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FEDERAL ENERGY REGULATORY COMMISSION

OFFICE OF PIPELINE AND PRODUCER REGULATION

STAFF REPORT

COST OF PIPELINE AND COMPRESSOR STATION CONSTRUCTION UNDER NATURAL GAS ACT SECTION 7 (c) FOR THE YEARS 1983 THROUGH 1986

WASHINGTON, D.C.

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This annual report shows the cost of construction jurisdictional interstate natural gas pipeline and compression facilities. It summarizes and compares reported costs identified by the year in which construction ended for the period 1983 through 1986. Certain newly reported data for 1981, 1983, and 1985 are also included. The report presents comparative and cost and physical data for pipeline and compressor station construction. Also presented are project-by-project listings of cost and physical data that were reported to the Commission from August 1, 1986, through July 31, 1987.

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OFFICE OF PIPELINE AND PRODUCER REGULATION
STAFF REPORT

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Cost of Pipeline and Compressor Station Construction
Under Natural Gas Act Section 7(c)
For the Years 1983 through 1986

Introduction

This annual report shows the cost of constructing jurisdictional interstate natural gas pipeline and compression facilities. It summarizes and compares reported costs identified by the year in which construction ended for the period 1983 through 1986. Certain newly reported data for 1981, 1983, and 1985 are also included. 1/ The cost data used to compile the statistics are obtained from actual costs reported in pipeline and compressor construction certificate cost reports filed through July 31, 1987, pursuant to 18 CFR 157.20(c)(4) and from annual reports for blanket certificates pursuant to 18 CFR 157.207(a). These reports are for completed facilities authorized under permanent certificates issued by the Commission. This is the eighth report in the series. 2/

Blanket certificate cost data included in the annual report covers construction completed in 1983 through 1986. These certificates expedite the regulatory process by providing prior blanket Commission approval for routine construction projects which do not exceed certain annual dollar limits. The limits for each project were $4.5 million for automatic authorization and $12.8 million for prior notice authorization in 1983. The limits for 1984 were $4.7 million and $13.3 million, respectively. The limits for 1985 were $4.9 million and $13.8 million, respectively. The limits for 1986 were $5.1 million and $14.3 million, respectively.

The report is divided into two parts containing two sections each. Part A is comprised of data from 157.20(c)(4) reports and Part B contains data from 157.207(a) reports. Part A, Section I and Part B, Section I present comparative cost and physical data for pipeline and compressor construction. Part A, Section II and Part B, Section II are project-by-project listings of cost and physical data that were reported to the Commission from August 1, 1986, through July 31, 1987. The tables which precede Parts A and B provide a convenient summary of the information.

The tables which follow provide highlights of the 1983-1986 period.

1/ See Appendix, page VIII.

2/ Publications previous to this series (1962-1975) used the fiscal year in which the cost reports were received rather than the year construction ended as a basis for data compilation.

HIGHLIGHTS

PART A - 18 CFR 157.20 (c)(4)

TABLE I 1983 - 1986 PERIOD HIGHS

TOTAL PIPELINE MILEAGE (MILES)	774	1983
ONSHORE	691	1983
OFFSHORE	174	1985
TOTAL PIPELINE EXPENDITURES ($MM)	$ 349	1985
ONSHORE	254	1983
OFFSHORE	162	1985
TOTAL COMPRESSOR HORSEPOWER (M)	56	1985
ONSHORE	55	1983
OFFSHORE	7	1985
TOTAL COMPRESSOR EXPENDITURES ($MM)	$ 100	1983
ONSHORE	100	1983
OFFSHORE	12	1985
TOTAL PIPELINE & COMPRESSOR PROJECTS COMPLETED	115	1983
ONSHORE	105	1983
OFFSHORE	18	1985

HIGHLIGHTS

PART A - 18 CFR 157.20 (c)(4)

TABLE II 1983 - 1986 ANNUAL HIGHS

A. MOST WIDELY USED PIPELINE DIAMETER: 3 MILES AND OVER

YEAR	DIAM(IN)	TYPE	TOTAL MILES	TOTAL COST($MM)	COST/MILE($M)
1986	6	LAT	32	$ 1.6	$ 48
1985	36	TRAN	81	43.1	531
1984	16	LAT	60	12.4	206
1983	24	TRAN	67	39.3	585

B. MOST WIDELY USED COMPRESSORS

YEAR	TYPE	ENGINE	UNITS	TOTAL HP(M)	TOTAL COST($MM)	COST/HP
1986	NEW TRAN	RECIP	6	4.9	$ 5.6	$1,136
1985	NEW TRAN	RECIP	6	20.2	20.9	1,037
1984	NEW TRAN	RECIP	6	6.6	13.3	2,017
1983	NEW FLD	RECIP	10	18.4	29.0	1,578

HIGHLIGHTS

PART A - 18 CFR.157.20 (c)(4)

TABLE III 1983 - 1986 INDIVIDUAL PROJECT ANNUAL HIGHS

A. LONGEST PIPELINE PROJECTS

YEAR	MILES	DIAM(IN)	TYPE	STATE	COST($MM)	COST/MILE($M)	LEAD APPLICANT (DOCKET NO.)
1986	32	6	LAT	NE	$ 1.6	$ 48	K N ENERGY (CP85-607)
1985	81	36	TRAN	IA IL	43.1	531	NGPL (CP84-466)
1984	40	16	LAT	OK TX	8.4	208	ANR (CP81-408)
1983	67	24	TRAN	PA	39.3	585	COLUMBIA GAS (CP81-433)

B. HIGHEST TOTAL COST PIPELINE PROJECTS

YEAR	COST($MM)	COST/MILE($M)	DIAM(IN)	TYPE	MILES	STATE	LEAD APPLICANT (DOCKET NO.)
1986	$ 13.4	$ 534	20	OFF	25	TX	NORTHERN (CP84-565)
1985	50.6	1,557	36	OFF	33	TX	TRANSCO (CP82-158)
1984	29.6	1,467	30	OFF	20	LA TX	TENNECO (CP80-481)
1983	39.3	585	24	TRAN	67	PA	COLUMBIA GAS (CP81-433)

C. HIGHEST AVERAGE COST PER MILE PIPELINE PROJECTS: 3 MILES AND OVER

YEAR	COST/MILE($MM)	COST($MM)	DIAM(IN)	TYPE	MILES	STATE	LEAD APPLICANT (DOCKET NO.)
1986	$ 1,075	$ 4.3	30	TRAN	4	PA	TETCO (CP82-446)
1985	1,884	6.3	36	LAT	3	NJ	TRANSCO (CP84-223)
1984	1,775	7.5	24	OFF	4	LA TX	TENNECO (CP80-481)
1983	1,526	12.7	12	OFF	8	CA	PIOC (CP82-194)

HIGHLIGHTS

PART A - 18 CFR.157.20 (c)(4)

TABLE III 1983 - 1986 INDIVIDUAL PROJECT ANNUAL HIGHS (Cont.)

D. HIGHEST HORSEPOWER COMPRESSOR PROJECTS

YEAR	HP	UNITS	TYPE	ENGINE	STATION	STATE	COST($MM)	COST/HP	LEAD APPLICANT (DOCKET NO.)
1986	6,000	1	ADD TRAN	RECIP	FINNEFROCK STA	PA	$ 6.7	$ 1,120	CONSOLIDATED (CP84-306)
1985	13,800	3	NEW TRAN	RECIP	C.S. 109	IA	13.0	945	NGPL (CP84-466)
1984	11,600	2	ADD TRAN	TURB	BORGER COMP STA	NY	6.0	514	CONSOLIDATED (CP83-177)
1983	8,640	2	NEW FLD	RECIP	FREDERICK COMP STA	CO	12.0	1,388	PANHANDLE (CP80-365)

E. HIGHEST TOTAL COST COMPRESSOR PROJECTS

YEAR	COST($MM)	COST/HP	HP	UNITS	TYPE	ENGINE	STATION	STATE	LEAD APPLICANT (DOCKET NO.)
1986	$ 12.1	$ 3,036	4,000	1	ADD TRAN	TURB	COMP STA NO 26	NJ	TETCO (CP82-446)
1985	18.8	2,452	7,660	2	NEW TRAN	TURB	HANOVER COMP STA	NJ	ALGONQUIN (CP82-119)
1984	7.8	2,367	3,300	3	NEW TRAN	RECIP	BURNSVILLE COMP STA	WV	EQUITABLE (CP83-312)
1983	12.0	1,388	8,640	2	NEW FLD	RECIP	FREDERICK COMP STA	CO	PANHANDLE (CP80-365)

F. HIGHEST AVERAGE COST PER HP COMPRESSOR PROJECTS

YEAR	COST/HP	COST/($MM)	HP	UNITS	TYPE	ENGINE	STATION	STATE	LEAD APPLICANT (DOCKET NO.)
1986	$ 3,036	$ 12.1	4,000	1	ADD TRAN	TURB	COMP STA NO 26	NJ	TETCO (CP82-446)
1985	2,452	18.8	7,660	2	NEW TRAN	TURB	HANOVER COMP STA	NJ	ALGONQUIN (CP82-119)
1984	2,538	1.3	521	1	NEW FLD	RECIP	OAKDALE COMP STA	OK	PANHANDLE (CP82-189)
1983	3,524	9.5	2,700	1	NEW TRAN	RECIP	ROCK SPRINGS STA	WY	MOUNTAIN FUEL (CP80-007)

HIGHLIGHTS

PART B - 18 CFR 157.207 (a)

TABLE I 1983 - 1986 PERIOD HIGHS

TOTAL PIPELINE MILEAGE (MILES)	471	1983
ONSHORE	414	1983
OFFSHORE	148	1984,1985
TOTAL PIPELINE EXPENDITURES ($MM)	$ 135	1985
ONSHORE	51	1983
OFFSHORE	108	1985
TOTAL COMPRESSOR HORSEPOWER (M)	12	1983,1985
ONSHORE	12	1983,1985
OFFSHORE	1	1984
TOTAL COMPRESSOR EXPENDITURES ($MM)	$ 15	1983
ONSHORE	14	1983
OFFSHORE	1	1983,1984
TOTAL PIPELINE & COMPRESSOR PROJECTS COMPLETED	228	1983
ONSHORE	208	1983
OFFSHORE	46	1984

HIGHLIGHTS

PART B - 18 CFR 157.207 (a)

TABLE II 1983 - 1986 ANNUAL HIGHS

A. MOST WIDELY USED PIPELINE DIAMETER: 3 MILES AND OVER

YEAR	DIAM(IN)	TYPE	TOTAL MILES	TOTAL COST($MM)	COST/MILE($M)
1986	16	ON	17	$ 2.5	$ 155
1985	12	OFF	38	23.7	621
1984	10	ON	75	10.1	136
1983	6	ON	63	6.0	96

B. MOST WIDELY USED COMPRESSORS

YEAR	TYPE	ENGINE	UNITS	TOTAL HP(M)	TOTAL COST($MM)	COST/HP
1986	NEW FLD	RECIP	6	0.9	$ 0.9	$1,005
1985	ADD FLD	RECIP	11	8.0	7.2	905
1985	NEW FLD	RECIP	11	3.3	3.4	1,017
1984	NEW FLD	RECIP	10	5.3	4.7	884
1983	NEW FLD	RECIP	16	5.7	8.1	1,412

HIGHLIGHTS

PART B - 18 CFR 157.207(a)

TABLE III 1983 - 1986 INDIVIDUAL PROJECT ANNUAL HIGHS

A. LONGEST PIPELINE PROJECTS

YEAR	MILES	DIAM(IN)	TYPE	STATE	COST($MM)	COST/MILE($M)	LEAD APPLICANT (DOCKET NO.)
1986	17	16	ON	WY	$ 2.5	$ 155	NORTHWEST (CP82-433)
1985	21	12	OFF	LA	14.6	689	TRANSCO (CP82-426)
1984	34	10	ON	TX	4.8	144	SOUTHERN (CP82-406)
1983	13	6	ON	WY	0.6	48	MIGC (CP82-409)
1983	13	8	ON	OK	1.1	83	PANHANDLE (CP83-083)

B. HIGHEST TOTAL COST PIPELINE PROJECTS

YEAR	COST($MM)	COST/MILE($M)	DIAM(IN)	TYPE	MILES	STATE	LEAD APPLICANT (DOCKET NO.)
1986	$ 3.5	$ 617	12	OFF	6	TX	TRANSCO (CP82-426)
1985	14.6	689	12	OFF	21	LA	TRANSCO (CP82-426)
1984	4.8	144	10	ON	34	TX	SOUTHERN (CP82-406)
1983	5.1	959	12	OFF	5	TX	ANR (CP82-480)

C. HIGHEST AVERAGE COST PER MILE PIPELINE PROJECTS: 3 MILES AND OVER

YEAR	COST/MILE($MM)	COST($MM)	DIAM(IN)	TYPE	MILES	STATE	LEAD APPLICANT (DOCKET NO.)
1986	$ 689	$ 2.7	10	OFF	4	TX	TETCO (CP82-535)
1985	1,463	9.5	24	OFF	6	LA	TRANSCO (CP82-426)
1984	959	4.3	10	OFF	4	TX	ANR (CP82-480)
1983	959	5.1	12	OFF	5	TX	ANR (CP82-480)

HIGHLIGHTS

PART B - 18 CFR 157.207(a)

TABLE III 1983 - 1986 INDIVIDUAL PROJECT ANNUAL HIGHS (Cont.)

D. HIGHEST HORSEPOWER COMPRESSOR PROJECTS

YEAR	HP	UNITS	TYPE	ENGINE	STATION	STATE	COST($MM)	COST/HP	LEAD APPLICANT (DOCKET NO.)
1986	2,000	1	ADD FLD	RECIP	HILIGHT COMP STA	WY	$ 1.1	$ 549	MIGC (CP82-409)
1985	2,200	2	ADD FLD	RECIP	STERLINGTON STA	LA	2.2	1,018	ARKLA (CP82-384)
1984	1,800	3	NEW FLD	RECIP	CARTHAGE COMP STA	TX	1.9	1,073	SOUTHERN (CP82-406)
1983	2,200	2	NEW FLD	TURB	RED BLUFF STA 1	NM	1.5	675	TRANSWESTERN (CP82-534)

E. HIGHEST TOTAL COST COMPRESSOR PROJECTS

YEAR	COST($MM)	COST/HP	HP	UNITS	TYPE	ENGINE	STATION	STATE	LEAD APPLICANT (DOCKET NO.)
1986	$ 3.2	$ 1,810	1,750	1	ADD FLD	ELEC	MAYVILLE COMP STA	NY	COLUMBIA GAS (CP83-076)
1985	2.3	1,177	1,950	3	ADD FLD	RECIP	HELENA STA	AR	ARKLA (CP82-384)
1984	1.9	1,073	1,800	3	NEW FLD	RECIP	CARTHAGE COMP STA	TX	SOUTHERN (CP82-406)
1983	2.4	1,346	1,800	2	NEW FLD	RECIP	ROUND TOP STA	NM	TRANSWESTERN (CP82-534)

F. HIGHEST AVERAGE COST PER HP COMPRESSOR PROJECTS

YEAR	COST/HP	COST/($MM)	HP	UNITS	TYPE	ENGINE	STATION	STATE	LEAD APPLICANT (DOCKET NO.)
1986	$ 1,810	$ 3.2	1,750	1	ADD FLD	ELEC	MAYVILLE COMP STA	NY	COLUMBIA GAS (CP83-076)
1985	1,435	0.1	60	1	ADD FLD	RECIP	ROHLFING FLD COMP ST	NE	K N ENERGY (CP83-140)
1984	1,749	0.8	450	1	ADD FLD	RECIP	AVARD FLD BOOSTER ST	OK	PANHANDLE (CP83-083)
1983	4,193	0.8	190	1	NEW OFF	RECIP	SAMEDON PLAT D, BLK	TX	EL PASO (CP82-435)

Appendix

The following are newly reported data for Part A completed for years covered by previous reports which have been incorporated into the Commission's data base for the appropriate year of completion. Users of previous reports may make the necessary revisions to those publications.

Pipelines

Part A

CP Docket	Company	Diam	Miles	Type	State	Compl	Total Cost
80-355	Columbia Gas	8,10	23.70	MIX TRAN	OH	1981	$4,087,762
83-18	Interstate Power	14	6.72	LAT	IL	1983	2,065,581
81-240	National Fuel	20	3.88	TRAN	NY	1981	1,547,787

Part B

82-401	Northern	4	5.00	ONSH	MN	1985	501,065

Revision: Prior Notice Project Constructed Under CP84-620.

Compressors

Part A

CP Docket	Company	Units	HP	Type	Eng	State	Compl	Total Cost
80-355	Columbia Gas	1	800	NEW TRAN	REC	OH	1981	$1,430,202

Part B

82-401	Northern	2	1,750	NEW FLD	REC	OK	1985	793,101

Revision: ADD to FLD

Methodology

Pipeline construction data reported in Part A have been categorized by type of pipeline and diameter. The data are aggregated by pipeline three miles and over or under three miles. There are two types of pipeline: onshore and offshore. Onshore pipeline is either transmission or lateral line. For purposes of this report, transmission pipeline consists of main or trunk line pipe. Lateral pipeline consists of line pipe that branches off the main pipeline. Unless onshore pipeline type has been specified by the certificate holder, the designations are determined by staff based on information in the certificate application and cost report. Pipeline construction data reported in Part B have only onshore and offshore categories. Transmission pipeline is not authorized under blanket certificate construction.

Multiple diameter pipeline cost reports usually show only total cost for the entire project. In most cases, the mileages of the components are reported, but in no cases are the individual costs provided. In order to deal with this reporting problem, the following methodology was applied in compiling information for this annual report. If a single pipeline diameter accounted for at least sixty-five percent of the total mileage of the project, then the total cost and mileage were classified under that pipeline diameter, and an accompanying footnote was provided giving the component mileages. In a situation where no diameter made up at least sixty-five percent, the project was classified as a mixed diameter project. Details of mixed diameter pipeline projects are presented in Table J-3 of the Part A, Section II, and Table I-3 of Part B, Section II, and are also included in the Summary Tables of each part.

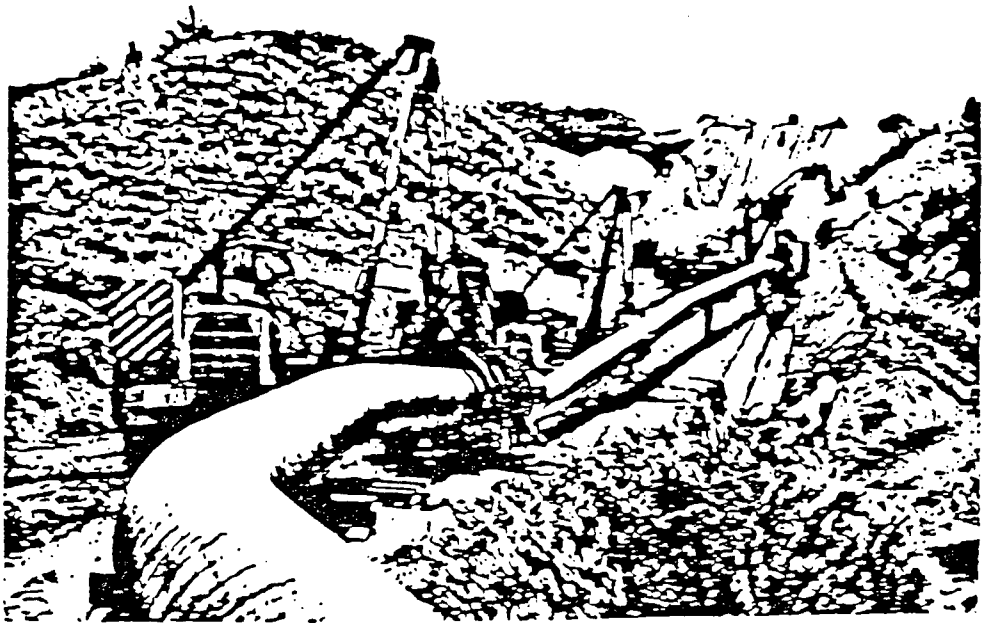
Compressor construction data presented in Part A have been categorized by type of station and engine. The compressor station is either a new one or an addition to an existing station, and is further classified as being a transmission, field, storage (all these are onshore types of compressors), or an offshore station (no categories; referred to only as offshore). The type of engine may be reciprocating, turbine, or electric motor driven. Compressor construction data presented in Part B have no transmission compressor stations because their construction is not authorized under the blanket certificate. There are no compressor relocations included in the construction data for either Part A or Part B.

For each pipeline construction project reported in Part A, Section II, and Part B, Section II, the diameter of the pipe in inches, the miles constructed, the states traversed, the total cost, the average cost per mile, and the year in which construction was completed is provided. These data make it possible to analyze states individually or combine them into geographical areas.

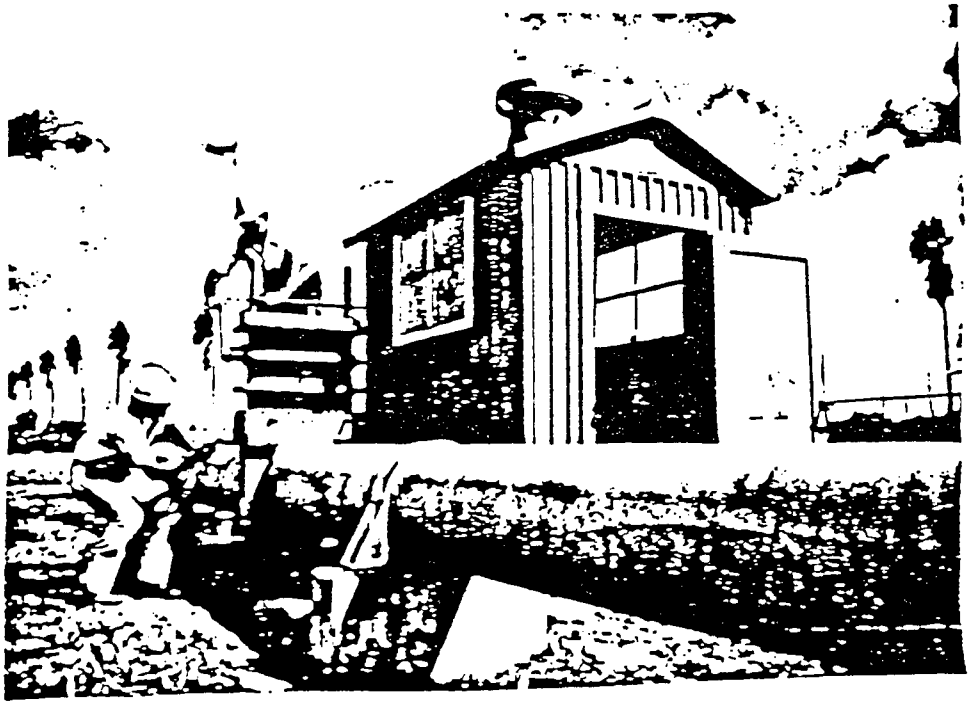
For each compressor construction project reported in Part A, Section II, and Part B, Section II, the name of the compressor station, its location, the horsepower per unit, the number of units, total horsepower, the year construction ended, a cost breakdown, total cost, and the average cost per horsepower is listed.

Construction costs of pipelines in Part A are the costs of materials; labor; right-of-way and damages; engineering, inspection, supervision, and surveys; and miscellaneous items including interest during construction, overhead, and other costs such as contingencies, franchises, and consents. Construction costs of compressor stations in Part A are the costs of materials; labor; engineering, inspection, supervision, and surveys; and miscellaneous items including interest during construction, overhead, and other costs such as land, right-of-way and damages, and contingencies.

Construction costs of pipelines in Part B are the costs of materials; labor; and other costs. Construction costs of compressor stations in Part B are the costs of materials; labor; and other costs. Other costs for both pipelines and compressor stations may consist of engineering, inspection, supervision, surveys, interest during construction, overhead, land, right-of-way and damages, and contingencies.



PART A
SUMMARY TABLES



PART A

PIPELINE AND COMPRESSION CONSTRUCTION AND EXPENDITURES

YEAR CONSTRUCTION ENDED		TOTAL MILES	ONSHORE MILES	OFFSHORE MILES	TOTAL HORSEPOWER	TOTAL EXPENDITURES
1982	1)	3,438.03	3,051.45	386.58	259,740	$ 3,065,621,194
1983	2)	774.49	691.16	83.33	55,150	447,155,642
1984	3)	464.34	383.28	81.06	22,721	303,779,559
1985	4)	515.58	341.49	174.09	56,020	432,071,582
1986	5)	200.73	168.13	32.60	20,160	91,069,047

1) INCLUDES 69.33 MILES (32.16 ONSHORE AND 37.17 OFFSHORE) CONSTRUCTED UNDER 3 MILES IN LENGTH, AT A COST OF $ 86,503,314.

2) INCLUDES 69.31 MILES (63.69 ONSHORE AND 5.62 OFFSHORE) CONSTRUCTED UNDER 3 MILES IN LENGTH, AT A COST OF $ 18,839,517.

3) INCLUDES 23.74 MILES (12.89 ONSHORE AND 10.85 OFFSHORE) CONSTRUCTED UNDER 3 MILES IN LENGTH, AT A COST OF $ 28,907,125.

4) INCLUDES 14.76 MILES (7.50 ONSHORE AND 7.26 OFFSHORE) CONSTRUCTED UNDER 3 MILES IN LENGTH, AT A COST OF $ 19,372,109.

5) INCLUDES 11.35 MILES (11.35 ONSHORE AND 0.00 OFFSHORE) CONSTRUCTED UNDER 3 MILES IN LENGTH, AT A COST OF $ 2,080,720.

PART A

SUMMARY: NUMBER OF CONSTRUCTION PROJECTS COMPLETED BY YEAR

		1982*	1983	1984	1985	1986
ONSHORE						
PIPELINE	1)	103	84	34	25	24
COMPRESSION		63	21	5	10	8
TOTAL ONSHORE		166	105	39	35	32
OFFSHORE						
PIPELINE	2)	59	10	16	17	2
COMPRESSION		6	--	--	1	--
TOTAL OFFSHORE		65	10	16	18	2
TOTAL NUMBER OF PROJECTS		231	115	55	53	34
NUMBER OF PIPELINES COMPANIES REPORTING CONSTRUCTION COMPLETED		48	30	23	24	15
NUMBER OF DOCKETS REPORTED		117	49	35	35	18

* REVISED 1982 FIGURES; SEE TEXT FOR EXPLANATION

1) PIPELINE COMPLETED IN 1982 INCLUDES 27 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 17 PIPELINES IN 19 DOCKETS.
PIPELINE COMPLETED IN 1983 INCLUDES 52 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 12 PIPELINES IN 13 DOCKETS.
PIPELINE COMPLETED IN 1984 INCLUDES 12 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 8 PIPELINES IN 9 DOCKETS.
PIPELINE COMPLETED IN 1985 INCLUDES 7 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 3 PIPELINES IN 5 DOCKETS.
PIPELINE COMPLETED IN 1986 INCLUDES 9 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 5 PIPELINES IN 5 DOCKETS.

2) PIPELINE COMPLETED IN 1983 INCLUDES 3 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 3 PIPELINES IN 3 DOCKETS.
PIPELINE COMPLETED IN 1984 INCLUDES 7 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 6 PIPELINES IN 5 DOCKETS.
PIPELINE COMPLETED IN 1985 INCLUDES 5 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 8 PIPELINES IN 3 DOCKETS.
PIPELINE COMPLETED IN 1986 INCLUDES 0 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 0 PIPELINES IN 0 DOCKETS.

PART A

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1983

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
TRANSMISSION	319.26	41.2%	$ 173,514,712	49.9%	$ 543,490	39
TRANSMISSION: MIXED DIAMETER	67.50	8.7	9,436,362	2.7	139,798	22
TOTAL TRANSMISSION	386.76	49.9	182,951,074	52.7	473,035	61
LATERAL	177.00	22.9	47,644,203	13.7	269,176	18
LATERAL: MIXED DIAMETER	127.40	16.4	22,976,006	6.6	180,345	5
TOTAL LATERAL	304.40	39.3	70,620,209	20.3	231,998	23
TOTAL ONSHORE LINES	691.16	89.2	253,571,283	73.0	366,878	84
OFFSHORE	73.53	9.5	61,697,932	17.8	839,085	9
OFFSHORE: MIXED DIAMETER	9.80	1.3	32,182,952	9.3	3,283,975	1
TOTAL OFFSHORE LINES	83.33	10.8	93,880,884	27.0	1,126,616	10
TOTAL LINES	774.49	100.0%	$ 347,452,167	100.0%	$ 448,621	94

PART A

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1983
3 MILES AND OVER

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
TRANSMISSION	282.34	40.0%	$ 167,204,547	50.9%	$ 592,210	16
TRANSMISSION: MIXED DIAMETER	52.90	7.5	8,672,523	2.6	163,942	1
TOTAL TRANSMISSION	335.24	47.5	175,877,070	53.5	524,630	17
LATERAL	165.36	23.4	45,699,481	13.9	276,364	11
LATERAL: MIXED DIAMETER	126.87	18.0	22,844,124	7.0	180,059	4
TOTAL LATERAL	292.23	41.4	68,543,605	20.9	234,554	15
TOTAL ONSHORE LINES	627.47	89.0	244,420,675	74.4	389,534	32
OFFSHORE	67.91	9.6	52,009,023	15.8	765,852	6
OFFSHORE: MIXED DIAMETER	9.80	1.4	32,182,952	9.8	3,283,975	1
TOTAL OFFSHORE LINES	77.71	11.0	84,191,975	25.6	1,083,412	7
TOTAL LINES	705.18	100.0%	$ 328,612,650	100.0%	$ 465,998	39

PART A

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1983
UNDER 3 MILES

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
TRANSMISSION	36.92	53.3%	$ 6,310,165	33.5%	$ 170,915	23
TRANSMISSION: MIXED DIAMETER	14.60	21.1	763,839	4.1	52,318	21
TOTAL TRANSMISSION	51.52	74.3	7,074,004	37.5	137,306	44
LATERAL	11.64	16.8	1,944,722	10.3	167,072	7
LATERAL: MIXED DIAMETER	0.53	0.8	131,882	0.7	248,834	1
TOTAL LATERAL	12.17	17.6	2,076,604	11.0	170,633	8
TOTAL ONSHORE LINES	63.69	91.9	9,150,608	48.6	143,674	52
OFFSHORE	5.62	8.1	9,688,909	51.4	1,724,005	3
OFFSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL OFFSHORE LINES	5.62	8.1	9,688,909	51.4	1,724,005	3
TOTAL LINES	69.31	100.0%	$ 18,839,517	100.0%	$ 271,815	55

PART A

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1984

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
TRANSMISSION	190.82	41.1%	$ 129,164,852	46.2%	$ 676,894	23
TRANSMISSION: MIXED DIAMETER	72.71	15.7	40,870,172	14.6	562,098	3
TOTAL TRANSMISSION	263.53	56.8	170,035,024	60.8	645,221	26
LATERAL	89.05	19.2	20,348,837	7.3	228,510	7
LATERAL: MIXED DIAMETER	30.70	6.6	2,345,585	0.8	76,403	1
TOTAL LATERAL	119.75	25.8	22,694,422	8.1	189,515	8
TOTAL ONSHORE LINES	383.28	82.5	192,729,446	68.9	502,842	34
OFFSHORE	81.06	17.5	87,067,361	31.1	1,074,110	16
OFFSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL OFFSHORE LINES	81.06	17.5	87,067,361	31.1	1,074,110	16
TOTAL LINES	464.34	100.0%	$ 279,796,807	100.0%	$ 602,569	50

PART A

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1984
3 MILES AND OVER

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
TRANSMISSION	182.62	41.4%	$ 118,673,377	47.3%	$ 649,838	14
TRANSMISSION: MIXED DIAMETER	72.67	16.5	40,836,769	16.3	561,948	2
TOTAL TRANSMISSION	255.29	57.9	159,510,146	63.6	624,819	16
LATERAL	84.40	19.2	19,789,891	7.9	234,477	5
LATERAL: MIXED DIAMETER	30.70	7.0	2,345,585	0.9	76,403	1
TOTAL LATERAL	115.10	26.1	22,135,476	8.8	192,315	6
TOTAL ONSHORE LINES	370.39	84.1	181,645,622	72.4	490,417	22
OFFSHORE	70.21	15.9	69,244,060	27.6	986,242	9
OFFSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL OFFSHORE LINES	70.21	15.9	69,244,060	27.6	986,242	9
TOTAL LINES	440.60	100.0%	$ 250,889,682	100.0%	$ 569,427	31

PART A

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1984
UNDER 3 MILES

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
TRANSMISSION	8.20	34.5%	$ 10,491,475	36.3%	$ 1,279,448	9
TRANSMISSION: MIXED DIAMETER	0.04	0.2	33,403	0.1	835,075	1
TOTAL TRANSMISSION	8.24	34.7	10,524,878	36.4	1,277,291	10
LATERAL	4.65	19.6	558,946	1.9	120,203	2
LATERAL: MIXED DIAMETER	--	--	--	--	--	--
TOTAL LATERAL	4.65	19.6	558,946	1.9	120,203	2
TOTAL ONSHORE LINES	12.89	54.3	11,083,824	38.3	859,878	12
OFFSHORE	10.85	45.7	17,823,301	61.7	1,642,701	7
OFFSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL OFFSHORE LINES	10.85	45.7	17,823,301	61.7	1,642,701	7
TOTAL LINES	23.74	100.0%	$ 28,907,125	100.0%	$ 1,217,655	19

PART A

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1985

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
TRANSMISSION	178.48	34.6%	$ 88,791,392	25.4%	$ 497,487	11
TRANSMISSION: MIXED DIAMETER	--	--	--	--	--	--
TOTAL TRANSMISSION	178.48	34.6	88,791,392	25.4	497,487	11
LATERAL	163.01	31.6	98,248,149	28.1	602,712	14
LATERAL: MIXED DIAMETER	--	--	--	--	--	--
TOTAL LATERAL	163.01	31.6	98,248,149	28.1	602,712	14
TOTAL ONSHORE LINES	341.49	66.2	187,039,541	53.5	547,716	25
OFFSHORE	174.09	33.8	162,355,950	46.5	932,598	17
OFFSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL OFFSHORE LINES	174.09	33.8	162,355,950	46.5	932,598	17
TOTAL LINES	515.58	100.0%	$ 349,395,491	100.0%	$ 677,675	42

PART A

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1985
3 MILES AND OVER

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
TRANSMISSION	177.06	35.4%	$ 85,997,233	26.1%	$ 485,695	8
TRANSMISSION: MIXED DIAMETER	--	--	--	--	--	--
TOTAL TRANSMISSION	177.06	35.4	85,997,233	26.1	485,695	8
LATERAL	156.93	31.3	97,692,383	29.6	622,522	10
LATERAL: MIXED DIAMETER	--	--	--	--	--	--
TOTAL LATERAL	156.93	31.3	97,692,383	29.6	622,522	10
TOTAL ONSHORE LINES	333.99	66.7	183,689,616	55.7	549,985	18
OFFSHORE	166.83	33.3	146,333,766	44.3	877,143	12
OFFSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL OFFSHORE LINES	166.83	33.3	146,333,766	44.3	877,143	12
TOTAL LINES	500.82	100.0%	$ 330,023,382	100.0%	$ 658,966	30

PART A

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1985
UNDER 3 MILES

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
TRANSMISSION	1.42	9.6%	$ 2,794,159	14.4%	$ 1,967,718	3
TRANSMISSION: MIXED DIAMETER	--	--	--	--	--	--
TOTAL TRANSMISSION	1.42	9.6	2,794,159	14.4	1,967,718	3
LATERAL	6.08	41.2	555,766	2.9	91,409	4
LATERAL: MIXED DIAMETER	--	--	--	--	--	--
TOTAL LATERAL	6.08	41.2	555,766	2.9	91,409	4
TOTAL ONSHORE LINES	7.50	50.8	3,349,925	17.3	446,657	7
OFFSHORE	7.26	49.2	16,022,184	82.7	2,206,912	5
OFFSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL OFFSHORE LINES	7.26	49.2	16,022,184	82.7	2,206,912	5
TOTAL LINES	14.76	100.0%	$ 19,372,109	100.0%	$ 1,312,474	12

PART A

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1986

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES		COST	PERCENTAGE OF TOTAL COST		AVERAGE COST PER MILE	NUMBER OF PROJECTS
TRANSMISSION	47.33	23.6%	$	30,440,515	52.5%	$	643,155	9
TRANSMISSION: MIXED DIAMETER	--	--		--	--		--	--
TOTAL TRANSMISSION	47.33	23.6		30,440,515	52.5		643,155	9
LATERAL	120.80	60.2		11,264,631	19.4		93,250	15
LATERAL: MIXED DIAMETER	--	--		--	--		--	--
TOTAL LATERAL	120.80	60.2		11,264,631	19.4		93,250	15
TOTAL ONSHORE LINES	168.13	83.8		41,705,146	71.9		248,053	24
OFFSHORE	32.60	16.2		16,288,908	28.1		499,660	2
OFFSHORE: MIXED DIAMETER	--	--		--	--		--	--
TOTAL OFFSHORE LINES	32.60	16.2		16,288,908	28.1		499,660	2
TOTAL LINES	200.73	100.0%	$	57,994,054	100.0%	$	288,916	26

PART A

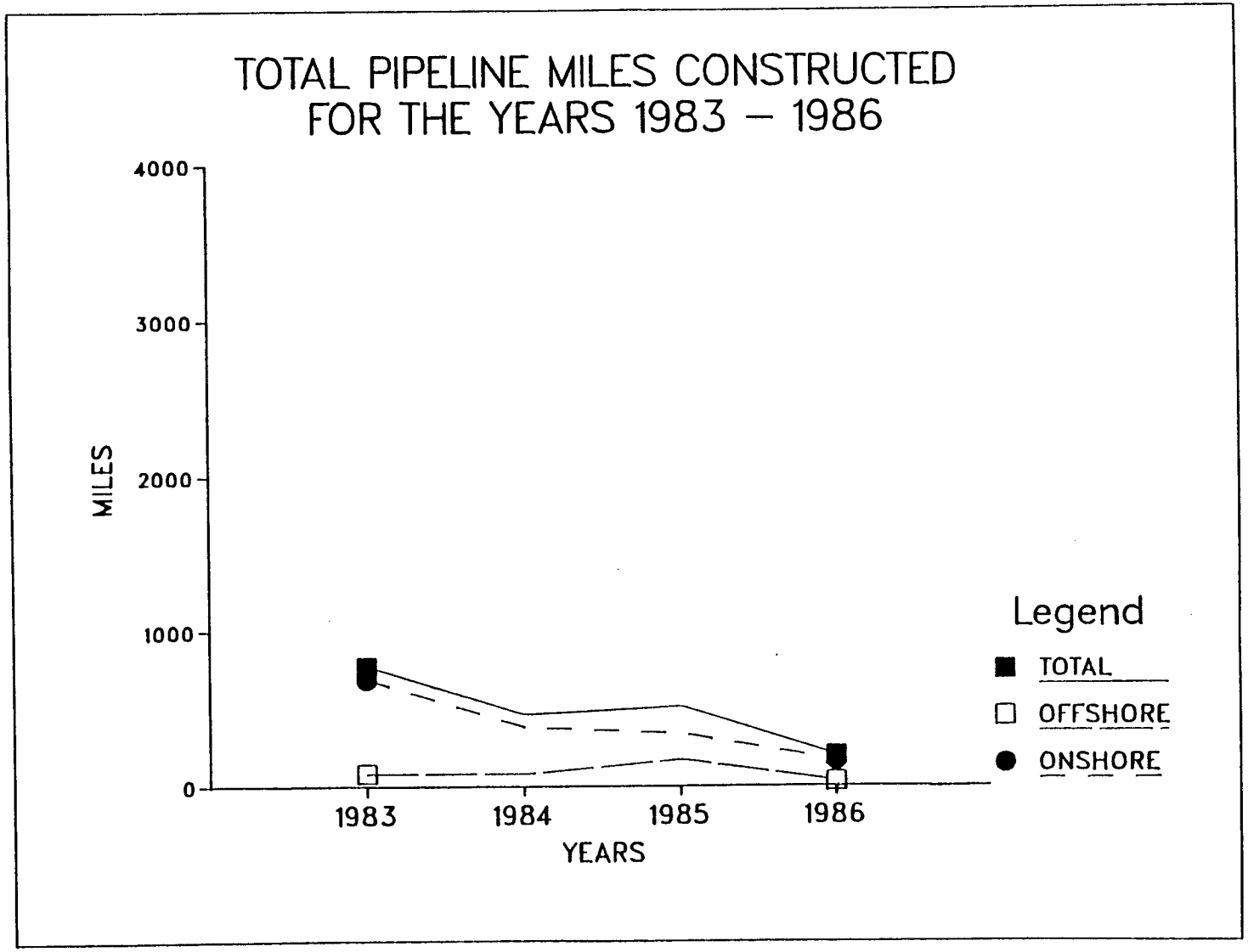
SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1986
3 MILES AND OVER

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
TRANSMISSION	43.23	22.8%	$ 28,672,123	51.3%	$ 663,246	6
TRANSMISSION: MIXED DIAMETER	--	--	--	--	--	--
TOTAL TRANSMISSION	43.23	22.8	28,672,123	51.3	663,246	6
LATERAL	113.55	60.0	10,952,303	19.6	96,454	9
LATERAL: MIXED DIAMETER	--	--	--	--	--	--
TOTAL LATERAL	113.55	60.0	10,952,303	19.6	96,454	9
TOTAL ONSHORE LINES	156.78	82.8	39,624,426	70.9	252,739	15
OFFSHORE	32.60	17.2	16,288,908	29.1	499,660	2
OFFSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL OFFSHORE LINES	32.60	17.2	16,288,908	29.1	499,660	2
TOTAL LINES	189.38	100.0%	$ 55,913,334	100.0%	$ 295,244	17

PART A

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1986
UNDER 3 MILES

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
TRANSMISSION	4.10	36.1%	$ 1,768,392	85.0%	$ 431,315	3
TRANSMISSION: MIXED DIAMETER	--	--	--	--	--	--
TOTAL TRANSMISSION	4.10	36.1	1,768,392	85.0	431,315	3
LATERAL	7.25	63.9	312,328	15.0	43,080	6
LATERAL: MIXED DIAMETER	--	--	--	--	--	--
TOTAL LATERAL	7.25	63.9	312,328	15.0	43,080	6
TOTAL ONSHORE LINES	11.35	100.0	2,080,720	100.0	183,323	9
OFFSHORE	--	--	--	--	--	--
OFFSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL OFFSHORE LINES	--	--	--	--	--	--
TOTAL LINES	11.35	100.0%	$ 2,080,720	100.0%	$ 183,323	9


TOTAL PIPELINE MILES CONSTRUCTED
FOR THE YEARS 1983 – 1986
4000
3000
2000
1000
0
MILES
1983
1984
1985
1986
YEARS
Legend
TOTAL
OFFSHORE
ONSHORE

PART A

SUMMARY: COMPRESSOR CONSTRUCTION
ENDING IN 1982

COMPRESSORS	HORSEPOWER	PERCENTAGE OF TOTAL HORSEPOWER	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER HORSEPOWER	NUMBER OF PROJECTS
RECIPROCATING UNITS						
ONSHORE	115,438	44.4%	$ 168,865,237	45.6%	$ 1,463	44
OFFSHORE	8,372	3.2	9,453,825	2.6	1,129	4
TOTAL RECIPROCATING UNITS	123,810	47.7	178,319,062	48.2	1,440	48
TURBINE UNITS						
ONSHORE	106,320	40.9	143,720,862	38.8	1,352	17
OFFSHORE	4,560	1.8	24,306,617	6.6	5,330	1
TOTAL TURBINE UNITS	110,880	42.7	168,027,479	45.4	1,515	18
ELECTRIC MOTOR UNITS						
ONSHORE	24,250	9.3	23,280,324	6.3	960	2
OFFSHORE	800	0.3	682,000	0.2	853	1
TOTAL ELECTRIC MOTOR UNITS	25,050	9.6	23,962,324	6.5	957	3
TOTAL ONSHORE UNITS	246,008	94.7	335,866,423	90.7	1,365	63
TOTAL OFFSHORE UNITS	13,732	5.3	34,442,442	9.3	2,508	6
TOTAL COMPRESSION	259,740	100.0%	$ 370,308,865	100.0%	$ 1,426	69

PART A

SUMMARY: COMPRESSOR CONSTRUCTION
ENDING IN 1983

COMPRESSORS	HORSEPOWER	PERCENTAGE OF TOTAL HORSEPOWER	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER HORSEPOWER	NUMBER OF PROJECTS
RECIPROCATING UNITS						
ONSHORE	45,305	82.1%	$ 89,982,858	90.3%	$ 1,986	17
OFFSHORE	--	--	--	--	--	--
TOTAL RECIPROCATING UNITS	45,305	82.1	89,982,858	90.3	1,986	17
TURBINE UNITS						
ONSHORE	9,845	17.9	9,720,617	9.7	987	4
OFFSHORE	--	--	--	--	--	--
TOTAL TURBINE UNITS	9,845	17.9	9,720,617	9.7	987	4
ELECTRIC MOTOR UNITS						
ONSHORE	--	--	--	--	--	--
OFFSHORE	--	--	--	--	--	--
TOTAL ELECTRIC MOTOR UNITS	--	--	--	--	--	--
TOTAL ONSHORE UNITS	55,150	100.0	99,703,475	100.0	1,808	21
TOTAL OFFSHORE UNITS	--	--	--	--	--	--
TOTAL COMPRESSION	55,150	100.0%	$ 99,703,475	100.0%	$ 1,808	21

PART A

SUMMARY: COMPRESSOR CONSTRUCTION
ENDING IN 1984

COMPRESSORS	HORSEPOWER	PERCENTAGE OF TOTAL HORSEPOWER	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER HORSEPOWER	NUMBER OF PROJECTS
RECIPROCATING UNITS						
ONSHORE	11,121	48.9%	$ 18,021,052	75.1%	$ 1,620	4
OFFSHORE	--	--	--	--	--	--
TOTAL RECIPROCATING UNITS	11,121	48.9	18,021,052	75.1	1,620	4
TURBINE UNITS						
ONSHORE	11,600	51.1	5,961,700	24.9	514	1
OFFSHORE	--	--	--	--	--	--
TOTAL TURBINE UNITS	11,600	51.1	5,961,700	24.9	514	1
ELECTRIC MOTOR UNITS						
ONSHORE	--	--	--	--	--	--
OFFSHORE	--	--	--	--	--	--
TOTAL ELECTRIC MOTOR UNITS	--	--	--	--	--	--
TOTAL ONSHORE UNITS	22,721	100.0	23,982,752	100.0	1,056	5
TOTAL OFFSHORE UNITS	--	--	--	--	--	--
TOTAL COMPRESSION	22,721	100.0%	$ 23,982,752	100.0%	$ 1,056	5

PART A

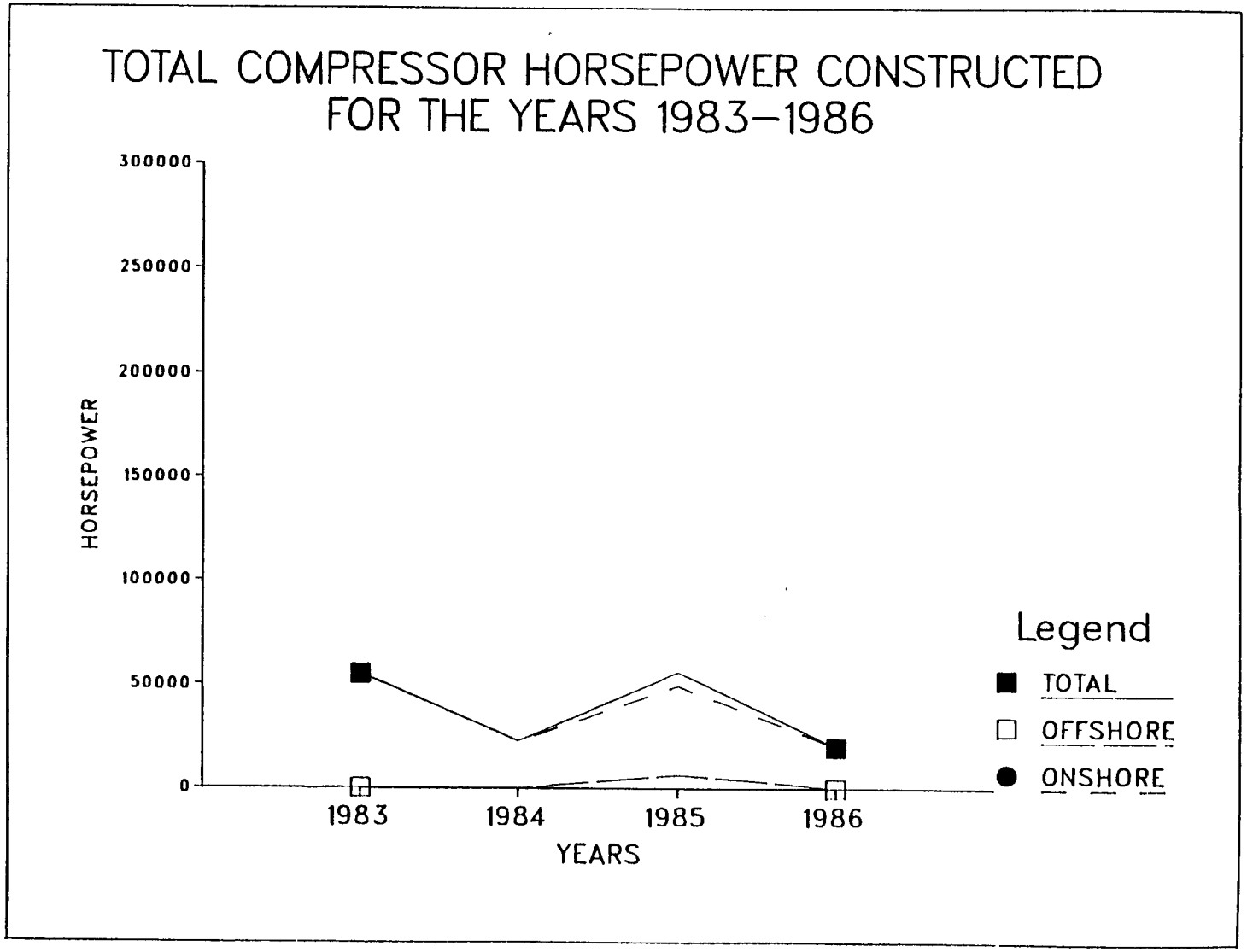
SUMMARY: COMPRESSOR CONSTRUCTION
ENDING IN 1985

COMPRESSORS	HORSEPOWER	PERCENTAGE OF TOTAL HORSEPOWER	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER HORSEPOWER	NUMBER OF PROJECTS
RECIPROCATING UNITS						
ONSHORE	27,580	49.2%	$ 29,000,702	35.1%	$ 1,052	6
OFFSHORE	--	--	--	--	--	--
TOTAL RECIPROCATING UNITS	27,580	49.2	29,000,702	35.1	1,052	6
TURBINE UNITS						
ONSHORE	21,840	39.0	41,893,940	50.7	1,918	4
OFFSHORE	6,600	11.8	11,781,449	14.3	1,785	1
TOTAL TURBINE UNITS	28,440	50.8	53,675,389	64.9	1,887	5
ELECTRIC MOTOR UNITS						
ONSHORE	--	--	--	--	--	--
OFFSHORE	--	--	--	--	--	--
TOTAL ELECTRIC MOTOR UNITS	--	--	--	--	--	--
TOTAL ONSHORE UNITS	49,420	88.2	70,894,642	85.7	1,435	10
TOTAL OFFSHORE UNITS	6,600	11.8	11,781,449	14.3	1,785	1
TOTAL COMPRESSION	56,020	100.0%	$ 82,676,091	100.0%	$ 1,476	11

PART A

SUMMARY: COMPRESSOR CONSTRUCTION
ENDING IN 1986

COMPRESSORS	HORSEPOWER	PERCENTAGE OF TOTAL HORSEPOWER	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER HORSEPOWER	NUMBER OF PROJECTS
RECIPROCATING UNITS						
ONSHORE	12,330	61.2%	$ 13,742,883	41.6%	$ 1,115	6
OFFSHORE	--	--	--	--	--	--
TOTAL RECIPROCATING UNITS	12,330	61.2	13,742,883	41.6	1,115	6
TURBINE UNITS						
ONSHORE	7,830	38.8	19,332,110	58.4	2,469	2
OFFSHORE	--	--	--	--	--	--
TOTAL TURBINE UNITS	7,830	38.8	19,332,110	58.4	2,469	2
ELECTRIC MOTOR UNITS						
ONSHORE	--	--	--	--	--	--
OFFSHORE	--	--	--	--	--	--
TOTAL ELECTRIC MOTOR UNITS	--	--	--	--	--	--
TOTAL ONSHORE UNITS	20,160	100.0	33,074,993	100.0	1,641	8
TOTAL OFFSHORE UNITS	--	--	--	--	--	--
TOTAL COMPRESSION	20,160	100.0%	$ 33,074,993	100.0%	$ 1,641	8


TOTAL COMPRESSOR HORSEPOWER CONSTRUCTED
FOR THE YEARS 1983–1986
300000
250000
200000
150000
100000
50000
0
HORSEPOWER
1983
1984
1985
1986
YEARS
Legend
TOTAL
OFFSHORE
ONSHORE

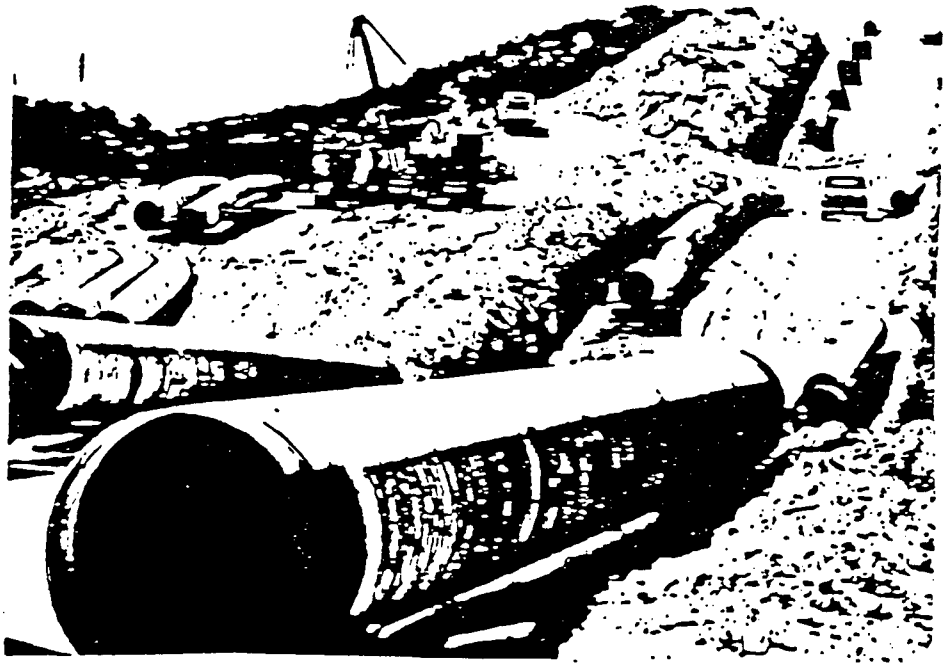
COMPANY NAME	COMPANY ABBREVIATION
AMERICAN DISTRIBUTION CO., INC. (ALABAMA DIV.)	ADC
ARKLA ENERGY RESOURCES	AER
ALABAMA-TENNESSEE NATURAL GAS CO.	ALA-TENN
ALGONQUIN GAS TRANSMISSION CO.	ALGONQUIN
ANR PIPELINE CO.	ANR
ANR STORAGE CO.	ANR STGE
ARKANSAS LOUISIANA GAS CO.	ARKLA
ARKANSAS OKLAHOMA GAS CORP.	ARK OK
BAYOU INTERSTATE PIPELINE SYSTEM	BAYOU
BEAR CREEK STORAGE CO.	BEAR CREEK
BLACK MARLIN PIPELINE CO.	BLACK MARLIN
CANYON CREEK COMPRESSION CO.	CANYON CREEK
CARNEGIE NATURAL GAS CO.	CARNEGIE
CITIES SERVICE GAS CO.	CITIES
COLORADO INTERSTATE GAS CO.	CIG
COLUMBIA GAS TRANSMISSION CORP.	COLUMBIA GAS
COLUMBIA GULF TRANSMISSION CO.	COLUMBIA GULF
CONSOLIDATED GAS SUPPLY CORP.	CON GAS
CONSOLIDATED GAS TRANSMISSION CORP.	CONSOLIDATED
EASTERN SHORE NATURAL GAS CO.	EASTERN SHORE
EAST TENNESSEE NATURAL GAS CO.	EAST TENNESSEE
EL PASO NATURAL GAS CO.	EL PASO
EQUITABLE GAS CO.	EQUITABLE
FLORIDA GAS TRANSMISSION CO.	FLA GAS
GASDEL PIPELINE SYSTEM INC.	GASDEL
GREAT LAKES GAS TRANSMISSION CO.	GREAT LAKES
HIGH ISLAND OFFSHORE SYSTEM	HIOS
HONEOYE STORAGE CORP.	HONEOYE
INLAND GAS CO., INC., THE	INLAND
INTERSTATE POWER CO.	INTERSTATE POWER
IOWA-ILLINOIS GAS AND ELECTRIC CO.	IOWA-ILLINOIS
K N ENERGY, INC.	K N ENERGY
KANSAS-NEBRASKA NATURAL GAS CO., INC.	KANSAS-NEBRASKA
LONE STAR GAS CO.	LONE STAR
MICHIGAN CONSOLIDATED GAS CO.	MICH CON
MICHIGAN GAS STORAGE CO.	MICH GAS
MICHIGAN WISCONSIN PIPE LINE CO.	MICH WIS
MID LOUISIANA GAS CO.	MID LOUISIANA
MIDWESTERN GAS TRANSMISSION CO.	MIDWESTERN
MIGC, INC.	MIGC
MISSISSIPPI RIVER TRANSMISSION CORP.	MISS RIVER
MITCO PIPELINE CO.	MITCO
MONTANA-DAKOTA UTILITIES CO.	MONTANA-DAKOTA
MOUNTAIN FUEL RESOURCES, INC.	MOUNTAIN FUEL RES
MOUNTAIN FUEL SUPPLY CO.	MOUNTAIN FUEL
NATIONAL FUEL GAS SUPPLY CORP.	NATIONAL FUEL
NATURAL GAS PIPELINE CO. OF AMERICA	NGPL
NORTHERN BORDER PIPELINE CO.	NORTHERN BORDER
NORTHERN NATURAL GAS CO.	NORTHERN
NORTHWEST CENTRAL PIPELINE CORP.	NORTHWEST CENTRAL
NORTHWEST PIPELINE CORP.	NORTHWEST
OHIO RIVER PIPELINE CORP.	OHIO RIVER
OVERTHRUST PIPELINE CO.	OVERTHRUST
OZARK GAS TRANSMISSION SYSTEM	OZARK
PACIFIC GAS TRANSMISSION CO.	PACIFIC GAS
PANHANDLE EASTERN PIPE LINE CO.	PANHANDLE
PHILLIPS GAS PIPELINE CO.	PHILLIPS
PACIFIC INTERSTATE OFFSHORE CO.	PIOC
PACIFIC OFFSHORE PIPELINE CO.	POPCO
QUESTAR PIPELINE CO.	QUESTAR
SABINE PIPE LINE CO.	SABINE
SEAGULL INTERSTATE CORP.	SEAGULL
SEA ROBIN PIPELINE CO.	SEA ROBIN
SUPERIOR OFFSHORE PIPELINE CO.	SOPCO
SOUTH GEORGIA NATURAL GAS CO.	SOUTH GEORGIA
SOUTHERN NATURAL GAS CO.	SOUTHERN
SOUTHWEST GAS CORP.	SOUTHWEST
STANDARD PACIFIC GAS LINE, INC.	STANDARD PACIFIC
STINGRAY PIPELINE CO.	STINGRAY
TARPON TRANSMISSION CO.	TARPON
TCP GATHERING CO.	TCP GATHERING
TENNESSEE GAS PIPELINE CO.	TENNECO
TENNESSEE NATURAL GAS LINES, INC.	TNGL
TEXAS EASTERN TRANSMISSION CORP.	TETCO
TEXAS GAS TRANSMISSION CORP.	TEXAS GAS
TEXAS SEA RIM PIPELINE, INC.	TEXAS SEA RIM
TRAILBLAZER PIPELINE CO.	TRAILBLAZER
TRANSCONTINENTAL GAS PIPE LINE CORP.	TRANSCO
TRANSWESTERN PIPELINE CO.	TRANSWESTERN
TRUNKLINE GAS CO.	TRUNKLINE
U-T OFFSHORE SYSTEM	UTOS
UNITED GAS PIPE LINE CO.	UNITED
VALERO INTERSTATE TRANSMISSION CO.	VALERO
WESTERN GAS INTERSTATE CO.	WESTERN
WYOMING INTERSTATE CO., LTD.	WIC
WILLISTON BASIN INTERSTATE PIPELINE CO.	WILLISTON BASIN
WILLIAMS NATURAL GAS CO.	WILLIAMS
ZENITH NATURAL GAS CO.	ZENITH

LIST OF DESCRIPTIVE ABBREVIATIONS USED IN THE CONSTRUCTION COST REPORT

ITEM	ABBREVIATION
ADDITION	ADD
AVERAGE	AVG
BLOCK	BLK
COMPRESSOR	COMP
CONSTRUCTION	CONST
COUNTY	CO
DIAMETER	DIAM
EAST	E
ELECTRIC	ELEC
FIELD	FLD
ISLAND	ISL
LATERAL	LAT
NORTH	N
NUMBER	NO
PARISH	PAR
PLATFORM	PLAT
RECIPROCATING	RECIP
SAINT	ST
SOUTH	S
SOUTHWEST	SW
STATION	STA
STORAGE	STGE
TRANSMISSION	TRANSM
TURBINE	TURB
WEST	W

PART A
SECTION I COMPARATIVE SUMMARY

Table A Pipeline Construction and Expenditures



PART A

TABLE A

PIPELINE CONSTRUCTION EXPENDITURES
CONSTRUCTION ENDING IN 1983 THROUGH 1986

		YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
ONSHORE MILES					
3 MILES AND OVER		447.70	267.02	333.99	156.78
EXPENDITURES	$	212,904,028	138,463,268	183,689,616	39,624,426
AVG. COST PER MILE	$	475,551	518,550	549,985	252,739
UNDER 3 MILES		48.56	12.85	7.50	11.35
EXPENDITURES	$	8,254,887	11,050,421	3,349,925	2,080,720
AVG. COST PER MILE	$	169,994	859,955	446,657	183,323
MIXED DIAMETER -3 MILES AND OVER		179.77	103.37	--	--
EXPENDITURES	$	31,516,647	43,182,354	--	--
AVG. COST PER MILE	$	175,316	417,746	--	--
MIXED DIAMETER -UNDER 3 MILES		15.13	0.04	--	--
EXPENDITURES	$	895,721	33,403	--	--
AVG. COST PER MILE	$	59,202	835,075	--	--
TOTAL ONSHORE MILES		691.16	383.28	341.49	168.13
TOTAL ONSHORE EXPENDITURES	$	253,571,283	192,729,446	187,039,541	41,705,146
TOTAL AVG. COST PER MILE	$	366,878	502,842	547,716	248,053
OFFSHORE MILES					
3 MILES AND OVER		67.91	70.21	166.83	32.60
EXPENDITURES	$	52,009,023	69,244,060	146,333,766	16,288,908
AVG. COST PER MILE	$	765,852	986,242	877,143	499,660
UNDER 3 MILES		5.62	10.85	7.26	--
EXPENDITURES	$	9,688,909	17,823,301	16,022,184	--
AVG. COST PER MILE	$	1,724,005	1,642,701	2,206,912	--
MIXED DIAMETER -3 MILES AND OVER		9.80	--	--	--
EXPENDITURES	$	32,182,952	--	--	--
AVG. COST PER MILE	$	3,283,975	--	--	--
MIXED DIAMETER -UNDER 3 MILES		--	--	--	--
EXPENDITURES	$	--	--	--	--
AVG. COST PER MILE	$	--	--	--	--
TOTAL OFFSHORE MILES		83.33	81.06	174.09	32.60
TOTAL OFFSHORE EXPENDITURES	$	93,880,884	87,067,361	162,355,950	16,288,908
TOTAL AVG. COST PER MILE	$	1,126,616	1,074,110	932,598	499,660

PART A

TABLE A

PIPELINE CONSTRUCTION EXPENDITURES
CONSTRUCTION ENDING IN 1983 THROUGH 1986

		YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
TOTAL ONSHORE AND OFFSHORE MILES		774.49	464.34	515.58	200.73
TOTAL ONSHORE AND OFFSHORE EXPENDITURES	$	347,452,167	279,796,807	349,395,491	57,994,054
TOTAL AVG. COST PER MILE	$	448,621	602,569	677,675	288,916

TABLE B-1 TRANSMISSION PIPELINE

PART A

TABLE B-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		8 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		7.90			
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	264,426			
MATERIAL % OF THE TOTAL $		28.8%			
MATERIAL AVG. COST PER MILE	$	33,472			
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	--			
ENGINEERING ... % OF THE TOTAL $		--%			
ENGINEERING ... AVG. COST PER MILE	$	--			
LABOR					
TOTAL LABOR	$	517,046			
LABOR % OF THE TOTAL $		56.3%			
LABOR AVG. COST PER MILE	$	65,449			
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	13,600			
RIGHT-OF-WAY ... % OF THE TOTAL $		1.5%			
RIGHT-OF-WAY ... AVG. COST PER MILE	$	1,722			
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	4,927			
OVERHEAD	$	98,889			
OTHER MISCELLANEOUS 1)	$	19,051			
TOTAL MISCELLANEOUS	$	122,867			
MISCELLANEOUS % OF THE TOTAL $		13.4%			
MISCELLANEOUS AVG. COST PER MILE	$	15,553			
TOTAL COST					
TOTAL COST	$	917,939	2)	2)	2)
TOTAL AVG. COST PER MILE	$	116,195			
COST RANGE PER MILE					
MINIMUM	$	86,111			
MAXIMUM	$	141,381			

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.

PART A

TABLE B-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		10 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED			4.94		
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		248,285		
MATERIAL % OF THE TOTAL $		%	39.1		
MATERIAL AVG. COST PER MILE	$		50,260		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$		--		
ENGINEERING ... % OF THE TOTAL $		%	--		
ENGINEERING ... AVG. COST PER MILE	$		--		
LABOR					
TOTAL LABOR	$		360,928		
LABOR % OF THE TOTAL $		%	56.8		
LABOR AVG. COST PER MILE	$		73,062		
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$		--		
RIGHT-OF-WAY ... % OF THE TOTAL $		%	--		
RIGHT-OF-WAY ... AVG. COST PER MILE	$		--		
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$		8,390		
OVERHEAD	$		17,113		
OTHER MISCELLANEOUS 1)	$		966		
TOTAL MISCELLANEOUS	$		26,469		
MISCELLANEOUS % OF THE TOTAL $		%	4.2		
MISCELLANEOUS AVG. COST PER MILE	$		5,358		
TOTAL COST					
TOTAL COST	$	2)	635,682	2)	2)
TOTAL AVG. COST PER MILE	$		128,681		
COST RANGE PER MILE					
MINIMUM	$		3)		
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE B-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		19.50		7.10	5.10
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	1,082,980		419,200	435,521
MATERIAL % OF THE TOTAL $		24.6%		31.4	62.5
MATERIAL AVG. COST PER MILE	$	55,537		59,042	85,396
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	--		--	19,587
ENGINEERING ... % OF THE TOTAL $		--%		--	2.8
ENGINEERING ... AVG. COST PER MILE	$	--		--	3,841
LABOR					
TOTAL LABOR	$	2,712,633		605,600	211,030
LABOR % OF THE TOTAL $		61.7%		45.4	30.3
LABOR AVG. COST PER MILE	$	139,109		85,296	41,378
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	144,993		85,100	2,978
RIGHT-OF-WAY ... % OF THE TOTAL $		3.3%		6.4	0.4
RIGHT-OF-WAY ... AVG. COST PER MILE	$	7,436		11,986	584
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	128,350		--	27,608
OVERHEAD	$	185,959		149,400	--
OTHER MISCELLANEOUS 1)	$	139,913		75,150	252
TOTAL MISCELLANEOUS	$	454,222		224,550	27,860
MISCELLANEOUS % OF THE TOTAL $		10.3%		16.8	4.0
MISCELLANEOUS AVG. COST PER MILE	$	23,293		31,627	5,463
TOTAL COST					
TOTAL COST	$	4,394,828	2)	1,334,450	696,976
TOTAL AVG. COST PER MILE	$	225,376		187,951	136,662
COST RANGE PER MILE					
MINIMUM	$	159,605		3)	3)
MAXIMUM	$	251,214			

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE B-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		16 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		11.00	22.94		
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	830,743	1,914,739		
MATERIAL % OF THE TOTAL $		50.9%	46.6		
MATERIAL AVG. COST PER MILE	$	75,522	83,467		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	29,902	66,776		
ENGINEERING ... % OF THE TOTAL $		1.8%	1.6		
ENGINEERING ... AVG. COST PER MILE	$	2,718	2,911		
LABOR					
TOTAL LABOR	$	474,799	1,665,210		
LABOR % OF THE TOTAL $		29.1%	40.5		
LABOR AVG. COST PER MILE	$	43,164	72,590		
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	33,000	101,651		
RIGHT-OF-WAY ... % OF THE TOTAL $		2.0%	2.5		
RIGHT-OF-WAY ... AVG. COST PER MILE	$	3,000	4,431		
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	1,484	7,632		
OVERHEAD	$	245,408	327,405		
OTHER MISCELLANEOUS 1)	$	15,763	23,756		
TOTAL MISCELLANEOUS	$	262,655	358,793		
MISCELLANEOUS % OF THE TOTAL $		16.1%	8.7		
MISCELLANEOUS AVG. COST PER MILE	$	23,878	15,640		
TOTAL COST					
TOTAL COST	$	1,631,099	4,107,169	2)	2)
TOTAL AVG. COST PER MILE	$	148,282	179,040		
COST RANGE PER MILE					
MINIMUM	$	3)	157,297		
MAXIMUM	$		231,894		

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE B-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		20 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		29.70		75.28	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	4,440,729		10,759,949	
MATERIAL % OF THE TOTAL $		42.3%		38.7	
MATERIAL AVG. COST PER MILE	$	149,519		142,932	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	104,850		1,445,649	
ENGINEERING ... % OF THE TOTAL $		1.0%		5.2	
ENGINEERING ... AVG. COST PER MILE	$	3,530		19,204	
LABOR					
TOTAL LABOR	$	4,521,982		11,554,780	
LABOR % OF THE TOTAL $		43.1%		41.5	
LABOR AVG. COST PER MILE	$	152,255		153,491	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	611,667		763,944	
RIGHT-OF-WAY ... % OF THE TOTAL $		5.8%		2.7	
RIGHT-OF-WAY ... AVG. COST PER MILE	$	20,595		10,148	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	399,084		716,118	
OVERHEAD	$	298,109		2,572,414	
OTHER MISCELLANEOUS 1)	$	125,289		23,197	
TOTAL MISCELLANEOUS	$	822,482		3,311,729	
MISCELLANEOUS % OF THE TOTAL $		7.8%		11.9	
MISCELLANEOUS AVG. COST PER MILE	$	27,693		43,992	
TOTAL COST					
TOTAL COST	$	10,501,710	2)	27,836,051	2)
TOTAL AVG. COST PER MILE	$	353,593		369,767	
COST RANGE PER MILE					
MINIMUM	$	186,942		206,661	
MAXIMUM	$	387,328		478,949	

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.

PART A

TABLE B-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

	24 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
	1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED	67.10	42.60		13.67
COST DATA				
MATERIALS				
TOTAL MATERIALS	$ 13,282,131	8,211,029		2,428,141
MATERIAL % OF THE TOTAL $	33.8%	33.7		31.8
MATERIAL AVG. COST PER MILE	$ 197,945	192,747		177,626
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY				
TOTAL ENGINEERING ...	$ --	1,572,020		115,928
ENGINEERING ... % OF THE TOTAL $	--%	6.4		1.5
ENGINEERING ... AVG. COST PER MILE	$ --	36,902		8,480
LABOR				
TOTAL LABOR	$ 21,354,423	9,727,857		4,610,982
LABOR % OF THE TOTAL $	54.4%	39.9		60.4
LABOR AVG. COST PER MILE	$ 318,248	228,353		337,307
RIGHT-OF-WAY AND DAMAGES				
TOTAL RIGHT-OF-WAY ...	$ 731,277	3,662,170		120,621
RIGHT-OF-WAY ... % OF THE TOTAL $	1.9%	15.0		1.6
RIGHT-OF-WAY ... AVG. COST PER MILE	$ 10,898	85,966		8,824
MISCELLANEOUS				
INTEREST DURING CONSTRUCTION	$ 1,452,971	615,618		241,824
OVERHEAD	$ 1,374,087	272,795		113,807
OTHER MISCELLANEOUS 1)	$ 1,084,436	312,004		--
TOTAL MISCELLANEOUS	$ 3,911,494	1,200,417		355,631
MISCELLANEOUS % OF THE TOTAL $	10.0%	4.9		4.7
MISCELLANEOUS AVG. COST PER MILE	$ 58,294	28,179		26,015
TOTAL COST				
TOTAL COST	$ 39,279,325	24,373,493	2)	7,631,303
TOTAL AVG. COST PER MILE	$ 585,385	572,148		558,252
COST RANGE PER MILE				
MINIMUM	$ 3)	402,242		379,711
MAXIMUM	$	614,500		741,290

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE B-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		26 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		4.70			
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	1,003,065			
MATERIAL % OF THE TOTAL $		43.2%			
MATERIAL AVG. COST PER MILE	$	213,418			
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	175,755			
ENGINEERING ... % OF THE TOTAL $		7.6%			
ENGINEERING ... AVG. COST PER MILE	$	37,395			
LABOR					
TOTAL LABOR	$	767,570			
LABOR % OF THE TOTAL $		33.0%			
LABOR AVG. COST PER MILE	$	163,313			
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	172,519			
RIGHT-OF-WAY ... % OF THE TOTAL $		7.4%			
RIGHT-OF-WAY ... AVG. COST PER MILE	$	36,706			
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	124,633			
OVERHEAD	$	--			
OTHER MISCELLANEOUS 1)	$	79,965			
TOTAL MISCELLANEOUS	$	204,598			
MISCELLANEOUS % OF THE TOTAL $		8.8%			
MISCELLANEOUS AVG. COST PER MILE	$	43,531			
TOTAL COST					
TOTAL COST	$	2,323,507	2)	2)	2)
TOTAL AVG. COST PER MILE	$	494,363			
COST RANGE PER MILE					
MINIMUM	$	3)			
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE B-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		30 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		48.00	30.05		19.51
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	10,896,722	9,083,201		4,845,770
MATERIAL % OF THE TOTAL $		48.3%	32.5		29.8
MATERIAL AVG. COST PER MILE	$	227,015	302,270		248,374
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	618,672	1,484,458		1,006,213
ENGINEERING ... % OF THE TOTAL $		2.7%	5.3		6.2
ENGINEERING ... AVG. COST PER MILE	$	12,889	49,400		51,574
LABOR					
TOTAL LABOR	$	8,514,928	13,829,148		8,813,150
LABOR % OF THE TOTAL $		37.7%	49.6		54.1
LABOR AVG. COST PER MILE	$	177,394	460,205		451,725
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	1,184,731	882,445		257,079
RIGHT-OF-WAY ... % OF THE TOTAL $		5.3%	3.2		1.6
RIGHT-OF-WAY ... AVG. COST PER MILE	$	24,682	29,366		13,177
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	511,159	751,837		535,723
OVERHEAD	$	831,728	1,876,992		625,168
OTHER MISCELLANEOUS 1)	$	--	--		199,964
TOTAL MISCELLANEOUS	$	1,342,887	2,628,829		1,360,855
MISCELLANEOUS % OF THE TOTAL $		6.0%	9.4		8.4
MISCELLANEOUS AVG. COST PER MILE	$	27,977	87,482		69,752
TOTAL COST					
TOTAL COST	$	22,557,940	27,908,081	2)	16,283,067
TOTAL AVG. COST PER MILE	$	469,957	928,721		834,601
COST RANGE PER MILE					
MINIMUM	$	405,614	681,510		772,626
MAXIMUM	$	696,980	1,375,341		1,074,910

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.

PART A

TABLE B-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		36 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		47.92	31.50	81.30	4.95
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	20,880,478	11,812,827	21,115,575	1,462,332
MATERIAL % OF THE TOTAL $		47.3%	51.8	49.0	36.0
MATERIAL AVG. COST PER MILE	$	435,736	375,010	259,724	295,421
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	618,765	434,955	1,766,385	244,047
ENGINEERING ... % OF THE TOTAL $		1.4%	1.9	4.1	6.0
ENGINEERING ... AVG. COST PER MILE	$	12,912	13,808	21,727	49,302
LABOR					
TOTAL LABOR	$	19,536,538	6,905,938	17,429,547	1,858,949
LABOR % OF THE TOTAL $		44.2%	30.3	40.4	45.8
LABOR AVG. COST PER MILE	$	407,691	219,236	214,386	375,545
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	1,901,167	146,739	1,443,049	87,497
RIGHT-OF-WAY ... % OF THE TOTAL $		4.3%	0.6	3.3	2.2
RIGHT-OF-WAY ... AVG. COST PER MILE	$	39,674	4,658	17,750	17,676
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	1,214,405	860,800	1,345,151	132,908
OVERHEAD	$	12,628	2,632,582	36,049	208,389
OTHER MISCELLANEOUS 1)	$	--	--	--	66,655
TOTAL MISCELLANEOUS	$	1,227,033	3,493,382	1,381,200	407,952
MISCELLANEOUS % OF THE TOTAL $		2.8%	15.3	3.2	10.0
MISCELLANEOUS AVG. COST PER MILE	$	25,606	110,901	16,989	82,415
TOTAL COST					
TOTAL COST	$	44,163,981	22,793,841	43,135,756	4,060,777
TOTAL AVG. COST PER MILE	$	921,619	723,614	530,575	820,359
COST RANGE PER MILE					
MINIMUM	$	615,339	2)	2)	2)
MAXIMUM	$	1,008,191			

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE B-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

	42 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
	1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED	46.52	50.59	13.38	
COST DATA				
MATERIALS				
TOTAL MATERIALS	$ 19,426,821	17,197,871	6,417,627	
MATERIAL % OF THE TOTAL $	46.9%	44.3	46.9	
MATERIAL AVG. COST PER MILE	$ 417,601	339,946	479,643	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY				
TOTAL ENGINEERING ...	$ 1,940,959	1,913,722	767,453	
ENGINEERING ... % OF THE TOTAL $	4.7%	4.9	5.6	
ENGINEERING ... AVG. COST PER MILE	$ 41,723	37,828	57,358	
LABOR				
TOTAL LABOR	$ 14,795,989	13,707,007	4,379,595	
LABOR % OF THE TOTAL $	35.7%	35.3	32.0	
LABOR AVG. COST PER MILE	$ 318,057	270,943	327,324	
RIGHT-OF-WAY AND DAMAGES				
TOTAL RIGHT-OF-WAY ...	$ 1,696,632	2,757,407	726,631	
RIGHT-OF-WAY ... % OF THE TOTAL $	4.1%	7.1	5.3	
RIGHT-OF-WAY ... AVG. COST PER MILE	$ 36,471	54,505	54,307	
MISCELLANEOUS				
INTEREST DURING CONSTRUCTION	$ 1,823,051	1,640,562	430,253	
OVERHEAD	$ 1,739,393	1,633,328	969,417	
OTHER MISCELLANEOUS 1)	$ 11,373	5,214	--	
TOTAL MISCELLANEOUS	$ 3,573,817	3,279,104	1,399,670	
MISCELLANEOUS % OF THE TOTAL $	8.6%	8.4	10.2	
MISCELLANEOUS AVG. COST PER MILE	$ 76,823	64,817	104,609	
TOTAL COST				
TOTAL COST	$ 41,434,218	38,855,111	13,690,976	2)
TOTAL AVG. COST PER MILE	$ 890,675	768,039	1,023,242	
COST RANGE PER MILE				
MINIMUM	$ 833,016	708,656	869,526	
MAXIMUM	$ 1,036,240	842,413	1,284,186	

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.

TABLE B-2 LATERAL PIPELINE

PART A

TABLE B-2

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		4 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		53.18			26.00
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	3,802,878			387,992
MATERIAL % OF THE TOTAL $		46.3%			40.5
MATERIAL AVG. COST PER MILE	$	71,510			14,923
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	1,160,408			39,366
ENGINEERING ... % OF THE TOTAL $		14.1%			4.1
ENGINEERING ... AVG. COST PER MILE	$	21,820			1,514
LABOR					
TOTAL LABOR	$	1,557,540			347,917
LABOR % OF THE TOTAL $		19.0%			36.4
LABOR AVG. COST PER MILE	$	29,288			13,381
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	543,831			66,093
RIGHT-OF-WAY ... % OF THE TOTAL $		6.6%			6.9
RIGHT-OF-WAY ... AVG. COST PER MILE	$	10,226			2,542
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	767,558			167
OVERHEAD	$	377,041			96,704
OTHER MISCELLANEOUS 1)	$	--			18,627
TOTAL MISCELLANEOUS	$	1,144,599			115,498
MISCELLANEOUS % OF THE TOTAL $		13.9%			12.1
MISCELLANEOUS AVG. COST PER MILE	$	21,523			4,442
TOTAL COST					
TOTAL COST	$	8,209,256	2)	2)	956,866
TOTAL AVG. COST PER MILE	$	154,367			36,803
COST RANGE PER MILE					
MINIMUM	$	139,805			35,793
MAXIMUM	$	160,918			38,418

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.

PART A

TABLE B-2

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		6 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		10.74		37.90	32.20
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	486,033		1,191,865	647,784
MATERIAL % OF THE TOTAL $		35.7%		44.3	41.7
MATERIAL AVG. COST PER MILE	$	45,254		31,448	20,118
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	151,543		123,485	71,983
ENGINEERING ... % OF THE TOTAL $		11.1%		4.6	4.6
ENGINEERING ... AVG. COST PER MILE	$	14,110		3,258	2,235
LABOR					
TOTAL LABOR	$	546,860		875,582	612,994
LABOR % OF THE TOTAL $		40.2%		32.6	39.5
LABOR AVG. COST PER MILE	$	50,918		23,102	19,037
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	59,263		302,097	59,122
RIGHT-OF-WAY ... % OF THE TOTAL $		4.4%		11.2	3.8
RIGHT-OF-WAY ... AVG. COST PER MILE	$	5,518		7,971	1,836
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	34,954		148,753	--
OVERHEAD	$	73,727		1,984	157,566
OTHER MISCELLANEOUS 1)	$	8,225		45,858	4,350
TOTAL MISCELLANEOUS	$	116,906		196,595	161,916
MISCELLANEOUS % OF THE TOTAL $		8.6%		7.3	10.4
MISCELLANEOUS AVG. COST PER MILE	$	10,885		5,187	5,028
TOTAL COST					
TOTAL COST	$	1,360,605	2)	2,689,624	1,553,799
TOTAL AVG. COST PER MILE	$	126,686		70,966	48,255
COST RANGE PER MILE					
MINIMUM	$	113,970		3)	3)
MAXIMUM	$	135,511			

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE B-2

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

	8 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
	1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED	51.80			16.25
COST DATA				
MATERIALS				
TOTAL MATERIALS	$ 2,062,575			490,076
MATERIAL % OF THE TOTAL $	23.3%			38.4
MATERIAL AVG. COST PER MILE	$ 39,818			30,159
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY				
TOTAL ENGINEERING ...	$ 87,701			74,643
ENGINEERING ... % OF THE TOTAL $	1.0%			5.8
ENGINEERING ... AVG. COST PER MILE	$ 1,693			4,593
LABOR				
TOTAL LABOR	$ 4,594,928			549,174
LABOR % OF THE TOTAL $	51.9%			43.0
LABOR AVG. COST PER MILE	$ 88,705			33,795
RIGHT-OF-WAY AND DAMAGES				
TOTAL RIGHT-OF-WAY ...	$ 424,761			53,599
RIGHT-OF-WAY ... % OF THE TOTAL $	4.8%			4.2
RIGHT-OF-WAY ... AVG. COST PER MILE	$ 8,200			3,298
MISCELLANEOUS				
INTEREST DURING CONSTRUCTION	$ 241,115			--
OVERHEAD	$ 1,303,112			106,344
OTHER MISCELLANEOUS 1)	$ 141,236			3,000
TOTAL MISCELLANEOUS	$ 1,685,463			109,344
MISCELLANEOUS % OF THE TOTAL $	19.0%			8.6
MISCELLANEOUS AVG. COST PER MILE	$ 32,538			6,729
TOTAL COST				
TOTAL COST	$ 8,855,428	2)	2)	1,276,836
TOTAL AVG. COST PER MILE	$ 170,954			78,575
COST RANGE PER MILE				
MINIMUM	$ 119,341			68,933
MAXIMUM	$ 179,822			80,758

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.

PART A

TABLE B-2

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		10 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		6.00		10.70	7.51
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	321,324		1,046,000	260,262
MATERIAL % OF THE TOTAL $		45.8%		13.1	44.4
MATERIAL AVG. COST PER MILE	$	53,554		97,757	34,655
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	63,718		176,000	32,742
ENGINEERING ... % OF THE TOTAL $		9.1%		2.2	5.6
ENGINEERING ... AVG. COST PER MILE	$	10,620		16,449	4,360
LABOR					
TOTAL LABOR	$	186,237		5,357,000	236,604
LABOR % OF THE TOTAL $		26.6%		67.1	40.4
LABOR AVG. COST PER MILE	$	31,040		500,654	31,505
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	34,235		975,000	18,381
RIGHT-OF-WAY ... % OF THE TOTAL $		4.9%		12.2	3.1
RIGHT-OF-WAY ... AVG. COST PER MILE	$	5,706		91,121	2,448
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	77,058		431,680	--
OVERHEAD	$	18,694		--	36,348
OTHER MISCELLANEOUS 1)	$	--		--	1,650
TOTAL MISCELLANEOUS	$	95,752		431,680	37,998
MISCELLANEOUS % OF THE TOTAL $		13.7%		5.4	6.5
MISCELLANEOUS AVG. COST PER MILE	$	15,959		40,344	5,060
TOTAL COST					
TOTAL COST	$	701,266	2)	7,985,680	585,987
TOTAL AVG. COST PER MILE	$	116,878		746,325	78,028
COST RANGE PER MILE					
MINIMUM	$	3)		3)	3)
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE B-2

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		16.65		15.10	28.29
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	1,026,718		1,216,508	1,692,728
MATERIAL % OF THE TOTAL $		28.1%		31.9	33.1
MATERIAL AVG. COST PER MILE	$	61,665		80,563	59,835
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	5,966		452,748	--
ENGINEERING ... % OF THE TOTAL $		0.2%		11.9	--
ENGINEERING ... AVG. COST PER MILE	$	358		29,983	--
LABOR					
TOTAL LABOR	$	1,888,724		1,971,669	2,173,191
LABOR % OF THE TOTAL $		51.7%		51.6	42.5
LABOR AVG. COST PER MILE	$	113,437		130,574	76,818
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	331,973		142,487	499,491
RIGHT-OF-WAY ... % OF THE TOTAL $		9.1%		3.7	9.8
RIGHT-OF-WAY ... AVG. COST PER MILE	$	19,938		9,436	17,656
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	119,004		26,882	52,240
OVERHEAD	$	277,676		--	568,255
OTHER MISCELLANEOUS 1)	$	--		8,031	130,782
TOTAL MISCELLANEOUS	$	396,680		34,913	751,277
MISCELLANEOUS % OF THE TOTAL $		10.9%		0.9	14.7
MISCELLANEOUS AVG. COST PER MILE	$	23,825		2,312	26,556
TOTAL COST					
TOTAL COST	$	3,650,061	2)	3,818,325	5,116,687
TOTAL AVG. COST PER MILE	$	219,223		252,869	180,866
COST RANGE PER MILE					
MINIMUM	$	3)		3)	175,418
MAXIMUM	$				192,991

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE B-2

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		14 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		6.72			
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	519,288			
MATERIAL % OF THE TOTAL $		25.1%			
MATERIAL AVG. COST PER MILE	$	77,275			
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	--			
ENGINEERING ... % OF THE TOTAL $		--%			
ENGINEERING ... AVG. COST PER MILE	$	--			
LABOR					
TOTAL LABOR	$	1,242,220			
LABOR % OF THE TOTAL $		60.1%			
LABOR AVG. COST PER MILE	$	184,854			
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	51,830			
RIGHT-OF-WAY ... % OF THE TOTAL $		2.5%			
RIGHT-OF-WAY ... AVG. COST PER MILE	$	7,713			
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	--			
OVERHEAD	$	252,243			
OTHER MISCELLANEOUS 1)	$	--			
TOTAL MISCELLANEOUS	$	252,243			
MISCELLANEOUS % OF THE TOTAL $		12.2%			
MISCELLANEOUS AVG. COST PER MILE	$	37,536			
TOTAL COST					
TOTAL COST	$	2,065,581	2)	2)	2)
TOTAL AVG. COST PER MILE	$	307,378			
COST RANGE PER MILE					
MINIMUM	$	3)			
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE B-2

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		16 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED			60.30		3.30
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		6,177,956		601,024
MATERIAL % OF THE TOTAL $		%	49.8		41.1
MATERIAL AVG. COST PER MILE	$		102,454		182,128
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$		457,521		--
ENGINEERING ... % OF THE TOTAL $		%	3.7		--
ENGINEERING ... AVG. COST PER MILE	$		7,587		--
LABOR					
TOTAL LABOR	$		4,200,601		582,680
LABOR % OF THE TOTAL $		%	33.9		39.9
LABOR AVG. COST PER MILE	$		69,662		176,570
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$		831,579		1,352
RIGHT-OF-WAY ... % OF THE TOTAL $		%	6.7		0.1
RIGHT-OF-WAY ... AVG. COST PER MILE	$		13,791		410
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$		403,529		30,875
OVERHEAD	$		333,272		193,902
OTHER MISCELLANEOUS 1)	$		--		52,295
TOTAL MISCELLANEOUS	$		736,801		277,072
MISCELLANEOUS % OF THE TOTAL $		%	5.9		18.9
MISCELLANEOUS AVG. COST PER MILE	$		12,219		83,961
TOTAL COST					
TOTAL COST	$	2)	12,404,458	2)	1,462,128
TOTAL AVG. COST PER MILE	$		205,712		443,069
COST RANGE PER MILE					
MINIMUM	$		201,282		3)
MAXIMUM	$		207,927		

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE B-2

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		20 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED			24.10	7.50	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		3,758,646	824,564	
MATERIAL % OF THE TOTAL $		%	50.9	42.7	
MATERIAL AVG. COST PER MILE	$		155,960	109,942	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$		551,390	11,000	
ENGINEERING ... % OF THE TOTAL $		%	7.5	0.6	
ENGINEERING ... AVG. COST PER MILE	$		22,879	1,467	
LABOR					
TOTAL LABOR	$		2,249,749	828,582	
LABOR % OF THE TOTAL $		%	30.5	42.9	
LABOR AVG. COST PER MILE	$		93,351	110,478	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$		304,118	--	
RIGHT-OF-WAY ... % OF THE TOTAL $		%	4.1	--	
RIGHT-OF-WAY ... AVG. COST PER MILE	$		12,619	--	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$		64,465	--	
OVERHEAD	$		457,065	54,043	
OTHER MISCELLANEOUS 1)	$		--	211,392	
TOTAL MISCELLANEOUS	$		521,530	265,435	
MISCELLANEOUS % OF THE TOTAL $		%	7.1	13.8	
MISCELLANEOUS AVG. COST PER MILE	$		21,640	35,391	
TOTAL COST					
TOTAL COST	$	2)	7,385,433	1,929,581	2)
TOTAL AVG. COST PER MILE	$		306,450	257,277	
COST RANGE PER MILE					
MINIMUM	$		289,505	3)	
MAXIMUM	$		325,484		

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE B-2

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		24 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED				5.05	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$			1,510,601	
MATERIAL % OF THE TOTAL $		%		17.6	
MATERIAL AVG. COST PER MILE	$			299,129	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$			1,047,748	
ENGINEERING ... % OF THE TOTAL $		%		12.2	
ENGINEERING ... AVG. COST PER MILE	$			207,475	
LABOR					
TOTAL LABOR	$			4,335,140	
LABOR % OF THE TOTAL $		%		50.6	
LABOR AVG. COST PER MILE	$			858,444	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$			800,881	
RIGHT-OF-WAY ... % OF THE TOTAL $		%		9.4	
RIGHT-OF-WAY ... AVG. COST PER MILE	$			158,590	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$			211,774	
OVERHEAD	$			580,489	
OTHER MISCELLANEOUS 1)	$			78,564	
TOTAL MISCELLANEOUS	$			870,827	
MISCELLANEOUS % OF THE TOTAL $		%		10.2	
MISCELLANEOUS AVG. COST PER MILE	$			172,441	
TOTAL COST					
TOTAL COST	$	2)	2)	8,565,197	2)
TOTAL AVG. COST PER MILE	$			1,696,079	
COST RANGE PER MILE					
MINIMUM	$			3)	
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE B-2

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		30 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED				12.39	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$			2,859,702	
MATERIAL % OF THE TOTAL $		%		30.2	
MATERIAL AVG. COST PER MILE	$			230,807	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$			786,413	
ENGINEERING ... % OF THE TOTAL $		%		8.3	
ENGINEERING ... AVG. COST PER MILE	$			63,472	
LABOR					
TOTAL LABOR	$			4,849,319	
LABOR % OF THE TOTAL $		%		51.2	
LABOR AVG. COST PER MILE	$			391,390	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$			100,222	
RIGHT-OF-WAY ... % OF THE TOTAL $		%		1.1	
RIGHT-OF-WAY ... AVG. COST PER MILE	$			8,089	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$			400,055	
OVERHEAD	$			364,162	
OTHER MISCELLANEOUS 1)	$			111,640	
TOTAL MISCELLANEOUS	$			875,857	
MISCELLANEOUS % OF THE TOTAL $		%		9.2	
MISCELLANEOUS AVG. COST PER MILE	$			70,691	
TOTAL COST					
TOTAL COST	$	2)	2)	9,471,513	2)
TOTAL AVG. COST PER MILE	$			764,448	
COST RANGE PER MILE					
MINIMUM	$			3)	
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE B-2

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		36 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		20.27		68.29	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	9,595,346		23,122,854	
MATERIAL % OF THE TOTAL $		46.0%		36.6	
MATERIAL AVG. COST PER MILE	$	473,377		338,598	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	759,493		4,644,279	
ENGINEERING ... % OF THE TOTAL $		3.6%		7.3	
ENGINEERING ... AVG. COST PER MILE	$	37,469		68,008	
LABOR					
TOTAL LABOR	$	8,123,541		25,411,491	
LABOR % OF THE TOTAL $		38.9%		40.2	
LABOR AVG. COST PER MILE	$	400,767		372,111	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	643,462		2,993,183	
RIGHT-OF-WAY ... % OF THE TOTAL $		3.1%		4.7	
RIGHT-OF-WAY ... AVG. COST PER MILE	$	31,745		43,830	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	1,025,926		2,705,059	
OVERHEAD	$	655,428		3,813,186	
OTHER MISCELLANEOUS 1)	$	54,088		542,411	
TOTAL MISCELLANEOUS	$	1,735,442		7,060,656	
MISCELLANEOUS % OF THE TOTAL $		8.3%		11.2	
MISCELLANEOUS AVG. COST PER MILE	$	85,616		103,392	
TOTAL COST					
TOTAL COST	$	20,857,284	2)	63,232,463	2)
TOTAL AVG. COST PER MILE	$	1,028,973		925,940	
COST RANGE PER MILE					
MINIMUM	$	3)		788,341	
MAXIMUM	$			1,883,511	

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

TABLE B-3 OFFSHORE PIPELINE

PART A

TABLE B-3

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		6 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED				8.87	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$			464,032	
MATERIAL % OF THE TOTAL $		%		18.1	
MATERIAL AVG. COST PER MILE	$			52,315	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$			630,059	
ENGINEERING ... % OF THE TOTAL $		%		24.6	
ENGINEERING ... AVG. COST PER MILE	$			71,033	
LABOR					
TOTAL LABOR	$			1,256,486	
LABOR % OF THE TOTAL $		%		49.0	
LABOR AVG. COST PER MILE	$			141,656	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$			3,515	
RIGHT-OF-WAY ... % OF THE TOTAL $		%		0.1	
RIGHT-OF-WAY ... AVG. COST PER MILE	$			396	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$			12,349	
OVERHEAD	$			194,479	
OTHER MISCELLANEOUS 1)	$			904	
TOTAL MISCELLANEOUS	$			207,732	
MISCELLANEOUS % OF THE TOTAL $		%		8.1	
MISCELLANEOUS AVG. COST PER MILE	$			23,420	
TOTAL COST					
TOTAL COST	$	2)	2)	2,561,824	2)
TOTAL AVG. COST PER MILE	$			288,819	
COST RANGE PER MILE					
MINIMUM	$			271,271	
MAXIMUM	$			319,912	

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.

PART A

TABLE B-3

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		10 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED			10.14		
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		1,626,651		
MATERIAL % OF THE TOTAL $		%	29.6		
MATERIAL AVG. COST PER MILE	$		160,419		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$		714,242		
ENGINEERING ... % OF THE TOTAL $		%	13.0		
ENGINEERING ... AVG. COST PER MILE	$		70,438		
LABOR					
TOTAL LABOR	$		2,690,437		
LABOR % OF THE TOTAL $		%	48.9		
LABOR AVG. COST PER MILE	$		265,329		
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$		--		
RIGHT-OF-WAY ... % OF THE TOTAL $		%	--		
RIGHT-OF-WAY ... AVG. COST PER MILE	$		--		
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$		177,737		
OVERHEAD	$		294,356		
OTHER MISCELLANEOUS 1)	$		--		
TOTAL MISCELLANEOUS	$		472,093		
MISCELLANEOUS % OF THE TOTAL $		%	8.6		
MISCELLANEOUS AVG. COST PER MILE	$		46,557		
TOTAL COST					
TOTAL COST	$	2)	5,503,423	2)	2)
TOTAL AVG. COST PER MILE	$		542,744		
COST RANGE PER MILE					
MINIMUM	$		491,402		
MAXIMUM	$		664,937		

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.

PART A

TABLE B-3

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

	12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
	1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED	41.61	12.94	13.06	7.60
COST DATA				
MATERIALS				
TOTAL MATERIALS	$ 11,524,977	3,806,654	1,549,715	1,055,421
MATERIAL % OF THE TOTAL $	36.5%	37.5	31.2	36.0
MATERIAL AVG. COST PER MILE	$ 276,976	294,177	118,661	138,871
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY				
TOTAL ENGINEERING ...	$ 1,046,584	754,470	291,605	248,475
ENGINEERING ... % OF THE TOTAL $	3.3%	7.4	5.9	8.5
ENGINEERING ... AVG. COST PER MILE	$ 25,152	58,305	22,328	32,694
LABOR				
TOTAL LABOR	$ 15,146,617	4,906,172	2,959,116	1,577,892
LABOR % OF THE TOTAL $	47.9%	48.3	59.6	53.8
LABOR AVG. COST PER MILE	$ 364,014	379,148	226,579	207,617
RIGHT-OF-WAY AND DAMAGES				
TOTAL RIGHT-OF-WAY ...	$ 156,161	410	--	--
RIGHT-OF-WAY ... % OF THE TOTAL $	0.5%	0.0	--	--
RIGHT-OF-WAY ... AVG. COST PER MILE	$ 3,753	32	--	--
MISCELLANEOUS				
INTEREST DURING CONSTRUCTION	$ 1,440,290	197,630	158,344	--
OVERHEAD	$ 2,079,792	482,215	5,951	--
OTHER MISCELLANEOUS 1)	$ 201,713	755	310	50,000
TOTAL MISCELLANEOUS	$ 3,721,795	680,600	164,605	50,000
MISCELLANEOUS % OF THE TOTAL $	11.8%	6.7	3.3	1.7
MISCELLANEOUS AVG. COST PER MILE	$ 89,445	52,597	12,604	6,579
TOTAL COST				
TOTAL COST	$ 31,596,134	10,148,306	4,965,041	2,931,788
TOTAL AVG. COST PER MILE	$ 759,340	784,259	380,172	385,762
COST RANGE PER MILE				
MINIMUM	$ 435,315	717,871	2)	2)
MAXIMUM	$ 1,526,088	896,841		

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE B-3

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		14 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED				11.40	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$			2,676,404	
MATERIAL % OF THE TOTAL $		%		28.9	
MATERIAL AVG. COST PER MILE	$			234,772	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$			167,018	
ENGINEERING ... % OF THE TOTAL $		%		1.8	
ENGINEERING ... AVG. COST PER MILE	$			14,651	
LABOR					
TOTAL LABOR	$			6,118,555	
LABOR % OF THE TOTAL $		%		66.1	
LABOR AVG. COST PER MILE	$			536,715	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$			180	
RIGHT-OF-WAY ... % OF THE TOTAL $		%		0.0	
RIGHT-OF-WAY ... AVG. COST PER MILE	$			16	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$			290,715	
OVERHEAD	$			--	
OTHER MISCELLANEOUS 1)	$			--	
TOTAL MISCELLANEOUS	$			290,715	
MISCELLANEOUS % OF THE TOTAL $		%		3.1	
MISCELLANEOUS AVG. COST PER MILE	$			25,501	
TOTAL COST					
TOTAL COST	$	2)	2)	9,252,872	2)
TOTAL AVG. COST PER MILE	$			811,655	
COST RANGE PER MILE					
MINIMUM	$			3)	
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE B-3

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		16 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		6.00	19.23	6.40	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	1,925,565	3,741,900	1,066,131	
MATERIAL % OF THE TOTAL $		37.5%	31.1	22.7	
MATERIAL AVG. COST PER MILE	$	320,928	194,587	166,583	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	326,665	357,517	558,377	
ENGINEERING ... % OF THE TOTAL $		6.4%	3.0	11.9	
ENGINEERING ... AVG. COST PER MILE	$	54,444	18,592	87,246	
LABOR					
TOTAL LABOR	$	2,206,729	6,901,545	2,708,309	
LABOR % OF THE TOTAL $		42.9%	57.3	57.7	
LABOR AVG. COST PER MILE	$	367,788	358,895	423,173	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	--	2,839	13,728	
RIGHT-OF-WAY ... % OF THE TOTAL $		--%	0.0	0.3	
RIGHT-OF-WAY ... AVG. COST PER MILE	$	--	148	2,145	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	298,055	463,886	22,385	
OVERHEAD	$	382,625	580,747	247,154	
OTHER MISCELLANEOUS 1)	$	--	--	78,340	
TOTAL MISCELLANEOUS	$	680,680	1,044,633	347,879	
MISCELLANEOUS % OF THE TOTAL $		13.2%	8.7	7.4	
MISCELLANEOUS AVG. COST PER MILE	$	113,447	54,323	54,356	
TOTAL COST					
TOTAL COST	$	5,139,639	12,048,434	4,694,424	2)
TOTAL AVG. COST PER MILE	$	856,607	626,544	733,504	
COST RANGE PER MILE					
MINIMUM	$	3)	595,159	3)	
MAXIMUM	$		658,488		

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE B-3

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		20 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		20.30		56.62	25.00
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	6,535,455		15,666,420	5,310,977
MATERIAL % OF THE TOTAL $		42.8%		35.2	39.8
MATERIAL AVG. COST PER MILE	$	321,944		276,694	212,439
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	917,169		2,047,740	380,310
ENGINEERING ... % OF THE TOTAL $		6.0%		4.6	2.8
ENGINEERING ... AVG. COST PER MILE	$	45,181		36,166	15,212
LABOR					
TOTAL LABOR	$	5,625,110		21,546,428	5,526,453
LABOR % OF THE TOTAL $		36.8%		48.4	41.4
LABOR AVG. COST PER MILE	$	277,099		380,544	221,058
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	515		25,874	--
RIGHT-OF-WAY ... % OF THE TOTAL $		0.0%		0.1	--
RIGHT-OF-WAY ... AVG. COST PER MILE	$	25		457	--
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	1,145,649		3,947,372	87,377
OVERHEAD	$	1,049,352		1,235,081	203,879
OTHER MISCELLANEOUS 1)	$	--		12,766	1,848,124
TOTAL MISCELLANEOUS	$	2,195,001		5,195,219	2,139,380
MISCELLANEOUS % OF THE TOTAL $		14.4%		11.7	16.0
MISCELLANEOUS AVG. COST PER MILE	$	108,128		91,756	85,575
TOTAL COST					
TOTAL COST	$	15,273,250	2)	44,481,681	13,357,120
TOTAL AVG. COST PER MILE	$	752,377		785,618	534,285
COST RANGE PER MILE					
MINIMUM	$	3)		703,618	3)
MAXIMUM	$			1,424,273	

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE B-3

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		24 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED			7.70	26.97	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		3,500,713	6,878,587	
MATERIAL % OF THE TOTAL $		%	29.4	39.6	
MATERIAL AVG. COST PER MILE	$		454,638	255,046	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$		583,095	1,107,806	
ENGINEERING ... % OF THE TOTAL $		%	4.9	6.4	
ENGINEERING ... AVG. COST PER MILE	$		75,727	41,075	
LABOR					
TOTAL LABOR	$		6,435,714	7,723,339	
LABOR % OF THE TOTAL $		%	54.1	44.4	
LABOR AVG. COST PER MILE	$		835,807	286,368	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$		2,538	505	
RIGHT-OF-WAY ... % OF THE TOTAL $		%	0.0	0.0	
RIGHT-OF-WAY ... AVG. COST PER MILE	$		330	19	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$		348,990	773,520	
OVERHEAD	$		1,030,901	899,535	
OTHER MISCELLANEOUS 1)	$		--	1,100	
TOTAL MISCELLANEOUS	$		1,379,891	1,674,155	
MISCELLANEOUS % OF THE TOTAL $		%	11.6	9.6	
MISCELLANEOUS AVG. COST PER MILE	$		179,207	62,075	
TOTAL COST					
TOTAL COST	$	2)	11,901,951	17,384,392	2)
TOTAL AVG. COST PER MILE	$		1,545,708	644,583	
COST RANGE PER MILE					
MINIMUM	$		1,270,459	3)	
MAXIMUM	$		1,775,082		

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE B-3

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		30 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED			20.20	10.98	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		11,348,287	4,941,378	
MATERIAL % OF THE TOTAL $		%	38.3	40.0	
MATERIAL AVG. COST PER MILE	$		561,796	450,034	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$		463,555	603,219	
ENGINEERING ... % OF THE TOTAL $		%	1.6	4.9	
ENGINEERING ... AVG. COST PER MILE	$		22,948	54,938	
LABOR					
TOTAL LABOR	$		13,740,967	5,965,838	
LABOR % OF THE TOTAL $		%	46.4	48.3	
LABOR AVG. COST PER MILE	$		680,246	543,337	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$		81,967	265	
RIGHT-OF-WAY ... % OF THE TOTAL $		%	0.3	0.0	
RIGHT-OF-WAY ... AVG. COST PER MILE	$		4,058	24	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$		948,150	326,301	
OVERHEAD	$		3,059,020	513,991	
OTHER MISCELLANEOUS 1)	$		--	--	
TOTAL MISCELLANEOUS	$		4,007,170	840,292	
MISCELLANEOUS % OF THE TOTAL $		%	13.5	6.8	
MISCELLANEOUS AVG. COST PER MILE	$		198,375	76,529	
TOTAL COST					
TOTAL COST	$	2)	29,641,946	12,350,992	2)
TOTAL AVG. COST PER MILE	$		1,467,423	1,124,863	
COST RANGE PER MILE					
MINIMUM	$		3)	3)	
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE B-3

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		36 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED				32.53	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$			22,517,034	
MATERIAL % OF THE TOTAL $		%		44.5	
MATERIAL AVG. COST PER MILE	$			692,193	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$			1,536,361	
ENGINEERING ... % OF THE TOTAL $		%		3.0	
ENGINEERING ... AVG. COST PER MILE	$			47,229	
LABOR					
TOTAL LABOR	$			16,620,023	
LABOR % OF THE TOTAL $		%		32.8	
LABOR AVG. COST PER MILE	$			510,914	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$			60,600	
RIGHT-OF-WAY ... % OF THE TOTAL $		%		0.1	
RIGHT-OF-WAY ... AVG. COST PER MILE	$			1,863	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$			6,118,245	
OVERHEAD	$			3,790,277	
OTHER MISCELLANEOUS 1)	$			--	
TOTAL MISCELLANEOUS	$			9,908,522	
MISCELLANEOUS % OF THE TOTAL $		%		19.6	
MISCELLANEOUS AVG. COST PER MILE	$			304,596	
TOTAL COST					
TOTAL COST	$	2)	2)	50,642,540	2)
TOTAL AVG. COST PER MILE	$			1,556,795	
COST RANGE PER MILE					
MINIMUM	$			3)	
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

TABLE C-1 TRANSMISSION PIPELINE

PART A

TABLE C-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		3 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		1.20			
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	18,391			
MATERIAL % OF THE TOTAL $		31.2%			
MATERIAL AVG. COST PER MILE	$	15,326			
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	--			
ENGINEERING ... % OF THE TOTAL $		--%			
ENGINEERING ... AVG. COST PER MILE	$	--			
LABOR					
TOTAL LABOR	$	35,404			
LABOR % OF THE TOTAL $		60.0%			
LABOR AVG. COST PER MILE	$	29,503			
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	2,170			
RIGHT-OF-WAY ... % OF THE TOTAL $		3.7%			
RIGHT-OF-WAY ... AVG. COST PER MILE	$	1,808			
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	601			
OVERHEAD	$	1,793			
OTHER MISCELLANEOUS 1)	$	633			
TOTAL MISCELLANEOUS	$	3,027			
MISCELLANEOUS % OF THE TOTAL $		5.1%			
MISCELLANEOUS AVG. COST PER MILE	$	2,523			
TOTAL COST					
TOTAL COST	$	58,992	2)	2)	2)
TOTAL AVG. COST PER MILE	$	49,160			
COST RANGE PER MILE					
MINIMUM	$	3)			
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE C-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		4 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		4.30			
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	122,039			
MATERIAL % OF THE TOTAL $		28.9%			
MATERIAL AVG. COST PER MILE	$	28,381			
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	--			
ENGINEERING ... % OF THE TOTAL $		--%			
ENGINEERING ... AVG. COST PER MILE	$	--			
LABOR					
TOTAL LABOR	$	235,084			
LABOR % OF THE TOTAL $		55.7%			
LABOR AVG. COST PER MILE	$	54,671			
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	20,738			
RIGHT-OF-WAY ... % OF THE TOTAL $		4.9%			
RIGHT-OF-WAY ... AVG. COST PER MILE	$	4,823			
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	5,498			
OVERHEAD	$	20,668			
OTHER MISCELLANEOUS 1)	$	17,828			
TOTAL MISCELLANEOUS	$	43,994			
MISCELLANEOUS % OF THE TOTAL $		10.4%			
MISCELLANEOUS AVG. COST PER MILE	$	10,231			
TOTAL COST					
TOTAL COST	$	421,855	2)	2)	2)
TOTAL AVG. COST PER MILE	$	98,106			
COST RANGE PER MILE					
MINIMUM	$	56,543			
MAXIMUM	$	158,127			

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.

PART A

TABLE C-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		6 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		14.90	0.24		
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	403,926	36,736		
MATERIAL % OF THE TOTAL $		28.7%	37.5		
MATERIAL AVG. COST PER MILE	$	27,109	153,067		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	--	--		
ENGINEERING ... % OF THE TOTAL $		--%	--		
ENGINEERING ... AVG. COST PER MILE	$	--	--		
LABOR					
TOTAL LABOR	$	778,554	57,277		
LABOR % OF THE TOTAL $		55.3%	58.4		
LABOR AVG. COST PER MILE	$	52,252	238,654		
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	36,371	--		
RIGHT-OF-WAY ... % OF THE TOTAL $		2.6%	--		
RIGHT-OF-WAY ... AVG. COST PER MILE	$	2,441	--		
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	12,823	--		
OVERHEAD	$	91,113	3,988		
OTHER MISCELLANEOUS 1)	$	85,477	--		
TOTAL MISCELLANEOUS	$	189,413	3,988		
MISCELLANEOUS % OF THE TOTAL $		13.5%	4.1		
MISCELLANEOUS AVG. COST PER MILE	$	12,712	16,617		
TOTAL COST					
TOTAL COST	$	1,408,264	98,001	2)	2)
TOTAL AVG. COST PER MILE	$	94,514	408,338		
COST RANGE PER MILE					
MINIMUM	$	62,859	3)		
MAXIMUM	$	151,333			

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE C-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		8 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		5.70	0.26		
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	187,363	21,459		
MATERIAL % OF THE TOTAL $		27.7%	58.0		
MATERIAL AVG. COST PER MILE	$	32,871	82,535		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	--	--		
ENGINEERING ... % OF THE TOTAL $		--%	--		
ENGINEERING ... AVG. COST PER MILE	$	--	--		
LABOR					
TOTAL LABOR	$	429,929	12,200		
LABOR % OF THE TOTAL $		63.6%	33.0		
LABOR AVG. COST PER MILE	$	75,426	46,923		
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	14,270	--		
RIGHT-OF-WAY ... % OF THE TOTAL $		2.1%	--		
RIGHT-OF-WAY ... AVG. COST PER MILE	$	2,504	--		
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	5,305	--		
OVERHEAD	$	26,141	3,339		
OTHER MISCELLANEOUS 1)	$	13,474	--		
TOTAL MISCELLANEOUS	$	44,920	3,339		
MISCELLANEOUS % OF THE TOTAL $		6.6%	9.0		
MISCELLANEOUS AVG. COST PER MILE	$	7,881	12,842		
TOTAL COST					
TOTAL COST	$	676,482	36,998	2)	2)
TOTAL AVG. COST PER MILE	$	118,681	142,300		
COST RANGE PER MILE					
MINIMUM	$	115,000	3)		
MAXIMUM	$	130,769			

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE C-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED					0.50
COST DATA					
MATERIALS					
TOTAL MATERIALS	$				133,202
MATERIAL % OF THE TOTAL $		%			56.1
MATERIAL AVG. COST PER MILE	$				266,404
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$				55,904
ENGINEERING ... % OF THE TOTAL $		%			23.5
ENGINEERING ... AVG. COST PER MILE	$				111,808
LABOR					
TOTAL LABOR	$				48,458
LABOR % OF THE TOTAL $		%			20.4
LABOR AVG. COST PER MILE	$				96,916
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$				--
RIGHT-OF-WAY ... % OF THE TOTAL $		%			--
RIGHT-OF-WAY ... AVG. COST PER MILE	$				--
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$				--
OVERHEAD	$				--
OTHER MISCELLANEOUS 1)	$				--
TOTAL MISCELLANEOUS	$				--
MISCELLANEOUS % OF THE TOTAL $		%			--
MISCELLANEOUS AVG. COST PER MILE	$				--
TOTAL COST					
TOTAL COST	$	2)	2)	2)	237,564
TOTAL AVG. COST PER MILE	$				475,128
COST RANGE PER MILE					
MINIMUM	$				3)
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE C-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		16 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		6.48			
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	488,041			
MATERIAL % OF THE TOTAL $		33.3%			
MATERIAL AVG. COST PER MILE	$	75,315			
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	7,556			
ENGINEERING ... % OF THE TOTAL $		0.5%			
ENGINEERING ... AVG. COST PER MILE	$	1,166			
LABOR					
TOTAL LABOR	$	889,696			
LABOR % OF THE TOTAL $		60.7%			
LABOR AVG. COST PER MILE	$	137,299			
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	14,381			
RIGHT-OF-WAY ... % OF THE TOTAL $		1.0%			
RIGHT-OF-WAY ... AVG. COST PER MILE	$	2,219			
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	15,437			
OVERHEAD	$	24,551			
OTHER MISCELLANEOUS 1)	$	27,045			
TOTAL MISCELLANEOUS	$	67,033			
MISCELLANEOUS % OF THE TOTAL $		4.6%			
MISCELLANEOUS AVG. COST PER MILE	$	10,345			
TOTAL COST					
TOTAL COST	$	1,466,707	2)	2)	2)
TOTAL AVG. COST PER MILE	$	226,344			
COST RANGE PER MILE					
MINIMUM	$	190,011			
MAXIMUM	$	262,565			

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.

PART A

TABLE C-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		20 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		0.28	2.00		2.50
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	234,894	396,598		248,223
MATERIAL % OF THE TOTAL $		71.6%	12.5		29.5
MATERIAL AVG. COST PER MILE	$	838,907	198,299		99,289
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	18,740	--		--
ENGINEERING ... % OF THE TOTAL $		5.7%	--		--
ENGINEERING ... AVG. COST PER MILE	$	66,929	--		--
LABOR					
TOTAL LABOR	$	53,637	2,383,222		390,739
LABOR % OF THE TOTAL $		16.4%	75.2		46.5
LABOR AVG. COST PER MILE	$	191,561	1,191,611		156,296
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	--	7,861		13,970
RIGHT-OF-WAY ... % OF THE TOTAL $		--%	0.2		1.7
RIGHT-OF-WAY ... AVG. COST PER MILE	$	--	3,931		5,588
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	--	44,897		12,024
OVERHEAD	$	20,640	290,341		148,255
OTHER MISCELLANEOUS 1)	$	--	47,986		26,908
TOTAL MISCELLANEOUS	$	20,640	383,224		187,187
MISCELLANEOUS % OF THE TOTAL $		6.3%	12.1		22.3
MISCELLANEOUS AVG. COST PER MILE	$	73,714	191,612		74,875
TOTAL COST					
TOTAL COST	$	327,911	3,170,905	2)	840,119
TOTAL AVG. COST PER MILE	$	1,171,111	1,585,453		336,048
COST RANGE PER MILE					
MINIMUM	$	3)	278,394		3)
MAXIMUM	$		3,182,969		

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE C-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		22 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED				0.67	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$			422,000	
MATERIAL % OF THE TOTAL $		%		23.4	
MATERIAL AVG. COST PER MILE	$			629,851	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$			--	
ENGINEERING ... % OF THE TOTAL $		%		--	
ENGINEERING ... AVG. COST PER MILE	$			--	
LABOR					
TOTAL LABOR	$			1,374,149	
LABOR % OF THE TOTAL $		%		76.3	
LABOR AVG. COST PER MILE	$			2,050,969	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$			4,121	
RIGHT-OF-WAY ... % OF THE TOTAL $		%		0.2	
RIGHT-OF-WAY ... AVG. COST PER MILE	$			6,151	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$			--	
OVERHEAD	$			--	
OTHER MISCELLANEOUS 1)	$			--	
TOTAL MISCELLANEOUS	$			--	
MISCELLANEOUS % OF THE TOTAL $		%		--	
MISCELLANEOUS AVG. COST PER MILE	$			--	
TOTAL COST					
TOTAL COST	$	2)	2)	1,800,270	2)
TOTAL AVG. COST PER MILE	$			2,686,970	
COST RANGE PER MILE					
MINIMUM	$			3)	
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE C-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		24 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		2.60	4.60	0.55	1.10
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	436,900	923,766	178,185	211,457
MATERIAL % OF THE TOTAL $		50.8%	38.0	37.9	30.6
MATERIAL AVG. COST PER MILE	$	168,038	200,819	323,973	192,234
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	--	5,559	15,094	--
ENGINEERING ... % OF THE TOTAL $		--%	0.2	3.2	--
ENGINEERING ... AVG. COST PER MILE	$	--	1,208	27,444	--
LABOR					
TOTAL LABOR	$	347,300	1,143,515	258,512	312,519
LABOR % OF THE TOTAL $		40.4%	47.0	55.0	45.2
LABOR AVG. COST PER MILE	$	133,577	248,590	470,022	284,108
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	14,000	49,995	--	11,347
RIGHT-OF-WAY ... % OF THE TOTAL $		1.6%	2.1	--	1.6
RIGHT-OF-WAY ... AVG. COST PER MILE	$	5,385	10,868	--	10,315
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	19,000	19,880	3,152	2,589
OVERHEAD	$	27,600	256,719	--	119,389
OTHER MISCELLANEOUS 1)	$	14,900	32,671	15,055	33,408
TOTAL MISCELLANEOUS	$	61,500	309,270	18,207	155,386
MISCELLANEOUS % OF THE TOTAL $		7.2%	12.7	3.9	22.5
MISCELLANEOUS AVG. COST PER MILE	$	23,654	67,233	33,104	141,260
TOTAL COST					
TOTAL COST	$	859,700	2,432,105	469,998	690,709
TOTAL AVG. COST PER MILE	$	330,654	528,718	854,542	627,917
COST RANGE PER MILE					
MINIMUM	$	2)	443,262	2)	2)
MAXIMUM	$		831,132		

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE C-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		30 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED			0.76	0.20 2)	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		841,851	86,983	
MATERIAL % OF THE TOTAL $	%		21.3	16.6	
MATERIAL AVG. COST PER MILE	$		1,107,699	434,915	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$		184,725	27,016	
ENGINEERING ... % OF THE TOTAL $	%		4.7	5.2	
ENGINEERING ... AVG. COST PER MILE	$		243,059	135,080	
LABOR					
TOTAL LABOR	$		2,252,311	320,860	
LABOR % OF THE TOTAL $	%		56.9	61.2	
LABOR AVG. COST PER MILE	$		2,963,567	1,604,300	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$		441,458	8,618	
RIGHT-OF-WAY ... % OF THE TOTAL $	%		11.1	1.6	
RIGHT-OF-WAY ... AVG. COST PER MILE	$		580,866	43,090	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$		40,542	5,057	
OVERHEAD	$		198,626	--	
OTHER MISCELLANEOUS 1)	$		1,010	75,357	
TOTAL MISCELLANEOUS	$		240,178	80,414	
MISCELLANEOUS % OF THE TOTAL $	%		6.1	15.3	
MISCELLANEOUS AVG. COST PER MILE	$		316,024	402,070	
TOTAL COST					
TOTAL COST	$	3)	3,960,523	523,891	3)
TOTAL AVG. COST PER MILE	$		5,211,214	2,619,455	
COST RANGE PER MILE					
MINIMUM	$		4)	4)	
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) INCLUDES 0.05 MILE OF 20 INCH TRANSMISSION PIPELINE.
3) NO REPORTS RECEIVED FOR THIS YEAR.
4) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE C-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		36 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		1.46	0.34		
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	449,880	439,658		
MATERIAL % OF THE TOTAL $		41.3%	55.4		
MATERIAL AVG. COST PER MILE	$	308,137	1,293,112		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	2,932	28,025		
ENGINEERING ... % OF THE TOTAL $		0.3%	3.5		
ENGINEERING ... AVG. COST PER MILE	$	2,008	82,426		
LABOR					
TOTAL LABOR	$	388,537	277,951		
LABOR % OF THE TOTAL $		35.6%	35.1		
LABOR AVG. COST PER MILE	$	266,121	817,503		
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	--	--		
RIGHT-OF-WAY ... % OF THE TOTAL $		--%	--		
RIGHT-OF-WAY ... AVG. COST PER MILE	$	--	--		
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	--	46,737		
OVERHEAD	$	17,992	572		
OTHER MISCELLANEOUS 1)	$	230,913	--		
TOTAL MISCELLANEOUS	$	248,905	47,309		
MISCELLANEOUS % OF THE TOTAL $		22.8%	6.0		
MISCELLANEOUS AVG. COST PER MILE	$	170,483	139,144		
TOTAL COST					
TOTAL COST	$	1,090,254	792,943	2)	2)
TOTAL AVG. COST PER MILE	$	746,749	2,332,185		
COST RANGE PER MILE					
MINIMUM	$	3)	3)		
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

TABLE C-2 LATERAL PIPELINE

PART A

TABLE C-2

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		2 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED				
		1983	1984	1985	1986	
MILES OF PIPE CONSTRUCTED					5.86	2)
COST DATA						
MATERIALS						
TOTAL MATERIALS	$				96,264	
MATERIAL % OF THE TOTAL $		%			44.5	
MATERIAL AVG. COST PER MILE	$				16,427	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY						
TOTAL ENGINEERING ...	$				12,911	
ENGINEERING ... % OF THE TOTAL $		%			6.0	
ENGINEERING ... AVG. COST PER MILE	$				2,203	
LABOR						
TOTAL LABOR	$				77,643	
LABOR % OF THE TOTAL $		%			35.9	
LABOR AVG. COST PER MILE	$				13,250	
RIGHT-OF-WAY AND DAMAGES						
TOTAL RIGHT-OF-WAY ...	$				19,686	
RIGHT-OF-WAY ... % OF THE TOTAL $		%			9.1	
RIGHT-OF-WAY ... AVG. COST PER MILE	$				3,359	
MISCELLANEOUS						
INTEREST DURING CONSTRUCTION	$				33	
OVERHEAD	$				9,792	
OTHER MISCELLANEOUS 1)	$				--	
TOTAL MISCELLANEOUS	$				9,825	
MISCELLANEOUS % OF THE TOTAL $		%			4.5	
MISCELLANEOUS AVG. COST PER MILE	$				1,677	
TOTAL COST						
TOTAL COST	$	3)	3)	3)	216,329	
TOTAL AVG. COST PER MILE	$				36,916	
COST RANGE PER MILE						
MINIMUM	$				32,004	
MAXIMUM	$				115,850	

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) INCLUDES 0.15 MILE OF 6 INCH LATERAL PIPELINE.
3) NO REPORTS RECEIVED FOR THIS YEAR.

PART A

TABLE C-2

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		3 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED					1.20
COST DATA					
MATERIALS					
TOTAL MATERIALS	$				27,811
MATERIAL % OF THE TOTAL $		%			39.9
MATERIAL AVG. COST PER MILE	$				23,176
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$				--
ENGINEERING ... % OF THE TOTAL $		%			--
ENGINEERING ... AVG. COST PER MILE	$				--
LABOR					
TOTAL LABOR	$				20,100
LABOR % OF THE TOTAL $		%			28.9
LABOR AVG. COST PER MILE	$				16,750
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$				3,202
RIGHT-OF-WAY ... % OF THE TOTAL $		%			4.6
RIGHT-OF-WAY ... AVG. COST PER MILE	$				2,668
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$				--
OVERHEAD	$				12,948
OTHER MISCELLANEOUS 1)	$				5,560
TOTAL MISCELLANEOUS	$				18,508
MISCELLANEOUS % OF THE TOTAL $		%			26.6
MISCELLANEOUS AVG. COST PER MILE	$				15,423
TOTAL COST					
TOTAL COST	$	2)	2)	2)	69,621
TOTAL AVG. COST PER MILE	$				58,018
COST RANGE PER MILE					
MINIMUM	$				3)
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE C-2

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE) REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		4 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		8.02 2)	2.60		0.19
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	411,520	96,538		10,454
MATERIAL % OF THE TOTAL $		41.5%	34.3		39.6
MATERIAL AVG. COST PER MILE	$	51,312	37,130		55,021
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	25,276	22,577		3,328
ENGINEERING ... % OF THE TOTAL $		2.6%	8.0		12.6
ENGINEERING ... AVG. COST PER MILE	$	3,152	8,683		17,516
LABOR					
TOTAL LABOR	$	355,194	120,582		10,268
LABOR % OF THE TOTAL $		35.8%	42.8		38.9
LABOR AVG. COST PER MILE	$	44,289	46,378		54,042
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	74,860	18,253		689
RIGHT-OF-WAY ... % OF THE TOTAL $		7.6%	6.5		2.6
RIGHT-OF-WAY ... AVG. COST PER MILE	$	9,334	7,020		3,626
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	39,184	2,668		--
OVERHEAD	$	84,989	20,890		1,639
OTHER MISCELLANEOUS 1)	$	24	--		--
TOTAL MISCELLANEOUS	$	124,197	23,558		1,639
MISCELLANEOUS % OF THE TOTAL $		12.5%	8.4		6.2
MISCELLANEOUS AVG. COST PER MILE	$	15,486	9,061		8,626
TOTAL COST					
TOTAL COST	$	991,047	281,508	3)	26,378
TOTAL AVG. COST PER MILE	$	123,572	108,272		138,832
COST RANGE PER MILE					
MINIMUM	$	112,820	4)		4)
MAXIMUM	$	130,865			

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) INCLUDES 0.76 MILE OF 3 INCH LATERAL PIPELINE.
3) NO REPORTS RECEIVED FOR THIS YEAR.
4) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE C-2

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		6 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED			2.05	4.52	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		203,056	93,906	
MATERIAL % OF THE TOTAL $		%	73.2	25.8	
MATERIAL AVG. COST PER MILE	$		99,052	20,776	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$		--	13,286	
ENGINEERING ... % OF THE TOTAL $		%	--	3.7	
ENGINEERING ... AVG. COST PER MILE	$		--	2,939	
LABOR					
TOTAL LABOR	$		74,382	246,195	
LABOR % OF THE TOTAL $		%	26.8	67.7	
LABOR AVG. COST PER MILE	$		36,284	54,468	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$		--	7,821	
RIGHT-OF-WAY ... % OF THE TOTAL $		%	--	2.2	
RIGHT-OF-WAY ... AVG. COST PER MILE	$		--	1,730	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$		--	1,695	
OVERHEAD	$		--	--	
OTHER MISCELLANEOUS 1)	$		--	785	
TOTAL MISCELLANEOUS	$		--	2,480	
MISCELLANEOUS % OF THE TOTAL $		%	--	0.7	
MISCELLANEOUS AVG. COST PER MILE	$		--	549	
TOTAL COST					
TOTAL COST	$	2)	277,438	363,688	2)
TOTAL AVG. COST PER MILE	$		135,336	80,462	
COST RANGE PER MILE					
MINIMUM	$		3)	69,317	
MAXIMUM	$			98,950	

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE C-2

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		8 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED				0.31	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$			14,317	
MATERIAL % OF THE TOTAL $		%		23.0	
MATERIAL AVG. COST PER MILE	$			46,184	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$			--	
ENGINEERING ... % OF THE TOTAL $		%		--	
ENGINEERING ... AVG. COST PER MILE	$			--	
LABOR					
TOTAL LABOR	$			47,814	
LABOR % OF THE TOTAL $		%		77.0	
LABOR AVG. COST PER MILE	$			154,239	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$			--	
RIGHT-OF-WAY ... % OF THE TOTAL $		%		--	
RIGHT-OF-WAY ... AVG. COST PER MILE	$			--	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$			--	
OVERHEAD	$			--	
OTHER MISCELLANEOUS 1)	$			--	
TOTAL MISCELLANEOUS	$			--	
MISCELLANEOUS % OF THE TOTAL $		%		--	
MISCELLANEOUS AVG. COST PER MILE	$			--	
TOTAL COST					
TOTAL COST	$	2)	2)	62,131	2)
TOTAL AVG. COST PER MILE	$			200,423	
COST RANGE PER MILE					
MINIMUM	$			3)	
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE C-2

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		10 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		1.02 2)		1.25	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	56,000		32,592	
MATERIAL % OF THE TOTAL $		54.0%		25.1	
MATERIAL AVG. COST PER MILE	$	54,902		26,074	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	--		--	
ENGINEERING ... % OF THE TOTAL $		--%		--	
ENGINEERING ... AVG. COST PER MILE	$	--		--	
LABOR					
TOTAL LABOR	$	43,800		97,355	
LABOR % OF THE TOTAL $		42.2%		74.9	
LABOR AVG. COST PER MILE	$	42,941		77,884	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	3,900		--	
RIGHT-OF-WAY ... % OF THE TOTAL $		3.8%		--	
RIGHT-OF-WAY ... AVG. COST PER MILE	$	3,824		--	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	--		--	
OVERHEAD	$	--		--	
OTHER MISCELLANEOUS 1)	$	--		--	
TOTAL MISCELLANEOUS	$	--		--	
MISCELLANEOUS % OF THE TOTAL $		--%		--	
MISCELLANEOUS AVG. COST PER MILE	$	--		--	
TOTAL COST					
TOTAL COST	$	103,700	3)	129,947	3)
TOTAL AVG. COST PER MILE	$	101,667		103,958	
COST RANGE PER MILE					
MINIMUM	$	4)		4)	
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) INCLUDES 0.09 MILE OF 6 INCH LATERAL PIPELINE.
3) NO REPORTS RECEIVED FOR THIS YEAR.
4) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE C-2

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		1.70 2)			
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	175,463			
MATERIAL % OF THE TOTAL $		38.1%			
MATERIAL AVG. COST PER MILE	$	103,214			
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	59,044			
ENGINEERING ... % OF THE TOTAL $		12.8%			
ENGINEERING ... AVG. COST PER MILE	$	34,732			
LABOR					
TOTAL LABOR	$	172,629			
LABOR % OF THE TOTAL $		37.4%			
LABOR AVG. COST PER MILE	$	101,546			
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	15,404			
RIGHT-OF-WAY ... % OF THE TOTAL $		3.3%			
RIGHT-OF-WAY ... AVG. COST PER MILE	$	9,061			
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	678			
OVERHEAD	$	37,757			
OTHER MISCELLANEOUS 1)	$	--			
TOTAL MISCELLANEOUS	$	38,435			
MISCELLANEOUS % OF THE TOTAL $		8.3%			
MISCELLANEOUS AVG. COST PER MILE	$	22,609			
TOTAL COST					
TOTAL COST	$	460,975	3)	3)	3)
TOTAL AVG. COST PER MILE	$	271,162			
COST RANGE PER MILE					
MINIMUM	$	4)			
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) INCLUDES 0.20 MILE OF 8 INCH LATERAL PIPELINE.
3) NO REPORTS RECEIVED FOR THIS YEAR.
4) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE C-2

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		30 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		0.90			
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	193,247			
MATERIAL % OF THE TOTAL $		49.7%			
MATERIAL AVG. COST PER MILE	$	214,719			
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	--			
ENGINEERING ... % OF THE TOTAL $		--%			
ENGINEERING ... AVG. COST PER MILE	$	--			
LABOR					
TOTAL LABOR	$	146,769			
LABOR % OF THE TOTAL $		37.7%			
LABOR AVG. COST PER MILE	$	163,077			
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	34,358			
RIGHT-OF-WAY ... % OF THE TOTAL $		8.8%			
RIGHT-OF-WAY ... AVG. COST PER MILE	$	38,176			
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	--			
OVERHEAD	$	14,626			
OTHER MISCELLANEOUS 1)	$	--			
TOTAL MISCELLANEOUS	$	14,626			
MISCELLANEOUS % OF THE TOTAL $		3.8%			
MISCELLANEOUS AVG. COST PER MILE	$	16,251			
TOTAL COST					
TOTAL COST	$	389,000	2)	2)	2)
TOTAL AVG. COST PER MILE	$	432,222			
COST RANGE PER MILE					
MINIMUM	$	3)			
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

TABLE C-3 OFFSHORE PIPELINE

PART A

TABLE C-3

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		6 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED			0.96		
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		219,252		
MATERIAL % OF THE TOTAL $		%	14.7		
MATERIAL AVG. COST PER MILE	$		228,388		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$		129,242		
ENGINEERING ... % OF THE TOTAL $		%	8.7		
ENGINEERING ... AVG. COST PER MILE	$		134,627		
LABOR					
TOTAL LABOR	$		953,447		
LABOR % OF THE TOTAL $		%	64.0		
LABOR AVG. COST PER MILE	$		993,174		
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$		--		
RIGHT-OF-WAY ... % OF THE TOTAL $		%	--		
RIGHT-OF-WAY ... AVG. COST PER MILE	$		--		
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$		27,297		
OVERHEAD	$		159,971		
OTHER MISCELLANEOUS 1)	$		65		
TOTAL MISCELLANEOUS	$		187,333		
MISCELLANEOUS % OF THE TOTAL $		%	12.6		
MISCELLANEOUS AVG. COST PER MILE	$		195,139		
TOTAL COST					
TOTAL COST	$	2)	1,489,274	2)	2)
TOTAL AVG. COST PER MILE	$		1,551,327		
COST RANGE PER MILE					
MINIMUM	$		3)		
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE C-3

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		8 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		1.74	0.98		
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	294,966	328,726		
MATERIAL % OF THE TOTAL $		19.0%	21.4		
MATERIAL AVG. COST PER MILE	$	169,521	335,435		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	--	110,786		
ENGINEERING ... % OF THE TOTAL $		--%	7.2		
ENGINEERING ... AVG. COST PER MILE	$	--	113,047		
LABOR					
TOTAL LABOR	$	1,197,259	928,041		
LABOR % OF THE TOTAL $		77.1%	60.3		
LABOR AVG. COST PER MILE	$	688,080	946,981		
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	28,061	--		
RIGHT-OF-WAY ... % OF THE TOTAL $		1.8%	--		
RIGHT-OF-WAY ... AVG. COST PER MILE	$	16,127	--		
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	31,884	20,664		
OVERHEAD	$	--	149,859		
OTHER MISCELLANEOUS 1)	$	--	--		
TOTAL MISCELLANEOUS	$	31,884	170,523		
MISCELLANEOUS % OF THE TOTAL $		2.1%	11.1		
MISCELLANEOUS AVG. COST PER MILE	$	18,324	174,003		
TOTAL COST					
TOTAL COST	$	1,552,170	1,538,076	2)	2)
TOTAL AVG. COST PER MILE	$	892,052	1,569,465		
COST RANGE PER MILE					
MINIMUM	$	3)	3)		
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

TABLE C-3

			10 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
			1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED				5.31	1.14	
COST DATA						
MATERIALS						
TOTAL MATERIALS	$			1,167,752	462,935	
MATERIAL % OF THE TOTAL $		%		19.7	17.3	
MATERIAL AVG. COST PER MILE	$			219,916	406,083	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY						
TOTAL ENGINEERING ...	$			327,510	160,729	
ENGINEERING ... % OF THE TOTAL $		%		5.5	6.0	
ENGINEERING ... AVG. COST PER MILE	$			61,678	140,990	
LABOR						
TOTAL LABOR	$			4,230,948	1,445,861	
LABOR % OF THE TOTAL $		%		71.5	53.9	
LABOR AVG. COST PER MILE	$			796,789	1,268,299	
RIGHT-OF-WAY AND DAMAGES						
TOTAL RIGHT-OF-WAY ...	$			145	--	
RIGHT-OF-WAY ... % OF THE TOTAL $		%		0.0	--	
RIGHT-OF-WAY ... AVG. COST PER MILE	$			27	--	
MISCELLANEOUS						
INTEREST DURING CONSTRUCTION	$			66,019	307,627	
OVERHEAD	$			128,956	302,155	
OTHER MISCELLANEOUS 1)	$			--	861	
TOTAL MISCELLANEOUS	$			194,975	610,643	
MISCELLANEOUS % OF THE TOTAL $		%		3.3	22.8	
MISCELLANEOUS AVG. COST PER MILE	$			36,718	535,652	
TOTAL COST						
TOTAL COST	$	2)		5,921,330	2,680,168	2)
TOTAL AVG. COST PER MILE	$			1,115,128	2,351,025	
COST RANGE PER MILE						
MINIMUM	$			886,908	3)	
MAXIMUM	$			1,389,749		

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE C-3

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		3.88	2.20	2.02	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	1,522,683	367,898	723,021	
MATERIAL % OF THE TOTAL $		18.7%	23.0	23.3	
MATERIAL AVG. COST PER MILE	$	392,444	167,226	357,931	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	385,610	--	182,605	
ENGINEERING ... % OF THE TOTAL $		4.7%	--	5.9	
ENGINEERING ... AVG. COST PER MILE	$	99,384	--	90,399	
LABOR					
TOTAL LABOR	$	5,667,734	1,039,781	1,645,062	
LABOR % OF THE TOTAL $		69.7%	65.1	53.0	
LABOR AVG. COST PER MILE	$	1,460,756	472,628	814,387	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	755	3,209	130	
RIGHT-OF-WAY ... % OF THE TOTAL $		0.0%	0.2	0.0	
RIGHT-OF-WAY ... AVG. COST PER MILE	$	195	1,459	64	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	183,420	44,100	362,682	
OVERHEAD	$	376,108	142,280	191,008	
OTHER MISCELLANEOUS 1)	$	429	--	1,406	
TOTAL MISCELLANEOUS	$	559,957	186,380	555,096	
MISCELLANEOUS % OF THE TOTAL $		6.9%	11.7	17.9	
MISCELLANEOUS AVG. COST PER MILE	$	144,319	84,718	274,800	
TOTAL COST					
TOTAL COST	$	8,136,739	1,597,268	3,105,914	2)
TOTAL AVG. COST PER MILE	$	2,097,098	726,031	1,537,581	
COST RANGE PER MILE					
MINIMUM	$	1,824,995	3)	3)	
MAXIMUM	$	2,204,764			

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE C-3

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		16 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED				0.43	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$			320,324	
MATERIAL % OF THE TOTAL $		%		13.1	
MATERIAL AVG. COST PER MILE	$			744,940	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$			400,592	
ENGINEERING ... % OF THE TOTAL $		%		16.4	
ENGINEERING ... AVG. COST PER MILE	$			931,609	
LABOR					
TOTAL LABOR	$			1,608,661	
LABOR % OF THE TOTAL $		%		65.8	
LABOR AVG. COST PER MILE	$			3,741,072	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$			--	
RIGHT-OF-WAY ... % OF THE TOTAL $		%		--	
RIGHT-OF-WAY ... AVG. COST PER MILE	$			--	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$			27,657	
OVERHEAD	$			64,534	
OTHER MISCELLANEOUS 1)	$			22,481	
TOTAL MISCELLANEOUS	$			114,672	
MISCELLANEOUS % OF THE TOTAL $		%		4.7	
MISCELLANEOUS AVG. COST PER MILE	$			266,679	
TOTAL COST					
TOTAL COST	$	2)	2)	2,444,249	2)
TOTAL AVG. COST PER MILE	$			5,684,300	
COST RANGE PER MILE					
MINIMUM	$			3)	
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE C-3

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		20 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED			1.20	0.85	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		1,006,658	300,190	
MATERIAL % OF THE TOTAL $		%	16.3	26.5	
MATERIAL AVG. COST PER MILE	$		838,882	353,165	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$		456,703	150,610	
ENGINEERING ... % OF THE TOTAL $		%	7.4	13.3	
ENGINEERING ... AVG. COST PER MILE	$		380,586	177,188	
LABOR					
TOTAL LABOR	$		4,143,729	470,060	
LABOR % OF THE TOTAL $		%	67.2	41.4	
LABOR AVG. COST PER MILE	$		3,453,108	553,012	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$		--	88	
RIGHT-OF-WAY ... % OF THE TOTAL $		%	--	0.0	
RIGHT-OF-WAY ... AVG. COST PER MILE	$		--	104	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$		244,499	163,341	
OVERHEAD	$		312,935	49,088	
OTHER MISCELLANEOUS 1)	$		2,687	1,406	
TOTAL MISCELLANEOUS	$		560,121	213,835	
MISCELLANEOUS % OF THE TOTAL $		%	9.1	18.8	
MISCELLANEOUS AVG. COST PER MILE	$		466,768	251,571	
TOTAL COST					
TOTAL COST	$	2)	6,167,211	1,134,783	2)
TOTAL AVG. COST PER MILE	$		5,139,343	1,335,039	
COST RANGE PER MILE					
MINIMUM	$		3)	3)	
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE C-3

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		24 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED			0.20	2.82	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		299,857	2,019,116	
MATERIAL % OF THE TOTAL $		%	27.0	30.3	
MATERIAL AVG. COST PER MILE	$		1,499,285	715,999	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$		50,832	514,055	
ENGINEERING ... % OF THE TOTAL $		%	4.6	7.7	
ENGINEERING ... AVG. COST PER MILE	$		254,160	182,289	
LABOR					
TOTAL LABOR	$		573,073	2,566,208	
LABOR % OF THE TOTAL $		%	51.6	38.5	
LABOR AVG. COST PER MILE	$		2,865,365	910,003	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$		--	--	
RIGHT-OF-WAY ... % OF THE TOTAL $		%	--	--	
RIGHT-OF-WAY ... AVG. COST PER MILE	$		--	--	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$		44,100	1,032,045	
OVERHEAD	$		142,280	524,744	
OTHER MISCELLANEOUS 1)	$		--	902	
TOTAL MISCELLANEOUS	$		186,380	1,557,691	
MISCELLANEOUS % OF THE TOTAL $		%	16.8	23.4	
MISCELLANEOUS AVG. COST PER MILE	$		931,900	552,373	
TOTAL COST					
TOTAL COST	$	2)	1,110,142	6,657,070	2)
TOTAL AVG. COST PER MILE	$		5,550,710	2,360,663	
COST RANGE PER MILE					
MINIMUM	$		3)	3)	
MAXIMUM	$				

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

TABLE D COMPRESSION CONSTRUCTION AND EXPENDITURES

COMPRESSION CONSTRUCTION AND EXPENDITURES
CONSTRUCTION ENDING IN 1982 THROUGH 1986

YEAR CONSTRUCTION ENDED	ONSHORE HORSEPOWER	ONSHORE EXPENDITURES	AVG. COST PER HORSEPOWER	OFFSHORE HORSEPOWER	OFFSHORE EXPENDITURES	AVG. COST PER HORSEPOWER	TOTAL HORSEPOWER	TOTAL EXPENDITURES	AVG. COST PER HORSEPOWER
1982	246,008	$335,866,423	$ 1,365	13,732	$ 34,442,442	$ 2,508	259,740	$370,308,865	$ 1,426
1983	55,150	99,703,475	1,808	--	--	--	55,150	99,703,475	1,808
1984	22,721	23,982,752	1,056	--	--	--	22,721	23,982,752	1,056
1985	49,420	70,894,642	1,435	6,600	11,781,449	1,785	56,020	82,676,091	1,476
1986	20,160	33,074,993	1,641	--	--	--	20,160	33,074,993	1,641

TABLE E-1 RECIPROCATING UNITS

PART A

TABLE E-1

COMPARISON OF CONSTRUCTION COSTS FOR TRANSMISSION COMPRESSOR STATIONS WITH RECIPROCATING UNITS REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		NEW TRANSMISSION COMPRESSOR STATIONS			
		1983	1984	1985	1986
DESCRIPTIVE DATA					
NUMBER OF UNITS		9	6	6	6
TOTAL HORSEPOWER		11,390	6,600	20,150	4,900
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	13,031,162	7,110,175	14,550,449	3,589,312
MATERIAL % OF THE TOTAL $		51.0%	53.4	69.6	64.5
MATERIAL AVG.COST PER HORSEPOWER	$	1,144	1,077	722	733
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING...	$	2,867,020	890,808	1,109,603	203,735
ENGINEERING ... % OF THE TOTAL $		11.2%	6.7	5.3	3.7
ENGINEERING ... AVG. COST PER HORSEPOWER	$	252	135	55	42
LABOR					
TOTAL LABOR	$	5,848,160	2,689,815	4,503,153	1,408,744
LABOR % OF THE TOTAL $		22.9%	20.2	21.5	25.3
LABOR AVG. COST PER HORSEPOWER	$	513	408	223	287
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	1,927,155	306,814	672,171	170,128
OVERHEAD	$	1,431,938	2,295,489	29,629	127,759
OTHER MISCELLANEOUS 1)	$	463,434	21,889	37,063	64,622
TOTAL MISCELLANEOUS	$	3,822,527	2,624,192	738,863	362,509
MISCELLANEOUS % OF THE TOTAL $		14.9%	19.7	3.5	6.5
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	336	398	37	74
TOTAL COST					
TOTAL COST	$	25,568,869	13,314,990	20,902,068	5,564,300
TOTAL AVG. COST PER HORSEPOWER	$	2,245	2,017	1,037	1,136
COST RANGE PER HORSEPOWER					
MINIMUM	$	894	1,668	945	1,065
MAXIMUM	$	3,524	2,367	1,435	1,536

1) CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

PART A

TABLE E-1

COMPARISON OF CONSTRUCTION COSTS FOR TRANSMISSION COMPRESSOR STATIONS WITH RECIPROCATING UNITS REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		ADDITIONS TO TRANSMISSION COMPRESSOR STATIONS			
		1983	1984	1985	1986
DESCRIPTIVE DATA					
NUMBER OF UNITS		6		2	3
TOTAL HORSEPOWER		10,675		2,200	7,200
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	11,664,407		1,566,405	5,429,681
MATERIAL % OF THE TOTAL $		46.2%		69.6	67.0
MATERIAL AVG.COST PER HORSEPOWER	$	1,093		712	754
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING...	$	776,719		44,451	557,716
ENGINEERING ... % OF THE TOTAL $		3.1%		2.0	6.9
ENGINEERING ... AVG. COST PER HORSEPOWER	$	73		20	77
LABOR					
TOTAL LABOR	$	8,152,675		356,302	1,915,695
LABOR % OF THE TOTAL $		32.3%		15.8	23.6
LABOR AVG. COST PER HORSEPOWER	$	764		162	266
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	1,289,849		65,181	187,248
OVERHEAD	$	2,190,511		217,766	--
OTHER MISCELLANEOUS 1)	$	1,163,452		--	19,139
TOTAL MISCELLANEOUS	$	4,643,812		282,947	206,387
MISCELLANEOUS % OF THE TOTAL $		18.4%		12.6	2.5
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	435		129	29
TOTAL COST					
TOTAL COST	$	25,237,613	2)	2,250,105	8,109,479
TOTAL AVG. COST PER HORSEPOWER	$	2,364		1,023	1,126
COST RANGE PER HORSEPOWER					
MINIMUM	$	1,396		3)	1,120
MAXIMUM	$	3,319			1,160

1) CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

TABLE E-2 TURBINE DRIVEN CENTRIFUGAL UNITS

PART A

TABLE E-2

COMPARISON OF CONSTRUCTION COSTS FOR
TRANSMISSION COMPRESSOR STATIONS WITH TURBINE DRIVEN CENTRIFUGAL UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		NEW TRANSMISSION COMPRESSOR STATIONS			
		1983	1984	1985	1986
DESCRIPTIVE DATA					
NUMBER OF UNITS		1		4	
TOTAL HORSEPOWER		3,830		14,560	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	1,653,797		9,257,646	
MATERIAL % OF THE TOTAL $		69.6%		33.7	
MATERIAL AVG.COST PER HORSEPOWER	$	432		636	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING...	$	60,164		2,152,573	
ENGINEERING ... % OF THE TOTAL $		2.5%		7.8	
ENGINEERING ... AVG. COST PER HORSEPOWER	$	16		148	
LABOR					
TOTAL LABOR	$	339,667		8,604,978	
LABOR % OF THE TOTAL $		14.3%		31.4	
LABOR AVG. COST PER HORSEPOWER	$	89		591	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	79,098		1,448,467	
OVERHEAD	$	244,289		945,425	
OTHER MISCELLANEOUS 1)	$	--		5,021,000	
TOTAL MISCELLANEOUS	$	323,387		7,414,892	
MISCELLANEOUS % OF THE TOTAL $		13.6%		27.0	
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	84		509	
TOTAL COST					
TOTAL COST	$	2,377,015	2)	27,430,089	2)
TOTAL AVG. COST PER HORSEPOWER	$	621		1,884	
COST RANGE PER HORSEPOWER					
MINIMUM	$	3)		1,253	
MAXIMUM	$			2,452	

1) CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE E-2

COMPARISON OF CONSTRUCTION COSTS FOR
TRANSMISSION COMPRESSOR STATIONS WITH TURBINE DRIVEN CENTRIFUGAL UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		ADDITIONS TO TRANSMISSION COMPRESSOR STATIONS			
		1983	1984	1985	1986
DESCRIPTIVE DATA					
NUMBER OF UNITS		2	2	2	2
TOTAL HORSEPOWER		2,320	11,600	7,280	7,830
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	1,502,188	4,745,693	6,119,109	8,938,266
MATERIAL % OF THE TOTAL $		59.7%	79.6	42.3	46.2
MATERIAL AVG.COST PER HORSEPOWER	$	647	409	841	1,142
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING...	$	--	289,465	722,000	735,000
ENGINEERING ... % OF THE TOTAL $		--%	4.9	5.0	3.8
ENGINEERING ... AVG. COST PER HORSEPOWER	$	--	25	99	94
LABOR					
TOTAL LABOR	$	678,666	734,667	5,239,209	8,517,158
LABOR % OF THE TOTAL $		27.0%	12.3	36.2	44.1
LABOR AVG. COST PER HORSEPOWER	$	293	63	720	1,088
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	76,117	148,209	766,471	776,686
OVERHEAD	$	124,885	--	842,495	--
OTHER MISCELLANEOUS 1)	$	133,473	43,666	774,567	365,000
TOTAL MISCELLANEOUS	$	334,475	191,875	2,383,533	1,141,686
MISCELLANEOUS % OF THE TOTAL $		13.3%	3.2	16.5	5.9
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	144	17	327	146
TOTAL COST					
TOTAL COST	$	2,515,329	5,961,700	14,463,851	19,332,110
TOTAL AVG. COST PER HORSEPOWER	$	1,084	514	1,987	2,469
COST RANGE PER HORSEPOWER					
MINIMUM	$	1,059	2)	1,894	1,877
MAXIMUM	$	1,110		2,090	3,036

1) CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.
2) ONE REPORT RECEIVED FOR THIS YEAR.

TABLE F-1 RECIPROCATING UNITS

PART A

TABLE F-1

COMPARISON OF CONSTRUCTION COSTS FOR
FIELD COMPRESSOR STATIONS WITH RECIPROCATING UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		NEW FIELD COMPRESSOR STATIONS			
		1983	1984	1985	1986
DESCRIPTIVE DATA					
NUMBER OF UNITS		10	1		
TOTAL HORSEPOWER		18,368	521		
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	17,389,830	706,407		
MATERIAL % OF THE TOTAL $		60.0%	53.4		
MATERIAL AVG.COST PER HORSEPOWER	$	947	1,356		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING...	$	2,651,961	262,083		
ENGINEERING ... % OF THE TOTAL $		9.1%	19.8		
ENGINEERING ... AVG. COST PER HORSEPOWER	$	144	503		
LABOR					
TOTAL LABOR	$	4,628,554	177,730		
LABOR % OF THE TOTAL $		16.0%	13.4		
LABOR AVG. COST PER HORSEPOWER	$	252	341		
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	2,796,296	68,550		
OVERHEAD	$	867,382	107,601		
OTHER MISCELLANEOUS 1)	$	652,707	--		
TOTAL MISCELLANEOUS	$	4,316,385	176,151		
MISCELLANEOUS % OF THE TOTAL $		14.9%	13.3		
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	235	338		
TOTAL COST					
TOTAL COST	$	28,986,730	1,322,371	2)	2)
TOTAL AVG. COST PER HORSEPOWER	$	1,578	2,538		
COST RANGE PER HORSEPOWER					
MINIMUM	$	1,061	3)		
MAXIMUM	$	2,103			

1) CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE F-1

COMPARISON OF CONSTRUCTION COSTS FOR
FIELD COMPRESSOR STATIONS WITH RECIPROCATING UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		ADDITIONS TO FIELD COMPRESSOR STATIONS			
		1983	1984	1985	1986
DESCRIPTIVE DATA					
NUMBER OF UNITS		3	2		1
TOTAL HORSEPOWER		4,872	4,000		230
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	6,311,080	2,351,940		42,604
MATERIAL % OF THE TOTAL $		61.9%	69.5		61.7
MATERIAL AVG.COST PER HORSEPOWER	$	1,295	588		185
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING...	$	1,293,604	284,089		3,830
ENGINEERING ... % OF THE TOTAL $		12.7%	8.4		5.5
ENGINEERING ... AVG. COST PER HORSEPOWER	$	266	71		17
LABOR					
TOTAL LABOR	$	1,228,960	570,575		21,547
LABOR % OF THE TOTAL $		12.1%	16.9		31.2
LABOR AVG. COST PER HORSEPOWER	$	252	143		94
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	945,399	51,036		1,091
OVERHEAD	$	410,603	126,051		--
OTHER MISCELLANEOUS 1)	$	--	--		32
TOTAL MISCELLANEOUS	$	1,356,002	177,087		1,123
MISCELLANEOUS % OF THE TOTAL $		13.3%	5.2		1.6
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	278	44		5
TOTAL COST					
TOTAL COST	$	10,189,646	3,383,691	2)	69,104
TOTAL AVG. COST PER HORSEPOWER	$	2,091	846		300
COST RANGE PER HORSEPOWER					
MINIMUM	$	1,123	3)		3)
MAXIMUM	$	2,547			

1) CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

TABLE F-2 TURBINE DRIVEN CENTRIFUGAL UNITS

PART A

TABLE F-2

COMPARISON OF CONSTRUCTION COSTS FOR
FIELD COMPRESSOR STATIONS WITH TURBINE DRIVEN CENTRIFUGAL UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1982

		NEW FIELD COMPRESSOR STATIONS
		1982
DESCRIPTIVE DATA		
NUMBER OF UNITS		16
TOTAL HORSEPOWER		19,000
COST DATA		
MATERIALS		
TOTAL MATERIALS	$	12,904,500
MATERIAL % OF THE TOTAL $		45.2%
MATERIAL AVG.COST PER HORSEPOWER	$	679
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING...	$	--
ENGINEERING ... % OF THE TOTAL $		--%
ENGINEERING ... AVG. COST PER HORSEPOWER	$	--
LABOR		
TOTAL LABOR	$	14,475,210
LABOR % OF THE TOTAL $		50.7%
LABOR AVG. COST PER HORSEPOWER	$	762
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION	$	643,744
OVERHEAD	$	315,174
OTHER MISCELLANEOUS 1)	$	238,776
TOTAL MISCELLANEOUS	$	1,197,694
MISCELLANEOUS % OF THE TOTAL $		4.2%
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	63
TOTAL COST		
TOTAL COST	$	28,577,404
TOTAL AVG. COST PER HORSEPOWER	$	1,504
COST RANGE PER HORSEPOWER		
MINIMUM	$	1,104
MAXIMUM	$	1,923

1) CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

PART A

TABLE F-2

COMPARISON OF CONSTRUCTION COSTS FOR
FIELD COMPRESSOR STATIONS WITH TURBINE DRIVEN CENTRIFUGAL UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1982

		ADDITIONS TO FIELD COMPRESSOR STATIONS
		1982
DESCRIPTIVE DATA		
NUMBER OF UNITS		1
TOTAL HORSEPOWER		2,500
COST DATA		
MATERIALS		
TOTAL MATERIALS	$	2,419,482
MATERIAL % OF THE TOTAL $		62.1%
MATERIAL AVG.COST PER HORSEPOWER	$	968
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING...	$	--
ENGINEERING ... % OF THE TOTAL $		--%
ENGINEERING ... AVG. COST PER HORSEPOWER	$	--
LABOR		
TOTAL LABOR	$	1,423,935
LABOR % OF THE TOTAL $		36.6%
LABOR AVG. COST PER HORSEPOWER	$	570
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION	$	49,440
OVERHEAD	$	--
OTHER MISCELLANEOUS 1)	$	1,560
TOTAL MISCELLANEOUS	$	51,000
MISCELLANEOUS % OF THE TOTAL $		1.3%
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	20
TOTAL COST		
TOTAL COST	$	3,894,417
TOTAL AVG. COST PER HORSEPOWER	$	1,558
COST RANGE PER HORSEPOWER		
MINIMUM	$	2)
MAXIMUM	$	

1) CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.
2) ONE REPORT RECEIVED FOR THIS YEAR.

PART A

TABLE F-2

COMPARISON OF CONSTRUCTION COSTS FOR
FIELD COMPRESSOR STATIONS WITH TURBINE DRIVEN CENTRIFUGAL UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		ADDITIONS TO FIELD COMPRESSOR STATIONS			
		1983	1984	1985	1986
DESCRIPTIVE DATA					
NUMBER OF UNITS		1			
TOTAL HORSEPOWER		3,695			
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	2,696,852			
MATERIAL % OF THE TOTAL $		55.9%			
MATERIAL AVG.COST PER HORSEPOWER	$	730			
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING...	$	260,847			
ENGINEERING ... % OF THE TOTAL $		5.4%			
ENGINEERING ... AVG. COST PER HORSEPOWER	$	71			
LABOR					
TOTAL LABOR	$	1,069,147			
LABOR % OF THE TOTAL $		22.1%			
LABOR AVG. COST PER HORSEPOWER	$	289			
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	283,602			
OVERHEAD	$	517,825			
OTHER MISCELLANEOUS 1)	$	--			
TOTAL MISCELLANEOUS	$	801,427			
MISCELLANEOUS % OF THE TOTAL $		16.6%			
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	217			
TOTAL COST					
TOTAL COST	$	4,828,273	2)	2)	2)
TOTAL AVG. COST PER HORSEPOWER	$	1,307			
COST RANGE PER HORSEPOWER					
MINIMUM	$	3)			
MAXIMUM	$				

1) CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

TABLE G-1 RECIPROCATING UNITS

PART A

TABLE G-1

COMPARISON OF CONSTRUCTION COSTS FOR
STORAGE COMPRESSOR STATIONS WITH RECIPROCATING UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		ADDITIONS TO STORAGE COMPRESSOR STATIONS			
		1983	1984	1985	1986
DESCRIPTIVE DATA					
NUMBER OF UNITS				2	
TOTAL HORSEPOWER				5,230	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$			3,334,199	
MATERIAL % OF THE TOTAL $		%		57.0	
MATERIAL AVG.COST PER HORSEPOWER	$			638	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING...	$			25,785	
ENGINEERING ... % OF THE TOTAL $		%		0.4	
ENGINEERING ... AVG. COST PER HORSEPOWER	$			5	
LABOR					
TOTAL LABOR	$			1,128,258	
LABOR % OF THE TOTAL $		%		19.3	
LABOR AVG. COST PER HORSEPOWER	$			216	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$			572,565	
OVERHEAD	$			630,700	
OTHER MISCELLANEOUS 1)	$			157,022	
TOTAL MISCELLANEOUS	$			1,360,287	
MISCELLANEOUS % OF THE TOTAL $		%		23.3	
MISCELLANEOUS AVG. COST PER HORSEPOWER	$			260	
TOTAL COST					
TOTAL COST	$	2)	2)	5,848,529	2)
TOTAL AVG. COST PER HORSEPOWER	$			1,118	
COST RANGE PER HORSEPOWER					
MINIMUM	$			927	
MAXIMUM	$			1,127	

1) CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.

TABLE G-2 NO REPORTS RECEIVED

TABLE H-1 NO REPORTS RECEIVED

TABLE H-2 TURBINE DRIVEN CENTRIFUGAL UNITS

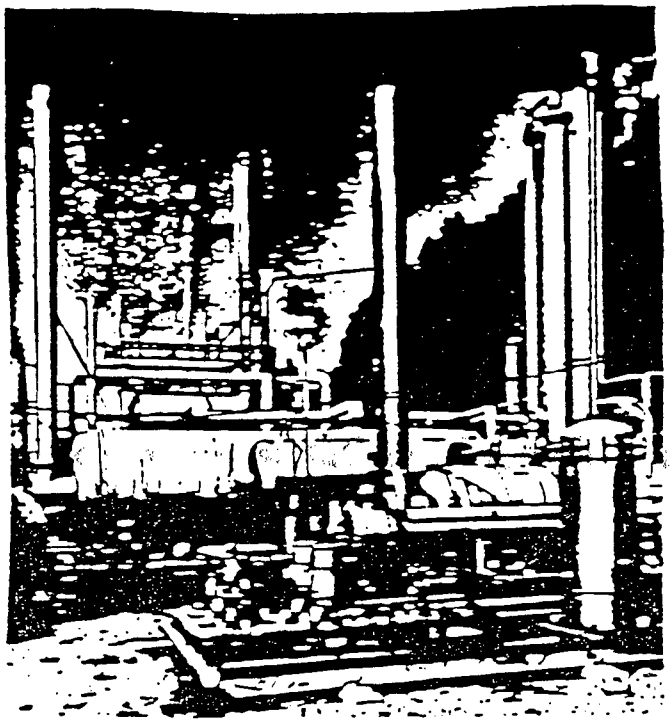
PART A

TABLE H-2

COMPARISON OF CONSTRUCTION COSTS FOR
OFFSHORE COMPRESSOR STATIONS WITH TURBINE DRIVEN CENTRIFUGAL UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		NEW OFFSHORE COMPRESSOR STATIONS			
		1983	1984	1985	1986
DESCRIPTIVE DATA					
NUMBER OF UNITS				2	
TOTAL HORSEPOWER				6,600	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$			4,552,705	
MATERIAL % OF THE TOTAL $		%		38.6	
MATERIAL AVG.COST PER HORSEPOWER	$			690	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING...	$			2,084,674	
ENGINEERING ... % OF THE TOTAL $		%		17.7	
ENGINEERING ... AVG. COST PER HORSEPOWER	$			316	
LABOR					
TOTAL LABOR	$			4,185,685	
LABOR % OF THE TOTAL $		%		35.5	
LABOR AVG. COST PER HORSEPOWER	$			634	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$			130,384	
OVERHEAD	$			304,230	
OTHER MISCELLANEOUS 1)	$			523,771	
TOTAL MISCELLANEOUS	$			958,385	
MISCELLANEOUS % OF THE TOTAL $		%		8.1	
MISCELLANEOUS AVG. COST PER HORSEPOWER	$			145	
TOTAL COST					
TOTAL COST	$	2)	2)	11,781,449	2)
TOTAL AVG. COST PER HORSEPOWER	$			1,785	
COST RANGE PER HORSEPOWER					
MINIMUM	$			3)	
MAXIMUM	$				

1) CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.



PART A
SECTION II INDIVIDUAL PROJECTS

Table I Construction Cost Reports Filed From August 1, 1986 Through July 31, 1987

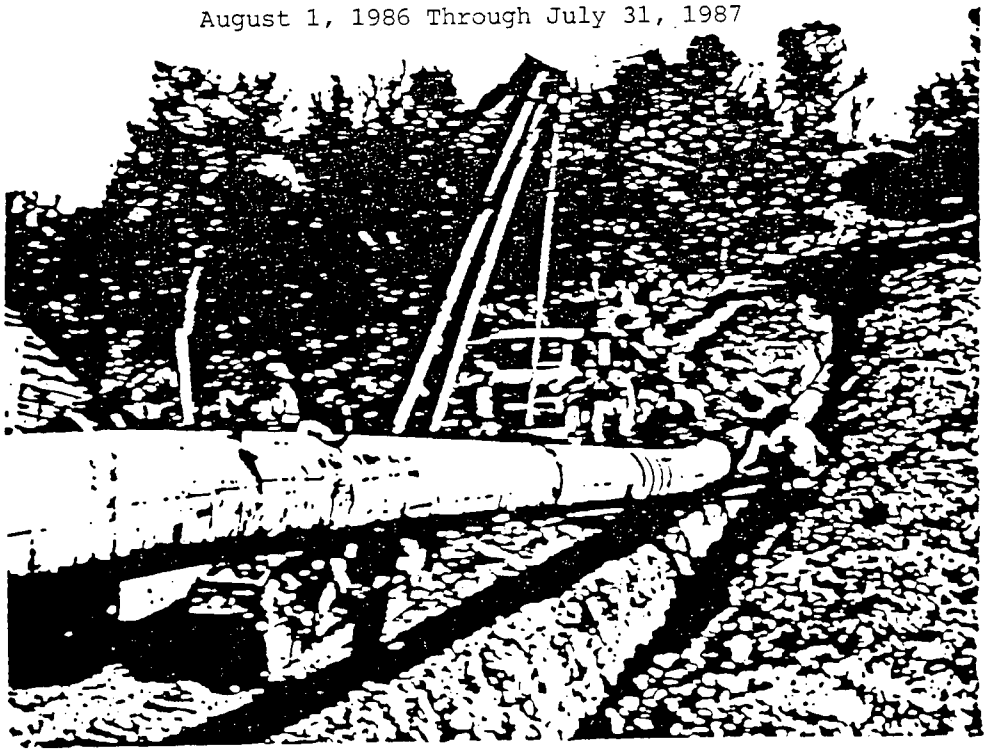


TABLE I

PART A

CONSTRUCTION COST REPORTS FILED FROM AUGUST 1, 1986 THROUGH JULY 31, 1987
CONSTRUCTION ENDING IN 1982

	DOCKET NO. (CP)	TYPE OF CONSTRUCTION COST REPORTED					
		COMPRESSOR STATIONS		ONSHORE PIPELINES		OFFSHORE PIPELINES	MIXED DIAMETER PIPELINES
		ONSHORE	OFFSHORE	TRANSMISSION	LATERAL		
TRANSWESTERN PIPELINE CO.	81-267	X					

PART A

TABLE I

CONSTRUCTION COST REPORTS FILED FROM AUGUST 1, 1986 THROUGH JULY 31, 1987
CONSTRUCTION ENDING IN 1983

	DOCKET NO. (CP)	TYPE OF CONSTRUCTION COST REPORTED					
		COMPRESSOR STATIONS		ONSHORE PIPELINES		OFFSHORE PIPELINES	MIXED DIAMETER PIPELINES
		ONSHORE	OFFSHORE	TRANSMISSION	LATERAL		
NATIONAL FUEL GAS SUPPLY CORP.	83-196			X			
TENNESSEE GAS PIPELINE CO.							
FLORIDA GAS TRANSMISSION CO.	80-481	X					
TRANSCONTINENTAL GAS PIPE LINE CORP.	80-300	X			X		

PART A

TABLE I

CONSTRUCTION COST REPORTS FILED FROM AUGUST 1, 1986 THROUGH JULY 31, 1987
CONSTRUCTION ENDING IN 1984

	DOCKET NO. (CP)	TYPE OF CONSTRUCTION COST REPORTED					
		COMPRESSOR STATIONS		ONSHORE PIPELINES		OFFSHORE PIPELINES	MIXED DIAMETER PIPELINES
		ONSHORE	OFFSHORE	TRANSMISSION	LATERAL		
CONSOLIDATED GAS TRANSMISSION CORP.	84-306			X			
NATURAL GAS PIPELINE CO. OF AMERICA	83-53			X			
TENNESSEE GAS PIPELINE CO.	81-296			X			
TEXAS EASTERN TRANSMISSION CORP.	82-446			X			
TRANSCONTINENTAL GAS PIPE LINE CORP.	81-269					X	

PART A

TABLE I

CONSTRUCTION COST REPORTS FILED FROM AUGUST 1, 1986 THROUGH JULY 31, 1987
CONSTRUCTION ENDING IN 1985

	DOCKET NO. (CP)	TYPE OF CONSTRUCTION COST REPORTED: COMPRESSOR STATIONS ONSHORE	COMPRESSOR STATIONS OFFSHORE	ONSHORE PIPELINES TRANSMISSION	ONSHORE PIPELINES LATERAL	OFFSHORE PIPELINES	MIXED DIAMETER PIPELINES
ALGONQUIN GAS TRANSMISSION CO.	82-119	X			X		
COLUMBIA GAS TRANSMISSION CORP.	83-478			X			
CONSOLIDATED GAS TRANSMISSION CORP.	83-382				X		
CONSOLIDATED GAS TRANSMISSION CORP.	84-306	X					
EAST TENNESSEE NATURAL GAS CO.	85-346			X			
LONE STAR GAS CO.	86-05	X					
NORTHWEST CENTRAL PIPELINE CORP.	82-229	X			X		
NORTHWEST PIPELINE CORP.	85-349			X			
SEAGULL INTERSTATE CORP.	84-676					X	
SEAGULL INTERSTATE CORP.	85-319					X	
TRANSCONTINENTAL GAS PIPE LINE CORP.	84-220					X	
TRANSCONTINENTAL GAS PIPE LINE CORP.	84-659			X		X	
TRANSCONTINENTAL GAS PIPE LINE CORP. ANR PIPELINE CO. GASDEL SYSTEM PIPELINE INC. NATURAL GAS PIPELINE CO. OF AMERICA TEXAS EASTERN TRANSMISSION CORP.	83-381					X	
TRANSCONTINENTAL GAS PIPE LINE CORP. COLUMBIA GULF TRANSMISSION CO.	81-475					X	
TRANSCONTINENTAL GAS PIPE LINE CORP. COLUMBIA GULF TRANSMISSION CO. MICHIGAN WISCONSIN PIPE LINE CO. NORTHERN NATURAL GAS CO. TENNESSEE GAS PIPELINE CO.	82-158				X	X	
UNITED GAS PIPE LINE CO.	85-31			X			

PART A

TABLE I

CONSTRUCTION COST REPORTS FILED FROM AUGUST 1, 1986 THROUGH JULY 31, 1987
CONSTRUCTION ENDING IN 1986

	DOCKET NO. (CP)	TYPE OF CONSTRUCTION COST REPORTED: COMPRESSOR STATIONS ONSHORE	COMPRESSOR STATIONS OFFSHORE	ONSHORE PIPELINES TRANSMISSION	ONSHORE PIPELINES LATERAL	OFFSHORE PIPELINES	MIXED DIAMETER PIPELINES
ALGONQUIN GAS TRANSMISSION CO.	82-119	X					
ARKLA ENERGY RESOURCES	85-384				X		
COLUMBIA GAS TRANSMISSION CORP.	85-197			X	X		
CONSOLIDATED GAS TRANSMISSION CORP.	84-306	X					
EQUITABLE GAS CO.	85-876	X					
K N ENERGY, INC.	85-200				X		
K N ENERGY, INC.	85-607				X		
NORTHERN NATURAL GAS CO.	84-565					X	
NORTHWEST CENTRAL PIPELINE CORP.	85-362	X					
NORTHWEST CENTRAL PIPELINE CORP.	85-450	X					
NORTHWEST CENTRAL PIPELINE CORP.	85-451	X		X			
SOUTHERN NATURAL GAS CO.	85-278			X			
SUPERIOR OFFSHORE PIPELINE CO.	85-96			X		X	
TEXAS EASTERN TRANSMISSION CORP.	82-446	X		X			
TEXAS GAS TRANSMISSION CORP.	85-737				X		
TRANSCONTINENTAL GAS PIPE LINE CORP.	84-146			X			
UNITED GAS PIPE LINE CO.	85-368	X					
WILLISTON BASIN INTERSTATE PIPELINE CO.	85-365				X		

TABLE J-1 THREE MILES AND OVER
(EXCLUDES MIXED DIAMETER PIPELINE)

PART A

TABLE J-1

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1984

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE TRANSMISSION PIPELINE					
84-306	CONSOLIDATED GAS TRANSMISSION CORP.	24	34.10	PA	$ 20,954,434	$ 614,500
81-296	TENNESSEE GAS PIPELINE CO.	30	6.80	NY	4,747,865	698,215
81-296	TENNESSEE GAS PIPELINE CO.	30	5.00	NY	3,407,550	681,510
81-296	TENNESSEE GAS PIPELINE CO.	30	7.00	MA	7,589,816	1,084,259
82-446	TEXAS EASTERN TRANSMISSION CORP.	30	8.25	PA	8,036,827	974,161
82-446	TEXAS EASTERN TRANSMISSION CORP.	30	3.00	PA	4,126,023	1,375,341

PART A

TABLE J-1

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1985

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE TRANSMISSION PIPELINE					
83-478	COLUMBIA GAS TRANSMISSION CORP.	12	7.10	NY	$ 1,334,450	$ 187,951
85-349	NORTHWEST PIPELINE CORP.	20	17.53	WY	7,424,298	423,520
85-31	UNITED GAS PIPE LINE CO.	20	12.75	LA	6,106,600	478,949
84-659	TRANSCONTINENTAL GAS PIPE LINE CORP.	42	8.42	LA	7,321,411	869,526
84-659	TRANSCONTINENTAL GAS PIPE LINE CORP.	42	4.96	LA	6,369,565	1,284,186

PART A

TABLE J-1

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1986

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE TRANSMISSION PIPELINE					
85-451	NORTHWEST CENTRAL PIPELINE CORP.	12	5.10	KS	$ 696,976	$ 136,662
85-278	SOUTHERN NATURAL GAS CO.	24	6.92	AL	2,627,597	379,711
82-446	TEXAS EASTERN TRANSMISSION CORP.	24	6.75	PA	5,003,706	741,290
82-446	TEXAS EASTERN TRANSMISSION CORP.	30	4.00	PA	4,299,639	1,074,910
84-146	TRANSCONTINENTAL GAS PIPE LINE CORP.	30	15.51	PA	11,983,428	772,626
84-146	TRANSCONTINENTAL GAS PIPE LINE CORP.	36	4.95	PA	4,060,777	820,359

PART A

TABLE J-1

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1983

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE LATERAL PIPELINE					
80-300	TRANSCONTINENTAL GAS PIPE LINE CORP.	36	20.27	LA	$ 20,857,284	$ 1,028,973

PART A

TABLE J-1

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1985

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE LATERAL PIPELINE					
82-119	ALGONQUIN GAS TRANSMISSION CO.	10	10.70	CT	$ 7,985,680	$ 746,325
82-158	TRANSCONTINENTAL GAS PIPE LINE CORP. COLUMBIA GULF TRANSMISSION CO. MICHIGAN WISCONSIN PIPE LINE CO. NORTHERN NATURAL GAS CO. TENNESSEE GAS PIPELINE CO.	36	23.00	TX	18,131,852	788,341

PART A

TABLE J-1

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1986

DOCKET NO. (CP)	APPLICANT		DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE LATERAL PIPELINE						
85-200	K N ENERGY, INC.		4	16.00	KS	$ 572,683	$ 35,793
85-607	K N ENERGY, INC.		4	10.00	NE	384,183	38,418
85-607	K N ENERGY, INC.		6	32.20	NE	1,553,799	48,255
85-607	K N ENERGY, INC.		8	3.00	CO	206,799	68,933
85-607	K N ENERGY, INC.		8	13.25	NE	1,070,037	80,758
85-607	K N ENERGY, INC.	1)	10	7.51	NE	585,987	78,028
85-384	ARKLA ENERGY RESOURCES		12	19.52	AR	3,424,160	175,418
85-384	ARKLA ENERGY RESOURCES		12	8.77	AR,TX	1,692,527	192,991
85-197	COLUMBIA GAS TRANSMISSION CORP.	2)	16	3.30	NY	1,462,128	443,069

1) INCLUDES 0.08 MILE OF 8 INCH LATERAL PIPELINE.
2) INCLUDES 0.10 MILE OF 12 INCH LATERAL PIPELINE.

PART A

TABLE J-1

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1985

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	OFFSHORE PIPELINE					
85-319	SEAGULL INTERSTATE CORP.	6	5.67	TX	$ 1,538,105	$ 271,271
84-676	SEAGULL INTERSTATE CORP.	16	6.40	TX	4,694,424	733,504
83-381	TRANSCONTINENTAL GAS PIPE LINE CORP. ANR PIPELINE CO. GASDEL SYSTEM PIPELINE INC. NATURAL GAS PIPELINE CO. OF AMERICA TEXAS EASTERN TRANSMISSION CORP.	20	3.68	TX	5,241,326	1,424,273
83-381	TRANSCONTINENTAL GAS PIPE LINE CORP. ANR PIPELINE CO. GASDEL SYSTEM PIPELINE INC. NATURAL GAS PIPELINE CO. OF AMERICA TEXAS EASTERN TRANSMISSION CORP.	20	6.14	TX	5,895,374	960,159
84-220	TRANSCONTINENTAL GAS PIPE LINE CORP.	24	26.97	LA	17,384,392	644,583
84-659	TRANSCONTINENTAL GAS PIPE LINE CORP.	30	10.98	TX	12,350,992	1,124,863
82-158	TRANSCONTINENTAL GAS PIPE LINE CORP. COLUMBIA GULF TRANSMISSION CO. MICHIGAN WISCONSIN PIPE LINE CO. NORTHERN NATURAL GAS CO. TENNESSEE GAS PIPELINE CO. 1)	36	32.53	TX	50,642,540	1,556,795

1) INCLUDES 5.39 MILES OF 36 INCH LATERAL PIPELINE.

PART A

TABLE J-1

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1986

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	OFFSHORE PIPELINE					
85-96	SUPERIOR OFFSHORE PIPELINE CO.	12	7.60	LA	$ 2,931,788	$ 385,762
84-565	NORTHERN NATURAL GAS CO.	20	25.00	TX	13,357,120	534,285

TABLE J-2 UNDER THREE MILES
(EXCLUDES MIXED DIAMETER PIPELINE)

PART A

TABLE J-2

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1983

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE TRANSMISSION PIPELINE					
83-196	NATIONAL FUEL GAS SUPPLY CORP.	16	2.88	PA	$ 756,188	$ 262,565

PART A

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1984

TABLE J-2

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE TRANSMISSION PIPELINE					
83-53	NATURAL GAS PIPELINE CO. OF AMERICA	36	0.34	AR	$ 792,943	$ 2,332,185

PART A

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1985

TABLE J-2

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE TRANSMISSION PIPELINE					
85-346	EAST TENNESSEE NATURAL GAS CO.	22	0.67	TN	$ 1,800,270	$ 2,686,970

PART A

TABLE J-2

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1986

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE TRANSMISSION PIPELINE					
85-96	SUPERIOR OFFSHORE PIPELINE CO.	12	0.50	LA	$ 237,564	$ 475,128
85-197	COLUMBIA GAS TRANSMISSION CORP.	20	2.50	NY	840,119	336,048
85-197	COLUMBIA GAS TRANSMISSION CORP.	24	1.10	OH	690,709	627,917

PART A

TABLE J-2

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1985

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE LATERAL PIPELINE					
83-382	CONSOLIDATED GAS TRANSMISSION CORP.	6	2.82	WV	$ 195,473	$ 69,317
82-229	NORTHWEST CENTRAL PIPELINE CORP.	6	1.70	KS	168,215	98,950
83-382	CONSOLIDATED GAS TRANSMISSION CORP.	8	0.31	WV	62,131	200,423
83-382	CONSOLIDATED GAS TRANSMISSION CORP.	10	1.25	WV	129,947	103,958

PART A

TABLE J-2

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1986

DOCKET NO. (CP)	APPLICANT		DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE LATERAL PIPELINE						
85-607	K N ENERGY, INC.	1)	2	2.05	NE	$ 88,251	$ 43,049
85-607	K N ENERGY, INC.		2	2.45	NE	78,409	32,004
85-607	K N ENERGY, INC.		2	1.30	NE	42,718	32,860
85-737	TEXAS GAS TRANSMISSION CORP.		2	0.06	LA	6,951	115,850
85-365	WILLISTON BASIN INTERSTATE PIPELINE CO.		3	1.20	MT	69,621	58,018
85-607	K N ENERGY, INC.		4	0.19	NE	26,378	138,832

1) INCLUDES 0.15 MILE OF 6 INCH LATERAL PIPELINE.

PART A

TABLE J-2

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1984

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	OFFSHORE PIPELINE					
81-269	TRANSCONTINENTAL GAS PIPE LINE CORP.	20	1.20	TX	$ 6,167,211	$ 5,139,343

PART A

TABLE J-2

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1985

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	OFFSHORE PIPELINE					
81-475	TRANSCONTINENTAL GAS PIPE LINE CORP. COLUMBIA GULF TRANSMISSION CO.	10	1.14	TX	$ 2,680,168	$ 2,351,025
83-381	TRANSCONTINENTAL GAS PIPE LINE CORP. ANR PIPELINE CO. GASDEL SYSTEM PIPELINE INC. NATURAL GAS PIPELINE CO. OF AMERICA TEXAS EASTERN TRANSMISSION CORP.	12	2.02	TX	3,105,914	1,537,581
83-381	TRANSCONTINENTAL GAS PIPE LINE CORP. ANR PIPELINE CO. GASDEL SYSTEM PIPELINE INC. NATURAL GAS PIPELINE CO. OF AMERICA TEXAS EASTERN TRANSMISSION CORP.	20	0.85	TX	1,134,783	1,335,039
81-475	TRANSCONTINENTAL GAS PIPE LINE CORP. COLUMBIA GULF TRANSMISSION CO.	24	2.82	TX	6,657,070	2,360,663

TABLE K-1 RECIPROCATING UNITS

PART A

TABLE K-1

NEW TRANSMISSION COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1985

	DOCKET NUMBER (CP) AND APPLICANT	
	84-306 CONSOLIDATED	86-05 LONE STAR
DESCRIPTIVE DATA		
NAME OF COMPRESSOR STATION	TONKIN STA	QUANAH COMP STA
LOCATION	WESTMORELAND CO, PA	HARDEMAN CO, TX
HORSEPOWER/UNIT	1 AT 6,000	2 AT 175
NUMBER OF UNITS	1	2
TOTAL HORSEPOWER	6,000	350
COST DATA		
MATERIALS		
TOTAL MATERIALS	$ 5,166,097	385,016
MATERIAL % OF THE TOTAL $	70.2%	76.7
MATERIAL AVG. COST PER HORSEPOWER	$ 861	1,100
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING...	$ 540,059	1,423
ENGINEERING ... % OF THE TOTAL $	7.3%	0.3
ENGINEERING ... AVG. COST PER HORSEPOWER	$ 90	4
LABOR		
TOTAL LABOR	$ 1,408,831	79,803
LABOR % OF THE TOTAL $	19.2%	15.9
LABOR AVG. COST PER HORSEPOWER	$ 235	228
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION	$ 224,288	472
OVERHEAD	$ --	18,034
OTHER MISCELLANEOUS 1)	$ 15,881	17,454
TOTAL MISCELLANEOUS	$ 240,169	35,960
MISCELLANEOUS % OF THE TOTAL $	3.3%	7.2
MISCELLANEOUS AVG. COST PER HORSEPOWER	$ 40	103
TOTAL COST		
TOTAL COST	$ 7,355,156	502,202
TOTAL AVG. COST PER HORSEPOWER	$ 1,226	1,435

1) CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

PART A

NEW TRANSMISSION COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1986

TABLE K-1

	DOCKET NUMBER (CP) AND APPLICANT		
	85-876 EQUITABLE	85-451 NORTHWEST CENTRAL	85-368 UNITED
DESCRIPTIVE DATA			
NAME OF COMPRESSOR STATION	GOODWIN BOOSTER COMP STA	CHANUTE COMP STA	LONGVIEW NO 2 COMP STA
LOCATION	GREENE CO, PA	ALLEN CO, KS	GREGG CO, TX
HORSEPOWER/UNIT	1 AT 400	2 AT 600	3 AT 1,100
NUMBER OF UNITS	1	2	3
TOTAL HORSEPOWER	400	1,200	3,300
COST DATA			
MATERIALS			
TOTAL MATERIALS	$ 455,228	798,455	2,335,629
MATERIAL % OF THE TOTAL $	74.1%	62.5	63.6
MATERIAL AVG. COST PER HORSEPOWER	$ 1,138	665	708
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING...	$ --	35,909	167,826
ENGINEERING ... % OF THE TOTAL $	--%	2.8	4.6
ENGINEERING ... AVG. COST PER HORSEPOWER	$ --	30	51
LABOR			
TOTAL LABOR	$ 100,472	386,889	921,383
LABOR % OF THE TOTAL $	16.4%	30.3	25.1
LABOR AVG. COST PER HORSEPOWER	$ 251	322	279
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	$ --	50,614	119,514
OVERHEAD	$ --	--	127,759
OTHER MISCELLANEOUS 1)	$ 58,700	5,922	--
TOTAL MISCELLANEOUS	$ 58,700	56,536	247,273
MISCELLANEOUS % OF THE TOTAL $	9.6%	4.4	6.7
MISCELLANEOUS AVG. COST PER HORSEPOWER	$ 147	47	75
TOTAL COST			
TOTAL COST	$ 614,400	1,277,789	3,672,111
TOTAL AVG. COST PER HORSEPOWER	$ 1,536	1,065	1,113

1) CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

PART A

TABLE K-1

ADDITIONS TO TRANSMISSION COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1986

	DOCKET NUMBER (CP) AND APPLICANT	
	84-306 CONSOLIDATED	85-450 NORTHWEST CENTRAL
DESCRIPTIVE DATA		
NAME OF COMPRESSOR STATION	FINNEFROCK STA	HIGGINS COMP STA
LOCATION	CLINTON CO, PA	HEMPHILL CO, TX
HORSEPOWER/UNIT	1 AT 6,000	2 AT 600
NUMBER OF UNITS	1	2
TOTAL HORSEPOWER	6,000	1,200
COST DATA		
MATERIALS		
TOTAL MATERIALS	$ 4,465,066	964,615
MATERIAL % OF THE TOTAL $	66.5%	69.3
MATERIAL AVG. COST PER HORSEPOWER	$ 744	804
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING...	$ 471,212	86,504
ENGINEERING ... % OF THE TOTAL $	7.0%	6.2
ENGINEERING ... AVG. COST PER HORSEPOWER	$ 79	72
LABOR		
TOTAL LABOR	$ 1,602,627	313,068
LABOR % OF THE TOTAL $	23.9%	22.5
LABOR AVG. COST PER HORSEPOWER	$ 267	261
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION	$ 178,101	9,147
OVERHEAD	$ --	--
OTHER MISCELLANEOUS 1)	$ --	19,139
TOTAL MISCELLANEOUS	$ 178,101	28,286
MISCELLANEOUS % OF THE TOTAL $	2.7%	2.0
MISCELLANEOUS AVG. COST PER HORSEPOWER	$ 30	24
TOTAL COST		
TOTAL COST	$ 6,717,006	1,392,473
TOTAL AVG. COST PER HORSEPOWER	$ 1,120	1,160

1) CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

TABLE K-2 TURBINE DRIVEN CENTRIFUGAL UNITS

PART A

TABLE K-2

NEW TRANSMISSION COMPRESSOR STATIONS
TURBINE DRIVEN CENTRIFUGAL UNITS
CONSTRUCTION ENDING IN 1985

	DOCKET NUMBER (CP) AND APPLICANT
	82-119 ALGONQUIN
DESCRIPTIVE DATA	
NAME OF COMPRESSOR STATION	HANOVER COMP STA
LOCATION	MORRIS CO, NJ
HORSEPOWER/UNIT	2 AT 3,830
NUMBER OF UNITS	2
TOTAL HORSEPOWER	7,660
COST DATA	
MATERIALS	
TOTAL MATERIALS	$ 4,868,000
MATERIAL % OF THE TOTAL $	25.9%
MATERIAL AVG. COST PER HORSEPOWER	$ 636
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY	
TOTAL ENGINEERING...	$ 2,051,000
ENGINEERING ... % OF THE TOTAL $	10.9%
ENGINEERING ... AVG. COST PER HORSEPOWER	$ 268
LABOR	
TOTAL LABOR	$ 5,846,000
LABOR % OF THE TOTAL $	31.1%
LABOR AVG. COST PER HORSEPOWER	$ 763
MISCELLANEOUS	
INTEREST DURING CONSTRUCTION	$ 999,680
OVERHEAD	$ --
OTHER MISCELLANEOUS 1)	$ 5,021,000
TOTAL MISCELLANEOUS	$ 6,020,680
MISCELLANEOUS % OF THE TOTAL $	32.0%
MISCELLANEOUS AVG. COST PER HORSEPOWER	$ 786
TOTAL COST	
TOTAL COST	$ 18,785,680
TOTAL AVG. COST PER HORSEPOWER	$ 2,452

1) CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

PART A

TABLE K-2

ADDITIONS TO TRANSMISSION COMPRESSOR STATIONS
TURBINE DRIVEN CENTRIFUGAL UNITS
CONSTRUCTION ENDING IN 1985

		DOCKET NUMBER (CP) AND APPLICANT
		82-119 ALGONQUIN
DESCRIPTIVE DATA		
NAME OF COMPRESSOR STATION		STONY POINT COMP STA
LOCATION		ROCKLAND CO, NY
HORSEPOWER/UNIT		1 AT 3,830
NUMBER OF UNITS		1
TOTAL HORSEPOWER		3,830
COST DATA		
MATERIALS		
TOTAL MATERIALS	$	2,727,000
MATERIAL % OF THE TOTAL $		37.6%
MATERIAL AVG. COST PER HORSEPOWER	$	712
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING...	$	592,000
ENGINEERING ... % OF THE TOTAL $		8.2%
ENGINEERING ... AVG. COST PER HORSEPOWER	$	155
LABOR		
TOTAL LABOR	$	2,779,000
LABOR % OF THE TOTAL $		38.3%
LABOR AVG. COST PER HORSEPOWER	$	726
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION	$	386,240
OVERHEAD	$	--
OTHER MISCELLANEOUS 1)	$	769,000
TOTAL MISCELLANEOUS	$	1,155,240
MISCELLANEOUS % OF THE TOTAL $		15.9%
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	302
TOTAL COST		
TOTAL COST	$	7,253,240
TOTAL AVG. COST PER HORSEPOWER	$	1,894

1) CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

PART A

TABLE K-2

ADDITIONS TO TRANSMISSION COMPRESSOR STATIONS
TURBINE DRIVEN CENTRIFUGAL UNITS
CONSTRUCTION ENDING IN 1986

	DOCKET NUMBER (CP) AND APPLICANT	
	82-119 ALGONQUIN	82-446 TETCO
DESCRIPTIVE DATA		
NAME OF COMPRESSOR STATION	CROMWELL COMP STA	COMP STA NO 26
LOCATION	MIDDLESEX CO, CT	HUNTERDON CO, NJ
HORSEPOWER/UNIT	1 AT 3,830	1 AT 4,000
NUMBER OF UNITS	1	1
TOTAL HORSEPOWER	3,830	4,000
COST DATA		
MATERIALS		
TOTAL MATERIALS	$ 2,652,000	6,286,266
MATERIAL % OF THE TOTAL $	36.9%	51.8
MATERIAL AVG. COST PER HORSEPOWER	$ 692	1,572
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING...	$ 735,000	--
ENGINEERING ... % OF THE TOTAL $	10.2%	--
ENGINEERING ... AVG. COST PER HORSEPOWER	$ 192	--
LABOR		
TOTAL LABOR	$ 3,050,000	5,467,158
LABOR % OF THE TOTAL $	42.4%	45.0
LABOR AVG. COST PER HORSEPOWER	$ 796	1,367
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION	$ 386,240	390,446
OVERHEAD	$ --	--
OTHER MISCELLANEOUS 1)	$ 365,000	--
TOTAL MISCELLANEOUS	$ 751,240	390,446
MISCELLANEOUS % OF THE TOTAL $	10.5%	3.2
MISCELLANEOUS AVG. COST PER HORSEPOWER	$ 196	98
TOTAL COST		
TOTAL COST	$ 7,188,240	12,143,870
TOTAL AVG. COST PER HORSEPOWER	$ 1,877	3,036

1) CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

TABLE L-1 RECIPROCATING UNITS

PART A

TABLE L-1

NEW FIELD COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1983

	DOCKET NUMBER (CP) AND APPLICANT	
		80-481 TENNECO FLA GAS
DESCRIPTIVE DATA		
NAME OF COMPRESSOR STATION		VINTON COMP STA
LOCATION		CALCASIEU PAR, LA
HORSEPOWER/UNIT		3 AT 825
NUMBER OF UNITS		3
TOTAL HORSEPOWER		2,475
COST DATA		
MATERIALS		
TOTAL MATERIALS	$	2,218,576
MATERIAL % OF THE TOTAL $		60.0%
MATERIAL AVG. COST PER HORSEPOWER	$	896
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING...	$	179,955
ENGINEERING ... % OF THE TOTAL $		4.9%
ENGINEERING ... AVG. COST PER HORSEPOWER	$	73
LABOR		
TOTAL LABOR	$	665,708
LABOR % OF THE TOTAL $		18.0%
LABOR AVG. COST PER HORSEPOWER	$	269
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION	$	119,762
OVERHEAD	$	91,357
OTHER MISCELLANEOUS 1)	$	425,351
TOTAL MISCELLANEOUS	$	636,470
MISCELLANEOUS % OF THE TOTAL $		17.2%
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	257
TOTAL COST		
TOTAL COST	$	3,700,709
TOTAL AVG. COST PER HORSEPOWER	$	1,495

1) CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

PART A

ADDITIONS TO FIELD COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1986

TABLE L-1

DOCKET NUMBER (CP) AND APPLICANT

		85-362 NORTHWEST CENTRAL
DESCRIPTIVE DATA		
NAME OF COMPRESSOR STATION		S WELDA BOOSTER STA
LOCATION		ANDERSON CO, KS
HORSEPOWER/UNIT		1 AT 230
NUMBER OF UNITS		1
TOTAL HORSEPOWER		230
COST DATA		
MATERIALS		
TOTAL MATERIALS	$	42,604
MATERIAL % OF THE TOTAL $		61.7%
MATERIAL AVG. COST PER HORSEPOWER	$	185
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING...	$	3,830
ENGINEERING ... % OF THE TOTAL $		5.5%
ENGINEERING ... AVG. COST PER HORSEPOWER	$	17
LABOR		
TOTAL LABOR	$	21,547
LABOR % OF THE TOTAL $		31.2%
LABOR AVG. COST PER HORSEPOWER	$	94
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION	$	1,091
OVERHEAD	$	--
OTHER MISCELLANEOUS 1)	$	32
TOTAL MISCELLANEOUS	$	1,123
MISCELLANEOUS % OF THE TOTAL $		1.6%
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	5
TOTAL COST		
TOTAL COST	$	69,104
TOTAL AVG. COST PER HORSEPOWER	$	300

1) CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

TABLE L-2 TURBINE DRIVEN CENTRIFUGAL UNITS

PART A

TABLE L-2

NEW FIELD COMPRESSOR STATIONS
TURBINE DRIVEN CENTRIFUGAL UNITS
CONSTRUCTION ENDING IN 1982

	DOCKET NUMBER (CP) AND APPLICANT			
		81-267 TRANSWESTERN		81-267 TRANSWESTERN
DESCRIPTIVE DATA				
NAME OF COMPRESSOR STATION		STA P-1		STA P-2
LOCATION		ROOSEVELT CO, NM		DEAF SMITH CO, TX
HORSEPOWER/UNIT		1 AT 2,500		1 AT 2,500
NUMBER OF UNITS		1		1
TOTAL HORSEPOWER		2,500		2,500
COST DATA				
MATERIALS				
TOTAL MATERIALS	$	2,827,238		2,944,382
MATERIAL % OF THE TOTAL $		58.8%		61.9
MATERIAL AVG. COST PER HORSEPOWER	$	1,131		1,178
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY				
TOTAL ENGINEERING...	$	--		--
ENGINEERING ... % OF THE TOTAL $		--%		--
ENGINEERING ... AVG. COST PER HORSEPOWER	$	--		--
LABOR				
TOTAL LABOR	$	1,906,793		1,712,439
LABOR % OF THE TOTAL $		39.7%		36.0
LABOR AVG. COST PER HORSEPOWER	$	763		685
MISCELLANEOUS				
INTEREST DURING CONSTRUCTION	$	68,191		99,234
OVERHEAD	$	--		--
OTHER MISCELLANEOUS 1)	$	4,991		3,030
TOTAL MISCELLANEOUS	$	73,182		102,264
MISCELLANEOUS % OF THE TOTAL $		1.5%		2.1
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	29		41
TOTAL COST				
TOTAL COST	$	4,807,213		4,759,085
TOTAL AVG. COST PER HORSEPOWER	$	1,923		1,904

1) CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

PART A

TABLE L-2

ADDITIONS TO FIELD COMPRESSOR STATIONS
TURBINE DRIVEN CENTRIFUGAL UNITS
CONSTRUCTION ENDING IN 1982

		DOCKET NUMBER (CP) AND APPLICANT
		81-267
		TRANSWESTERN
DESCRIPTIVE DATA		
NAME OF COMPRESSOR STATION		STA P-3
LOCATION		GRAY CO, TX
HORSEPOWER/UNIT		1 AT 2,500
NUMBER OF UNITS		1
TOTAL HORSEPOWER		2,500
COST DATA		
MATERIALS		
TOTAL MATERIALS	$	2,419,482
MATERIAL % OF THE TOTAL $		62.1%
MATERIAL AVG. COST PER HORSEPOWER	$	968
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING...	$	--
ENGINEERING ... % OF THE TOTAL $		--%
ENGINEERING ... AVG. COST PER HORSEPOWER	$	--
LABOR		
TOTAL LABOR	$	1,423,935
LABOR % OF THE TOTAL $		36.6%
LABOR AVG. COST PER HORSEPOWER	$	570
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION	$	49,440
OVERHEAD	$	--
OTHER MISCELLANEOUS 1)	$	1,560
TOTAL MISCELLANEOUS	$	51,000
MISCELLANEOUS % OF THE TOTAL $		1.3%
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	20
TOTAL COST		
TOTAL COST	$	3,894,417
TOTAL AVG. COST PER HORSEPOWER	$	1,558

1) CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

PART A

TABLE L-2

ADDITIONS TO FIELD COMPRESSOR STATIONS
TURBINE DRIVEN CENTRIFUGAL UNITS
CONSTRUCTION ENDING IN 1983

		DOCKET NUMBER (CP) AND APPLICANT
		80-300
		TRANSCO
DESCRIPTIVE DATA		
NAME OF COMPRESSOR STATION		STA NO 44
LOCATION		CAMERON PAR, LA
HORSEPOWER/UNIT		1 AT 3,695
NUMBER OF UNITS		1
TOTAL HORSEPOWER		3,695
COST DATA		
MATERIALS		
TOTAL MATERIALS	$	2,696,852
MATERIAL % OF THE TOTAL $		55.9%
MATERIAL AVG. COST PER HORSEPOWER	$	730
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING...	$	260,847
ENGINEERING ... % OF THE TOTAL $		5.4%
ENGINEERING ... AVG. COST PER HORSEPOWER	$	71
LABOR		
TOTAL LABOR	$	1,069,147
LABOR % OF THE TOTAL $		22.1%
LABOR AVG. COST PER HORSEPOWER	$	289
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION	$	283,602
OVERHEAD	$	517,825
OTHER MISCELLANEOUS 1)	$	--
TOTAL MISCELLANEOUS	$	801,427
MISCELLANEOUS % OF THE TOTAL $		16.6%
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	217
TOTAL COST		
TOTAL COST	$	4,828,273
TOTAL AVG. COST PER HORSEPOWER	$	1,307

1) CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

TABLE M-1 RECIPROCATING UNITS

PART A

ADDITIONS TO STORAGE COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1985

TABLE M-1

DOCKET NUMBER (CP) AND APPLICANT

		82-229
		NORTHWEST CENTRAL
DESCRIPTIVE DATA		
NAME OF COMPRESSOR STATION		S WELDA COMP STA
LOCATION		ANDERSON CO, KS
HORSEPOWER/UNIT		1 AT 230
NUMBER OF UNITS		1
TOTAL HORSEPOWER		230
COST DATA		
MATERIALS		
TOTAL MATERIALS	$	108,199
MATERIAL % OF THE TOTAL $		50.8%
MATERIAL AVG. COST PER HORSEPOWER	$	470
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING...	$	25,785
ENGINEERING ... % OF THE TOTAL $		12.1%
ENGINEERING ... AVG. COST PER HORSEPOWER	$	112
LABOR		
TOTAL LABOR	$	63,258
LABOR % OF THE TOTAL $		29.7%
LABOR AVG. COST PER HORSEPOWER	$	275
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION	$	3,865
OVERHEAD	$	--
OTHER MISCELLANEOUS 1)	$	12,022
TOTAL MISCELLANEOUS	$	15,887
MISCELLANEOUS % OF THE TOTAL $		7.5%
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	69
TOTAL COST		
TOTAL COST	$	213,129
TOTAL AVG. COST PER HORSEPOWER	$	927

1) CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

TABLE N NO REPORTS RECEIVED

PART B SUMMARY TABLES

PART B

PIPELINE AND COMPRESSION CONSTRUCTION AND EXPENDITURES

YEAR CONSTRUCTION ENDED		TOTAL MILES	ONSHORE MILES	OFFSHORE MILES	TOTAL HORSEPOWER	TOTAL EXPENDITURES
1982	1)	32.88	26.16	6.72	521	$ 6,849,482
1983	2)	471.27	413.80	57.47	12,447	106,332,302
1984	3)	439.60	291.93	147.67	11,307	134,238,608
1985	4)	369.83	222.00	147.83	12,297	146,695,775
1986	5)	72.56	56.51	16.05	4,705	23,672,978

1) INCLUDES 15.27 MILES (13.74 ONSHORE AND 1.53 OFFSHORE) CONSTRUCTED UNDER 3 MILES IN LENGTH, AT A COST OF $ 3,077,863.

2) INCLUDES 209.70 MILES (94.13 ONSHORE AND 15.57 OFFSHORE) CONSTRUCTED UNDER 3 MILES IN LENGTH, AT A COST OF $ 36,891,651.

3) INCLUDES 153.65 MILES (7.96 ONSHORE AND 45.69 OFFSHORE) CONSTRUCTED UNDER 3 MILES IN LENGTH, AT A COST OF $ 52,412,257.

4) INCLUDES 95.22 MILES (64.65 ONSHORE AND 30.57 OFFSHORE) CONSTRUCTED UNDER 3 MILES IN LENGTH, AT A COST OF $ 42,597,998.

5) INCLUDES 26.21 MILES (23.50 ONSHORE AND 2.71 OFFSHORE) CONSTRUCTED UNDER 3 MILES IN LENGTH, AT A COST OF $ 4,682,679.

SUMMARY: NUMBER OF CONSTRUCTION PROJECTS COMPLETED BY YEAR

		1982*	1983	1984	1985	1986
ONSHORE						
PIPELINE	1)	11	186	141	107	57
COMPRESSION		2	22	13	14	10
TOTAL ONSHORE		13	208	154	121	67
OFFSHORE						
PIPELINE	2)	3	19	45	32	5
COMPRESSION		--	1	1	--	--
TOTAL OFFSHORE		3	20	46	32	5
TOTAL NUMBER OF PROJECTS		16	228	200	153	72
NUMBER OF PIPELINES COMPANIES REPORTING CONSTRUCTION COMPLETED		9	26	26	23	18
NUMBER OF DOCKETS REPORTED		9	26	27	23	18

* REVISED 1982 FIGURES; SEE TEXT FOR EXPLANATION

1) PIPELINE COMPLETED IN 1982 INCLUDES 9 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 5 PIPELINES IN 5 DOCKETS.
PIPELINE COMPLETED IN 1983 INCLUDES156 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 19 PIPELINES IN 19 DOCKETS.
PIPELINE COMPLETED IN 1984 INCLUDES122 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 22 PIPELINES IN 22 DOCKETS.
PIPELINE COMPLETED IN 1985 INCLUDES 84 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 16 PIPELINES IN 16 DOCKETS.
PIPELINE COMPLETED IN 1986 INCLUDES 52 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 11 PIPELINES IN 11 DOCKETS.

2) PIPELINE COMPLETED IN 1983 INCLUDES 10 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 3 PIPELINES IN 2 DOCKETS.
PIPELINE COMPLETED IN 1984 INCLUDES 27 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 8 PIPELINES IN 9 DOCKETS.
PIPELINE COMPLETED IN 1985 INCLUDES 17 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 7 PIPELINES IN 7 DOCKETS.
PIPELINE COMPLETED IN 1986 INCLUDES 2 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 1 PIPELINES IN 1 DOCKETS.

PART B

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1983

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
ONSHORE	274.66	58.3%	$ 29,808,170	32.6%	$ 108,528	140
ONSHORE: MIXED DIAMETER	139.14	29.5	21,229,338	23.2	152,575	46
TOTAL ONSHORE LINES	413.80	87.8	51,037,508	55.9	123,339	186
OFFSHORE	34.44	7.3	23,248,350	25.4	675,039	10
OFFSHORE: MIXED DIAMETER	23.03	4.9	17,080,085	18.7	741,645	9
TOTAL OFFSHORE LINES	57.47	12.2	40,328,435	44.1	701,730	19
TOTAL LINES	471.27	100.0%	$ 91,365,943	100.0%	$ 193,872	205

PART B

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1983
3 MILES AND OVER

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
ONSHORE	125.36	47.9%	$ 14,977,285	27.5%	$ 119,474	1
ONSHORE: MIXED DIAMETER	94.31	36.1	15,221,807	27.9	161,402	1
TOTAL ONSHORE LINES	219.67	84.0	30,199,092	55.4	137,475	3
OFFSHORE	26.95	10.3	14,155,869	26.0	525,264	
OFFSHORE: MIXED DIAMETER	14.95	5.7	10,119,331	18.6	676,878	
TOTAL OFFSHORE LINES	41.90	16.0	24,275,200	44.6	579,360	
TOTAL LINES	261.57	100.0%	$ 54,474,292	100.0%	$ 208,259	3

PART B

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1983
UNDER 3 MILES

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
ONSHORE	149.30	71.2%	$ 14,830,885	40.2%	$ 99,336	122
ONSHORE: MIXED DIAMETER	44.83	21.4	6,007,531	16.3	134,007	34
TOTAL ONSHORE LINES	194.13	92.6	20,838,416	56.5	107,343	156
OFFSHORE	7.49	3.6	9,092,481	24.6	1,213,949	5
OFFSHORE: MIXED DIAMETER	8.08	3.9	6,960,754	18.9	861,479	5
TOTAL OFFSHORE LINES	15.57	7.4	16,053,235	43.5	1,031,036	10
TOTAL LINES	209.70	100.0%	$ 36,891,651	100.0%	$ 175,926	166

PART B

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1984

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
ONSHORE	272.01	61.9%	$ 32,941,981	26.5%	$ 121,106	139
ONSHORE: MIXED DIAMETER	19.92	4.5	4,085,966	3.3	205,119	2
TOTAL ONSHORE LINES	291.93	66.4	37,027,947	29.8	126,838	141
OFFSHORE	142.27	32.4	81,837,459	65.9	575,226	42
OFFSHORE: MIXED DIAMETER	5.40	1.2	5,241,811	4.2	970,706	3
TOTAL OFFSHORE LINES	147.67	33.6	87,079,270	70.2	589,688	45
TOTAL LINES	439.60	100.0%	$ 124,107,217	100.0%	$ 282,319	186

PART B

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1984
3 MILES AND OVER

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
ONSHORE	165.06	57.7%	$ 22,262,699	31.1%	$ 134,876	18
ONSHORE: MIXED DIAMETER	18.91	6.6	2,125,684	3.0	112,411	1
TOTAL ONSHORE LINES	183.97	64.3	24,388,383	34.0	132,567	19
OFFSHORE	98.78	34.5	44,931,420	62.7	454,864	17
OFFSHORE: MIXED DIAMETER	3.20	1.1	2,375,157	3.3	742,237	1
TOTAL OFFSHORE LINES	101.98	35.7	47,306,577	66.0	463,881	18
TOTAL LINES	285.95	100.0%	$ 71,694,960	100.0%	$ 250,726	37

PART B

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1984
UNDER 3 MILES

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
ONSHORE	106.95	69.6%	$ 10,679,282	20.4%	$ 99,853	121
ONSHORE: MIXED DIAMETER	1.01	0.7	1,960,282	3.7	1,940,873	1
TOTAL ONSHORE LINES	107.96	70.3	12,639,564	24.1	117,076	122
OFFSHORE	43.49	28.3	36,906,039	70.4	848,610	25
OFFSHORE: MIXED DIAMETER	2.20	1.4	2,866,654	5.5	1,303,025	2
TOTAL OFFSHORE LINES	45.69	29.7	39,772,693	75.9	870,490	27
TOTAL LINES	153.65	100.0%	$ 52,412,257	100.0%	$ 341,115	149

PART B

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1985

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES		COST	PERCENTAGE OF TOTAL COST		AVERAGE COST PER MILE	NUMBER OF PROJECTS
ONSHORE	193.93	52.4%	$	22,312,459	16.6%	$	115,054	105
ONSHORE: MIXED DIAMETER	28.07	7.6		4,230,188	3.1		150,701	2
TOTAL ONSHORE LINES	222.00	60.0		26,542,647	19.7		119,561	107
OFFSHORE	147.45	39.9		107,413,101	79.7		728,471	31
OFFSHORE: MIXED DIAMETER	--	--		--	--		--	--
TOTAL OFFSHORE LINES	147.83	40.0		108,172,207	80.3		731,734	32
TOTAL LINES	369.83	100.0%	$	134,714,854	100.0%	$	364,262	139

PART B

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1985
3 MILES AND OVER

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
ONSHORE	129.28	47.1%	$ 15,584,811	16.9%	$ 120,551	21
ONSHORE: MIXED DIAMETER	28.07	10.2	4,230,188	4.6	150,701	2
TOTAL ONSHORE LINES	157.35	57.3	19,814,999	21.5	125,929	23
OFFSHORE	117.26	42.7	72,301,857	78.5	616,594	15
OFFSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL OFFSHORE LINES	117.26	42.7	72,301,857	78.5	616,594	15
TOTAL LINES	274.61	100.0%	$ 92,116,856	100.0%	$ 335,446	38

PART B

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1985
UNDER 3 MILES

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES		COST	PERCENTAGE OF TOTAL COST		AVERAGE COST PER MILE	NUMBER OF PROJECTS
ONSHORE	64.65	67.9%	$	6,727,648	15.8%	$	104,063	84
ONSHORE: MIXED DIAMETER	--	--		--	--		--	--
TOTAL ONSHORE LINES	64.65	67.9		6,727,648	15.8		104,063	84
OFFSHORE	30.19	31.7		35,111,244	82.4		1,163,009	16
OFFSHORE: MIXED DIAMETER	.38	0.4		759,106	1.8		1,997,647	1
TOTAL OFFSHORE LINES	30.57	32.1		35,870,350	84.2		1,173,384	17
TOTAL LINES	95.22	100.0%	$	42,597,998	100.0%	$	447,364	101

PART B

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1986

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
ONSHORE	56.51	77.9%	$ 10,040,607	54.6%	$ 177,678	57
ONSHORE: MIXED DIAMETER		0.0		0.0		
TOTAL ONSHORE LINES	56.51	77.9	10,040,607	54.6	177,678	57
OFFSHORE	16.05	22.1	8,363,624	45.4	521,098	5
OFFSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL OFFSHORE LINES	16.05	22.1	8,363,624	45.4	521,098	5
TOTAL LINES	72.56	100.0%	$ 18,404,231	100.0%	$ 253,642	62

PART B

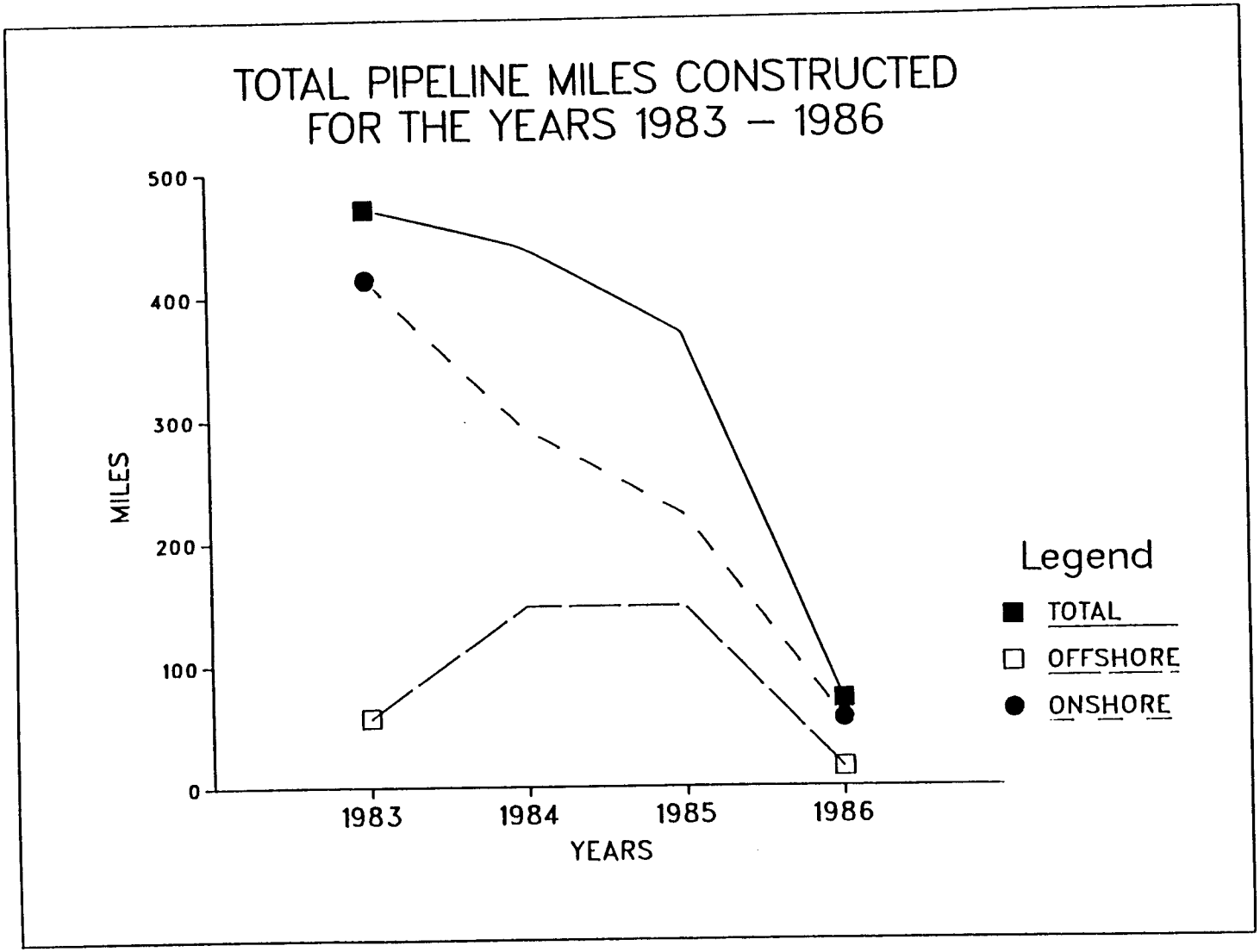
SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1986
3 MILES AND OVER

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
ONSHORE	33.01	71.2%	$ 6,916,589	50.4%	$ 209,530	5
ONSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL ONSHORE LINES	33.01	71.2	6,916,589	50.4	209,530	5
OFFSHORE	13.34	28.8	6,804,963	49.6	510,117	3
OFFSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL OFFSHORE LINES	13.34	28.8	6,804,963	49.6	510,117	3
TOTAL LINES	46.35	100.0%	$ 13,721,552	100.0%	$ 296,042	8

PART B

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1986
UNDER 3 MILES

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
ONSHORE	23.50	89.7%	$ 3,124,018	66.7%	$ 132,937	52
ONSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL ONSHORE LINES	23.50	89.7	3,124,018	66.7	132,937	52
OFFSHORE	2.71	10.3	1,558,661	33.3	575,152	2
OFFSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL OFFSHORE LINES	2.71	10.3	1,558,661	33.3	575,152	2
TOTAL LINES	26.21	100.0%	$ 4,682,679	100.0%	$ 178,660	54


TOTAL PIPELINE MILES CONSTRUCTED
FOR THE YEARS 1983 – 1986
500
400
300
200
100
0
MILES
1983
1984
1985
1986
YEARS
Legend
TOTAL
OFFSHORE
ONSHORE

PART B

SUMMARY: COMPRESSOR CONSTRUCTION ENDING IN 1983

COMPRESSORS	HORSEPOWER	PERCENTAGE OF TOTAL HORSEPOWER	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER HORSEPOWER	NUMBER OF PROJECTS
RECIPROCATING UNITS						
ONSHORE	10,057	80.8%	$ 12,685,717	84.8%	$ 1,261	21
OFFSHORE	190	1.5	796,642	5.3	4,193	1
TOTAL RECIPROCATING UNITS	10,247	82.3	13,482,359	90.1	1,316	22
TURBINE UNITS						
ONSHORE	2,200	17.7	1,484,000	9.9	675	1
OFFSHORE	--	--	--	--	--	--
TOTAL TURBINE UNITS	2,200	17.7	1,484,000	9.9	675	1
ELECTRIC MOTOR UNITS						
ONSHORE	--	--	--	--	--	--
OFFSHORE	--	--	--	--	--	--
TOTAL ELECTRIC MOTOR UNITS	--	--	--	--	--	--
TOTAL ONSHORE UNITS	12,257	98.5	14,169,717	94.7	1,156	22
TOTAL OFFSHORE UNITS	190	1.5	796,642	5.3	4,193	1
TOTAL COMPRESSION	12,447	100.0%	$ 14,966,359	100.0%	$ 1,202	23

PART B

SUMMARY: COMPRESSOR CONSTRUCTION
ENDING IN 1984

COMPRESSORS	HORSEPOWER	PERCENTAGE OF TOTAL HORSEPOWER	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER HORSEPOWER	NUMBER OF PROJECTS
RECIPROCATING UNITS						
ONSHORE	10,207	90.3%	$ 9,409,551	92.9%	$ 922	13
OFFSHORE	1,100	9.7	721,840	7.1	656	1
TOTAL RECIPROCATING UNITS	11,307	100.0	10,131,391	100.0	896	14
TURBINE UNITS						
ONSHORE	--	--	--	--	--	--
OFFSHORE	--	--	--	--	--	--
TOTAL TURBINE UNITS	--	--	--	--	--	--
ELECTRIC MOTOR UNITS						
ONSHORE	--	--	--	--	--	--
OFFSHORE	--	--	--	--	--	--
TOTAL ELECTRIC MOTOR UNITS	--	--	--	--	--	--
TOTAL ONSHORE UNITS	10,207	90.3	9,409,551	92.9	922	13
TOTAL OFFSHORE UNITS	1,100	9.7	721,840	7.1	656	1
TOTAL COMPRESSION	11,307	100.0%	$ 10,131,391	100.0%	$ 896	14

PART B

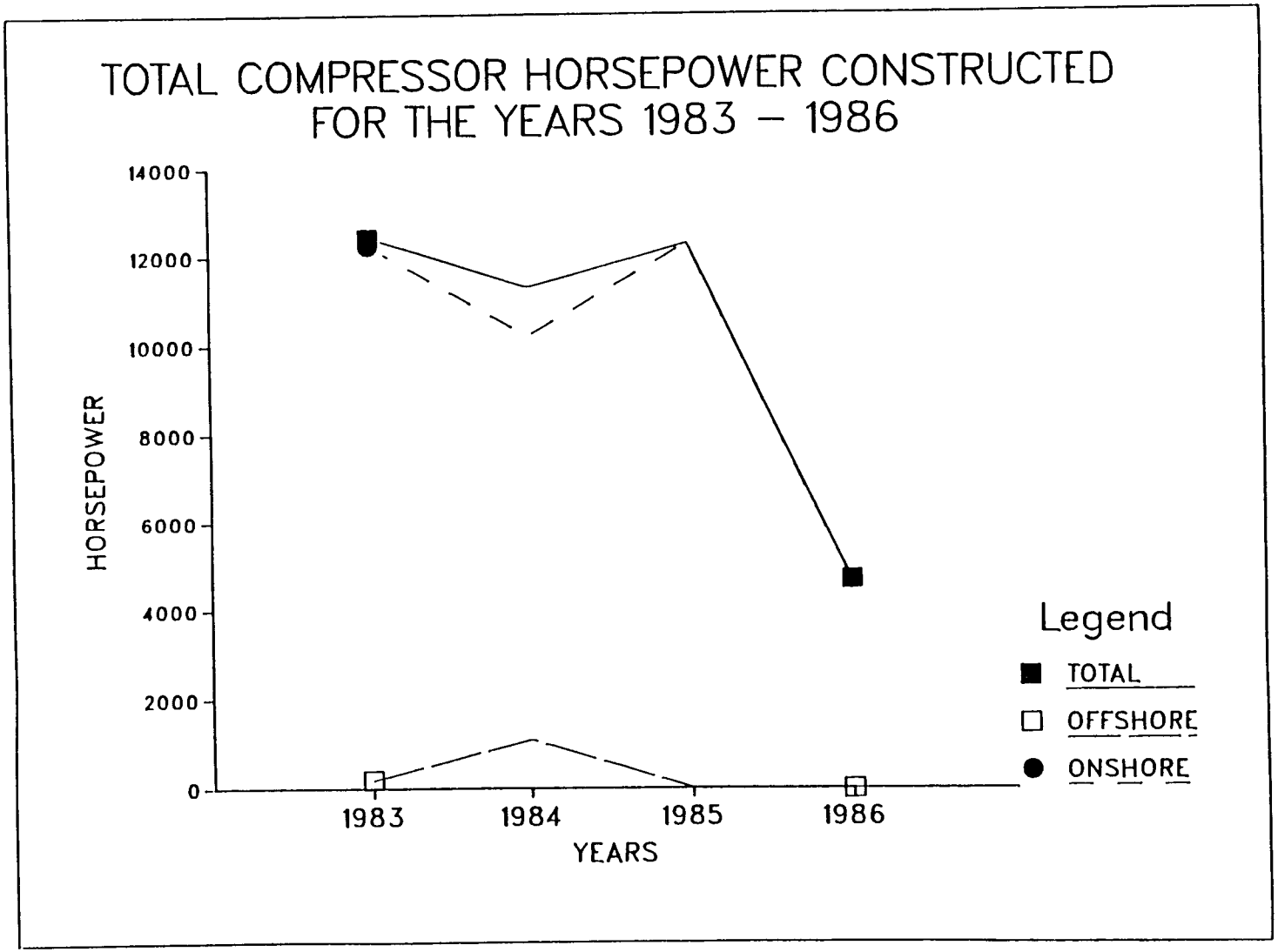
SUMMARY: COMPRESSOR CONSTRUCTION
ENDING IN 1985

COMPRESSORS	HORSEPOWER	PERCENTAGE OF TOTAL HORSEPOWER	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER HORSEPOWER	NUMBER OF PROJECTS
RECIPROCATING UNITS						
ONSHORE	11,297	91.9%	$ 10,600,597	88.5%	$ 938	13
OFFSHORE	--	--	--	--	--	--
TOTAL RECIPROCATING UNITS	11,297	91.9	10,600,597	88.5	938	13
TURBINE UNITS						
ONSHORE	1,000	8.1	1,380,324	11.5	1,380	1
OFFSHORE	--	--	--	--	--	--
TOTAL TURBINE UNITS	1,000	8.1	1,380,324	11.5	1,380	1
ELECTRIC MOTOR UNITS						
ONSHORE	--	--	--	--	--	--
OFFSHORE	--	--	--	--	--	--
TOTAL ELECTRIC MOTOR UNITS	--	--	--	--	--	--
TOTAL ONSHORE UNITS	12,297	100.0	11,980,921	100.0	974	14
TOTAL OFFSHORE UNITS	--	--	--	--	--	--
TOTAL COMPRESSION	12,297	100.0%	$ 11,980,921	100.0%	$ 974	14

PART B

SUMMARY: COMPRESSOR CONSTRUCTION
ENDING IN 1986

COMPRESSORS	HORSEPOWER	PERCENTAGE OF TOTAL HORSEPOWER	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER HORSEPOWER	NUMBER OF PROJECTS
RECIPROCATING UNITS						
ONSHORE	2,955	62.8%	$ 2,101,830	39.9%	$ 711	9
OFFSHORE	--	--	--	--	--	--
TOTAL RECIPROCATING UNITS	2,955	62.8	2,101,830	39.9	711	9
TURBINE UNITS						
ONSHORE	--	--	--	--	--	--
OFFSHORE	--	--	--	--	--	--
TOTAL TURBINE UNITS	--	--	--	--	--	--
ELECTRIC MOTOR UNITS						
ONSHORE	1,750	37.2	3,166,917	60.1	1,810	1
OFFSHORE	--	--	--	--	--	--
TOTAL ELECTRIC MOTOR UNITS	1,750	37.2	3,166,917	60.1	1,810	1
TOTAL ONSHORE UNITS	4,705	100.0	5,268,747	100.0	1,120	10
TOTAL OFFSHORE UNITS	--	--	--	--	--	--
TOTAL COMPRESSION	4,705	100.0%	$ 5,268,747	100.0%	$ 1,120	10


TOTAL COMPRESSOR HORSEPOWER CONSTRUCTED
FOR THE YEARS 1983 – 1986
HORSEPOWER
14000
12000
10000
8000
6000
4000
2000
0
1983
1984
1985
1986
YEARS
Legend
TOTAL
OFFSHORE
ONSHORE

PART B
SECTION I COMPARATIVE SUMMARY

Table A Pipeline Construction and Expenditures

TABLE A

PART B

PIPELINE CONSTRUCTION EXPENDITURES
CONSTRUCTION ENDING IN 1983 THROUGH 1986

		YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
ONSHORE MILES					
3 MILES AND OVER		125.36	165.06	129.28	33.01
EXPENDITURES	$	14,977,285	22,262,699	15,584,811	6,916,589
AVG. COST PER MILE	$	119,474	134,876	120,551	209,530
UNDER 3 MILES		149.30	106.95	64.65	23.50
EXPENDITURES	$	14,830,885	10,679,282	6,727,648	3,124,018
AVG. COST PER MILE	$	99,336	99,853	104,063	132,937
MIXED DIAMETER -3 MILES AND OVER		94.31	18.91	28.07	--
EXPENDITURES	$	15,221,807	2,125,684	4,230,188	--
AVG. COST PER MILE	$	161,402	112,411	150,701	--
MIXED DIAMETER -UNDER 3 MILES		44.83	1.01	--	--
EXPENDITURES	$	6,007,531	1,960,282	--	--
AVG. COST PER MILE	$	134,007	1,940,873	--	--
TOTAL ONSHORE MILES		413.80	291.93	222.00	56.51
TOTAL ONSHORE EXPENDITURES	$	51,037,508	37,027,947	26,542,647	10,040,607
TOTAL AVG. COST PER MILE	$	123,339	126,838	119,561	177,678
OFFSHORE MILES					
3 MILES AND OVER		26.95	98.78	117.26	13.34
EXPENDITURES	$	14,155,869	44,931,420	72,301,857	6,804,963
AVG. COST PER MILE	$	525,264	454,864	616,594	510,117
UNDER 3 MILES		7.49	43.49	30.19	2.71
EXPENDITURES	$	9,092,481	36,906,039	35,111,244	1,558,661
AVG. COST PER MILE	$	1,213,949	848,610	1,163,009	575,152
MIXED DIAMETER -3 MILES AND OVER		14.95	3.20	--	--
EXPENDITURES	$	10,119,331	2,375,157	--	--
AVG. COST PER MILE	$	676,878	742,237	--	--
MIXED DIAMETER -UNDER 3 MILES		8.08	2.20	0.38	--
EXPENDITURES	$	6,960,754	2,866,654	759,106	--
AVG. COST PER MILE	$	861,479	1,303,025	1,997,647	--
TOTAL OFFSHORE MILES		57.47	147.67	147.83	16.05
TOTAL OFFSHORE EXPENDITURES	$	40,328,435	87,079,270	108,172,207	8,363,624
TOTAL AVG. COST PER MILE	$	701,730	589,688	731,734	521,098

TABLE A

PART B

PIPELINE CONSTRUCTION EXPENDITURES
CONSTRUCTION ENDING IN 1983 THROUGH 1986

		YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
TOTAL ONSHORE AND OFFSHORE MILES		471.27	439.60	369.83	72.56
TOTAL ONSHORE AND OFFSHORE EXPENDITURES	$	91,365,943	124,107,217	134,714,854	18,404,231
TOTAL AVG. COST PER MILE	$	193,872	282,319	364,262	253,642

TABLE B-1 ONSHORE PIPELINE

PART B

TABLE B-1

COMPARISON OF ONSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		2 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED			4.40		
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		122,026		
MATERIAL % OF THE TOTAL $		%	44.9		
MATERIAL AVG.COST PER MILE	$		27,733		
LABOR					
TOTAL LABOR	$		129,994		
LABOR % OF THE TOTAL $		%	47.8		
LABOR AVG. COST PER MILE	$		29,544		
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$		19,882		
MISCELLANEOUS % OF THE TOTAL $		%	7.3		
MISCELLANEOUS AVG. COST PER MILE	$		4,519		
TOTAL COST					
TOTAL COST	$	2)	271,902	2)	2)
TOTAL AVG. COST PER MILE	$		61,796		
COST RANGE PER MILE					
MINIMUM	$		3)		
MAXIMUM	$				

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART B

TABLE B-1

COMPARISON OF ONSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		3 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED			6.36	6.19	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		81,962	96,021	
MATERIAL % OF THE TOTAL $		%	20.5	19.5	
MATERIAL AVG.COST PER MILE	$		12,887	15,512	
LABOR					
TOTAL LABOR	$		246,157	389,752	
LABOR % OF THE TOTAL $		%	61.4	79.1	
LABOR AVG. COST PER MILE	$		38,704	62,965	
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$		72,662	6,802	
MISCELLANEOUS % OF THE TOTAL $		%	18.1	1.4	
MISCELLANEOUS AVG. COST PER MILE	$		11,425	1,099	
TOTAL COST					
TOTAL COST	$	2)	400,781	492,575	2)
TOTAL AVG. COST PER MILE	$		63,016	79,576	
COST RANGE PER MILE					
MINIMUM	$		3)	73,923	
MAXIMUM	$			85,138	

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART B

TABLE B-1

COMPARISON OF ONSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

	4 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
	1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED	11.42	10.50	27.69 2)	
COST DATA				
MATERIALS				
TOTAL MATERIALS	$ 383,334	190,535	542,348	
MATERIAL % OF THE TOTAL $	22.6%	19.6	23.9	
MATERIAL AVG.COST PER MILE	$ 33,567	18,146	19,586	
LABOR				
TOTAL LABOR	$ 1,057,391	669,375	1,228,385	
LABOR % OF THE TOTAL $	62.4%	68.8	54.2	
LABOR AVG. COST PER MILE	$ 92,591	63,750	44,362	
MISCELLANEOUS				
TOTAL MISCELLANEOUS 1)	$ 252,559	113,335	496,505	
MISCELLANEOUS % OF THE TOTAL $	14.9%	11.6	21.9	
MISCELLANEOUS AVG. COST PER MILE	$ 22,115	10,794	17,931	
TOTAL COST				3)
TOTAL COST	$ 1,693,284	973,245	2,267,238	
TOTAL AVG. COST PER MILE	$ 148,274	92,690	81,879	
COST RANGE PER MILE				
MINIMUM	$ 132,746	4)	54,774	
MAXIMUM	$ 181,195		143,650	

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) PRIOR NOTICE PROJECT CONSTRUCTED UNDER CP84-620.
3) NO REPORTS RECEIVED FOR THIS YEAR.
4) ONE REPORT RECEIVED FOR THIS YEAR.

PART B

TABLE B-1

COMPARISON OF ONSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		6 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		62.92 2)	29.11 3)	32.32	6.80
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	2,034,453	901,144	950,283	225,528
MATERIAL % OF THE TOTAL $		33.8%	42.7	29.4	38.1
MATERIAL AVG.COST PER MILE	$	32,334	30,957	29,402	33,166
LABOR					
TOTAL LABOR	$	2,953,634	668,686	1,891,672	168,087
LABOR % OF THE TOTAL $		49.0%	31.7	58.5	28.4
LABOR AVG. COST PER MILE	$	46,943	22,971	58,529	24,719
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	1,035,504	542,030	394,064	198,452
MISCELLANEOUS % OF THE TOTAL $		17.2%	25.7	12.2	33.5
MISCELLANEOUS AVG. COST PER MILE	$	16,457	18,620	12,193	29,184
TOTAL COST					
TOTAL COST	$	6,023,591	2,111,860	3,236,019	592,067
TOTAL AVG. COST PER MILE	$	95,734	72,548	100,124	87,069
COST RANGE PER MILE					
MINIMUM	$	47,693	48,244	44,103	53,570
MAXIMUM	$	228,395	97,219	194,642	115,135

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) INCLUDES 2.26 MILES OF 4 INCH ONSHORE PIPELINE.
INCLUDES 2.40 MILES OF 4 INCH ONSHORE PIPELINE.
3) INCLUDES 0.71 MILE OF 4 INCH ONSHORE PIPELINE.
INCLUDES 0.02 MILE OF 2 INCH ONSHORE PIPELINE.

PART B

TABLE B-1

COMPARISON OF ONSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		8 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		37.62 2)	35.35 3)	23.62	3.71
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	1,930,873	1,896,109	1,036,178	147,453
MATERIAL % OF THE TOTAL $		36.7%	30.2	23.7	43.7
MATERIAL AVG.COST PER MILE	$	51,326	53,638	43,869	39,745
LABOR					
TOTAL LABOR	$	1,747,053	2,074,519	2,539,559	160,619
LABOR % OF THE TOTAL $		33.2%	33.0	58.1	47.6
LABOR AVG. COST PER MILE	$	46,439	58,685	107,517	43,294
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	1,588,694	2,311,702	792,419	29,439
MISCELLANEOUS % OF THE TOTAL $		30.2%	36.8	18.1	8.7
MISCELLANEOUS AVG. COST PER MILE	$	42,230	65,395	33,549	7,935
TOTAL COST					
TOTAL COST	$	5,266,620	6,282,330	4,368,156	337,511
TOTAL AVG. COST PER MILE	$	139,995	177,718	184,935	90,973
COST RANGE PER MILE					4)
MINIMUM	$	82,806	61,176	95,912	
MAXIMUM	$	300,740	243,525	359,813	

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) INCLUDES 1.50 MILES OF 12 INCH AND 0.32 MILE OF 4 INCH ONSHORE PIPELINE.
3) PRIOR NOTICE PROJECT CONSTRUCTED UNDER CP83-275.
4) ONE REPORT RECEIVED FOR THIS YEAR.

PART B

TABLE B-1

COMPARISON OF ONSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		10 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		5.30	74.54 2)	23.46 3)	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	330,000	3,994,435	1,956,763	
MATERIAL % OF THE TOTAL $		44.4%	39.4	38.8	
MATERIAL AVG.COST PER MILE	$	62,264	53,588	83,408	
LABOR					
TOTAL LABOR	$	310,000	5,014,855	2,749,974	
LABOR % OF THE TOTAL $		41.7%	49.5	54.5	
LABOR AVG. COST PER MILE	$	58,491	67,277	117,220	
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	103,820	1,125,638	337,916	
MISCELLANEOUS % OF THE TOTAL $		14.0%	11.1	6.7	
MISCELLANEOUS AVG. COST PER MILE	$	19,589	15,101	14,404	
TOTAL COST					4)
TOTAL COST	$	743,820	10,134,928	5,044,653	
TOTAL AVG. COST PER MILE	$	140,343	135,966	215,032	
COST RANGE PER MILE					
MINIMUM	$	5)	101,037	101,905	
MAXIMUM	$		198,949	314,790	

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) PRIOR NOTICE PROJECT CONSTRUCTED UNDER CP83-390.
3) PRIOR NOTICE PROJECT CONSTRUCTED UNDER CP85-265. INCLUDES 0.41 MILE OF 6 INCH ONSHORE PIPELINE.
4) NO REPORTS RECEIVED FOR THIS YEAR.
5) ONE REPORT RECEIVED FOR THIS YEAR.

PART B

TABLE B-1

COMPARISON OF ONSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED			4.80		
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		757,367		
MATERIAL % OF THE TOTAL $		%	36.3		
MATERIAL AVG.COST PER MILE	$		157,785		
LABOR					
TOTAL LABOR	$		967,413		
LABOR % OF THE TOTAL $		%	46.3		
LABOR AVG. COST PER MILE	$		201,544		
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$		362,873		
MISCELLANEOUS % OF THE TOTAL $		%	17.4		
MISCELLANEOUS AVG. COST PER MILE	$		75,599		
TOTAL COST					
TOTAL COST	$	2)	2,087,653	2)	2)
TOTAL AVG. COST PER MILE	$		434,928		
COST RANGE PER MILE					
MINIMUM	$		3)		
MAXIMUM	$				

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART B

TABLE B-1

COMPARISON OF ONSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		16 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		8.10		16.00	16.50
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	463,075		62,158	1,117,133
MATERIAL % OF THE TOTAL $		37.0%		35.3	43.8
MATERIAL AVG.COST PER MILE	$	57,170		3,885	67,705
LABOR					
TOTAL LABOR	$	430,379		85,598	985,283
LABOR % OF THE TOTAL $		34.4%		48.6	38.6
LABOR AVG. COST PER MILE	$	53,133		5,350	59,714
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	356,516		28,414	447,039
MISCELLANEOUS % OF THE TOTAL $		28.5%		16.1	17.5
MISCELLANEOUS AVG. COST PER MILE	$	44,014		1,776	27,093
TOTAL COST					
TOTAL COST	$	1,249,970	2)	176,170	2,549,455
TOTAL AVG. COST PER MILE	$	154,317		11,011	154,512
COST RANGE PER MILE					
MINIMUM	$	3)		3)	3)
MAXIMUM	$				

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART B

TABLE B-1

COMPARISON OF ONSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		30 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED					6.00
COST DATA					
MATERIALS					
TOTAL MATERIALS	$				1,456,051
MATERIAL % OF THE TOTAL $		%			42.4
MATERIAL AVG.COST PER MILE	$				242,675
LABOR					
TOTAL LABOR	$				1,350,479
LABOR % OF THE TOTAL $		%			39.3
LABOR AVG. COST PER MILE	$				225,080
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$				631,026
MISCELLANEOUS % OF THE TOTAL $		%			18.4
MISCELLANEOUS AVG. COST PER MILE	$				105,171
TOTAL COST					
TOTAL COST	$	2)	2)	2)	3,437,556
TOTAL AVG. COST PER MILE	$				572,926
COST RANGE PER MILE					3)
MINIMUM	$				
MAXIMUM	$				

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

TABLE B-2 OFFSHORE PIPELINE

PART B

TABLE B-2

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		6 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED			26.91	10.80	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		2,218,040	560,037	
MATERIAL % OF THE TOTAL $		%	21.2	22.9	
MATERIAL AVG.COST PER MILE	$		82,424	51,855	
LABOR					
TOTAL LABOR	$		5,882,931	1,256,480	
LABOR % OF THE TOTAL $		%	56.3	51.4	
LABOR AVG. COST PER MILE	$		218,615	116,341	
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$		2,355,862	628,284	
MISCELLANEOUS % OF THE TOTAL $		%	22.5	25.7	
MISCELLANEOUS AVG. COST PER MILE	$		87,546	58,174	
TOTAL COST					
TOTAL COST	$	2)	10,456,833	2,444,801	2)
TOTAL AVG. COST PER MILE	$		388,585	226,370	
COST RANGE PER MILE					
MINIMUM	$		258,812	195,756	
MAXIMUM	$		581,247	299,079	

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.

PART B

TABLE B-2

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		8 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		11.41 2)	34.40 3)	36.49	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	1,316,250	3,327,551	3,533,072	
MATERIAL % OF THE TOTAL $		33.9%	28.8	19.7	
MATERIAL AVG.COST PER MILE	$	115,359	96,731	96,823	
LABOR					
TOTAL LABOR	$	1,985,749	6,661,473	11,930,543	
LABOR % OF THE TOTAL $		51.2%	57.6	66.6	
LABOR AVG. COST PER MILE	$	174,036	193,647	326,954	
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	578,840	1,568,911	2,456,467	
MISCELLANEOUS % OF THE TOTAL $		14.9%	13.6	13.7	
MISCELLANEOUS AVG. COST PER MILE	$	50,731	45,608	67,319	
TOTAL COST					4)
TOTAL COST	$	3,880,839	11,557,935	17,920,082	
TOTAL AVG. COST PER MILE	$	340,126	335,986	491,096	
COST RANGE PER MILE					
MINIMUM	$	271,524	245,162	300,148	
MAXIMUM	$	488,352	530,016	1,040,159	

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) PRIOR NOTICE PROJECT CONSTRUCTED UNDER CP83-349.
3) SOUTHERN (CP82-406) AND UNITED (CP82-430) EACH HAVE 5.9% OWNERSHIP IN THIS FACILITY.
PRIOR NOTICE PROJECT CONSTRUCTED UNDER CP84-125.
4) NO REPORTS RECEIVED FOR THIS YEAR.

PART B

TABLE B-2

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		10 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED			18.03 2)	5.90	7.75
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		3,087,665	737,771	1,106,192
MATERIAL % OF THE TOTAL $		%	29.0	27.7	33.0
MATERIAL AVG.COST PER MILE	$		171,252	125,046	142,734
LABOR					
TOTAL LABOR	$		6,565,131	1,798,075	1,698,536
LABOR % OF THE TOTAL $		%	61.6	67.5	50.6
LABOR AVG. COST PER MILE	$		364,123	304,758	219,166
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$		1,004,241	127,353	549,376
MISCELLANEOUS % OF THE TOTAL $		%	9.4	4.8	16.4
MISCELLANEOUS AVG. COST PER MILE	$		55,698	21,585	70,887
TOTAL COST					
TOTAL COST	$	3)	10,657,037	2,663,199	3,354,104
TOTAL AVG. COST PER MILE	$		591,072	451,390	432,788
COST RANGE PER MILE					
MINIMUM	$		406,519	4)	180,070
MAXIMUM	$		959,041		688,787

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) PRIOR NOTICE PROJECT CONSTRUCTED UNDER CP84-315. TEXAS GAS HAS 44.43% OWNERSHIP IN THIS FACILITY (CP82-407, FILED 4/30/85).
3) NO REPORTS RECEIVED FOR THIS YEAR.
4) ONE REPORT RECEIVED FOR THIS YEAR.

PART B

TABLE B-2

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		15.54 2)	19.44 3)	38.11 4)	5.59
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	2,494,430	5,925,797	6,605,413	1,034,381
MATERIAL % OF THE TOTAL $		24.3%	48.3	27.9	30.0
MATERIAL AVG.COST PER MILE	$	160,517	304,825	173,325	185,041
LABOR					
TOTAL LABOR	$	6,977,234	5,135,961	14,865,990	2,111,853
LABOR % OF THE TOTAL $		67.9%	41.9	62.8	61.2
LABOR AVG. COST PER MILE	$	448,985	264,196	390,081	377,791
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	803,366	1,197,857	2,203,765	304,625
MISCELLANEOUS % OF THE TOTAL $		7.8%	9.8	9.3	8.8
MISCELLANEOUS AVG. COST PER MILE	$	51,697	61,618	57,826	54,495
TOTAL COST					
TOTAL COST	$	10,275,030	12,259,615	23,675,168	3,450,859
TOTAL AVG. COST PER MILE	$	661,199	630,639	621,232	617,327
COST RANGE PER MILE					5)
MINIMUM	$	455,498	478,662	505,424	
MAXIMUM	$	959,423	783,679	688,718	

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) PRIOR NOTICE PROJECT CONSTRUCTED UNDER CP83-401.
3) MISS RIVER HAS 10% OWNERSHIP IN THIS FACILITY(CP82-489, FILED 4/30/85).
4) PRIOR NOTICE PROJECT CONSTRUCTED UNDER CP84-320.
5) ONE REPORT RECEIVED FOR THIS YEAR.

PART B

TABLE B-2

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		16 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED				12.80 2)	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$			2,378,780	
MATERIAL % OF THE TOTAL $		%		26.1	
MATERIAL AVG.COST PER MILE	$			185,842	
LABOR					
TOTAL LABOR	$			6,364,922	
LABOR % OF THE TOTAL $		%		69.9	
LABOR AVG. COST PER MILE	$			497,260	
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$			367,232	
MISCELLANEOUS % OF THE TOTAL $		%		4.0	
MISCELLANEOUS AVG. COST PER MILE	$			28,690	
TOTAL COST					
TOTAL COST	$	3)	3)	9,110,934	3)
TOTAL AVG. COST PER MILE	$			711,792	
COST RANGE PER MILE					
MINIMUM	$			4)	
MAXIMUM	$				

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) PRIOR NOTICE PROJECT CONSTRUCTED UNDER CP84-583.
3) NO REPORTS RECEIVED FOR THIS YEAR.
4) ONE REPORT RECEIVED FOR THIS YEAR.

PART B

TABLE B-2

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		20 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED				6.69 2)	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$			1,758,291	
MATERIAL % OF THE TOTAL $		%		25.0	
MATERIAL AVG.COST PER MILE	$			262,824	
LABOR					
TOTAL LABOR	$			4,510,045	
LABOR % OF THE TOTAL $		%		64.2	
LABOR AVG. COST PER MILE	$			674,147	
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$			751,718	
MISCELLANEOUS % OF THE TOTAL $		%		10.7	
MISCELLANEOUS AVG. COST PER MILE	$			112,364	
TOTAL COST					
TOTAL COST	$	3)	3)	7,020,054	3)
TOTAL AVG. COST PER MILE	$			1,049,335	
COST RANGE PER MILE				4)	
MINIMUM	$				
MAXIMUM	$				

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) PRIOR NOTICE PROJECT CONSTRUCTED UNDER CP84-721.
3) NO REPORTS RECEIVED FOR THIS YEAR.
4) ONE REPORT RECEIVED FOR THIS YEAR.

PART B

TABLE B-2

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		24 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED				6.47 2)	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$			2,563,469	
MATERIAL % OF THE TOTAL $		%		27.1	
MATERIAL AVG.COST PER MILE	$			396,209	
LABOR					
TOTAL LABOR	$			6,171,486	
LABOR % OF THE TOTAL $		%		65.2	
LABOR AVG. COST PER MILE	$			953,862	
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$			732,664	
MISCELLANEOUS % OF THE TOTAL $		%		7.7	
MISCELLANEOUS AVG. COST PER MILE	$			113,240	
TOTAL COST					
TOTAL COST	$	3)	3)	9,467,619	3)
TOTAL AVG. COST PER MILE	$			1,463,311	
COST RANGE PER MILE					
MINIMUM	$			4)	
MAXIMUM	$				

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) PRIOR NOTICE PROJECT CONSTRUCTED UNDER CP85-482.
3) NO REPORTS RECEIVED FOR THIS YEAR.
4) ONE REPORT RECEIVED FOR THIS YEAR.

TABLE C-1 ONSHORE PIPELINE

PART B

TABLE C-1

COMPARISON OF ONSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		2 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		15.88	13.61 2)	4.00	2.96
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	370,438	243,175	56,235	26,308
MATERIAL % OF THE TOTAL $		29.8%	24.1	38.3	27.7
MATERIAL AVG.COST PER MILE	$	23,327	17,867	14,059	8,888
LABOR					
TOTAL LABOR	$	582,635	606,030	77,295	42,193
LABOR % OF THE TOTAL $		46.9%	60.1	52.7	44.5
LABOR AVG. COST PER MILE	$	36,690	44,528	19,324	14,254
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	289,195	158,959	13,171	26,330
MISCELLANEOUS % OF THE TOTAL $		23.3%	15.8	9.0	27.8
MISCELLANEOUS AVG. COST PER MILE	$	18,211	11,680	3,293	8,895
TOTAL COST					
TOTAL COST	$	1,242,268	1,008,164	146,701	94,831
TOTAL AVG. COST PER MILE	$	78,228	74,075	36,675	32,038
COST RANGE PER MILE					
MINIMUM	$	31,187	9,718	8,859	16,668
MAXIMUM	$	247,689	715,300	1,409,900	47,319

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) SUPPLEMENTAL EXPENDITURES FOR PROJECT ORIGINALLY COMPLETED IN 1984, WHICH APPEARED IN THE 1981-1984 REPORT ARE: MAT $4,508; LBR 4,486.
SUPPLEMENTAL EXPENDITURES FOR PROJECT ORIGINALLY COMPLETED IN 1984, WHICH APPEARED IN THE 1981-1984 REPORT ARE: MAT $8,048; LBR 1,698.

PART B

TABLE C-1

COMPARISON OF ONSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		3 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		7.57	9.49 2)	4.51 3)	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	132,693	164,323	47,071	
MATERIAL % OF THE TOTAL $		23.4%	25.8	13.7	
MATERIAL AVG.COST PER MILE	$	17,529	17,315	10,437	
LABOR					
TOTAL LABOR	$	292,998	422,742	203,119	
LABOR % OF THE TOTAL $		51.6%	66.3	59.3	
LABOR AVG. COST PER MILE	$	38,705	44,546	45,037	
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	141,994	50,307	92,479	
MISCELLANEOUS % OF THE TOTAL $		25.0%	7.9	27.0	
MISCELLANEOUS AVG. COST PER MILE	$	18,757	5,301	20,505	
TOTAL COST					4)
TOTAL COST	$	567,685	637,372	342,669	
TOTAL AVG. COST PER MILE	$	74,991	67,162	75,980	
COST RANGE PER MILE					
MINIMUM	$	33,608	37,333	25,581	
MAXIMUM	$	101,263	109,884	140,782	

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) SUPPLEMENTAL EXPENDITURES FOR PROJECT ORIGINALLY COMPLETED IN 1984, WHICH APPEARED IN THE 1981-1984 REPORT ARE:MAT $4,486; LBR 1,505.
3) INCLUDES 0.10 MILE OF 2 INCH ONSHORE PIPELINE.
4) NO REPORT RECEIVED FOR THIS YEAR.

PART B

TABLE C-1

COMPARISON OF ONSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		4 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		72.73 2)	52.03 3)	37.52	10.93
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	2,301,380	1,429,031	871,459	253,929
MATERIAL % OF THE TOTAL $		36.6%	33.1	31.3	23.3
MATERIAL AVG.COST PER MILE	$	31,643	27,466	23,227	23,232
LABOR					
TOTAL LABOR	$	2,696,145	1,749,083	1,495,574	603,804
LABOR % OF THE TOTAL $		42.9%	40.5	53.6	55.4
LABOR AVG. COST PER MILE	$	37,071	33,617	39,861	55,243
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	1,290,496	1,137,066	420,894	232,877
MISCELLANEOUS % OF THE TOTAL $		20.5%	26.4	15.1	21.4
MISCELLANEOUS AVG. COST PER MILE	$	17,744	21,854	11,218	21,306
TOTAL COST					
TOTAL COST	$	6,288,021	4,315,180	2,787,927	1,090,610
TOTAL AVG. COST PER MILE	$	86,457	82,936	74,305	99,781
COST RANGE PER MILE					
MINIMUM	$	37,828	29,092	26,689	35,497
MAXIMUM	$	1,055,350	625,686	3,351,700	1,018,500

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) INCLUDES 0.18 MILE OF 2 INCH ONSHORE PIPELINE.
3) INCLUDES 0.23 MILE OF 3 INCH ONSHORE PIPELINE.
INCLUDES 0.06 MILE OF 2 INCH ONSHORE PIPELINE.
INCLUDES 0.03 MILE OF 2 INCH ONSHORE PIPELINE.
INCLUDES 0.01 MILE OF 2 INCH ONSHORE PIPELINE.
INCLUDES 0.03 MILE OF 2 INCH ONSHORE PIPELINE.

PART B

TABLE C-1

COMPARISON OF ONSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		6 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		35.31 2)	20.86 3)	11.36 4)	6.20
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	1,505,613	799,052	410,583	210,055
MATERIAL % OF THE TOTAL $		44.0%	34.8	32.4	29.2
MATERIAL AVG.COST PER MILE	$	42,640	38,305	36,143	33,880
LABOR					
TOTAL LABOR	$	1,290,048	915,704	385,858	305,859
LABOR % OF THE TOTAL $		37.7%	39.8	30.4	42.5
LABOR AVG. COST PER MILE	$	36,535	43,898	33,966	49,332
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	626,325	584,448	471,568	204,390
MISCELLANEOUS % OF THE TOTAL $		18.3%	25.4	37.2	28.4
MISCELLANEOUS AVG. COST PER MILE	$	17,738	28,018	41,511	32,966
TOTAL COST					
TOTAL COST	$	3,421,986	2,299,204	1,268,009	720,304
TOTAL AVG. COST PER MILE	$	96,913	110,221	111,621	116,178
COST RANGE PER MILE					
MINIMUM	$	70,655	71,000	74,219	65,366
MAXIMUM	$	133,349	224,189	168,968	184,177

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) INCLUDES 0.10 MILE OF 4 INCH ONSHORE PIPELINE.
INCLUDES 0.20 MILE OF 4 INCH ONSHORE PIPELINE.
INCLUDES 0.01 MILE OF 4 INCH ONSHORE PIPELINE.
3) INCLUDES 0.04 MILE OF 2 INCH ONSHORE PIPELINE.
INCLUDES 0.06 MILE OF 2 INCH ONSHORE PIPELINE.
4) INCLUDES 0.08 MILE OF 4 INCH ONSHORE PIPELINE.

PART B

TABLE C-1

COMPARISON OF ONSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		8 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		10.07	6.83 2)	5.30	1.28
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	496,455	416,956	284,526	45,188
MATERIAL % OF THE TOTAL $		33.4%	44.1	29.1	36.3
MATERIAL AVG.COST PER MILE	$	49,300	61,048	53,684	35,303
LABOR					
TOTAL LABOR	$	637,888	228,750	454,967	67,083
LABOR % OF THE TOTAL $		43.0%	24.2	46.5	53.9
LABOR AVG. COST PER MILE	$	63,345	33,492	85,843	52,409
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	350,200	300,760	238,209	12,119
MISCELLANEOUS % OF THE TOTAL $		23.6%	31.8	24.4	9.7
MISCELLANEOUS AVG. COST PER MILE	$	34,777	44,035	44,945	9,468
TOTAL COST					
TOTAL COST	$	1,484,543	946,466	977,702	124,390
TOTAL AVG. COST PER MILE	$	147,422	138,575	184,472	97,180
COST RANGE PER MILE					
MINIMUM	$	114,780	78,803	150,513	87,272
MAXIMUM	$	216,368	1,680,300	1,379,350	129,543

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) INCLUDES 0.05 MILE OF 2 INCH ONSHORE PIPELINE.

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TABLE C-1

COMPARISON OF ONSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		10 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		3.27	1.86	0.60	0.77
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	197,884	133,776	40,094	226,784
MATERIAL % OF THE TOTAL $		32.7%	31.3	31.7	55.4
MATERIAL AVG.COST PER MILE	$	60,515	71,923	66,823	294,525
LABOR					
TOTAL LABOR	$	329,902	125,930	29,739	108,683
LABOR % OF THE TOTAL $		54.6%	29.4	23.5	26.6
LABOR AVG. COST PER MILE	$	100,887	67,704	49,565	141,147
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	76,449	168,037	56,616	73,765
MISCELLANEOUS % OF THE TOTAL $		12.7%	39.3	44.8	18.0
MISCELLANEOUS AVG. COST PER MILE	$	23,379	90,342	94,360	95,799
TOTAL COST					
TOTAL COST	$	604,235	427,743	126,449	409,232
TOTAL AVG. COST PER MILE	$	184,781	229,969	210,748	531,470
COST RANGE PER MILE					
MINIMUM	$	110,716	2)	149,750	193,550
MAXIMUM	$	1,289,150		332,745	1,710,200

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) ONE REPORT RECEIVED FOR THIS YEAR.

PART B

TABLE C-1

COMPARISON OF ONSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		3.17	1.40	0.25	0.01
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	250,467	193,315	82,047	1,452
MATERIAL % OF THE TOTAL $		30.3%	52.6	47.9	8.8
MATERIAL AVG.COST PER MILE	$	79,012	138,082	328,188	145,200
LABOR					
TOTAL LABOR	$	302,713	109,866	62,434	10,800
LABOR % OF THE TOTAL $		36.7%	29.9	36.5	65.6
LABOR AVG. COST PER MILE	$	95,493	78,476	249,736	1,080,000
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	272,711	64,537	26,672	4,221
MISCELLANEOUS % OF THE TOTAL $		33.0%	17.6	15.6	25.6
MISCELLANEOUS AVG. COST PER MILE	$	86,029	46,098	106,688	422,100
TOTAL COST					
TOTAL COST	$	825,891	367,718	171,153	16,473
TOTAL AVG. COST PER MILE	$	260,533	262,656	684,612	1,647,300
COST RANGE PER MILE					
MINIMUM	$	217,459	140,501	2)	2)
MAXIMUM	$	796,680	798,394		

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) ONE REPORT RECEIVED FOR THIS YEAR.

PART B

TABLE C-1

COMPARISON OF ONSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		16 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		1.30	0.87	1.00	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	120,787	134,517	262,913	
MATERIAL % OF THE TOTAL $		30.5%	19.9	37.9	
MATERIAL AVG.COST PER MILE	$	92,913	154,617	262,913	
LABOR					
TOTAL LABOR	$	195,724	454,854	335,631	
LABOR % OF THE TOTAL $		49.4%	67.1	48.4	
LABOR AVG. COST PER MILE	$	150,557	522,821	335,631	
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	79,745	88,064	95,206	
MISCELLANEOUS % OF THE TOTAL $		20.1%	13.0	13.7	
MISCELLANEOUS AVG. COST PER MILE	$	61,342	101,223	95,206	
TOTAL COST					
TOTAL COST	$	396,256	677,435	693,750	2)
TOTAL AVG. COST PER MILE	$	304,812	778,661	693,750	
COST RANGE PER MILE					
MINIMUM	$	3)	764,883	3)	
MAXIMUM	$		936,129		

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORT RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART B

TABLE C-1

COMPARISON OF ONSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		20 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED				0.11	0.95
COST DATA					
MATERIALS					
TOTAL MATERIALS	$			85,452	278,576
MATERIAL % OF THE TOTAL $		%		40.1	85.7
MATERIAL AVG.COST PER MILE	$			776,836	293,238
LABOR					
TOTAL LABOR	$			119,918	19,429
LABOR % OF THE TOTAL $		%		56.2	6.0
LABOR AVG. COST PER MILE	$			1,090,164	20,452
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$			7,918	27,173
MISCELLANEOUS % OF THE TOTAL $		%		3.7	8.4
MISCELLANEOUS AVG. COST PER MILE	$			71,982	28,603
TOTAL COST					
TOTAL COST	$	2)	2)	213,288	325,178
TOTAL AVG. COST PER MILE	$			1,938,982	342,293
COST RANGE PER MILE					
MINIMUM	$			3)	3)
MAXIMUM	$				

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORT RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART B

TABLE C-1

COMPARISON OF ONSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		24 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED					0.40
COST DATA					
MATERIALS					
TOTAL MATERIALS	$				85,300
MATERIAL % OF THE TOTAL $		%			24.9
MATERIAL AVG.COST PER MILE	$				213,250
LABOR					
TOTAL LABOR	$				202,500
LABOR % OF THE TOTAL $		%			59.0
LABOR AVG. COST PER MILE	$				506,250
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$				55,200
MISCELLANEOUS % OF THE TOTAL $		%			16.1
MISCELLANEOUS AVG. COST PER MILE	$				138,000
TOTAL COST					
TOTAL COST	$	2)	2)	2)	343,000
TOTAL AVG. COST PER MILE	$				857,500
COST RANGE PER MILE					
MINIMUM	$				3)
MAXIMUM	$				

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORT RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

TABLE C-2 OFFSHORE PIPELINE

PART B

TABLE C-2

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		4 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED			5.81 2)		
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		369,159		
MATERIAL % OF THE TOTAL $		%	14.4		
MATERIAL AVG.COST PER MILE	$		63,539		
LABOR					
TOTAL LABOR	$		1,819,600		
LABOR % OF THE TOTAL $		%	71.1		
LABOR AVG. COST PER MILE	$		313,184		
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$		369,633		
MISCELLANEOUS % OF THE TOTAL $		%	14.4		
MISCELLANEOUS AVG. COST PER MILE	$		63,620		
TOTAL COST					
TOTAL COST	$	3)	2,558,392	3)	3)
TOTAL AVG. COST PER MILE	$		440,343		
COST RANGE PER MILE					
MINIMUM	$		259,940		
MAXIMUM	$		832,855		

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) UNITED HAS 70.77% OWNERSHIP IN THIS FACILITY.
3) NO REPORT RECEIVED FOR THIS YEAR.

PART B

TABLE C-2

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		6 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		6.17	15.20 2)	10.16	1.48
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	1,084,221	1,767,025	784,832	121,154
MATERIAL % OF THE TOTAL $		13.3%	14.1	11.8	19.1
MATERIAL AVG.COST PER MILE	$	175,725	116,252	77,247	81,861
LABOR					
TOTAL LABOR	$	6,106,043	8,826,017	4,798,131	498,409
LABOR % OF THE TOTAL $		74.9%	70.5	72.2	78.6
LABOR AVG. COST PER MILE	$	989,634	580,659	472,257	336,763
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	965,855	1,934,169	1,067,056	14,177
MISCELLANEOUS % OF THE TOTAL $		11.8%	15.4	16.0	2.2
MISCELLANEOUS AVG. COST PER MILE	$	156,541	127,248	105,025	9,579
TOTAL COST					
TOTAL COST	$	8,156,119	12,527,211	6,650,019	633,740
TOTAL AVG. COST PER MILE	$	1,321,899	824,159	654,529	428,203
COST RANGE PER MILE					
MINIMUM	$	748,948	356,011	208,430	3)
MAXIMUM	$	2,299,864	3,519,647	1,890,498	

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) PRIOR NOTICE PROJECT CONSTRUCTED UNDER CP83-349.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART B

TABLE C-2

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		8 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED		1.32	9.19	8.97 2)	1.23
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	218,426	1,525,530	1,578,789	291,606
MATERIAL % OF THE TOTAL $		23.3%	16.6	13.3	31.5
MATERIAL AVG.COST PER MILE	$	165,474	165,999	176,008	237,078
LABOR					
TOTAL LABOR	$	578,274	5,728,621	7,691,295	616,607
LABOR % OF THE TOTAL $		61.8%	62.4	64.6	66.7
LABOR AVG. COST PER MILE	$	438,086	623,354	857,446	501,307
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	139,662	1,921,987	2,631,668	16,708
MISCELLANEOUS % OF THE TOTAL $		14.9%	20.9	22.1	1.8
MISCELLANEOUS AVG. COST PER MILE	$	105,805	209,139	293,386	13,584
TOTAL COST					
TOTAL COST	$	936,362	9,176,138	11,901,752	924,921
TOTAL AVG. COST PER MILE	$	709,365	998,492	1,326,840	751,968
COST RANGE PER MILE					
MINIMUM	$	3)	446,044	947,593	3)
MAXIMUM	$		26,991,325	2,135,795	

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) TRANSCO HAS 15.5% OWNERSHIP IN THIS FACILITY (CP 82-426, FILED 5/1/86).
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART B

TABLE C-2

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		10 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED			4.35 2)	5.54	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		1,103,505	1,132,197	
MATERIAL % OF THE TOTAL $		%	23.4	25.7	
MATERIAL AVG.COST PER MILE	$		253,679	204,368	
LABOR					
TOTAL LABOR	$		3,095,260	2,781,712	
LABOR % OF THE TOTAL $		%	65.5	63.0	
LABOR AVG. COST PER MILE	$		711,554	502,114	
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$		525,294	498,488	
MISCELLANEOUS % OF THE TOTAL $		%	11.1	11.3	
MISCELLANEOUS AVG. COST PER MILE	$		120,757	89,980	
TOTAL COST					
TOTAL COST	$	3)	4,724,059	4,412,397	3)
TOTAL AVG. COST PER MILE	$		1,085,991	796,462	
COST RANGE PER MILE					
MINIMUM	$		889,719	606,946	
MAXIMUM	$		2,502,663	961,079	

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NGPL HAS 50% OWNERSHIP IN THIS FACILITY.
3) NO REPORT RECEIVED FOR THIS YEAR.

PART B

TABLE C-2

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED			7.40 2)		
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		1,773,538		
MATERIAL % OF THE TOTAL $		%	28.4		
MATERIAL AVG.COST PER MILE	$		239,667		
LABOR					
TOTAL LABOR	$		3,863,000		
LABOR % OF THE TOTAL $		%	61.8		
LABOR AVG. COST PER MILE	$		522,027		
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$		610,155		
MISCELLANEOUS % OF THE TOTAL $		%	9.8		
MISCELLANEOUS AVG. COST PER MILE	$		82,453		
TOTAL COST					
TOTAL COST	$	3)	6,246,693	3)	3)
TOTAL AVG. COST PER MILE	$		844,148		
COST RANGE PER MILE					
MINIMUM	$		810,664		
MAXIMUM	$		880,851		

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) MISS RIVER HAS 10% OWNERSHIP IN THIS FACILITY (CP82-489, FILED 4/30/85).
3) NO REPORT RECEIVED FOR THIS YEAR.

PART B

TABLE C-2

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		16 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED			1.54	3.58	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		391,820	1,498,862	
MATERIAL % OF THE TOTAL $		%	23.4	19.7	
MATERIAL AVG.COST PER MILE	$		254,429	418,677	
LABOR					
TOTAL LABOR	$		1,049,972	5,493,730	
LABOR % OF THE TOTAL $		%	62.7	72.2	
LABOR AVG. COST PER MILE	$		681,800	1,534,561	
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$		231,754	613,157	
MISCELLANEOUS % OF THE TOTAL $		%	13.8	8.1	
MISCELLANEOUS AVG. COST PER MILE	$		150,490	171,273	
TOTAL COST					
TOTAL COST	$	2)	1,673,546	7,605,749	2)
TOTAL AVG. COST PER MILE	$		1,086,718	2,124,511	
COST RANGE PER MILE					
MINIMUM	$		3)	1,948,370	
MAXIMUM	$			2,347,475	

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORT RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

PART B

TABLE C-2

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		20 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1983	1984	1985	1986
MILES OF PIPE CONSTRUCTED				1.94 2)	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$			1,139,638	
MATERIAL % OF THE TOTAL $		%		25.1	
MATERIAL AVG.COST PER MILE	$			587,442	
LABOR					
TOTAL LABOR	$			2,690,584	
LABOR % OF THE TOTAL $		%		59.2	
LABOR AVG. COST PER MILE	$			1,386,899	
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$			711,105	
MISCELLANEOUS % OF THE TOTAL $		%		15.7	
MISCELLANEOUS AVG. COST PER MILE	$			366,549	
TOTAL COST					
TOTAL COST	$	3)	3)	4,541,327	3)
TOTAL AVG. COST PER MILE	$			2,340,890	
COST RANGE PER MILE					
MINIMUM	$			4)	
MAXIMUM	$				

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) PRIOR NOTICE PROJECT CONSTRUCTED UNDER CP84-337.
3) NO REPORT RECEIVED FOR THIS YEAR.
4) ONE REPORT RECEIVED FOR THIS YEAR.

TABLE D COMPRESSION CONSTRUCTION AND EXPENDITURES

PART B

TABLE D

COMPRESSION CONSTRUCTION AND EXPENDITURES
CONSTRUCTION ENDING IN 1983 THROUGH 1986

YEAR CONSTRUCTION ENDED	ONSHORE HORSEPOWER	ONSHORE EXPENDITURES	AVG. COST PER HORSEPOWER	OFFSHORE HORSEPOWER	OFFSHORE EXPENDITURES	AVG. COST PER HORSEPOWER	TOTAL HORSEPOWER	TOTAL EXPENDITURES	AVG. COST PER HORSEPOWER
1983	12,257	$ 14,169,717	$ 1,156	190	$ 796,642	$ 4,193	12,447	$ 14,966,359	$ 1,202
1984	10,207	9,409,551	922	1,100	721,840	656	11,307	10,131,391	896
1985	12,297	11,980,921	974	--	--	--	12,297	11,980,921	974
1986	4,705	5,268,747	1,120	--	--	--	4,705	5,268,747	1,120

TABLE E-1 RECIPROCATING UNITS

PART B

TABLE E-1

COMPARISON OF CONSTRUCTION COSTS FOR
FIELD COMPRESSOR STATIONS WITH RECIPROCATING UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		NEW FIELD COMPRESSOR STATIONS			
		1983	1984	1985	1986
DESCRIPTIVE DATA					
NUMBER OF UNITS		16	10	11	6
TOTAL HORSEPOWER		5,717	5,346	3,347	871
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	4,589,312	2,870,352	2,482,111	639,130
MATERIAL % OF THE TOTAL $		56.9%	60.7	72.9	73.0
MATERIAL AVG.COST PER HORSEPOWER	$	803	537	742	734
LABOR					
TOTAL LABOR	$	2,414,118	1,453,470	589,199	153,441
LABOR % OF THE TOTAL $		29.9%	30.8	17.3	17.5
LABOR AVG. COST PER HORSEPOWER	$	422	272	176	176
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	1,069,065	402,422	331,454	82,505
MISCELLANEOUS % OF THE TOTAL $		13.2%	8.5	9.7	9.4
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	187	75	99	95
TOTAL COST					
TOTAL COST	$	8,072,495	4,726,244	3,402,764	875,076
TOTAL AVG. COST PER HORSEPOWER	$	1,412	884	1,017	1,005
COST RANGE PER HORSEPOWER					
MINIMUM	$	191	248	458	825
MAXIMUM	$	3,113	1,689	1,277	1,189

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, LAND, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, AND OTHER COSTS.

PART B

TABLE E-1

COMPARISON OF CONSTRUCTION COSTS FOR FIELD COMPRESSOR STATIONS WITH RECIPROCATING UNITS REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		ADDITIONS TO FIELD COMPRESSOR STATIONS			
		1983	1984	1985	1986
DESCRIPTIVE DATA					
NUMBER OF UNITS		8	7	11	3
TOTAL HORSEPOWER		4,340	4,861	7,950	2,084
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	2,686,311	2,735,430	4,486,795	1,180,541
MATERIAL % OF THE TOTAL $		58.2%	58.4	62.3	96.2
MATERIAL AVG.COST PER HORSEPOWER	$	619	563	564	566
LABOR					
TOTAL LABOR	$	1,099,466	1,011,625	2,000,029	32,618
LABOR % OF THE TOTAL $		23.8%	21.6	27.8	2.7
LABOR AVG. COST PER HORSEPOWER	$	253	208	252	16
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	827,445	936,252	711,009	13,595
MISCELLANEOUS % OF THE TOTAL $		17.9%	20.0	9.9	1.1
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	191	193	89	7
TOTAL COST					
TOTAL COST	$	4,613,222	4,683,307	7,197,833	1,226,754
TOTAL AVG. COST PER HORSEPOWER	$	1,063	963	905	589
COST RANGE PER HORSEPOWER					
MINIMUM	$	377	561	453	549
MAXIMUM	$	4,083	1,749	1,435	1,791

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, LAND, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, AND OTHER COSTS.

TABLE E-2 TURBINE DRIVEN CENTRIFUGAL UNITS

PART B

TABLE E-2

COMPARISON OF CONSTRUCTION COSTS FOR
FIELD COMPRESSOR STATIONS WITH TURBINE DRIVEN CENTRIFUGAL UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		NEW FIELD COMPRESSOR STATIONS			
		1983	1984	1985	1986
DESCRIPTIVE DATA					
NUMBER OF UNITS		2		1	
TOTAL HORSEPOWER		2,200		1,000	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	825,127		877,264	
MATERIAL % OF THE TOTAL $		55.6%		63.6	
MATERIAL AVG.COST PER HORSEPOWER	$	375		877	
LABOR					
TOTAL LABOR	$	467,049		306,363	
LABOR % OF THE TOTAL $		31.5%		22.2	
LABOR AVG. COST PER HORSEPOWER	$	212		306	
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	191,824		196,697	
MISCELLANEOUS % OF THE TOTAL $		12.9%		14.3	
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	87		197	
TOTAL COST					
TOTAL COST	$	1,484,000	2)	1,380,324	2)
TOTAL AVG. COST PER HORSEPOWER	$	675		1,380	
COST RANGE PER HORSEPOWER					
MINIMUM	$	3)		3)	
MAXIMUM	$				

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, LAND, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

TABLE E-3 ELECTRIC MOTOR DRIVEN CENTRIFUGAL UNITS

PART B

TABLE E-3

COMPARISON OF CONSTRUCTION COSTS FOR
FIELD COMPRESSOR STATIONS WITH ELECTRIC MOTOR DRIVEN CENTRIFUGAL UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		ADDITIONS TO FIELD COMPRESSOR STATIONS			
		1983	1984	1985	1986
DESCRIPTIVE DATA					
NUMBER OF UNITS					1
TOTAL HORSEPOWER					1,750
COST DATA					
MATERIALS					
TOTAL MATERIALS	$				1,418,771
MATERIAL % OF THE TOTAL $		%			44.8
MATERIAL AVG.COST PER HORSEPOWER	$				811
LABOR					
TOTAL LABOR	$				200,620
LABOR % OF THE TOTAL $		%			6.3
LABOR AVG. COST PER HORSEPOWER	$				115
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$				1,547,526
MISCELLANEOUS % OF THE TOTAL $		%			48.9
MISCELLANEOUS AVG. COST PER HORSEPOWER	$				884
TOTAL COST					
TOTAL COST	$	2)	2)	2)	3,166,917
TOTAL AVG. COST PER HORSEPOWER	$				1,810
COST RANGE PER HORSEPOWER					3)
MINIMUM	$				
MAXIMUM	$				

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, LAND, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, AND OTHER COSTS.
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

TABLE F NO REPORTS RECEIVED

TABLE G-1 RECIPROCATING UNITS

TABLE G-1

COMPARISON OF CONSTRUCTION COSTS FOR
OFFSHORE COMPRESSOR STATIONS WITH RECIPROCATING UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1983 THROUGH 1986

		NEW OFFSHORE COMPRESSOR STATIONS			
		1983	1984	1985	1986
DESCRIPTIVE DATA					
NUMBER OF UNITS		1	1		
TOTAL HORSEPOWER		190	1,100		
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	237,932	342,446		
MATERIAL % OF THE TOTAL $		29.9%	47.4		
MATERIAL AVG.COST PER HORSEPOWER	$	1,252	311		
LABOR					
TOTAL LABOR	$	424,432	357,554		
LABOR % OF THE TOTAL $		53.3%	49.5		
LABOR AVG. COST PER HORSEPOWER	$	2,234	325		
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	134,278	21,840		
MISCELLANEOUS % OF THE TOTAL $		16.9%	3.0		
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	707	20		
TOTAL COST					
TOTAL COST	$	796,642	721,840	2)	2)
TOTAL AVG. COST PER HORSEPOWER	$	4,193	656		
COST RANGE PER HORSEPOWER					
MINIMUM	$	3)	3)		
MAXIMUM	$				

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, LAND, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, AND OTHER COSTS
2) NO REPORTS RECEIVED FOR THIS YEAR.
3) ONE REPORT RECEIVED FOR THIS YEAR.

TABLE G-2 NO REPORTS RECEIVED

TABLE G-3 NO REPORTS RECEIVED

PART B
SECTION II INDIVIDUAL PROJECTS

Table H Construction Cost Reports Filed From
August 1, 1986 Through July 31, 1987

PART B

TABLE H

CONSTRUCTION COST REPORTS FILED FROM AUGUST 1, 1986 THROUGH JULY 31, 1987
CONSTRUCTION ENDING IN 1985

	DOCKET NO. (CP)	TYPE OF CONSTRUCTION COST REPORTED				
		COMPRESSOR STATIONS		PIPELINES		MIXED DIAMETER PIPELINES
		ONSHORE	OFFSHORE	ONSHORE	OFFSHORE	
CONSOLIDATED GAS TRANSMISSION CORP.	82-537	X		X		
TEXAS GAS TRANSMISSION CORP.	82-407			X	X	

TABLE H

CONSTRUCTION COST REPORTS FILED FROM AUGUST 1, 1986 THROUGH JULY 31, 1987
CONSTRUCTION ENDING IN 1986

	DOCKET NO. (CP)	TYPE OF CONSTRUCTION COST REPORTED: COMPRESSOR STATIONS ONSHORE	COMPRESSOR STATIONS OFFSHORE	PIPELINES ONSHORE	PIPELINES OFFSHORE	MIXED DIAMETER PIPELINES
ARKANSAS LOUISIANA GAS CO.	82-384			X		
COLUMBIA GAS TRANSMISSION CORP.	83-76	X		X		
COLUMBIA GULF TRANSMISSION CO.	83-496			X		
GASDEL SYSTEM PIPELINE INC.	83-276			X		
INLAND GAS CO., INC.	83-139			X		
K N ENERGY, INC.	83-140	X		X		
MIGC, INC.	82-409	X				
MOUNTAIN FUEL RESOURCES, INC.	82-491			X		
NORTHWEST PIPELINE CORP.	82-433			X		
PANHANDLE EASTERN PIPE LINE CO.	83-83			X		
PHILLIPS GAS PIPELINE CO.	85-130	X				
SOUTHERN NATURAL GAS CO.	82-406				X	
TEXAS EASTERN TRANSMISSION CORP.	82-535			X	X	
TEXAS GAS TRANSMISSION CORP.	82-407				X	
TRANSCONTINENTAL GAS PIPE LINE CORP.	82-426				X	
WESTERN GAS INTERSTATE CO.	82-441			X		
WILLIAMS NATURAL GAS CO.	82-479			X		
ZENITH NATURAL GAS CO.	83-464			X		

TABLE I-1 THREE MILES AND OVER
(EXCLUDES MIXED DIAMETER PIPELINE)

PART B

TABLE I-1

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1985

DOCKET NO. (CP)	APPLICANT		DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE PIPELINE						
82-537	CONSOLIDATED GAS TRANSMISSION CORP.		3	3.12	WV	$ 265,630	$ 85,138
82-537	CONSOLIDATED GAS TRANSMISSION CORP.		3	3.07	PA	226,945	73,923
82-537	CONSOLIDATED GAS TRANSMISSION CORP.		4	6.63	WV	400,165	60,357
82-537	CONSOLIDATED GAS TRANSMISSION CORP.		8	9.00	PA	1,629,929	181,103
82-407	TEXAS GAS TRANSMISSION CORP.	1)	10	12.27	LA	3,862,469	314,790

1) PRIOR NOTICE PROJECT CONSTRUCTED UNDER CP85-265. INCLUDES 0.41 MILE OF 6 INCH ONSHORE PIPELINE.

PART B

TABLE I-1

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1986

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE PIPELINE					
83-76	COLUMBIA GAS TRANSMISSION CORP.	6	3.70	KY	$ 426,000	$ 115,135
83-140	K N ENERGY, INC.	6	3.10	KS	166,067	53,570
82-384	ARKANSAS LOUISIANA GAS CO.	8	3.71	OK	337,511	90,973
82-433	NORTHWEST PIPELINE CORP.	16	16.50	WY	2,549,455	154,512
83-496	COLUMBIA GULF TRANSMISSION CO.	30	6.00	LA	3,437,556	572,926

PART B

TABLE I-1

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1985

DOCKET NO. (CP)	APPLICANT		DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	OFFSHORE PIPELINE						
82-407	TEXAS GAS TRANSMISSION CORP.		8	6.77	LA	$ 3,211,953	$ 474,439
82-407	TEXAS GAS TRANSMISSION CORP.		8	7.31	TX	3,173,957	434,194
82-407	TEXAS GAS TRANSMISSION CORP.		10	5.90	TX	2,663,199	451,390
82-407	TEXAS GAS TRANSMISSION CORP.	1)	16	12.80	LA	9,110,934	711,792

1) PRIOR NOTICE PROJECT CONSTRUCTED UNDER CP84-583.

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TABLE I-1

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1986

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	OFFSHORE PIPELINE					
82-535	TEXAS EASTERN TRANSMISSION CORP.	10	3.85	TX	$ 2,651,831	$ 688,787
82-407	TEXAS GAS TRANSMISSION CORP.	10	3.90	TX	702,273	180,070
82-426	TRANSCONTINENTAL GAS PIPE LINE CORP.	12	5.59	TX	3,450,859	617,327

TABLE I-2 UNDER THREE MILES
(EXCLUDES MIXED DIAMETER PIPELINE)

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1985

TABLE I-2

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE PIPELINE					
82-537	CONSOLIDATED GAS TRANSMISSION CORP.	2	0.12	WV	$ 14,575	$ 121,458
82-537	CONSOLIDATED GAS TRANSMISSION CORP.	2	0.01	WV	14,099	1,409,900
82-537	CONSOLIDATED GAS TRANSMISSION CORP.	2	0.14	WV	12,450	88,929
82-537	CONSOLIDATED GAS TRANSMISSION CORP.	2	0.37	WV	17,336	46,854
82-537	CONSOLIDATED GAS TRANSMISSION CORP.	2	0.11	PA	17,900	162,727
82-537	CONSOLIDATED GAS TRANSMISSION CORP.	3	2.18	WV	95,287	43,710
82-537	CONSOLIDATED GAS TRANSMISSION CORP.	4	2.59	WV	231,395	89,342
82-537	CONSOLIDATED GAS TRANSMISSION CORP.	4	1.43	WV	141,579	99,006
82-537	CONSOLIDATED GAS TRANSMISSION CORP.	4	0.09	PA	8,599	95,544
82-537	CONSOLIDATED GAS TRANSMISSION CORP.	4	2.07	PA	174,046	84,080
82-537	CONSOLIDATED GAS TRANSMISSION CORP.	4	1.23	PA	105,308	85,616
82-537	CONSOLIDATED GAS TRANSMISSION CORP.	4	0.95	PA	125,561	132,169
82-537	CONSOLIDATED GAS TRANSMISSION CORP.	8	2.41	PA	362,736	150,513

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1986

TABLE I-2

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE PIPELINE					
83-76	COLUMBIA GAS TRANSMISSION CORP.	2	0.40	WV	$ 16,975	$ 42,438
83-76	COLUMBIA GAS TRANSMISSION CORP.	2	0.30	WV	10,185	33,950
83-76	COLUMBIA GAS TRANSMISSION CORP.	2	0.50	WV	8,334	16,668
83-76	COLUMBIA GAS TRANSMISSION CORP.	2	0.30	WV	6,291	20,970
83-140	K N ENERGY, INC.	2	0.28	CO	8,097	28,918
83-140	K N ENERGY, INC.	2	0.32	CO	10,510	32,844
83-140	K N ENERGY, INC.	2	0.16	CO	7,571	47,319
83-140	K N ENERGY, INC.	2	0.21	CO	7,712	36,724
83-140	K N ENERGY, INC.	2	0.16	CO	6,765	42,281
83-140	K N ENERGY, INC.	2	0.16	CO	7,049	44,056
83-140	K N ENERGY, INC.	2	0.17	CO	5,342	31,424
83-76	COLUMBIA GAS TRANSMISSION CORP.	4	0.30	PA	17,600	58,667
83-76	COLUMBIA GAS TRANSMISSION CORP.	4	0.80	WV	112,108	140,135
83-76	COLUMBIA GAS TRANSMISSION CORP.	4	0.40	OH	27,788	69,470
83-76	COLUMBIA GAS TRANSMISSION CORP.	4	1.60	OH	126,068	78,793
83-76	COLUMBIA GAS TRANSMISSION CORP.	4	0.20	WV	203,700	1,018,500
83-76	COLUMBIA GAS TRANSMISSION CORP.	4	1.60	OH	90,601	56,626
83-140	K N ENERGY, INC.	4	0.34	CO	15,063	44,303
83-140	K N ENERGY, INC.	4	0.01	CO	2,223	222,300
83-140	K N ENERGY, INC.	4	0.11	CO	7,187	65,336
83-140	K N ENERGY, INC.	4	0.16	CO	6,056	37,850
83-140	K N ENERGY, INC.	4	0.05	CO	3,578	71,560
83-140	K N ENERGY, INC.	4	0.23	CO	8,482	36,878
83-140	K N ENERGY, INC.	4	0.12	CO	6,427	53,558
83-140	K N ENERGY, INC.	4	0.05	CO	3,910	78,200

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TABLE I-2

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1986

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE PIPELINE					
83-140	K N ENERGY, INC.	4	0.06	KS	$ 4,826	$ 80,433
83-140	K N ENERGY, INC.	4	0.38	KS	13,489	35,497
83-140	K N ENERGY, INC.	4	0.02	MT	2,431	121,550
83-140	K N ENERGY, INC.	4	1.26	WY	55,312	43,898
83-83	PANHANDLE EASTERN PIPE LINE CO.	4	1.00	CO	122,402	122,402
83-83	PANHANDLE EASTERN PIPE LINE CO.	4	1.20	CO	150,622	125,518
83-83	PANHANDLE EASTERN PIPE LINE CO.	4	0.50	TX	49,899	99,798
82-535	TEXAS EASTERN TRANSMISSION CORP.	4	0.28	IL	39,171	139,896
82-441	WESTERN GAS INTERSTATE CO.	4	0.03	OK	4,390	146,333
82-479	WILLIAMS NATURAL GAS CO.	4	0.04	KS	8,340	208,500
83-464	ZENITH NATURAL GAS CO.	4	0.17	KS	7,399	43,524
83-464	ZENITH NATURAL GAS CO.	4	0.02	KS	1,538	76,900
83-76	COLUMBIA GAS TRANSMISSION CORP.	6	1.40	OH	217,000	155,000
83-76	COLUMBIA GAS TRANSMISSION CORP.	6	0.30	OH	55,253	184,177
83-76	COLUMBIA GAS TRANSMISSION CORP.	6	0.30	OH	28,728	95,760
83-76	COLUMBIA GAS TRANSMISSION CORP.	6	0.80	WV	122,902	153,628
83-276	GASDEL SYSTEM PIPELINE INC.	6	2.10	LA	209,696	99,855
83-140	K N ENERGY, INC.	6	1.28	CO	83,669	65,366
83-464	ZENITH NATURAL GAS CO.	6	0.02	KS	3,056	152,800
83-139	INLAND GAS CO., INC.	8	0.30	KY	38,863	129,543
83-140	K N ENERGY, INC.	8	0.98	WY	85,527	87,272
82-384	ARKANSAS LOUISIANA GAS CO.	10	0.17	AR	290,734	1,710,200
83-76	COLUMBIA GAS TRANSMISSION CORP.	10	0.30	WV	60,433	201,443
83-139	INLAND GAS CO., INC.	10	0.30	KY	58,065	193,550
82-535	TEXAS EASTERN TRANSMISSION CORP.	12	0.01	PA	16,473	1,647,300

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TABLE I-2

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1986

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE PIPELINE					
82-491	MOUNTAIN FUEL RESOURCES, INC.	20	0.95	WY	$ 325,178	$ 342,293
83-76	COLUMBIA GAS TRANSMISSION CORP.	24	0.40	KY	343,000	857,500

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TABLE I-2

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1985

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	OFFSHORE PIPELINE					
82-407	TEXAS GAS TRANSMISSION CORP.	6	2.69	LA	$ 560,676	$ 208,430
82-407	TEXAS GAS TRANSMISSION CORP.	10	2.49	LA	1,511,296	606,946

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PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1986

TABLE I-2

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	OFFSHORE PIPELINE					
82-406	SOUTHERN NATURAL GAS CO.	6	1.48	TX	$ 633,740	$ 428,203
82-406	SOUTHERN NATURAL GAS CO.	8	1.23	LA	924,921	751,968

TABLE J-1 RECIPROCATING UNITS

PART B

TABLE J-1

NEW FIELD COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1986

	DOCKET NUMBER (CP) AND APPLICANT		
	83-140 K N ENERGY	83-140 K N ENERGY	83-140 K N ENERGY
DESCRIPTIVE DATA			
NAME OF COMPRESSOR STATION	CANNON NO 1 COMP STA	SPRATT COMP STA	SPRATT 1B COMP STA
LOCATION	KEARNY CO, KS	FINNEY CO, KS	FINNEY CO, KS
HORSEPOWER/UNIT	1 AT 105	1 AT 180	1 AT 140
NUMBER OF UNITS	1	1	1
TOTAL HORSEPOWER	105	180	140
COST DATA			
MATERIALS			
TOTAL MATERIALS	$ 80,194	143,290	97,110
MATERIAL % OF THE TOTAL $	76.0%	75.8	77.0
MATERIAL AVG. COST PER HORSEPOWER	$ 764	796	694
LABOR			
TOTAL LABOR	$ 13,249	24,383	14,548
LABOR % OF THE TOTAL $	12.6%	12.9	11.5
LABOR AVG. COST PER HORSEPOWER	$ 126	135	104
MISCELLANEOUS			
TOTAL MISCELLANEOUS 1)	$ 12,083	21,391	14,442
MISCELLANEOUS % OF THE TOTAL $	11.5%	11.3	11.5
MISCELLANEOUS AVG. COST PER HORSEPOWER	$ 115	119	103
TOTAL COST			
TOTAL COST	$ 105,526	189,064	126,100
TOTAL AVG. COST PER HORSEPOWER	$ 1,005	1,050	901

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, LAND, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, AND OTHER COSTS.

PART B

NEW FIELD COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1986

TABLE J-1

	DOCKET NUMBER (CP) AND APPLICANT		
	83-140 K N ENERGY	83-140 K N ENERGY	85-130 PHILLIPS
DESCRIPTIVE DATA			
NAME OF COMPRESSOR STATION	SPRATT 1C COMP STA	SPRATT 1D COMP STA	LITTLE BOOSTER
LOCATION	FINNEY CO, KS	FINNEY CO, KS	SEMINOLE CO, OK
HORSEPOWER/UNIT	1 AT 140	1 AT 140	1 AT 166
NUMBER OF UNITS	1	1	1
TOTAL HORSEPOWER	140	140	166
COST DATA			
MATERIALS			
TOTAL MATERIALS	$ 90,592	107,415	120,529
MATERIAL % OF THE TOTAL $	78.4%	75.9	61.1
MATERIAL AVG. COST PER HORSEPOWER	$ 647	767	726
LABOR			
TOTAL LABOR	$ 11,672	19,187	70,402
LABOR % OF THE TOTAL $	10.1%	13.6	35.7
LABOR AVG. COST PER HORSEPOWER	$ 83	137	424
MISCELLANEOUS			
TOTAL MISCELLANEOUS 1)	$ 13,256	14,883	6,450
MISCELLANEOUS % OF THE TOTAL $	11.5%	10.5	3.3
MISCELLANEOUS AVG. COST PER HORSEPOWER	$ 95	106	39
TOTAL COST			
TOTAL COST	$ 115,520	141,485	197,381
TOTAL AVG. COST PER HORSEPOWER	$ 825	1,011	1,189

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, LAND, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, AND OTHER COSTS.

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TABLE J-1

ADDITIONS TO FIELD COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1985

	DOCKET NUMBER (CP) AND APPLICANT
	82-537 CONSOLIDATED
DESCRIPTIVE DATA	
NAME OF COMPRESSOR STATION	SCHUTTE COMP STA
LOCATION	DODDRIDGE CO, WV
HORSEPOWER/UNIT	1 AT 660
NUMBER OF UNITS	1
TOTAL HORSEPOWER	660
COST DATA	
MATERIALS	
TOTAL MATERIALS	$ 470,663
MATERIAL % OF THE TOTAL $	55.4%
MATERIAL AVG. COST PER HORSEPOWER	$ 713
LABOR	
TOTAL LABOR	$ 365,678
LABOR % OF THE TOTAL $	43.0%
LABOR AVG. COST PER HORSEPOWER	$ 554
MISCELLANEOUS	
TOTAL MISCELLANEOUS 1)	$ 13,923
MISCELLANEOUS % OF THE TOTAL $	1.6%
MISCELLANEOUS AVG. COST PER HORSEPOWER	$ 21
TOTAL COST	
TOTAL COST	$ 850,264
TOTAL AVG. COST PER HORSEPOWER	$ 1,288

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, LAND, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, AND OTHER COSTS.

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ADDITIONS TO FIELD COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1986

TABLE J-1

	DOCKET NUMBER (CP) AND APPLICANT		
	83-140 K N ENERGY	83-140 K N ENERGY	82-409 MIGC
DESCRIPTIVE DATA			
NAME OF COMPRESSOR STATION	BENKELMAN COMP STA	GRUBEN COMP STA	HILIGHT COMP STA
LOCATION	CHEYENNE CO, KS	SCOTT CO, KS	CAMPBELL CO, WY
HORSEPOWER/UNIT	1 AT 42	1 AT 42	1 AT 2,000
NUMBER OF UNITS	1	1	1
TOTAL HORSEPOWER	42	42	2,000
COST DATA			
MATERIALS			
TOTAL MATERIALS	$ 42,059	59,580	1,078,902
MATERIAL % OF THE TOTAL $	79.4%	79.2	98.2
MATERIAL AVG. COST PER HORSEPOWER	$ 1,001	1,419	539
LABOR			
TOTAL LABOR	$ 5,147	7,804	19,667
LABOR % OF THE TOTAL $	9.7%	10.4	1.8
LABOR AVG. COST PER HORSEPOWER	$ 123	186	10
MISCELLANEOUS			
TOTAL MISCELLANEOUS 1)	$ 5,737	7,858	--
MISCELLANEOUS % OF THE TOTAL $	10.8%	10.4	-
MISCELLANEOUS AVG. COST PER HORSEPOWER	$ 137	187	--
TOTAL COST			
TOTAL COST	$ 52,943	75,242	1,098,569
TOTAL AVG. COST PER HORSEPOWER	$ 1,261	1,791	549

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, LAND, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, AND OTHER COSTS.

TABLE J-2 NO REPORTS RECEIVED

TABLE J-3 ELECTRIC MOTOR DRIVEN CENTRIFUGAL UNITS

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TABLE J-3

ADDITIONS TO FIELD COMPRESSOR STATIONS
ELECTRIC MOTOR DRIVEN CENTRIFUGAL UNITS
CONSTRUCTION ENDING IN 1986

	DOCKET NUMBER (CP) AND APPLICANT
	83-76
	COLUMBIA GAS
DESCRIPTIVE DATA	
NAME OF COMPRESSOR STATION	MAYVILLE COMP STA
LOCATION	CHATAUQUA CO, NY
HORSEPOWER/UNIT	1 AT 1,750
NUMBER OF UNITS	1
TOTAL HORSEPOWER	1,750
COST DATA	
MATERIALS	
TOTAL MATERIALS	$ 1,418,771
MATERIAL % OF THE TOTAL $	44.8%
MATERIAL AVG. COST PER HORSEPOWER	$ 811
LABOR	
TOTAL LABOR	$ 200,620
LABOR % OF THE TOTAL $	6.3%
LABOR AVG. COST PER HORSEPOWER	$ 115
MISCELLANEOUS	
TOTAL MISCELLANEOUS 1)	$ 1,547,526
MISCELLANEOUS % OF THE TOTAL $	48.9%
MISCELLANEOUS AVG. COST PER HORSEPOWER	$ 884
TOTAL COST	
TOTAL COST	$ 3,166,917
TOTAL AVG. COST PER HORSEPOWER	$ 1,810

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, LAND, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, AND OTHER COSTS.

TABLE K NO REPORTS RECEIVED

TABLE L NO REPORTS RECEIVED