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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 1984 THROUGH 1987

WASHINGTON, D.C.

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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 1984 through 1987. Certain newly reported data for 1982 are also included. The report presents comparative cost and physical data for pipeline and compressor construction. Also presented are project-by-project listings of cost and physical data that were reported to the Commission from August 1, 1987, through July 31, 1988.

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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 1984 through 1987

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 1984 through 1987. Certain newly reported data for 1982 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, 1988, 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 1984 through 1987. 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 $4.7 million for automatic authorization and $13.3 million for prior notice authorization in 1984. 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 limits for 1987 were $5.2 million and $14.7 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, 1987, through July 31, 1988. The tables which precede Parts A and B provide a convenient summary of the information.

The tables which follow provide highlights of the 1984 - 1987 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 1984 - 1987 PERIOD HIGHS

TOTAL PIPELINE MILEAGE (MILES)	587	1985
ONSHORE	422	1986
OFFSHORE	174	1985
TOTAL PIPELINE EXPENDITURES ($MM)	$ 411	1985
ONSHORE	316	1986
OFFSHORE	162	1985
TOTAL COMPRESSOR HORSEPOWER (M)	63	1985
ONSHORE	56	1985
OFFSHORE	7	1985
TOTAL COMPRESSOR EXPENDITURES ($MM)	$ 96	1985
ONSHORE	84	1985
OFFSHORE	12	1985
TOTAL PIPELINE & COMPRESSOR PROJECTS COMPLETED	67	1985
ONSHORE	49	1985
OFFSHORE	18	1985

HIGHLIGHTS

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

TABLE II 1984 - 1987 ANNUAL HIGHS

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

YEAR	DIAM(IN)	TYPE	TOTAL MILES	TOTAL COST($MM)	COST/MILE($M)
1987	30	TRAN	58	$ 62.6	$1,084
1986	36	TRAN	70	85.5	1,229
1985	36	TRAN	81	43.1	531
1984	16	LAT	60	12.4	206

B. MOST WIDELY USED COMPRESSORS

YEAR	TYPE	ENGINE	UNITS	TOTAL HP(M)	TOTAL COST($MM)	COST/HP
1987	ADD TRAN	RECIP	4	16.0	$17.2	$1,077
1986	ADD TRAN	ELEC	6	19.8	45.2	2,280
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

HIGHLIGHTS

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

TABLE III 1984 - 1987 INDIVIDUAL PROJECT ANNUAL HIGHS

A. LONGEST PIPELINE PROJECTS

YEAR	MILES	DIAM(IN)	TYPE	STATE	COST($MM)	COST/MILE($M)	LEAD APPLICANT (DOCKET NO.)
1987	33	20	TRAN	OK	$ 5.1	$ 155	WILLIAMS (CP86-295)
1986	32	36	TRAN	NJ PA WV	44.0	1,392	TETCO (CP86-082)
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)

B. HIGHEST TOTAL COST PIPELINE PROJECTS

YEAR	COST($MM)	COST/MILE($M)	DIAM(IN)	TYPE	MILES	STATE	LEAD APPLICANT (DOCKET NO.)
1987	$ 36.6	$ 1,949	30	TRAN	19	NJ	ALGONQUIN (CP84-654)
1986	44.0	1,392	36	TRAN	32	NJ PA WV	TETCO (CP86-082)
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)

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.)
1987	$ 1,949	$ 36.6	30	TRAN	19	NJ	ALGONQUIN (CP84-654)
1986	1,689	5.4	30	TRAN	3	NJ	TENNECO (CP84-441)
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)

HIGHLIGHTS

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

TABLE III 1984 - 1987 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.)
1987	16,000	4	ADD TRAN	RECIP	COMP STA 110	IL	$ 17.2	$ 1,077	NGPL (CP85-518)
1986	7,000	2	NEW TRAN	TURB	STA 325	NJ	18.9	2,693	TENNECO (CP84-441)
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)

E. HIGHEST TOTAL COST COMPRESSOR PROJECTS

YEAR	COST($MM)	COST/HP	HP	UNITS	TYPE	ENGINE	STATION	STATE	LEAD APPLICANT (DOCKET NO.)
1987	$ 20.9	$ 2,726	7,660	2	NEW TRAN	TURB	SOUTHEAST STA	NY	ALGONQUIN (CP84-654)
1986	18.9	2,693	7,000	2	NEW TRAN	TURB	STA 325	NJ	TENNECO (CP84-441)
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)

F. HIGHEST AVERAGE COST PER HP COMPRESSOR PROJECTS

YEAR	COST/HP	COST/($MM)	HP	UNITS	TYPE	ENGINE	STATION	STATE	LEAD APPLICANT (DOCKET NO.)
1987	$ 2,726	$ 20.9	7,660	2	NEW TRAN	TURB	SOUTHEAST STA	NY	ALGONQUIN (CP84-654)
1986	3,177	6.4	2,000	2	ADD TRAN	TURB	STA 267	MA	TENNECO (CP84-441)
1985	3,287	6.6	2,000	1	ADD TRAN	RECIP	STA 313	PA	TENNECO (CP84-441)
1984	2,538	1.3	521	1	NEW FLD	RECIP	OAKDALE COMP STA	OK	PANHANDLE (CP82-189)

HIGHLIGHTS

PART B - 18 CFR 157.207 (a)

TABLE I 1984 - 1987 PERIOD HIGHS

TOTAL PIPELINE MILEAGE (MILES)	440	1984
ONSHORE	292	1984
OFFSHORE	166	1985
TOTAL PIPELINE EXPENDITURES ($MM)	$ 145	1985
ONSHORE	37	1984
OFFSHORE	116	1985
TOTAL COMPRESSOR HORSEPOWER (M)	12	1985
ONSHORE	12	1985
OFFSHORE	1	1984
TOTAL COMPRESSOR EXPENDITURES ($MM)	$ 12	1985
ONSHORE	12	1985
OFFSHORE	1	1984
TOTAL PIPELINE & COMPRESSOR PROJECTS COMPLETED	200	1984
ONSHORE	154	1984
OFFSHORE	46	1984

HIGHLIGHTS

PART B - 18 CFR 157.207 (a)

TABLE II 1984 - 1987 ANNUAL HIGHS

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

YEAR	DIAM(IN)	TYPE	TOTAL MILES	TOTAL COST($MM)	COST/MILE($M)
1987	4	ON	13	$ 0.7	$ 56
1986	12	OFF	18	8.3	466
1985	8	OFF	44	19.8	447
1984	10	ON	75	10.1	136

B. MOST WIDELY USED COMPRESSORS

YEAR	TYPE	ENGINE	UNITS	TOTAL HP(M)	TOTAL COST($MM)	COST/HP
1987	ADD FLD	RECIP	9	6.0	$ 4.9	$ 818
1986	NEW FLD	RECIP	6	0.9	0.9	1,005
1985	NEW FLD	RECIP	11	3.3	3.4	1,017
1985	ADD FLD	RECIP	11	8.0	7.2	905
1984	NEW FLD	RECIP	10	5.3	4.7	884

HIGHLIGHTS

PART B - 18 CFR 157.207(a)

TABLE III 1984 - 1987 INDIVIDUAL PROJECT ANNUAL HIGHS

A. LONGEST PIPELINE PROJECTS

YEAR	MILES	DIAM(IN)	TYPE	STATE	COST($MM)	COST/MILE($M)	LEAD APPLICANT (DOCKET NO.)
1987	8	4	ON	PA	$ 0.4	$ 44	CONSOLIDATED (CP82-537)
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)

B. HIGHEST TOTAL COST PIPELINE PROJECTS

YEAR	COST($MM)	COST/MILE($M)	DIAM(IN)	TYPE	MILES	STATE	LEAD APPLICANT (DOCKET NO.)
1987	$ 4.5	$ 755	30	ON	6	LA	AER (CP82-384)
1986	4.9	398	12	OFF	12	TX	TENNECO (CP82-413)
1985	14.6	689	12	OFF	21	LA	TRANSCO (CP82-426)
1984	4.8	144	10	ON	34	TX	SOUTHERN (CP82-406)

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.)
1987	$ 755	$ 4.5	30	ON	6	LA	AER (CP82-384)
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)

HIGHLIGHTS

PART B - 18 CFR 157.207(a)

TABLE III 1984 - 1987 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.)
1987	2,250	1	ADD FLD	RECIP	BITTER LAKES COMP ST	NM	$ 1.9	$ 859	TRANSWESTERN (CP82-534)
1986	2,000	1	ADD FLD	RECIP	HILIGHT COMP STA	WY	1.1	549	MIOC (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)

E. HIGHEST TOTAL COST COMPRESSOR PROJECTS

YEAR	COST($MM)	COST/HP	HP	UNITS	TYPE	ENGINE	STATION	STATE	LEAD APPLICANT (DOCKET NO.)
1987	$ 1.9	$ 859	2,250	1	ADD FLD	RECIP	BITTER LAKES COMP ST	NM	TRANSWESTERN (CP82-534)
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)

F. HIGHEST AVERAGE COST PER HP COMPRESSOR PROJECTS

YEAR	COST/HP	COST/($MM)	HP	UNITS	TYPE	ENGINE	STATION	STATE	LEAD APPLICANT (DOCKET NO.)
1987	$ 3,334	$ 0.5	140	1	ADD FLD	RECIP	MAJORSVILLE COMP STA	WV	COLUMBIA GAS (CP83-076)
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)

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.

Part A

Pipelines

CP Docket	Company	Diam	Miles	Type	State	Compl	Total Cost
80-481	Tenneco Fla Gas	4	1.30	LAT	LA	1982	$2,218,27

Compressors

CP Docket	Company	Units	HP	Type	Eng	State	Compl	Total Cost
80-481	Tenneco Fla Gas	3	10,950	FLD	TURB	LA	2	10,515,89

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.

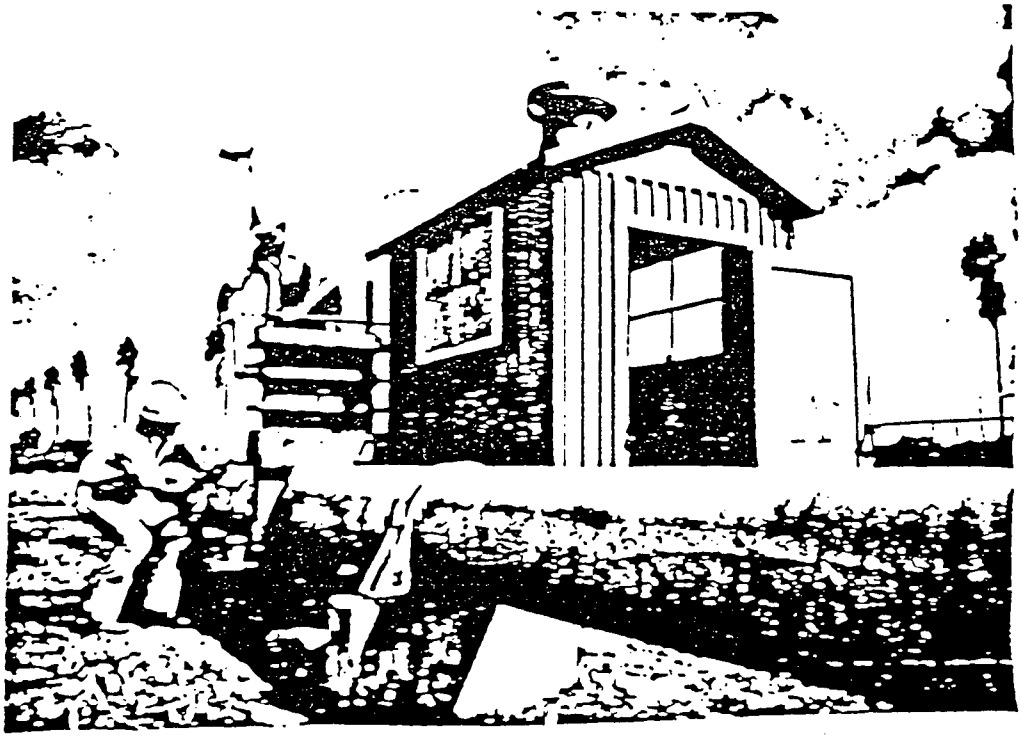
For each compressor construction project reported in Part A, Section II, and Part B, Section II, the name of the compressor station, its location, the horsepower per unit, the number of units, total horsepower, the year construction ended, a cost breakdown, total cost, and the average cost per horsepower 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
1983	1)	774.49	691.16	83.33	55,150	$ 447,155,642
1984	2)	464.34	383.28	81.06	22,721	303,779,559
1985	3)	586.98	412.89	174.09	62,520	506,269,816
1986	4)	454.55	421.95	32.60	39,160	409,905,808
1987	5)	191.56	186.85	4.71	30,250	156,683,762

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

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

3) INCLUDES 19.66 MILES (12.40 ONSHORE AND 7.26 OFFSHORE) CONSTRUCTED UNDER 3 MILES IN LENGTH, AT A COST OF $ 23,888,837.

4) INCLUDES 13.84 MILES (13.84 ONSHORE AND 0.00 OFFSHORE) CONSTRUCTED UNDER 3 MILES IN LENGTH, AT A COST OF $ 3,690,720.

5) INCLUDES 15.82 MILES (15.01 ONSHORE AND 0.81 OFFSHORE) CONSTRUCTED UNDER 3 MILES IN LENGTH, AT A COST OF $ 16,347,385.

PART A

SUMMARY: NUMBER OF CONSTRUCTION PROJECTS COMPLETED BY YEAR

		1983*	1984	1985	1986	1987
ONSHORE						
PIPELINE	1)	84	34	37	34	27
COMPRESSION		21	5	12	12	4
TOTAL ONSHORE		105	39	49	46	31
OFFSHORE						
PIPELINE	2)	10	16	17	2	2
COMPRESSION		--	--	1	--	--
TOTAL OFFSHORE		10	16	18	2	2
TOTAL NUMBER OF PROJECTS		115	55	67	48	33
NUMBER OF PIPELINES COMPANIES REPORTING CONSTRUCTION COMPLETED		31	23	23	17	14
NUMBER OF DOCKETS REPORTED		49	35	36	28	17

* REVISED 1983 FIGURES; SEE TEXT FOR EXPLANATION

1) 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 10 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 4 PIPELINES IN 6 DOCKETS.
PIPELINE COMPLETED IN 1986 INCLUDES 10 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 6 PIPELINES IN 6 DOCKETS.
PIPELINE COMPLETED IN 1987 INCLUDES 10 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 7 PIPELINES IN 8 DOCKETS.

2) 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 7 PIPELINES IN 3 DOCKETS.
PIPELINE COMPLETED IN 1986 INCLUDES 0 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 0 PIPELINES IN 0 DOCKETS.
PIPELINE COMPLETED IN 1987 INCLUDES 1 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 1 PIPELINES IN 1 DOCKETS.

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	225.98	38.5%	$ 135,741,308	33.1%	$ 600,678	19
TRANSMISSION: MIXED DIAMETER	--	--	--	--	--	--
TOTAL TRANSMISSION	225.98	38.5	135,741,308	33.1	600,678	19
LATERAL	186.91	31.8	112,573,274	27.4	602,286	18
LATERAL: MIXED DIAMETER	--	--	--	--	--	--
TOTAL LATERAL	186.91	31.8	112,573,274	27.4	602,286	18
TOTAL ONSHORE LINES	412.89	70.3	248,314,582	60.5	601,406	37
OFFSHORE	174.09	29.7	162,355,950	39.5	932,598	17
OFFSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL OFFSHORE LINES	174.09	29.7	162,355,950	39.5	932,598	17
TOTAL LINES	586.98	100.0%	$ 410,670,532	100.0%	$ 699,633	54

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	220.56	38.9%	$	129,552,749	33.5%	$	587,381	14
TRANSMISSION: MIXED DIAMETER	--	--		--	--		--	--
TOTAL TRANSMISSION	220.56	38.9		129,552,749	33.5		587,381	14
LATERAL	179.93	31.7		110,895,180	28.7		616,324	13
LATERAL: MIXED DIAMETER	--	--		--	--		--	--
TOTAL LATERAL	179.93	31.7		110,895,180	28.7		616,324	13
TOTAL ONSHORE LINES	400.49	70.6		240,447,929	62.2		600,384	27
OFFSHORE	166.83	29.4		146,333,766	37.8		877,143	12
OFFSHORE: MIXED DIAMETER	--	--		--	--		--	--
TOTAL OFFSHORE LINES	166.83	29.4		146,333,766	37.8		877,143	12
TOTAL LINES	567.32	100.0%	$	386,781,695	100.0%	$	681,770	39

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	5.42	27.6%	$ 6,188,559	25.9%	$ 1,141,801	5
TRANSMISSION: MIXED DIAMETER	--	--	--	--	--	--
TOTAL TRANSMISSION	5.42	27.6	6,188,559	25.9	1,141,801	5
LATERAL	6.98	35.5	1,678,094	7.0	240,415	5
LATERAL: MIXED DIAMETER	--	--	--	--	--	--
TOTAL LATERAL	6.98	35.5	1,678,094	7.0	240,415	5
TOTAL ONSHORE LINES	12.40	63.1	7,866,653	32.9	634,408	10
OFFSHORE	7.26	36.9	16,022,184	67.1	2,206,912	5
OFFSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL OFFSHORE LINES	7.26	36.9	16,022,184	67.1	2,206,912	5
TOTAL LINES	19.66	100.0%	$ 23,888,837	100.0%	$ 1,215,099	15

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	129.64	28.5%	$ 127,520,576	38.4%	$ 983,651	16
TRANSMISSION: MIXED DIAMETER	171.51	37.7	177,031,460	53.3	1,032,193	3
TOTAL TRANSMISSION	301.15	66.3	304,552,036	91.7	1,011,297	19
LATERAL	120.80	26.6	11,264,631	3.4	93,250	15
LATERAL: MIXED DIAMETER	--	--	--	--	--	--
TOTAL LATERAL	120.80	26.6	11,264,631	3.4	93,250	15
TOTAL ONSHORE LINES	421.95	92.8	315,816,667	95.1	748,469	34
OFFSHORE	32.60	7.2	16,288,908	4.9	499,660	2
OFFSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL OFFSHORE LINES	32.60	7.2	16,288,908	4.9	499,660	2
TOTAL LINES	454.55	100.0%	$ 332,105,575	100.0%	$ 730,625	36

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	123.05	27.9%	$ 124,142,184	37.8%	$ 1,008,876	12
TRANSMISSION: MIXED DIAMETER	171.51	38.9	177,031,460	53.9	1,032,193	3
TOTAL TRANSMISSION	294.56	66.8	301,173,644	91.7	1,022,453	15
LATERAL	113.55	25.8	10,952,303	3.3	96,454	9
LATERAL: MIXED DIAMETER	--	--	--	--	--	--
TOTAL LATERAL	113.55	25.8	10,952,303	3.3	96,454	9
TOTAL ONSHORE LINES	408.11	92.6	312,125,947	95.0	764,808	24
OFFSHORE	32.60	7.4	16,288,908	5.0	499,660	2
OFFSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL OFFSHORE LINES	32.60	7.4	16,288,908	5.0	499,660	2
TOTAL LINES	440.71	100.0%	$ 328,414,855	100.0%	$ 745,195	26

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	6.59	47.6%	$ 3,378,392	91.5%	$ 512,654	4
TRANSMISSION: MIXED DIAMETER	--	--	--	--	--	--
TOTAL TRANSMISSION	6.59	47.6	3,378,392	91.5	512,654	4
LATERAL	7.25	52.4	312,328	8.5	43,080	6
LATERAL: MIXED DIAMETER	--	--	--	--	--	--
TOTAL LATERAL	7.25	52.4	312,328	8.5	43,080	6
TOTAL ONSHORE LINES	13.84	100.0	3,690,720	100.0	266,671	10
OFFSHORE	--	--	--	--	--	--
OFFSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL OFFSHORE LINES	--	--	--	--	--	--
TOTAL LINES	13.84	100.0%	$ 3,690,720	100.0%	$ 266,671	10

PART A

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1987

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
TRANSMISSION	128.85	67.3%	$ 85,455,605	75.6%	$ 663,218	17
TRANSMISSION: MIXED DIAMETER	--	--	--	--	--	--
TOTAL TRANSMISSION	128.85	67.3	85,455,605	75.6	663,218	17
LATERAL	58.00	30.3	19,975,015	17.7	344,397	10
LATERAL: MIXED DIAMETER	--	--	--	--	--	--
TOTAL LATERAL	58.00	30.3	19,975,015	17.7	344,397	10
TOTAL ONSHORE LINES	186.85	97.5	105,430,620	93.2	564,253	27
OFFSHORE	4.71	2.5	7,648,340	6.8	1,623,851	2
OFFSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL OFFSHORE LINES	4.71	2.5	7,648,340	6.8	1,623,851	2
TOTAL LINES	191.56	100.0%	$ 113,078,960	100.0%	$ 590,306	29

PART A

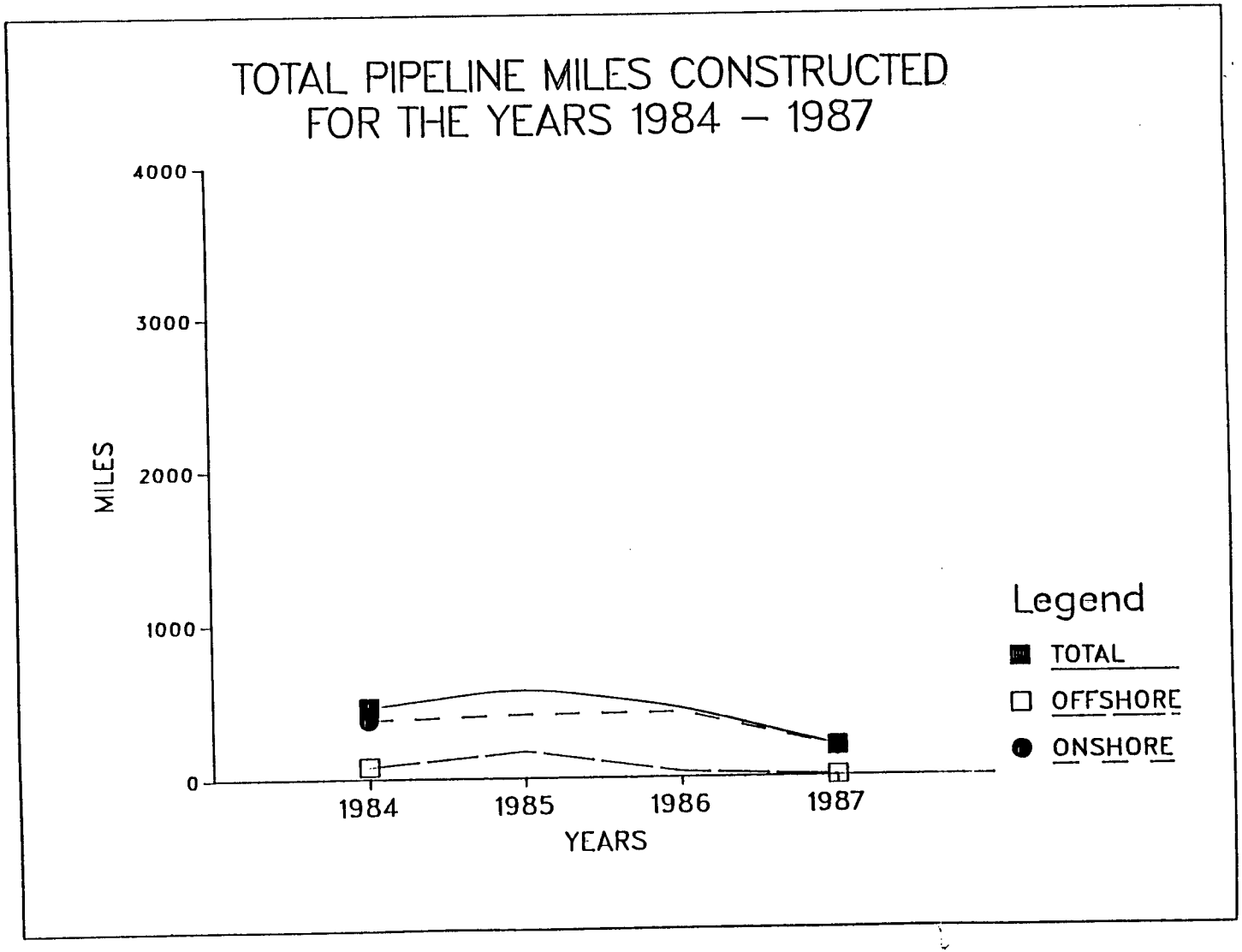
SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1987
3 MILES AND OVER

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
TRANSMISSION	124.24	70.7%	$ 81,108,742	83.8%	$ 652,839	12
TRANSMISSION: MIXED DIAMETER	--	--	--	--	--	--
TOTAL TRANSMISSION	124.24	70.7	81,108,742	83.8	652,839	12
LATERAL	47.60	27.1	14,089,493	14.6	295,998	5
LATERAL: MIXED DIAMETER	--	--	--	--	--	--
TOTAL LATERAL	47.60	27.1	14,089,493	14.6	295,998	5
TOTAL ONSHORE LINES	171.84	97.8	95,198,235	98.4	553,993	17
OFFSHORE	3.90	2.2	1,533,340	1.6	393,164	1
OFFSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL OFFSHORE LINES	3.90	2.2	1,533,340	1.6	393,164	1
TOTAL LINES	175.74	100.0%	$ 96,731,575	100.0%	$ 550,424	18

PART A

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1987
UNDER 3 MILES

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
TRANSMISSION	4.61	29.1%	$ 4,346,863	26.6%	$ 942,920	5
TRANSMISSION: MIXED DIAMETER	--	--	--	--	--	--
TOTAL TRANSMISSION	4.61	29.1	4,346,863	26.6	942,920	5
LATERAL	10.40	65.7	5,885,522	36.0	565,916	5
LATERAL: MIXED DIAMETER	--	--	--	--	--	--
TOTAL LATERAL	10.40	65.7	5,885,522	36.0	565,916	5
TOTAL ONSHORE LINES	15.01	94.9	10,232,385	62.6	681,705	10
OFFSHORE	0.81	5.1	6,115,000	37.4	7,549,383	1
OFFSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL OFFSHORE LINES	0.81	5.1	6,115,000	37.4	7,549,383	1
TOTAL LINES	15.82	100.0%	$ 16,347,385	100.0%	$ 1,033,337	11


TOTAL PIPELINE MILES CONSTRUCTED
FOR THE YEARS 1984 – 1987
4000
3000
2000
1000
0
MILES
1984
1985
1986
1987
YEARS
Legend
TOTAL
OFFSHORE
ONSHORE

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	29,580	47.3%	$ 35,574,345	37.2%	$ 1,203	7
OFFSHORE	--	--	--	--	--	--
TOTAL RECIPROCATING UNITS	29,580	47.3	35,574,345	37.2	1,203	7
TURBINE UNITS						
ONSHORE	26,340	42.1	48,243,490	50.5	1,832	5
OFFSHORE	6,600	10.6	11,781,449	12.3	1,785	1
TOTAL TURBINE UNITS	32,940	52.7	60,024,939	62.8	1,822	6
ELECTRIC MOTOR UNITS						
ONSHORE	--	--	--	--	--	--
OFFSHORE	--	--	--	--	--	--
TOTAL ELECTRIC MOTOR UNITS	--	--	--	--	--	--
TOTAL ONSHORE UNITS	55,920	89.4	83,817,835	87.7	1,499	12
TOTAL OFFSHORE UNITS	6,600	10.6	11,781,449	12.3	1,785	1
TOTAL COMPRESSION	62,520	100.0%	$ 95,599,284	100.0%	$ 1,529	13

PART A

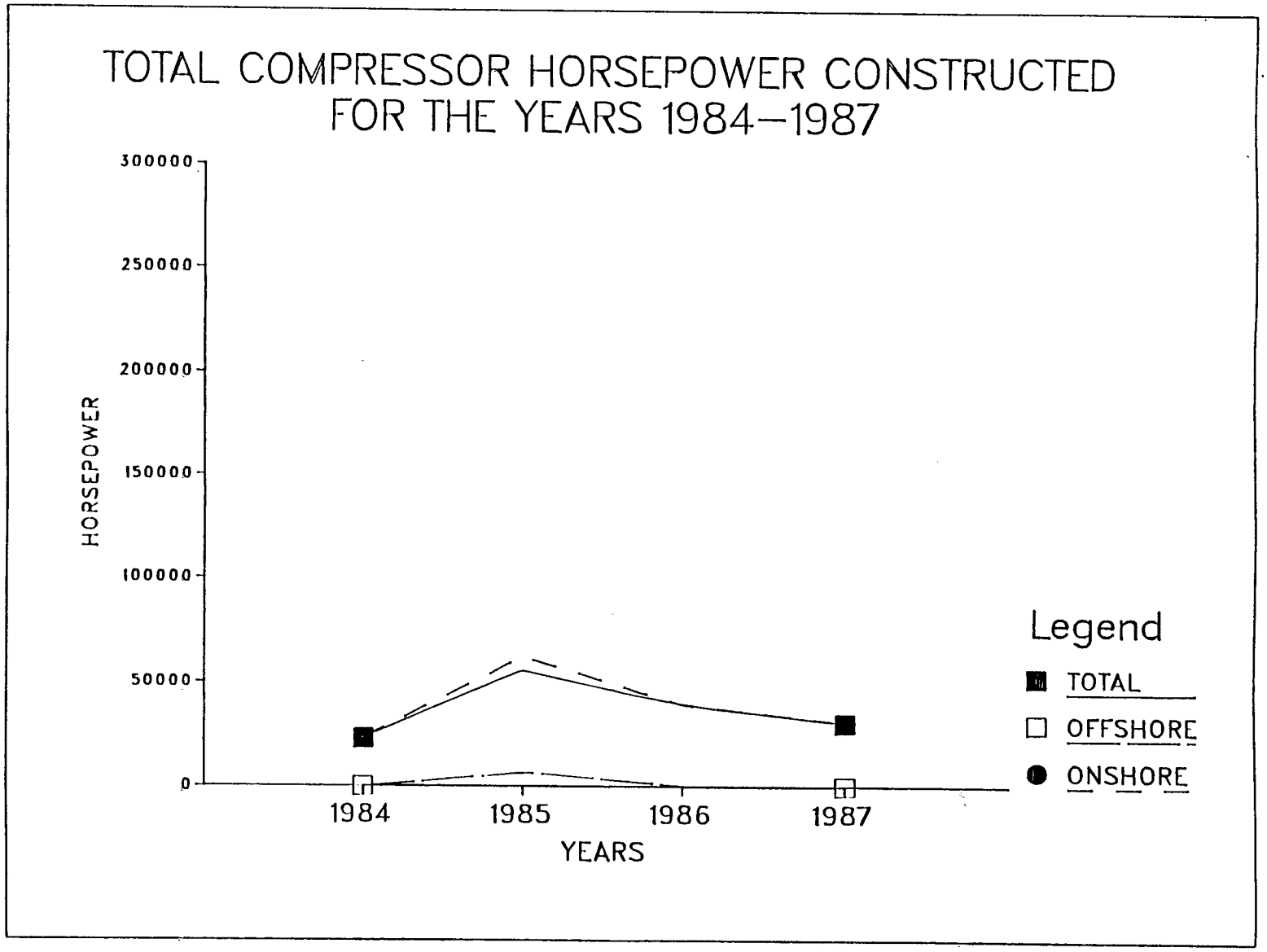
SUMMARY: COMPRESSOR CONSTRUCTION
ENDING IN 1986

COMPRESSORS	HORSEPOWER	PERCENTAGE OF TOTAL HORSEPOWER	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER HORSEPOWER	NUMBER OF PROJECTS
RECIPROCATING UNITS						
ONSHORE	12,330	31.5%	$ 13,742,883	17.7%	$ 1,115	6
OFFSHORE	--	--	--	--	--	--
TOTAL RECIPROCATING UNITS	12,330	31.5	13,742,883	17.7	1,115	6
TURBINE UNITS						
ONSHORE	26,830	68.5	64,057,350	82.3	2,388	6
OFFSHORE	--	--	--	--	--	--
TOTAL TURBINE UNITS	26,830	68.5	64,057,350	82.3	2,388	6
ELECTRIC MOTOR UNITS						
ONSHORE	--	--	--	--	--	--
OFFSHORE	--	--	--	--	--	--
TOTAL ELECTRIC MOTOR UNITS	--	--	--	--	--	--
TOTAL ONSHORE UNITS	39,160	100.0	77,800,233	100.0	1,987	12
TOTAL OFFSHORE UNITS	--	--	--	--	--	--
TOTAL COMPRESSION	39,160	100.0%	$ 77,800,233	100.0%	$ 1,987	12

PART A

SUMMARY: COMPRESSOR CONSTRUCTION
ENDING IN 1987

COMPRESSORS	HORSEPOWER	PERCENTAGE OF TOTAL HORSEPOWER	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER HORSEPOWER	NUMBER OF PROJECTS
RECIPROCATING UNITS						
ONSHORE	18,340	60.6%	$ 19,693,273	45.2%	$ 1,074	2
OFFSHORE	--	--	--	--	--	--
TOTAL RECIPROCATING UNITS	18,340	60.6	19,693,273	45.2	1,074	2
TURBINE UNITS						
ONSHORE	11,910	39.4	23,911,529	54.8	2,008	2
OFFSHORE	--	--	--	--	--	--
TOTAL TURBINE UNITS	11,910	39.4	23,911,529	54.8	2,008	2
ELECTRIC MOTOR UNITS						
ONSHORE	--	--	--	--	--	--
OFFSHORE	--	--	--	--	--	--
TOTAL ELECTRIC MOTOR UNITS	--	--	--	--	--	--
TOTAL ONSHORE UNITS	30,250	100.0	43,604,802	100.0	1,441	4
TOTAL OFFSHORE UNITS	--	--	--	--	--	--
TOTAL COMPRESSION	30,250	100.0%	$ 43,604,802	100.0%	$ 1,441	4


TOTAL COMPRESSOR HORSEPOWER CONSTRUCTED
FOR THE YEARS 1984–1987
300000
250000
200000
150000
100000
50000
0
HORSEPOWER
1984
1985
1986
1987
YEARS
Legend
TOTAL
OFFSHORE
ONSHORE

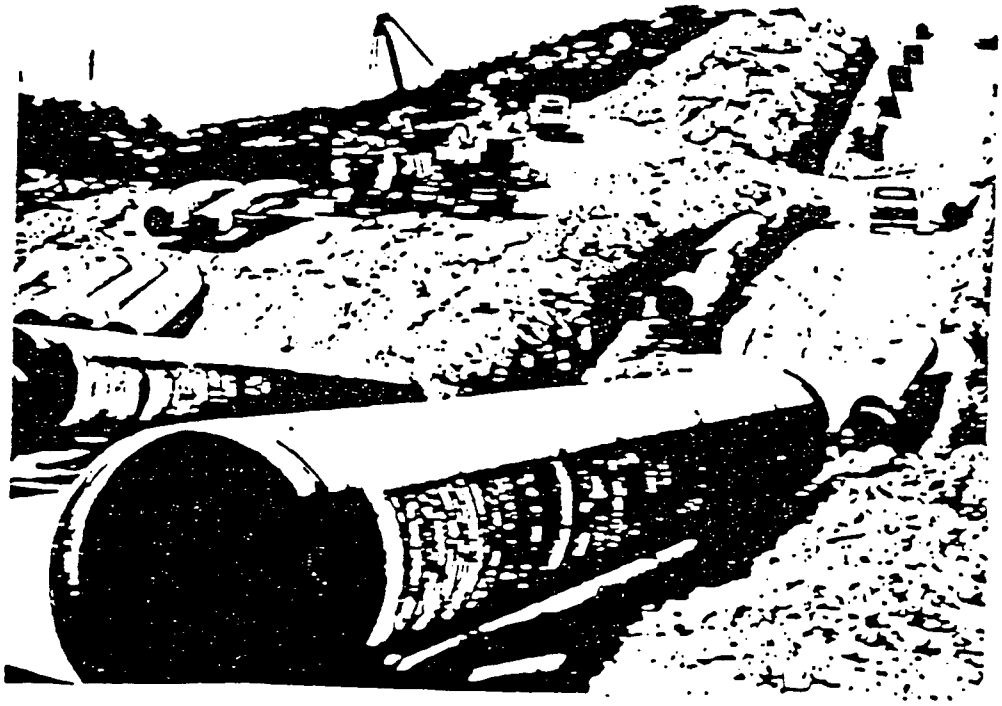
COMPANY NAME	COMPANY ABBREVIATION
AMERICAN DISTRIBUTION CO., INC. (ALABAMA DIV.)	ADC
ARKLA ENERGY RESOURCES	AER
ALABAMA-TENNESSEE NATURAL GAS CO.	ALA-TENN
ALGONQUIN GAS TRANSMISSION CO.	ALGONQUIN
ANR PIPELINE CO.	ANR
ANR STORAGE CO.	ANR STGE
ARKANSAS LOUISIANA GAS CO.	ARKLA
ARKANSAS OKLAHOMA GAS CORP.	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 1984 THROUGH 1987

		YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
ONSHORE MILES					
3 MILES AND OVER		267.02	400.49	236.60	171.84
EXPENDITURES	$	138,463,268	240,447,929	135,094,487	95,198,235
AVG. COST PER MILE	$	518,550	600,384	570,983	553,993
UNDER 3 MILES		12.85	12.40	13.84	15.01
EXPENDITURES	$	11,050,421	7,866,653	3,690,720	10,232,385
AVG. COST PER MILE	$	859,955	634,408	266,671	681,705
MIXED DIAMETER -3 MILES AND OVER		103.37	--	171.51	--
EXPENDITURES	$	43,182,354	--	177,031,460	--
AVG. COST PER MILE	$	417,746	--	1,032,193	--
MIXED DIAMETER -UNDER 3 MILES		0.04	--	--	--
EXPENDITURES	$	33,403	--	--	--
AVG. COST PER MILE	$	835,075	--	--	--
TOTAL ONSHORE MILES		383.28	412.89	421.95	186.85
TOTAL ONSHORE EXPENDITURES	$	192,729,446	248,314,582	315,816,667	105,430,620
TOTAL AVG. COST PER MILE	$	502,842	601,406	748,469	564,253
OFFSHORE MILES					
3 MILES AND OVER		70.21	166.83	32.60	3.90
EXPENDITURES	$	69,244,060	146,333,766	16,288,908	1,533,340
AVG. COST PER MILE	$	986,242	877,143	499,660	393,164
UNDER 3 MILES		10.85	7.26	--	0.81
EXPENDITURES	$	17,823,301	16,022,184	--	6,115,000
AVG. COST PER MILE	$	1,642,701	2,206,912	--	7,549,383
MIXED DIAMETER -3 MILES AND OVER		--	--	--	--
EXPENDITURES	$	--	--	--	--
AVG. COST PER MILE	$	--	--	--	--
MIXED DIAMETER -UNDER 3 MILES		--	--	--	--
EXPENDITURES	$	--	--	--	--
AVG. COST PER MILE	$	--	--	--	--
TOTAL OFFSHORE MILES		81.06	174.09	32.60	4.71
TOTAL OFFSHORE EXPENDITURES	$	87,067,361	162,355,950	16,288,908	7,648,340
TOTAL AVG. COST PER MILE	$	1,074,110	932,598	499,660	1,623,851

PART A

TABLE A

PIPELINE CONSTRUCTION EXPENDITURES
CONSTRUCTION ENDING IN 1984 THROUGH 1987

		YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
TOTAL ONSHORE AND OFFSHORE MILES		464.34	586.98	454.55	191.56
TOTAL ONSHORE AND OFFSHORE EXPENDITURES	$	279,796,807	410,670,532	332,105,575	113,078,960
TOTAL AVG. COST PER MILE	$	602,569	699,633	730,625	590,306

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 1984 THROUGH 1987

		10 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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	$	635,682	2)	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 1984 THROUGH 1987

		12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED			7.10	5.10	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		419,200	435,521	
MATERIAL % OF THE TOTAL $		%	31.4	62.5	
MATERIAL AVG. COST PER MILE	$		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	$		605,600	211,030	
LABOR % OF THE TOTAL $		%	45.4	30.3	
LABOR AVG. COST PER MILE	$		85,296	41,378	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$		85,100	2,978	
RIGHT-OF-WAY ... % OF THE TOTAL $		%	6.4	0.4	
RIGHT-OF-WAY ... AVG. COST PER MILE	$		11,986	584	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$		--	27,608	
OVERHEAD	$		149,400	--	
OTHER MISCELLANEOUS 1)	$		75,150	252	
TOTAL MISCELLANEOUS	$		224,550	27,860	
MISCELLANEOUS % OF THE TOTAL $		%	16.8	4.0	
MISCELLANEOUS AVG. COST PER MILE	$		31,627	5,463	
TOTAL COST					
TOTAL COST	$	2)	1,334,450	696,976	2)
TOTAL AVG. COST PER MILE	$		187,951	136,662	
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-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1984 THROUGH 1987

		16 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		22.94			16.39
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	1,914,739			1,986,173
MATERIAL % OF THE TOTAL $		46.6%			65.7
MATERIAL AVG. COST PER MILE	$	83,467			121,182
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	66,776			--
ENGINEERING ... % OF THE TOTAL $		1.6%			--
ENGINEERING ... AVG. COST PER MILE	$	2,911			--
LABOR					
TOTAL LABOR	$	1,665,210			593,477
LABOR % OF THE TOTAL $		40.5%			19.6
LABOR AVG. COST PER MILE	$	72,590			36,210
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	101,651			20,260
RIGHT-OF-WAY ... % OF THE TOTAL $		2.5%			0.7
RIGHT-OF-WAY ... AVG. COST PER MILE	$	4,431			1,236
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	7,632			--
OVERHEAD	$	327,405			210,412
OTHER MISCELLANEOUS 1)	$	23,756			214,348
TOTAL MISCELLANEOUS	$	358,793			424,760
MISCELLANEOUS % OF THE TOTAL $		8.7%			14.0
MISCELLANEOUS AVG. COST PER MILE	$	15,640			25,916
TOTAL COST					
TOTAL COST	$	4,107,169	2)	2)	3,024,670
TOTAL AVG. COST PER MILE	$	179,040			184,544
COST RANGE PER MILE					
MINIMUM	$	157,297			3)
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 1984 THROUGH 1987

		20 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED			75.28		33.00
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		10,759,949		3,000,017
MATERIAL % OF THE TOTAL $		%	38.7		58.8
MATERIAL AVG. COST PER MILE	$		142,932		90,910
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$		1,445,649		285,391
ENGINEERING ... % OF THE TOTAL $		%	5.2		5.6
ENGINEERING ... AVG. COST PER MILE	$		19,204		8,648
LABOR					
TOTAL LABOR	$		11,554,780		1,663,838
LABOR % OF THE TOTAL $		%	41.5		32.6
LABOR AVG. COST PER MILE	$		153,491		50,419
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$		763,944		15,038
RIGHT-OF-WAY ... % OF THE TOTAL $		%	2.7		0.3
RIGHT-OF-WAY ... AVG. COST PER MILE	$		10,148		456
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$		716,118		135,791
OVERHEAD	$		2,572,414		--
OTHER MISCELLANEOUS 1)	$		23,197		3,368
TOTAL MISCELLANEOUS	$		3,311,729		139,159
MISCELLANEOUS % OF THE TOTAL $		%	11.9		2.7
MISCELLANEOUS AVG. COST PER MILE	$		43,992		4,217
TOTAL COST					
TOTAL COST	$	2)	27,836,051	2)	5,103,443
TOTAL AVG. COST PER MILE	$		369,767		154,650
COST RANGE PER MILE					
MINIMUM	$		206,661		3)
MAXIMUM	$		478,949		

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 1984 THROUGH 1987

		24 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		42.60		13.67	7.20
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	8,211,029		2,428,141	1,598,700
MATERIAL % OF THE TOTAL $		33.7%		31.8	29.3
MATERIAL AVG. COST PER MILE	$	192,747		177,626	222,042
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	$	9,727,857		4,610,982	3,315,000
LABOR % OF THE TOTAL $		39.9%		60.4	60.9
LABOR AVG. COST PER MILE	$	228,353		337,307	460,417
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	3,662,170		120,621	70,000
RIGHT-OF-WAY ... % OF THE TOTAL $		15.0%		1.6	1.3
RIGHT-OF-WAY ... AVG. COST PER MILE	$	85,966		8,824	9,722
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	615,618		241,824	49,900
OVERHEAD	$	272,795		113,807	233,900
OTHER MISCELLANEOUS 1)	$	312,004		--	180,300
TOTAL MISCELLANEOUS	$	1,200,417		355,631	464,100
MISCELLANEOUS % OF THE TOTAL $		4.9%		4.7	8.5
MISCELLANEOUS AVG. COST PER MILE	$	28,179		26,015	64,458
TOTAL COST					
TOTAL COST	$	24,373,493	2)	7,631,303	5,447,800
TOTAL AVG. COST PER MILE	$	572,148		558,252	756,639
COST RANGE PER MILE					
MINIMUM	$	402,242		379,711	3)
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 1984 THROUGH 1987

		26 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED					9.94
COST DATA					
MATERIALS					
TOTAL MATERIALS	$				1,888,109
MATERIAL % OF THE TOTAL $		%			38.1
MATERIAL AVG. COST PER MILE	$				189,951
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$				--
ENGINEERING ... % OF THE TOTAL $		%			--
ENGINEERING ... AVG. COST PER MILE	$				--
LABOR					
TOTAL LABOR	$				1,913,567
LABOR % OF THE TOTAL $		%			38.6
LABOR AVG. COST PER MILE	$				192,512
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$				250,910
RIGHT-OF-WAY ... % OF THE TOTAL $		%			5.1
RIGHT-OF-WAY ... AVG. COST PER MILE	$				25,242
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$				427,186
OVERHEAD	$				--
OTHER MISCELLANEOUS 1)	$				474,148
TOTAL MISCELLANEOUS	$				901,334
MISCELLANEOUS % OF THE TOTAL $		%			18.2
MISCELLANEOUS AVG. COST PER MILE	$				90,677
TOTAL COST					
TOTAL COST	$	2)	2)	2)	4,953,920
TOTAL AVG. COST PER MILE	$				498,382
COST RANGE PER MILE					
MINIMUM	$				382,593
MAXIMUM	$				620,884

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 1984 THROUGH 1987

		30 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		30.05	43.50	34.71	57.71
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	9,083,201	11,621,497	8,640,553	16,223,415
MATERIAL % OF THE TOTAL $		32.5%	26.7	28.5	25.9
MATERIAL AVG. COST PER MILE	$	302,270	267,161	248,936	281,120
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	1,484,458	369,506	1,112,674	475,000
ENGINEERING ... % OF THE TOTAL $		5.3%	0.8	3.7	0.8
ENGINEERING ... AVG. COST PER MILE	$	49,400	8,494	32,056	8,231
LABOR					
TOTAL LABOR	$	13,829,148	22,887,640	16,487,159	34,130,304
LABOR % OF THE TOTAL $		49.6%	52.5	54.4	54.5
LABOR AVG. COST PER MILE	$	460,205	526,153	474,997	591,411
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	882,445	1,346,767	624,024	5,046,153
RIGHT-OF-WAY ... % OF THE TOTAL $		3.2%	3.1	2.1	8.1
RIGHT-OF-WAY ... AVG. COST PER MILE	$	29,366	30,960	17,978	87,440
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	751,837	1,964,009	800,193	3,562,502
OVERHEAD	$	1,876,992	5,366,097	2,190,812	--
OTHER MISCELLANEOUS 1)	$	--	--	444,233	3,141,535
TOTAL MISCELLANEOUS	$	2,628,829	7,330,106	3,435,238	6,704,037
MISCELLANEOUS % OF THE TOTAL $		9.4%	16.8	11.3	10.7
MISCELLANEOUS AVG. COST PER MILE	$	87,482	168,508	98,970	116,168
TOTAL COST					
TOTAL COST	$	27,908,081	43,555,516	30,299,648	62,578,909
TOTAL AVG. COST PER MILE	$	928,721	1,001,276	872,937	1,084,369
COST RANGE PER MILE					
MINIMUM	$	681,510	769,993	717,777	492,187
MAXIMUM	$	1,375,341	1,176,315	1,688,519	1,949,295

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

PART A

TABLE B-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1984 THROUGH 1987

		36 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		31.50	81.30	69.57	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	11,812,827	21,115,575	29,815,307	
MATERIAL % OF THE TOTAL $		51.8%	49.0	34.9	
MATERIAL AVG. COST PER MILE	$	375,010	259,724	428,566	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	434,955	1,766,385	1,120,550	
ENGINEERING ... % OF THE TOTAL $		1.9%	4.1	1.3	
ENGINEERING ... AVG. COST PER MILE	$	13,808	21,727	16,107	
LABOR					
TOTAL LABOR	$	6,905,938	17,429,547	50,617,068	
LABOR % OF THE TOTAL $		30.3%	40.4	59.2	
LABOR AVG. COST PER MILE	$	219,236	214,386	727,570	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	146,739	1,443,049	1,455,631	
RIGHT-OF-WAY ... % OF THE TOTAL $		0.6%	3.3	1.7	
RIGHT-OF-WAY ... AVG. COST PER MILE	$	4,658	17,750	20,923	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	860,800	1,345,151	2,217,320	
OVERHEAD	$	2,632,582	36,049	221,726	
OTHER MISCELLANEOUS 1)	$	--	--	66,655	
TOTAL MISCELLANEOUS	$	3,493,382	1,381,200	2,505,701	
MISCELLANEOUS % OF THE TOTAL $		15.3%	3.2	2.9	
MISCELLANEOUS AVG. COST PER MILE	$	110,901	16,989	36,017	
TOTAL COST					
TOTAL COST	$	22,793,841	43,135,756	85,514,257	2)
TOTAL AVG. COST PER MILE	$	723,614	530,575	1,229,183	
COST RANGE PER MILE					
MINIMUM	$	3)	3)	657,512	
MAXIMUM	$			1,391,951	

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 1984 THROUGH 1987

	42 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
	1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED	50.59	13.38		
COST DATA				
MATERIALS				
TOTAL MATERIALS	$ 17,197,871	6,417,627		
MATERIAL % OF THE TOTAL $	44.3%	46.9		
MATERIAL AVG. COST PER MILE	$ 339,946	479,643		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY				
TOTAL ENGINEERING ...	$ 1,913,722	767,453		
ENGINEERING ... % OF THE TOTAL $	4.9%	5.6		
ENGINEERING ... AVG. COST PER MILE	$ 37,828	57,358		
LABOR				
TOTAL LABOR	$ 13,707,007	4,379,595		
LABOR % OF THE TOTAL $	35.3%	32.0		
LABOR AVG. COST PER MILE	$ 270,943	327,324		
RIGHT-OF-WAY AND DAMAGES				
TOTAL RIGHT-OF-WAY ...	$ 2,757,407	726,631		
RIGHT-OF-WAY ... % OF THE TOTAL $	7.1%	5.3		
RIGHT-OF-WAY ... AVG. COST PER MILE	$ 54,505	54,307		
MISCELLANEOUS				
INTEREST DURING CONSTRUCTION	$ 1,640,562	430,253		
OVERHEAD	$ 1,633,328	969,417		
OTHER MISCELLANEOUS 1)	$ 5,214	--		
TOTAL MISCELLANEOUS	$ 3,279,104	1,399,670		
MISCELLANEOUS % OF THE TOTAL $	8.4%	10.2		
MISCELLANEOUS AVG. COST PER MILE	$ 64,817	104,609		
TOTAL COST				
TOTAL COST	$ 38,855,111	13,690,976	2)	2)
TOTAL AVG. COST PER MILE	$ 768,039	1,023,242		
COST RANGE PER MILE				
MINIMUM	$ 708,656	869,526		
MAXIMUM	$ 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 1984 THROUGH 1987

		4 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED				26.00	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$			387,992	
MATERIAL % OF THE TOTAL $		%		40.5	
MATERIAL AVG. COST PER MILE	$			14,923	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$			39,366	
ENGINEERING ... % OF THE TOTAL $		%		4.1	
ENGINEERING ... AVG. COST PER MILE	$			1,514	
LABOR					
TOTAL LABOR	$			347,917	
LABOR % OF THE TOTAL $		%		36.4	
LABOR AVG. COST PER MILE	$			13,381	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$			66,093	
RIGHT-OF-WAY ... % OF THE TOTAL $		%		6.9	
RIGHT-OF-WAY ... AVG. COST PER MILE	$			2,542	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$			167	
OVERHEAD	$			96,704	
OTHER MISCELLANEOUS 1)	$			18,627	
TOTAL MISCELLANEOUS	$			115,498	
MISCELLANEOUS % OF THE TOTAL $		%		12.1	
MISCELLANEOUS AVG. COST PER MILE	$			4,442	
TOTAL COST					
TOTAL COST	$	2)	2)	956,866	2)
TOTAL AVG. COST PER MILE	$			36,803	
COST RANGE PER MILE					
MINIMUM	$			35,793	
MAXIMUM	$			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 1984 THROUGH 1987

		6 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED			37.90	32.20	15.10
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		1,191,865	647,784	371,351
MATERIAL % OF THE TOTAL $		%	44.3	41.7	46.8
MATERIAL AVG. COST PER MILE	$		31,448	20,118	24,593
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$		123,485	71,983	57,629
ENGINEERING ... % OF THE TOTAL $		%	4.6	4.6	7.3
ENGINEERING ... AVG. COST PER MILE	$		3,258	2,235	3,816
LABOR					
TOTAL LABOR	$		875,582	612,994	205,446
LABOR % OF THE TOTAL $		%	32.6	39.5	25.9
LABOR AVG. COST PER MILE	$		23,102	19,037	13,606
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$		302,097	59,122	48,984
RIGHT-OF-WAY ... % OF THE TOTAL $		%	11.2	3.8	6.2
RIGHT-OF-WAY ... AVG. COST PER MILE	$		7,971	1,836	3,244
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$		148,753	--	--
OVERHEAD	$		1,984	157,566	106,788
OTHER MISCELLANEOUS 1)	$		45,858	4,350	3,960
TOTAL MISCELLANEOUS	$		196,595	161,916	110,748
MISCELLANEOUS % OF THE TOTAL $		%	7.3	10.4	13.9
MISCELLANEOUS AVG. COST PER MILE	$		5,187	5,028	7,334
TOTAL COST					
TOTAL COST	$	2)	2,689,624	1,553,799	794,158
TOTAL AVG. COST PER MILE	$		70,966	48,255	52,593
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 1984 THROUGH 1987

		8 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED			4.40	16.25	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		290,965	490,076	
MATERIAL % OF THE TOTAL $		%	12.0	38.4	
MATERIAL AVG. COST PER MILE	$		66,128	30,159	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$		45,083	74,643	
ENGINEERING ... % OF THE TOTAL $		%	1.9	5.8	
ENGINEERING ... AVG. COST PER MILE	$		10,246	4,593	
LABOR					
TOTAL LABOR	$		1,440,831	549,174	
LABOR % OF THE TOTAL $		%	59.4	43.0	
LABOR AVG. COST PER MILE	$		327,462	33,795	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$		282,757	53,599	
RIGHT-OF-WAY ... % OF THE TOTAL $		%	11.7	4.2	
RIGHT-OF-WAY ... AVG. COST PER MILE	$		64,263	3,298	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$		98,200	--	
OVERHEAD	$		268,305	106,344	
OTHER MISCELLANEOUS 1)	$		--	3,000	
TOTAL MISCELLANEOUS	$		366,505	109,344	
MISCELLANEOUS % OF THE TOTAL $		%	15.1	8.6	
MISCELLANEOUS AVG. COST PER MILE	$		83,297	6,729	
TOTAL COST					
TOTAL COST	$	2)	2,426,141	1,276,836	2)
TOTAL AVG. COST PER MILE	$		551,396	78,575	
COST RANGE PER MILE					
MINIMUM	$		3)	68,933	
MAXIMUM	$			80,758	

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 1984 THROUGH 1987

		10 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED			10.70	7.51	3.10
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		1,046,000	260,262	350,000
MATERIAL % OF THE TOTAL $		%	13.1	44.4	15.4
MATERIAL AVG. COST PER MILE	$		97,757	34,655	112,903
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$		176,000	32,742	48,000
ENGINEERING ... % OF THE TOTAL $		%	2.2	5.6	2.1
ENGINEERING ... AVG. COST PER MILE	$		16,449	4,360	15,484
LABOR					
TOTAL LABOR	$		5,357,000	236,604	1,680,000
LABOR % OF THE TOTAL $		%	67.1	40.4	73.8
LABOR AVG. COST PER MILE	$		500,654	31,505	541,935
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$		975,000	18,381	128,000
RIGHT-OF-WAY ... % OF THE TOTAL $		%	12.2	3.1	5.6
RIGHT-OF-WAY ... AVG. COST PER MILE	$		91,121	2,448	41,290
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$		431,680	--	69,750
OVERHEAD	$		--	36,348	--
OTHER MISCELLANEOUS 1)	$		--	1,650	--
TOTAL MISCELLANEOUS	$		431,680	37,998	69,750
MISCELLANEOUS % OF THE TOTAL $		%	5.4	6.5	3.1
MISCELLANEOUS AVG. COST PER MILE	$		40,344	5,060	22,500
TOTAL COST					
TOTAL COST	$	2)	7,985,680	585,987	2,275,750
TOTAL AVG. COST PER MILE	$		746,325	78,028	734,113
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 1984 THROUGH 1987

		12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED			33.70	28.29	25.00
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		3,119,104	1,692,728	1,675,326
MATERIAL % OF THE TOTAL $		%	21.4	33.1	22.6
MATERIAL AVG. COST PER MILE	$		92,555	59,835	67,013
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$		50[illegible],863	--	117,826
ENGINEERING ... % OF THE TOTAL $		%	3.[illegible]	--	1.6
ENGINEERING ... AVG. COST PER MILE	$		14,892	--	4,713
LABOR					
TOTAL LABOR	$		7,556,953	2,173,191	3,715,158
LABOR % OF THE TOTAL $		%	51.8	42.5	50.1
LABOR AVG. COST PER MILE	$		224,242	76,818	148,606
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$		1,549,622	499,491	1,024,303
RIGHT-OF-WAY ... % OF THE TOTAL $		%	10.6	9.8	13.8
RIGHT-OF-WAY ... AVG. COST PER MILE	$		45,983	17,656	40,972
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$		517,884	52,240	116,250
OVERHEAD	$		1,341,524	568,255	265,130
OTHER MISCELLANEOUS 1)	$		8,031	130,782	495,342
TOTAL MISCELLANEOUS	$		1,867,439	751,277	876,722
MISCELLANEOUS % OF THE TOTAL $		%	12.8	14.7	11.8
MISCELLANEOUS AVG. COST PER MILE	$		55,414	26,556	35,069
TOTAL COST					
TOTAL COST	$	2)	14,594,981	5,116,687	7,409,335
TOTAL AVG. COST PER MILE	$		433,085	180,866	296,373
COST RANGE PER MILE					
MINIMUM	$		252,869	175,418	192,681
MAXIMUM	$		686,039	192,991	691,202

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 1984 THROUGH 1987

		16 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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	$	12,404,458	2)	1,462,128	2)
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 1984 THROUGH 1987

		20 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		24.10	7.50		4.40
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	3,758,646	824,564		760,000
MATERIAL % OF THE TOTAL $		50.9%	42.7		21.1
MATERIAL AVG. COST PER MILE	$	155,960	109,942		172,727
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	551,390	11,000		81,000
ENGINEERING ... % OF THE TOTAL $		7.5%	0.6		2.2
ENGINEERING ... AVG. COST PER MILE	$	22,879	1,467		18,409
LABOR					
TOTAL LABOR	$	2,249,749	828,582		2,469,000
LABOR % OF THE TOTAL $		30.5%	42.9		68.4
LABOR AVG. COST PER MILE	$	93,351	110,478		561,136
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	304,118	--		184,000
RIGHT-OF-WAY ... % OF THE TOTAL $		4.1%	--		5.1
RIGHT-OF-WAY ... AVG. COST PER MILE	$	12,619	--		41,818
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	64,465	--		116,250
OVERHEAD	$	457,065	54,043		--
OTHER MISCELLANEOUS 1)	$	--	211,392		--
TOTAL MISCELLANEOUS	$	521,530	265,435		116,250
MISCELLANEOUS % OF THE TOTAL $		7.1%	13.8		3.2
MISCELLANEOUS AVG. COST PER MILE	$	21,640	35,391		26,420
TOTAL COST					
TOTAL COST	$	7,385,433	1,929,581	2)	3,610,250
TOTAL AVG. COST PER MILE	$	306,450	257,277		820,511
COST RANGE PER MILE					
MINIMUM	$	289,505	3)		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 1984 THROUGH 1987

		24 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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)	8,565,197	2)	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 1984 THROUGH 1987

		30 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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)	9,471,513	2)	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 1984 THROUGH 1987

		36 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED			68.29		
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		23,122,854		
MATERIAL % OF THE TOTAL $		%	36.6		
MATERIAL AVG. COST PER MILE	$		338,598		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$		4,644,279		
ENGINEERING ... % OF THE TOTAL $		%	7.3		
ENGINEERING ... AVG. COST PER MILE	$		68,008		
LABOR					
TOTAL LABOR	$		25,411,491		
LABOR % OF THE TOTAL $		%	40.2		
LABOR AVG. COST PER MILE	$		372,111		
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$		2,993,183		
RIGHT-OF-WAY ... % OF THE TOTAL $		%	4.7		
RIGHT-OF-WAY ... AVG. COST PER MILE	$		43,830		
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$		2,705,059		
OVERHEAD	$		3,813,186		
OTHER MISCELLANEOUS 1)	$		542,411		
TOTAL MISCELLANEOUS	$		7,060,656		
MISCELLANEOUS % OF THE TOTAL $		%	11.2		
MISCELLANEOUS AVG. COST PER MILE	$		103,392		
TOTAL COST					
TOTAL COST	$	2)	63,232,463	2)	2)
TOTAL AVG. COST PER MILE	$		925,940		
COST RANGE PER MILE					
MINIMUM	$		788,341		
MAXIMUM	$		1,883,511		

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS 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 1984 THROUGH 1987

		6 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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)	2,561,824	2)	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 1984 THROUGH 1987

		10 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		10.14			3.90
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	1,626,651			488,007
MATERIAL % OF THE TOTAL $		29.6%			31.8
MATERIAL AVG. COST PER MILE	$	160,419			125,130
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	714,242			289,819
ENGINEERING ... % OF THE TOTAL $		13.0%			18.9
ENGINEERING ... AVG. COST PER MILE	$	70,438			74,313
LABOR					
TOTAL LABOR	$	2,690,437			711,653
LABOR % OF THE TOTAL $		48.9%			46.4
LABOR AVG. COST PER MILE	$	265,329			182,475
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			34
OVERHEAD	$	294,356			43,827
OTHER MISCELLANEOUS 1)	$	--			--
TOTAL MISCELLANEOUS	$	472,093			43,861
MISCELLANEOUS % OF THE TOTAL $		8.6%			2.9
MISCELLANEOUS AVG. COST PER MILE	$	46,557			11,246
TOTAL COST					
TOTAL COST	$	5,503,423	2)	2)	1,533,340
TOTAL AVG. COST PER MILE	$	542,744			393,164
COST RANGE PER MILE					
MINIMUM	$	491,402			3)
MAXIMUM	$	664,937			

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 1984 THROUGH 1987

		12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		12.94	13.06	7.60	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	3,806,654	1,549,715	1,055,421	
MATERIAL % OF THE TOTAL $		37.5%	31.2	36.0	
MATERIAL AVG. COST PER MILE	$	294,177	118,661	138,871	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	754,470	291,605	248,475	
ENGINEERING ... % OF THE TOTAL $		7.4%	5.9	8.5	
ENGINEERING ... AVG. COST PER MILE	$	58,305	22,328	32,694	
LABOR					
TOTAL LABOR	$	4,906,172	2,959,116	1,577,892	
LABOR % OF THE TOTAL $		48.3%	59.6	53.8	
LABOR AVG. COST PER MILE	$	379,148	226,579	207,617	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	410	--	--	
RIGHT-OF-WAY ... % OF THE TOTAL $		0.0%	--	--	
RIGHT-OF-WAY ... AVG. COST PER MILE	$	32	--	--	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	197,630	158,344	--	
OVERHEAD	$	482,215	5,951	--	
OTHER MISCELLANEOUS 1)	$	755	310	50,000	
TOTAL MISCELLANEOUS	$	680,600	164,605	50,000	
MISCELLANEOUS % OF THE TOTAL $		6.7%	3.3	1.7	
MISCELLANEOUS AVG. COST PER MILE	$	52,597	12,604	6,579	
TOTAL COST					
TOTAL COST	$	10,148,306	4,965,041	2,931,788	2)
TOTAL AVG. COST PER MILE	$	784,259	380,172	385,762	
COST RANGE PER MILE					
MINIMUM	$	717,871	3)	3)	
MAXIMUM	$	896,841			

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 1984 THROUGH 1987

		14 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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)	9,252,872	2)	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 1984 THROUGH 1987

		16 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		19.23	6.40		
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	3,741,900	1,066,131		
MATERIAL % OF THE TOTAL $		31.1%	22.7		
MATERIAL AVG. COST PER MILE	$	194,587	166,583		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	357,517	558,377		
ENGINEERING ... % OF THE TOTAL $		3.0%	11.9		
ENGINEERING ... AVG. COST PER MILE	$	18,592	87,246		
LABOR					
TOTAL LABOR	$	6,901,545	2,708,309		
LABOR % OF THE TOTAL $		57.3%	57.7		
LABOR AVG. COST PER MILE	$	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	$	463,886	22,385		
OVERHEAD	$	580,747	247,154		
OTHER MISCELLANEOUS 1)	$	--	78,340		
TOTAL MISCELLANEOUS	$	1,044,633	347,879		
MISCELLANEOUS % OF THE TOTAL $		8.7%	7.4		
MISCELLANEOUS AVG. COST PER MILE	$	54,323	54,356		
TOTAL COST					
TOTAL COST	$	12,048,434	4,694,424	2)	2)
TOTAL AVG. COST PER MILE	$	626,544	733,504		
COST RANGE PER MILE					
MINIMUM	$	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 1984 THROUGH 1987

		20 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED			56.62	25.00	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		15,666,420	5,310,977	
MATERIAL % OF THE TOTAL $		%	35.2	39.8	
MATERIAL AVG. COST PER MILE	$		276,694	212,439	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$		2,047,740	380,310	
ENGINEERING ... % OF THE TOTAL $		%	4.6	2.8	
ENGINEERING ... AVG. COST PER MILE	$		36,166	15,212	
LABOR					
TOTAL LABOR	$		21,546,428	5,526,453	
LABOR % OF THE TOTAL $		%	48.4	41.4	
LABOR AVG. COST PER MILE	$		380,544	221,058	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$		25,874	--	
RIGHT-OF-WAY ... % OF THE TOTAL $		%	0.1	--	
RIGHT-OF-WAY ... AVG. COST PER MILE	$		457	--	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$		3,947,372	87,377	
OVERHEAD	$		1,235,081	203,879	
OTHER MISCELLANEOUS 1)	$		12,766	1,848,124	
TOTAL MISCELLANEOUS	$		5,195,219	2,139,380	
MISCELLANEOUS % OF THE TOTAL $		%	11.7	16.0	
MISCELLANEOUS AVG. COST PER MILE	$		91,756	85,575	
TOTAL COST					
TOTAL COST	$	2)	44,481,681	13,357,120	2)
TOTAL AVG. COST PER MILE	$		785,618	534,285	
COST RANGE PER MILE					
MINIMUM	$		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 1984 THROUGH 1987

		24 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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	$	11,901,951	17,384,392	2)	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 1984 THROUGH 1987

		30 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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	$	29,641,946	12,350,992	2)	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 1984 THROUGH 1987

		36 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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)	50,642,540	2)	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 1984 THROUGH 1987

		6 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		0.24			
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	36,736			
MATERIAL % OF THE TOTAL $		37.5%			
MATERIAL AVG. COST PER MILE	$	153,067			
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	--			
ENGINEERING ... % OF THE TOTAL $		--%			
ENGINEERING ... AVG. COST PER MILE	$	--			
LABOR					
TOTAL LABOR	$	57,277			
LABOR % OF THE TOTAL $		58.4%			
LABOR AVG. COST PER MILE	$	238,654			
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	$	3,988			
OTHER MISCELLANEOUS 1)	$	--			
TOTAL MISCELLANEOUS	$	3,988			
MISCELLANEOUS % OF THE TOTAL $		4.1%			
MISCELLANEOUS AVG. COST PER MILE	$	16,617			
TOTAL COST					
TOTAL COST	$	98,001	2)	2)	2)
TOTAL AVG. COST PER MILE	$	408,338			
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 1984 THROUGH 1987

		8 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		0.26			
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	21,459			
MATERIAL % OF THE TOTAL $		58.0%			
MATERIAL AVG. COST PER MILE	$	82,535			
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	--			
ENGINEERING ... % OF THE TOTAL $		--%			
ENGINEERING ... AVG. COST PER MILE	$	--			
LABOR					
TOTAL LABOR	$	12,200			
LABOR % OF THE TOTAL $		33.0%			
LABOR AVG. COST PER MILE	$	46,923			
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	$	3,339			
OTHER MISCELLANEOUS 1)	$	--			
TOTAL MISCELLANEOUS	$	3,339			
MISCELLANEOUS % OF THE TOTAL $		9.0%			
MISCELLANEOUS AVG. COST PER MILE	$	12,842			
TOTAL COST					
TOTAL COST	$	36,998	2)	2)	2)
TOTAL AVG. COST PER MILE	$	142,300			
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-1

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1984 THROUGH 1987

		12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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)	237,564	2)
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 1984 THROUGH 1987

		20 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		2.00		2.50	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	396,598		248,223	
MATERIAL % OF THE TOTAL $		12.5%		29.5	
MATERIAL AVG. COST PER MILE	$	198,299		99,289	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	--		--	
ENGINEERING ... % OF THE TOTAL $		--%		--	
ENGINEERING ... AVG. COST PER MILE	$	--		--	
LABOR					
TOTAL LABOR	$	2,383,222		390,739	
LABOR % OF THE TOTAL $		75.2%		46.5	
LABOR AVG. COST PER MILE	$	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	$	290,341		148,255	
OTHER MISCELLANEOUS 1)	$	47,986		26,908	
TOTAL MISCELLANEOUS	$	383,224		187,187	
MISCELLANEOUS % OF THE TOTAL $		12.1%		22.3	
MISCELLANEOUS AVG. COST PER MILE	$	191,612		74,875	
TOTAL COST					
TOTAL COST	$	3,170,905	2)	840,119	2)
TOTAL AVG. COST PER MILE	$	1,585,453		336,048	
COST RANGE PER MILE					
MINIMUM	$	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 1984 THROUGH 1987

		22 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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)	1,800,270	2)	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 1984 THROUGH 1987

		24 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		4.60	0.55	3.59	1.00
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	923,766	178,185	1,077,417	237,409
MATERIAL % OF THE TOTAL $		38.0%	37.9	46.8	25.5
MATERIAL AVG. COST PER MILE	$	200,819	323,973	300,116	237,409
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	5,559	15,094	107,091	--
ENGINEERING ... % OF THE TOTAL $		0.2%	3.2	4.7	--
ENGINEERING ... AVG. COST PER MILE	$	1,208	27,444	29,830	--
LABOR					
TOTAL LABOR	$	1,143,515	258,512	763,845	608,788
LABOR % OF THE TOTAL $		47.0%	55.0	33.2	65.4
LABOR AVG. COST PER MILE	$	248,590	470,022	212,770	608,788
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	49,995	--	86,369	3,905
RIGHT-OF-WAY ... % OF THE TOTAL $		2.1%	--	3.8	0.4
RIGHT-OF-WAY ... AVG. COST PER MILE	$	10,868	--	24,058	3,905
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	19,880	3,152	32,691	7,261
OVERHEAD	$	256,719	--	189,627	57,245
OTHER MISCELLANEOUS 1)	$	32,671	15,055	43,669	16,424
TOTAL MISCELLANEOUS	$	309,270	18,207	265,987	80,930
MISCELLANEOUS % OF THE TOTAL $		12.7%	3.9	11.6	8.7
MISCELLANEOUS AVG. COST PER MILE	$	67,233	33,104	74,091	80,930
TOTAL COST					
TOTAL COST	$	2,432,105	469,998	2,300,709	931,032
TOTAL AVG. COST PER MILE	$	528,718	854,542	640,866	931,032
COST RANGE PER MILE					
MINIMUM	$	443,262	2)	627,917	2)
MAXIMUM	$	831,132		646,586	

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 1984 THROUGH 1987

		26 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED					0.44
COST DATA					
MATERIALS					
TOTAL MATERIALS	$				242,547
MATERIAL % OF THE TOTAL $		%			44.2
MATERIAL AVG. COST PER MILE	$				551,243
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$				11,441
ENGINEERING ... % OF THE TOTAL $		%			2.1
ENGINEERING ... AVG. COST PER MILE	$				26,002
LABOR					
TOTAL LABOR	$				237,425
LABOR % OF THE TOTAL $		%			43.3
LABOR AVG. COST PER MILE	$				539,602
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$				26,896
RIGHT-OF-WAY ... % OF THE TOTAL $		%			4.9
RIGHT-OF-WAY ... AVG. COST PER MILE	$				61,127
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$				3,006
OVERHEAD	$				27,054
OTHER MISCELLANEOUS 1)	$				--
TOTAL MISCELLANEOUS	$				30,060
MISCELLANEOUS % OF THE TOTAL $		%			5.5
MISCELLANEOUS AVG. COST PER MILE	$				68,318
TOTAL COST					
TOTAL COST	$	2)	2)	2)	548,369
TOTAL AVG. COST PER MILE	$				1,246,293
COST RANGE PER MILE					
MINIMUM	$				821,853
MAXIMUM	$				1,568,868

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 1984 THROUGH 1987

		30 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		0.76	4.20 2)		2.27
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	841,851	728,641		674,495
MATERIAL % OF THE TOTAL $		21.3%	18.6		38.3
MATERIAL AVG. COST PER MILE	$	1,107,699	173,486		297,134
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	184,725	78,8[illegible]		--
ENGINEERING ... % OF THE TOTAL $		4.7%	2.[illegible]		--
ENGINEERING ... AVG. COST PER MILE	$	243,059	18,770		--
LABOR					
TOTAL LABOR	$	2,252,311	2,353,402		605,267
LABOR % OF THE TOTAL $		56.9%	60.1		34.4
LABOR AVG. COST PER MILE	$	2,963,567	560,334		266,637
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	441,458	127,241		91,926
RIGHT-OF-WAY ... % OF THE TOTAL $		11.1%	3.2		5.2
RIGHT-OF-WAY ... AVG. COST PER MILE	$	580,866	30,295		40,496
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	40,542	152,357		177,111
OVERHEAD	$	198,626	402,457		--
OTHER MISCELLANEOUS 1)	$	1,010	75,357		209,997
TOTAL MISCELLANEOUS	$	240,178	630,171		387,108
MISCELLANEOUS % OF THE TOTAL $		6.1%	16.1		22.0
MISCELLANEOUS AVG. COST PER MILE	$	316,024	150,041		170,532
TOTAL COST					
TOTAL COST	$	3,960,523	3,918,291	3)	1,758,796
TOTAL AVG. COST PER MILE	$	5,211,214	932,926		774,800
COST RANGE PER MILE					
MINIMUM	$	4)	705,411		4)
MAXIMUM	$		2,619,455		

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 1984 THROUGH 1987

		36 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		0.34			0.90
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	439,658			435,292
MATERIAL % OF THE TOTAL $		55.4%			39.3
MATERIAL AVG. COST PER MILE	$	1,293,112			483,658
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	28,025			29,400
ENGINEERING ... % OF THE TOTAL $		3.5%			2.7
ENGINEERING ... AVG. COST PER MILE	$	82,426			32,667
LABOR					
TOTAL LABOR	$	277,951			546,468
LABOR % OF THE TOTAL $		35.1%			49.3
LABOR AVG. COST PER MILE	$	817,503			607,187
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	--			11,915
RIGHT-OF-WAY ... % OF THE TOTAL $		--%			1.1
RIGHT-OF-WAY ... AVG. COST PER MILE	$	--			13,239
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	46,737			8,536
OVERHEAD	$	572			50,493
OTHER MISCELLANEOUS 1)	$	--			26,562
TOTAL MISCELLANEOUS	$	47,309			85,591
MISCELLANEOUS % OF THE TOTAL $		6.0%			7.7
MISCELLANEOUS AVG. COST PER MILE	$	139,144			95,101
TOTAL COST					
TOTAL COST	$	792,943	2)	2)	1,108,666
TOTAL AVG. COST PER MILE	$	2,332,185			1,231,851
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 1984 THROUGH 1987

		2 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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)	216,329	3)
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 1984 THROUGH 1987

		3 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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)	69,621	2)
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 1984 THROUGH 1987

		4 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		2.60		0.19	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	96,538		10,454	
MATERIAL % OF THE TOTAL $		34.3%		39.6	
MATERIAL AVG. COST PER MILE	$	37,130		55,021	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	22,577		3,328	
ENGINEERING ... % OF THE TOTAL $		8.0%		12.6	
ENGINEERING ... AVG. COST PER MILE	$	8,683		17,516	
LABOR					
TOTAL LABOR	$	120,582		10,268	
LABOR % OF THE TOTAL $		42.8%		38.9	
LABOR AVG. COST PER MILE	$	46,378		54,042	
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	18,253		689	
RIGHT-OF-WAY ... % OF THE TOTAL $		6.5%		2.6	
RIGHT-OF-WAY ... AVG. COST PER MILE	$	7,020		3,626	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	2,668		--	
OVERHEAD	$	20,890		1,639	
OTHER MISCELLANEOUS 1)	$	--		--	
TOTAL MISCELLANEOUS	$	23,558		1,639	
MISCELLANEOUS % OF THE TOTAL $		8.4%		6.2	
MISCELLANEOUS AVG. COST PER MILE	$	9,061		8,626	
TOTAL COST					
TOTAL COST	$	281,508	2)	26,378	2)
TOTAL AVG. COST PER MILE	$	108,272		138,832	
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-2

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1984 THROUGH 1987

		6 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		2.05	4.52		2.50
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	203,056	93,906		76,567
MATERIAL % OF THE TOTAL $		73.2%	25.8		40.0
MATERIAL AVG. COST PER MILE	$	99,052	20,776		30,627
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	--	13,286		6,276
ENGINEERING ... % OF THE TOTAL $		--%	3.7		3.3
ENGINEERING ... AVG. COST PER MILE	$	--	2,939		2,510
LABOR					
TOTAL LABOR	$	74,382	246,195		82,279
LABOR % OF THE TOTAL $		26.8%	67.7		43.0
LABOR AVG. COST PER MILE	$	36,284	54,468		32,912
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	$	--	--		23,800
OTHER MISCELLANEOUS 1)	$	--	785		2,621
TOTAL MISCELLANEOUS	$	--	2,480		26,421
MISCELLANEOUS % OF THE TOTAL $		--%	0.7		13.8
MISCELLANEOUS AVG. COST PER MILE	$	--	549		10,568
TOTAL COST					
TOTAL COST	$	277,438	363,688	2)	191,543
TOTAL AVG. COST PER MILE	$	135,336	80,462		76,617
COST RANGE PER MILE					
MINIMUM	$	3)	69,317		3)
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 1984 THROUGH 1987

		8 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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)	62,131	2)	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 1984 THROUGH 1987

		10 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED			2.15		
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		141,014		
MATERIAL % OF THE TOTAL $		%	11.3		
MATERIAL AVG. COST PER MILE	$		65,588		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$		7,876		
ENGINEERING ... % OF THE TOTAL $		%	0.6		
ENGINEERING ... AVG. COST PER MILE	$		3,663		
LABOR					
TOTAL LABOR	$		782,533		
LABOR % OF THE TOTAL $		%	62.5		
LABOR AVG. C PER MILE	$		363,969		
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$		137,600		
RIGHT-OF-WAY ... % OF THE TOTAL $		%	11.0		
RIGHT-OF-WAY ... AVG. COST PER MILE	$		64,000		
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$		49,100		
OVERHEAD	$		134,152		
OTHER MISCELLANEOUS 1)	$		--		
TOTAL MISCELLANEOUS	$		183,252		
MISCELLANEOUS % OF THE TOTAL $		%	14.6		
MISCELLANEOUS AVG. COST PER MILE	$		85,233		
TOTAL COST					
TOTAL COST	$	2)	1,252,275	2)	2)
TOTAL AVG. COST PER MILE	$		582,453		
COST RANGE PER MILE					
MINIMUM	$		103,958		
MAXIMUM	$		1,247,031		

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) 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 1984 THROUGH 1987

	12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
	1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED				3.90
COST DATA				
MATERIALS				
TOTAL MATERIALS	$			539,000
MATERIAL % OF THE TOTAL $	%			17.8
MATERIAL AVG. COST PER MILE	$			138,205
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY				
TOTAL ENGINEERING ...	$			125,000
ENGINEERING ... % OF THE TOTAL $	%			4.1
ENGINEERING ... AVG. COST PER MILE	$			32,051
LABOR				
TOTAL LABOR	$			1,998,000
LABOR % OF THE TOTAL $	%			66.0
LABOR AVG. COST PER MILE	$			512,308
RIGHT-OF-WAY AND DAMAGES				
TOTAL RIGHT-OF-WAY ...	$			252,000
RIGHT-OF-WAY ... % OF THE TOTAL $	%			8.3
RIGHT-OF-WAY ... AVG. COST PER MILE	$			64,615
MISCELLANEOUS				
INTEREST DURING CONSTRUCTION	$			63,270
OVERHEAD	$			--
OTHER MISCELLANEOUS 1)	$			50,000
TOTAL MISCELLANEOUS	$			113,270
MISCELLANEOUS % OF THE TOTAL $	%			3.7
MISCELLANEOUS AVG. COST PER MILE	$			29,044
TOTAL COST				
TOTAL COST	$	2)	2)	2) 3,027,270
TOTAL AVG. COST PER MILE	$			776,223
COST RANGE PER MILE				
MINIMUM	$			693,800
MAXIMUM	$			923,407

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) 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 1984 THROUGH 1987

		16 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED					4.00
COST DATA					
MATERIALS					
TOTAL MATERIALS	$				826,234
MATERIAL % OF THE TOTAL $		%			31.0
MATERIAL AVG. COST PER MILE	$				206,559
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$				109,590
ENGINEERING ... % OF THE TOTAL $		%			4.1
ENGINEERING ... AVG. COST PER MILE	$				27,398
LABOR					
TOTAL LABOR	$				1,400,465
LABOR % OF THE TOTAL $		%			52.[illegible]
LABOR AVG. COST PER MILE	$				350,116
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$				248,000
RIGHT-OF-WAY ... % OF THE TOTAL $		%			9.3
RIGHT-OF-WAY ... AVG. COST PER MILE	$				62,000
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$				36,195
OVERHEAD	$				--
OTHER MISCELLANEOUS 1)	$				46,225
TOTAL MISCELLANEOUS	$				82,420
MISCELLANEOUS % OF THE TOTAL $		%			3.1
MISCELLANEOUS AVG. COST PER MILE	$				20,605
TOTAL COST					
TOTAL COST	$	2)	2)	2)	2,666,709
TOTAL AVG. COST PER MILE	$				666,677
COST RANGE PER MILE					
MINIMUM	$				443,653
MAXIMUM	$				800,492

1) CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) NO REPORTS 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 1984 THROUGH 1987

		6 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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	$	1,489,274	2)	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 1984 THROUGH 1987

		8 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		0.98			
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	328,726			
MATERIAL % OF THE TOTAL $		21.4%			
MATERIAL AVG. COST PER MILE	$	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	$	928,041			
LABOR % OF THE TOTAL $		60.3%			
LABOR AVG. COST PER MILE	$	946,981			
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	$	20,664			
OVERHEAD	$	149,859			
OTHER MISCELLANEOUS 1)	$	--			
TOTAL MISCELLANEOUS	$	170,523			
MISCELLANEOUS % OF THE TOTAL $		11.1%			
MISCELLANEOUS AVG. COST PER MILE	$	174,003			
TOTAL COST					
TOTAL COST	$	1,538,076	2)	2)	2)
TOTAL AVG. COST PER MILE	$	1,569,465			
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 1984 THROUGH 1987

		10 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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	$	5,921,330	2,680,168	2)	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 1984 THROUGH 1987

		12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		2.20	2.02		
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	367,898	723,021		
MATERIAL % OF THE TOTAL $		23.0%	23.3		
MATERIAL AVG. COST PER MILE	$	167,226	357,931		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$	--	182,605		
ENGINEERING ... % OF THE TOTAL $		--%	5.9		
ENGINEERING ... AVG. COST PER MILE	$	--	90,399		
LABOR					
TOTAL LABOR	$	1,039,781	1,645,062		
LABOR % OF THE TOTAL $		65.1%	53.0		
LABOR AVG. COST PER MILE	$	472,628	814,387		
RIGHT-OF-WAY AND DAMAGES					
TOTAL RIGHT-OF-WAY ...	$	3,209	130		
RIGHT-OF-WAY ... % OF THE TOTAL $		0.2%	0.0		
RIGHT-OF-WAY ... AVG. COST PER MILE	$	1,459	64		
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	44,100	362,682		
OVERHEAD	$	142,280	191,008		
OTHER MISCELLANEOUS 1)	$	--	1,406		
TOTAL MISCELLANEOUS	$	186,380	555,096		
MISCELLANEOUS % OF THE TOTAL $		11.7%	17.9		
MISCELLANEOUS AVG. COST PER MILE	$	84,718	274,800		
TOTAL COST					
TOTAL COST	$	1,597,268	3,105,914	2)	2)
TOTAL AVG. COST PER MILE	$	726,031	1,537,581		
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 1984 THROUGH 1987

		16 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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)	2,444,249	2)	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 1984 THROUGH 1987

		20 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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	$	6,167,211	1,134,783	2)	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 1984 THROUGH 1987

		24 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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	$	1,110,142	6,657,070	2)	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.

PART A

TABLE C-3

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1984 THROUGH 1987

		30 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED					0.81
COST DATA					
MATERIALS					
TOTAL MATERIALS	$				961,000
MATERIAL % OF THE TOTAL $		%			15.7
MATERIAL AVG. COST PER MILE	$				1,186,420
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ...	$				1,351,000
ENGINEERING ... % OF THE TOTAL $		%			22.1
ENGINEERING ... AVG. COST PER MILE	$				1,667,901
LABOR					
TOTAL LABOR	$				3,587,000
LABOR % OF THE TOTAL $		%			58.7
LABOR AVG. COST PER MILE	$				4,428,395
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	$				56,000
OTHER MISCELLANEOUS 1)	$				160,000
TOTAL MISCELLANEOUS	$				216,000
MISCELLANEOUS % OF THE TOTAL $		%			3.5
MISCELLANEOUS AVG. COST PER MILE	$				266,667
TOTAL COST					
TOTAL COST	$	2)	2)	2)	6,115,000
TOTAL AVG. COST PER MILE	$				7,549,383
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 D COMPRESSION CONSTRUCTION AND EXPENDITURES

PART A

TABLE D

COMPRESSION CONSTRUCTION AND EXPENDITURES
CONSTRUCTION ENDING IN 1984 THROUGH 1987

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
1984	22,721	$ 23,982,752	$ 1,056	--	$ --	$ --	22,721	$ 23,982,752	$ 1,056
1985	55,920	83,817,835	1,499	6,600	11,781,449	1,785	62,520	95,599,284	1,529
1986	39,160	77,800,233	1,987	--	--	--	39,160	77,800,233	1,987
1987	30,250	43,604,802	1,441	--	--	--	30,250	43,604,802	1,441

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 1984 THROUGH 1987

		NEW TRANSMISSION COMPRESSOR STATIONS			
		1984	1985	1986	1987
DESCRIPTIVE DATA					
NUMBER OF UNITS		6	6	6	
TOTAL HORSEPOWER		6,600	20,150	4,900	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	7,110,175	14,550,449	3,589,312	
MATERIAL % OF THE TOTAL $		53.4%	69.6	64.5	
MATERIAL AVG.COST PER HORSEPOWER	$	1,077	722	733	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING...	$	890,808	1,109,603	203,735	
ENGINEERING ... % OF THE TOTAL $		6.7%	5.3	3.7	
ENGINEERING ... AVG. COST PER HORSEPOWER	$	135	55	42	
LABOR					
TOTAL LABOR	$	2,689,815	4,503,153	1,408,744	
LABOR % OF THE TOTAL $		20.2%	21.5	25.3	
LABOR AVG. COST PER HORSEPOWER	$	408	223	287	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	306,814	672,171	170,128	
OVERHEAD	$	2,295,489	29,629	127,759	
OTHER MISCELLANEOUS 1)	$	21,889	37,063	64,622	
TOTAL MISCELLANEOUS	$	2,624,192	738,863	362,509	
MISCELLANEOUS % OF THE TOTAL $		19.7%	3.5	6.5	
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	398	37	74	
TOTAL COST					
TOTAL COST	$	13,314,990	20,902,068	5,564,300	2)
TOTAL AVG. COST PER HORSEPOWER	$	2,017	1,037	1,136	
COST RANGE PER HORSEPOWER					
MINIMUM	$	1,668	945	1,065	
MAXIMUM	$	2,367	1,435	1,536	

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

PART A

TABLE E-1

COMPARISON OF CONSTRUCTION COSTS FOR
TRANSMISSION COMPRESSOR STATIONS WITH RECIPROCATING UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1984 THROUGH 1987

		ADDITIONS TO TRANSMISSION COMPRESSOR STATIONS			
		1984	1985	1986	1987
DESCRIPTIVE DATA					
NUMBER OF UNITS			3	3	4
TOTAL HORSEPOWER			4,200	7,200	16,000
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		4,634,829	5,429,681	8,726,884
MATERIAL % OF THE TOTAL $		%	52.5	67.0	50.7
MATERIAL AVG.COST PER HORSEPOWER	$		1,104	754	545
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING...	$		140,568	557,716	1,509,171
ENGINEERING ... % OF THE TOTAL $		%	1.6	6.9	8.8
ENGINEERING ... AVG. COST PER HORSEPOWER	$		33	77	94
LABOR					
TOTAL LABOR	$		2,665,113	1,915,695	5,953,176
LABOR % OF THE TOTAL $		%	30.2	23.6	34.6
LABOR AVG. COST PER HORSEPOWER	$		635	266	372
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$		359,782	187,248	1,008,207
OVERHEAD	$		1,022,680	--	30,799
OTHER MISCELLANEOUS 1)	$		776	19,139	--
TOTAL MISCELLANEOUS	$		1,383,238	206,387	1,039,006
MISCELLANEOUS % OF THE TOTAL $		%	15.7	2.5	6.0
MISCELLANEOUS AVG. COST PER HORSEPOWER	$		329	29	65
TOTAL COST					
TOTAL COST	$	2)	8,823,748	8,109,479	17,228,237
TOTAL AVG. COST PER HORSEPOWER	$		2,101	1,126	1,077
COST RANGE PER HORSEPOWER					
MINIMUM	$		1,023	1,120	3)
MAXIMUM	$		3,287	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 1984 THROUGH 1987

		NEW TRANSMISSION COMPRESSOR STATIONS			
		1984	1985	1986	1987
DESCRIPTIVE DATA					
NUMBER OF UNITS			4	2	3
TOTAL HORSEPOWER			14,560	7,000	11,910
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		9,257,646	6,335,169	7,229,004
MATERIAL % OF THE TOTAL $		%	33.7	33.6	30.2
MATERIAL AVG.COST PER HORSEPOWER	$		636	905	607
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING...	$		2,152,573	253,885	1,412,831
ENGINEERING ... % OF THE TOTAL $		%	7.8	1.3	5.9
ENGINEERING ... AVG. COST PER HORSEPOWER	$		148	36	119
LABOR					
TOTAL LABOR	$		8,604,978	8,889,344	11,155,670
LABOR % OF THE TOTAL $		%	31.4	47.2	46.7
LABOR AVG. COST PER HORSEPOWER	$		591	1,270	937
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$		1,448,467	883,804	709,109
OVERHEAD	$		945,425	2,414,743	--
OTHER MISCELLANEOUS 1)	$		5,021,000	73,974	3,404,915
TOTAL MISCELLANEOUS	$		7,414,892	3,372,521	4,114,024
MISCELLANEOUS % OF THE TOTAL $		%	27.0	17.9	17.2
MISCELLANEOUS AVG. COST PER HORSEPOWER	$		509	482	345
TOTAL COST					
TOTAL COST	$	2)	27,430,089	18,850,919	23,911,529
TOTAL AVG. COST PER HORSEPOWER	$		1,884	2,693	2,008
COST RANGE PER HORSEPOWER					
MINIMUM	$		1,253	3)	713
MAXIMUM	$		2,452		2,726

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 1984 THROUGH 1987

		ADDITIONS TO TRANSMISSION COMPRESSOR STATIONS			
		1984	1985	1986	1987
DESCRIPTIVE DATA					
NUMBER OF UNITS		2	3	6	
TOTAL HORSEPOWER		11,600	11,780	19,830	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	4,745,693	8,925,941	20,892,162	
MATERIAL % OF THE TOTAL $		79.6%	42.9	46.2	
MATERIAL AVG.COST PER HORSEPOWER	$	409	758	1,054	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING...	$	289,465	830,943	983,210	
ENGINEERING ... % OF THE TOTAL $		4.9%	4.0	2.2	
ENGINEERING ... AVG. COST PER HORSEPOWER	$	25	71	50	
LABOR					
TOTAL LABOR	$	734,667	7,573,464	20,614,447	
LABOR % OF THE TOTAL $		12.3%	36.4	45.6	
LABOR AVG. COST PER HORSEPOWER	$	63	643	1,040	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	148,209	1,061,072	1,523,037	
OVERHEAD	$	--	1,647,409	804,914	
OTHER MISCELLANEOUS 1)	$	43,666	774,572	388,661	
TOTAL MISCELLANEOUS	$	191,875	3,483,053	2,716,612	
MISCELLANEOUS % OF THE TOTAL $		3.2%	16.7	6.0	
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	17	296	137	
TOTAL COST					
TOTAL COST	$	5,961,700	20,813,401	45,206,431	2)
TOTAL AVG. COST PER HORSEPOWER	$	514	1,767	2,280	
COST RANGE PER HORSEPOWER					
MINIMUM	$	3)	1,411	1,746	
MAXIMUM	$		2,090	3,177	

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-1 RECIPROCATING UNITS

PART A

TABLE F-1

COMPARISON OF CONSTRUCTION COSTS FOR
FIELD COMPRESSOR STATIONS WITH RECIPROCATING UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1984 THROUGH 1987

		NEW FIELD COMPRESSOR STATIONS			
		1984	1985	1986	1987
DESCRIPTIVE DATA					
NUMBER OF UNITS		1			
TOTAL HORSEPOWER		521			
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	706,407			
MATERIAL % OF THE TOTAL $		53.4%			
MATERIAL AVG.COST PER HORSEPOWER	$	1,356			
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING...	$	262,083			
ENGINEERING ... % OF THE TOTAL $		19.8%			
ENGINEERING ... AVG. COST PER HORSEPOWER	$	503			
LABOR					
TOTAL LABOR	$	177,730			
LABOR % OF THE TOTAL $		13.4%			
LABOR AVG. COST PER HORSEPOWER	$	341			
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	$	68,550			
OVERHEAD	$	107,601			
OTHER MISCELLANEOUS 1)	$	--			
TOTAL MISCELLANEOUS	$	176,151			
MISCELLANEOUS % OF THE TOTAL $		13.3%			
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	338			
TOTAL COST					
TOTAL COST	$	1,322,371	2)	2)	2)
TOTAL AVG. COST PER HORSEPOWER	$	2,538			
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

TABLE F-1

COMPARISON OF CONSTRUCTION COSTS FOR FIELD COMPRESSOR STATIONS WITH RECIPROCATING UNITS REPORTED FROM CONSTRUCTION ENDING IN 1984 THROUGH 1987

	ADDITIONS TO FIELD COMPRESSOR STATIONS			
	1984	1985	1986	1987
DESCRIPTIVE DATA				
NUMBER OF UNITS	2		1	3
TOTAL HORSEPOWER	4,000		230	2,340
COST DATA				
MATERIALS				
TOTAL MATERIALS $	2,351,940		42,604	1,813,663
MATERIAL % OF THE TOTAL $	69.5%		61.7	73.6
MATERIAL AVG.COST PER HORSEPOWER $	588		185	775
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY				
TOTAL ENGINEERING... $	284,089		3,830	159,528
ENGINEERING ... % OF THE TOTAL $	8.4%		5.5	6.5
ENGINEERING ... AVG. COST PER HORSEPOWER $	71		17	68
LABOR				
TOTAL LABOR $	570,575		21,547	217,760
LABOR % OF THE TOTAL $	16.9%		31.2	8.8
LABOR AVG. COST PER HORSEPOWER $	143		94	93
MISCELLANEOUS				
INTEREST DURING CONSTRUCTION $	51,036		1,091	55,348
OVERHEAD $	126,051		--	131,184
OTHER MISCELLANEOUS 1) $	--		32	87,553
TOTAL MISCELLANEOUS $	177,087		1,123	274,085
MISCELLANEOUS % OF THE TOTAL $	5.2%		1.6	11.1
MISCELLANEOUS AVG. COST PER HORSEPOWER $	44		5	117
TOTAL COST				
TOTAL COST $	3,383,691	2)	69,104	2,465,036
TOTAL AVG. COST PER HORSEPOWER $	846		300	1,053
COST RANGE PER HORSEPOWER				
MINIMUM $	3)		3)	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 F-2 NO REPORTS RECEIVED

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 1984 THROUGH 1987

	ADDITIONS TO STORAGE COMPRESSOR STATIONS			
	1984	1985	1986	1987
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)	5,848,529	2)	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

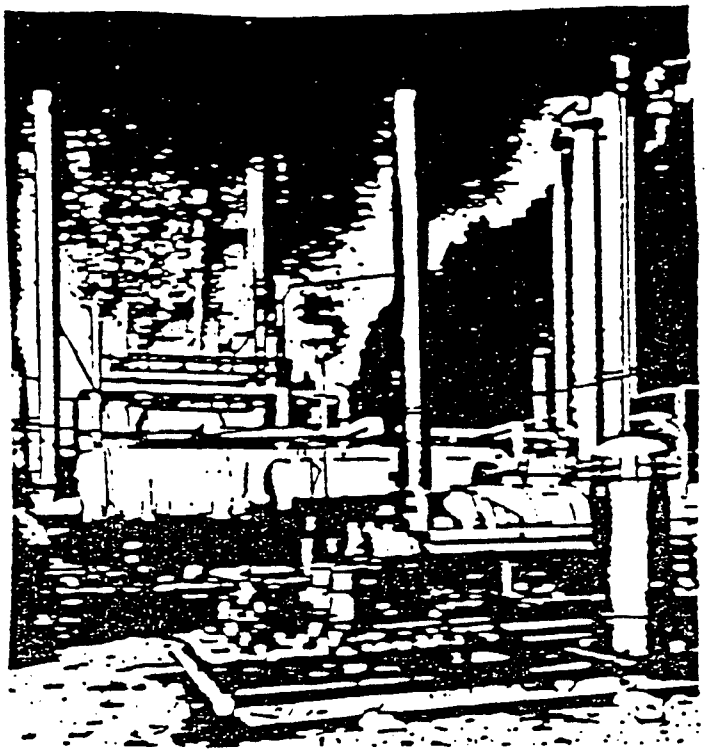
PART A

TABLE H-2

COMPARISON OF CONSTRUCTION COSTS FOR
OFFSHORE COMPRESSOR STATIONS WITH TURBINE DRIVEN CENTRIFUGAL UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1984 THROUGH 1987

		NEW OFFSHORE COMPRESSOR STATIONS			
		1984	1985	1986	1987
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)	11,781,449	2)	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, 1987 Through July 31, 1988

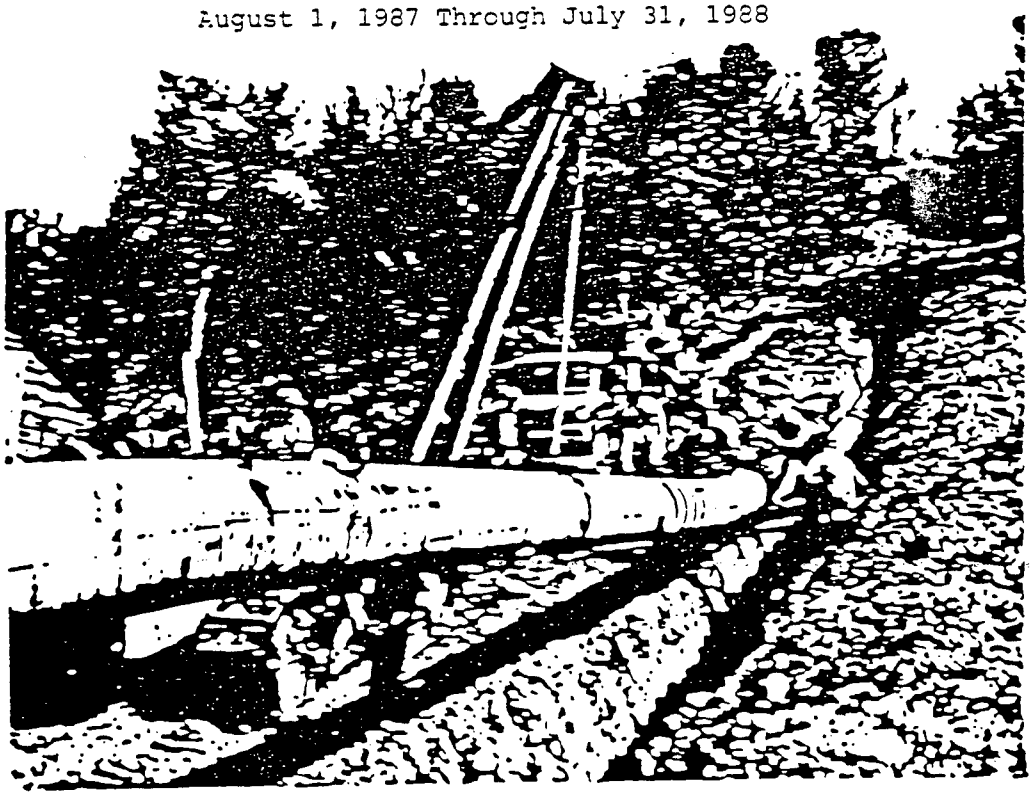


TABLE I

PART A

CONSTRUCTION COST REPORTS FILED FROM AUGUST 1, 1987 THROUGH JULY 31, 1988
CONSTRUCTION ENDING IN 1985

	DOCKET NO. (CP)	TYPE OF CONSTRUCTION COST REPORTED					
		COMPRESSOR STATIONS		ONSHORE PIPELINES		OFFSHORE PIPELINES	MIXED DIAMETER PIPELINES
		ONSHORE	OFFSHORE	TRANSMISSION	LATERAL		
TENNESSEE GAS PIPELINE CO.	84-441	X		X	X		

TABLE I

PART A

CONSTRUCTION COST REPORTS FILED FROM AUGUST 1, 1987 THROUGH JULY 31, 1988
CONSTRUCTION ENDING IN 1986

	DOCKET NO. (CP)	TYPE OF CONSTRUCTION COST REPORTED					
		COMPRESSOR STATIONS		ONSHORE PIPELINES		OFFSHORE PIPELINES	MIXED DIAMETER PIPELINES
		ONSHORE	OFFSHORE	TRANSMISSION	LATERAL		
COLUMBIA GAS TRANSMISSION CORP.	86-608			X			
NATURAL GAS PIPELINE CO. OF AMERICA	85-518			X			
NORTHERN NATURAL GAS CO.	85-708			X			
TENNESSEE GAS PIPELINE CO.	84-441	X		X			
TEXAS EASTERN TRANSMISSION CORP.	84-429	X					X
TEXAS EASTERN TRANSMISSION CORP.	85-803						X
TEXAS EASTERN TRANSMISSION CORP.	85-804			X			
TEXAS EASTERN TRANSMISSION CORP.	85-805			X			
TEXAS EASTERN TRANSMISSION CORP.	86-46						X
TEXAS EASTERN TRANSMISSION CORP.	86-82			X			

TABLE I

PART A

CONSTRUCTION COST REPORTS FILED FROM AUGUST 1, 1987 THROUGH JULY 31, 1988
CONSTRUCTION ENDING IN 1987

	DOCKET NO. (CP)	TYPE OF CONSTRUCTION COST REPORTED					
		COMPRESSOR STATIONS		ONSHORE PIPELINES		OFFSHORE PIPELINES	MIXED DIAMETER PIPELINES
		ONSHORE	OFFSHORE	TRANSMISSION	LATERAL		
ALGONQUIN GAS TRANSMISSION CO.	84-654	X		X	X		
ALGONQUIN GAS TRANSMISSION CO.	86-480				X		
ARKLA ENERGY RESOURCES	87-151			X			
COLUMBIA GAS TRANSMISSION CORP.	86-346			X			
COLUMBIA GAS TRANSMISSION CORP.	86-367				X		
EL PASO NATURAL GAS CO.	85-379			X			
FLORIDA GAS TRANSMISSION CO.	74-192					X	
HIGH ISLAND OFFSHORE SYSTEM	86-484				X		
K N ENERGY, INC.	86-373			X			
LONE STAR GAS CO.	83-418	X					
NATURAL GAS PIPELINE CO. OF AMERICA	85-518	X					
PANHANDLE EASTERN PIPE LINE CO.	86-296			X			
TEXAS GAS TRANSMISSION CORP.	86-349			X			
TRANSCONTINENTAL GAS PIPE LINE CORP.	86-597					X	
TRUNKLINE GAS CO.	86-659	X		X			
WILLIAMS NATURAL GAS CO.	86-295				X		
WILLIAMS NATURAL GAS CO.	86-305						

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 1985

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE TRANSMISSION PIPELINE					
84-441	TENNESSEE GAS PIPELINE CO.	30	5.70	NY	$ 4,388,962	$ 769,99
84-441	TENNESSEE GAS PIPELINE CO.	30	3.50	NY	3,175,822	907,37
84-441	TENNESSEE GAS PIPELINE CO.	30	15.00	MA	17,153,504	1,143,56
84-441	TENNESSEE GAS PIPELINE CO.	30	3.80	MA	4,469,997	1,176,31
84-441	TENNESSEE GAS PIPELINE CO.	30	11.50	PA	9,754,237	848,19
84-441	TENNESSEE GAS PIPELINE CO.	30	4.00	PA	4,612,994	1,153,24

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						
86-608	COLUMBIA GAS TRANSMISSION CORP.	1)	30	12.00	WV	$ 8,613,321	$ 717,777
84-441	TENNESSEE GAS PIPELINE CO.		30	3.20	NJ	5,403,260	1,688,519
85-518	NATURAL GAS PIPELINE CO. OF AMERICA		36	11.07	IL	7,278,660	657,512
85-804	TEXAS EASTERN TRANSMISSION CORP.	2)	36	11.02	NJ,PA,WV	15,085,000	1,368,875
85-805	TEXAS EASTERN TRANSMISSION CORP.	3)	36	10.95	NJ,PA	15,132,000	1,381,918
86-82	TEXAS EASTERN TRANSMISSION CORP.	4)	36	31.58	NJ,PA,WV	43,957,820	1,391,951

1) INCLUDES 0.30 MILE OF 24 INCH TRANSMISSION PIPELINE.
2) INCLUDES 0.62 MILE OF 30 INCH AND 2.74 MILES OF 42 INCH TRANSMISSION PIPELINE.
3) INCLUDES 2.99 MILES OF 42 INCH TRANSMISSION PIPELINE.
4) INCLUDES 6.23 MILES OF 42 INCH TRANSMISSION PIPELINE.

PART A

TABLE J-1

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1987

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE TRANSMISSION PIPELINE					
83-418	LONE STAR GAS CO.	16	16.39	TX	$ 3,024,670	$ 184,544
86-295	WILLIAMS NATURAL GAS CO.	20	33.00	OK	5,103,443	154,650
86-346	COLUMBIA GAS TRANSMISSION CORP.	24	7.20	NY	5,447,800	756,639
74-192	FLORIDA GAS TRANSMISSION CO.	26	5.11	FL	1,955,049	382,593
74-192	FLORIDA GAS TRANSMISSION CO.	26	4.83	FL	2,998,871	620,884
84-654	ALGONQUIN GAS TRANSMISSION CO.	30	18.80	NJ	36,646,750	1,949,295
74-192	FLORIDA GAS TRANSMISSION CO.	30	6.79	AL	4,357,519	641,755
74-192	FLORIDA GAS TRANSMISSION CO.	30	6.17	FL	3,382,014	548,138
74-192	FLORIDA GAS TRANSMISSION CO.	30	7.02	FL	4,802,582	684,128
74-192	FLORIDA GAS TRANSMISSION CO.	30	6.58	FL	3,238,592	492,187
74-192	FLORIDA GAS TRANSMISSION CO.	30	4.26	FL	3,290,493	772,416
74-192	FLORIDA GAS TRANSMISSION CO.	30	8.09	LA	6,860,959	848,079

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					
84-441	TENNESSEE GAS PIPELINE CO.	8	4.40	CT	$ 2,426,141	$ 551,396
84-441	TENNESSEE GAS PIPELINE CO.	12	12.20	NH	6,386,006	523,443
84-441	TENNESSEE GAS PIPELINE CO.	12	6.40	MA,NH	4,390,650	686,039

PART A

TABLE J-1

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1987

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE LATERAL PIPELINE					
86-373	K N ENERGY, INC.	6	15.10	CO	$ 794,158	$ 52,59
84-654	ALGONQUIN GAS TRANSMISSION CO.	10	3.10	CT	2,275,750	734,11
84-654	ALGONQUIN GAS TRANSMISSION CO.	12	5.20	RI	3,594,250	691,20
85-379	EL PASO NATURAL GAS CO.	12	19.80	AZ	3,815,085	192,68
84-654	ALGONQUIN GAS TRANSMISSION CO.	20	4.40	MA	3,610,250	820,51

PART A

TABLE J-1

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1987

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	OFFSHORE PIPELINE					
86-659	TRUNKLINE GAS CO.	10	3.90	LA	$ 1,533,340	$ 393,164

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 1985

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE TRANSMISSION PIPELINE					
84-441	TENNESSEE GAS PIPELINE CO.	30	2.00	NY	$ 1,983,579	$ 991,79
84-441	TENNESSEE GAS PIPELINE CO.	30	2.00	NY	1,410,821	705,41

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. COS PER MILE
	ONSHORE TRANSMISSION PIPELINE					
85-708	NORTHERN NATURAL GAS CO.	24	2.49	TX	$ 1,610,000	$ 646,58

PART A

TABLE J-2

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1987

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE TRANSMISSION PIPELINE					
86-367	COLUMBIA GAS TRANSMISSION CORP.	24	1.00	KY	$ 931,032	$ 931,03
86-349	TEXAS GAS TRANSMISSION CORP.	26	0.19	LA	156,152	821,85
86-349	TEXAS GAS TRANSMISSION CORP.	26	0.25	LA	392,217	1,568,86
74-192	FLORIDA GAS TRANSMISSION CO.	30	2.27	LA	1,758,796	774,80
86-597	TRANSCONTINENTAL GAS PIPE LINE CORP.	36	0.90	PA	1,108,666	1,231,85

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. COS PER MILE
	ONSHORE LATERAL PIPELINE					
84-441	TENNESSEE GAS PIPELINE CO.	10	0.90	CT	$ 1,122,328	$ 1,247,03

PART A

TABLE J-2

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1987

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE LATERAL PIPELINE					
87-151	ARKLA ENERGY RESOURCES	6	2.50	LA	$ 191,543	$ 76,617
84-654	ALGONQUIN GAS TRANSMISSION CO.	12	2.50	MA	1,734,500	693,80(
86-480	ALGONQUIN GAS TRANSMISSION CO.	12	1.40	MA	1,292,770	923,407
86-480	ALGONQUIN GAS TRANSMISSION CO.	16	2.50	MA	2,001,230	800,49:
86-305	WILLIAMS NATURAL GAS CO.	16	1.50	OK	665,479	443,65:

PART A

TABLE J-2

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1987

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	OFFSHORE PIPELINE					
86-484	HIGH ISLAND OFFSHORE SYSTEM	30	0.81	TX	$ 6,115,000	$ 7,549,38

TABLE J-3 MIXED DIAMETER PIPELINE

PART A

TABLE J-3

PIPELINE CONSTRUCTION PROJECTS
MIXED DIAMETER PIPELINE 3 MILES AND OVER
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					
84-429	TEXAS EASTERN TRANSMISSION CORP.	30, 36	103.42	PA	$ 109,907,500	$ 1,062,73(
85-803	TEXAS EASTERN TRANSMISSION CORP.	24, 26, 30, 36	57.11	PA,OH	55,561,580	972,887
86-46	TEXAS EASTERN TRANSMISSION CORP.	24, 36, 42	10.98	PA,NJ	11,562,380	1,053,04(

TABLE K-1 RECIPROCATING UNITS

PART A

TABLE K-1

ADDITIONS TO TRANSMISSION COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1985

	DOCKET NUMBER (CP) AND APPLICANT
	84-441
	TENNECO
DESCRIPTIVE DATA	
NAME OF COMPRESSOR STATION	STA 313
LOCATION	POTTER CO, PA
HORSEPOWER/UNIT	1 AT 2,000
NUMBER OF UNITS	1
TOTAL HORSEPOWER	2,000
COST DATA	
MATERIALS	
TOTAL MATERIALS	$ 3,068,424
MATERIAL % OF THE TOTAL $	46.7%
MATERIAL AVG. COST PER HORSEPOWER	$ 1,534
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY	
TOTAL ENGINEERING...	$ 96,117
ENGINEERING ... % OF THE TOTAL $	1.5%
ENGINEERING ... AVG. COST PER HORSEPOWER	$ 48
LABOR	
TOTAL LABOR	$ 2,308,811
LABOR % OF THE TOTAL $	35.1%
LABOR AVG. COST PER HORSEPOWER	$ 1,154
MISCELLANEOUS	
INTEREST DURING CONSTRUCTION	$ 294,601
OVERHEAD	$ 804,914
OTHER MISCELLANEOUS 1)	$ 776
TOTAL MISCELLANEOUS	$ 1,100,291
MISCELLANEOUS % OF THE TOTAL $	16.7%
MISCELLANEOUS AVG. COST PER HORSEPOWER	$ 550
TOTAL COST	
TOTAL COST	$ 6,573,643
TOTAL AVG. COST PER HORSEPOWER	$ 3,287

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 1987

	DOCKET NUMBER (CP) AND APPLICANT
	85-518 NGPL
DESCRIPTIVE DATA	
NAME OF COMPRESSOR STATION	COMP STA 110
LOCATION	HENRY CO, IL
HORSEPOWER/UNIT	4 AT 4,000
NUMBER OF UNITS	4
TOTAL HORSEPOWER	16,000
COST DATA	
MATERIALS	
TOTAL MATERIALS	$ 8,726,884
MATERIAL % OF THE TOTAL $	50.7%
MATERIAL AVG. COST PER HORSEPOWER	$ 545
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY	
TOTAL ENGINEERING...	$ 1,509,171
ENGINEERING ... % OF THE TOTAL $	8.8%
ENGINEERING ... AVG. COST PER HORSEPOWER	$ 94
LABOR	
TOTAL LABOR	$ 5,953,176
LABOR % OF THE TOTAL $	34.6%
LABOR AVG. COST PER HORSEPOWER	$ 372
MISCELLANEOUS	
INTEREST DURING CONSTRUCTION	$ 1,008,207
OVERHEAD	$ 30,799
OTHER MISCELLANEOUS 1)	$ --
TOTAL MISCELLANEOUS	$ 1,039,006
MISCELLANEOUS % OF THE TOTAL $	6.0%
MISCELLANEOUS AVG. COST PER HORSEPOWER	$ 65
TOTAL COST	
TOTAL COST	$ 17,228,237
TOTAL AVG. COST PER HORSEPOWER	$ 1,077

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 1986

	DOCKET NUMBER (CP) AND APPLICANT
	84-441 TENNECO
DESCRIPTIVE DATA	
NAME OF COMPRESSOR STATION	STA 325
LOCATION	SUSSEX CO, NJ
HORSEPOWER/UNIT	2 AT 3,500
NUMBER OF UNITS	2
TOTAL HORSEPOWER	7,000
COST DATA	
MATERIALS	
TOTAL MATERIALS	$ 6,335,169
MATERIAL % OF THE TOTAL $	33.6%
MATERIAL AVG. COST PER HORSEPOWER	$ 905
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY	
TOTAL ENGINEERING...	$ 253,885
ENGINEERING ... % OF THE TOTAL $	1.3%
ENGINEERING ... AVG. COST PER HORSEPOWER	$ 36
LABOR	
TOTAL LABOR	$ 8,889,344
LABOR % OF THE TOTAL $	47.2%
LABOR AVG. COST PER HORSEPOWER	$ 1,270
MISCELLANEOUS	
INTEREST DURING CONSTRUCTION	$ 883,804
OVERHEAD	$ 2,414,743
OTHER MISCELLANEOUS 1)	$ 73,974
TOTAL MISCELLANEOUS	$ 3,372,521
MISCELLANEOUS % OF THE TOTAL $	17.9%
MISCELLANEOUS AVG. COST PER HORSEPOWER	$ 482
TOTAL COST	
TOTAL COST	$ 18,850,919
TOTAL AVG. COST PER HORSEPOWER	$ 2,693

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

PART A

TABLE K-2

NEW TRANSMISSION COMPRESSOR STATIONS
TURBINE DRIVEN CENTRIFUGAL UNITS
CONSTRUCTION ENDING IN 1987

	DOCKET NUMBER (CP) AND APPLICANT	
	84-654 ALGONQUIN	86-295 WILLIAMS
DESCRIPTIVE DATA		
NAME OF COMPRESSOR STATION	SOUTHEAST STA	PERRY STA
LOCATION	PUTNAM CO, NY	NOBLE CO, OK
HORSEPOWER/UNIT	2 AT 3,830	1 AT 4,250
NUMBER OF UNITS	2	1
TOTAL HORSEPOWER	7,660	4,250
COST DATA		
MATERIALS		
TOTAL MATERIALS	$ 5,130,000	2,099,004
MATERIAL % OF THE TOTAL $	24.6%	69.3
MATERIAL AVG. COST PER HORSEPOWER	$ 670	494
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING...	$ 1,241,000	171,831
ENGINEERING ... % OF THE TOTAL $	5.9%	5.7
ENGINEERING ... AVG. COST PER HORSEPOWER	$ 162	40
LABOR		
TOTAL LABOR	$ 10,440,000	715,670
LABOR % OF THE TOTAL $	50.0%	23.6
LABOR AVG. COST PER HORSEPOWER	$ 1,363	168
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION	$ 674,250	34,859
OVERHEAD	$ --	--
OTHER MISCELLANEOUS 1)	$ 3,396,000	8,915
TOTAL MISCELLANEOUS	$ 4,070,250	43,774
MISCELLANEOUS % OF THE TOTAL $	19.5%	1.4
MISCELLANEOUS AVG. COST PER HORSEPOWER	$ 531	10
TOTAL COST		
TOTAL COST	$ 20,881,250	3,030,279
TOTAL AVG. COST PER HORSEPOWER	$ 2,726	713

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	
		84-441 TENNECO
DESCRIPTIVE DATA		
NAME OF COMPRESSOR STATION		STA 319
LOCATION		BRADFORD CO, PA
HORSEPOWER/UNIT		1 AT 4,500
NUMBER OF UNITS		1
TOTAL HORSEPOWER		4,500
COST DATA		
MATERIALS		
TOTAL MATERIALS	$	2,806,832
MATERIAL % OF THE TOTAL $		44.2%
MATERIAL AVG. COST PER HORSEPOWER	$	624
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING...	$	108,943
ENGINEERING ... % OF THE TOTAL $		1.7%
ENGINEERING ... AVG. COST PER HORSEPOWER	$	24
LABOR		
TOTAL LABOR	$	2,334,255
LABOR % OF THE TOTAL $		36.8%
LABOR AVG. COST PER HORSEPOWER	$	519
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION	$	294,601
OVERHEAD	$	804,914
OTHER MISCELLANEOUS 1)	$	5
TOTAL MISCELLANEOUS	$	1,099,520
MISCELLANEOUS % OF THE TOTAL $		17.3%
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	244
TOTAL COST		
TOTAL COST	$	6,349,550
TOTAL AVG. COST PER HORSEPOWER	$	1,411

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		
	84-441 TENNECO	84-429 TETCO	84-429 TETCO
DESCRIPTIVE DATA			
NAME OF COMPRESSOR STATION	STA 267	STA 20	STA 26
LOCATION	MIDDLESEX CO, MA	GREEN CO, PA	HUNTERDON CO, NJ
HORSEPOWER/UNIT	2 AT 1,000	1 AT 6,000	1 AT 4,000
NUMBER OF UNITS	2	1	1
TOTAL HORSEPOWER	2,000	6,000	4,000
COST DATA			
MATERIALS			
TOTAL MATERIALS	$ 2,914,581	5,111,156	3,928,159
MATERIAL % OF THE TOTAL $	45.9%	48.8	43.4
MATERIAL AVG. COST PER HORSEPOWER	$ 1,457	852	982
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING...	$ 248,210	--	--
ENGINEERING ... % OF THE TOTAL $	3.9%	--	--
ENGINEERING ... AVG. COST PER HORSEPOWER	$ 124	--	--
LABOR			
TOTAL LABOR	$ 2,068,604	5,122,844	4,905,841
LABOR % OF THE TOTAL $	32.6%	48.9	54.3
LABOR AVG. COST PER HORSEPOWER	$ 1,034	854	1,226
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	$ 294,601	243,250	208,500
OVERHEAD	$ 804,914	--	--
OTHER MISCELLANEOUS 1)	$ 23,661	--	--
TOTAL MISCELLANEOUS	$ 1,123,176	243,250	208,500
MISCELLANEOUS % OF THE TOTAL $	17.7%	2.3	2.3
MISCELLANEOUS AVG. COST PER HORSEPOWER	$ 562	41	52
TOTAL COST			
TOTAL COST	$ 6,354,571	10,477,250	9,042,500
TOTAL AVG. COST PER HORSEPOWER	$ 3,177	1,746	2,261

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

TABLE L-1 RECIPROCATING UNITS

PART A

TABLE L-1

ADDITIONS TO FIELD COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1987

DOCKET NUMBER (CP) AND APPLICANT

	86-296 PANHANDLE
DESCRIPTIVE DATA	
NAME OF COMPRESSOR STATION	HEMPHILL COMP STA
LOCATION	DEWEY CO, OK
HORSEPOWER/UNIT	3 AT 780
NUMBER OF UNITS	3
TOTAL HORSEPOWER	2,340
COST DATA	
MATERIALS	
TOTAL MATERIALS	$ 1,813,663
MATERIAL % OF THE TOTAL $	73.6%
MATERIAL AVG. COST PER HORSEPOWER	$ 775
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY	
TOTAL ENGINEERING...	$ 159,528
ENGINEERING ... % OF THE TOTAL $	6.5%
ENGINEERING ... AVG. COST PER HORSEPOWER	$ 68
LABOR	
TOTAL LABOR	$ 217,760
LABOR % OF THE TOTAL $	8.8%
LABOR AVG. COST PER HORSEPOWER	$ 93
MISCELLANEOUS	
INTEREST DURING CONSTRUCTION	$ 55,348
OVERHEAD	$ 131,184
OTHER MISCELLANEOUS 1)	$ 87,553
TOTAL MISCELLANEOUS	$ 274,085
MISCELLANEOUS % OF THE TOTAL $	11.1%
MISCELLANEOUS AVG. COST PER HORSEPOWER	$ 117
TOTAL COST	
TOTAL COST	$ 2,465,036
TOTAL AVG. COST PER HORSEPOWER	$ 1,053

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

TABLE M NO REPORTS RECEIVED

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
1983	1)	471.27	413.80	57.47	12,447	$ 106,332,302
1984	2)	439.60	291.93	147.67	11,307	134,238,608
1985	3)	397.84	231.60	166.24	12,297	156,801,381
1986	4)	91.09	60.41	30.68	4,705	31,510,889
1987	5)	104.78	104.78	--	6,565	25,641,558

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

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

3) INCLUDES 104.06 MILES (67.35 ONSHORE AND 36.71 OFFSHORE) CONSTRUCTED UNDER 3 MILES IN LENGTH, AT A COST OF $ 48,076,144.

4) INCLUDES 32.44 MILES (27.40 ONSHORE AND 5.04 OFFSHORE) CONSTRUCTED UNDER 3 MILES IN LENGTH, AT A COST OF $ 7,629,465.

5) INCLUDES 52.04 MILES (52.04 ONSHORE AND 0.00 OFFSHORE) CONSTRUCTED UNDER 3 MILES IN LENGTH, AT A COST OF $ 7,852,113.

PART B

SUMMARY: NUMBER OF CONSTRUCTION PROJECTS COMPLETED BY YEAR

		1983*	1984	1985	1986	1987
ONSHORE						
PIPELINE	1)	186	141	110	63	84
COMPRESSION		22	13	14	10	13
TOTAL ONSHORE		208	154	124	73	97
OFFSHORE						
PIPELINE	2)	19	45	38	8	--
COMPRESSION		1	1	--	--	--
TOTAL OFFSHORE		20	46	38	8	--
TOTAL NUMBER OF PROJECTS		228	200	162	81	97
NUMBER OF PIPELINES COMPANIES REPORTING CONSTRUCTION COMPLETED		26	25	23	18	16
NUMBER OF DOCKETS REPORTED		26	27	23	20	16

* REVISED 1983 FIGURES; SEE TEXT FOR EXPLANATION

1) 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 21 PIPELINES IN 22 DOCKETS.
PIPELINE COMPLETED IN 1985 INCLUDES 86 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 17 PIPELINES IN 17 DOCKETS.
PIPELINE COMPLETED IN 1986 INCLUDES 58 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 10 PIPELINES IN 12 DOCKETS.
PIPELINE COMPLETED IN 1987 INCLUDES 76 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 13 PIPELINES IN 13 DOCKETS.

2) PIPELINE COMPLETED IN 1984 INCLUDES 27 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 8 PIPELINES IN 9 DOCKETS.
PIPELINE COMPLETED IN 1985 INCLUDES 21 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 8 PIPELINES IN 8 DOCKETS.
PIPELINE COMPLETED IN 1986 INCLUDES 4 PROJECTS UNDER 3

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	203.53	51.2%	$	24,465,831	16.9%	$	120,207	108
ONSHORE: MIXED DIAMETER	28.07	7.1		4,230,188	2.9		150,701	2
TOTAL ONSHORE LINES	231.60	58.2		28,696,019	19.8		123,903	110
OFFSHORE	165.86	41.7		115,365,335	79.7		695,559	37
OFFSHORE: MIXED DIAMETER	--	--		--	--		--	--
TOTAL OFFSHORE LINES	166.24	41.8		116,124,441	80.2		698,535	38
TOTAL LINES	397.84	100.0%	$	144,820,460	100.0%	$	364,017	148

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	136.18	46.4%	$	17,347,497	17.9%	$	127,387	22
ONSHORE: MIXED DIAMETER	28.07	9.6		4,230,188	4.4		150,701	2
TOTAL ONSHORE LINES	164.25	55.9		21,577,685	22.3		131,371	24
OFFSHORE	129.53	44.1		75,166,631	77.7		580,303	17
OFFSHORE: MIXED DIAMETER	--	--		--	--		--	--
TOTAL OFFSHORE LINES	129.53	44.1		75,166,631	77.7		580,303	17
TOTAL LINES	293.78	100.0%	$	96,744,316	100.0%	$	329,309	41

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	67.35	64.7%	$ 7,118,334	14.8%	$ 105,692	86
ONSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL ONSHORE LINES	67.35	64.7	7,118,334	14.8	105,692	86
OFFSHORE	36.33	34.9	40,198,704	83.6	1,106,488	20
OFFSHORE: MIXED DIAMETER	.38	0.4	759,106	1.6	1,997,647	1
TOTAL OFFSHORE LINES	36.71	35.3	40,957,810	85.2	1,115,713	21
TOTAL LINES	104.06	100.0%	$ 48,076,144	100.0%	$ 462,004	107

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	60.41	66.3%	$	10,443,494	39.8%	$	172,877	63
ONSHORE: MIXED DIAMETER		0.0			0.0			
TOTAL ONSHORE LINES	60.41	66.3		10,443,494	39.8		172,877	63
OFFSHORE	30.68	33.7		15,798,648	60.2		514,949	8
OFFSHORE: MIXED DIAMETER	--	--		--	--		--	--
TOTAL OFFSHORE LINES	30.68	33.7		15,798,648	60.2		514,949	8
TOTAL LINES	91.09	100.0%	$	26,242,142	100.0%	$	288,090	71

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	56.3%	$ 6,916,589	37.2%	$ 209,530	5
ONSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL ONSHORE LINES	33.01	56.3	6,916,589	37.2	209,530	5
OFFSHORE	25.64	43.7	11,696,088	62.8	456,166	4
OFFSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL OFFSHORE LINES	25.64	43.7	11,696,088	62.8	456,166	4
TOTAL LINES	58.65	100.0%	$ 18,612,677	100.0%	$ 317,352	9

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	27.40	84.5%	$	3,526,905	46.2%	$	128,719	58
ONSHORE: MIXED DIAMETER	--	--		--	--		--	--
TOTAL ONSHORE LINES	27.40	84.5		3,526,905	46.2		128,719	58
OFFSHORE	5.04	15.5		4,102,560	53.8		814,000	4
OFFSHORE: MIXED DIAMETER	--	--		--	--		--	--
TOTAL OFFSHORE LINES	5.04	15.5		4,102,560	53.8		814,000	4
TOTAL LINES	32.44	100.0%	$	7,629,465	100.0%	$	235,187	62

PART B

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1987

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER MILE	NUMBER OF PROJECTS
ONSHORE	91.27	87.1%	$ 17,769,727	88.9%	$ 194,694	82
ONSHORE: MIXED DIAMETER	13.51	12.9	2,223,079	11.1	164,551	2
TOTAL ONSHORE LINES	104.78	100.0	19,992,806	100.0	190,807	84
OFFSHORE	--	--	--	--	--	--
OFFSHORE: MIXED DIAMETER	--	--	--	--	--	--
TOTAL OFFSHORE LINES	--	--	--	--	--	--
TOTAL LINES	104.78	100.0%	$ 19,992,806	100.0%	$ 190,807	84

PART B

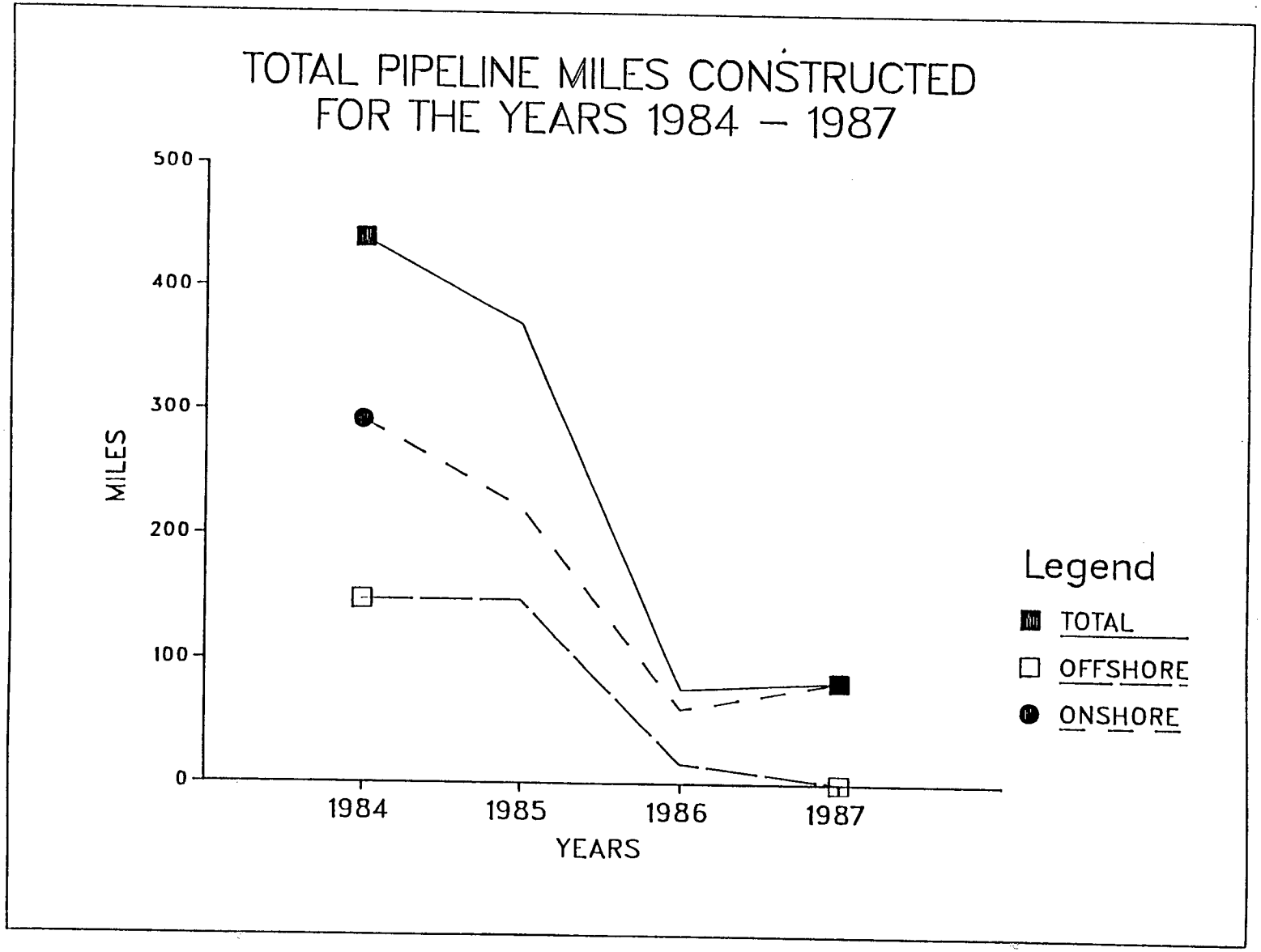
SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1987
3 MILES AND OVER

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES		COST	PERCENTAGE OF TOTAL COST		AVERAGE COST PER MILE	NUMBER OF PROJECTS
ONSHORE	39.45	74.8%	$	9,992,741	82.3%	$	253,301	7
ONSHORE: MIXED DIAMETER	13.29	25.2		2,147,952	17.7		161,622	1
TOTAL ONSHORE LINES	52.74	100.0		12,140,693	100.0		230,199	8
OFFSHORE	--	--		--	--		--	--
OFFSHORE: MIXED DIAMETER	--	--		--	--		--	--
TOTAL OFFSHORE LINES	--	--		--	--		--	--
TOTAL LINES	52.74	100.0%	$	12,140,693	100.0%	$	230,199	8

PART B

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1987
UNDER 3 MILES

PIPELINE	MILES	PERCENTAGE OF TOTAL MILES		COST	PERCENTAGE OF TOTAL COST		AVERAGE COST PER MILE	NUMBER OF PROJECTS
ONSHORE	51.82	99.6%	$	7,776,986	99.0%	$	150,077	75
ONSHORE: MIXED DIAMETER	.22	0.4		75,127	1.0		341,486	1
TOTAL ONSHORE LINES	52.04	100.0		7,852,113	100.0		150,886	76
OFFSHORE	--	--		--	--		--	--
OFFSHORE: MIXED DIAMETER	--	--		--	--		--	--
TOTAL OFFSHORE LINES	--	--		--	--		--	--
TOTAL LINES	52.04	100.0%	$	7,852,113	100.0%	$	150,886	76


TOTAL PIPELINE MILES CONSTRUCTED
FOR THE YEARS 1984 – 1987
500
400
300
200
100
0
MILES
1984
1985
1986
1987
YEARS
Legend
TOTAL
OFFSHORE
ONSHORE

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

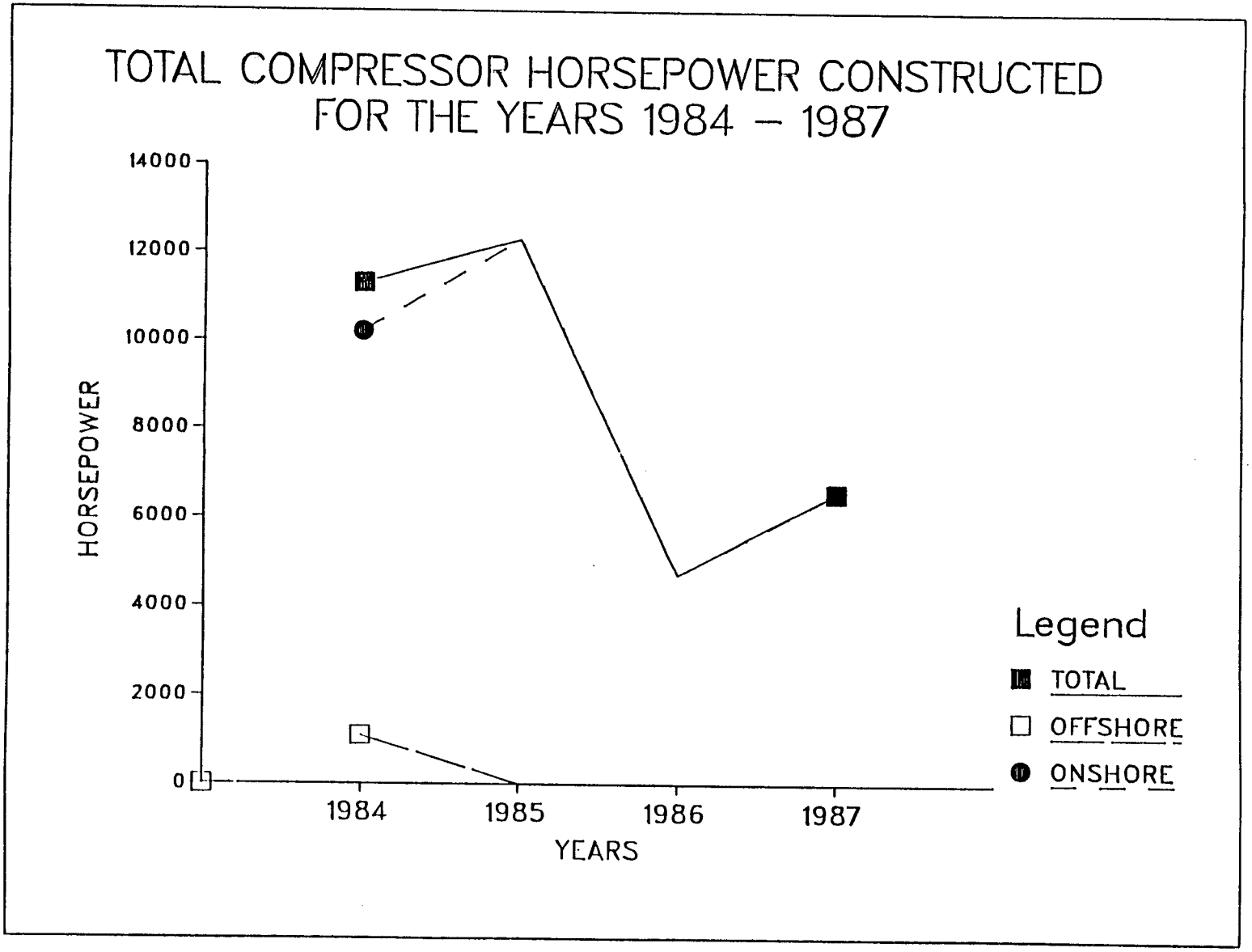
SUMMARY: COMPRESSOR CONSTRUCTION
ENDING IN 1986

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

PART B

SUMMARY: COMPRESSOR CONSTRUCTION
ENDING IN 1987

COMPRESSORS	HORSEPOWER	PERCENTAGE OF TOTAL HORSEPOWER	COST	PERCENTAGE OF TOTAL COST	AVERAGE COST PER HORSEPOWER	NUMBER OF PROJECTS
RECIPROCATING UNITS						
ONSHORE	6,565	100.0%	$ 5,648,752	100.0%	$ 860	13
OFFSHORE	--	--	--	--	--	--
TOTAL RECIPROCATING UNITS	6,565	100.0	5,648,752	100.0	860	13
TURBINE UNITS						
ONSHORE	--	--	--	--	--	--
OFFSHORE	--	--	--	--	--	--
TOTAL TURBINE UNITS	--	--	--	--	--	--
ELECTRIC MOTOR UNITS						
ONSHORE	--	--	--	--	--	--
OFFSHORE	--	--	--	--	--	--
TOTAL ELECTRIC MOTOR UNITS	--	--	--	--	--	--
TOTAL ONSHORE UNITS	6,565	100.0	5,648,752	100.0	860	13
TOTAL OFFSHORE UNITS	--	--	--	--	--	--
TOTAL COMPRESSION	6,565	100.0%	$ 5,648,752	100.0%	$ 860	13


TOTAL COMPRESSOR HORSEPOWER CONSTRUCTED
FOR THE YEARS 1984 – 1987
HORSEPOWER
14000
12000
10000
8000
6000
4000
2000
0
1984
1985
1986
1987
YEARS
Legend
TOTAL
OFFSHORE
ONSHORE

PART B
SECTION I COMPARATIVE SUMMARY

Table A Pipeline Construction and Expenditures

PART B

TABLE A

PIPELINE CONSTRUCTION EXPENDITURES
CONSTRUCTION ENDING IN 1984 THROUGH 1987

		YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
ONSHORE MILES					
3 MILES AND OVER		165.06	136.18	33.01	39.45
EXPENDITURES	$	22,262,699	17,347,497	6,916,589	9,992,741
AVG. COST PER MILE	$	134,876	127,387	209,530	253,301
UNDER 3 MILES		106.95	67.35	27.40	51.82
EXPENDITURES	$	10,679,282	7,118,334	3,526,905	7,776,986
AVG. COST PER MILE	$	99,853	105,692	128,719	150,077
MIXED DIAMETER -3 MILES AND OVER		18.91	28.07	--	13.29
EXPENDITURES	$	2,125,684	4,230,188	--	2,147,952
AVG. COST PER MILE	$	112,411	150,701	--	161,622
MIXED DIAMETER -UNDER 3 MILES		1.01	--	--	0.22
EXPENDITURES	$	1,960,282	--	--	75,127
AVG. COST PER MILE	$	1,940,873	--	--	341,486
TOTAL ONSHORE MILES		291.93	231.60	60.41	104.78
TOTAL ONSHORE EXPENDITURES	$	37,027,947	28,696,019	10,443,494	19,992,806
TOTAL AVG. COST PER MILE	$	126,838	123,903	172,877	190,807
OFFSHORE MILES					
3 MILES AND OVER		98.78	129.53	25.64	--
EXPENDITURES	$	44,931,420	75,166,631	11,696,088	--
AVG. COST PER MILE	$	454,864	580,303	456,166	--
UNDER 3 MILES		43.49	36.33	5.04	--
EXPENDITURES	$	36,906,039	40,198,704	4,102,560	--
AVG. COST PER MILE	$	848,610	1,106,488	814,000	--
MIXED DIAMETER -3 MILES AND OVER		3.20	--	--	--
EXPENDITURES	$	2,375,157	--	--	--
AVG. COST PER MILE	$	742,237	--	--	--
MIXED DIAMETER -UNDER 3 MILES		2.20	0.38	--	--
EXPENDITURES	$	2,866,654	759,106	--	--
AVG. COST PER MILE	$	1,303,025	1,997,647	--	--
TOTAL OFFSHORE MILES		147.67	166.24	30.68	--
TOTAL OFFSHORE EXPENDITURES	$	87,079,270	116,124,441	15,798,648	--
TOTAL AVG. COST PER MILE	$	589,688	698,535	514,949	--

PART B

TABLE A

PIPELINE CONSTRUCTION EXPENDITURES
CONSTRUCTION ENDING IN 1984 THROUGH 1987

		YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
TOTAL ONSHORE AND OFFSHORE MILES		439.60	397.84	91.09	104.78
TOTAL ONSHORE AND OFFSHORE EXPENDITURES	$	124,107,217	144,820,460	26,242,142	19,992,806
TOTAL AVG. COST PER MILE	$	282,319	364,017	288,090	190,807

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 1984 THROUGH 1987

		2 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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	$	271,902	2)	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 1984 THROUGH 1987

		3 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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	$	400,781	492,575	2)	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 1984 THROUGH 1987

		4 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		10.50	34.59 2)		13.27 3)
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	190,535	780,290		112,434
MATERIAL % OF THE TOTAL $		19.6%	19.4		15.2
MATERIAL AVG.COST PER MILE	$	18,146	22,558		8,473
LABOR					
TOTAL LABOR	$	669,375	2,468,834		458,187
LABOR % OF THE TOTAL $		68.8%	61.3		61.9
LABOR AVG. COST PER MILE	$	63,750	71,374		34,528
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	113,335	780,800		169,124
MISCELLANEOUS % OF THE TOTAL $		11.6%	19.4		22.9
MISCELLANEOUS AVG. COST PER MILE	$	10,794	22,573		12,745
TOTAL COST					
TOTAL COST	$	973,245	4,029,924	4)	739,745
TOTAL AVG. COST PER MILE	$	92,690	116,505		55,746
COST RANGE PER MILE					
MINIMUM	$	5)	54,774		44,492
MAXIMUM	$		255,462		72,147

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.
INCLUDES 1.40 MILES OF 2 INCH ONSHORE PIPELINE.
3) INCLUDES 0.30 MILE OF 2 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 1984 THROUGH 1987

		6 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		29.11 2)	32.32	6.80	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	901,144	950,283	225,528	
MATERIAL % OF THE TOTAL $		42.7%	29.4	38.1	
MATERIAL AVG.COST PER MILE	$	30,957	29,402	33,166	
LABOR					
TOTAL LABOR	$	668,686	1,891,672	168,087	
LABOR % OF THE TOTAL $		31.7%	58.5	28.4	
LABOR AVG. COST PER MILE	$	22,971	58,529	24,719	
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	542,030	394,064	198,452	
MISCELLANEOUS % OF THE TOTAL $		25.7%	12.2	33.5	
MISCELLANEOUS AVG. COST PER MILE	$	18,620	12,193	29,184	
TOTAL COST					
TOTAL COST	$	2,111,860	3,236,019	592,067	3)
TOTAL AVG. COST PER MILE	$	72,548	100,124	87,069	
COST RANGE PER MILE					
MINIMUM	$	48,244	44,103	53,570	
MAXIMUM	$	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 0.71 MILE OF 4 INCH ONSHORE PIPELINE.
INCLUDES 0.02 MILE OF 2 INCH ONSHORE PIPELINE.
3) NO REPORTS 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 1984 THROUGH 1987

		8 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		35.35 2)	23.62	3.71	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	1,896,109	1,036,178	147,453	
MATERIAL % OF THE TOTAL $		30.2%	23.7	43.7	
MATERIAL AVG.COST PER MILE	$	53,638	43,869	39,745	
LABOR					
TOTAL LABOR	$	2,074,519	2,539,559	160,619	
LABOR % OF THE TOTAL $		33.0%	58.1	47.6	
LABOR AVG. COST PER MILE	$	58,685	107,517	43,294	
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	2,311,702	792,419	29,439	
MISCELLANEOUS % OF THE TOTAL $		36.8%	18.1	8.7	
MISCELLANEOUS AVG. COST PER MILE	$	65,395	33,549	7,935	
TOTAL COST					
TOTAL COST	$	6,282,330	4,368,156	337,511	3)
TOTAL AVG. COST PER MILE	$	177,718	184,935	90,973	
COST RANGE PER MILE					
MINIMUM	$	61,176	95,912	4)	
MAXIMUM	$	243,525	359,813		

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 CP83-275.
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 1984 THROUGH 1987

		10 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		74.54 2)	23.46 3)		4.70 4)
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	3,994,435	1,956,763		152,577
MATERIAL % OF THE TOTAL $		39.4%	38.8		19.7
MATERIAL AVG.COST PER MILE	$	53,588	83,408		32,463
LABOR					
TOTAL LABOR	$	5,014,855	2,749,974		461,336
LABOR % OF THE TOTAL $		49.5%	54.5		59.6
LABOR AVG. COST PER MILE	$	67,277	117,220		98,157
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	1,125,638	337,916		160,681
MISCELLANEOUS % OF THE TOTAL $		11.1%	6.7		20.7
MISCELLANEOUS AVG. COST PER MILE	$	15,101	14,404		34,187
TOTAL COST					
TOTAL COST	$	10,134,928	5,044,653	5)	774,594
TOTAL AVG. COST PER MILE	$	135,966	215,032		164,807
COST RANGE PER MILE					
MINIMUM	$	101,037	101,905		6)
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) INCLUDES 1.00 MILE OF 6 INCH ONSHORE PIPELINE.
5) NO REPORTS RECEIVED FOR THIS YEAR.
6) 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 1984 THROUGH 1987

		12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		4.80			10.50
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	757,367			685,662
MATERIAL % OF THE TOTAL $		36.3%			36.2
MATERIAL AVG.COST PER MILE	$	157,785			65,301
LABOR					
TOTAL LABOR	$	967,413			766,932
LABOR % OF THE TOTAL $		46.3%			40.5
LABOR AVG. COST PER MILE	$	201,544			73,041
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	362,873			439,154
MISCELLANEOUS % OF THE TOTAL $		17.4%			23.2
MISCELLANEOUS AVG. COST PER MILE	$	75,599			41,824
TOTAL COST					
TOTAL COST	$	2,087,653	2)	2)	1,891,748
TOTAL AVG. COST PER MILE	$	434,928			180,166
COST RANGE PER MILE					
MINIMUM	$	3)			109,545
MAXIMUM	$				233,132

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 1984 THROUGH 1987

		16 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED			16.00	16.50	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		62,158	1,117,133	
MATERIAL % OF THE TOTAL $		%	35.3	43.8	
MATERIAL AVG.COST PER MILE	$		3,885	67,705	
LABOR					
TOTAL LABOR	$		85,598	985,283	
LABOR % OF THE TOTAL $		%	48.6	38.6	
LABOR AVG. COST PER MILE	$		5,350	59,714	
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$		28,414	447,039	
MISCELLANEOUS % OF THE TOTAL $		%	16.1	17.5	
MISCELLANEOUS AVG. COST PER MILE	$		1,776	27,093	
TOTAL COST					
TOTAL COST	$	2)	176,170	2,549,455	2)
TOTAL AVG. COST PER MILE	$		11,011	154,512	
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 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 1984 THROUGH 1987

		20 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED					4.98
COST DATA					
MATERIALS					
TOTAL MATERIALS	$				1,198,630
MATERIAL % OF THE TOTAL $		%			58.3
MATERIAL AVG.COST PER MILE	$				240,689
LABOR					
TOTAL LABOR	$				814,699
LABOR % OF THE TOTAL $		%			39.6
LABOR AVG. COST PER MILE	$				163,594
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$				41,579
MISCELLANEOUS % OF THE TOTAL $		%			2.0
MISCELLANEOUS AVG. COST PER MILE	$				8,349
TOTAL COST					
TOTAL COST	$	2)	2)	2)	2,054,908
TOTAL AVG. COST PER MILE	$				412,632
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 1984 THROUGH 1987

		30 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED				6.00	6.00
COST DATA					
MATERIALS					
TOTAL MATERIALS	$			1,456,051	1,931,587
MATERIAL % OF THE TOTAL $		%		42.4	42.6
MATERIAL AVG.COST PER MILE	$			242,675	321,931
LABOR					
TOTAL LABOR	$			1,350,479	1,925,562
LABOR % OF THE TOTAL $		%		39.3	42.5
LABOR AVG. COST PER MILE	$			225,080	320,927
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$			631,026	674,597
MISCELLANEOUS % OF THE TOTAL $		%		18.4	14.9
MISCELLANEOUS AVG. COST PER MILE	$			105,171	112,433
TOTAL COST					
TOTAL COST	$	2)	2)	3,437,556	4,531,746
TOTAL AVG. COST PER MILE	$			572,926	755,291
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 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 1984 THROUGH 1987

		4 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED			4.57		
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		219,336		
MATERIAL % OF THE TOTAL $		%	21.5		
MATERIAL AVG.COST PER MILE	$		47,995		
LABOR					
TOTAL LABOR	$		634,598		
LABOR % OF THE TOTAL $		%	62.2		
LABOR AVG. COST PER MILE	$		138,862		
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$		165,546		
MISCELLANEOUS % OF THE TOTAL $		%	16.2		
MISCELLANEOUS AVG. COST PER MILE	$		36,225		
TOTAL COST					
TOTAL COST	$	2)	1,019,480	2)	2)
TOTAL AVG. COST PER MILE	$		223,081		
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-2

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1984 THROUGH 1987

		6 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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	$	10,456,833	2,444,801	2)	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 1984 THROUGH 1987

		8 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		34.40 2)	44.19		
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	3,327,551	4,274,935		
MATERIAL % OF THE TOTAL $		28.8%	21.6		
MATERIAL AVG.COST PER MILE	$	96,731	96,740		
LABOR					
TOTAL LABOR	$	6,661,473	13,033,974		
LABOR % OF THE TOTAL $		57.6%	65.9		
LABOR AVG. COST PER MILE	$	193,647	294,953		
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	1,568,911	2,456,467		
MISCELLANEOUS % OF THE TOTAL $		13.6%	12.4		
MISCELLANEOUS AVG. COST PER MILE	$	45,608	55,589		
TOTAL COST					
TOTAL COST	$	11,557,935	19,765,376	3)	3)
TOTAL AVG. COST PER MILE	$	335,986	447,282		
COST RANGE PER MILE					
MINIMUM	$	245,162	239,649		
MAXIMUM	$	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) SOUTHERN (CP82-406) AND UNITED (CP82-430) EACH HAVE 5.9% OWNERSHIP IN THIS FACILITY.
PRIOR NOTICE PROJECT CONSTRUCTED UNDER CP84-125.
3) 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 1984 THROUGH 1987

		10 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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	$	10,657,037	2,663,199	3,354,104	3)
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 1984 THROUGH 1987

		12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		19.44 2)	38.11 3)	17.89	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	5,925,797	6,605,413	3,097,224	
MATERIAL % OF THE TOTAL $		48.3%	27.9	37.1	
MATERIAL AVG.COST PER MILE	$	304,825	173,325	173,126	
LABOR					
TOTAL LABOR	$	5,135,961	14,865,990	4,124,947	
LABOR % OF THE TOTAL $		41.9%	62.8	49.4	
LABOR AVG. COST PER MILE	$	264,196	390,081	230,573	
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	1,197,857	2,203,765	1,119,813	
MISCELLANEOUS % OF THE TOTAL $		9.8%	9.3	13.4	
MISCELLANEOUS AVG. COST PER MILE	$	61,618	57,826	62,594	
TOTAL COST					
TOTAL COST	$	12,259,615	23,675,168	8,341,984	4)
TOTAL AVG. COST PER MILE	$	630,639	621,232	466,293	
COST RANGE PER MILE					
MINIMUM	$	478,662	505,424	397,652	
MAXIMUM	$	783,679	688,718	617,327	

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) PRIOR NOTICE PROJECT CONSTRUCTED UNDER CP84-320.
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 1984 THROUGH 1987

		16 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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)	9,110,934	3)	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 1984 THROUGH 1987

		20 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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)	7,020,054	3)	3)
TOTAL AVG. COST PER MILE	$		1,049,335		
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 CP84-721.
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 1984 THROUGH 1987

		24 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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)	9,467,619	3)	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 1984 THROUGH 1987

		2 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		13.61 2)	4.00	4.18	4.89
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	243,175	56,235	46,663	44,229
MATERIAL % OF THE TOTAL $		24.1%	38.3	26.5	31.1
MATERIAL AVG.COST PER MILE	$	17,867	14,059	11,163	9,045
LABOR					
TOTAL LABOR	$	606,030	77,295	102,571	48,248
LABOR % OF THE TOTAL $		60.1%	52.7	58.3	33.9
LABOR AVG. COST PER MILE	$	44,528	19,324	24,539	9,867
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	158,959	13,171	26,752	49,687
MISCELLANEOUS % OF THE TOTAL $		15.8%	9.0	15.2	35.0
MISCELLANEOUS AVG. COST PER MILE	$	11,680	3,293	6,400	10,161
TOTAL COST					
TOTAL COST	$	1,008,164	146,701	175,986	142,164
TOTAL AVG. COST PER MILE	$	74,075	36,675	42,102	29,072
COST RANGE PER MILE					
MINIMUM	$	9,718	8,859	16,668	8,942
MAXIMUM	$	715,300	1,409,900	198,500	198,900

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 $8,048; LBR 1,698.
SUPPLEMENTAL EXPENDITURES FOR PROJECT ORIGINALLY COMPLETED IN 1984, WHICH APPEARED IN THE 1981-1984 REPORT ARE: MAT $4,508; LBR 4,486.

PART B

TABLE C-1

COMPARISON OF ONSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1984 THROUGH 1987

		3 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		9.49 2)	4.51 3)	1.30	3.40
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	164,323	47,071	10,422	34,032
MATERIAL % OF THE TOTAL $		25.8%	13.7	17.4	17.6
MATERIAL AVG.COST PER MILE	$	17,315	10,437	8,017	10,009
LABOR					
TOTAL LABOR	$	422,742	203,119	49,152	156,441
LABOR % OF THE TOTAL $		66.3%	59.3	82.2	80.8
LABOR AVG. COST PER MILE	$	44,546	45,037	37,809	46,012
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	50,307	92,479	247	3,042
MISCELLANEOUS % OF THE TOTAL $		7.9%	27.0	0.4	1.6
MISCELLANEOUS AVG. COST PER MILE	$	5,301	20,505	190	895
TOTAL COST					
TOTAL COST	$	637,372	342,669	59,821	193,515
TOTAL AVG. COST PER MILE	$	67,162	75,980	46,016	56,916
COST RANGE PER MILE					
MINIMUM	$	37,333	25,581	43,061	10,243
MAXIMUM	$	109,884	140,782	77,991	79,501

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.

PART B

TABLE C-1

COMPARISON OF ONSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1984 THROUGH 1987

		4 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		52.03 2)	40.22	10.93	16.34 3)
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	1,429,031	981,645	253,929	345,976
MATERIAL % OF THE TOTAL $		33.1%	30.9	23.3	34.4
MATERIAL AVG.COST PER MILE	$	27,466	24,407	23,232	21,174
LABOR					
TOTAL LABOR	$	1,749,083	1,699,786	603,804	424,912
LABOR % OF THE TOTAL $		40.5%	53.5	55.4	42.2
LABOR AVG. COST PER MILE	$	33,617	42,262	55,243	26,004
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	1,137,066	497,182	232,877	234,867
MISCELLANEOUS % OF THE TOTAL $		26.4%	15.6	21.4	23.4
MISCELLANEOUS AVG. COST PER MILE	$	21,854	12,362	21,306	14,374
TOTAL COST					
TOTAL COST	$	4,315,180	3,178,613	1,090,610	1,005,755
TOTAL AVG. COST PER MILE	$	82,936	79,031	99,781	61,552
COST RANGE PER MILE					
MINIMUM	$	29,092	26,689	35,497	21,310
MAXIMUM	$	625,686	3,351,700	1,018,500	241,204

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) 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.
3) KN ENERGY HAS 50% OWNERSHIP IN THIS FACILITY (CP83-140).

PART B

TABLE C-1

COMPARISON OF ONSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1984 THROUGH 1987

		6 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		20.86 2)	11.36 3)	6.20	6.09 4)
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	799,052	410,583	210,055	136,477
MATERIAL % OF THE TOTAL $		34.8%	32.4	29.2	24.6
MATERIAL AVG.COST PER MILE	$	38,305	36,143	33,880	22,410
LABOR					
TOTAL LABOR	$	915,704	385,858	305,859	357,434
LABOR % OF THE TOTAL $		39.8%	30.4	42.5	64.5
LABOR AVG. COST PER MILE	$	43,898	33,966	49,332	58,692
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	584,448	471,568	204,390	60,443
MISCELLANEOUS % OF THE TOTAL $		25.4%	37.2	28.4	10.9
MISCELLANEOUS AVG. COST PER MILE	$	28,018	41,511	32,966	9,925
TOTAL COST					
TOTAL COST	$	2,299,204	1,268,009	720,304	554,354
TOTAL AVG. COST PER MILE	$	110,221	111,621	116,178	91,027
COST RANGE PER MILE					
MINIMUM	$	71,000	74,219	65,366	39,056
MAXIMUM	$	224,189	168,968	184,177	143,617

1) CONSISTS OF ENGINEERING, INSPECTION, SUPERVISION, SURVEY, RIGHT-OF-WAY, DAMAGES, INTEREST, OVERHEAD, CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2) INCLUDES 0.06 MILE OF 2 INCH ONSHORE PIPELINE.
INCLUDES 0.04 MILE OF 2 INCH ONSHORE PIPELINE.
3) INCLUDES 0.08 MILE OF 4 INCH ONSHORE PIPELINE.
4) INCLUDES 0.50 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 1984 THROUGH 1987

		8 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		6.83 2)	5.30	1.28	12.83 3)
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	416,956	284,526	45,188	1,290,382
MATERIAL % OF THE TOTAL $		44.1%	29.1	36.3	40.1
MATERIAL AVG.COST PER MILE	$	61,048	53,684	35,303	100,575
LABOR					
TOTAL LABOR	$	228,750	454,967	67,083	1,360,895
LABOR % OF THE TOTAL $		24.2%	46.5	53.9	42.3
LABOR AVG. COST PER MILE	$	33,492	85,843	52,409	106,071
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	300,760	238,209	12,119	565,611
MISCELLANEOUS % OF THE TOTAL $		31.8%	24.4	9.7	17.6
MISCELLANEOUS AVG. COST PER MILE	$	44,035	44,945	9,468	44,085
TOTAL COST					
TOTAL COST	$	946,466	977,702	124,390	3,216,888
TOTAL AVG. COST PER MILE	$	138,575	184,472	97,180	250,732
COST RANGE PER MILE					
MINIMUM	$	78,803	150,513	87,272	82,765
MAXIMUM	$	1,680,300	1,379,350	129,543	1,183,009

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.
3) TRANSCO HAS 30% OWNERSHIP IN THIS FACILITY (CP82-426).
INCLUDES 0.05 MILE OF 6 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 1984 THROUGH 1987

		10 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		1.86	0.60	2.15	1.00
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	133,776	40,094	290,336	55,679
MATERIAL % OF THE TOTAL $		31.3%	31.7	43.3	24.9
MATERIAL AVG.COST PER MILE	$	71,923	66,823	135,040	55,679
LABOR					
TOTAL LABOR	$	125,930	29,739	306,028	143,246
LABOR % OF THE TOTAL $		29.4%	23.5	45.6	64.1
LABOR AVG. COST PER MILE	$	67,704	49,565	142,339	143,246
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	168,037	56,616	74,779	24,499
MISCELLANEOUS % OF THE TOTAL $		39.3%	44.8	11.1	11.0
MISCELLANEOUS AVG. COST PER MILE	$	90,342	94,360	34,781	24,499
TOTAL COST					
TOTAL COST	$	427,743	126,449	671,143	223,424
TOTAL AVG. COST PER MILE	$	229,969	210,748	312,160	223,424
COST RANGE PER MILE					
MINIMUM	$	2)	149,750	189,791	2)
MAXIMUM	$		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 1984 THROUGH 1987

		12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		1.40	0.25	0.01	3.45
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	193,315	82,047	1,452	354,819
MATERIAL % OF THE TOTAL $		52.6%	47.9	8.8	46.5
MATERIAL AVG.COST PER MILE	$	138,082	328,188	145,200	102,846
LABOR					
TOTAL LABOR	$	109,866	62,434	10,800	229,556
LABOR % OF THE TOTAL $		29.9%	36.5	65.6	30.1
LABOR AVG. COST PER MILE	$	78,476	249,736	1,080,000	66,538
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	64,537	26,672	4,221	178,790
MISCELLANEOUS % OF THE TOTAL $		17.6%	15.6	25.6	23.4
MISCELLANEOUS AVG. COST PER MILE	$	46,098	106,688	422,100	51,823
TOTAL COST					
TOTAL COST	$	367,718	171,153	16,473	763,165
TOTAL AVG. COST PER MILE	$	262,656	684,612	1,647,300	221,207
COST RANGE PER MILE					
MINIMUM	$	140,501	2)	2)	189,358
MAXIMUM	$	798,394			293,018

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 1984 THROUGH 1987

		16 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		0.87	1.00		
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	134,517	262,913		
MATERIAL % OF THE TOTAL $		19.9%	37.9		
MATERIAL AVG.COST PER MILE	$	154,617	262,913		
LABOR					
TOTAL LABOR	$	454,854	335,631		
LABOR % OF THE TOTAL $		67.1%	48.4		
LABOR AVG. COST PER MILE	$	522,821	335,631		
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	88,064	95,206		
MISCELLANEOUS % OF THE TOTAL $		13.0%	13.7		
MISCELLANEOUS AVG. COST PER MILE	$	101,223	95,206		
TOTAL COST					
TOTAL COST	$	677,435	693,750	2)	2)
TOTAL AVG. COST PER MILE	$	778,661	693,750		
COST RANGE PER MILE					
MINIMUM	$	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 1984 THROUGH 1987

		18 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED					2.87
COST DATA					
MATERIALS					
TOTAL MATERIALS	$				417,464
MATERIAL % OF THE TOTAL $		%			30.0
MATERIAL AVG.COST PER MILE	$				145,458
LABOR					
TOTAL LABOR	$				848,121
LABOR % OF THE TOTAL $		%			60.9
LABOR AVG. COST PER MILE	$				295,513
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$				127,167
MISCELLANEOUS % OF THE TOTAL $		%			9.1
MISCELLANEOUS AVG. COST PER MILE	$				44,309
TOTAL COST					
TOTAL COST	$	2)	2)	2)	1,392,752
TOTAL AVG. COST PER MILE	$				485,279
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.

PART B

TABLE C-1

COMPARISON OF ONSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1984 THROUGH 1987

		20 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED			0.11	0.95	0.95
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		85,452	278,576	117,193
MATERIAL % OF THE TOTAL $		%	40.1	85.7	41.1
MATERIAL AVG.COST PER MILE	$		776,836	293,238	123,361
LABOR					
TOTAL LABOR	$		119,918	19,429	158,062
LABOR % OF THE TOTAL $		%	56.2	6.0	55.5
LABOR AVG. COST PER MILE	$		1,090,164	20,452	166,381
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$		7,918	27,173	9,714
MISCELLANEOUS % OF THE TOTAL $		%	3.7	8.4	3.4
MISCELLANEOUS AVG. COST PER MILE	$		71,982	28,603	10,225
TOTAL COST					
TOTAL COST	$	2)	213,288	325,178	284,969
TOTAL AVG. COST PER MILE	$		1,938,982	342,293	299,967
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 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 1984 THROUGH 1987

		24 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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)	343,000	2)
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 1984 THROUGH 1987

		4 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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	$	2,558,392	3)	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 1984 THROUGH 1987

		6 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		15.20 2)	11.86	1.48	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	1,767,025	906,772	121,154	
MATERIAL % OF THE TOTAL $		14.1%	11.5	19.1	
MATERIAL AVG.COST PER MILE	$	116,252	76,456	81,861	
LABOR					
TOTAL LABOR	$	8,826,017	5,708,555	498,409	
LABOR % OF THE TOTAL $		70.5%	72.4	78.6	
LABOR AVG. COST PER MILE	$	580,659	481,328	336,763	
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	1,934,169	1,265,579	14,177	
MISCELLANEOUS % OF THE TOTAL $		15.4%	16.1	2.2	
MISCELLANEOUS AVG. COST PER MILE	$	127,248	106,710	9,579	
TOTAL COST					
TOTAL COST	$	12,527,211	7,880,906	633,740	3)
TOTAL AVG. COST PER MILE	$	824,159	664,495	428,203	
COST RANGE PER MILE					
MINIMUM	$	356,011	208,430	4)	
MAXIMUM	$	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) NO REPORT RECEIVED FOR THIS YEAR.
4) 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 1984 THROUGH 1987

		8 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		9.19	10.98 2)	3.56	
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	1,525,530	1,842,976	821,650	
MATERIAL % OF THE TOTAL $		16.6%	13.7	23.7	
MATERIAL AVG.COST PER MILE	$	165,999	167,848	230,801	
LABOR					
TOTAL LABOR	$	5,728,621	8,760,457	2,206,478	
LABOR % OF THE TOTAL $		62.4%	64.9	63.6	
LABOR AVG. COST PER MILE	$	623,354	797,856	619,797	
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	1,921,987	2,890,071	440,692	
MISCELLANEOUS % OF THE TOTAL $		20.9%	21.4	12.7	
MISCELLANEOUS AVG. COST PER MILE	$	209,139	263,212	123,790	
TOTAL COST					
TOTAL COST	$	9,176,138	13,493,504	3,468,820	3)
TOTAL AVG. COST PER MILE	$	998,492	1,228,917	974,388	
COST RANGE PER MILE					
MINIMUM	$	446,044	791,916	751,968	
MAXIMUM	$	26,991,325	2,135,795	1,357,711	

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) 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 1984 THROUGH 1987

		10 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
MILES OF PIPE CONSTRUCTED		4.35 2)	7.97		
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	1,103,505	1,765,221		
MATERIAL % OF THE TOTAL $		23.4%	26.4		
MATERIAL AVG.COST PER MILE	$	253,679	221,483		
LABOR					
TOTAL LABOR	$	3,095,260	4,246,174		
LABOR % OF THE TOTAL $		65.5%	63.6		
LABOR AVG. COST PER MILE	$	711,554	532,770		
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	525,294	665,823		
MISCELLANEOUS % OF THE TOTAL $		11.1%	10.0		
MISCELLANEOUS AVG. COST PER MILE	$	120,757	83,541		
TOTAL COST					
TOTAL COST	$	4,724,059	6,677,218	3)	3)
TOTAL AVG. COST PER MILE	$	1,085,991	837,794		
COST RANGE PER MILE					
MINIMUM	$	889,719	606,946		
MAXIMUM	$	2,502,663	1,115,734		

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 1984 THROUGH 1987

		12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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	$	6,246,693	3)	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 1984 THROUGH 1987

		16 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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	$	1,673,546	7,605,749	2)	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 1984 THROUGH 1987

		20 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1984	1985	1986	1987
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)	4,541,327	3)	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 1984 THROUGH 1987

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
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
1987	6,565	5,648,752	860	--	--	--	6,565	5,648,752	860

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 1984 THROUGH 1987

		NEW FIELD COMPRESSOR STATIONS			
		1984	1985	1986	1987
DESCRIPTIVE DATA					
NUMBER OF UNITS		10	11	6	5
TOTAL HORSEPOWER		5,346	3,347	871	560
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	2,870,352	2,482,111	639,130	504,643
MATERIAL % OF THE TOTAL $		60.7%	72.9	73.0	68.4
MATERIAL AVG.COST PER HORSEPOWER	$	537	742	734	901
LABOR					
TOTAL LABOR	$	1,453,470	589,199	153,441	114,524
LABOR % OF THE TOTAL $		30.8%	17.3	17.5	15.5
LABOR AVG. COST PER HORSEPOWER	$	272	176	176	205
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	402,422	331,454	82,505	119,019
MISCELLANEOUS % OF THE TOTAL $		8.5%	9.7	9.4	16.1
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	75	99	95	213
TOTAL COST					
TOTAL COST	$	4,726,244	3,402,764	875,076	738,186
TOTAL AVG. COST PER HORSEPOWER	$	884	1,017	1,005	1,318
COST RANGE PER HORSEPOWER					
MINIMUM	$	248	458	825	1,120
MAXIMUM	$	1,689	1,277	1,189	2,103

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 1984 THROUGH 1987

		ADDITIONS TO FIELD COMPRESSOR STATIONS			
		1984	1985	1986	1987
DESCRIPTIVE DATA					
NUMBER OF UNITS		7	11	3	9
TOTAL HORSEPOWER		4,861	7,950	2,084	6,005
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	2,735,430	4,486,795	1,180,541	2,464,717
MATERIAL % OF THE TOTAL $		58.4%	62.3	96.2	50.2
MATERIAL AVG.COST PER HORSEPOWER	$	563	564	566	410
LABOR					
TOTAL LABOR	$	1,011,625	2,000,029	32,618	1,973,254
LABOR % OF THE TOTAL $		21.6%	27.8	2.7	40.2
LABOR AVG. COST PER HORSEPOWER	$	208	252	16	329
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	936,252	711,009	13,595	472,595
MISCELLANEOUS % OF THE TOTAL $		20.0%	9.9	1.1	9.6
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	193	89	7	79
TOTAL COST					
TOTAL COST	$	4,683,307	7,197,833	1,226,754	4,910,566
TOTAL AVG. COST PER HORSEPOWER	$	963	905	589	818
COST RANGE PER HORSEPOWER					
MINIMUM	$	561	453	549	324
MAXIMUM	$	1,749	1,435	1,791	3,334

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 1984 THROUGH 1987

		NEW FIELD COMPRESSOR STATIONS			
		1984	1985	1986	1987
DESCRIPTIVE DATA					
NUMBER OF UNITS			1		
TOTAL HORSEPOWER			1,000		
COST DATA					
MATERIALS					
TOTAL MATERIALS	$		877,264		
MATERIAL % OF THE TOTAL $		%	63.6		
MATERIAL AVG.COST PER HORSEPOWER	$		877		
LABOR					
TOTAL LABOR	$		306,363		
LABOR % OF THE TOTAL $		%	22.2		
LABOR AVG. COST PER HORSEPOWER	$		306		
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$		196,697		
MISCELLANEOUS % OF THE TOTAL $		%	14.3		
MISCELLANEOUS AVG. COST PER HORSEPOWER	$		197		
TOTAL COST					
TOTAL COST	$	2)	1,380,324	2)	2)
TOTAL AVG. COST PER HORSEPOWER	$		1,380		
COST RANGE PER HORSEPOWER					
MINIMUM	$		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 1984 THROUGH 1987

		ADDITIONS TO FIELD COMPRESSOR STATIONS			
		1984	1985	1986	1987
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)	3,166,917	2)
TOTAL AVG. COST PER HORSEPOWER	$			1,810	
COST RANGE PER HORSEPOWER					
MINIMUM	$			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 F NO REPORTS RECEIVED

TABLE G-1 RECIPROCATING UNITS

PART B

TABLE G-1

COMPARISON OF CONSTRUCTION COSTS FOR
OFFSHORE COMPRESSOR STATIONS WITH RECIPROCATING UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1984 THROUGH 1987

		NEW OFFSHORE COMPRESSOR STATIONS			
		1984	1985	1986	1987
DESCRIPTIVE DATA					
NUMBER OF UNITS		1			
TOTAL HORSEPOWER		1,100			
COST DATA					
MATERIALS					
TOTAL MATERIALS	$	342,446			
MATERIAL % OF THE TOTAL $		47.4%			
MATERIAL AVG.COST PER HORSEPOWER	$	311			
LABOR					
TOTAL LABOR	$	357,554			
LABOR % OF THE TOTAL $		49.5%			
LABOR AVG. COST PER HORSEPOWER	$	325			
MISCELLANEOUS					
TOTAL MISCELLANEOUS 1)	$	21,840			
MISCELLANEOUS % OF THE TOTAL $		3.0%			
MISCELLANEOUS AVG. COST PER HORSEPOWER	$	20			
TOTAL COST					
TOTAL COST	$	721,840	2)	2)	2)
TOTAL AVG. COST PER HORSEPOWER	$	656			
COST RANGE PER HORSEPOWER					
MINIMUM	$	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, 1987 Through July 31, 1988

TABLE H

PART B

CONSTRUCTION COST REPORTS FILED FROM AUGUST 1, 1987 THROUGH JULY 31, 1988
CONSTRUCTION ENDING IN 1985

	DOCKET NO. (CP)	TYPE OF CONSTRUCTION COST REPORTED				
		COMPRESSOR STATIONS		PIPELINES		MIXED DIAMETER PIPELINES
		ONSHORE	OFFSHORE	ONSHORE	OFFSHORE	
PANHANDLE EASTERN PIPE LINE CO.	83-83			X		

TABLE H

PART B

CONSTRUCTION COST REPORTS FILED FROM AUGUST 1, 1987 THROUGH JULY 31, 1988
CONSTRUCTION ENDING IN 1986

	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		

TABLE H

PART B

CONSTRUCTION COST REPORTS FILED FROM AUGUST 1, 1987 THROUGH JULY 31, 1988
CONSTRUCTION ENDING IN 1987

	DOCKET NO. (CP)	TYPE OF CONSTRUCTION COST REPORTED				
		COMPRESSOR STATIONS		PIPELINES		MIXED DIAMETER PIPELINES
		ONSHORE	OFFSHORE	ONSHORE	OFFSHORE	
ARKLA ENERGY RESOURCES	82-384			X		
COLUMBIA GAS TRANSMISSION CORP.	83-76	X		X		
COLUMBIA GULF TRANSMISSION CO.	83-496			X		
CONSOLIDATED GAS TRANSMISSION CORP.	82-537			X		
K N ENERGY, INC.	83-140	X		X		
MISSISSIPPI RIVER TRANSMISSION CORP.	82-489			X		X
NATIONAL FUEL GAS SUPPLY CORP.	83-04			X		
PANHANDLE EASTERN PIPE LINE CO.	83-83			X		
QUESTAR PIPELINE CO.	82-491			X		
SOUTHERN NATURAL GAS CO.	82-406	X		X		
TENNESSEE GAS PIPELINE CO.	82-413			X		
TRANSWESTERN PIPELINE CO.	82-534	X				X
WESTERN GAS INTERSTATE CO.	82-441			X		
WILLIAMS NATURAL GAS CO.	82-479			X		
WILLISTON BASIN INTERSTATE PIPELINE CO.	83-01			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 1987

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.	1)	4	7.87	PA	$ 350,149	$ 44,492
83-01	WILLISTON BASIN INTERSTATE PIPELINE CO.		4	5.40	SD	389,596	72,147
83-76	COLUMBIA GAS TRANSMISSION CORP.	2)	10	4.70	WV	774,594	164,807
82-489	MISSISSIPPI RIVER TRANSMISSION CORP.		12	6.00	AR	1,398,794	233,132
82-479	WILLIAMS NATURAL GAS CO.		12	4.50	KS	492,954	109,545
82-413	TENNESSEE GAS PIPELINE CO.		20	4.98	TX	2,054,908	412,632
82-384	ARKLA ENERGY RESOURCES		30	6.00	LA	4,531,746	755,291

1) INCLUDES 0.30 MILE OF 2 INCH ONSHORE PIPELINE.
2) INCLUDES 1.00 MILE OF 6 INCH ONSHORE PIPELINE.

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

PART B

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
	ONSHORE PIPELINE					
83-83	PANHANDLE EASTERN PIPE LINE CO.	4	1.30	OK	$ 122,930	$ 94,562

PART B

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					
82-537	CONSOLIDATED GAS TRANSMISSION CORP.	2	0.63	WV	$ 36,738	$ 58,314
82-537	CONSOLIDATED GAS TRANSMISSION CORP.	2	0.01	PA	1,985	198,500
82-537	CONSOLIDATED GAS TRANSMISSION CORP.	2	0.58	WV	42,432	73,159
82-537	CONSOLIDATED GAS TRANSMISSION CORP.	3	1.19	PA	51,242	43,061
82-537	CONSOLIDATED GAS TRANSMISSION CORP.	3	0.11	PA	8,579	77,991
82-537	CONSOLIDATED GAS TRANSMISSION CORP.	10	1.38	PA	261,911	189,791

PART B

TABLE I-2

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1987

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	0.02	PA	$ 3,978	$ 198,900
83-140	K N ENERGY, INC.	2	0.55	CO	20,039	36,435
83-140	K N ENERGY, INC.	2	0.26	KS	5,331	20,504
83-04	NATIONAL FUEL GAS SUPPLY CORP.	2	0.13	PA	2,230	17,154
83-04	NATIONAL FUEL GAS SUPPLY CORP.	2	0.32	PA	7,115	22,234
83-04	NATIONAL FUEL GAS SUPPLY CORP.	2	2.61	NY	73,225	28,056
83-04	NATIONAL FUEL GAS SUPPLY CORP.	2	0.22	PA	3,698	16,809
83-04	NATIONAL FUEL GAS SUPPLY CORP.	2	0.66	PA	25,475	38,598
83-04	NATIONAL FUEL GAS SUPPLY CORP.	2	0.12	PA	1,073	8,942
83-76	COLUMBIA GAS TRANSMISSION CORP.	3	0.40	PA	9,867	24,668
82-537	CONSOLIDATED GAS TRANSMISSION CORP.	3	0.67	PA	53,266	79,501
82-537	CONSOLIDATED GAS TRANSMISSION CORP.	3	1.69	WV	120,149	71,094
83-04	NATIONAL FUEL GAS SUPPLY CORP.	3	0.46	PA	4,712	10,243
83-04	NATIONAL FUEL GAS SUPPLY CORP.	3	0.18	PA	5,521	30,672
82-384	ARKLA ENERGY RESOURCES	4	0.81	LA	124,474	153,672
82-384	ARKLA ENERGY RESOURCES	4	1.31	AR	115,134	87,889
83-76	COLUMBIA GAS TRANSMISSION CORP.	4	0.30	OH	27,859	92,863
83-76	COLUMBIA GAS TRANSMISSION CORP.	4	0.50	PA	22,900	45,800
83-76	COLUMBIA GAS TRANSMISSION CORP.	4	0.30	PA	14,100	47,000
83-140	K N ENERGY, INC.	4	0.42	CO	17,048	40,590
83-140	K N ENERGY, INC.	4	0.34	OK	17,853	52,509
83-140	K N ENERGY, INC.	4	0.13	OK	9,484	72,954
83-140	K N ENERGY, INC.	4	0.17	OK	9,581	56,359
83-140	K N ENERGY, INC.	4	0.16	OK	9,839	61,494
83-140	K N ENERGY, INC.	4	0.09	KS	6,508	72,311

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TABLE I-2

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1987

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	0.04	KS	$ 5,158	$ 128,950
83-140	K N ENERGY, INC.	4	0.28	KS	13,170	47,036
83-140	K N ENERGY, INC.	4	0.16	KS	8,723	54,519
83-140	K N ENERGY, INC.	4	0.68	KS	27,154	39,932
83-140	K N ENERGY, INC.	4	0.08	KS	6,141	76,763
83-140	K N ENERGY, INC.	4	0.23	KS	10,545	45,848
83-140	K N ENERGY, INC.	4	0.18	KS	9,426	52,367
83-140	K N ENERGY, INC.	4	0.19	KS	9,900	52,105
83-140	K N ENERGY, INC.	4	0.13	KS	7,701	59,238
83-140	K N ENERGY, INC.	4	0.20	KS	9,682	48,410
83-140	K N ENERGY, INC.	4	0.02	KS	3,492	174,600
83-140	K N ENERGY, INC.	4	0.05	KS	4,450	89,000
83-140	K N ENERGY, INC.	4	0.18	KS	8,400	46,667
83-140	K N ENERGY, INC.	4	0.07	CO	4,636	66,229
83-140	K N ENERGY, INC.	4	0.10	CO	6,456	64,560
83-140	K N ENERGY, INC.	4	0.04	CO	3,288	82,200
83-140	K N ENERGY, INC.	4	0.16	KS	8,268	51,675
83-140	K N ENERGY, INC.	4	0.39	KS	17,815	45,679
83-140	K N ENERGY, INC.	4	0.17	CO	8,899	52,347
82-489	MISSISSIPPI RIVER TRANSMISSION CORP.	4	0.54	MO	130,250	241,204
83-04	NATIONAL FUEL GAS SUPPLY CORP.	4	2.65	PA	85,236	32,165
83-04	NATIONAL FUEL GAS SUPPLY CORP.	4	0.60	PA	26,947	44,912
83-04	NATIONAL FUEL GAS SUPPLY CORP.	4	0.17	PA	15,423	90,724
83-04	NATIONAL FUEL GAS SUPPLY CORP.	4	0.47	PA	43,376	92,289
83-04	NATIONAL FUEL GAS SUPPLY CORP.	4	1.76	PA	37,505	21,310

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TABLE I-2

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1987

DOCKET NO. (CP)	APPLICANT		DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE PIPELINE						
83-83	PANHANDLE EASTERN PIPE LINE CO.	1)	4	1.80	TX	$ 108,610	$ 60,339
82-441	WESTERN GAS INTERSTATE CO.		4	0.47	OK	10,324	21,966
83-76	COLUMBIA GAS TRANSMISSION CORP.		6	2.50	OH	231,671	92,668
83-76	COLUMBIA GAS TRANSMISSION CORP.		6	0.40	OH	56,127	140,318
83-76	COLUMBIA GAS TRANSMISSION CORP.		6	0.30	OH	43,085	143,617
83-76	COLUMBIA GAS TRANSMISSION CORP.	2)	6	2.30	OH	198,160	86,157
82-537	CONSOLIDATED GAS TRANSMISSION CORP.		6	0.55	WV	21,481	39,056
83-464	ZENITH NATURAL GAS CO.		6	0.04	KS	3,830	95,750
82-384	ARKLA ENERGY RESOURCES		8	0.34	AR	402,223	1,183,009
83-76	COLUMBIA GAS TRANSMISSION CORP.		8	1.60	OH	192,975	120,609
83-76	COLUMBIA GAS TRANSMISSION CORP.		8	0.40	PA	33,106	82,765
83-76	COLUMBIA GAS TRANSMISSION CORP.		8	0.50	WV	62,984	125,968
83-76	COLUMBIA GAS TRANSMISSION CORP.	3)	8	0.95	NY	257,500	271,053
83-76	COLUMBIA GAS TRANSMISSION CORP.		8	1.10	WV	198,425	180,386
83-496	COLUMBIA GULF TRANSMISSION CO.		8	0.90	LA	236,000	262,222
83-496	COLUMBIA GULF TRANSMISSION CO.	4)	8	1.90	LA	697,005	366,845
83-04	NATIONAL FUEL GAS SUPPLY CORP.		8	1.26	PA	143,710	114,056
83-04	NATIONAL FUEL GAS SUPPLY CORP.		8	2.67	PA	392,408	146,969
82-406	SOUTHERN NATURAL GAS CO.		8	1.17	LA	595,198	508,716
83-464	ZENITH NATURAL GAS CO.		8	0.04	KS	5,354	133,850
83-76	COLUMBIA GAS TRANSMISSION CORP.		10	1.00	WV	223,424	223,424
82-491	QUESTAR PIPELINE CO.		12	1.06	UT	310,599	293,018
83-01	WILLISTON BASIN INTERSTATE PIPELINE CO.		12	2.39	ND	452,566	189,358
82-489	MISSISSIPPI RIVER TRANSMISSION CORP.		18	2.87	IL	1,392,752	485,279
82-491	QUESTAR PIPELINE CO.		20	0.95	WY	284,969	299,967

1) KN ENERGY HAS 50% OWNERSHIP IN THIS FACILITY (CP83-140).
2) INCLUDES 0.50 MILE OF 4 INCH ONSHORE PIPELINE.
3) INCLUDES 0.05 MILE OF 6 INCH ONSHORE PIPELINE.
4) TRANSCO HAS 30% OWNERSHIP IN THIS FACILITY (CP82-426).

TABLE I-3 MIXED DIAMETER PIPELINE

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TABLE I-3

PIPELINE CONSTRUCTION PROJECTS
MIXED DIAMETER PIPELINE 3 MILES AND OVER
CONSTRUCTION ENDING IN 1987

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE PIPELINE					
82-534	TRANSWESTERN PIPELINE CO.	6, 8, 10	13.29	NM	$ 2,147,952	$ 161,622

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TABLE I-3

PIPELINE CONSTRUCTION PROJECTS
MIXED DIAMETER PIPELINE UNDER 3 MILES
CONSTRUCTION ENDING IN 1987

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVERSED	TOTAL COST	AVG. COST PER MILE
	ONSHORE PIPELINE					
82-489	MISSISSIPPI RIVER TRANSMISSION CORP.	2, 3	0.22	MO	$ 75,127	$ 341,486

TABLE J-1 RECIPROCATING UNITS

PART B

NEW FIELD COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1987

TABLE J-1

	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	HAMLIN NO 2 COMP STA	HAMLIN NO 3 COMP STA	HAMLIN 1A COMP STA
LOCATION	FINNEY CO, KS	KEARNY CO, KS	FINNEY CO, KS
HORSEPOWER/UNIT	1 AT 115	1 AT 105	1 AT 140
NUMBER OF UNITS	1	1	1
TOTAL HORSEPOWER	115	105	140
COST DATA			
MATERIALS			
TOTAL MATERIALS	$ 106,919	106,763	120,346
MATERIAL % OF THE TOTAL $	75.5%	83.3	76.7
MATERIAL AVG. COST PER HORSEPOWER	$ 930	1,017	860
LABOR			
TOTAL LABOR	$ 19,110	12,372	17,956
LABOR % OF THE TOTAL $	13.5%	9.7	11.4
LABOR AVG. COST PER HORSEPOWER	$ 166	118	128
MISCELLANEOUS			
TOTAL MISCELLANEOUS 1)	$ 15,566	9,022	18,532
MISCELLANEOUS % OF THE TOTAL $	11.0%	7.0	11.8
MISCELLANEOUS AVG. COST PER HORSEPOWER	$ 135	86	132
TOTAL COST			
TOTAL COST	$ 141,595	128,157	156,834
TOTAL AVG. COST PER HORSEPOWER	$ 1,231	1,221	1,120

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

PART B

TABLE J-1

NEW FIELD COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1987

	DOCKET NUMBER (CP) AND APPLICANT	
	83-140 K N ENERGY	83-140 K N ENERGY
DESCRIPTIVE DATA		
NAME OF COMPRESSOR STATION	SYSTEM 1 SACO DELIVERY	SYSTEM 2A WHITEWATER DELIVERY
LOCATION	PHILLIPS CO, MT	PHILLIPS CO, MT
HORSEPOWER/UNIT	1 AT 60	1 AT 140
NUMBER OF UNITS	1	1
TOTAL HORSEPOWER	60	140
COST DATA		
MATERIALS		
TOTAL MATERIALS	$ 66,425	104,190
MATERIAL % OF THE TOTAL $	52.6%	56.2
MATERIAL AVG. COST PER HORSEPOWER	$ 1,107	744
LABOR		
TOTAL LABOR	$ 33,126	31,960
LABOR % OF THE TOTAL $	26.3%	17.2
LABOR AVG. COST PER HORSEPOWER	$ 552	228
MISCELLANEOUS		
TOTAL MISCELLANEOUS 1)	$ 26,634	49,265
MISCELLANEOUS % OF THE TOTAL $	21.1%	26.6
MISCELLANEOUS AVG. COST PER HORSEPOWER	$ 444	352
TOTAL COST		
TOTAL COST	$ 126,185	185,415
TOTAL AVG. COST PER HORSEPOWER	$ 2,103	1,324

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

PART B

TABLE J-1

ADDITIONS TO FIELD COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1987

	DOCKET NUMBER (CP) AND APPLICANT		
	83-76 COLUMBIA GAS	83-140 K N ENERGY	83-140 K N ENERGY
DESCRIPTIVE DATA			
NAME OF COMPRESSOR STATION	MAJORSVILLE COMP STA	BEECHER ISL COMP STA	REICHEL FLD COMP STA
LOCATION	MARSHALL CO, WV	YUMA CO, CO	RUSH CO, KS
HORSEPOWER/UNIT	1 AT 140	1 AT 550	1 AT 360
NUMBER OF UNITS	1	1	1
TOTAL HORSEPOWER	140	550	360
COST DATA			
MATERIALS			
TOTAL MATERIALS	$ 211,061	217,873	283,310
MATERIAL % OF THE TOTAL $	45.2%	69.8	72.7
MATERIAL AVG. COST PER HORSEPOWER	$ 1,508	396	787
LABOR			
TOTAL LABOR	$ 129,434	47,508	44,961
LABOR % OF THE TOTAL $	27.7%	15.2	11.5
LABOR AVG. COST PER HORSEPOWER	$ 925	86	125
MISCELLANEOUS			
TOTAL MISCELLANEOUS 1)	$ 126,263	46,864	61,370
MISCELLANEOUS % OF THE TOTAL $	27.1%	15.0	15.8
MISCELLANEOUS AVG. COST PER HORSEPOWER	$ 902	85	170
TOTAL COST			
TOTAL COST	$ 466,758	312,245	389,641
TOTAL AVG. COST PER HORSEPOWER	$ 3,334	568	1,082

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

PART B

TABLE J-1

ADDITIONS TO FIELD COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1987

	DOCKET NUMBER (CP) AND APPLICANT		
	83-140 K N ENERGY	83-140 K N ENERGY	82-406 SOUTHERN
DESCRIPTIVE DATA			
NAME OF COMPRESSOR STATION	RUBY COMP STA	SCHRAMM COMP STA	FROST COMP STA
LOCATION	WASHINGTON CO, CO	YUMA CO, CO	LIVINGSTON PAR, LA
HORSEPOWER/UNIT	1 AT 240	1 AT 115	1 AT 700
NUMBER OF UNITS	1	1	1
TOTAL HORSEPOWER	240	115	700
COST DATA			
MATERIALS			
TOTAL MATERIALS	$ 139,884	71,185	75,010
MATERIAL % OF THE TOTAL $	68.7%	72.7	33.1
MATERIAL AVG. COST PER HORSEPOWER	$ 583	619	107
LABOR			
TOTAL LABOR	$ 31,251	10,338	122,270
LABOR % OF THE TOTAL $	15.4%	10.6	53.9
LABOR AVG. COST PER HORSEPOWER	$ 130	90	175
MISCELLANEOUS			
TOTAL MISCELLANEOUS 1)	$ 32,421	16,368	29,518
MISCELLANEOUS % OF THE TOTAL $	15.9%	16.7	13.0
MISCELLANEOUS AVG. COST PER HORSEPOWER	$ 135	142	42
TOTAL COST			
TOTAL COST	$ 203,556	97,891	226,798
TOTAL AVG. COST PER HORSEPOWER	$ 848	851	324

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

PART B

TABLE J-1

ADDITIONS TO FIELD COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1987

	DOCKET NUMBER (CP) AND APPLICANT	
	82-406 SOUTHERN	82-534 TRANSWESTERN
DESCRIPTIVE DATA		
NAME OF COMPRESSOR STATION	LOGANSPORT COMP STA	BITTER LAKES COMP STA
LOCATION	DESOTO PAR, LA	CHAVES CO, NM
HORSEPOWER/UNIT	2 AT 825	1 AT 2,250
NUMBER OF UNITS	2	1
TOTAL HORSEPOWER	1,650	2,250
COST DATA		
MATERIALS		
TOTAL MATERIALS	$ 904,391	562,003
MATERIAL % OF THE TOTAL $	70.6%	29.1
MATERIAL AVG. COST PER HORSEPOWER	$ 548	250
LABOR		
TOTAL LABOR	$ 304,052	1,283,440
LABOR % OF THE TOTAL $	23.7%	66.4
LABOR AVG. COST PER HORSEPOWER	$ 184	570
MISCELLANEOUS		
TOTAL MISCELLANEOUS 1)	$ 72,439	87,352
MISCELLANEOUS % OF THE TOTAL $	5.7%	4.5
MISCELLANEOUS AVG. COST PER HORSEPOWER	$ 44	39
TOTAL COST		
TOTAL COST	$ 1,280,882	1,932,795
TOTAL AVG. COST PER HORSEPOWER	$ 776	859

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