

APPENDIX 1 to EXHIBIT "C"

BP FERNDALE PIPELINE CAPACITY EXPANSION WAIVER
APPLICATION

Line Pipe Mill Certificates

Milwaukee Test Report Summary Stations C-1
 TUBULAR PRODUCTS
 METALLURGICAL TEST REPORT
 TUBULAR PRODUCTS
 METALLURGICAL TEST REPORT
 P.O. NO. 119123
 HEAT NO. X84093



USS
 Division of USX Corporation

TUBULAR PRODUCTS
 METALLURGICAL TEST REPORT

USS ORDER NO. D538330-07
 P.O. NO. 119123
 HEAT NO. X84093



FAIRFIELD WORKS
 P.O. BOX 599
 FAIRFIELD, AL 35064
 RECEIVED
 JUN 16 1988

P.O. DATE: 03/17/89
 PURCHASE ORDER NO.
 SUPPLIER NO. P 14670
 ORDER NO. XL 1823-611 12
 REPORT NUMBER R0363708
 PROCESS NO. 489-08000
 DATE 04/01/89

THIS IS TO CERTIFY THAT THE
 PRODUCT DESCRIBED HEREIN IS
 MFGD., SAMPLED, TESTED, AND
 DR. INSPD. IN ACCORDANCE WITH
 THE SPECIFICATION AND FULL-
 FILLS REQUIREMENTS IN SUCH
 RESPECTS.

U.S. STEEL CORP IN
 LORAIN WORKS
 1807 E 28TH ST
 LORAIN OHIO 44055

U.S. STEEL CORP
 LORAIN WORKS
 1807 E 28TH ST
 LORAIN OHIO

PREPARED BY THE OFFICE OF:
 F.U. MOORE
 FOR R.A.
 DATE: 04/12/89

PIPE CARBON STEEL STD PIPE API 5L GRABIN A53-B/R/ASTM A106-B/R GRADE
 B TRIPLE STENCIL BLK RED HILL COAT PE BEV 30 DEG SPEC REV NAME
 37TH EDITION DTD 5/88 SPEC DATE 87/87

INSPECTION OF MILL
 CERTIFIED T/R

HEAT NO.	TYPE	AM	P	S	M	CO	M	CO	NO	NO	AL	N	V	B	Ti	CU	CO	YIELD STRENGTH	TENSILE STRENGTH	ELONG. %	REDUCTION OF AREA	PLAT	SP
X84090	HEAT 15	85	007	005	23	05	02	03	01	01	022		00					44,200	70,500	45.3	1.5	OK	
	PRDD 20	85	007	007	22	02	02	03	01	022		00						48,300	72,700	44.9	1.5	OK	
	PRDD 18	80	007	007	22	03	03	03	02	048		00						44,000	70,000	43.4	1.5	OK	
	HEAT 19	87	008	005	22	03	05	03	02			00											
	PRDD 20	88	007	006	22	03	06	02	02	022		00											
	PRDD 20	88	007	006	22	03	06	02	02	022		00											
	HEAT 19	83	008	005	22	04	03	02	01	045		00											
	PRDD 21	85	007	006	23	04	02	02	01	024		00											
	PRDD 21	85	007	006	22	04	03	03	01	016		00											

MEETS THE REQUIREMENTS OF ASTM
 A53-B/R/ASTM A106-B/R GRADE
 API 5L DTD MAY 31, 1988
 LONGITUDINAL STRIP TENSILE SPECIMENS UNLESS NOTED
 YIELD STRENGTH @ .005 EXT.



P0012635

Hereafter referred to as "Buyer"

This number must appear on all invoices, packages, shipping papers and correspondence.
Include packing list in each package.

No.

03868

2067340150

Date of Order
08/13/91

Date wanted at destination
08/30/91

Blanket Order No.

Liberty Equipment & Supply Co.
P.O. BOX 934

ARCO WESTERN GAS PIPELINE CO.
5621 3rd AVE.

BELLINGHAM WA 98225
ATTN: GARY OWEN

FERNDALE WA 98248
ATTN: C.DARROW/M.TRIAS
PROJ.14190
R0117470
2475

Via		E.O.B.		Payment Terms
SURFACE		SHIPPING POINT		Net 30 days
No.	Quantity	Description	Price	
		CONF. TO GARY OWEN BY H.HAMMER 8/13/91		
		MATERIAL TO BE WILL CALLED BY CONTRACTOR AT LIBERTY EQUIPMENT & SUPPLY. CONTRACTOR WILL BE NAMED AT LATER DATE.		
1	6.0	6"-600# RFWN FLANGE, XH BORE, A-105	63.390 EA	
2	3.0	6"-600# RF BLIND FLANGE, A-105	85.650 EA	
3	1.0	6"-TEE, XH, A-234	43.580 EA	
4	2.0	6"-90 DEGREE ELL, XH, A-234	33.600 EA	
5	2.0	6"-45 DEGREE ELL, XH, A-234	25.730 EA	
6	60.0	1" X 7" LONG STUD BOLTS, A-193 GR. B-7 WITH 2 HEX NUTS, A-194	3.090 EA	
7	12.0	1" X 7 1/2" LONG STUD BOLTS, A-193 GR. B-7 WITH 2 HEX NUTS, A-194	3.210 EA	
8	12.0	1" X 9 1/2" LONG STUD BOLTS, A-193 GR. B-7 WITH 2 HEX NUTS, A-194	3.800 EA	
9	12.0	1 1/8" X 10 1/2" LONG STUD BOLTS, A-193 GR. B-7 WITH 2 HEX NUTS, A-194	5.370 EA	
0	12.0	1 1/8" X 8" LONG STUD BOLTS, A-193 GR. B-7 WITH 2 HEX NUTS, A-194	4.500 EA	
1	20.0	1 1/4" X 9" LONG STUD BOLTS, A-193 GR. B-7 WITH	6.180 EA	

* Also subject to other terms and conditions on face and back of this order.

Send all correspondence to:

by: _____

VENDOR

Hereafter referred to as "Buyer"

P0012635

This number must appear on all invoices, packages, shipping papers and correspondence.
Include packing list in each package.

No.

103868

2067340150

Date of Order
08/13/91

Date wanted at destination
08/30/91

Blanket Order No.

To Seller or Contractor
LIBERTY EQUIPMENT & SUPPLY CO.
P.O. BOX 934

Deliver material and send one (1) copy of shipping notice to:
ARCO WESTERN GAS PIPELINE CO.
5621 3rd AVE.

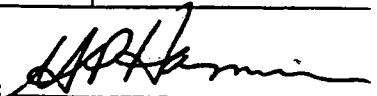
BELLINGHAM WA 98225
ATTN: GARY OWEN

FERNDALE WA 98248
ATTN: C. DARROW/M. TRIAS
PROJ. 14190
R0117470
2475

Ship Via	Route (charge extra unless otherwise specified)	FOB	Payment Terms
→	SURFACE	SHIPPING POINT	Net 30 days
Item No.	Quantity	Description	Price
		2 HEX NUTS, A-194	
12	20.0	1 1/4" X 9 1/2" LONG STUD BOLTS, A-193 GR. B-7 WITH 2 HEX NUTS, A-194	6.410 EA
13	1.0	6"-600# INSULATING GASKET SET	41.420 EA
14	1.0	12"-600# INSULATING GASKET SET	92.170 EA
15	10.0	6"-600# FLEXETALLIC GASKET	13.620 EA
16	3.0	8"-600# FLEXETALLIC GASKET	17.370 EA
17	3.0	12"-600# GARLOK GASKET	10.570 EA
18	3.0	6"-600# GARLOK GASKET	3.540 EA
19	3.0	8"-900# GARLOK GASKET	7.620 EA
20	40.0	6" PIPE XH A-53-B SMLS	14.170 FT
21	3.0	1"-3000# SCR'D HALF COUPLING	.870 EA
22	2.0	1'-600# SCR'D BALL VALVE, JAMESBURY OR EQUAL	25.430 EA
* Also subject to other terms and conditions on face and back of this order.			2,446.65 TAXABLE

INVOICE IN DUPLICATE TO:
WESTERN PIPE LINES
ACCOUNTS PAYABLE DEPT.
P.O. BOX 787
LONG BEACH, CA 90801

Send all correspondence to:
WESTERN PIPE LINES
H. P. HAMMER
PO BOX 787
LONG BEACH, CA 90801

by: 
HAMMER, HAL P.



A Division of USX Corporation

TUBULAR PRODUCTS

METALLURGICAL TEST REPORT



J. JOB CONTRACT NO.

P.O. DATE PURCHASE ORDER NO.

P-00084700

SHIPPERS NO.

MILL ORDER NO.

DM01276

INVOICE NO.

VEHICLE IDENTITY

Y ENDOR FOUR CORNERS PIPE LINE CO.
LORAIN FERNDALE PROJECT
5900 CHERRY AVE
LONG BEACH CA 90805

FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE
LONG BEACH CA 90805

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HEREIN WAS MFG., SAMPLED, TESTED, AND/OR INSPD. IN ACCORDANCE WITH THE SPECIFICATION AND FULL-FILLS REQUIREMENTS IN SUCH RESPECTS.
PREPARED BY THE OFFICE OF:
J.R. MASSIMINO MGR. Q.A.
DATE 06/28/99

PEC. & ASP.

ITEM NO.	HEAT NO.	TYPE	C	MN	P	S	SI	CU	NI	CR	MO	SN	AL	N	V	B	TI	CB	CO	MATERIAL DESCRIPTION		MATERIAL SPECIFICATION & GRADE	MATL	HEAT/ LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI	ELONG. % IN 2"	GAGE WIDTH IN.	FLAT	BEP	
																				SIZE	WALL											
2	RB4293	HEAT	20	93	008	010	01	01	01	03	01	031	01	01	01						API 5L GR X42 37TH ED 1/88 NONEXPANDED	ERW	RB4293									
2	RB4293	HEAT	21	89	007	010	02	01	02	04	01	024	01	01	01						API 5L GR X42 37TH ED 5/88 NONEXPANDED	ERW	RB4293									

ALL OTHER IDENT. T. OR. NUMERICAL POSITIONS END ELEMENTS ARE INDICATED BY THE LEFT MARGIN. VERTICAL DOTTED LINE OR DECIMAL POINT.



A Division of USX Corporation

METALLURGICAL TEST REPORT



2. JOB, CONTRACT NO.

P.O. DATE

PURCHASE ORDER NO.

INVOICE NO.

SHIPPER'S NO.

MILL ORDER NO.

VEHICLE IDENTITY

DM01274

FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE
LONG BEACH CA 90805

FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE
LONG BEACH CA 90805

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HEREIN WAS MFG., SAMPLED, TESTED, AND/OR INSPE. IN ACCORDANCE WITH THE SPECIFICATION AND FULL-FILLS REQUIREMENTS IN SUCH RESPECTS.
PREPARED BY THE OFFICE OF:
J. R. MASTIMINO MGR. D. A.
DATE 04/28/89

PEC. & ASP.

ITEM NO.	SIZE	WALL	MATERIAL DESCRIPTION		MATERIAL	HEAT/LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI	ELONG. % IN 2"	GAGE WIDTH IN.	FLAT	BEN						
			SPECIFICATION & GRADE																
2	2 5/8	.250	API 5L GR X42	37TH ED	ERW	91594	1830	50600	68500 WELD 72900	37.50	1 1/2	OK							
	2 5/8	.250	API 5L GR X42	37TH ED	ERW	91595	1830	51300	69100 WELD 74200	42.00	1 1/2	OK							
	2 5/8	.250	API 5L GR X42	37TH ED	ERW	91596	1830	52000	63500 WELD 74700	41.50	1 1/2	OK							
	HEAT NO.	TYPE	C	MN	P	S	SI	CU	NI	GR	MO	SN	AL	N	V	B	TI	CO	
	91594	PRCD	00	87	010	008	01	01	01	03	02		010		01				C.E.=.35
	91594	PRCD	17	84	007	006	01	01	01	03	01		028		01				C.E.=.31
	91595	PRCD	19	87	010	007	01	01	01	03	01		023		01				C.E.=.34
	91595	PRCD	15	87	007	006	01	01	01	03	01		032		01				C.E.=.30
	91596	PRCD	16	88	008	005	01	01	01	03	01		032		01				C.E.=.31
	91596	PRCD	19	88	010	009	01	01	01	03	01		024		01				C.E.=.38

DECIMAL POSITIONS FOR ELEMENTS ARE INDICATED BY THE LEFT MARGIN. VERTICAL DOTTED LINE OR DECIMAL POINT.

USS A DIVISION OF USX CORPORATION

VENDOR: LORAIN

SOLD TO: FOUR CORNERS PIPE LINE CO.
 FERNDAL PROJECT
 5900 CHERRY AVE.
 LONG BEACH, CA 90805

RECEIVED
 MAY 30 1989
 USS ORDER NO. DM01275-01
 CUSTOMER PURCHASE ORDER NO. P-000860
 ARCO WESTERN GAS
 PIPELINE COMPANY

RECEIVED
 MAY 30 1989
 J. P. Strawn

HEAT	LOT	WELD	HARDNESS BODY	HAZ
R83368	91390	OD 88	OD 92 92	OD 89 89
R83353	91390	ID 87	ID 92 91	ID 88 87
R83359	91391	OD 89	OD 93 92	OD 90 89
F81930	91391	ID 88	ID 92 91	ID 89 89
F81893	91392	OD 89	OD 92 93	OD 90 90
R83359	91392	ID 88	ID 92 92	ID 88 89
R83368	91393	OD 89	OD 91 92	OD 88 89
R83368	91393	ID 87	ID 91 91	ID 86 88
R83261	91394	OD 90	OD 93 93	OD 89 90
F81930	91394	ID 88	ID 92 92	ID 89 89
R83339	91395	OD 89	OD 92 93	OD 89 90
R83339	91395	ID 86	ID 92 92	ID 87 88
R83345	91397	OD 89	OD 93 92	OD 90 90
F81915	91397	ID 88	ID 91 91	ID 88 89
F81915	91398	OD 90	OD 92 93	OD 90 91
F81915	91398	ID 88	ID 92 92	ID 88 89
R83345	91399	OD 89	OD 92 92	OD 89 89
R83292	91399	ID 87	ID 91 92	ID 88 88
R83319	91400	OD 90	OD 92 93	OD 90 91
R83331	91400	ID 89	ID 92 92	ID 88 88
F81936	91401	OD 90	OD 93 92	OD 89 90
R83368	91401	ID 88	ID 92 91	ID 88 89
R83390	91402	OD 88	OD 92 91	OD 88 88
F81942	91402	ID 87	ID 91 91	ID 86 87
F81893	91403	OD 88	OD 92 91	OD 88 89
R83319	91403	ID 87	ID 92 91	ID 87 88
F81936	91404	OD 90	OD 93 93	OD 90 91
F81936	91404	ID 88	ID 92 92	ID 88 89
R83331	91405	OD 90	OD 92 93	OD 89 90
F81956	91405	ID 88	ID 92 92	ID 87 89
F81956	91406	OD 88	OD 92 91	OD 88 87
F81956	91406	ID 87	ID 91 91	ID 86 87
R83353	91407	OD 88	OD 92 92	OD 89 88
F81942	91407	ID 86	ID 91 92	ID 87 87

Ferndal
File
9.4.01

USS A DIVISION OF USX CORPORATION

VENDOR: LORAIN

SOLD TO: FOUR CORNERS PIPE LINE CO.
 FERNDALE PROJECT
 5900 CHERRY AVE.
 LONG BEACH, CA 90805

USS ORDER NO. DM01275-01
 CUSTOMER PURCHASE ORDER NO. P-000860

HEAT	LOT	WELD	HARDNESS		HAZ	
			OD	ID	OD	ID
R83368	91390	OD 88	OD 92	92	OD 89	89
R83353	91390	ID 87	ID 92	91	ID 88	87
R83359	91391	OD 89	OD 93	92	OD 90	89
F81930	91391	ID 88	ID 92	91	ID 89	89
F81893	91392	OD 89	OD 92	93	OD 90	90
R83359	91392	ID 88	ID 92	92	ID 88	89
R83365	91393	OD 89	OD 91	92	OD 88	89
R83368	91393	ID 87	ID 91	91	ID 86	88
R83261	91394	OD 90	OD 93	93	OD 89	90
F81930	91394	ID 88	ID 92	92	ID 89	89
R83339	91395	OD 89	OD 92	93	OD 89	90
R83339	91395	ID 88	ID 92	92	ID 87	88
R83345	91397	OD 89	OD 93	92	OD 90	90
F81915	91397	ID 88	ID 91	91	ID 88	89
F81915	91398	OD 90	OD 92	93	OD 90	91
F81915	91398	ID 88	ID 92	92	ID 88	89
R83345	91399	OD 89	OD 92	92	OD 89	89
R83292	91399	ID 87	ID 91	92	ID 88	88
R83319	91400	OD 90	OD 92	93	OD 90	91
R83331	91400	ID 89	ID 92	92	ID 88	88
F81936	91401	OD 90	OD 93	92	OD 89	90
R83368	91401	ID 88	ID 92	91	ID 88	89
R83390	91402	OD 88	OD 92	91	OD 88	88
F81942	91402	ID 87	ID 91	91	ID 86	87
F81893	91403	OD 88	OD 92	91	OD 88	89
R83319	91403	ID 87	ID 92	91	ID 87	88
F81936	91404	OD 90	OD 93	93	OD 90	91
F81936	91404	ID 88	ID 92	92	ID 88	89
R83331	91405	OD 90	OD 92	93	OD 89	90
F81956	91405	ID 88	ID 92	92	ID 87	89
F81956	91406	OD 88	OD 92	91	OD 88	87
F81956	91406	ID 87	ID 91	91	ID 86	87
R83353	91407	OD 88	OD 92	92	OD 89	88
F81942	91407	ID 86	ID 91	92	ID 87	87

USS A DIVISION OF USX CORPORATION

VENDOR: LORAIN

SOLD TO: FOUR CORNERS PIPE LINE CO.
 FERNDALÉ PROJECT
 5900 CHERRY AVE.
 LONG BEACH, CA 90805

USS ORDER NO. DM01275-01
 CUSTOMER PURCHASE ORDER NO. P-000860

HEAT	LOT	WELD	HARDNESS BODY		HAZ	
R83368	91390	OD 88	OD 92	92	OD 89	89
R83353	91390	ID 87	ID 92	91	ID 88	87
R83359	91391	OD 89	OD 93	92	OD 90	89
F81930	91391	ID 88	ID 92	91	ID 89	89
F81893	91392	OD 89	OD 92	93	OD 90	90
R83359	91392	ID 88	ID 92	92	ID 88	89
R83368	91393	OD 89	OD 91	92	OD 88	89
R83368	91393	ID 87	ID 91	91	ID 86	88
R83261	91394	OD 90	OD 93	93	OD 89	90
F81930	91394	ID 88	ID 92	92	ID 89	89
R83339	91395	OD 89	OD 92	93	OD 89	90
R83339	91395	ID 88	ID 92	92	ID 87	88
R83345	91397	OD 89	OD 93	92	OD 90	90
F81915	91397	ID 88	ID 91	91	ID 88	89
F81915	91398	OD 90	OD 92	93	OD 90	91
F81915	91398	ID 88	ID 92	92	ID 88	89
R83345	91399	OD 89	OD 92	92	OD 89	89
R83292	91399	ID 87	ID 91	92	ID 88	88
R83319	91400	OD 90	OD 92	93	OD 90	91
R83331	91400	ID 89	ID 92	92	ID 88	88
F81936	91401	OD 90	OD 93	92	OD 89	90
R83368	91401	ID 88	ID 92	91	ID 88	89
R83390	91402	OD 88	OD 92	91	OD 88	88
F81942	91402	ID 87	ID 91	91	ID 86	87
F81893	91403	OD 88	OD 92	91	OD 88	89
R83319	91403	ID 87	ID 92	91	ID 87	88
F81936	91404	OD 90	OD 93	93	OD 90	91
F81936	91404	ID 88	ID 92	92	ID 88	89
R83331	91405	OD 90	OD 92	93	OD 89	90
F81956	91405	ID 88	ID 92	92	ID 87	89
F81956	91406	OD 88	OD 92	91	OD 88	87
F81956	91406	ID 87	ID 91	91	ID 86	87
R83353	91407	OD 88	OD 92	92	OD 89	88
F81942	91407	ID 86	ID 91	92	ID 87	87

USS A DIVISION OF USX CORPORATION

VENDOR: LORAIN

SOLD TO: FOUR CORNERS PIPE LINE CO.
 FERNDALE PROJECT
 5900 CHERRY AVE.
 LONG BEACH, CA 90805

USS ORDER NO. DM01275-01
 CUSTOMER PURCHASE ORDER NO. P-000860

HEAT	LOT	WELD	HARDNESS BODY		HAZ	
F81755	91371	OD 88	OD 93	92	OD 88	89
F81720	91371	ID 88	ID 91	92	ID 87	88
R83261	91372	OD 88	OD 93	93	OD 89	89
F81755	91372	ID 88	ID 92	93	ID 89	89
F81755	91373	OD 87	OD 92	91	OD 87	88
F81791	91373	ID 87	ID 92	91	ID 86	87
F81776	91374	OD 88	OD 92	92	OD 87	88
R83257	91374	ID 87	ID 92	92	ID 86	88
F81712	91375	OD 90	OD 93	94	OD 91	91
F81712	91375	ID 88	ID 92	91	ID 88	88
F81776	91376	OD 87	OD 92	90	OD 88	87
F81830	91376	ID 85	ID 91	91	ID 87	86
R83317	91377	OD 87	OD 90	90	OD 87	87
R83317	91377	ID 86	ID 91	90	ID 87	86
R83317	91378	OD 87	OD 92	90	OD 89	87
F81804	91378	ID 87	ID 92	91	ID 87	87
F81830	91379	OD 88	OD 93	93	OD 88	88
R83292	91379	ID 87	ID 92	92	ID 87	87
R83271	91380	OD 89	OD 91	92	OD 89	88
R83292	91380	ID 88	ID 90	91	ID 87	87
R83261	91381	OD 89	OD 93	92	OD 89	90
R83266	91381	ID 88	ID 91	92	ID 87	89
R83266	91382	OD 88	OD 93	91	OD 89	88
R83285	91382	ID 87	ID 92	92	ID 88	87
F81779	91383	OD 88	OD 91	91	OD 88	87
R83266	91383	ID 87	ID 91	92	ID 87	87
R83274	91384	OD 88	OD 91	91	OD 88	88
F81830	91384	ID 87	ID 91	91	ID 87	87
R83285	91385	OD 89	OD 93	93	OD 88	89
F81807	91385	ID 88	ID 91	92	ID 88	89
F81868	91387	OD 90	OD 93	92	OD 90	89
R83208	91387	ID 88	ID 91	91	ID 87	88
R83271	91388	OD 91	OD 93	92	OD 90	91
R83292	91388	ID 88	ID 92	91	ID 87	88
F81893	91389	OD 90	OD 93	93	OD 89	90
R83319	91389	ID 89	ID 93	92	ID 89	90

USS A DIVISION OF USX CORPORATION

VENDOR: LORAIN

SOLD TO: FOUR CORNERS PIPE LINE CO.
 FERNDALE PROJECT
 5900 CHERRY AVE.
 LONG BEACH, CA 90805

USS ORDER NO. DM01275-01
 CUSTOMER PURCHASE ORDER NO. P-000860

HEAT	LOT	WELD	HARDNESS		HAZ	
			BODY			
F81755	91371	OD 88	OD 93	92	OD 88	89
F81720	91371	ID 88	ID 91	92	ID 87	88
R83261	91372	OD 88	OD 93	93	OD 89	89
F81755	91372	ID 88	ID 92	93	ID 89	89
F81755	91373	OD 87	OD 92	91	OD 87	88
F81791	91373	ID 87	ID 92	91	ID 86	87
F81776	91374	OD 88	OD 92	92	OD 87	88
R83257	91374	ID 87	ID 92	92	ID 86	88
F81712	91375	OD 90	OD 93	94	OD 91	91
F81712	91375	ID 88	ID 92	91	ID 88	88
F81776	91376	OD 87	OD 92	90	OD 88	87
F81830	91376	ID 85	ID 91	91	ID 87	86
R83317	91377	OD 87	OD 90	90	OD 87	87
R83317	91377	ID 86	ID 91	90	ID 87	86
R83317	91378	OD 87	OD 92	90	OD 89	87
F81804	91378	ID 87	ID 92	91	ID 87	87
F81830	91379	OD 88	OD 93	93	OD 88	88
R83292	91379	ID 87	ID 92	92	ID 87	87
R83271	91380	OD 89	OD 91	92	OD 89	88
R83292	91380	ID 88	ID 90	91	ID 87	87
R83261	91381	OD 89	OD 93	92	OD 89	90
R83266	91381	ID 88	ID 91	92	ID 87	89
R83266	91382	OD 88	OD 93	91	OD 89	88
R83285	91382	ID 87	ID 92	92	ID 88	87
F81779	91383	OD 88	OD 91	91	OD 88	87
R83266	91383	ID 87	ID 91	92	ID 87	87
R83274	91384	OD 88	OD 91	91	OD 88	88
F81830	91384	ID 87	ID 91	91	ID 87	87
R83285	91385	OD 89	OD 93	93	OD 88	89
F81807	91385	ID 88	ID 91	92	ID 88	89
F81868	91387	OD 90	OD 93	92	OD 90	89
R83208	91387	ID 88	ID 91	91	ID 87	88
R83271	91388	OD 91	OD 93	92	OD 90	91
R83292	91388	ID 88	ID 92	91	ID 87	88
F81893	91389	OD 90	OD 93	93	OD 89	90
R83319	91389	ID 89	ID 93	92	ID 89	90

USS A DIVISION OF USX CORPORATION

VENDOR: LORAIN

SOLD TO: FOUR CORNERS PIPE LINE CO.
 FERNDALE PROJECT
 5900 CHERRY AVE.
 LONG BEACH, CA 90805

USS ORDER NO. DM01275-01
 CUSTOMER PURCHASE ORDER NO. P-000860

HEAT	LOT	WELD	HARDNESS		HAZ	
			OD	ID	OD	ID
F81755	91371	OD 88	OD 93	92	OD 88	89
F81720	91371	ID 88	ID 91	92	ID 87	88
R83261	91372	OD 88	OD 93	93	OD 89	89
F81755	91372	ID 88	ID 92	93	ID 89	89
F81755	91373	OD 87	OD 92	91	OD 87	88
F81791	91373	ID 87	ID 92	91	ID 86	87
F81776	91374	OD 88	OD 92	92	OD 87	88
R83257	91374	ID 87	ID 92	92	ID 86	88
F81712	91375	OD 90	OD 93	94	OD 91	91
F81712	91375	ID 88	ID 92	91	ID 88	88
F81776	91376	OD 87	OD 92	90	OD 88	87
F81830	91376	ID 85	ID 91	91	ID 87	86
R83317	91377	OD 87	OD 90	90	OD 87	87
R83317	91377	ID 86	ID 91	90	ID 87	86
R83317	91378	OD 87	OD 92	90	OD 89	87
F81804	91378	ID 87	ID 92	91	ID 87	87
F81830	91379	OD 88	OD 93	93	OD 88	88
R83292	91379	ID 87	ID 92	92	ID 87	87
R83271	91380	OD 89	OD 91	92	OD 89	88
R83292	91380	ID 88	ID 90	91	ID 87	87
R83261	91381	OD 89	OD 93	92	OD 89	90
R83266	91381	ID 88	ID 91	92	ID 87	89
R83266	91382	OD 88	OD 93	91	OD 89	88
R83285	91382	ID 87	ID 92	92	ID 88	87
F81779	91383	OD 88	OD 91	91	OD 88	87
R83266	91383	ID 87	ID 91	92	ID 87	87
R83274	91384	OD 88	OD 91	91	OD 88	88
F81830	91384	ID 87	ID 91	91	ID 87	87
R83285	91385	OD 89	OD 93	93	OD 88	89
F81807	91385	ID 88	ID 91	92	ID 88	89
F81868	91387	OD 90	OD 93	92	OD 90	89
R83208	91387	ID 88	ID 91	91	ID 87	88
R83271	91388	OD 91	OD 93	92	OD 90	91
R83292	91388	ID 88	ID 92	91	ID 87	88
F81893	91389	OD 90	OD 93	93	OD 89	90
R83319	91389	ID 89	ID 93	92	ID 89	90



A DIVISION OF USA CORPORATION

METALLURGICAL TEST REPORT



JOB CONTRACT NO.

P.O. DATE

PURCHASE ORDER NO.

LORAIN

SHIPPER'S NO.

MILL ORDER NO.

INVOICE NO.

FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE
LONG BEACH CA 90805

FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE
LONG BEACH CA 90805

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HEREIN WAS MFG., SAMPLED, TESTED, AND/OR INSPD. IN ACCORDANCE WITH THE SPECIFICATION AND FULL-FILLS REQUIREMENTS IN SUCH RESPECTS.

PREPARED BY THE OFFICE OF:
J.R. MASSIMIND MGR.O.A.

DATE 06/21/89

HARDNESS HB	HAZ
WELD 86	86,85 85,86
BODY 85	88,86 85,84
85	87,86 84,85

IN. NO.	MATERIAL DESCRIPTION		MATERIAL SPECIFICATION & GRADE	MATERIAL	HEAT/ LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI	ELONG. % IN ²	GAGE WIDTH IN.	FLAT	BEND								
	SIZE	WALL																		
2	8 5/8	.250	API 5L GR. B/X42 37TH ED 5/88 ASTM A53-87b GR. B	ERW S A53 GR. B	91954	1986 ED	50600 AND 1987	68500 WELD ADDENDA	37.50	1 1/2	OK									
2	8 5/8	.250	API 5L GR. B/X42 37TH ED 5/88 ASTM A53-87b GR. B	ERW S A53 GR. B	91595	1986 ED	51300 AND 1987	69100 WELD ADDENDA	42.00	1 1/2	OK									
2	8 5/8	.250	API 5L GR. B/X42 37TH ED 5/88 ASTM A53-87b GR. B	ERW S A53 GR. B	91596	1986 ED	52000 AND 1987	63500 WELD ADDENDA	41.50	1 1/2	OK									
	HEAT NO.	TYPE	C	MN	P	S	SI	CU	NI	CR	MO	SN	AL	N	V	B	TI	CB	CO	
	91954	PRDD	:20	:87	:010	:00E	:01	:01	:01	:03	:03	:01	:010	:01	:01	:01	:01	:01	:01	C.E.=.35
	91954	PRDD	:17	:84	:007	:004	:01	:01	:01	:03	:01	:01	:028	:01	:01	:01	:01	:01	:01	C.E.=.31
	91595	PRDD	:19	:87	:010	:007	:01	:01	:01	:03	:01	:01	:023	:01	:01	:01	:01	:01	:01	C.E.=.34
	91595	PRDD	:15	:87	:007	:004	:01	:01	:01	:03	:01	:01	:032	:01	:01	:01	:01	:01	:01	C.E.=.30
	91596	PRDD	:16	:88	:008	:004	:01	:01	:01	:03	:01	:01	:032	:01	:01	:01	:01	:01	:01	C.E.=.31
	91596	PRDD	:22	:93	:010	:009	:01	:01	:01	:03	:01	:01	:024	:01	:01	:01	:01	:01	:01	C.E.=.38

DECIMAL POSITIONS FOR ELEMENTS ARE INDICATED BY THE LEFT MARGIN. VERTICAL DOTTED LINE OR DECIMAL POINT.



01,000,0847
REQ., JOB, CONTRACT NO.

P. O. DATE PURCHASE ORDER NO.
P-0008600

SHIPPERS NO. MILL ORDER NO. INVOICE NO.
DYM01276

WE HEREBY CERTIFY THAT THE CHEMICAL ANALYSES AND/OR TEST RESULTS SHOWN IN THIS REPORT ARE CORRECT AS CONTAINED IN THE RECORDS OF THE COMPANY.

VENDOR
LOBAIN
FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA 90805

FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA 90805

SIGNATURE *[Signature]*
DATE 6/23/89

SPEC. GRADE API 5L GRADE X42 37TH ED. DATED 5/88
8 5/8" OD X .250 ERW NONEXPANDED

PERCENTAGE SHEAR FOR
CUSTOMER INFORMATION ONLY

ITEM NO.	HEAT/ LOT NO.	TEST LOCN.	TEST SIZE	TEST TYPE	%		%		%		%		%		%	
					FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.		
2	R84283	519-6	1/4	TCVN	11	92	11	95	11	90	11	92.3				
					11	92	11	92	11	92						
					11	92	11	92	11	92						
2	R84283	525-7	1/4	TCVN	11	96	10	88	10	92	10	92				
					10	88	10	92	10	92						
					10	88	10	92	10	92						
2	R84283	532-7	1/4	TCVN	11	96	12	92	11	92	11.3	93.3				
					12	92	11	92	11.3	93.3						
					11	96	11	92	11.3	93.3						

***** END OF DATA THIS SHEET *****

TCVN - TRANSVERSE CHARPY V-NOTCH IMPACT
LCVN - LONGITUDINAL CHARPY V-NOTCH IMPACT

TWTT - TRANSVERSE DROPWEIGHT TEAR TEST
LDWTT - LONGITUDINAL DROPWEIGHT TEAR TEST

HAZ - HEAT AFFECTED ZONE
W - WELD
B - BODY

01,000,0847

METALLURGICAL TEST REPORT

REQ., JOB, CONTRACT NO.

P.O. DATE PURCHASE ORDER NO.

P-0008600

SHIPPER'S NO.

MILL ORDER NO.

INVOICE NO.

VEHICLE IDENTIFY

FOUR CORNERS PIPE LINE CO.
 FERNDALE PROJECT
 5900 CHERRY AVE.
 LONG BEACH, CA 90805

SHIP TO
 SIGNATURE *J. M. ...*
 DATE 6/23/89

SPEC. API 5L GRADE X42 37TH ED. DATED 5/88
 GRADE 8 5/8" OD X .250 ERW NONEXPANDED

PERCENTAGE SHEAR FOR CUSTOMER INFORMATION ONLY

ITEM NO.	HEAT/ LOT NO.	TEST LOCN.	TEST SIZE	TEST TYPE	%		%		%		%		%		%		%		
					FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.			
2	R84293	539-7	1/4	TCVN	11	88													
					12	88													
					AVG.	11	88	11.3	88										
2	R84283	546-7	1/4	TCVN	7	73													
					11	92													
					AVG.	11	94	9.7	86.3										
2	R84283	553-7	1/4	TCVN	12	96													
					11	90													
					AVG.	11	95	11.3	93.7										

***** END OF DATA THIS SHEET *****

TCVN - TRANSVERSE CHARPY V-NOTCH IMPACT
 LCVN - LONGITUDINAL CHARPY V-NOTCH IMPACT

TWTT - TRANSVERSE DROPWEIGHT TEAR TEST
 LDWT - LONGITUDINAL DROPWEIGHT TEAR TEST

HAZ - HEAT AFFECTED ZONE
 W - WELD
 B - BODY



01,000,0847

REQ., JOB, CONTRACT NO.

P.O. DATE PURCHASE ORDER NO.

P-0008600

SHIPPERS NO.

MILL. ORDER NO.

INVOICE NO.

VENUE

WE HEREBY CERTIFY THAT THE CHEMICAL ANALYSES AND/OR TEST RESULTS SHOWN IN THIS REPORT ARE CORRECT AS CONTAINED IN THE RECORDS OF THE COMPANY.

SIGNATURE *JR Mad...*

DATE 6/23/89

VENUE
LORAIN
FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA 90805

FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA 90805

SHIP TO

SPEC. API 5L GRADE X42 37TH ED. DATED 5/88
GRADE 8 5/8" OD X .250 ERW NONEXPANDED

PERCENTAGE SHEAR FOR
CUSTOMER INFORMATION ONLY

ITEM NO.	HEAT/ LOT NO.	TEST LOCN.	TEST SIZE	TEST TYPE	%		%		%		%		%		%	
					FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%
2	R84293	560-9	1/4	TCVN	11	88	12	90	11	92	11.3	90				
***** END OF DATA THIS SHEET *****					AVG.											

TCVN - TRANSVERSE CHARPY V-NOTCH IMPACT
LCVN - LONGITUDINAL CHARPY V-NOTCH IMPACT

TDWTT - TRANSVERSE DROPWEIGHT TEAR TEST
LDWTT - LONGITUDINAL DROPWEIGHT TEAR TEST

HAZ - HEAT AFFECTED ZONE
W - WELD
B - BODY

United States Steel Corporation

01,000,0847

REQ. JOB. CONTRACT NO.

TUBULAR PRODUCTS

METALLURGICAL TEST REPORT

WE HEREBY CERTIFY THAT THE CHEMICAL ANALYSIS AND/OR TEST RESULTS SHOWN IN THIS REPORT ARE CORRECT AS CONTAINED IN THE RECORDS OF THE COMPANY.



VENDOR
LORAIN
FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA 90805

P.O. DATE: _____ PURCHASE ORDER NO. P-0008600
 SHIPPERS NO. _____ MILL ORDER NO. DM01275
 INVOICE NO. _____

SIGNATURE: *J.R. [Signature]*
 DATE: 5/18/89

SPEC. GRADE API 5L GRADE X65C 37th ED DATED 5/88
 16" OD X .250 ERW NONEXPANDED

PERCENTAGE SHEAR FOR CUSTOMER INFORMATION ONLY.

ITEM NO.	HEAT/LOT NO.	TEST LOCM.	TEST SIZE	TEST TYPE	-25°F		-25		0°		0°		0°		0°	
					PT.-LBS. SHR.	%	PT.-LBS. SHR.	%	PT.-LBS. SHR.	%	PT.-LBS. SHR.	%	PT.-LBS. SHR.	%		
1	F81712	1/3	TCVN	AVG.	14	95	14	93								
					14	93	14	95								
					14	95	14.0	94.3								
1	F81720	1/3	TCVN	AVG.	14	99	13	99								
					13	97	13	99								
					13	99	13.3	98.3								
1	F81755	1/3	TCVN	AVG.	13	96	13	93								
					14	97	14	96								
					13	99	13.3	98.3								

TCVN - TRANSVERSE CHARPY V-NOTCH IMPACT
 LCVN - LONGITUDINAL CHARPY V-NOTCH IMPACT

TOWTT - TRANSVERSE DPOP WEIGHT TEAR TEST
 LDWTT - LONGITUDINAL DPOP WEIGHT TEAR TEST

HAZ - HEAT AFFECTED ZONE
 W - WELD
 B - BUCKY

United States Steel Corporation

01,000,0847
P.O. DATE CONTRACT NO.

TUBULAR PRODUCTS
METALLURGICAL TEST REPORT

WE HEREBY CERTIFY THAT THE CHEMICAL ANALYSIS AND/OR TEST RESULTS SHOWN IN THIS REPORT ARE CORRECT AS CONTAINED IN THE RECORDS OF THE COMPANY.



ENDORSEMENTS:
 1 LORAIN
 2
 3 FOUR CORNERS PIPE LINE CO.
 4 FERNDALE PROJECT
 5 5900 CHERRY AVE.
 6 LONG BEACH, CA 90805

P.O. DATE: _____
 PURCHASE ORDER NO.: P-0008600
 MILL ORDER NO.: DM01275
 INVOICE NO.: _____
 SHIPPERS NO.: _____
 IDENTIFY: _____
 SIGNATURE: *J. P. Macdonald*
 DATE: 5/18/89

SPEC. API 5L GRADE X65C 37th ED DATED 5/88
 GRADE 16" OD X .250 ERW NONEXPANDED

PERCENTAGE SHEAR FOR CUSTOMER INFORMATION ONLY.

ITEM NO.	HEAT/LOT NO.	TEST LOCN.	TEST SIZE	TEST TYPE	-25%		-25%		%		%		%		%	
					FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.	FT.-LBS. SHR.		
1	F81776	1/3	TCVN	AVG.	14	96	14	96								
					14	95	13	95								
					14	95	14	95								
					14.0	95.3	13.7	95.3								
1	F81779	1/3	TCVN	AVG.	15	97	13	96								
					14	94	14	97								
					15	97	14	95								
					14.7	96.0	13.7	96.0								
1	F81791	1/3	TCVN	AVG.	14	95	16	96								
					13	93	15	95								
					14	93	15	98								
					13.7	93.7	15.3	96.3								

TCVN - TRANSVERSE CHARPY V-NOTCH IMPACT
 LCVN - LONGITUDINAL CHARPY V-NOTCH IMPACT

TOWTT - TRANSVERSE CROP-WEIGHT TEAR TEST
 LOWTT - LONGITUDINAL CROP-WEIGHT TEAR TEST

HAZ - HEAT AFFECTED ZONE
 W - WELD
 F - FIBROUS

United States Steel Corporation

TUBULAR PRODUCTS METALLURGICAL TEST REPORT



REC'D. JOB, CONTRACT NO. 01,000,0847
 P.O. DATE PURCHASE ORDER NO. P-0008600
 MILL ORDER NO. DM01275
 INVOICE NO.
 SHIP TO

VENDOR
 LORAIN
 FOUR CORNERS PIPE LINE CO.
 FERRDALE PROJECT
 5900 CHERRY AVE.
 LONG BEACH, CA 90805

SHIPPER'S NO.
 WEIGHT

SIGNATURE *J.R. ...*
 DATE 5/18/89

SPEC. GRADE API 5L GRADE X65C 37th ED DATED 5/88
 16" OD X .250 ERW NONEXPANDED

PERCENTAGE SHEAR FOR CUSTOMER INFORMATION ONLY.

ITEM NO.	HEAT/LOT NO.	TEST LOCN.	TEST SIZE	TEST TYPE	-25 OF		OF		-25 OF		OF		OF		OF	
					FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%		
1	F81804	1/3	TCVN	AVG.	14	92	15	92	14	91	15	90				
					15	93	14	90	15	90						
					15	93	14.7	92.7	14.7	91.0						
1	F81807	1/3	TCVN	AVG.	15	90	16	90	16	95	16	91				
					14	90	16	90	16	91						
					14	90	16.0	92.0	16.0	92.0						
1	F81830	1/3	TCVN	AVG.	15	95	15	93	14	92	14	94				
					14	92	14	92	14	94						
					15	93	14.3	93.0	14.3	93.0						
				AVG.	14.7	93.3										

TCVN - TRANSVERSE CHARPY V-NOTCH IMPACT
 LCVN - LONGITUDINAL CHARPY V-NOTCH IMPACT
 TOWTT - TRANSVERSE DROPWEIGHT TEAR TEST
 LQWTT - LONGITUDINAL DROPWEIGHT TEAR TEST
 HAZ - HEAT AFFECTED ZONE
 W - WELD
 H - HOMOGENEOUS

USS United States Steel Corporation

01.000.0847

TUBULAR PRODUCTS
METALLURGICAL TEST REPORT



REQ. JOB, CONTRACT NO. 01.000.0847
P. O. DATE PURCHASE ORDER NO. P-0008600
MILL ORDER NO. DM01275
INVOICE NO.

VEN
DOR
R
S
B
T
LORAIN
FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA 90805

SHIPPER'S NO.
MILL ORDER NO. DM01275
INVOICE NO.

SIGNATURE *JR M...*
DATE 5/19/89

SPEC. API 5L GRADE X65C 37th ED DATED 5/88
GRADE 16" OD X .250 ERW NONEXPANDED

PERCENTAGE SHEAR FOR CUSTOMER INFORMATION ONLY.

ITEM NO.	HEAT/ LOT NO.	TEST LOCM.	TEST SIZE	TEST TYPE	25		25		25		25		25		25		25			
					FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%		
1	F81868		1/3	TCVN	15	96	14	96	14	90	14	92								
					15	91	13	90	13	92										
					14	92	14	92	13.7	92.7										
				AVG.	14.7	93.0														
1	F81893		1/3	TCVN	12	96	12	88	12	90	11	92								
					11	93	13	90	11	92										
					12	93	11	92	12.0	90.0										
				AVG.	11.7	94.0														
1	F81915		1/3	TCVN	12	94	12	98	12	97	12	96								
					12	91	13	97	12	96										
					13	93	12	96	12.3	97.0										
				AVG.	12.3	92.7														

TCVN - TRANSVERSE CHARPY V-NOTCH IMPACT
LCVN - LONGITUDINAL CHARPY V-NOTCH IMPACT
TDWTT - TRANSVERSE DPROP WEIGHT TEAR TEST
LDWTT - LONGITUDINAL DPROP WEIGHT TEAR TEST
HAZ - HEAT AFFECTED ZONE
W - WELD
3 - BODY



United States Steel Corporation

TUBULAR PRODUCTS
METALLURGICAL TEST REPORT



01,000,0847
REQ., JOB, CONTRACT NO.

P. O. DATE PURCHASE ORDER NO.
P-0008600

SHIPPERS NO. MILL ORDER NO. INVOICE NO.
DM01275

IDENTIFY

SIGNATURE *J. R. ...*

DATE 5/19/89

FORN LORAIN
FOUR CORNERS PIPE LINE CO.
FERRISDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA 90805

SPEC. API 5L GRADE X65C 37th ED DATED 5/88
GRADE 16" OD X .250 ERM NONEXPANDED

PERCENTAGE SHEAR FOR CUSTOMER INFORMATION ONLY.

ITEM NO.	HEAT/LOT NO.	TEST LOCN.	TEST SIZE	TEST TYPE	-28F		-25F		-20F		-15F		-10F		-5F	
					FT.-LBS. SHR.	% OF	FT.-LBS. SHR.	% OF	FT.-LBS. SHR.	% OF	FT.-LBS. SHR.	% OF	FT.-LBS. SHR.	% OF	FT.-LBS. SHR.	% OF
1	F81930		1/3	TCVN	14	95	16	96								
					14	93	15	97								
					13	94	15	97								
				AVG.	13.7	94.0	15.3	96.7								
1	F81936		1/3	TCVN	14	93	16	96								
					13	96	15	96								
					14	97	15	96								
				AVG.	13.7	95.3	15.3	96.0								
1	F81942		1/3	TCVN	14	97	15	97								
					14	98	14	93								
					14	98	15	95								
				AVG.	14.0	97.7	14.7	95.0								

TCVN - TRANSVERSE CHARPY V-NOTCH IMPACT
LCVN - LONGITUDINAL CHARPY V-NOTCH IMPACT

TWTT - TRANSVERSE PROPWIGHT TEAR TEST
LWTT - LONGITUDINAL PROPWIGHT TEAR TEST

HAZ - HEAT AFFECTED ZONE
W - WELD
S - BODY



United States Steel Corporation

01.000.0847

REQ., JOB., CONTRACT NO.

FERROALLOY PRODUCTS
METALLURGICAL TEST REPORT

WE HEREBY CERTIFY THAT THE CHEMICAL ANALYSIS AND/OR TEST RESULTS SHOWN IN THIS REPORT ARE CORRECT AS CONTAINED IN THE RECORDS OF THE COMPANY.



YENDOR
LORAIN
FOUR CORNERS PIPE LINE CO.
FERRIDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA 90805

SPEC. API 5L GRADE X65C 37th ED DATED 5/88
GRADE 16" OD X .250 ERW NONEXPANDED

P.O. DATE P-0008600
PURCHASE ORDER NO.
SHIPPER'S NO. DM01275
MATERIAL GROUP NO.
INVOICE NO.

SIGNATURE *J.R. Mussano*
DATE 5/18/89

PERCENTAGE SHEAR FOR CUSTOMER INFORMATION ONLY.

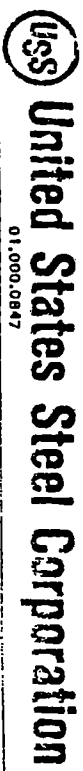
ITEM NO.	HEAT/LOT NO.	TEST LOCN.	TEST SIZE	TEST TYPE	-25		-25		-25		-25		-25		-25		-25	
					FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%
1	F81956	1/3	TCVN	AVG.	17	94	14	92	16	94	14	85	16	94	15	92	14.3	89.7
					16	94	14	92	16	94	15	92	14.3	89.7				
					16	94	14	92	16	94	15	92	14.3	89.7				
					16.3	94.0	14.3	89.7										
1	R83208	1/3	TCVN	AVG.	13	93	12	91	14	93	13	93	14	93	13.0	92.3		
					12	91	14	93	13	93	14	93	13.0	92.3				
					14	93	14	93	13.0	92.3								
					13.0	92.3												
1	R83257	1/3	TCVN	AVG.	14	99	14	99	14	99	15	98	14	99	14.0	99.0		
					14	99	14	99	15	98	14	99	14.0	99.0				
					14	99	14	99	15	98	14	99	14.0	99.0				
					14.0	99.0												

TCVN - TRANSVERSE CHARPY V-NOTCH IMPACT
LCVN - LONGITUDINAL CHARPY V-NOTCH IMPACT

TDWTT - TRANSVERSE DROP WEIGHT TEAR TEST
LDWTT - LONGITUDINAL DROP WEIGHT TEAR TEST

HAZ - HEAT AFFECTED ZONE
W - WFLD
B - BODY

PAGE 2



TUBULAR PRODUCTS
METALLURGICAL TEST REPORT



WE HEREBY CERTIFY THAT THE CHEMICAL ANALYSIS AND TEST RESULTS SHOWN IN THIS REPORT ARE CORRECT AS CONTAINED IN THE RECORDS OF THE COMPANY.

01,000,0847
REF. JOB, CONTRACT NO.

P.O. DATE
PURCHASE ORDER NO. P-0008600

SHIPERS NO.
MILL ORDER NO. DM01275
INVOICE NO.

ENDOR
LORAIN

VEHICLE
IDENTIFY

SIGNATURE *J. R. ...*
DATE 5/18/89

FOUR CORNERS PIPE LINE CO.
L. FERRIDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA 90805

SPEC. API 5L GRADE X65C 37th ED DATED 5/88
GRADE 16" OD X .250 ERW NONEXPANDED

PERCENTAGE SHEAR FOR CUSTOMER INFORMATION ONLY.

ITEM NO.	HEAT/LOT NO.	TEST LOCN.	TEST SIZE	TEST TYPE	-25%		%		-25%		%		%		%		%					
					FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%				
1	R83261	1/3	TCVN	AVG.	13	95	12	99	12	99	12	99	12	99	12	99	12	99	12	99		
					12	99	12	99	12	99	12	99	12	99	12	99	12	99	12	99		
					12.3	97.7	12.3	99.0	12.3	99.0	12.3	99.0	12.3	99.0	12.3	99.0	12.3	99.0	12.3	99.0	12.3	99.0
1	R83266	1/3	TCVN	AVG.	16	92	17	95	16	94	16	93	16	93	16	93	16	93	16	93		
					15	92	16	94	15	93	16	94	15	93	16	94	15	93	16	94	15	93
					16	90	15	93	16	94	15	93	16	94	15	93	16	94	15	93	16	94
1	R83271	1/3	TCVN	AVG.	16	96	15	93	16	88	16	91	16	91	16	91	16	91	16	91		
					16	96	14	88	16	91	16	91	16	91	16	91	16	91	16	91	16	91
					16	93	16	91	16	91	16	91	16	91	16	91	16	91	16	91	16	91
1	R83271	1/3	TCVN	AVG.	16	96	15	93	16	88	16	91	16	91	16	91	16	91	16	91		
					16	96	14	88	16	91	16	91	16	91	16	91	16	91	16	91	16	91
					16	93	16	91	16	91	16	91	16	91	16	91	16	91	16	91	16	91

TCVN - TRANSVERSE CHARPY V-NOTCH IMPACT
LCVN - LONGITUDINAL CHARPY V-NOTCH IMPACT

TOWTT - TRANSVERSE DROPWEIGHT TEAR TEST
LDWTT - LONGITUDINAL DROPWEIGHT TEAR TEST

HAZ - HEAT AFFECTED ZONE
W - WELD
B - BODY



United States Steel Corporation

TUBULAR PRODUCTS
METALLURGICAL TEST REPORT



REQ. JOB, CONTRACT NO. 01,000,0847

P. O. DATE

PURCHASE ORDER NO. P-0008600

SHIPPER'S NO.

MILL ORDER NO. DM01275

INVOICE NO.

VENUE

VENUE
LORAIN
FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA 90805

WE HEREBY CERTIFY THAT THE CHEMICAL ANALYSES AND/OR TEST RESULTS CONTAINED IN THIS REPORT ARE OF THE COMPANY.
SIGNATURE *J.P. Brown*
DATE 5/18/89

SPEC. GRADE API 5L GRADE X65C 37 1/2 ED DATED 5/88
16" OD X .250 ERW NONEXPANDED

PERCENTAGE SHEAR FOR CUSTOMER INFORMATION ONLY.

ITEM NO.	HEAT/LOT NO.	TEST LOCN.	TEST SIZE	TEST TYPE	-25		-25									
					FT.-LBS.	% SHR.	FT.-LBS.	% SHR.	FT.-LBS.	% SHR.	FT.-LBS.	% SHR.	FT.-LBS.	% SHR.	FT.-LBS.	% SHR.
1	R83274	1/3	TCVN	AVG.	15	96	14	96								
					16	97	15	93								
					14	90	15	96								
					15.0	94.3	14.7	95.0								
1	R83285	1/3	TCVN	AVG.	13	99	16	95								
					12	97	15	95								
					14	97	14	95								
					13.0	97.7	15.0	95.0								
1	R83292	1/3	TCVN	AVG.	14	94	13	96								
					13	93	14	93								
					14	96	15	96								
					13.7	94.3	14.0	95.0								

TCVN - TRANSVERSE CHARPY V-NOTCH IMPACT
LCVN - LONGITUDINAL CHARPY V-NOTCH IMPACT

TDWTT - TRANSVERSE DROPWEIGHT TEAR TEST
LDWTT - LONGITUDINAL DROPWEIGHT TEAR TEST

HAZ - HEAT AFFECTED ZONE

W - WELD
H - HAZ

United States Steel Corporation

TUBULAR PRODUCTS
METALLURGICAL TEST REPORT



REG. JOB, CONTRACT NO. 01,000,0847
P.O. DATE PURCHASE ORDER NO. P-0008600
MILL ORDER NO. DM01275 INVOICE NO.
SHIPPER'S NO. VEHICLE NO. DM01275

VENDOR
LORAIN
FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA 90805

SPEC. GRADE API 5L, GRADE X65C 37th ED DATED 5/88
16" OD X .250 ERW NONEXPANDED

PERCENTAGE SHEAR FOR CUSTOMER INFORMATION ONLY.

SIGNATURE *J. E. M...*
DATE 5/18/89

WE HEREBY CERTIFY THAT THE CHEMICAL ANALYSES AND/OR TEST RESULTS SHOWN IN THIS REPORT ARE CORRECT AS CONTAINED IN THE RECORDS OF THE COMPANY.

ITEM NO.	HEAT/LOT NO.	TEST LOCN.	TEST SIZE	TEST TYPE	-25		-25		-25		-25		-25		-25	
					FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%		
1	R83317	1/3	TCVN	AVG.	15	94	15	94	15	93	15	96	15.3	93.0		
					16	90	15	95								
					14	92	8	71								
1	R83319	1/3	TCVN	AVG.	13	91	12	85	13	93	13	93	13.7	91.3		
					14	91	11	90								
					13	93	10.3	82.0								
1	R83331	1/3	TCVN	AVG.	13	93	13	93	13	93	13	93	12.7	93.0		
					13	93										
					13	93										

TCVN - TRANSVERSE CHARPY V-NOTCH IMPACT
LCVN - LONGITUDINAL CHARPY V-NOTCH IMPACT
TOWTT - TRANSVERSE DROP WEIGHT TEAR TEST
LDWTT - LONGITUDINAL DROP WEIGHT TEAR TEST
HAZ - HEAT AFFECTED ZONE
W - WELD
B - BODY



United States Steel Corporation

01,000,0847

REQ. JOB, CONTRACT NO.

P.O. DATE

PURCHASE ORDER NO. P-0008600

METALLURGICAL TEST REPORT

REGULAR PRODUCTS

SHIPPER'S NO.

MILL ORDER NO. DM01275

INVOICE NO.

WE HEREBY CERTIFY THAT THE CHEMICAL ANALYSIS AND MECHANICAL TEST RESULTS SHOWN IN THIS REPORT ARE CORRECT AS CONTAINED IN THE RECORDS OF THE COMPANY.



SHIPPER'S NO.

MILL ORDER NO.

INVOICE NO.

SIGNATURE

DATE 5/18/89

J. E. [Signature]

YENDOR
SOLD TO
T
LORAIN
FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA 90805

SPEC. GRADE
API 5L GRADE X65C 37th ED DATED 5/88
16" OD X .250 ERM NONEXPANDED

PERCENTAGE SHEAR FOR CUSTOMER INFORMATION ONLY.

ITEM NO.	HEAT/LOT NO.	TEST LOCN.	TEST SIZE	TEST TYPE	-25 OF		OF		-25 OF		OF		OF		OF		OF	
					FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%
1	R83339	1/3	TCVN	AVG.	14	91	12	87										
					13	87	12	91										
					14	93	12	88										
					13.7	90.3	12.0	88.7										
1	R83345	1/3	TCVN	AVG.	17	90	16	87										
					17	92	16	88										
					17	94	16	91										
					17.0	92.0	16.0	88.7										
1	R83353	1/3	TCVN	AVG.	13	95	13	98										
					14	94	14	96										
					13	93	14	95										
					13.3	94.0	13.7	96.3										

TCVN - TRANSVERSE CHARPY V-NOTCH IMPACT
LCVN - LONGITUDINAL CHARPY V-NOTCH IMPACT

TDWTT - TRANSVERSE DROP WEIGHT TEAR TEST
LDWTT - LONGITUDINAL DROP WEIGHT TEAR TEST

HAZ - HEAT AFFECTED ZONE
W - WELD
N - NODDY

United States Steel Corporation

REG. JOB, CONTRACT NO. 01,000,0847

REGULAR PRODUCTS
METALLURGICAL TEST REPORT

WE HEREBY CERTIFY THAT THE CHEMICAL ANALYSES AND/OR TEST RESULTS SHOWN IN THIS REPORT ARE CORRECT AS CONTAINED IN THE RECORDS OF THE COMPANY.



VENDOR
LORAIN
FOUR CORNERS PIPE LINE CO.
FERRISDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA 90805

P.O. DATE _____ PURCHASE ORDER NO. P-0008600
SHIPERS NO. _____ MILL ORDER NO. DM01275
INVOICE NO. _____

SIGNATURE *[Signature]*
DATE 5/18/89

SPEC. API 5L GRADE X65C 37th ED DATED 5/88
GRADE 16" OD X .250 ERW NONEXPANDED

PERCENTAGE SHEAR FOR CUSTOMER INFORMATION ONLY.

ITEM NO.	HEAT/ LOT NO.	TEST LOCN.	TEST SIZE	TEST TYPE	-25 of		-25 of		-29 of		-25 of	
					FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%	FT.-LBS. SHR.	%
1	R83359	1/3	TCVN	AVG.	14	98	13	96	15	97	13	97
					13	98	14	99	15	95	14	93
					13	93	14	99	14	97	14	97
					13.3	98.0	13.7	98.0	14.7	96.3	13.7	95.7
1	R83368	1/3	TCVN	AVG.	16	93	15	91				
					17	93	14	91				
					15	90	15	95				
					16.0	92.0	14.7	92.3				
1	R83390	1/3	TCVN	AVG.	15	96	12	91				
					14	96	13	91				
					16	94	13	88				
					15.0	95.3	12.7	90.0				

TCVN - TRANSVERSE CHARPY V-NOTCH IMPACT
LCVN - LONGITUDINAL CHARPY V-NOTCH IMPACT
TDWTT - TRANSVERSE DROPWEIGHT TEAR TEST
LDWTT - LONGITUDINAL DROPWEIGHT TEAR TEST
HAZ - HEAT AFFECTED ZONE
W - WFLD
B - BODY
PAGE 09



USS
A Division of USX Corporation

TUBULAR PRODUCTS
METALLURGICAL TEST REPORT

REQ. JOB. CONTRACT NO.

P.O. DATE	PURCHASE ORDER NO.	INVOICE NO.
SHIPPER'S NO.	MILL ORDER NO.	
VEHICLE IDENTITY		

LORAIN
FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HERIN WAS MFG., SAMPLED, TESTED, AND/OR INSPD. IN ACCORDANCE WITH THE SPECIFICATION AND FULL-FILLS REQUIREMENTS IN SUCH RESPECTS.

PREPARED BY THE OFFICE OF:
J.R. MASSIMINO MGR. G.A.

DATE 05/16/89

SPEC. A INBP.

ITEM NO.	HEAT NO.	TYPE	C	MIN	P	S	SI	CU	NI	CR	MO	SN	AL	N	V	B	TI	CB	CO	MATERIAL DESCRIPTION		MATERIAL	HEAT/ LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI	ELONG. % IN 2"	GAGE WIDTH IN.	FLAT	BI			
																				SIZE	WALL										SPECIFICATION & GRADE		
1	91371	PROD	06	98	012	008	02	01	01	02	01	02	020	01	01	040					API 5L GRADE X65C 37TH ED	ERW	91371	1830	73800	82000 WELD 80700	31.50	1 1/2	OK				
1	91371	PROD	08	101	013	008	02	01	01	03	01	02	024	01	01	043					API 5L GRADE X65C 37TH ED	ERW	91372	1830	78500	85700 WELD 83000	27.00	1 1/2	OK				
1	91372	PROD	08	110	010	009	02	01	01	02	01	02	019	01	01	043					API 5L GRADE X65C 37TH ED	ERW	91373	1830	73700	82300 WELD 81100	29.00	1 1/2	OK				
1	91372	PROD	07	101	012	010	02	01	01	02	01	02	020	01	01	046					API 5L GRADE X65C 37TH ED	ERW											
1	91373	PROD	07	105	013	011	02	01	01	02	01	02	016	01	01	046					API 5L GRADE X65C 37TH ED	ERW											
1	91373	PROD	06	110	014	009	02	01	01	03	01	03	016	01	01	045					API 5L GRADE X65C 37TH ED	ERW											



USS
A Division of USX Corporation

TUBULAR PRODUCTS
METALLURGICAL TEST REPORT

REQ. JOB. CONTRACT NO.

P.O. DATE

PURCHASE ORDER NO.
P-0008600

SHIPPER'S NO.

MILL ORDER NO.
DM01275

INVOICE NO.

VEHICLE
IDENTITY

FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HERIN WAS MFG., SAMPLED, TESTED, AND OR INSPD. IN ACCORDANCE WITH THE SPECIFICATION AND FULL-FILLS REQUIREMENTS IN SUCH RESPECTS.
PREPARED BY THE OFFICE OF:
J.R. MASSIMINO MGR. G.A
DATE 05/16/89

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LORAIN
FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805
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ITEM NO.	SIZE	WALL	MATERIAL DESCRIPTION SPECIFICATION & GRADE	MATL.	HEAT/ LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI	ELONG. % IN 2"	GAGE WIDTH IN.	PLAT
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	91374	1830	75200	83400 WELD 81700	31.00	1 1/2	OK
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	91375	1830	74200	84100 WELD 81200	28.50	1 1/2	OK
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	91376	1830	72900	81700 WELD 80700	30.00	1 1/2	OK

ITEM NO.	HEAT NO.	TYPE	C	MN	P	S	SI	CU	NI	CR	MO	SN	AL	N	V	B	TI	CB	CO	C.E.=.25
1	91374	PRDD	.07	103	011	010	.02	.01	.01	.02	.01		018		.01			.044		C.E.=.25
1	91374	PRDD	.07	108	011	009	.02	.01	.01	.02	.01		017		.01			.047		C.E.=.25
1	91375	PRDD	.07	104	015	010	.02	.01	.01	.03	.01		023		.01			.046		C.E.=.25
1	91375	PRDD	.07	103	015	010	.02	.01	.01	.03	.01		022		.01			.046		C.E.=.25
1	91376	PRDD	.07	101	011	009	.02	.01	.01	.02	.01		016		.01			.042		C.E.=.25
1	91376	PRDD	.06	105	012	008	.02	.01	.01	.02	.01		019		.01			.047		C.E.=.25



USS
A Division of USX Corporation

TUBULAR PRODUCTS
METALLURGICAL TEST REPORT

REQ. JOB CONTRACT NO.

P.O. DATE PURCHASE ORDER NO.
P-0008600

SHIPPER'S NO.

MILL ORDER NO.
DM01275

INVOICE NO.

VEHICLE
IDENTITY

LORAIN
FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HEREIN WAS MFG., SAMPLED, TESTED, AND, OR INSPD. IN ACCORDANCE WITH THE SPECIFICATION AND FULL-FILLS REQUIREMENTS IN SUCH RESPECTS.

PREPARED BY THE OFFICE OF:
J.R. MASSIMINO MGR. Q.A.

DATE 05/16/89

SPEC.
A
INSP.

ITEM NO.	HEAT NO.	TYPE	C	MN	P	S	SI	CU	NI	CR	MO	SN	AL	N	V	B	TI	CB	CO	MATERIAL DESCRIPTION		MATERIAL	HEAT/LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI	ELONG. % IN 2"	GAGE WIDTH IN.	FLAT	
																				SIZE	WALL									SPECIFICATION & GRADE
1	16	PRDD	08	104	012	008	02	01	01	02	01	01	018	01	01	044	044	044	C.E.=.26		API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	91377	1830	69100	80000 WELD 79000	29.00	1 1/2	OK	
1	16	PRDD	07	104	012	007	02	01	01	02	01	01	017	01	01	043	043	043	C.E.=.25		API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	91378	1830	71200	79900 WELD 80900	31.00	1 1/2	OK	
1	16	PRDD	08	106	012	009	02	01	01	02	01	01	023	01	01	046	046	046	C.E.=.27		API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	91379	1830	74100	82300 WELD 82500	28.50	1 1/2	OK	
1	91377	PRDD	08	104	012	008	02	01	01	02	01	01	018	01	01	044	044	044	C.E.=.26											
1	91377	PRDD	07	104	012	007	02	01	01	02	01	01	017	01	01	043	043	043	C.E.=.25											
1	91378	PRDD	08	106	012	009	02	01	01	02	01	01	023	01	01	046	046	046	C.E.=.27											
1	91378	PRDD	08	106	013	008	02	01	01	03	01	01	047	01	01	047	047	047	C.E.=.27											
1	91379	PRDD	07	106	013	009	02	01	01	02	01	01	021	01	01	049	049	049	C.E.=.26											
1	91379	PRDD	06	105	011	009	02	01	01	02	01	01	019	01	01	046	046	046	C.E.=.25											



USS
A Division of USX Corporation

TUBULAR PRODUCTS
METALLURGICAL TEST REPORT

REQ. JOB. CONTRACT NO. _____ P.O. DATE _____ PURCHASE ORDER NO. P-0008600
SHIPPER'S NO. _____ MILL ORDER NO. DMO1275 INVOICE NO. _____

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N
D
O
R
LORAIN
FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HEREIN WAS MFG., SAMPLED, TESTED, AND OR INSPD. IN ACCORDANCE WITH THE SPECIFICATION AND FULL-FILLS REQUIREMENTS IN SUCH RESPECTS.

PREPARED BY THE OFFICE OF:
J.R. MASSIMINO MGR. Q.A

DATE 05/16/89

SPEC. A INSP.

ITEM NO.	SIZE	WALL	MATERIAL DESCRIPTION		MATERIAL	HEAT/ LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI	ELONG. % IN 2"	GAGE WIDTH IN.	FLAT
			SPECIFICATION & GRADE	ERW								
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	91380	1830	67700	78500 WELD 80800	31.50	1 1/2	OK	
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	91381	1830	69100	80800 WELD 82900	29.00	1 1/2	OK	
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	91382	1830	75300	82600 WELD 82800	29.00	1 1/2	OK	
1	91380	PRD .09	112	014	008	02	01	01	016	043	C.E=.29	
1	91380	PRD .06	106	011	010	02	01	01	018	048	C.E=.25	
1	91381	PRD .09	117	013	011	03	01	01	023	057	C.E=.30	
1	91381	PRD .07	111	015	009	03	01	01	023	051	C.E=.27	
1	91382	PRD .07	108	015	008	03	01	01	023	049	C.E=.26	
1	91382	PRD .08	113	016	010	04	01	01	023	056	C.E=.28	



USS
A Division of USX Corporation

TUBULAR PRODUCTS
METALLURGICAL TEST REPORT



REQ. JOB. CONTRACT NO.

P.O. DATE

PURCHASE ORDER NO.

SHIPPERS NO.

MILL ORDER NO.

VEHICLE IDENTITY

INVOICE NO.

DM01275

FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HERIN WAS MFG., SAMPLED, TESTED, AND/OR INSPD. IN ACCORDANCE WITH THE SPECIFICATION AND FULL-FILLS REQUIREMENTS IN SUCH RESPECTS.
PREPARED BY THE OFFICE OF:
J.R. MASSIMINO MGR. Q.A.
DATE 05/16/89

VEHICLE IDENTITY
MATERIAL DESCRIPTION
SPECIFICATION & GRADE
MATERIAL
HEAT/ LOT NO.
MIN. HYDRO PSI
YIELD STR. PSI
TENSILE STR. PSI
ELONG. % IN 2"
GAGE WIDTH IN.
FLAT
B

ITEM NO.
SIZE
WALL
MATERIAL DESCRIPTION
SPECIFICATION & GRADE
MATERIAL
HEAT/ LOT NO.
MIN. HYDRO PSI
YIELD STR. PSI
TENSILE STR. PSI
ELONG. % IN 2"
GAGE WIDTH IN.
FLAT
B

ITEM NO.	SIZE	WALL	MATERIAL DESCRIPTION	SPECIFICATION & GRADE	MATERIAL	HEAT/ LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI	ELONG. % IN 2"	GAGE WIDTH IN.	FLAT	B						
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED		ERW	91383	1830	74600	82100 WELD 81000	30.00	1 1/2	OK							
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED		ERW	91384	1830	70000	77800 WELD 80600	31.00	1 1/2	OK							
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED		ERW	91385	1830	74500	84800 WELD 83800	29.50	1 1/2	OK							
1	HEAT NO.	TYPE	C	MN	P	S	SI	CU	NI	CR	MO	SN	AL	N	V	B	TI	CB	CO
1	91383	PRDD	.07	106	012	009	02	01	01	02	01		018		01			046	
1	91383	PRDD	.06	106	014	007	02	01	01	02	01		018		01			046	
1	91384	PRDD	.07	105	013	009	02	01	01	02	01		019		01			043	
1	91384	PRDD	.07	107	013	009	02	01	01	02	01		023		01			047	
1	91385	PRDD	.08	112	012	008	02	01	01	02	01		022		01			043	
1	91385	PRDD	.08	112	010	007	02	01	01	02	01		022		01			043	



USS
A Division of USX Corporation

TUBULAR PRODUCTS

METALLURGICAL TEST REPORT



REQ. JOB, CONTRACT NO.

P.O. DATE PURCHASE ORDER NO.

SHIPPERS NO. P-0008600

MILL ORDER NO. DM01275

VEHICLE IDENTIFY

INVOICE NO.

LORAIN
FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HEREIN WAS MFG., SAMPLED, TESTED, AND/OR INSPD. IN ACCORDANCE WITH THE SPECIFICATION AND FILLS REQUIREMENTS IN SUCH RESPECTS.

PREPARED BY THE OFFICE OF:
J.R. MASSIMINO MGR. Q.A.A.

DATE 05/16/89

ITEM NO.

SIZE WALL

MATERIAL DESCRIPTION SPECIFICATION & GRADE

MATL. HEAT/ LOT NO. MIN. HYDRO PSI YIELD STR. PSI TENSILE STR. PSI ELONG. % GAGE WIDTH IN. FLAT BI

1 16 .250 API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED ERW 91387 1830 72900 81900 WELD 82200 31.00 1 1/2 OK

1 16 .250 API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED ERW 91389 1830 67000 77600 WELD 82000 34.00 1 1/2 OK

1 16 .250 API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED ERW 91389 1830 73200 81700 WELD 82400 30.50 1 1/2 OK

ITEM NO.	HEAT NO.	TYPE	C	MIN	P	S	SI	CU	NI	CR	MO	SN	AL	N	V	B	TI	CB	CO
1	91387	PRDD	.08	109	010	007	.01	.01	.01	.02	.01	.02	.023	.01	.01	.044	.27		
1	91387	PRDD	.06	109	012	008	.01	.02	.01	.03	.01	.03	.015	.01	.01	.038	.25		
1	91388	PRDD	.07	107	009	006	.01	.01	.01	.02	.01	.02	.016	.01	.01	.035	.25		
1	91388	PRDD	.06	105	008	007	.01	.01	.01	.02	.01	.02	.016	.01	.01	.031	.24		
1	91389	PRDD	.06	103	012	008	.01	.01	.01	.02	.01	.02	.023	.01	.01	.042	.24		
1	91389	PRDD	.07	103	011	007	.02	.01	.01	.02	.01	.02	.023	.01	.01	.042	.25		



USS
A Division of USX Corporation

TUBULAR PRODUCTS
METALLURGICAL TEST REPORT



REQ. JOB, CONTRACT NO. _____ P.O. DATE _____ PURCHASE ORDER NO. P-0008600

SHIPPER'S NO. _____ MILL ORDER NO. _____ INVOICE NO. _____

VEHICLE IDENTIFICATION NO. _____
 FOUR CORNERS PIPE LINE CO.
 FERNDALE PROJECT
 5900 CHERRY AVE.
 LONG BEACH, CA. 90805

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HERIN WAS MFG., SAMPLED, TESTED, AND/OR INSPD. IN ACCORDANCE WITH THE SPECIFICATION AND FULL-FILLS REQUIREMENTS IN SUCH RESPECTS.
 PREPARED BY THE OFFICE OF: J.R. MASSIMINO MGR. O.A.A.
 DATE 05/16/89

SPEC. & INSP.

ITEM NO.	SIZE	WALL	MATERIAL DESCRIPTION	SPECIFICATION & GRADE	MATERIAL	HEAT/LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI	ELONG. % IN 2"	GAGE WIDTH IN.	FLAT	E					
														HEAT NO.	TYPE	C	MIN	P
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED		ERW	91390	1830	69100	80000 WELD 78900	31.00	1 1/2	OK						
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED		ERW	91391	1830	71300	81600 WELD 80600	29.50	1 1/2	OK						
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED		ERW	91392	1830	72600	81500 WELD 80600	30.00	1 1/2	OK						
1	91390	PRDD 07	103	010	007	02	01	01	02	01	01	035	C.E=.25					
1	91390	PRDD 07	101	009	006	02	01	01	02	01	01	038	C.E=.25					
1	91391	PRDD 08	104	011	008	02	02	01	02	01	01	042	C.E=.26					
1	91391	PRDD 07	105	012	008	02	01	01	02	01	01	039	C.E=.26					
1	91392	PRDD 08	107	009	007	02	01	01	02	01	01	044	C.E=.27					
1	91392	PRDD 08	104	011	008	02	02	01	02	01	01	042	C.E=.26					



USS
A Division of USX Corporation

TUBULAR PRODUCTS

METALLURGICAL TEST REPORT



EQ. JOB. CONTRACT NO.

P.O. DATE

PURCHASE ORDER NO.

SHIPPERS NO.

MILL ORDER NO.

INVOICE NO.

VEHICLE
IDENTITY

DMO1275

F-0008600

DMO1275

VEHICLE IDENTITY
LORAIN
FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

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PREPARED BY THE OFFICE OF:
J.R. MASSIMIND MGR. O.A.
DATE 05/16/89

SPEC. & INSP.

ITEM NO.	SIZE	WALL	MATERIAL DESCRIPTION		MATERIAL	HEAT/ LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI		ELONG. % IN 2"	GAGE WIDTH IN.	FLAT	BEI
			SPECIFICATION & GRADE						PSI	PSI				
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED		ERW	91393	1830	68700	78000 WELD 80000	32.00	1 1/2	OK		
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED		ERW	91394	1830	72400	84700 WELD 82900	29.00	1 1/2	OK		
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED		ERW	91395	1830	72400	82500 WELD 84400	28.50	1 1/2	OK		
1	91393	.07	PRDD	C	104	010	007	02	01	01	014	01	036	C.E.=.25
1	91393	.07	PRDD	C	104	010	006	02	01	01	013	01	036	C.E.=.25
1	91394	.08	PRDD	C	116	010	010	03	01	01	025	01	051	C.E.=.28
1	91394	.07	PRDD	C	104	010	007	02	01	01	021	01	041	C.E.=.25
1	91395	.08	PRDD	C	108	009	007	02	01	01	024	01	044	C.E.=.27
1	91395	.09	PRDD	C	110	009	007	02	01	01	025	01	046	C.E.=.28



USS
A Division of USX Corporation

TUBULAR PRODUCTS
METALLURGICAL TEST REPORT

REQ. JOB CONTRACT NO.

P.O. DATE

PURCHASE ORDER NO.
P-0008600

SHIPPER'S NO.

MILL ORDER NO.
DM01275

INVOICE NO.

VEHICLE
IDENTITY

LORAIN
FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

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PREPARED BY THE OFFICE OF:
J.R. MASSIMINO MGR. Q.A.

DATE 05/16/89

SPEC. A INSP.

ITEM NO.	HEAT NO.	TYPE	C	MATERIAL DESCRIPTION										MATERIAL	HEAT/LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI	ELONG. % IN 2"	GAGE WIDTH IN.	FLAT	BI
				MIN	P	S	SI	CU	NI	CR	MO	SN	AL									
1	16	PRD	06	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED										ERW	91397	1830	71500	77700 WELD 81500	32.50	1 1/2	OK	
1	16	PRD	07	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED										ERW	91399	1830	72300	80100 WELD 81800	31.00	1 1/2	OK	
1	16	PRD	06	103	009	007	02	01	01	02	01	01	02	01	01	020	01	043	C.E=.24			
1	16	PRD	07	107	012	008	02	01	01	02	01	01	02	01	022	01	044	C.E=.26				
1	16	PRD	07	105	012	008	02	01	01	02	01	01	02	01	024	01	042	C.E=.26				
1	16	PRD	08	104	012	008	02	01	01	02	01	01	02	01	023	01	040	C.E=.26				
1	16	PRD	06	101	009	007	02	01	01	02	01	01	02	01	018	01	042	C.E=.24				
1	16	PRD	06	105	008	008	02	01	01	02	01	01	02	01	020	01	042	C.E=.25				



USS
A Division of USX Corporation

TUBULAR PRODUCTS
METALLURGICAL TEST REPORT



REQ. JOB, CONTRACT NO.

P.O. DATE

PURCHASE ORDER NO.

SHIPPER'S NO.

BILL ORDER NO.

INVOICE NO.

VEHICLE IDENTIFICATION

DM01275

LORAIN
FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HERIN WAS MFG., SAMPLED, TESTED, AND/OR INSPD. IN ACCORDANCE WITH THE SPECIFICATION AND FULL-FILLS REQUIREMENTS IN SUCH RESPECTS.

PREPARED BY THE OFFICE OF:
J.R. MASSIMINO MGR. O.A.

DATE 05/16/89

ITEM NO.

SIZE

ITEM NO.	SIZE	WALL	MATERIAL DESCRIPTION	SPECIFICATION & GRADE	MATL.	HEAT/ LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI	ELONG. % IN 2"	GAGE WIDTH IN.	FLAT	BT
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED		ERW	91400	1830	73200	84600 WELD 82800	29.00	1 1/2	OK	
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED		ERW	91401	1830	69800	79300 WELD 81500	32.00	1 1/2	OK	
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED		ERW	91402	1830	73200	81500 WELD 82600	31.00	1 1/2	OK	

ITEM NO.	HEAT NO.	TYPE	C	MN	P	S	SI	CU	NI	CR	MO	SN	AL	N	V	B	TI	CB	CO	C.E.
1	91400	PRODD	.08	105	011	008	.02	.01	.01	.02	.01		.028		.01			.040		C.E.=.27
1	91400	PRODD	.06	108	008	009	.02	.01	.01	.02	.01		.021		.01			.043		C.E.=.25
1	91401	PRODD	.08	109	009	007	.02	.01	.01	.02	.01		.027		.01			.037		C.E.=.27
1	91401	PRODD	.08	105	010	007	.02	.01	.01	.02	.01		.014		.01			.033		C.E.=.27
1	91402	PRODD	.07	108	009	007	.02	.01	.01	.02	.01		.027		.01			.038		C.E.=.26
1	91402	PRODD	.07	110	012	008	.02	.01	.01	.03	.01		.022		.01			.041		C.E.=.26



USS
A Division of USX Corporation

TUBULAR PRODUCTS
METALLURGICAL TEST REPORT



REQ. JOB. CONTRACT NO.

P.O. DATE

PURCHASE ORDER NO. P-0008600

SHIPPER'S NO.

MILL ORDER NO. DM01275

INVOICE NO.

VEHICLE IDENTITY

FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HEREIN WAS MFG., SAMPLED, TESTED, AND/OR INSPECTION ACCORDANCE WITH THE SPECIFICATION AND FULL-FILLS REQUIREMENTS IN SUCH RESPECTS.
PREPARED BY THE OFFICE OF:
J. R. MASSIMINO MGR. Q.A.
DATE 05/16/89

VENDOR: LORAIN
FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

MATERIAL

SPEC. & INSP.

ITEM NO.	SIZE	WALL	MATERIAL DESCRIPTION		MATERIAL	HEAT/LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI	ELONG. % IN 2"	GAGE WIDTH IN.	FLAT	B
			SPECIFICATION & GRADE	ERW									
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	91403	1830	73900	81600 WELD 80900	27.50	1 1/2	OK		
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	91404	1830	68600	80600 WELD 80500	30.00	1 1/2	OK		
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	91405	1830	69400	78800 WELD 83200	32.50	1 1/2	OK		
1	91403	PRDD .07	108	013	009	02	01	026	038				
1	91403	PRDD .08	104	012	008	02	01	024	041				
1	91404	PRDD .08	109	009	007	02	01	029	039				
1	91404	PRDD .08	110	010	007	02	01	027	040				
1	91405	PRDD .06	105	009	009	02	01	017	043				
1	91405	PRDD .07	103	010	006	02	01	017	038				



USS
A Division of USX Corporation

TUBULAR PRODUCTS
METALLURGICAL TEST REPORT

REQ. JOB. CONTRACT NO.

P.O. DATE
PURCHASE ORDER NO. P-0008600
SHIPPERS NO.
MILL ORDER NO. DMO1275
INVOICE NO.

VEHICLE IDENTITY

LORAIN
FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

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PREPARED BY THE OFFICE OF:
J.R. MASSIMINO MGR. R.A.

DATE 05/16/89

SPEC. A & B INSP.

ITEM NO.	SIZE	WALL	MATERIAL DESCRIPTION		MATL.	HEAT/ LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI		ELONG. % IN 2"	GAGE WIDTH IN.	FLAT	BI
			SPECIFICATION & GRADE						PSI	PSI				
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED		ERW	91406	1830	69000	78100 WELD 78500		33.00	1 1/2	OK	
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED		ERW	91407	1830	67400	79800 WELD 80200		31.50	1 1/2	OK	
1	91406	PRODD :07	102 010 007	02	01	01	02	01	01	01	041			
1	91406	PRODD :07	103 010 007	02	01	01	02	01	01	01	041			
1	91407	PRODD :08	102 010 007	02	01	01	02	01	01	01	041			
1	91407	PRODD :07	106 012 008	03	01	01	03	01	01	01	043			
1	91407	PRODD :07	* * * * * E N D	0										



USS
A Division of USX Corporation

TUBULAR PRODUCTS
METALLURGICAL TEST REPORT



EQ. JOB, CONTRACT NO.

P.O. DATE PURCHASE ORDER NO.

F-0008600

SHIPPER'S NO.

MILL ORDER NO.

DM01275

INVOICE NO.

VEHICLE
IDENTITY

LORAIN
FOUR CORNERS PIPE LINE CO.
FERRDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

FOUR CORNERS PIPE LINE CO.
FERRDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HERIN WAS MFG., SAMPLED, TESTED, AND/OR INSFD. IN ACCORDANCE WITH THE SPECIFICATION AND FULL-FILLS REQUIREMENTS IN SUCH RESPECTS.

PREPARED BY THE OFFICE OF:
J. R. MASSIMINO MGR. D.A.

DATE 05/16/89

SPEC. A
INSR.

LADLE ANALYSIS OF HEATS APPLIED TO ORDER

ITEM NO.	HEAT NO.	TYPE	C	MN	P	S	SI	CU	NI	CR	MO	SN	AL	N	V	B	TI	CB	CO	MATERIAL DESCRIPTION		MATERIAL	HEAT/LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI	ELONG. % IN 2"	GAGE WIDTH IN.	FLAT	BEA			
																				SIZE	WALL										SPECIFICATION & GRADE		
1	16	HEAT	07	100	008	010	02	01	01	03	01	026	01	01	042						API 5L GRADE X65C 37TH ED	ERW	F81712										
1	16	HEAT	06	108	011	009	01	01	01	03	01	022	01	01	050						API 5L GRADE X65C 37TH ED	ERW	F81720										
1	16	HEAT	06	109	010	010	01	01	01	02	01	025	01	01	048						API 5L GRADE X65C 37TH ED	ERW	F81755										
1	16	HEAT	06																		API 5L GRADE X65C 37TH ED	ERW	F81755										
1	16	HEAT	06																		DTD 5/88 NONEXPANDED												
1	16	HEAT	06																		DTD 5/88 NONEXPANDED												



USS
A Division of USX Corporation

TUBULAR PRODUCTS
METALLURGICAL TEST REPORT



REQ. JOB, CONTRACT NO. _____ P.O. DATE _____ PURCHASE ORDER NO. P-0008600

SHIPPER'S NO. _____ MILL ORDER NO. _____ INVOICE NO. _____
VEHICLE IDENTIFY DMO1275

LORAIN
FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HERIN WAS MFG., SAMPLED, TESTED, AND/OR INSPD. IN ACCORDANCE WITH THE SPECIFICATION AND FULL-FILLS REQUIREMENTS IN SUCH RESPECTS.
PREPARED BY THE OFFICE OF:
J. R. MASSIMINO MGR. O.A.
DATE 05/16/89

SPEC. A INSP.

LADLE ANALYSIS OF HEATS APPLIED TO ORDER

ITEM NO.	HEAT NO.	TYPE	C	MIN	P	S	SI	CU	NI	CR	MO	SN	AL	N	V	B	TI	CB	CO	MATERIAL DESCRIPTION			MATERIAL	HEAT/ LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI	ELONG. % IN 2"	GAGE WIDTH IN.	FLAT	BT
																				SIZE	WALL	SPECIFICATION & GRADE									
1	16	HEAT	06	113	008	007	01	01	01	03	01	01	023	01	051							API 5L GRADE X65C 37TH ED	ERW	F81804							
1	16	HEAT	06	108	006	007	02	01	01	02	01	031	01	045								DTD 5/88 NONEXPANDED	ERW	F81807							
1	16	HEAT	06	130	008	008	02	01	01	02	01	031	01	044								API 5L GRADE X65C 37TH ED	ERW	F81830							
																						DTD 5/88 NONEXPANDED									



USS
A Division of USX Corporation

TUBULAR PRODUCTS

METALLURGICAL TEST REPORT



REQ. JOB. CONTRACT NO.

P.O. DATE PURCHASE ORDER NO.

P-000B600

SHIPPER'S NO.

MILL ORDER NO.

VEHICLE IDENTIFICATION

DMO1275

INVOICE NO.

VEHICLE IDENTIFICATION

SHIPPER'S NO.

DMO1275

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HERIN WAS MFG., SAMPLED, TESTED, AND/OR INSPD. IN ACCORDANCE WITH THE SPECIFICATION AND FULL-FILLS REQUIREMENTS IN SUCH RESPECTS.

PREPARED BY THE OFFICE OF:
J.R. MASSIMINO MGR. Q.A.
DATE 05/16/89

DATE 05/16/89

DATE 05/16/89

DATE 05/16/89

LADLE ANALYSIS OF HEATS APPLIED TO ORDER

SPEC. 6 INSP.

ITEM NO.	SIZE	WALL	MATERIAL DESCRIPTION SPECIFICATION & GRADE	MATL.	HEAT/ LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI	ELONG. % IN 2"	GAGE WIDTH IN.	FLAT	MATERIAL DESCRIPTION SPECIFICATION & GRADE														
												C	MN	P	S	SI	CU	NI	CR	MO	SN	AL	N	V	B	TI
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	F81868							C.E=.24 C.E=.25 C.E=.25														
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	F81893																					
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	F81915																					
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	F81868							C.E=.24 C.E=.25 C.E=.25														
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	F81893																					
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	F81915																					



USS
A Division of USX Corporation

TUBULAR PRODUCTS
METALLURGICAL TEST REPORT

REQ. JOB, CONTRACT NO.

P.O. DATE

PURCHASE ORDER NO.

SHIPPER'S NO.

MILL ORDER NO.

INVOICE NO.

VEHICLE IDENTIFY

DM01275

LORAIN
FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HERIN WAS MFG., SAMPLED, TESTED, AND/OR INSPD. IN ACCORDANCE WITH THE SPECIFICATION AND FILLS REQUIREMENTS IN SUCH RESPECTS.

PREPARED BY THE OFFICE OF:
J.R. MASSIMINO MGR. D.A.

DATE 05/16/89

SPEC. A
INSP.

LADLE ANALYSIS OF HEATS APPLIED TO ORDER

ITEM NO.	HEAT NO.	TYPE	C	NM	P	S	SI	CU	NI	CR	MO	SN	AL	N	V	B	TI	CB	CO	MATERIAL DESCRIPTION			MATERIAL	HEAT/ LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI	ELONG. % IN 2"	GAGE WIDTH IN.	FLAT
																				SIZE	WALL	SPECIFICATION & GRADE								
1	16	HEAT	06	107	009	007	01	02	01	02	01	01	031	01	01	01		051				ERW	F81930							
1	16	HEAT	06	105	006	006	02	01	01	02	01	01	028	01	01	01		040				ERW	F81936							
1	16	HEAT	06	110	011	008	01	01	01	03	01	027	01	01	01	01		050				ERW	F81942							



USS
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TUBULAR PRODUCTS
METALLURGICAL TEST REPORT

REQ. JOB, CONTRACT NO. _____ P.O. DATE _____ PURCHASE ORDER NO. **F-0008600**
 SHIPPERS NO. _____ MILL ORDER NO. **DM01275** INVOICE NO. _____
 VEHICLE IDENTIFY _____

LORAIN
FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

M A I L T O
FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

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 PREPARED BY THE OFFICE OF:
J.R. MASSIMINO MGR. Q.A.
 DATE **05/16/89**

LADLE ANALYSIS OF HEATS APPLIED TO ORDER

ITEM NO.	SIZE	WALL	MATERIAL DESCRIPTION	SPECIFICATION & GRADE	MATL.	HEAT/ LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI	ELONG. % IN 2"	GAGE WIDTH IN.	FLAT	B					
														HEAT NO.	TYPE	C	MIN	P
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED		ERW	F81956												
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED		ERW	R83208												
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED		ERW	R83257												
1																		
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TUBULAR PRODUCTS
METALLURGICAL TEST REPORT



EQ. JOB, CONTRACT NO.	P.O. DATE	PURCHASE ORDER NO.	SHIPPER'S NO.	MILL ORDER NO.	INVOICE NO.
		P-0008600	DM01275		
FOUR CORNERS PIPE LINE CO. FERNDALE PROJECT 5900 CHERRY AVE. LONG BEACH, CA. 90805			FOUR CORNERS PIPE LINE CO. FERNDALE PROJECT 5900 CHERRY AVE. LONG BEACH, CA. 90805		
THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HEREIN WAS MFG., SAMPLED, TESTED, AND/OR INSPD. IN ACCORDANCE WITH THE SPECIFICATION AND FILLS REQUIREMENTS IN SUCH RESPECTS. PREPARED BY THE OFFICE OF: J. R. MASSIMINO MGR. Q.A. DATE 05/16/89					

LADLE ANALYSIS OF HEATS APPLIED TO ORDER

ITEM NO.	SIZE	WALL	MATERIAL DESCRIPTION		MATERIAL	HEAT/LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI	ELONG. % IN 2"	GAGE WIDTH IN.	FLAT	BEI
			SPECIFICATION & GRADE	ERW									
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	R83261								
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	R83266								
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	R83271								
1													
1													
1													



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TUBULAR PRODUCTS
METALLURGICAL TEST REPORT



REQ. JOB, CONTRACT NO.

P.O. DATE PURCHASE ORDER NO.

SHIPPERS NO.

P-000B600

INVOICE NO.

VEHICLE IDENTITY

DM01275

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HERIN WAS MFG., SAMPLED, TESTED, AND/OR INSPD. IN ACCORDANCE WITH THE SPECIFICATION AND FULL-FILLS REQUIREMENTS IN SUCH RESPECTS.

PREPARED BY THE OFFICE OF J. R. MASSIMINO MGR. Q.A.

DATE 05/16/89

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LORAIN

FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

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LADLE ANALYSIS OF HEATS APPLIED TO ORDER

ITEM NO.	SIZE	WALL	MATERIAL DESCRIPTION SPECIFICATION & GRADE	MATL.	HEAT/ LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI	ELONG. % IN 2"	GAGE WIDTH IN.	FLAT	B	MATERIAL ANALYSIS												
													C	MN	P	S	SI	CU	NI	CR	MO	SN	AL	N	V
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	R832274																				
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	R83285																				
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	R83292																				
1																									
1																									
1																									



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TUBULAR PRODUCTS
METALLURGICAL TEST REPORT

REQ. JOB, CONTRACT NO.

P.O. DATE: F-0008600
PURCHASE ORDER NO.: F-0008600
SHIPPER'S NO.: DM01275
MILL ORDER NO.:
INVOICE NO.:

VEHICLE IDENTIFI

LORAIN
FOUR CORNERS PIPE LINE CO.
FERNDALE PROJECT
5900 CHERRY AVE.
LONG BEACH, CA. 90805

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J.R. MASSIMINO MGR. Q.A.

DATE 05/16/89

LADLE ANALYSIS OF HEATS APPLIED TO ORDER

SPEC. A INSP.

ITEM NO.	SIZE	WALL	MATERIAL DESCRIPTION	SPECIFICATION & GRADE	MATERIAL	HEAT/ LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI	ELONG. % IN 2"	GAGE WIDTH IN.	FLAT	B					
														HEAT NO.	TYPE	C	MM	P
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED		ERW	R83317												
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED		ERW	R83319												
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED		ERW	R83331												
1																		
1																		
1																		



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METALLURGICAL TEST REPORT

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SHIPPER'S NO. _____ MILL ORDER NO. _____ INVOICE NO. _____

VEHICLE IDENTIFI _____

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FERNDALE PROJECT
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DATE 05/16/89

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LADLE ANALYSIS OF HEATS APPLIED TO ORDER

ITEM NO.	SIZE	WALL	MATERIAL DESCRIPTION	MATERIAL SPECIFICATION & GRADE	MATERIAL	HEAT/LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI	ELONG. % IN 2"	GAGE WIDTH IN.	FLAT	B					
														HEAT NO.	TYPE	C	MIN	P
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	R83339													
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	R83345													
1	16	.250	API 5L GRADE X65C 37TH ED DTD 5/88 NONEXPANDED	ERW	R83353													
1																		
1																		
1																		

