeding month, and will pay the balance within 35 days thereafter.

Our price is firm for acceptance prior to March 15, 1968 and completion prior to August 31, 1968. Otherwise and thereafter, the above noted conditions of excalation shall apply.

Continued....

2/12

TDS — (Re: UOP - S.W. oil proposal)
It might be well to have someone check my extension on this estimate, for any gross inaccuracies. Some of it was done w/ slide rule.
While quantities are less, it checks generally w/ UOP req. sheets.

Most of material loss factors have a basis in some previous job. Most, but not all, of the labor unit prices are based on analysis of previous job.

From experience on Ultraformer Bridgewall @ Sunside, I used theoretical brick quantities on that item, i.e. 9" wall used (12⁸) rather than (12).

Mary supposed to be getting typed 2/12.
(Magic No. is on Pg 17) JP

1/29/68

LIOP - Southwestern Oil & Ref. Prospect

Corpus Christi, Texas

Job Descr: Job consists of L&M to install Lining in Two Heaters @ SW Ref - Corpus Plant. Most of Job is Gunite LHV But each Heater has Large Bridgewall (Firebrick) Floor is Elevated and Consists of Precast LH Panels reinforced w/ reinf Steel. (Job cast by J

A. AP-H1 Platforming Charge Heater
1. Radiant walls & Arch
2. Convection walls
3. Outlet Flue
4. Stacks
5. Bridgewall
6. Heater Floor
7. Burner Tile
8. Header Boxes
9. Misc.

B. AP-H2 Platforming Intermediate Heater
1. thru 8 Ditto Above

1/29/68

(2)

UOP - SW Refining Htrs

Takeoff:

A AP-H1 HEATER

1. Radiant walls And Arch

Specs: 2" UOP V Anchor 8" c-c
Commercial S/B
5" 1:2:4 LHV
9" FB @ Lower End Walls 1st Qual.

2 sides 16'-0" x 67'-10" = 2171. ⌀
2 Hips 7'-4" x 67'-10" = 995.
2 End Areas 13'-11" x 13'-10" = 385.
2 " x 1/2 7'-0" x 13'-10" = 97.
3648. ⌀ S/B Surface

3648 ⌀ / .45 = 8107. - 2" V Anchors

3648 ⌀ x 5/12 = 1520. CF 1:2:4 LHV Castable gunned

2 Lower Walls 2'-1" x 13'-10" x 9" (12) = 692 - 9" F.B. Str. (1st Qual)

2. Convection Walls

Specs: S/B
2" V Anchor 8" c-c
5" 1:2:4 LHV

2 walls 9'-10" x 67'-10" = 1334. ⌀
2 " 9'-10" x 3'-5" = 67. ⌀
1401. ⌀ S/B

1401 ⌀ / .45 = 3113. 2" V Anchor
1401 ⌀ x 5/12 = 584. CF LHV gunned

1/29/68

(3)

UOP - SW Refining Heaters

A 3. Outlet Flue

Specs: S/B
1½" V Anchors
3" 1:2:4 LHV

2 sides 3'-9" × 67'-10" = 509.0
2 Ends 3'-9" × 3'-9" = 28.
1 Roof 3'-9" × 67'-10" = 254.
791.0 S/B

791 0 / .45 = 1758. - 1½" V Anchors

791 0 × 3/12 = 198. CF LHV gunned

4 Stacks

Specs: S/B
Screed pins or Thickness gages 2' c-c
Chain Link pickets 6" c-c
1½" 1:4 LH

2 Areas π : 4'-5" × 14'-8" = 407.0
4 " 3'-3" × 14'-8" = 191.
598 0 S/B surf
598 0 Chain Link Picke

598 0 / 4 = 150. Thickness gages

598 0 × 1½/12 = 75. CF 1:4 LH gunn

1/29/68

(2)

UOP - Sun Ref. Co Hons

A5. Bridgewall

Specs: 1st Qual. FB Laid in Airset

10,350. 1 wall section 6'-0½" x 66'-11" x 18" (25⁶) = 10,349 FB (2½ sec)
1 " 4'-7" x " x 13½" (19²) = 5888. ✓
3,926 1 " " x " 9" (12⁴) = 3925. ✓
20,162 FB

10170

mortar = 20² m FB x 400#/m = 8080. # Airset mortar

6. Floor

Specs: 5" thk 1:4 LH F&P
Reinf. w/ ½" ϕ Bars (#4)
Jts. Filled w/ 1st Qual. FB Soaps

40 slabs 3'-4 x 4'-7" x 5/12 = 255. CF 1:4 LH
40 x 9 = 360 # 4 Bars x 2'-9" = 990. LF #4 Bar
40 x 7 = 280 " ✓ x 4'-0" = 1120. ✓

38 Joints x 4'-7" lg ÷ 0'-9" = 23 ✓. 9 x 2½ x 2¼
1st Qual FB Soaps

2110

1/29/68

(5)

UOP - SW Ref. 6. Herten

A.7. Burner Tile

Specs: Burner Bldg w/ Burners
1st Qual FB Filler

60 Burner Tile

74 mk "E" Filler R.

74 spaces 0'-9" x 1'-10" x 13½" (18) = 1831. FB Req'd

8. Header Boxes

Specs: S/B
1½" V Anchor 8" c-c
3" LH 1:4 Poured

4 Side	4'-0" x 2'-0" =	32.	b
4 T&B	4'-3" x 2'-0" =	34.	
2 Side	4'-0" x 4'-0"	32.	
		98	b s/b

98 b/.45 = 218. 1½" V Anchor

98 b x 3/12 = 25. CF 1:4 LH Poured

1/29/68

(6)

[illegible]

9. Miscellaneous

Panel dividers
Kaowool packing

Kaowool Packing:

	38 Floor Jts @ 4'-7" × 0'-2½"	=	36. ⌀
140	2 Areas @ Burner - Bridgewall 1'-0½" × 67'-0"	=	139. ⌀
	4 ✓ 0'-5" × ✓	=	112. ⌀
	12 Jt Areas 6'-0½" × 1'-6"	=	109. ⌀
	12 " 4'-7" × 1'-1½"	=	62. ⌀
	12 " 4'-7" × 0'-9"	=	41. ⌀
			499. ⌀ Kaowool

249 499 ⌀ × 3/4/12 = 31 CF × 8#/CF = 248. #

Dividers

Sides			
16	@ 67'-10"	=	1085. CF
26	@ 33'-4"	=	867.
Ends 12	@ 14'-8"	=	176.
10	@ 23'-0"	=	230.
			2358. CF

2358 CF × 1'-0" = 2358 ⌀ ½" × 3.4#/Sq Lath

2358 CF × 0'-5" × 1/12 = 82. CF Insul Cement

1/30/68

(7)

UOP - SW Oil & Ref.

Corpus Christi

Summary AP-H1

	Pcas Insul.	Rad Wool	Exp Metal	S/B Surface	1½" / 2" / V" Anchors	Chain Link Pickets	Thickness Gauge	F.B. (6" STR)	LHV Gunned	Gunned	Poured 1:4 LH	Formed & Poured	Reinf. Steel #4 Bars	Burner Tile
1. Rad. Walls & Arch				3648	8107			692	1520					
2. Conv Walls				1401	3113				584					
3. Outlet Flue				791	1758				198					
4. Stacks				598		598	150			75				
5. Bridgewall								20,160						7
6. Floor								232 (50 ops)				255	2110	
7. Burners								1831						60
8. HDR Boxes				98	218						25			
9. Misc.	82	248	2358											
	82 CF	248	2358	6536	1976 pcs	11,220 pcs	598	150	22,6 (59 ops) 232 (50 ops)	2302 CF	75 CF	25 CF	255 CF	2110 CF	60 pcs

(8)
2/10/68

UOP - SCN Ref. Htr Prospect
Corpus Christi

B. AP-H2 HEATER

1. Radiant Walls and Arch

Specs: 2" UOP "V" anchors 8" c-c
Cement S/B
5" 1:2:4 LHV
9" FB @ Lower End walls (1st Qual)

Same as AP-H1

3648 lb S/B Surface
8107 pcs "V" Anchors
1520 CF 1:2:4 LHV Castable
692 sq 9" Str FB

2. Convection Walls

Specs: S/B
2" "V" Anchors 8" c-c
5" 1:2:4 LHV

2 walls 6'-2" x 67'-10" = 837. lb
2 " 6'-2" x 3'-5" = 42.
879. lb S/B

879 # / .45 = 1953. 2" V Anchors

879 lb x 5/12 = 367. CF LHV gunned

(9)

2/10/68

UOP - SW Ref - Hte Prospect

3. Out Let - Flue

Specs: S/B
1½" "V" Anchors
3" 1:2:4 LHV

Same as AP-H1

791 ⌀ S/B
1758 pcs 1½" "V" Anchors
198 cf LHV gunnell

4. Stacks

Specs: S/B
1½" 1:4 LH

2 Prov ⊓ 4'-5" × 18'-4" = 509.⌀
4 " 3'-3" × 18'-4" = 238.
747. ⌀ S/B surf.
93. CF 1:4 LH gunn

747 ⌀ × 1½/12 =

5. Bridgewall

Specs: 1st Qual FB Laid in Airset

Long wall same as AP-H1 - 20,162 FB
1017 1 sec 6'-8" × 9'-8" × 18" (25.2) = 1,624.
1 " 4'-7" × " × 13½" (19.6) = 868.
159 1 " 4'-7" × " × 9" (12.8) = 567.
23,221 FB

Mortar 23.2 m FB × 400 #/m = 9280 # Airset Mortar

(10)

2/10/68

UOP - Sin Ref Co. Heaters

6. Floor

Specs: 5" THK 1:4 LH F&P
Reinf. w/ #4 Bars
Jts. Filled w/ 1st Qual Soaps (F.B.)

8 slabs 4'-7" x 3'-4" = 122.6
20 " " x 3'-2" = 290.
183 12 " x 3'-4½" = 186
598 ⌀ x 5/12 = 249 CF 1:4 LH
595 x 5/12 = 248

40 x 7 = 280 #4 Bars x 4'-2" = 1167. LF #4 Bar
20 x 9 = 180 " x 2'-11" = 525. "
20 x 9 = 180 " x 2'-9" = 495. "
2187. LF #4 Bar

36 Jts x 4'-7" lg ÷ 0'-9" = 220. 9" F.B. Soaps (2½" se

7. Burner Tile

Specs: Burner Bcks
1st Qual F.B. Filler

50 Burner Tile

24 sp. 0'-9" x 1'-10" x 13½" (18) = 594. F.B. req'd
46 sp 0'-11" x " " " = 1392. "
1986. eq. F.B. Filler Req'd

8. Header Boxes

Same as AP-#1

98 ⌀ S/B
218 1½" V Anchor
25 CF 1:4 LH (Poured)

(11)

2/10/68

UOP - SW Ref Ltr.

9. Miscellaneous -

Same as AP-H1

248 ft Kaowool Packing

2358 lb 1/2" x 3.4 ft/sq Lath

82 cf insul cement

Summary - AP-H2

	Plas. Insul.	Kaowool	Exp. Metal	S/B Surface	1½" V Anchors	2" V Anchors	9" Str F.B.	LHV Gunned	Gunned	Posed	Formed & Posed	Reinf. Steel	Burner Tile
									1:4 LH				
1. Rad Walls & Arch				3648		8107	692	1520					
2. Conv. Walls				879		1953		367					
3. Outlet flue				791	1758			198					
4. Stacks				747					93				
5. Bridgewall							23,221						8
6. Floor							220 (Soaps)				249	2187	
7. Burner Tile							1986						50
8. Hdr Boxes				98	218					25			
9. Misc.	82	248	2358										
	82 cf	248 ft	2358 lb	6163 lb	1976 pcs	10,060 pcs	25,899 lb Str 220 Soaps	2085 cf	93 cf	25 cf	249 cf	2187 cf	50 pcs

(12)

2/10/68

LIOP - Southwestern Oil & Refining
Corpus Christi

MATERIALS

		AP-H1	AP-H2	Total
PLASTIC INSULATION		82 CF	82	164 CF
		164 CF x 20 #/CF = 3280 #, use 3300 #		
KAO WOOL		248 #	248 #	496 #
		496 # x 1/2 = 595 #, use 600 #		
EXPANDED METAL		2358 ϕ	2358 ϕ	4716 ϕ
		4716 x 1.05 = 4951 ϕ use 4960 ϕ (155-4' x 8' sheets)		
SAND BLASTED SURFACE (5/8 SAND)		6536	6163	12,699 ϕ
		12,6996 x 2"/ϕ = 25,398 #		use 260 sks 5/8 sand
"V" ANCHORS	1½"	1,976	1976	3952
	2"	11,220	10,060	21,280
		3952 x 1.05 = 4150, use 4150 1½"		
		21,280 x 1.05 = 22,344; use 22,400 2"		
F.B.	9" STR (2½ sec)	22,685	25,899	48,584
	Scraps	232	220	452
		9" STR = 48,584 x 1.01 = 49,070		
		9" Scraps 452 x 1.07 = 484		

(13)

2/10/68

UOP - Southwestern Oil & Ref
Corpus Christi

Mat'l Cont'd	AP-H1	AP-H2	Total
1:2:4 LHV Gunned	2302	2085	4387 cf

4387 × 1.4 = 6142. cf gross

6142/4.5 = 1365. Batches

or 1365 sx Lumnite ←
2730 cf Haydite ←
5460 cf Vermiculite ←

1:4 LH Gunned	75	93	168 cf

168 × 1.5 = 252. cf gross

or 63 cf Lumnite ←
252 cf Haydite ←

1:4 LH Poured or FdP	280	274	554 cf

554 × 1.10 = 609. cf gross

or
152 sx Lumnite ←
609 cf Haydite ←

(14)
2/10/68

UOP - SW Ref. —
Corpus

Mat'ls Cont'd

LHV Summary

Lumnite	1580	SF
Haydite	3591	CF
Vermiculite	5460	CF

Reinf Steel	AP-H1	AP-H2	Total
	2110 LF	2187	4297 LF

4297 LF #4 Bars @ .667#/LF x 1.05 = 3009#.
Use 3000#

Burner Tile	60	50	110
			Not

Air set Mortar	8080#	9280#	17,360

17,360 x 1.10 = 19,096#
Use 19,100#

(15)

2/10/68

UOP – Southwestern Oil & Ref
Corpus Christi – Texas

MATERIALS –

C/L	3300# (66 sk)	Jm500 Plastic Insulation	@ 7.50/sk	=	495.
	600#	B&W Bulk Kaowool	@ .85/#	=	510.
(103)	4960 □	1/2" x 3.4#/sq Exp. metal	@ .15/□	=	744
1/4	260 sks	S/B Sand	@ 1.00/sk	=	260.
	4.15 m	1 1/2" UOP "V" Anchors	@ 33.00/m	=	137.
	22.4 m	2" ✓	@ 36.50/m	=	818.
5	49.1 m	1st Qual FB. 9" STR (2 1/2")	@ 174.55/m	=	8570.
	.5 m	✓ ✓ Soaps	@ 162.43/m	=	81.
2	1600 sk	Lumnite	@ 4.14/sk	=	6624.
Truck	145 cy	Haydite	@ 18.00/cy	=	2610.
1 1/2	1375 sk	Vermiculite	@ 1.38/sk	=	1898.
	3000#	Reinf. Steel	@ .12/#	=	360.
1	1 Lot	Burner Tile	@	=	*
1/4	9.6 T	Airset mortar	@ 132.70/T	=	1274.
1/4	7.5 T	Fireclay	@ 38.65/NT	=	290.
		misc. Freight	@ 50.00	=	50
	75 gal	Eagle Ditchen Stalastic	@ .88/gal		66
					24,787
		TAX (on $18,163) 2%			363
					$25,150

(25,241)

* 1 Lot Burner tile @ $3341–

Quote as Extra

(16)

2/10/68

UOP - SW Oil & Ref Proposal
Corpus Christi

LABOR

✓?	12,699 lb	S/B	@ .10/lb	=	1,27
	25,232 pcs	"V" Anchors inst.	@ .13/ea	=	3,28
✓	490 m	F.B. Laid	@ $125/m	=	6,12
✓	4,387 CF	LHV Gunned	@ 1.25/cf	=	5,48
✓	168 CF	LH Gunned	@ 3.00/cf	=	50
✓	50 CF	LH Poured	@ 2.00/cf	=	10
	504 CF	LH Formed & Poured	@ 2.50/cf	=	1,26
	2866 #	Reinf Steel Set	@ .10/#	=	28
✓	110 sets	Burner Tile Set	@ 8.50/ea	=	93
✓	62 CF	Kaowool JT. Packing	@ 5.00/cf	=	31
	4,716 LF	Lath Joints Fab & inst	@ .25/LF	=	117
✓	4,716 lb	Plastic insul in Lath Jts	@ .15/lb	=	70
	11,158 lb	Scaffolded	@ .20/lb	=	223
	700 ea	Tube Support Cast. Painted	@ .50/ea		35
	80 ea	Floor Panels Erected	@ $12/each	=	96
Mat'l	11 cars	Unloaded	@ 125	=	137
✓		Clean up	@ 5%	=	1318
✓		Move in - out	@ LS	=	30
✓		Travel 1 BS @ 45, 5 Bm @ 40 (4 Prosea way)			245
					28,22

	Gunite	Subs	Brick		
Crew - 1 BS @	45 = 45	20	1 @ 45 = 45	20	Figure Avg 40
1 Bm @	40 = 40	10	5 @ 40 = 200	50	crew = 70 da
1 LF @	30 = 30		1 @ 30	30	
4 MT @	25 = 100		8 @ 25	200	or 14 wks
1 OE @	40			475	70/475
	255	30/255			= 14.2%
	= 12%				

use

(17)
2/10/68

UOP - Southwestern Oil & Ref. Co.

Corpus Christi Heater Proposal

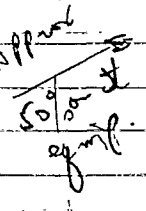
Summary —

MATERIALS	25,150
LABOR	28,221
I&T 15%	4,233
Subs 12%	3387
BLADES 49 m @ $3/m	147
Equip	3,650
Transportation 400 @ 8, 5 @ 20	132
TRUCK, MOVE IN-OUT 8 @ 25	200
	$65,120
O&P 20%	13,024
	$78,144

if it furnishes Burner Tile,

$3341 + 1.15 = $3842 Add

Equipment scaffold 200
A/C 3 mo @ 550 = 1650
2 W/m 1 mo @ $60/ea = 120
Jet cutter etc 2 mo @ 300 = 600
Fuel 25 days @ $10/day = 250
Truck 14 wks @ 50 = 700
S/B Pot 2 wks @ 50 100
$3620
Say → 3650



Approx 50% on it equip.

2/6/68

U.O.P. Southwestern Oil & Gf Co.

Linings for 2 Heaters

Items for Review w/ Doyle Williams —

1. Erection Sequence

a). Paint Castings w/mastic (282 pcs?)
Assume by JC ✓

b. Erect Panels, by others
mastic Jts, by JC? No, by Erector

c. Re: Erection Note 6, Which Panels must be left out? End only

d. Re: Erection Note 7, Insulate End panels before Erection? Before Sides? ✓

e. Re: Note 8 Insulation Block outs? ✓
Also Note 10 & 13 Erection of conv.

f. How install Floor Panels? Floor Steel? ✓
No Prob

g. Stacks Lined on ground? ✓
Yes

h. Both Heaters @ one time?
Yes

2/6/68

(2)

4700
6
28200

UOP - SW - TR Proposal

Job Review w/ Williams (cont'd)

2. Materials -

a) Haydite in paper bags, not burlap
potential Savings - Covered Truck Bulk

b. Vermiculite in std. mfg. paper bag

c. It would like to figure Curing Compound OT Req'd for 24 hr water Cure & it does not control schedule.

✓

d. Who furnishes Burner tile? It?
if so, need drawing. Quote if possible

2/6/67

(3)

UOP - Sin Atr Proposal

Job Review w/ Williams

3. GENERAL —

a. Assume top of Fdn Approx ~~X~~ Above ground? 1'-6"

b. Ck Welding of Anchors JK? C.L. Pickets? JK or FAB? Drwg Conflict on this ~~By others~~ JK form & INST. "V" Anchors C.L. By FAB.

c. Necessary to Work Around Convection Coil? yes.

Notes

(1) If not figuring haydite in paper lined burlap bags - Paper only.

(2) Vermiculite packed in manufacturers Standard paper bag.

(3) Curing Compound figured - Difficulties of Calc OT from 24 hr Watercuring. It does not Control the schedule

(4) Burner Tile Not by It

(5) Stacks on ground

(6) Assume Top of FDN not over 6' off ground

(7) Erection Sequence?

(8) Dbl ck It welding anchors

(9) Both Heaters @ One time?

(10) Burner Floor Erection Sequence - by who?

(11) Mastic Application - to panels - erector? to casting? It

(12) Convection coil in Heater @ Bring time

2/9/68

UBP - SW Oil & Ref.

Brooks Suggests do Entire hip After Conv. Tubes Are Erected. No Block outs.

Leave End Panels off for Access to get brick in & Repound out.

Telefax WESTERN UNION Telefax

SENDING BLANK

CALL LETTERS ST FWB PD CHARGE TO HOUSTON, TEXAS 1-30-68

UNIVERSAL OIL PRODUCTS COMPANY
MR. W. B. SHAW
30 ALGONQUIN ROAD
DES PLAINES, ILLINOIS

RE PLATFORMER HEATER REFRACTORY LININGS, SOUTHWESTERN OIL & REFINING, 8664. HAVE MEETING SCHEDULED IN CORPUS CHRISTI ON 2-6-68 WITH MR. DOYLE WILLIAMS TO REVIEW ERECTION SEQUENCE, ETC. WE WILL FORWARD PROPOSAL SHORTLY THEREAFTER.

PEIFFER - J T THORPE COMPANY

Send the above message, subject to the terms on back hereof, which are hereby agreed to

PLEASE TYPE OR WRITE PLAINLY WITHIN BORDER—DO NOT FOLD

1269—[R 4-55]

THORPE
JAN 30 1968

FCS	MPP
TDS	KJ
TH	FT
MAS	WE
JCR	JB
WNC	
JP	GW
LAK	WJB
MW	
ELB	
JOB	GEN
JOB	PURCH
JOB	D & E
PROSPECT	
GENERAL FILES	

PS-
TS-TS

1/15/68

South Western Htr. Prospect
Corpus Christi, Texas

Talked to Mr. W. B. "Bill" Shaw
w/ VOP in Des Plaines Re:
S.W. Htr. Sending us inq. prob.
Tomorrow (L.O. or L&M) He
Prefers L&M.

Asked him what else they had we
could work w/ VOP on. He said
"I understand you folks work w/
S.W. Refining on their work. Do me
A good job on this heater quote,
and you can stay right there & do
skirts, pipe racks etc."

1/15/68

S.W. Project

Then called Doyle Williams @ S.W. in Corpus. Told him I'd talked to Shan. & would prob. get him out skirt quote soon. Said, No hurry 25th ok.

2 - 15'-6" ϕ x 12' high skirts have grown to 16'-0" high.

No change in others.

6 2M 2½" ST

(purchased Lge Quan of 3" series F.B. ck This.) 1-29-68

JOB 2248

LABOR BREAKDOWN WALL

1-5-67	8 hrs @	3.025	
1-6	4	5.30	
	4	5.05	
	12	4.80	
	4	3.025	
	28	2.65	
1-10	8	5.30	
	8	5.05	
	48	4.80	
	8	3.55	
	8	3.025	
	56	2.65	
1-11	8	5.30	
	8	5.05	
	64	4.80	
	8	3.55	
	8	3.025	
	88	2.65	
			1,399.50
1-12	80 hrs	390.00	
	112 hrs	314.20	
1-13	22 hrs	92.43	
1-16	10	5.30	
	8	5.05	
	80	4.80	
	8	3.55	
	8	3.025	
	88	2.65	
			763.20
			2,959.33

		21.20
1-17	98 hrs	466.80
	148 hrs	370.60
		51.53
1-18		466.80
		370.60
1-19		466.80
		349.40
1-20		524.40
		370.60
		3,458.73

TOTAL $6,418.06

6418.06 ÷ 69.2 =

1-29-68

JOB 2421 GEN

Healer labor Breakdown

Class	A move in out	B Scaffold	D LHV sheet	H cleanup
BS 5.40	1 = 5.40	10 = 54.00	98 = 529.20	7 37.80
BM 4.80	—	11.5 = 55.20	82 = 393.60	—
LF 3.70	1 3.70	8 29.60	112 = 414.40	15 55.50
MT 2.60	2 5.20	41.5 = 107.90	200 520.00	113 293.80
CFF 4.30			2 8.60	
CF 4.05			2 8.10	
TOTALS	14.30	246.70	1,873.90 .81/cf	387.10

TOTAL 2,522.00

		EST
4439 b Scaffold	@ .10/b	444
2305 cf gunned	@ 1.25/cf (net)	2881
219 poured	@ 1.00/cf	219
8 sets Tile	@ 10.00/ea	80
Cleanup 5%		222
move in out		200
Travel		125
		4171

1/5 & 1/6

1/10 & 1/11 entire crew

1/12, 13, 16 – 20
entire crew

Berry Contracting, Inc.
Coastal States Petrochemical Company
Corpus Christi, Texas

Job 2421

TASK LIST

A. Move in - out

B. Scaffolding

C. Sand-blasting

D. LHV shooting

E. LHV pouring

F. Sand-cement shooting

G. Concrete curing compound

H. Clean-up

Please enter a letter after the scaffolding, LHV shooting, curing compound and cleaning to denote whether the work is for the heater (H), reactor (R) or the fireproofing (F).